

# TUCKERBILT®

*T-644*

**6-Yard Concrete  
Transport Vehicle**



**PARTS MANUAL**

Revised: July, 2025

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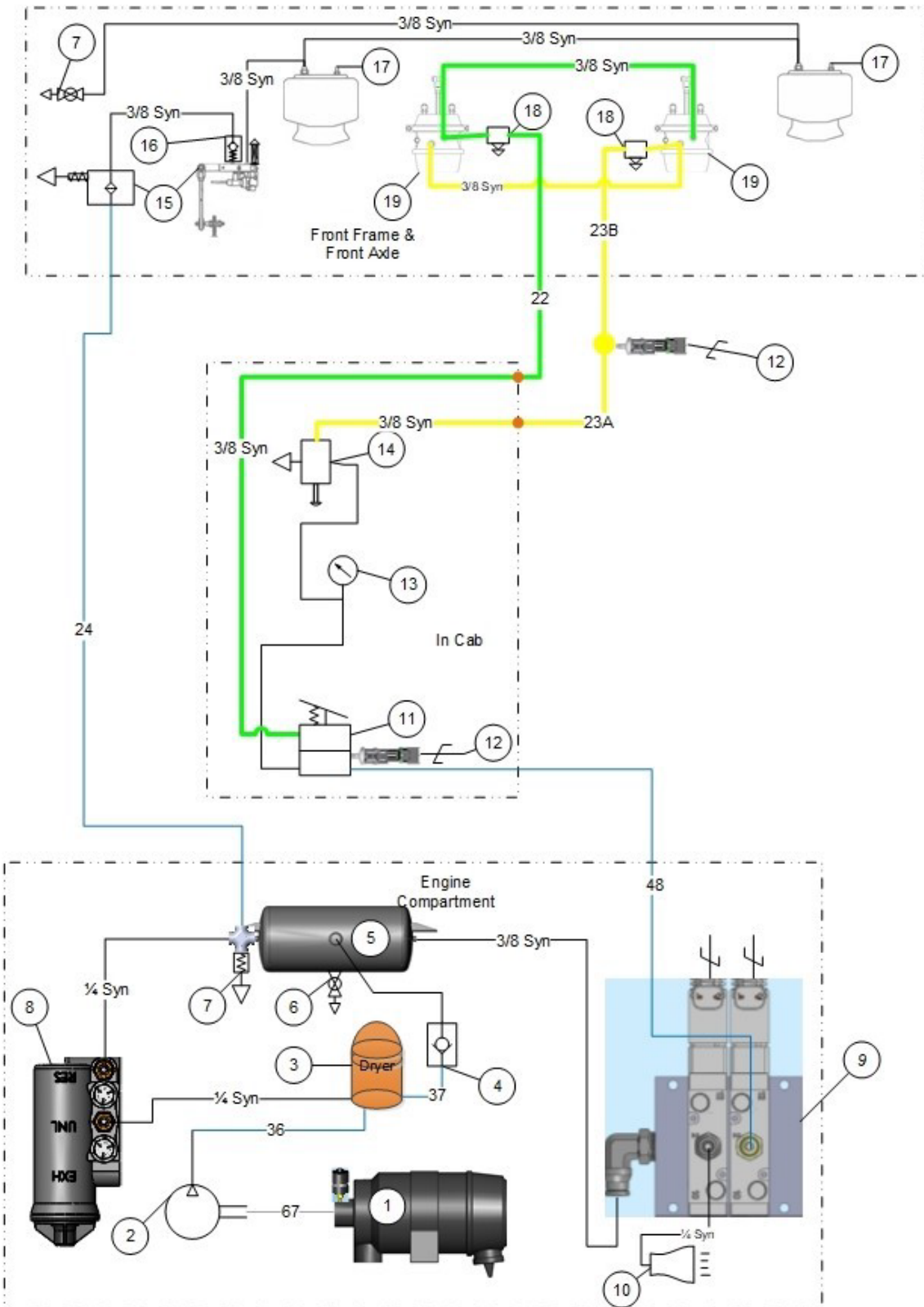
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# Air System Components

## Air System Schematic

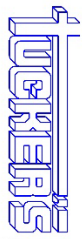
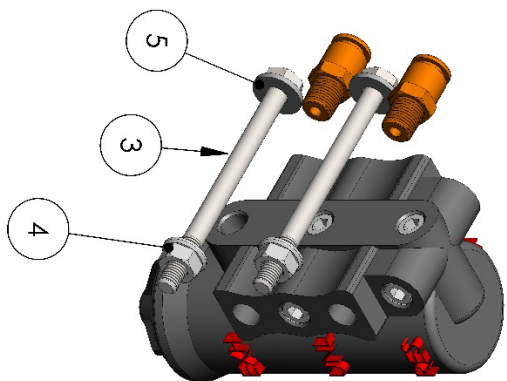
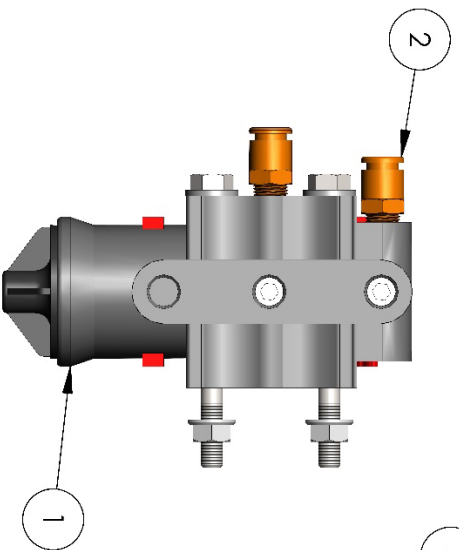
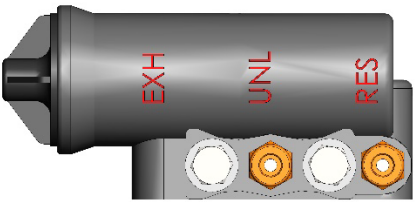


## Air System Schematic BOM

T-644 Air Schematic 2020				
Key	Description	Mfg #	Tucker #	Qty
1	Air Cleaner Assy, Tier 4 Air Compressor	Donaldson - G057511	TB64575-24	1
	Air Compressor Filter Mount Band	Donaldson - P777730	TB64575-24-3	1
	Filter, Inner, Tier 4 Air Compressor	Donaldson - P822858	TB64575-24-1	1
	Filter, Outer, Tier 4 Air Compressor	Donaldson - P821575	TB64575-24-O	1
	Sign Service Indicator	Donaldson - X002352	TB80575-16	1
	Rubber Elbow 2"	Donaldson - P105529	TB64575-24-2	1
	JCB Air Compressor Adaptor		TM60510-06	1
2	JCB 229cc Water Cooled Compressor Only	KIT-TA2874-JCBWC	TB65975-3	1
	Adapter, JIC to Metric: 7400-08-22	Tompkins - 7400-08-22	HA-7400-08-22	2
3	AD-9 Air Dryer for JCB	Bendix - 065499	TB80619-1	1
	Wire Harness AD-9 Air Dryer for JCB	Bendix - 109871N	TB80619-3	1
	AD-9 Air Dryer Muffler Silencer Kit	Bendix - 5004224N	TB80619-7	1
	Purge Valve, AD-9 Air Dryer for JCB	Bendix - 800405P, Spare Parts	TB80619-4	1
	AD-9 Air Dryer Hard Seat Purge Valve Maint. Kit	Bendix - 5005037, Spare Parts	TB80619-5	1
	AD-9 Air Dryer Desiccant Cartridge Kit	Bendix - 107794, Spare Parts	TB80619-6	1
4	Check Valve Air Tank BW800372	800372	TB80612	1
5	Tank Air		TB80610	1
6	BW Draincock 278351	Bendix - 278351	BW-278351	2
7	BW Safety Valve 150	MSC - 32150948	BW-284142	1
8	Governor Compressor BW275491	BW 275491	TB80609	1
9	Viking Extreme Air Solenoid Valve	Parker - P2LBX392ESH DAT46	TB64623	2
	2 St IEM Manifold NPT Viking Extreme	Parker - P2LBXGAXN02NP	TB64624	1
10	Horn, Air	Grover - CTX 1601	TB80608-2	1
11	Valve Brake Assembly w/Treadle	BW 279364	TB80605	1
12	Switch N/O - 500 Series w-MetriPack	Honeywell - 77030-00000050-01	TB80604-1	2
13	Gauge Air (225635)	BW 225635	TB80607	1
14	Valve Park Brake. W/knob Nut Pin	BW 275176	TB80600	1
15	Air Ride Height Control Valve Kit	Midland - 42110051	TB65571	1
		90554107 Comes in Leveling Kit - Replace Kit		
16	Air Ride Check Valve	Midland - 90554078	TB65571-1	1
17	Air Suspension Bag	704671-02	TB80603	2
18	Valve Brake Quick Release - 229813	BW 229813	TB80611	2
19	Chamber Brake	OB3030SB	TB80320-01	2
	BW = Bendix Westinghouse			
	Syn = Synflex or Nylon Pneumatic Tubing			

# Governor Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80609	Governor Compressor	1
2	DOT-MC-0.25X0.125	DOT Male Connector PP68C 1/4 X 1/8	2
3	CS-HH-0.25-20X3.25	Screw Cap Uss .25 X 3.25	2
4	NF-0.25-20	Nut Flanged Lock : 1/4-20	2
5	WFF-0.25	Washer Flat SAE 1/4	2

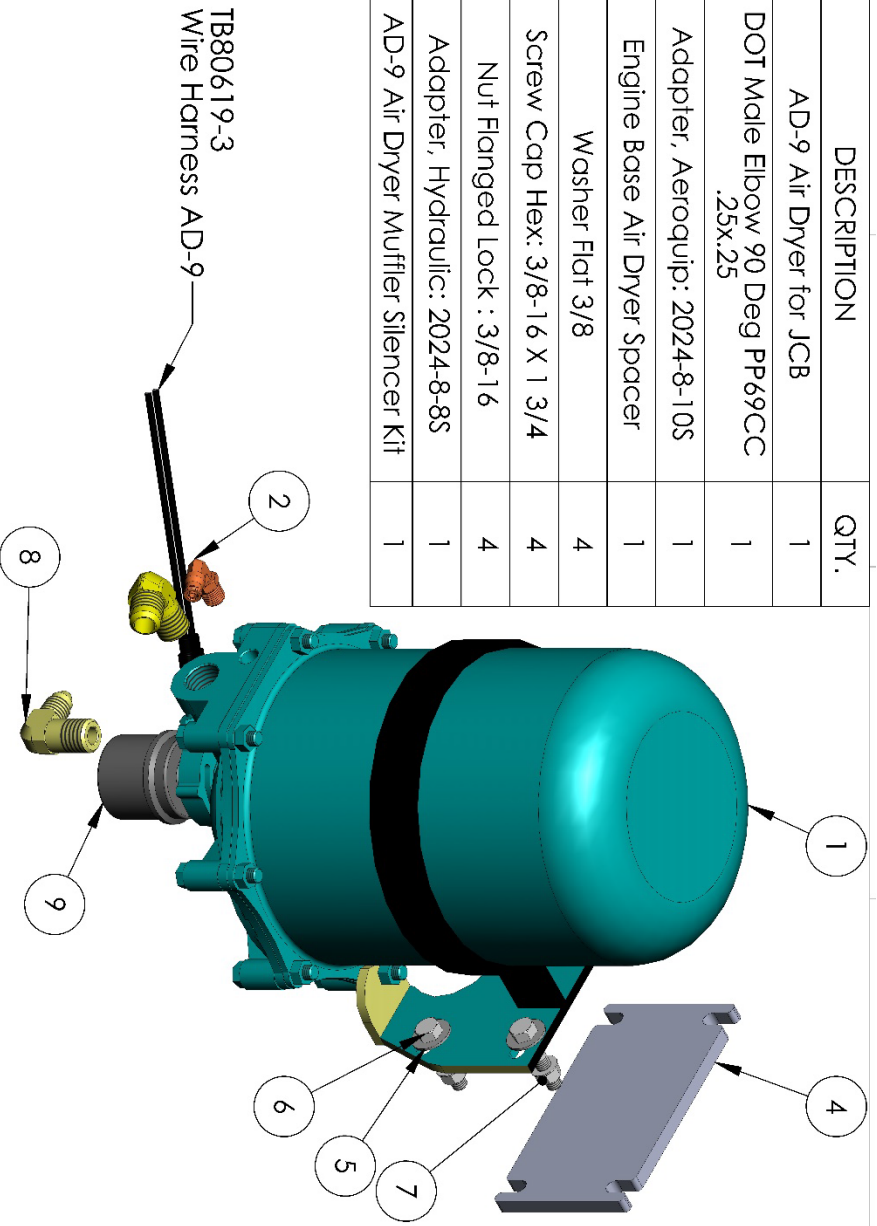


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T-644		DATE	9/30/2020
<b>Governor Assembly Hardware</b>		SHOP #	TA-80609

# Air Dryer Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80619-1	AD-9 Air Dryer for JCB	1
2	DOT-MEL90-0.25X0.25	DOT Mole Elbow 90 Deg PP69CC .25x.25	1
3	2024-8-10S	Adapter, Aeroquip: 2024-8-10S	1
4	TM60500-18	Engine Base Air Dryer Spacer	1
5	WF-0.375	Washer Flat 3/8	4
6	CS-HH-0.375-16X1.75	Screw Cap Hex: 3/8-16 X 1 3/4	4
7	NF-0.375-16	Nut Flanged Lock : 3/8-16	4
8	2024-8-8S	Adapter, Hydraulic: 2024-8-8S	1
9	TB80619-7	AD-9 Air Dryer Muffler Silencer Kit	1



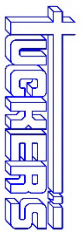
## Maintenance Items

Tucker #	Bendix/Haldex #	Description	QTY.
TB80619-4	800405P	Purge Valve, AD-9 Air Dryer for JCB	1
TB80619-5	5005037	AD-9 Air Dryer Hard Seat Purge Valve Maint. Kit	1
TB80619-6	107794	AD-9 Air Dryer Desiccant Cartridge Kit	1

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DATE 10/1/2020

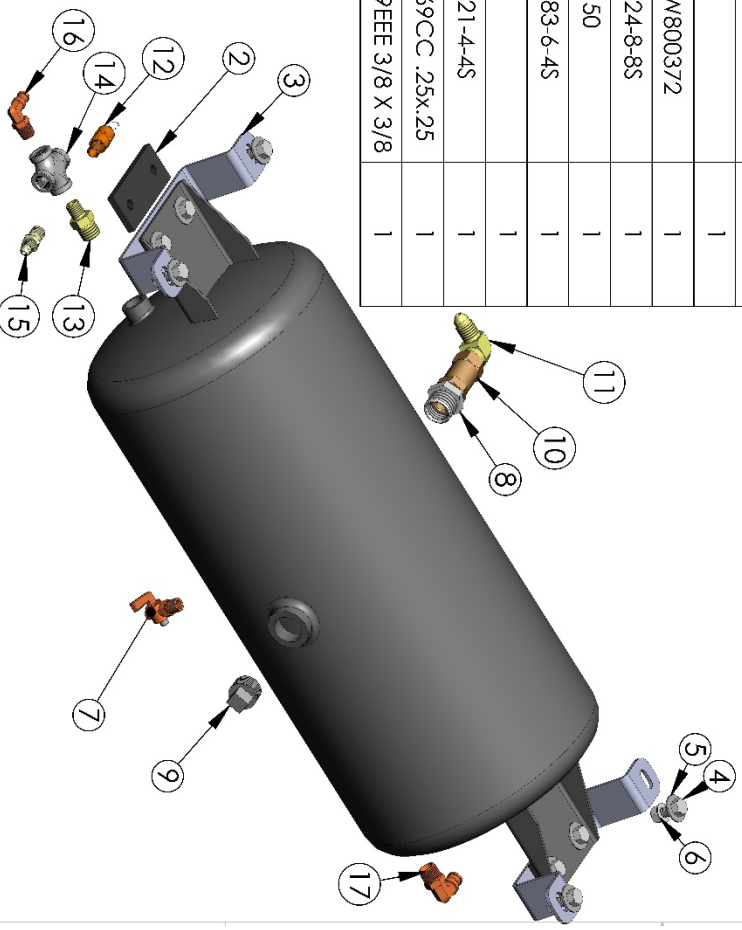


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## Air Dryer Assembly Hardware

SHOP #  
TA-80619-1

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80610	Tank Air	1
2	TB81111	Pod Air Tank	2
3	TM60500-11	Air Tank Strap	2
4	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	8
5	WF-0.375	Washer Flat 3/8	8
6	NF-0.375-16	Nut Flanged Lock : 3/8-16	8
7	BW-278351	BW Draincock 278351	1
8	GP-34-12B	Bushing 3/4 X 1/2 Glv. rd.	1
9	GP-34P	Plug Galv. 3/4"	1
10	TB80612	Check Valve Air Tank BW800372	1
11	2024-8-8S	Adapter, Hydraulic: 2024-8-8S	1
12	BW-284142	BW Safety Valve 150	1
13	2083-6-4S	Adapter, Hydraulic: 2083-6-4S	1
14	TB80563	Cross 1/4" Pipe	1
15	2021-4-4S	Adaptor, Aeroquip: 2021-4-4S	1
16	DOT-MEL90-0.25X0.25	DOT Male Elbow 90 Deg PP69CC .25X.25	1
17	DOT-MEL90-0.375X0.375	DOT Male Elbow 90 Deg PP69EEEE 3/8 X 3/8	1



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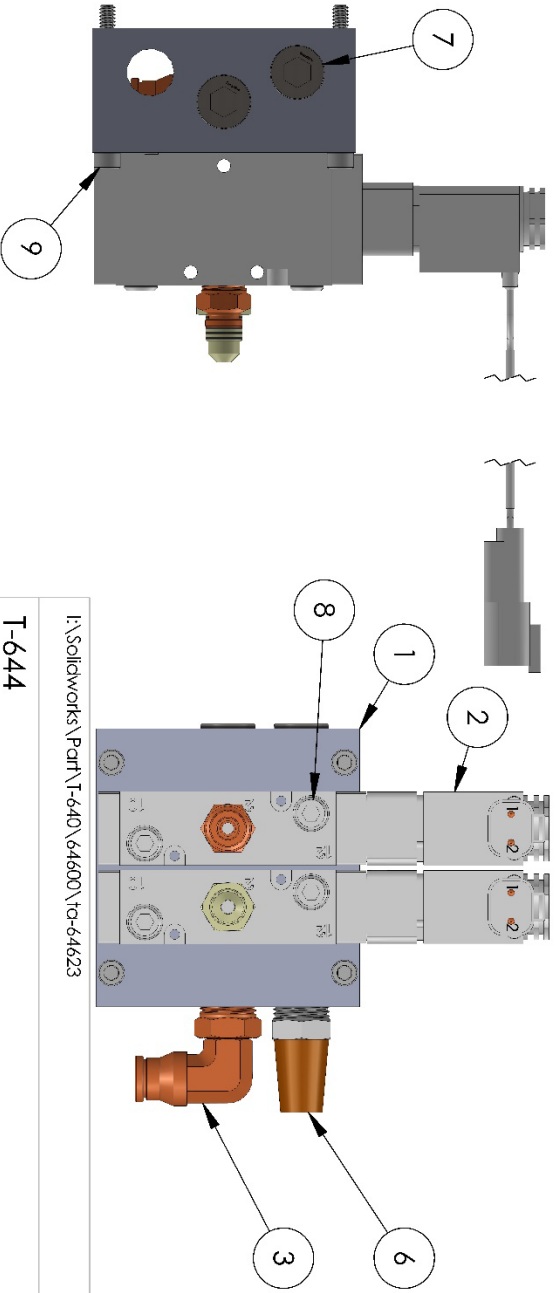
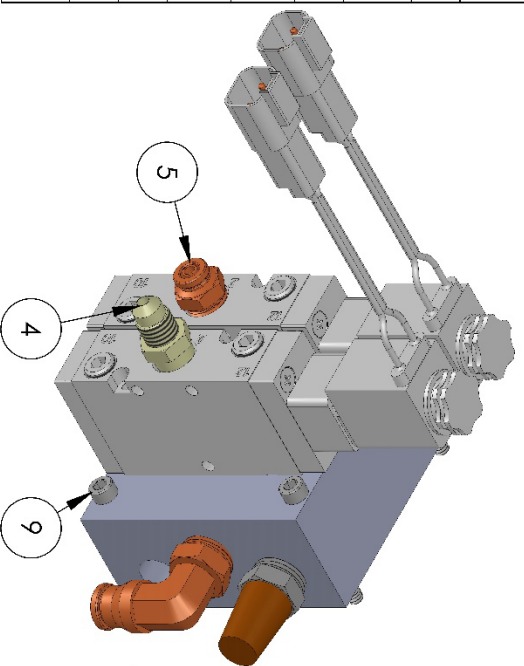
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SHOP # TA-80610

**Air Tank Hardware**

Air Tank Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB64624	2 St IEM Manifold NPT Viking Extreme	1
2	TB64623	Viking Extreme Air Solenoid Valve	2
3	DOT-MEL90-0.375X0.375	DOT Male Elbow 90 Deg PP69EEE 3/8 X 3/8	1
4	2021-4-4S	Adaptor, Aeroquip: 2021-4-4S	1
5	DOT-MC-0.25X0.25	DOT Male Connector PP68CC 1/4 X 1/4	1
6	TB64625	Muffler, 3/8 NPT Male, Steel, 23 scfm @ 100 PSI	1
7	HA-2222-6S	Adapter, Hydraulic: 2222-6S	2
8	HA-2222-2S	Adapter, Hydraulic: 2222-2S	4
9	SSCS-SH-10-24X1.75	Cap Screw-Stainless-Socket Head-#10-24 X 1 3/4"	4



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Viking Extreme Air Solenoid Valve Assembly

SHOP #  
TA-64623

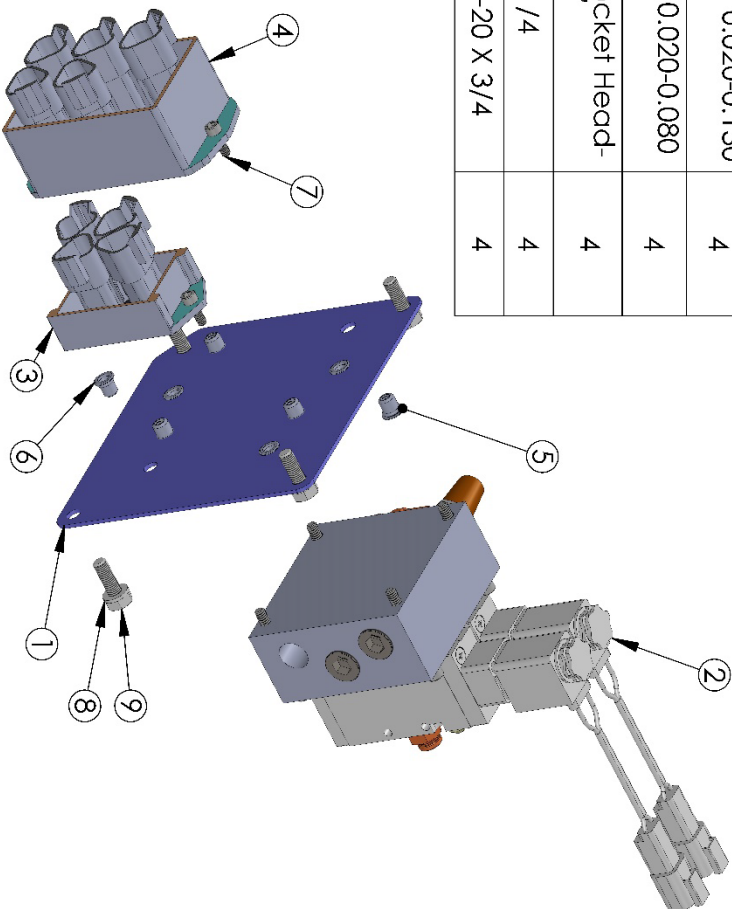
Air Valve Assembly Hardware



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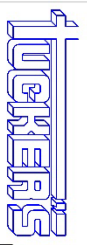
# Air Valve CAN Bus Splitter Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60510-02	JCB T4F Valve Bracket Sub Plate	1
2	TA-64623	Viking Extreme Air Solenoid Valve Assembly	1
3	TB80140	Can Data Link Module (4 Total Connectors)	1
4	TB80141	Can Data Link Module (5 Total Connectors)	1
5	NR-10-24-PL,0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	4
6	NR-8-32-PL,0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	4
7	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head-#8-32 X 1/2"	4
8	WL-0.25	Washer Lock 1/4	4
9	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	4



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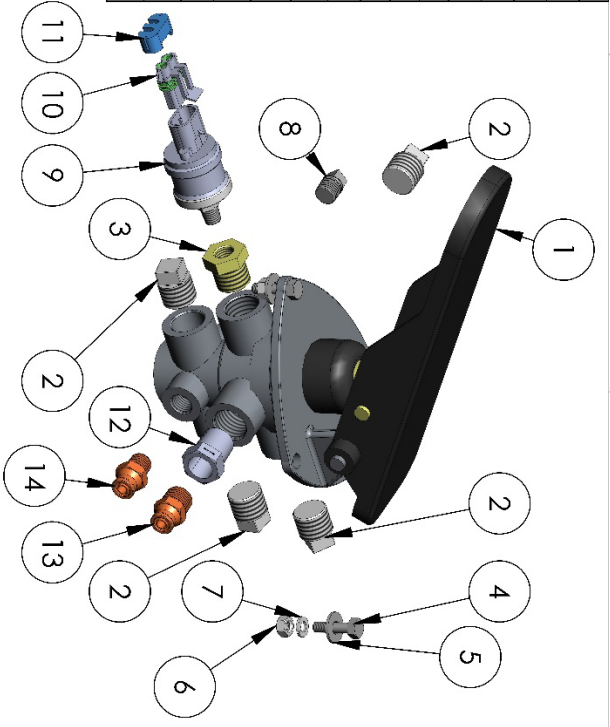
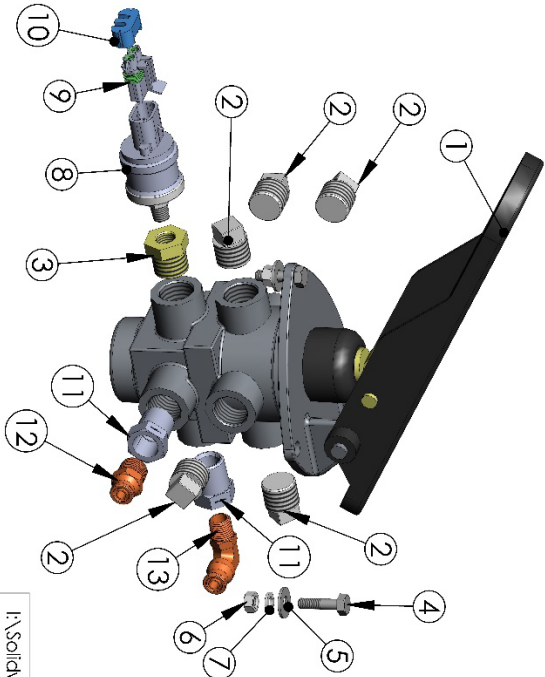
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**Viking Air Valve-CAN Bus Splitter Assembly**

TA-60510-02

# Foot Brake Valve Hardware Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80605	Bendix Valve Brake Assy.	1
2	GP-12P	Plug Galv. 1/2"	4
3	2081-8-4S	Adapter, Hydraulic: 2081-8-4S	1
4	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	3
5	WF-0.25	Washer Flat 1/4	3
6	NU-0.25-20-PL	Nut Pl Uss .25	3
7	WL-0.25	Washer Lock 1/4	3
8	GP-14P	Plug Galv. 1/4"	1
9	TB80604-1	Switch N/O - 500 Series w-MetriPack	1
10	TB80604-1-MPB	MetriPack Female Body 15300027	1
11	TB80604-1-TPA	MetriPack TPA 15300014 2 Contact Blue	1
12	2081-8-6S	Adapter, Hydraulic: 2081-8-6S	1
13	DOI-MC-0.375X0.375	DOT Male Connector PP68EEE 3/8 X 3/8	1
14	DOT-MC-0.375X0.25	DOT Male Connector PP68EE 3/8 X 1/4	1

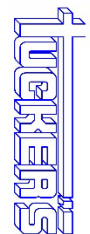


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	80605	Halidex Valve Brake Assy.	1
2	12P	Plug Galv. 1/2"	5
3	2081-8-4S	Adapter, Hydraulic: 2081-8-4S	1
4	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	3
5	0.25	Washer Flat 1/4	3
6	NU-0.25-20-PL	Nut Pl Uss .25	3
7	WL-0.25	Washer Lock 1/4	3
8	80604-1	Switch N/O - 500 Series w-MetriPack	1
9	80604-1-MPB	MetriPack Female Body 15300027	1
10	80604-1-tpa	MetriPack TPA 15300014 2 Contact Blue	1
11	2081-8-6S	Adapter, Hydraulic: 2081-8-6S	2
12	dot-mc-0.375X0.375	DOT Male Connector PP68EEE 3/8 X 3/8	1
13	51915K33	DOT Male Elbow 90 Deg PP69EE 3/8 X 1/4	1

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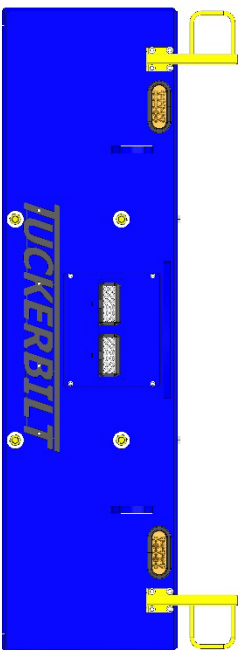
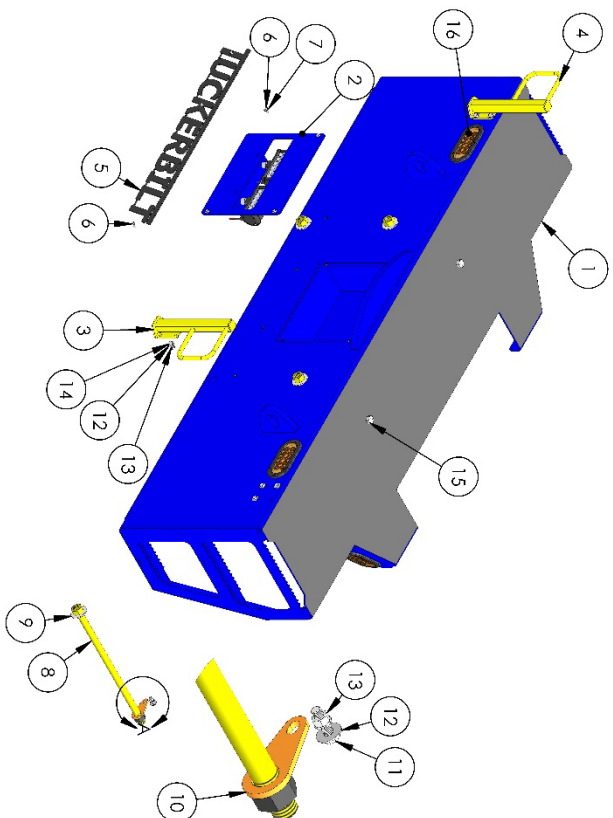
## Foot Brake Valve Hardware Assembly

SHOP #  
TA-80605

# Bumper

## Bumper, Front

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60050-00-F	Bumper Assembly, Front	1
2	TA-60050-1-FA	Bumper Insert Plate, Front Bolted Assy	1
3	TM60070-00L	Front Bumper Handle Post Left	1
4	TM60070-00R	Front Bumper Handle Post Right	1
5	TM60025-01	Tuckerbolt Bumper Logo	1
6	CS-HH-0,25-20X0,75	Screw Cap Hex: 1/4-20 X 3/4	8
7	WF-0,25	Washer Flat 1/4	4
8	TM60050-16	Bumper Bolt Assembly	4
9	WF-1	Washer Flat 1"	4
10	TM60050-17	Bumper Bolt Nut Clip Assembly	4
11	CS-HH-0,375-16X1,25	Screw Cap Hex: 3/8-16 X 1 1/4	4
12	WF-0,375	Washer Flat 3/8	12
13	NF-0,375-16	Nut Flanged Lock : 3/8-16	12
14	CS-HH-0,375-16X1	Screw Cap Hex: 3/8-16 X 1	8
15	CS-HH-0,75-10X1,5	Screw Cap Hex: 3/4-10 X 1 1/2	2
16	TB80985-01S	Amber Oval Warning Light	4



C:\PDM\Solidworks\Part\T-644\60,050 Bumper Parts\bumper assemblies



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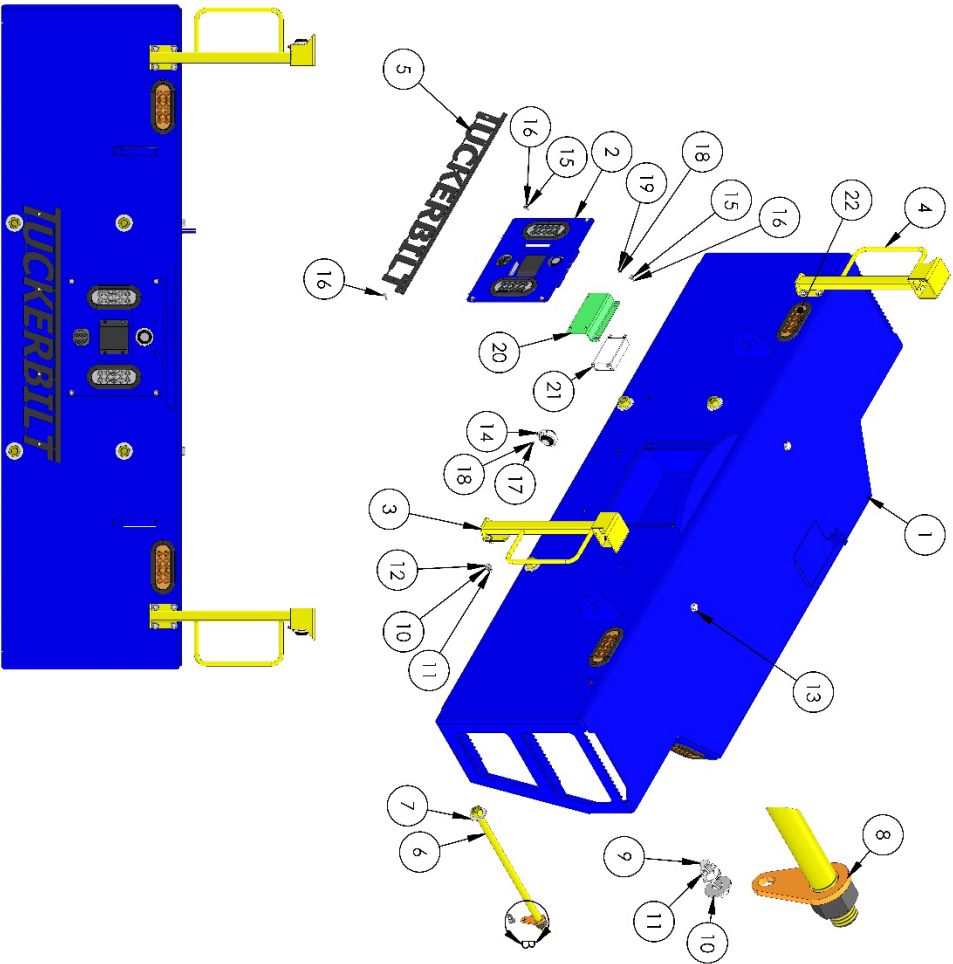
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Bumper Assembly Components, Front

SHOP #  
DATE 9/16/2020  
DR BY MCT FF  
TA-60,050,00-F

# Bumper, Rear

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60050-00-R	Bumper Assembly, Rear	1
2	TA-60050-11-01-RA	Bumper Insert Plate, Rear Bolted Assy	1
3	TM60060-00R	Camera Post Assembly Right	1
4	TM60060-00L	Camera Post Assembly Left	1
5	TM60025-01	Tuckerbilt Bumper Logo	1
6	TM60050-16	Bumper Bolt Assembly	4
7	WF-1	Washer Flat 1"	4
8	TM60050-17	Bumper Bolt Nut Clip Assembly	4
9	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	4
10	WF-0.375	Washer Flat 3/8	12
11	NF-0.375-16	Nut Flanged Lock : 3/8-16	12
12	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	8
13	CS-HH-0.75-10X1.5	Screw Cap Hex: 3/4-10 X 1 1/2	2
14	TB66130-01	Camera, Famos 129 Deg w/24" Cable Opt/co	2
15	WF-0.25	Washer Flat 1/4	6
16	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	10
17	WFSS-10	Washer Flat - Stainless - #10 (2.18 X .437)	4
18	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	8
19	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head- #10-24 X 1/2"	4
20	TM60050-20	Bumper Multiview Box Sub Plate	1
21	TB66130-02-SP/L	Multiview Box Screen Splitter	1
22	TB80985-01S	Amber Oval Warning Light	4



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEBURG, FLA. 34749-2810

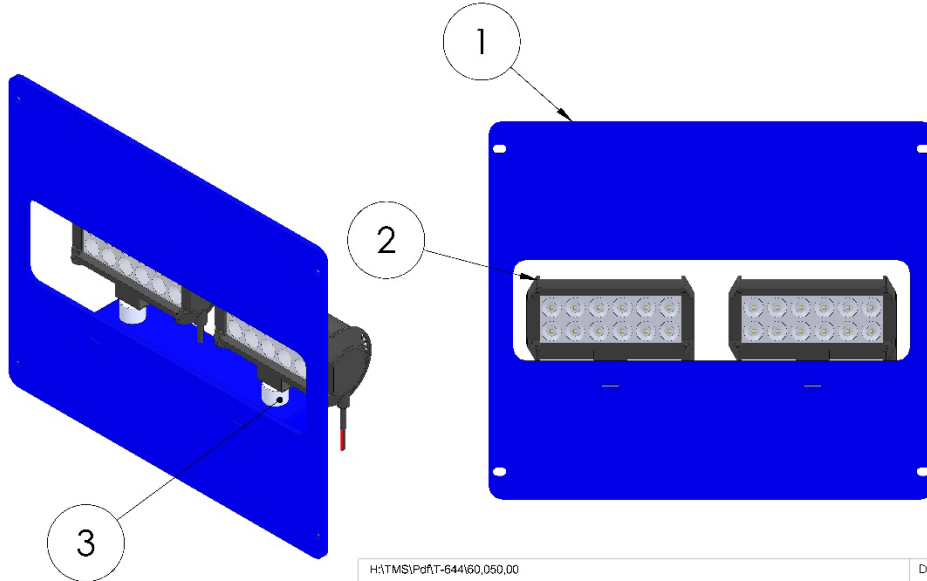
bumper assemblies  
T-644

Bumper Assembly Components, Rear

SHOP #  
DATE 9/16/2020  
DR BY MCT  
TA-60.050.00.R

# Bumper Inserts

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60050-11-FA	Bumper Insert Plate, Front Assembly	1
2	TB66130-40-36W	Headlight, LED 7" 36 Watt	2
3		Headlight Spacer	2



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DR. BY MCT

T-644

DATE 1/2/2019



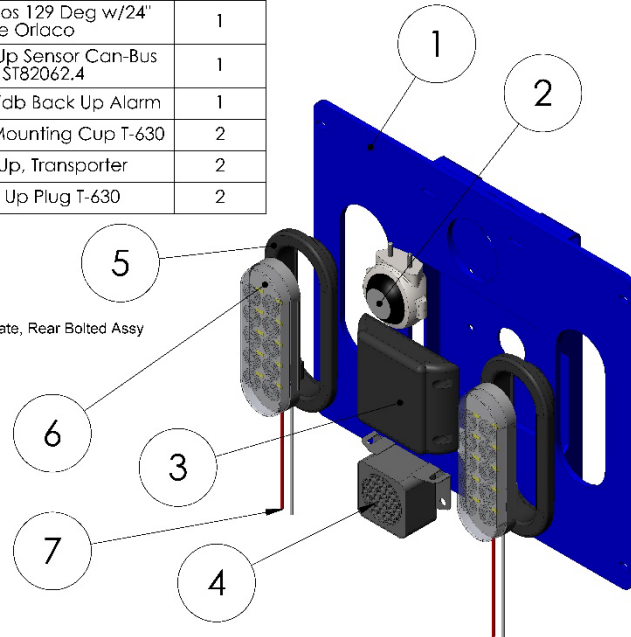
MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Bumper Insert Plate, Front Bolted Assy

SHOP #

TA-60050-11-FA

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM60051-11-RA	Bumper Insert Plate, Rear Assembly	1
2	66130-01	Camera, Famos 129 Deg w/24" Cable Orloco	1
3	80125-2-3S	PreView Back Up Sensor Can-Bus Sentry ST82062.4	1
4	80125-1-6-97	PreView SAS 97db Back Up Alarm	1
5	80985-03	Light Back Up Mounting Cup T-630	2
6	80985-01	Light Back Up, Transporter	2
7	80985-02	Light Back Up Plug T-630	2



Bumper Insert Plate, Rear Bolted Assy  
TA-60051-11-RA  
1 Per Unit

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DR. BY MCT

T-644

DATE 04/15/2021



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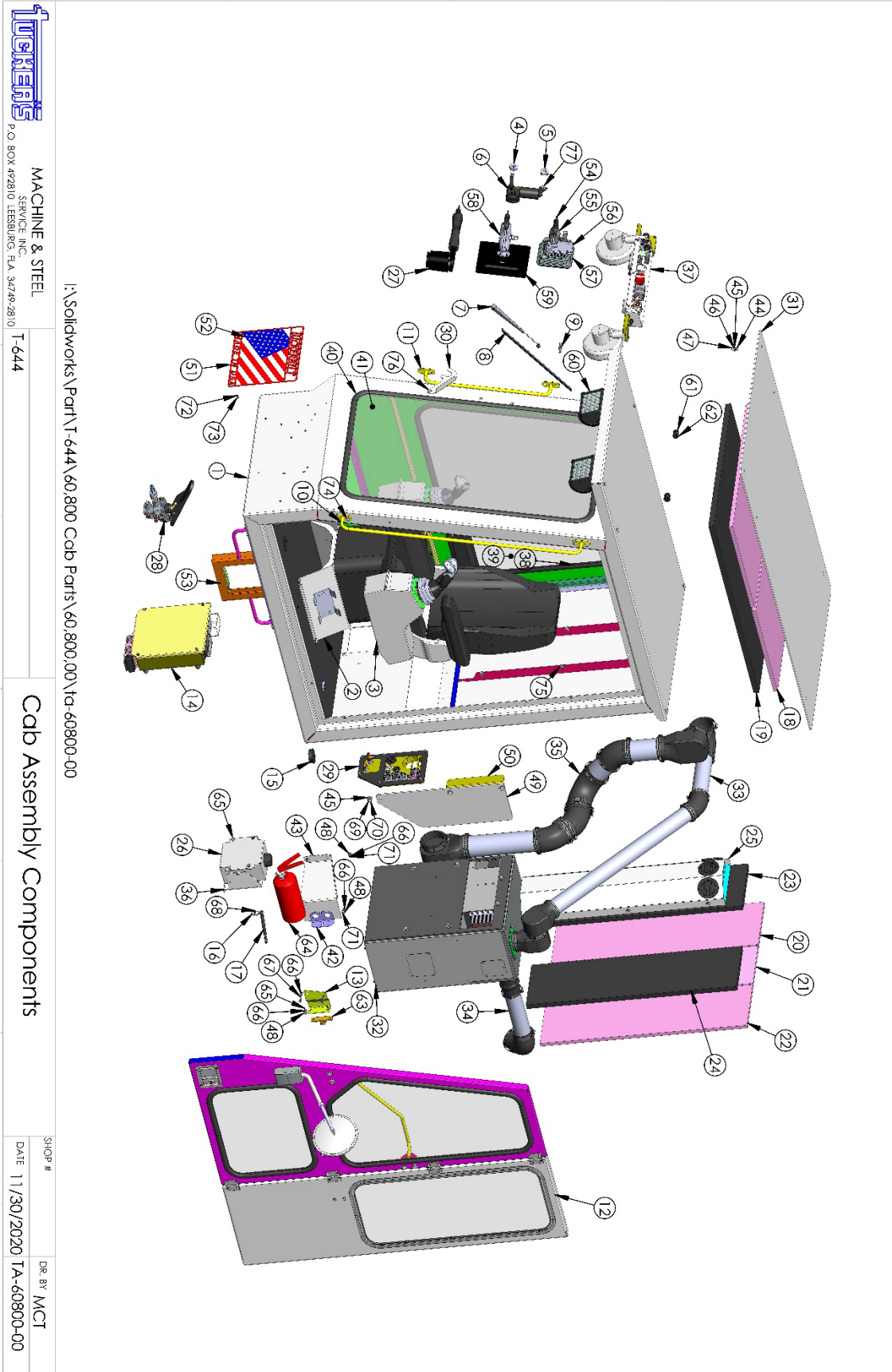
Bumper Insert Plate, Rear Bolted Assy

SHOP #

TA-60051-11-RA

# Cab

## Cab Assembly Components, W/O Pedal



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MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492910, LEBURNG, FLA 34749-2910

T-644

Cab Assembly Components

SHOP #  
DATE 11/30/2020  
DR. BY MCT  
TA-60800-00

# Cab Assembly Components BOM, W/O Pedal



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEEBURGS, FLA. 34749-2810

T-644

## Cab Assembly Components BOM

SHOP #  
DATE 11/30/2020 DR. BY MCI

ITEM NO.	Orderno	DESCRIPTION	QTY.
1	TM6080-00	Welded Cab Assembly	1
2	TM6080-01 A	Cab Seat Stand Base Assembly	1
3	TA-60590-00	Suspension Seat Assembly Hardware	1
4	TB66800-01	Nylon Spacer 1/2" x 3/4" ID x 1-1/2" OD	1
5	TM66800-01	Spacer .75IDx1.50ODx.5 Thick	1
6	TB81195-06	Motor Wiper T-630	1
7	TB81195-02	Arm Wiper T-630	1
8	TB81195-07	Wiper Blade T-630	1
9	TB60813-31	Windshield Washer Nozzle	1
10	TM6080-00-1	Handle Assembly Long	1
11	TM6080-00-2	Handle Assembly Short	1
12	TA-60807-00	Cab Door Assembly Hardware	1
13	TM60815-00	Cab Door Latch Tab Assembly	1
14	TA-60090-00-1	Electrical Junction Box Assembly Cab	1
15	TB66800-02	Locking Plug for Panels, for 2-1/2" ID	5
16	TM65159	Gas Spring Stud Bolt	1
17	TB60001-ASSY	Gas Spring for T-644 Cab w/Ends	1
18	TM60816-01	Cab Roof Insulation	2
19	TM60817-01	Cab Headliner Foam, Roof	1
20	TM60816-02	Cab Wall Left Insulation	1
21	TM60816-03	Cab Wall Center Insulation	1
22	TM60816-04	Cab Wall Right Insulation	1
23	TM60817-02	Cab Headliner Foam Wall, Left	1
24	TM60817-03	Cab Headliner Foam Wall, Right	1
25	TA-60805-00	Cab Duct Assembly Hardware	1
26	TB60813-30	Windshield Washer Tank 3	1
27	TB66800-10	Cup Holder w/U-Bolt Mount	1
28	TA-80605	Foot Brake Valve Hardware Assembly	1
29	TA-60801-05A	Cab Pierce Plate Bolted Assembly	1
30	TM60809-01	Cab Chule Door Catch	1
31	TM60864-00	Cab HPPE Cover	1
32	TA-80669	T-644 A.C-Hecler Assembly Hardware	1
33	TA-60818-10	Cab Filter Pressure Tube Assembly Kit	1
34	TA-60840-03	Air Conditioner Respo Connector Tube Kit	1
35	TA-60818-09	Cab Filter Inake Tube Assembly	1
36	TM60810-06	Cab Floor Washer Bottle Guard	1
37	TA-60803-00	Cab Upper Dash Bolted Assembly	1
38	TB80991	Cab Side Glass Rubber, Right - 142"	1
39	TB60813-22	Cab Side Glass Right	1

ITEM NO.	Orderno	DESCRIPTION	QTY.
40	TB80991	Cab Windshield Glass Rubber - 143"	1
41	TB60813-23	Cab Windshield Glass	1
42	TM60820-06	Armrest Cable Adapter Plate Wall Bulkhead	1
43	TM60801-08	Cab Skin Rear, Wire Guard	1
44	CB-0-375-16X1	Bolt Carriage 3/8-16 X 1	6
45	WF-0-375	Washer Flat 3/8	19
46	WL-0-375	Washer Lock 3/8	6
47	NU-0-375-16PL	Nut 3/8-16 (Plated)	6
48	WF-0-25	Washer Flat 1/4	10
49	TM60801-09	Cab Skin Rear, Shark Fin	1
50	TM60801-10	Cab Skin Rear, Shark Fin Bracket	1
51	TM60025-04-01	Flag Logo Stripes Coated Red, Cab	1
52	TM60025-04-02	Logo Stars Coated Blue, Cab	1
53	TM60080-04	Handle Step, Cab	1
54	TB66800-09	Pipe Mount Clamp, 1/2"-1" on base, 1-1/2" Ball	2
55	TB66800-08-3.5	3-1/2" Connector for Ball-Grip Arm 1-1/2" Ball	1
56	TB66800-07	Flah Panel Monitor Mounting Flote End 1-1/2" Ball	1
57	TB66130-12-720	DP720 Display	1
58	TB66800-08-5.625	5-5/8" Connector for Ball-Grip Arm 1-1/2" Ball	1
59	TB66130-02-MON-12	Monitor 12" RLED Serial 86 Display Oricoo 04111130	1
60	TB66130-40-72W	Work Light, LED 7" 72 Watt	2
61	EW5RDN12-2035	Dome Nut 1/2" NPT - ID .20-.35	2
62	EW5RDN12	Lock Nut 1/2" for Dome Nut	2
63	TB64109	Sticker, Cab Door Latch Part of TB64109	1
64	TB80317	File Extinguisher 5lb	1
65	CS-HH-0-25-20X1	Screw Cap Hex: 1/4-20 X 1	6
66	NF-0-25-20	Nut Flanged Lock : 1/4-20	16
67	CS-HH-0-25-20X2.5	Screw Cap Hex: 1/4-20 X 2 1/2	2
68	NF-0-5-13	Nut Flanged Lock : 1/2-13	1
69	CS-HH-0-375-16X1	Screw Cap Hex: 3/8-16 X 1	17
70	NF-0-375-16	Nut Flanged Lock : 3/8-16	22
71	CS-HH-0-25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	7
72	SSCS-5H-10-24X.50	Cab Screw-Stainless-Socket Head - #10-24 X 1/2"	8
73	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	8
74	CS-HH-0-375-16X2.5	Screw Cap Hex: 3/8-16 X 2 1/2	4
75	NCOB-0-25-20-0.331	Nut Clip-On Barrel: 1/4-20 .025-.15 .331 Hole	6
76	CS-HH-0-375-16X0.75	Screw Cap Hex: 3/8-16 X 3/4	1
77	CS-HH-0-25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	1

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# Cab Assembly Components, With Pedal



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

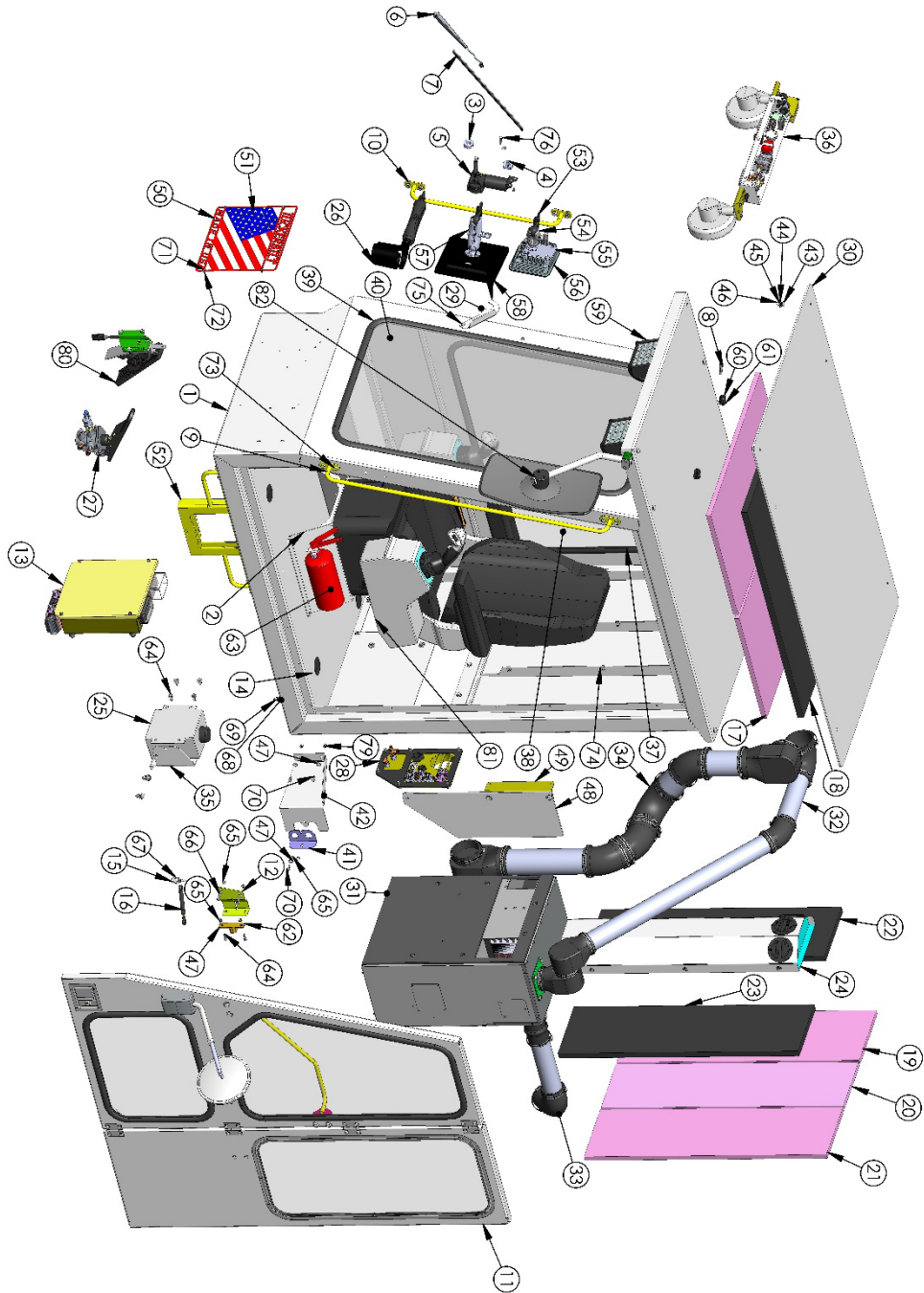
T-644

## Cab Assembly Components

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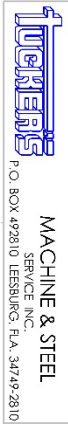
SHOP #  
DATE 3/20/2025

DR. BY MCT HH  
TA-60800-00



# Cab Assembly Components BOM, With Pedal

ITEM NO.	Orderno	DESCRIPTION	QTY.	ITEM NO.	Orderno	DESCRIPTION	QTY.
1	TM60800-00	Welded Cab Assembly	1	40	TB60813-23	Cab Windshield Glass	1
2	TM60808-01A	Cab Seat Stand Base Assembly	1	41	TM60820-06	Cab Windshield Glass	1
3	TB66800-01	Nylon Spacer 1/2" x 3/4" ID x 1-1/2" OD	1	42	TM60801-08	Armrest Cable Adapter Plate Wall Bulkhead	1
4	TM66800-01	Spacer .75" ID x .50" x .5 Thick	1	43	CB-0-3/5-16X1	Cab Skin Rear. Wire Guard	6
5	TB81195-06	Motor Wiper T-630	1	44	WF-0-3/5	Washer Flot 3/8"	19
6	TB81195-02	Arm Wiper T-630	1	45	WL-0-3/5	Washer Lock 3/8"	6
7	TB81195-07	Wiper Blade T-630	1	46	NL-0-3/5-16-FL	Nut 3/8-16 (Plated)	6
8	TB60813-31	Windshield Washer Nozzle	1	47	WF-0-25	Washer Flot 1/4"	10
9	TM60080-00-1	Handle Assembly Long	1	48	TM60801-09	Cab Skin Rear. Shark Fin	1
10	TM60080-00-2	Handle Assembly Short	1	49	TM60801-10	Cab Skin Rear. Shark Fin Bracket	1
11	TA-60807-00	Cab Door Assembly Hardware	1	50	TM60025-04-01	Flag Logo Stripes Coated Red. Cab	1
12	TM60815-00	Cab Door Latch Tab Assembly	1	51	TM60025-04-02	Logo Strips Coated Blue. Cab	1
13	TA-60090-00-1	Electrical Junction Box Assembly Cab	1	52	TM60080-04	Handle Step. Cab	1
14	TB66800-02	Locking Plug for Panels, for 2-1/2" ID	5	53	TB66800-09	Pipe Mount Clamp, 1/2"-1" on Base, 1-1/2" Ball	2
15	TM65159	Gas Spring Stud Bolt	1	54	TB66800-08-3-5	3-1/2" Connector for Bolt-Grip Arm 1-1/2" Ball	1
16	TB60001-ASSY	Gas Spring for T-644 Cab w/Ends	1	55	TB66800-07	Flat Panel Monitor Mounting Plate End 1-1/2" Ball	1
17	TM60816-01	Cab Roof Insulation	2	56	TB66130-12-720	DP/20 Display	1
18	TM60817-01	Cab Headliner Foam, Roof	1	57	TB66800-08-5-625	5-5/8" Connector for Bolt-Grip Arm 1-1/2" Ball	1
19	TM60816-02	Cab Wall Left Insulation	1	58	TB66130-02-MON-12	Monitor 12" RLED Serial R6 Display Orico 0411130	1
20	TM60816-03	Cab Wall Center Insulation	1	59	TB66130-00-72W	Work Light, LED 7" 72 wcht	2
21	TM60816-04	Cab Wall Right Insulation	1	60	EWSRDN12-2035	Dome Nut 1/2" NPT - ID .20-.35	2
22	TM60817-02	Cab Headliner Foam Wall, Left	1	61	EWSRDN12	Lock Nut 1/2" for Dome Nut	2
23	TM60817-03	Cab Headliner Foam Wall, Right	1	62	TB64109	Stiker, Cab Door Latch Port of TB64109	1
24	TA-60805-00	Cab Duct Assembly Hardware	1	63	TB80317	Fire Extinguisher 5lb	1
25	TB60813-30	Windshield Washer Tank 3	1	64	CS-HH-0-25-20X1	Screw Cap Hex: 1/4-20 X 1	6
26	TB66800-10	Cup Holder w/U-Bolt Mount	1	65	NF-0-25-20	Nut Flanged Lock : 1/4-20	14
27	TA-80605	Foot Brake Valve Hardware Assembly	1	66	CS-HH-0-25-20X2.5	Screw Cap Hex: 1/4-20 X 2 1/2	2
28	TA-60801-05A	Cab Pierce Plate Bolted Assembly	1	67	NF-0-5-13	Nut Flanged Lock : 1/2-13	1
29	TM60809-01	Cab Chute Door Catch	1	68	CS-HH-0-3/5-16X1	Screw Cap Hex: 3/8-16 X 1	17
30	TM60800-00	Cab HDPE Cover	1	69	NF-0-3/5-16	Nut Flanged Lock : 3/8-16	22
31	TA-80669	T-644 A/C-Heater Assembly Hardware	1	70	CS-HH-0-25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	7
32	TA-60818-10	Cab Filter Pressure Tube Assembly Kit, CSX	1	71	SSCS-SH-10-24X.50	Cop Screw-Stainless Socket Head- #10-24 X 1/2"	8
33	TA-60840-03	Air Conditioner Respa Connector Tube Kit	1	72	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	8
34	TA-60818-09	Cab Filter Intake Tube Assembly	1	73	CS-HH-0-3/5-16X2.5	Screw Cap Hex: 3/8-16 X 2 1/2	4
35	TM60810-06	Cab Floor Washer Bottle Guard	1	74	NC08-0-25-20-0.531	Nut Clip-On Barrel: 1/4-20 0.25-.15, .531 Hole	6
36	TA-60803-00	Cab Upper Dash Bolted Assembly	1	75	CS-HH-0-3/5-16X0.75	Screw Cap Hex: 3/8-16 X 3/4	1
37	TB80991	Cab Side Glass Rubber, Right - 142"	1	76	CS-HH-0-25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	1
38	TB60813-22	Cab Side Glass, Right	1	79	NR-0-25-20-PL-0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	2
39	TB80991	Cab Windshield Glass Rubber - 143"	1	80	TA-66130-90	Cab Electric Propel Pedal Assembly	1
				81	TA-60590-00	Suspension Seat Assembly Hardware	1
				82	TM60880-00	T-644 Mirror Assembly	1

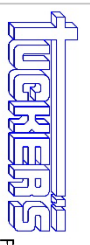
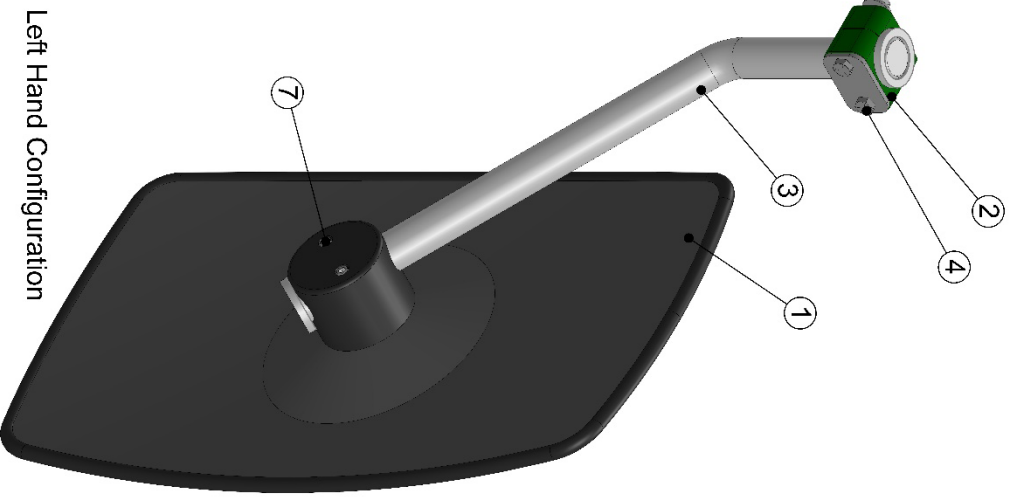
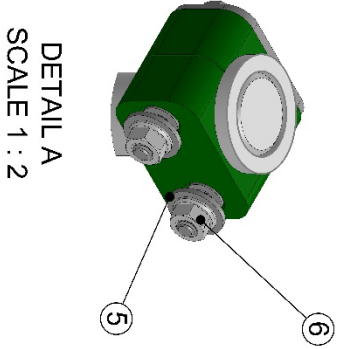
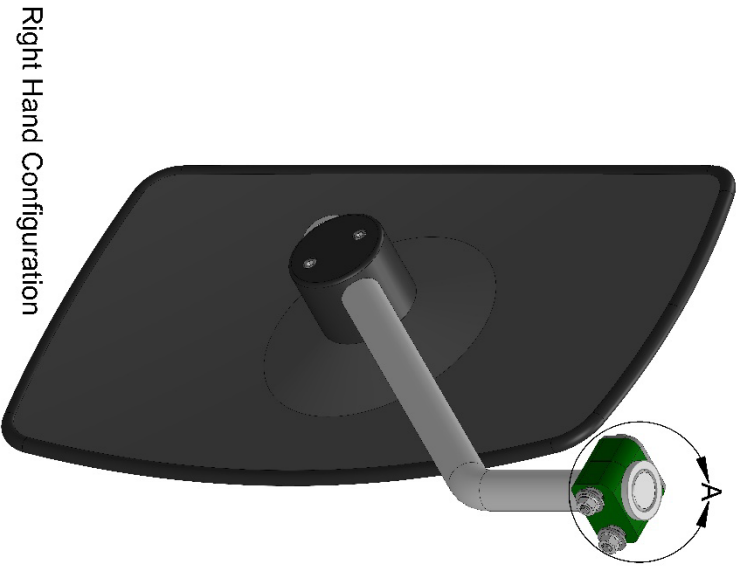


MACHINE & STEEL SERVICE INC.  
P.O. BOX 492810, LEESBURG, FLA. 34749-2810

T-644  
Cab Assembly Components BOM  
SHOP #  
DATE 3/20/2025  
DR BY MCT HH  
TA-60800-00

Cab Components, Mirror Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TB60880-03	Rectangle Convex Mirror	1
2	TB60880-04	1" Clamp	1
3	60,880,01	Mirror Rod Assembly	1
4	CS-HH-0.25-20-2.25	Medium-Strength Grade 5 Steel Hex Head Screw	2
5	WF-0.25	Washer Flat 1/4	2
6	NF-0.25-20	Nut Flanged Lock : 1/4-20	2
7	SSCS-SH-10-32X1.25	Cap Screw-Stainless-Socket Head-#10-32 X 1 1/4"	2



**MACHINE & STEEL**  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

T-644 Mirror Assembly  
60,880,00

DR. BY  
MCT  
DATE 02/21/2025

SHOP # XXXXXXXX  
SALES # XXXXXXXX

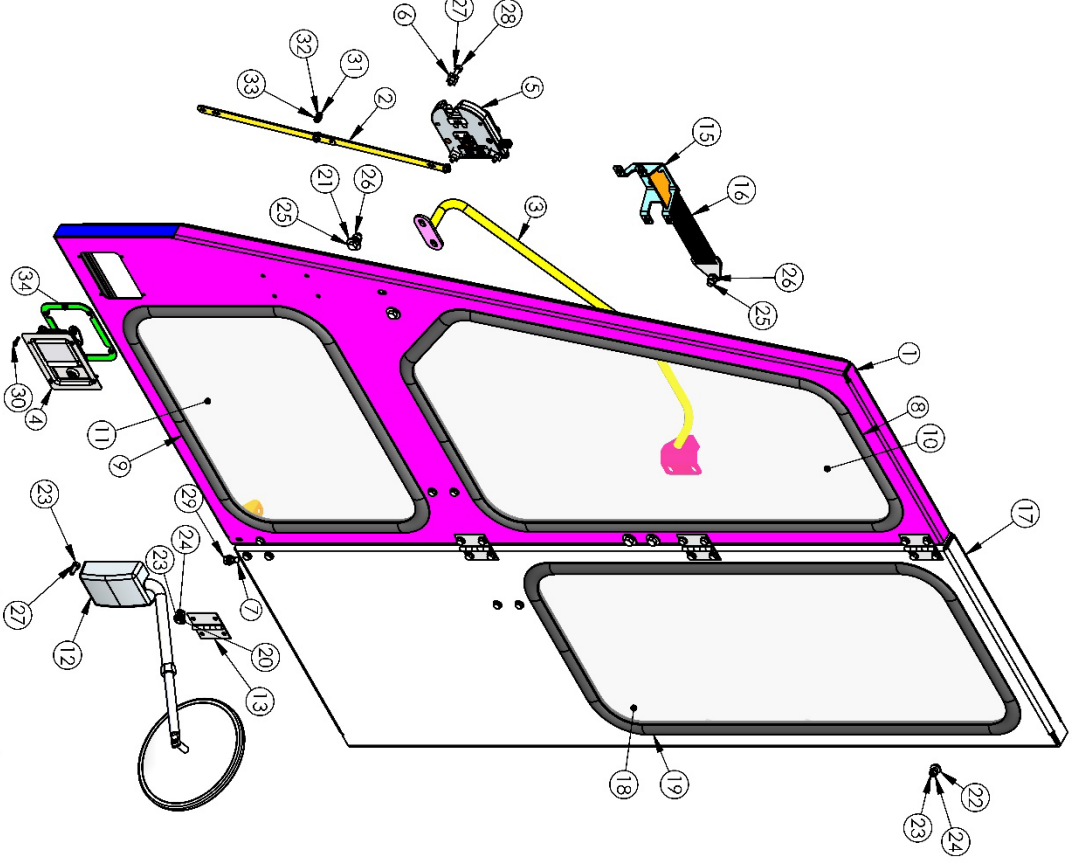
DWG. NO.  
60,880,00

# Cab Components, Driver Door

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60807-00	Cab Entry Door Assembly	1
2	TM60807-09	Cab Entry Door Pull Rod	2
3	TM60080-00-3	Cab Entry Door Handrail Assembly T-644	1
4	TB64110	Cab Outside Door Opener	1
5	TB64109	Cab Inside Door Latch	1
6	NCOB-0.25-20-0.531	Nut Clip-On Barrel: 1/4-20 .025-.15, .531 Hole	3
7	TB80002	.39 Dia Ball Stud s/ith 5/16-18 Thread	1
8	TB80991	Cab Door Glass Rubber, Top - 99"	1
9	TB80991	Cab Door Glass Rubber, Bottom - 69"	1
10	TB60813-24	Cab Door Glass, Top	1
11	TB60813-25	Cab Door Glass, Bottom	1
12	TB80589-CSMA	Mirror, Convex Spot Mirror Assembly	1
13	TM60870-00	Stainless Hinge for Cab-Engine Doors	4
14	TB66800-04	Cab Door Rubber Seal - 164"	1
15	TM60807-06A	Cab Entry Door Strap Bracket	2
16	TB66800-12	Poly Performance Quad Wrapped Ultra Strap	1
17	TM60814-00	Door Filler Panel Assembly Weldment	1
18	TB60813-21	Cab Side Glass, Left	1
19	TB80991	Cab Side Glassrubber, Left - 96"	1
20	WFF-0.25	Washer Flat 1/4 (SAE)	22
21	WF-0.375	Washer Flat 3/8	4
22	WF-0.25	Washer Flat 1/4	13
23	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	39
24	NF-0.25-20	Nut Flanged Lock : 1/4-20	35
25	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	6
26	NF-0.375-16	Nut Flanged Lock : 3/8-16	6
27	WL-0.25	Washer Lock 1/4	7
28	CS-HH-0.25-20X1.5	Screw Cap Hex: 1/4-20 X 1 1/2	3
29	NF-0.3125-18	Nut Flanged Lock : 5/16-18	1
30	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head: #8-32 X 1/2"	4
31	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head: #10-24 X 1/2"	3
32	WFFS-10	Washer Flat - Stainless - #10 (.218 X .437)	3
33	SSNSL-10-24	Nut Self Lock - Stainless - 10-24	3
34	TM60807-10	Cab Entry Door Latch Bolt Plate	1

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**TOUGHERS** MACHINE & STEEL SERVICE INC. T-644  
 P.O. BOX 492810 LEESBURGS, FLA. 34749-2810



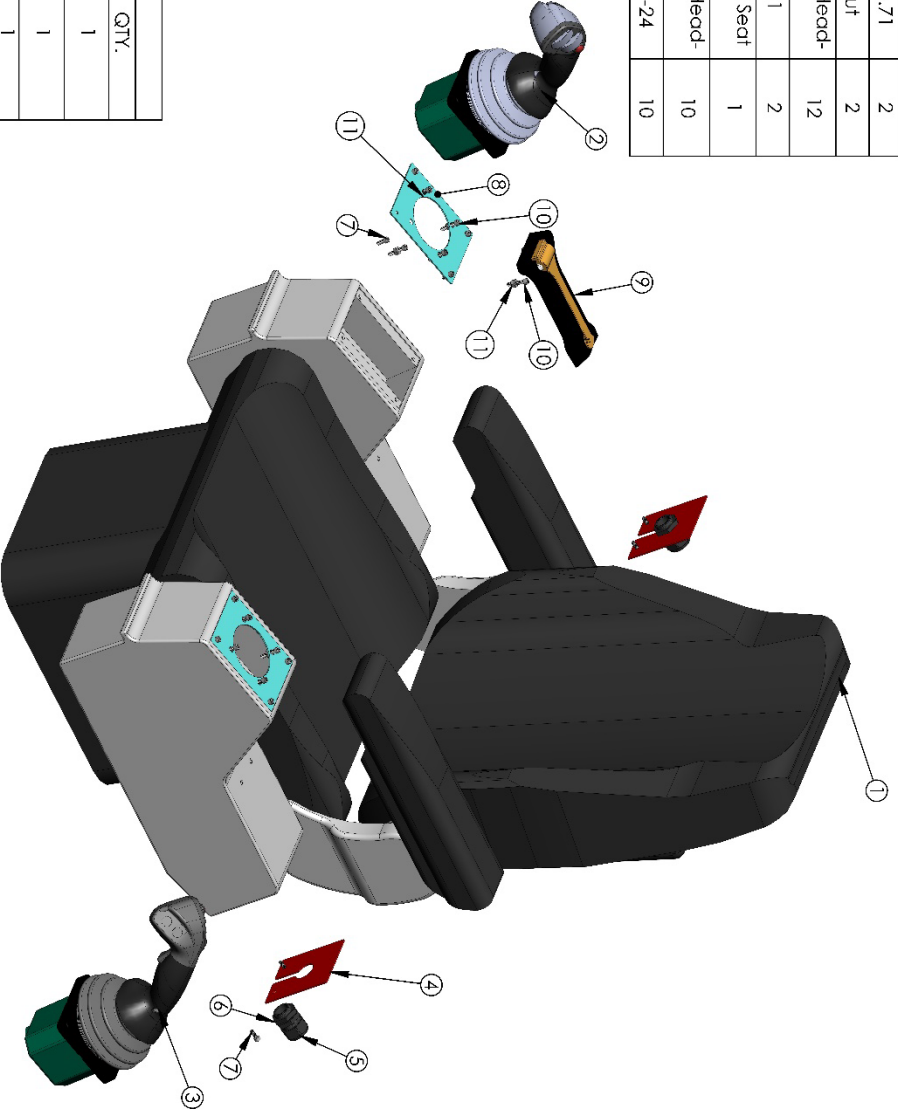
Cab Door Assembly Hardware

SHOP #  
 DATE 11/17/2020 DR. BY MCT HH  
 TA-60807-00

# Cab Components, Seat, W/O Pedal

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TK81590-SUSP	Suspension Seat w/Switch, Seat Bell, Pouch	1
2	TB66130-80-CR	Tucker Right JS	1
3	TB66130-80-CL	Tucker Left JS	1
4	TM60820-05	Armrest Cable Adapter Plate	2
5	EWSRDN34-5171	Dome Nut 3/4" NPT - ID .51-.71	2
6	EWSRLN34	Lock Nut 3/4" for Dome Nut	2
7	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head- #10-24 X 1/2"	12
8	TM60820-01-2	Joystick Adaptor Plate JS1	2
9	TB80317-SH	Safety Hammer, Glass Break, Seat Bell, Cutter	1
10	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head- #10-24 X 1"	10
11	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	10

OrderNo	DESCRIPTION	QTY.
TB80590-4-2	Seat HFC100, 07,691 Cushion, Back, Vinyl, Actlimo	1
TB80590-4-3	Seat HFC100, 07,688 Cushion, Seat, Vinyl, Actlimo	1
TB80590-5	Switch Kit, Operator Present, OPS	1
TB80590-6	Seat Bell, Larp, Static1 2 w/Hardware	1



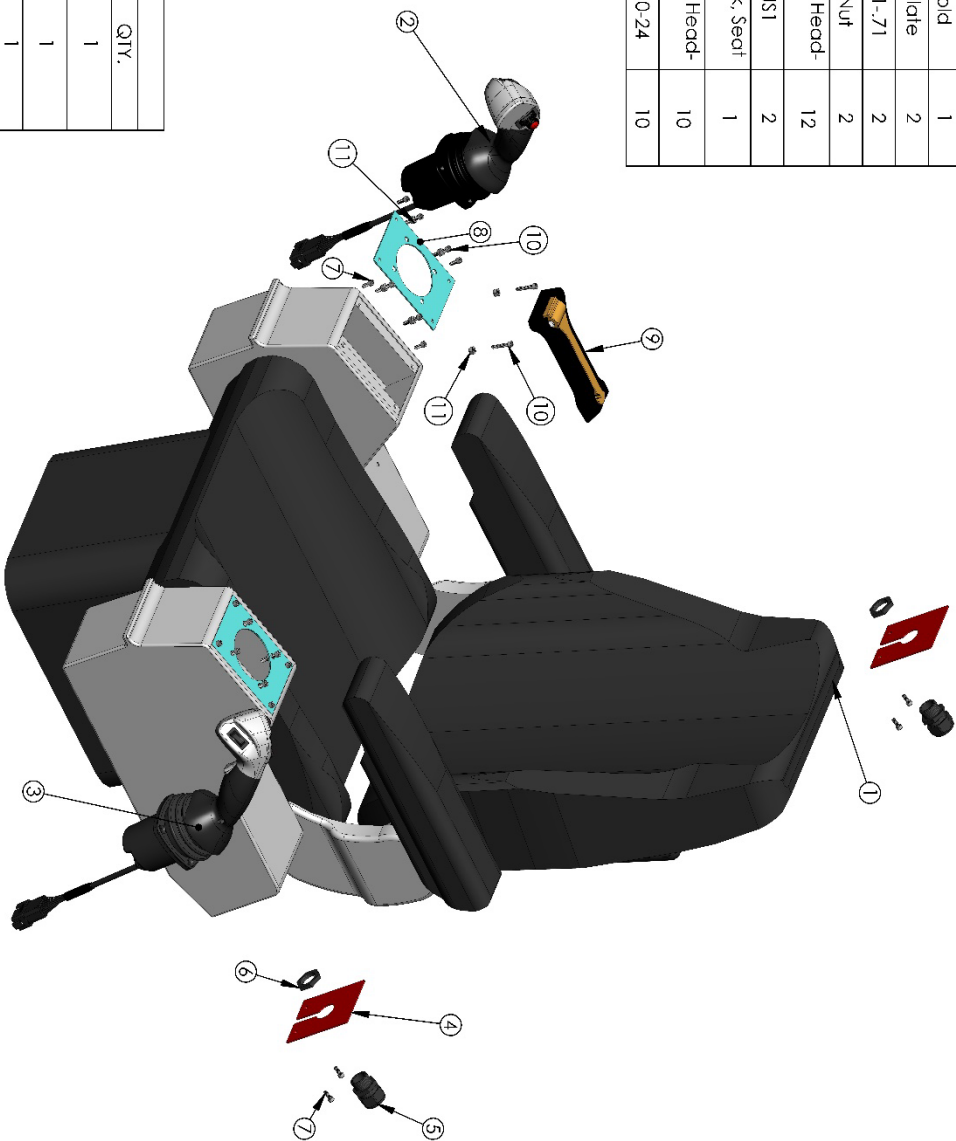
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 MACHINE & STEEL  
 SERVICE INC.  
 P.O. BOX 492810 LEESSBURG, FLA. 34749-2810  
 T-644

Suspension Seat Assembly Hardware  
 SHOP #  
 DATE 12/1/2020  
 DR. BY MCT E+  
 TA-60590-00

# Cab Components, Seat, With Pedal

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TK81590-SUSP	Suspension Seat w/Switch, Seat Belt, Pouch	1
2	TB66130-80-CR	Tucker Right JS	1
3	TB66130-80-FH	Tucker Left JS, Friction Hold	1
4	TM60820-05	Amrest Cable Adapter Plate	2
5	EWSRDN34-5171	Dome Nut 3/4" NPT - ID .51-.71	2
6	EW SRLN34	Lock Nut 3/4" for Dome Nut	2
7	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head-#10-24 X 1/2"	12
8	TM60820-01-2	Joystick Adaptor Plate JS1	2
9	TB80317-SH	Safety Hammer, Glass Break, Seat Belt Cutter	1
10	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head-#10-24 X 1"	10
11	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	10

OrderNo	DESCRIPTION	QTY.
TB80590-4-2	Seat HFC100, 07.691 Cushion, Back, Vinyl, Acflimo	1
TB80590-4-3	Seat HFC100, 07.688 Cushion, Seat, Vinyl, Acflimo	1
TB80590-5	Switch Kit, Operator Present, OPS	1
TB80590-6	Seat Belt, Lap, Stdicl 2 w/Hardwore	1



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Td-60590-00  
T-644

Suspension Seat Assembly Hardware

SHOP #  
DATE 12/1/2020

DR. BY MCT E+  
TA-60590-00

# Cab Glass



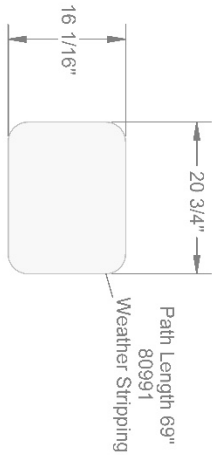
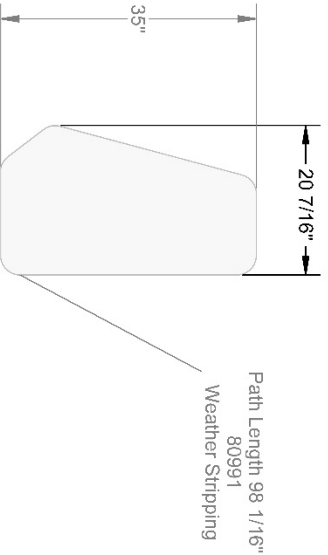
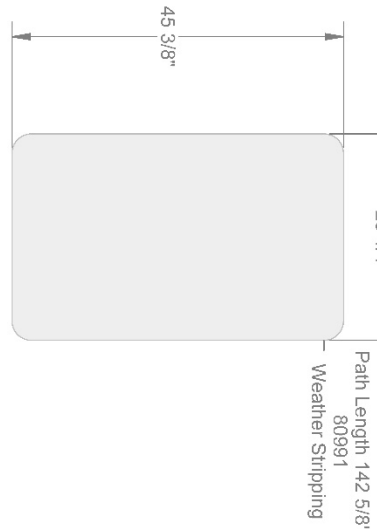
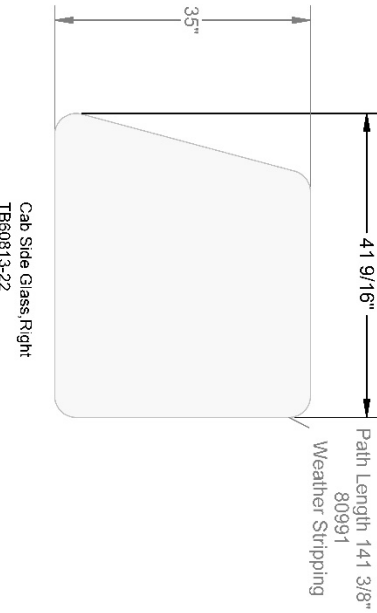
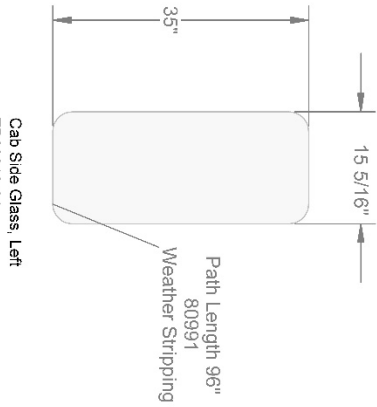
MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESSBURG, FLA. 34749-2810

60,800.00  
T-644

T-644 Cab Glass

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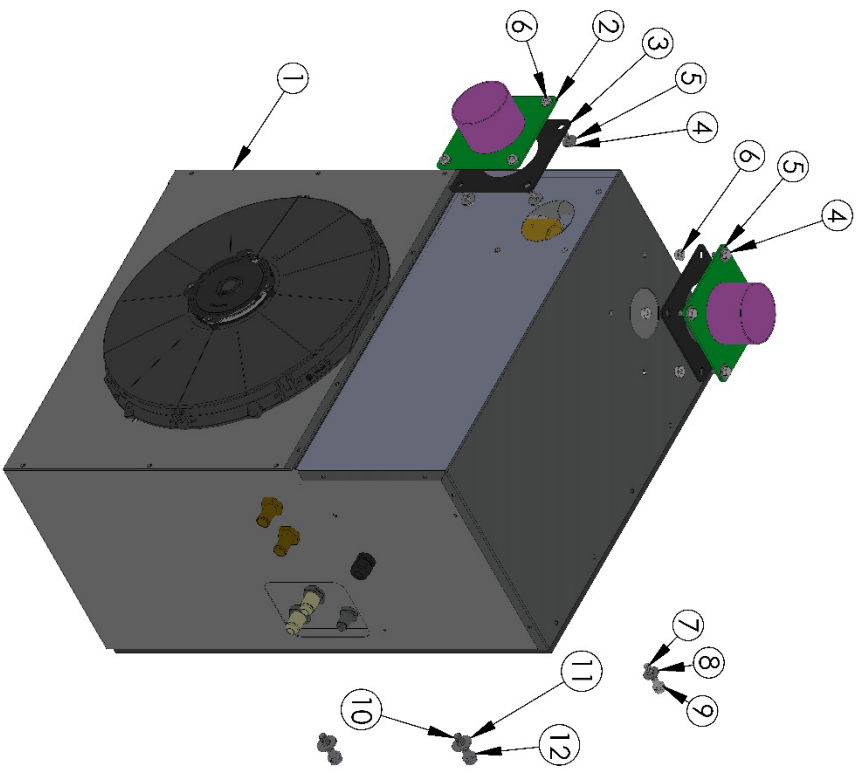
SHOP #  
DATE 1/30/2018  
DR. BY MCT  
TB60813-21



Glass	Weather Stripping Length
TB60813-21	96.0000
TB60813-22	141.3750
TB60813-23	142.6250
TB60813-24	98.0625
TB60813-25	69.0000
Total Inches	547.0625
Total Feet, Approx.	45.58854167

Cab AC/Heater

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	7110	Tucker 7110DD A/C & Heat, 12v w/RESPA System	1
2	TM60840-00	Air Conditioner Respa Flange Assembly	2
3	TB60840-05	Air Conditioner Respa Flange Gasket	2
4	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	8
5	WF-0.25	Washer Flat 1/4	8
6	NF-0.25-20	Nut Flanged Lock : 1/4-20	8
7	CS-HH-0.3125-18X1.5	Screw Cap Hex: 5/16-18 X 1 1/2	2
8	WF-0.3125	Washer Flat 5/16	2
9	WL-0.3125	Washer Lock 5/16	2
10	CS-HH-0.375-16X1.5	Screw Cap Hex: 3/8-16 X 1 1/2	4
11	WF-0.375	Washer Flat 3/8	4
12	WL-0.375	Washer Lock 3/8	4



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T-644

DR. BY **MCT**

DATE

SHOP #

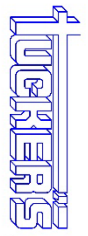
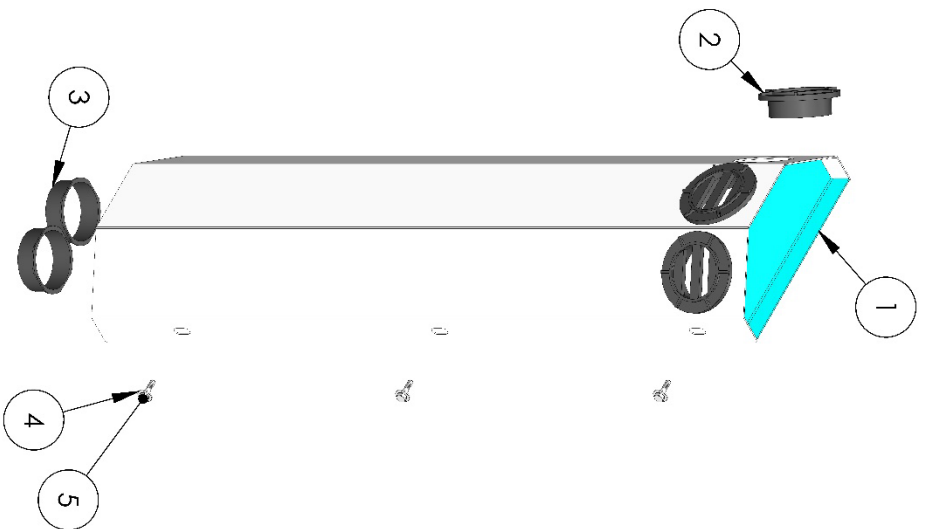
TB80660-T644

**TUCKERS** MACHINE & STEEL SERVICE INC. P.O. BOX 492810 LEESBURG, FLA. 34749-2810

**12V, AC & Heat System**

**Cab Components, Cab Duct Assembly Hardware**

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM80605-00	Cab Duct Assembly	1
2	TB80665	Louver w/Retainer Ring 4" Round	3
3	TB80666	Adapter, Hose, 3" Snap-In	2
4	WF-0.25	Washer Flat 1/4	6
5	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	6



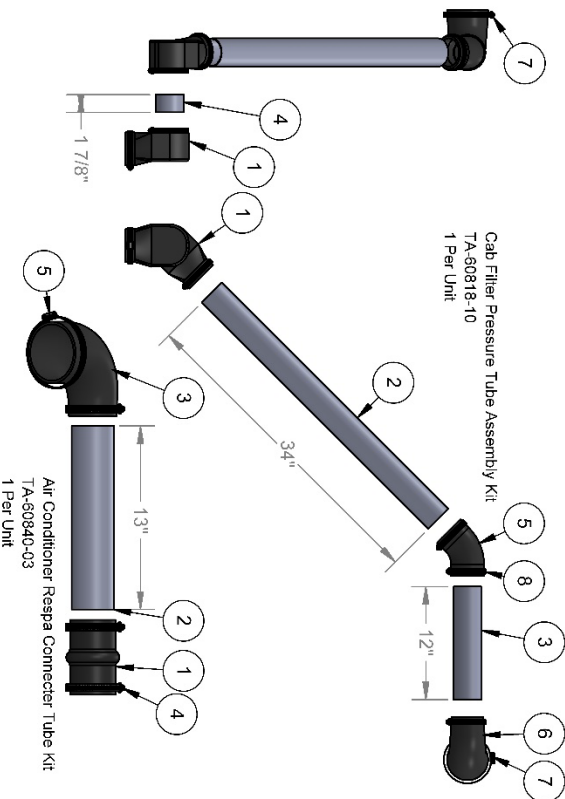
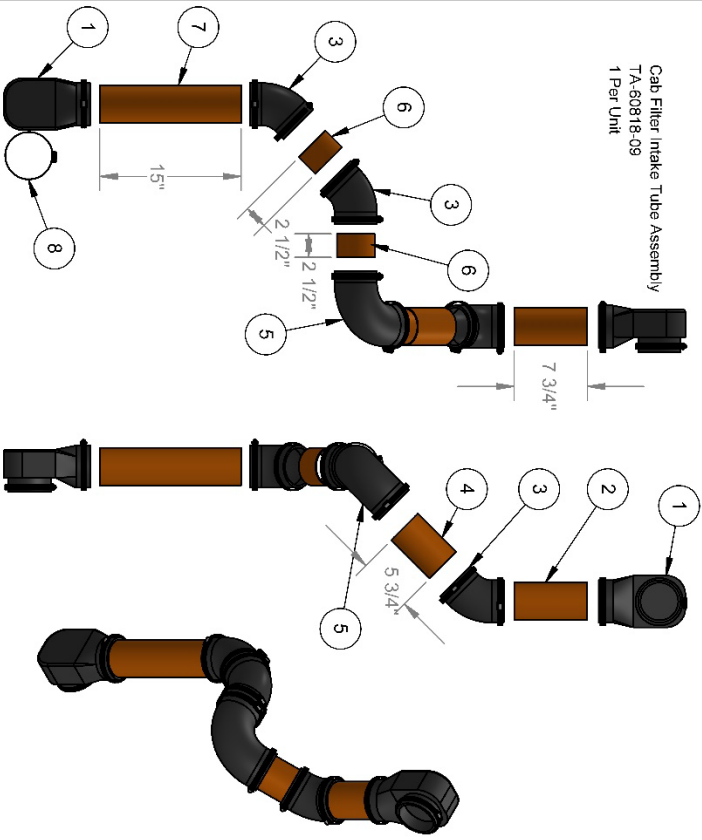
**MACHINE & STEEL**  
 SERVICE INC.  
 P.O. BOX 492810 LEESBURG, FLA. 34749-2810

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T-644		DATE	11/20/2020
Cab Duct Assembly Hardware		SHOP #	TA-60805-00

# Cab Filter Tube Assemblies

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80731	Elbow, Donaldson Cobra 4" - 90 Deg	2
2	TM60818-06	Cab Filter Top Suction Tube 4"	1
3	TB80575-45-4,00	Rubber Elbow Donaldson, 4" x 45 Deg.	3
4	TM60818-05	Cab Filter Mid Suction Tube 4"	1
5	TB80575-25	Rubber Elbow Donaldson, 4" x 90 Deg.	1
6	TM60818-08	Cab Filter Connector Tube 4"	2
7	TM60818-04	Cab Filter Lower Suction Pipe 4"	1
8	CL-HO-72H	Clamp Hose 03256 #72	12

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80731-3	Elbow, Donaldson Cobra 3" - 90 Deg	2
2	TM60818-12	Cab Filter Slanted 3EFS Tube	1
3	TM60818-13	Cab Filter Top 3EFS Tube	1
4	TM60818-11	Cab Filter Connector 3EFS Short Coupler	1
5	TB80575-45	Rubber Elbow 3" x 45 Deg.	1
6	TB80575-25-4-3	Rubber Elbow Donaldson, 4" x 3" x 90 Deg.	1
7	CL-HO-72H	Clamp Hose 03256 #72	1
8	CL-HO-52H	Clamp Hose 03253 #52	7



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**Togener's** MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEBURG, FLA. 34749-2810

T-644

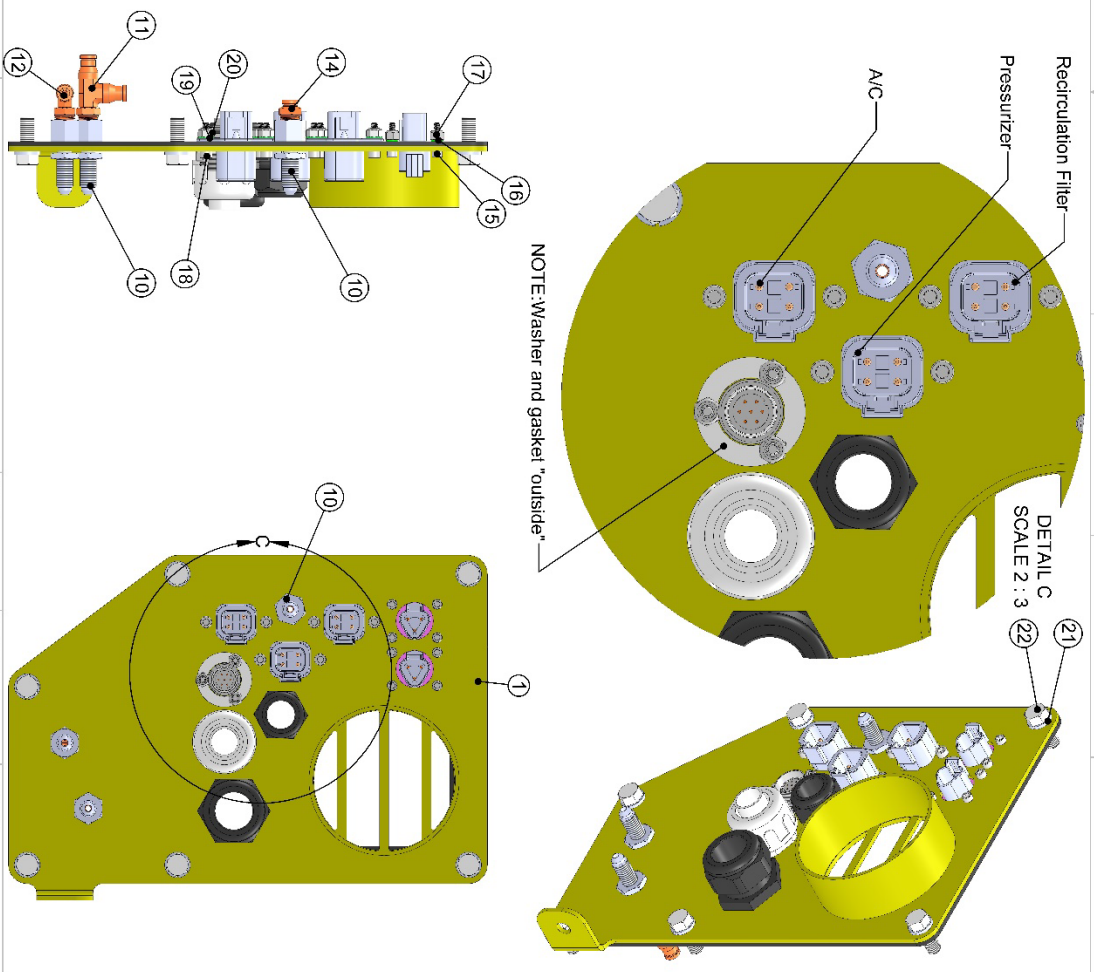
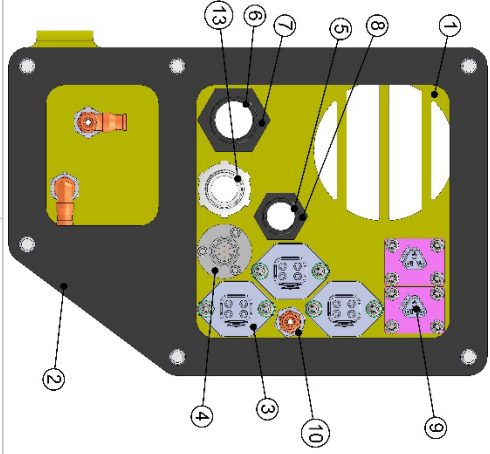
## Cab Filter Tube Assemblies

ITEM NO.	OrderNo	DESCRIPTION	Default/ QTY.
1	TB80575-47-3	Rubber Hump Straight Donaldson, 3"	1
2	TM60840-03	Air Conditioner Respa Connector Tube 3"	1
3	TB80575-25-4-3	Rubber Elbow Donaldson, 4" x 3" x 90 Deg.	1
4	CL-HO-52H	Clamp Hose 03253 #52	3
5	CL-HO-72H	Clamp Hose 03256 #72	1

SHOP #  
DATE 1/3/2018  
DE. BY MCT  
60,818,09

# Cab Pierce Plate Assembly

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.801.05A	Cap Skin Rear Pierce Plate Assembly	1
2	60.801.07	Cab Skin Rear Pierce Plate Gasket	1
3	80130-89P-L012	Deutsch DOT94-4P-L012 Female Receptacle	3
4	66130-03-BC	Bulkhead Connector 7P, Orisco 0357050	1
5	EWSSDNM4-5171	Dome Nut 3/4" NPT - ID 51-71	1
6	EWSSDNI-7198	Dome Nut 1" NPT - ID 71-98	1
7	EWSSLN1	Lock Nut 1" for Dome Nut	1
8	EWSSLN4	Lock Nut 3/4" for Dome Nut	1
9	80130-74	Deutsch DOT92-3P-L012 Female Bulkhead Recept	2
10	HA-2705-LN-04-04	Adapter, JIC-Pipe Bulkhead w/LN: 2705-LN-04-04	3
11	DOT-TEE-0.25X0.25-TTP	DOT Fitting .25 Tube Tube Pipe	1
12	DOT-MEL90-0.25X0.25	DOT Male Elbow 90 Deg PreSSC 25x 25	1
13	66050-LTC-0.75	Liquid Tight Connector Straight 3/4"	1
14	DOT-MAC-0.25X0.25	DOT Male Connector PreSSC 1/4 X	1
15	SSCS-SH-8-32X0.75	Cap Screw Stainless-Steel Head- #8-32 X 3/4	8
16	SSWF-8	Washer Flat - Stainless - #8 (174 X 37)	8
17	SSNSL-8-32	Nut Self Lock - Stainless - 8-32	8
18	SSCS-SH-10-24X.75	Cap Screw Stainless-Steel Head- #10-24 X 3/4	6
19	SSWF-10	Washer Flat - Stainless - #10 (218 X 437)	6
20	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	6
21	WL-0-375	Washer Lock 3/8	6
22	38-1CS	Screw Cap Hex 3/8-18 X 1	6



**TORCHERS**  
 MACHINE & STEEL  
 SERVICE INC.  
 P.O. BOX 492910 LEBENSBURG, FLA. 34749-2910

Pierce Plate W/Hardware

CUSTOMER: T-644

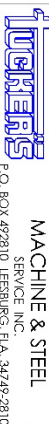
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 DATE 5/13/21

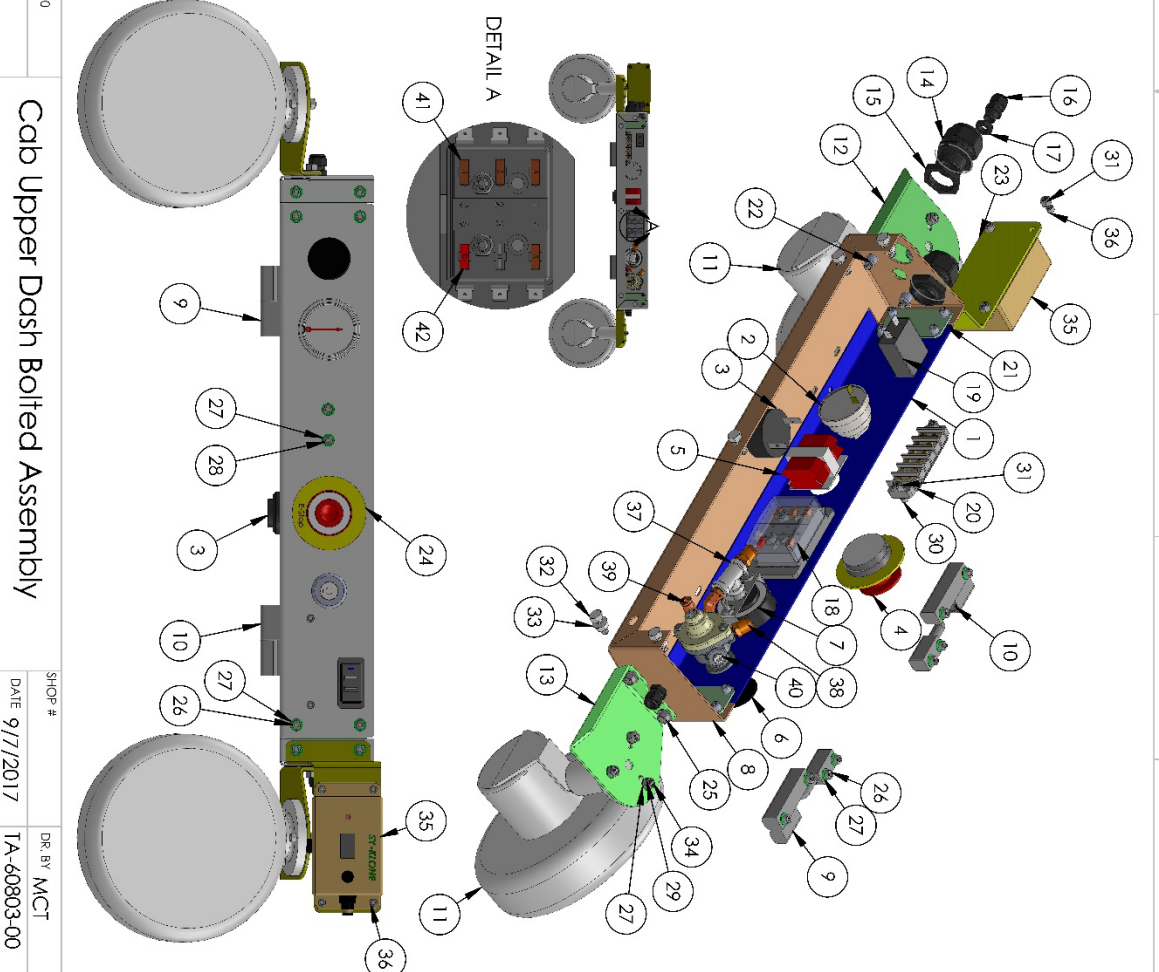
DWG. NO.  
**ta-60,801,05a**

# Cab Upper Instrument Panel

ITEM NO.	Origin/No	DESCRIPTION	QTY.
1	TM60803-01	Cab Upper Dash Panel	1
2	TB80 30-36-1	Key Switch, Standard On-Off US64	1
3	TB80 25-2-4	Preview Buzzer	1
4	TB80575-11-30MM	E-Stop Mushroom Head & Base 30MM	1
5	TB80575-112-NC-30MM	Contact Block Normally Closed - 30 MM	1
6	TB80600	Valve Pk. w/Knob Nut Pin	1
7	TB80607	Gauge Air	1
8	TM60803-02	Cab Upper Dash Hinge Bracket	1
9	TB66803R	Hinge, Right Side Door Mount, 2.5" x 1.25"	1
10	TB66803L	Hinge, Left Side Door Mount, 2.5" x 1.25"	1
11	TB66133	Cab Fan	2
12	TM60803-04L	Cab Upper Dash Fan Plate, Left	1
13	TM60803-04R	Cab Upper Dash Fan Plate, Right	1
14	EW5RDNG4-5171	Dome Nut 3/4" NPT - ID .51-.71	2
15	EW5RLN34	Lock Nut 3/4" for Dome Nut	2
16	EW5RDNI 4-1126	Dome Nut 1/4" NPT - ID .11-.26	2
17	EW5RLNI 4	Lock Nut 1/4" for Dome Nut	2
18	TB66146-6	Mini Fuse Block, 6 Position w-Cover	1
19	TB66130-23	Dual USB Power Charger, 2 Port 2.4A-2.4A, 5V	1
20	TB80575-109-06	Terminal Strip, 6 Lug 20A, #6-32	1
21	TM60803-03	Cab Upper Dash Backstop Assembly	2
22	NK-0.25-20-PI, 0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 thickness	4
23	TM60903-05	Cab Upper Dash Filter Monitor Bracket	1
24	TB80183	Label, E-Stop Ring	1
25	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	4
26	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head- #10-24 X 1/2"	16
27	WSS-10	Washer Flat - Stainless - #10(1.218 X .437)	24
28	SSCS-SH-10-24X1.25	Cap Screw-Stainless-Socket Head- #10-24 X 1 1/4"	2
29	SSNLI-10-24	Nut Self Lock - Stainless : 10-24	8
30	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head- #8-32 X 3/4"	2
31	SSNLI-8-32	Nut Self Lock - Stainless : 8-32	6
32	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	5
33	NF-0.25-20	Nut Flanged Lock : 1/4-20	5
34	SSCS-SH-10-24X.75	Cap Screw-Stainless-Socket Head- #10-24 X 3/4"	6
35	TB80663	Electronic Cab Pressure Sensor Manometer	1
36	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head- #8-32 X 1/2"	4
37	GP-18T	Tee Galv, 1/8"	1
38	DOT-MAC-0.25X0.125	DOT Male Connector, PP68C, 1/4 X 1/8	2
39	DOT-MEL90-0.25X0.125	DOT Male Elbow 90 Deg PP69C 1/4 X 1/8	2
40	HA-2222-2S	Adaptor, Hydraulic: 2222-2S	1
41	TB66145-5A	Fuse, 5A Lead Mini ATM Tan 12V	4
42	TB66145-10A	Fuse, 10A Lead Mini ATM Red 12V	1



MACHINE & STEEL SERVICE, INC.  
P.O. BOX 492810 TERRIBUS, FLA. 34749-2810



Cab Upper Dash Bolted Assembly

SHOP #  
DATE 9/17/2017  
DR. BY MCT  
1A-60803-00



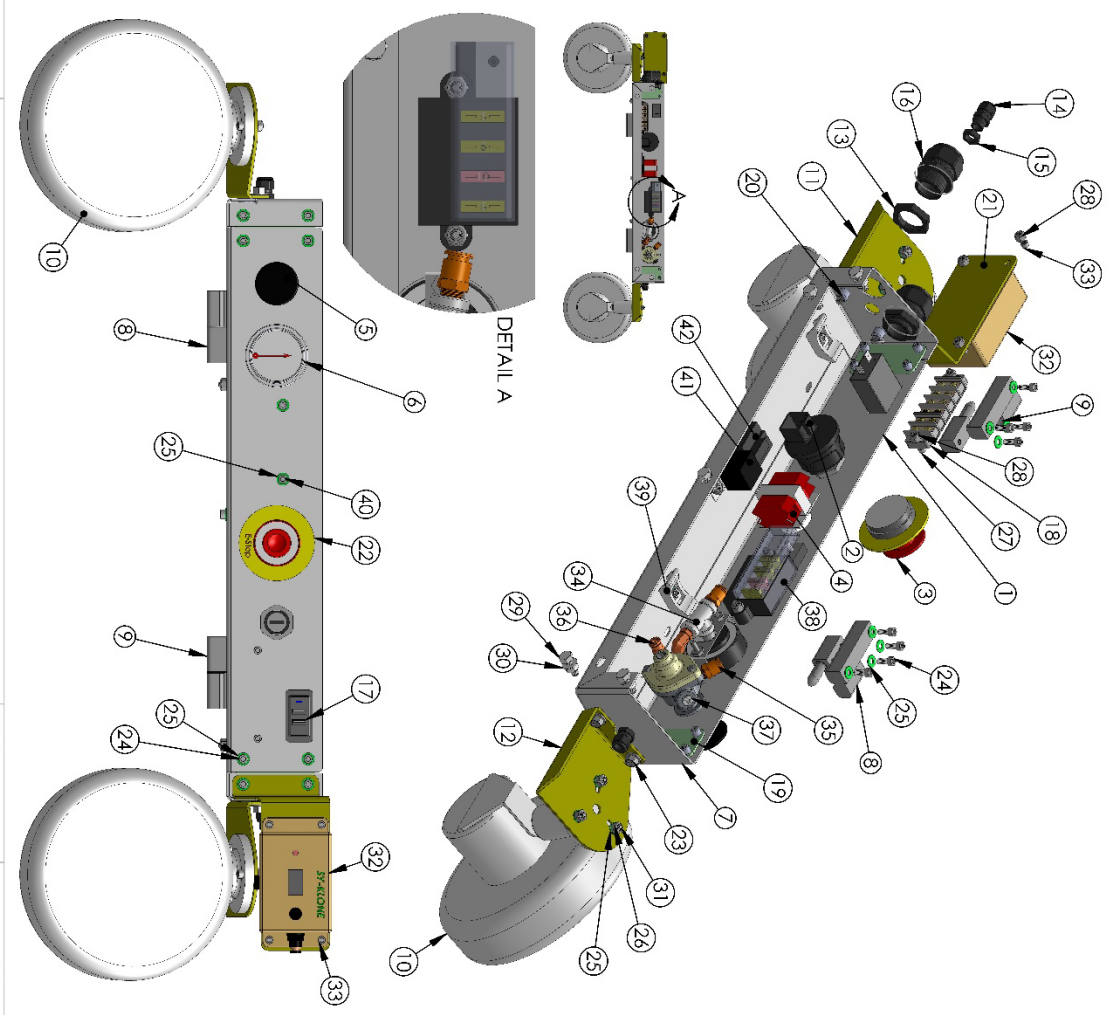
# Cab Upper Instrument Panel, Serial Number 4240039 and Up

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.803.01.01	Upper Cab Dash Panel, Sealed Switch	1
2	18-801 30-36-5	Key Switch, Standard On-Off for T-644, Sealed	1
3	80575-111-30MM	E-Stop Mushroom Head & Base 30MM	1
4	80575-112-NC-30MM	Contact Block Normally Closed - 30 MM	1
5	80600	Valve Pb. w/ Knob Nut Pin	1
6	80607	Gauge Air	1
7	60.803.02.01	Cab Upper Dash Hinge Bracket, Sealed	1
8	66803	Hinge, Right Side Door Mount 2.5" X 1.25"	1
9	66803L	Hinges, Left Side Door Mount 2.5" X 1.25"	1
10	66133	Cab Fan	2
11	60.803.04.L	Cab Upper Dash Fan Plate, Left	1
12	60.803.04.R	Cab Upper Dash Fan Plate, Right	1
13	EWSRLN4	Lock Nut 3/4" for Dome Nut	2
14	EWSRDN14-1126	Dome Nut 1/4" NPT - ID 1.1-.26	2
15	EWSRLN14	Lock Nut 1/4" for Dome Nut	2
16	EWSRDN14-5171	Dome Nut 3/4" NPT - ID .51-.71	2
17	66130-23	Dual USB Power Charger, 2 Port 2.4A-2.4A, 5V	1
18	80575-109-06	Terminal Strip 6 Lug 20A # 6-32	1
19	60.803.03	Cab Upper Dash Backtop Assembly	2
20	m-0.25-20-pl-0.027-0.165	Rivet Nut 1/4" (Plated) 0.027-0.165 Thickness	4
21	60.803.05	Cab Upper Dash Filter Monitor Bracket	1
22	80183	Label E-Stop Ring	1
23	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Seriated Flange Ball	4
24	SSCS-SH-10-24X-.50	Cap Screw-Stainless-Socket Head - #10-24 X 1/2"	19
25	WFSS-10	Washer Flat - Stainless - #10 (218 X .437)	27
26	SSNSL-10-24	Nut Self Lock - Stainless : 10-24 X 3/4"	11
27	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head - #8-32 X 3/4"	2
28	SSNSL-8-32	Nut Self Lock - Stainless : 8-32 X 3/4"	6
29	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	5
30	NF-0.25-20	Nut Flanged Lock : 1/4-20	5
31	SSCS-SH-10-24X.75	Cap Screw-Stainless-Socket Head - #10-24 X 3/4	6
32	80663	Electronic Cab Pressure Sensor Manometer	1
33	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head - #8-32 X 1/2"	4
34	GR-18T	Tee Gdly. 1/8"	1
35	DOT-MC-0.25X0.125	DOT Male Connector PR69C 1/4 X 1/8	2
36	DOT-MEL90-0.25X0.125	DOT Male Elbow 90 Deg PR69C 1/4 X 1/8	2
37	HA-2222-25	Adapter Hydraulic: 2222-25	1
38	1861150-51	Fuse Block, 4 Position w-Cover	1
39	18-66500-07	Fosterer Mount Cable Tie Holder	2
40	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head - #10-24 X 1"	2
41	80130-12	NTE Electronics Relay # 024H2398 70 Amp	1
42	80130-13	Typo Relay Socket VCF7-1000	1

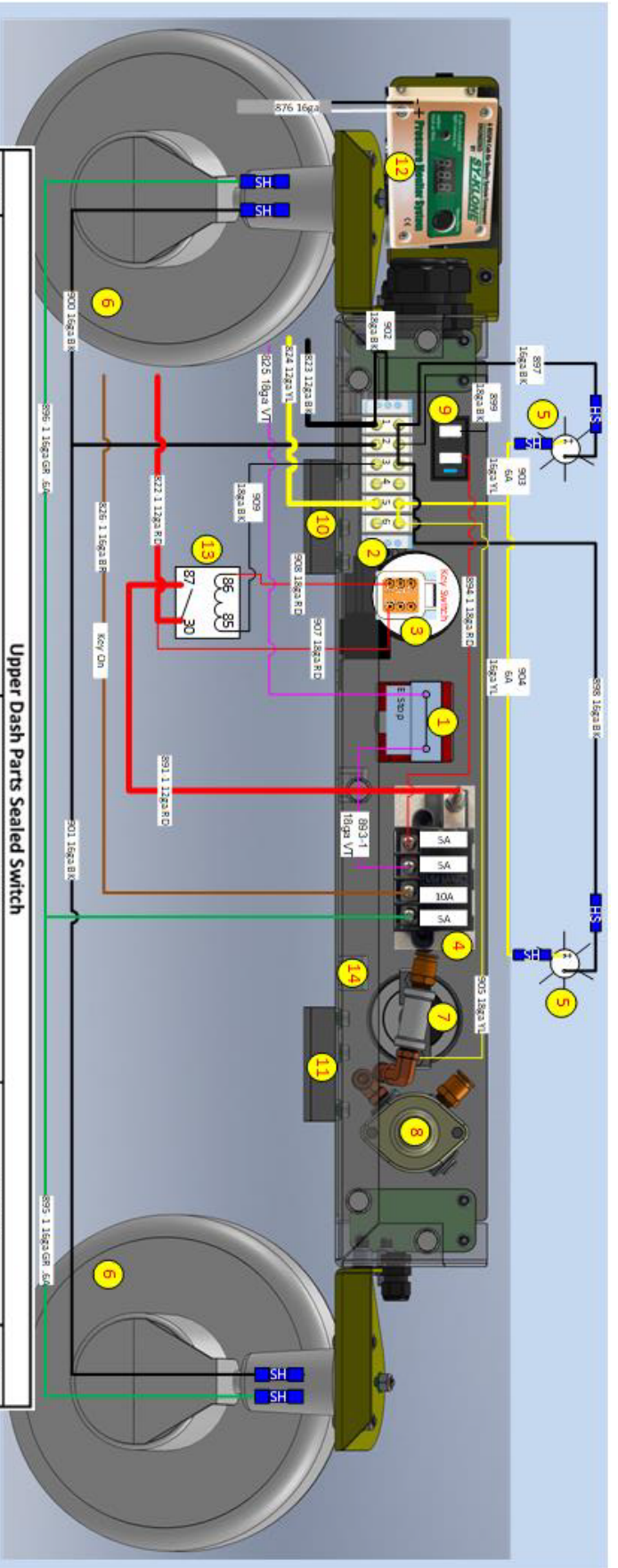


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SHOP #  
DATE 10/4/23  
DR. BY MCT D+  
TA-60803-0035



# Cab Upper Instrument Panel Electrical, Serial Number 4240039 and Up



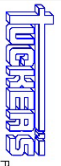
Key	Description	Mfg #	Tucker #	Qty
1	E-Stop Mushroom Head & Base 30Mm	Grainger - 2EN49	TB80575-111-30MM	1
2	Contact Block Normally Closed - 30 Mm	Grainger - 5B535	TB80575-112-NC-30MM	1
3	Terminal Strip 6 Lug 20A H6-32	Waytek - 47306	TB80575-109-06	1
4	Terminal Strip Jumper 20A	Waytek - 37212	TB80575-109-JUMPER	3
5	Key Switch, Standard On/Off for T-644, Sealed	Waytek - 44320	TB80130-36-5	1
6	4 Circuit Fuse Block, Blue Sea 5045	Waytek - 78140	TB66150-51	1
7	Fuse LED ATC 5 Amp-Tan	Waytek - 46281	TB80652-8	3
8	Fuse LED ATC 10 Amp-Red	Waytek - 46283	TB80652-9	1
9	Work Light, LED 7" 72 Watt	Wholesale - TUKOHREE	TB66130-40-72W	2
10	Cab Fan	Wholesale - TPDF12V	TB66133	2
11	Gauge Air (225635)	Wholesale - SW82329	TB80607	1
12	Valve Park Brake, W/knob Nut Pin	Wholesale - TU275176	TB80600	1
13	Dual USB Power Charger, 2 Port 2.4A-2.4A, 5V	Waytek - 11019	TB66130-23	1
14	Hinge, Left Side Door Mount, 2.5" x 1.25"	McMaster - 11955A77	TB66803L	1
15	Hinge, Right Side Door Mount, 2.5" x 1.25"	McMaster - 11955A76	TB66803R	1
16	Electronic Cab Pressure Sensor Manometer	Visionaire - 616-KT EKI-ENG	TB80663	1
17	NTE Electronics Relay # 02H7398 70 Amp	Newark - 02H7398	TB80130-12	1
18	Relay Socket VCF7-1000	Newark - 17M3159	TB80130-13	1
19	Fastener-Mount Cable Tie Holder	McMaster - 7582K82	TB66500-07	2

TA-60090-00-1 - Upper Inst Panel 3/7/2024 1:40 PM M:\WP\T-644\Schematics\Upper Instrument Panel\can bus

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# Cab Electrical Panel Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60090-01	Electrical Junction Box	1
2	TM60090-02	Electrical Junction Box Lid	1
3	TB60090-04	Electrical Junction Box Gasket	1
4	NR-0-25-20-PL.0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	8
5	TB80655	Rubber Dampening Sandwich M/F 1/4-20	4
6	TB66145-01	Fuse Assembly Base w-Cover	1
7	TB66145-02	Relcy Assembly Base w-Cover	1
8	TA-60090-05K	Electrical Junction Box Sub Plate, Cap Kit	1
9	TB80130-74	Deutsch DT04-3P-1012 Female Bulkhead Receptl	2
10	TB80142	Can Data Link Module (6 Total Connectors)	1
11	TM60090-03-2	Electrical Junction Box Gasket Plate, Cab	1
12	NR-8-32-PL.0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
13	TB60090-09	Electrical Junction Box Top Gasket	2
14	NR-10-24-PL.0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	2
15	CS-HHS-10-32X0.625	Screw Cap Hex: 10-32 X 5/8 Serrated Flange Bolt	8
16	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head-#8-32 X 1/2"	10
17	WFSS-8	Washer Flat - Stainless - #8 (.174 x .375)	8
18	SSNSL-8-32	Nut Self Lock - Stainless : 8-32	8
19	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
20	WFSS-10	Washer Flat - Stainless - #10 (.218 X .437)	2
21	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	2
22	CS-HHS-0-25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	8
23	WF-0-25	Washer Flat 1/4	4
24	CS-HH-0-25-20X1	Screw Cap Hex: 1/4-20 X 1	4
25	TB66150-51	Fuse Block, 4 Position w-Cover	1

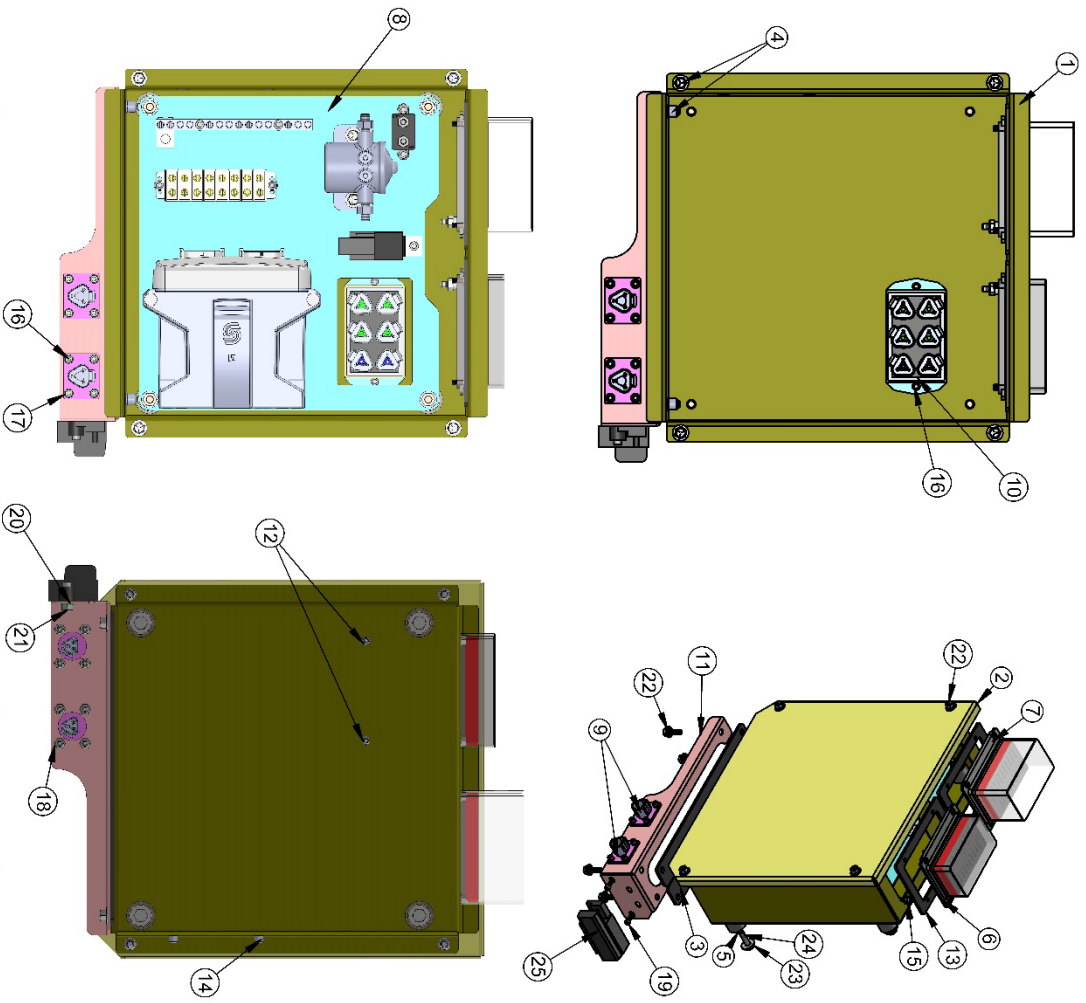


MACHINE & STEEL  
SERVICE, INC.  
P.O. BOX 492810  
LEESBURG, FLA. 34749-2810

TSolidworksPartT-644150.090 Electrical Boxes150.090.00  
T-644

## Electrical Junction Box Assembly Cab

SHOP #  
DATE 9/12017  
DR BY MCT  
TA-60,090,00-1

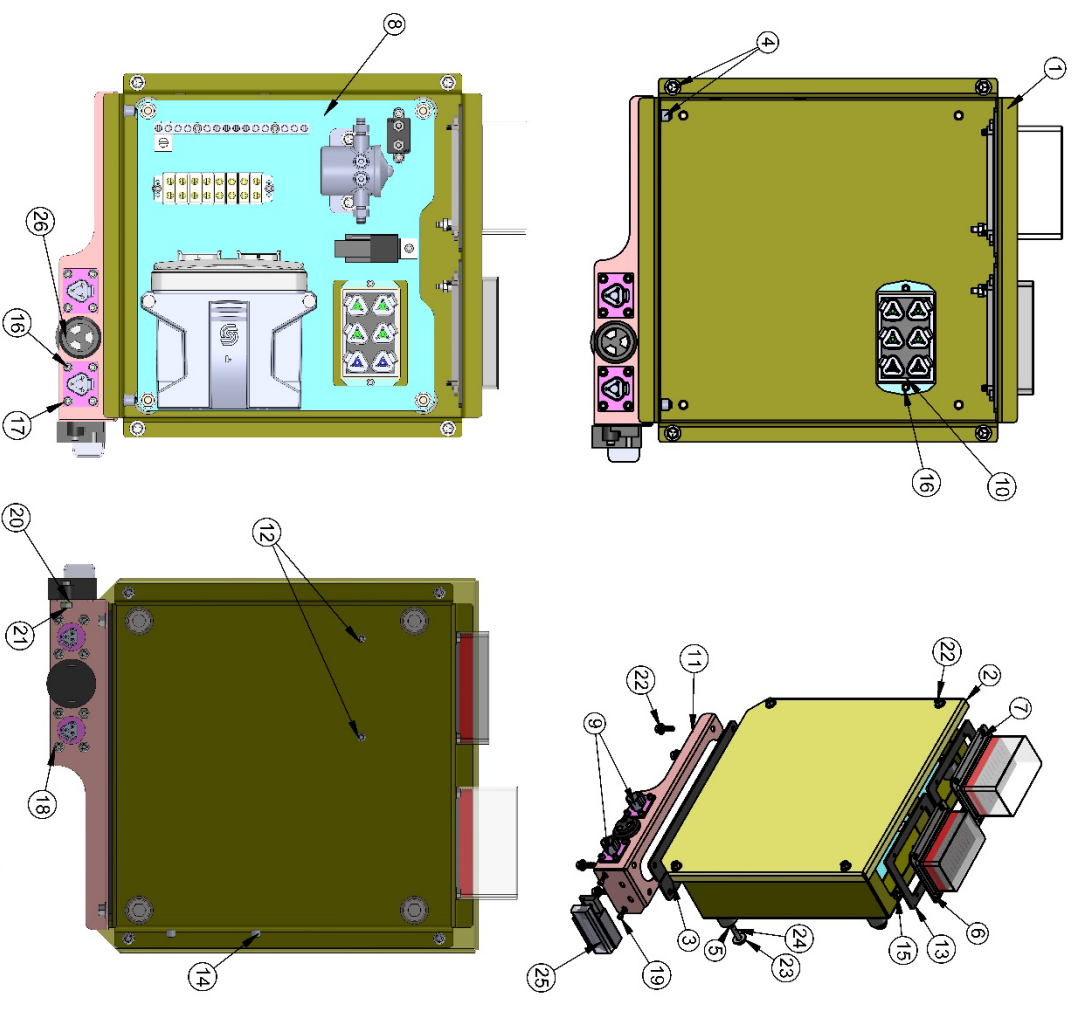


# Cab Electrical Panel Assembly, Serial Number 4240039 and Up

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60090-01	Electrical Junction Box	1
2	TM60090-02	Electrical Junction Box Lid	1
3	TB40090-04	Electrical Junction Box Gasket	1
4	NR-0-25-20-PL,0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	8
5	TB80655	Rubber Dampening Sandwich M/F 1/4-20	4
6	TB66145-01	Fuse Assembly Base w-Cover	1
7	TB66145-02	Relay Assembly Base w-Cover	1
8	TA-60090-05K	Electrical Junction Box Sub Plate, Cab Kit	1
9	TB80130-74	Deutsch DT04-3P-L012 Female Bulkhead Recept	2
10	TB80142	Can Dctca Link Module (6 Total Connectors)	1
11	TM60090-03-2	Electrical Junction Box Gasket Plate, Cab	1
12	NR-8-32-PL,0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
13	TB60090-09	Electrical Junction Box Top Gasket	2
14	NR-10-24-PL,0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	2
15	CS-HHS-10-32X0.625	Screw Cap Hex: 10-32 X 5/8 Serrated Flange Bolt	8
16	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head- #8-32 X 1/2"	10
17	WFSS-8	Washer Flat -Stiplless - #8 (1.74 x .575)	8
18	SSNSL-8-32	Nut Self Lock - Stainless - #8-32	8
19	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head- #8-32 X 3/4"	2
20	WFSS-10	Washer Flat - Stainless - #10 (.218 X .437)	2
21	SSNSL-10-24	Nut Self Lock - Stainless : 10-24	2
22	CS-HHS-0-25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	8
23	WF-0-25	Washer Flat 1/4	4
24	CS-HH-0-25-20X1	Screw Cap Hex: 1/4-20 X 1	4
25	TB66150-51	Fuse Block, 4 Position w-Cover	1
26	TB80125-2-4	Preview Buzzer	1

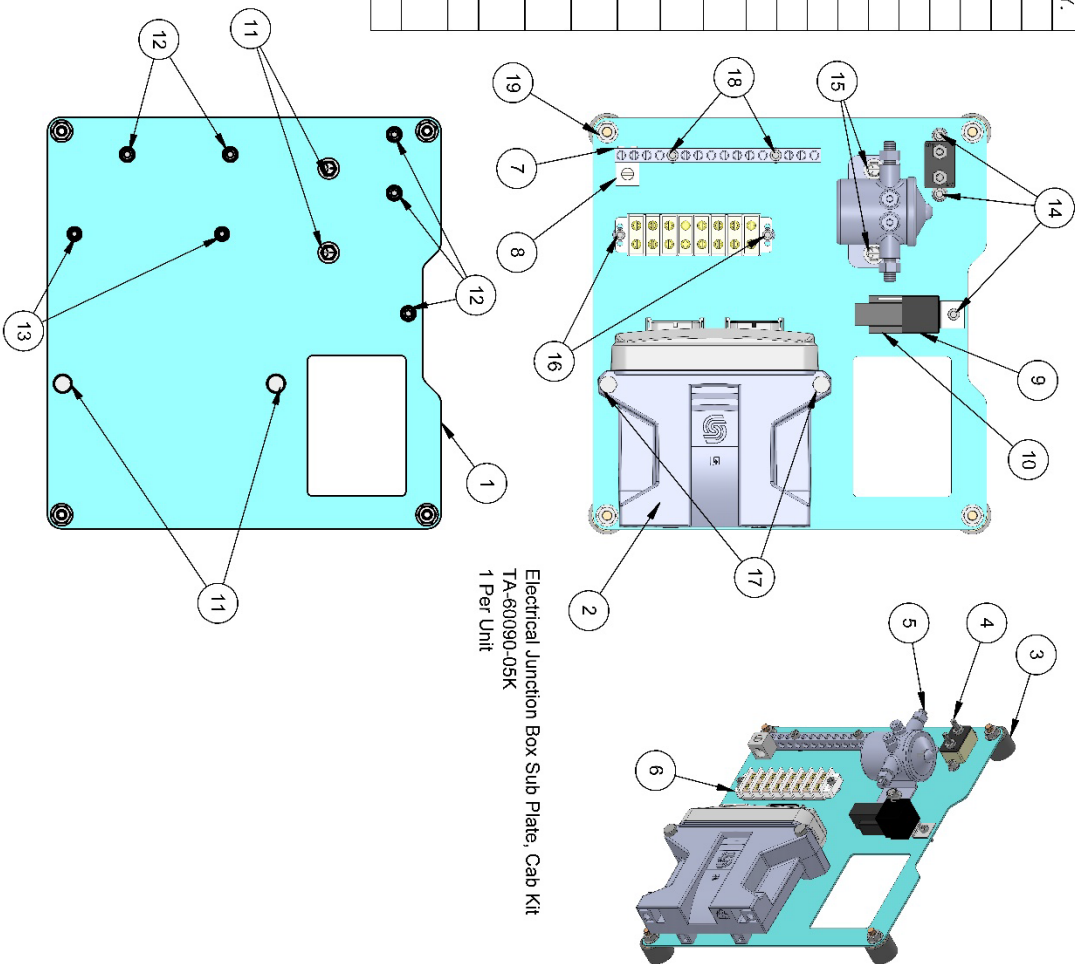
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 P.O. BOX 492810 LEESBURG, FLA. 34749-2810 T-644

SHOP # DATE 9/12017 DR. BY MCT C+  
 Electrical Junction Box Assembly Cab TA-60.090.00-1



# Cab Electrical Panel Subplate

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60090-05	Electrical Junction Box Sub Plate, Cab	1
2	TB6130-10	MC024-010 Controller	1
3	TB80655	Rubber Dampening Sandwich M/F 1/4-20	4
4	E6530	Circuit Breaker 6530 H.d.	1
5	TB80587-1	Relay Solenoid	1
6	TB80575-109-08	Terminal Strip 8 Lug 20A #6-32	1
7	TB80130-45	Ground Bar	1
8	TB80130-45-01	Ground Bar Collar Strap	1
9	TB80130-12	NTE Electronics Relay # 02H7398 70 Amp	1
10	TB80130-13	Tyco Relay Socket VCF7-1000	1
11	NR-0-25-20-PL,0.027-0,165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	4
12	NR-10-24-PL,0.020-0,130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	5
13	NR-8-32-PL,0.020-0,080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
14	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head-#10-24 X 1/2"	3
15	CS-HHS-0-25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	2
16	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
17	CS-HH-0-25-20X2.5	Screw Cap Hex: 1/4-20 X 2 1/2"	2
18	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head-#10-24 X 1"	2
19	NFS-0-25-20	Nut Serrated Flanged Lock : 1/4-20	4



MACHINE & STEEL  
SERVICE, INC.  
P.O. BOX 492310 LEEBURG, FLA. 34749-2310

11/SoldworksPartV-64460.090 Electrical Boxes/60.090.00  
T-644

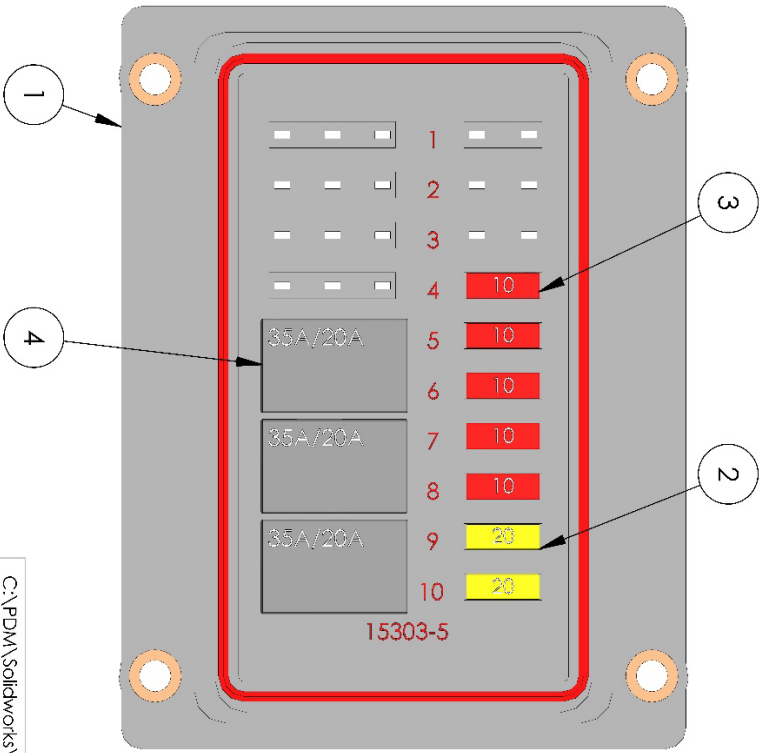
Electrical Junction Box Sub Plate, Cab Kit

SHOP #  
DATE 9/1/2017

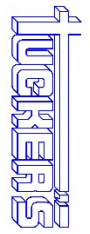
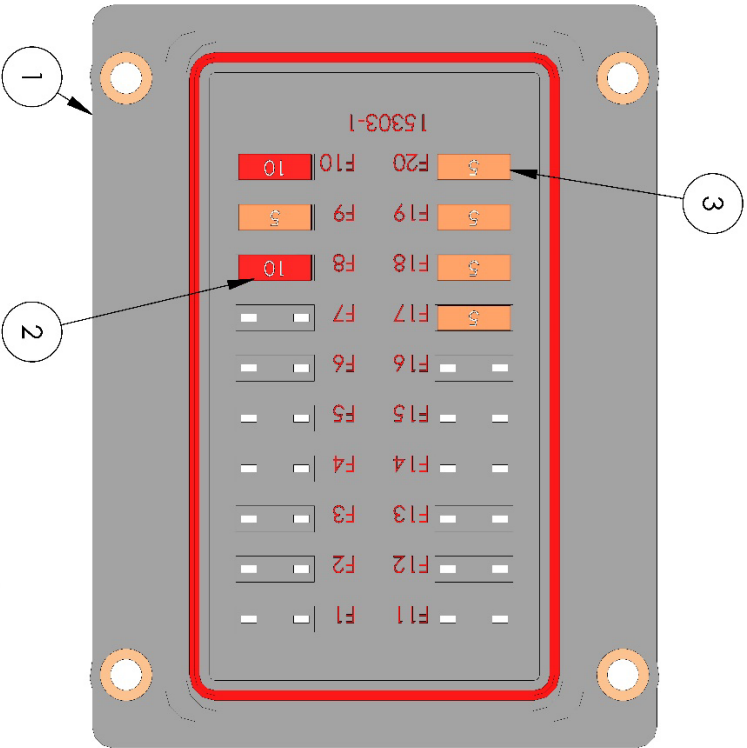
DR. BY MCT  
TA-60,090,05K

# Cab Panel Fuses-Relays

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66145-02	Mini Fuse Panel, 3 Relays, 10 Fuses 15303-5	1
2	TB66145-20A	Fuse, 20A Led Mini ATM Yellow 12V	2
3	TB66145-10A	Fuse, 10A Led Mini ATM Red 12V	5
4	TB66145-04	Micro Relay, ISO 280 SPDT 35A, 12V	3



ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66145-01	Mini Fuse Panel, 20 Position Bussman 15303-1	1
2	TB66145-10A	Fuse, 10A Led Mini ATM Red 12V	2
3	TB66145-5A	Fuse, 5A Led Mini ATM Tan 12V	5

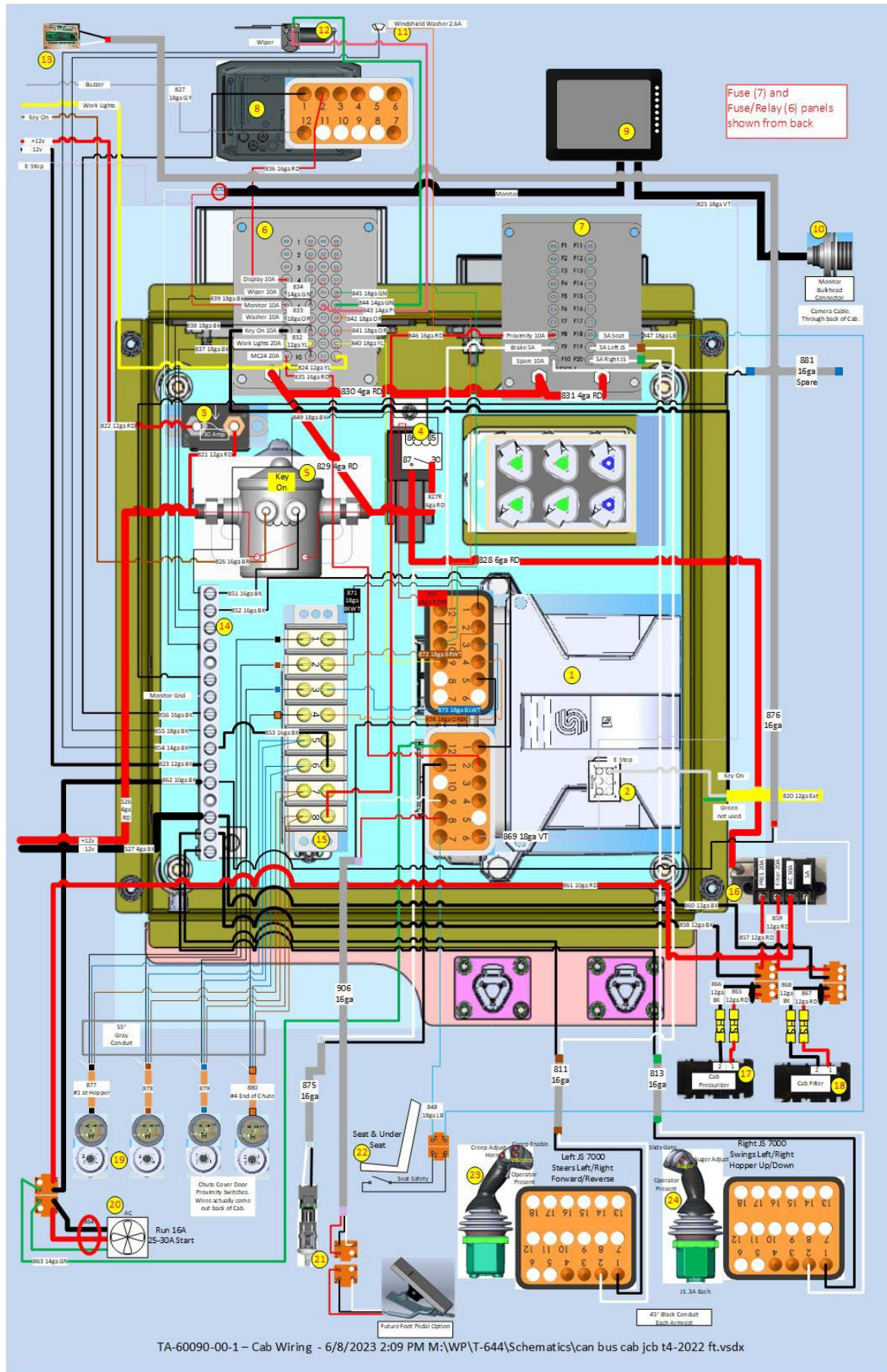


**MACHINE & STEEL**  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

## Fuses-Relays for Cab

C:\PDM\Solidworks\Part\T-644\60,090 Electrical Boxes\Fuse-relay modules	DR. BY	MCT
T-644	DATE	9/14/2020
	SHOP #	

# Cab Electrical Schematic

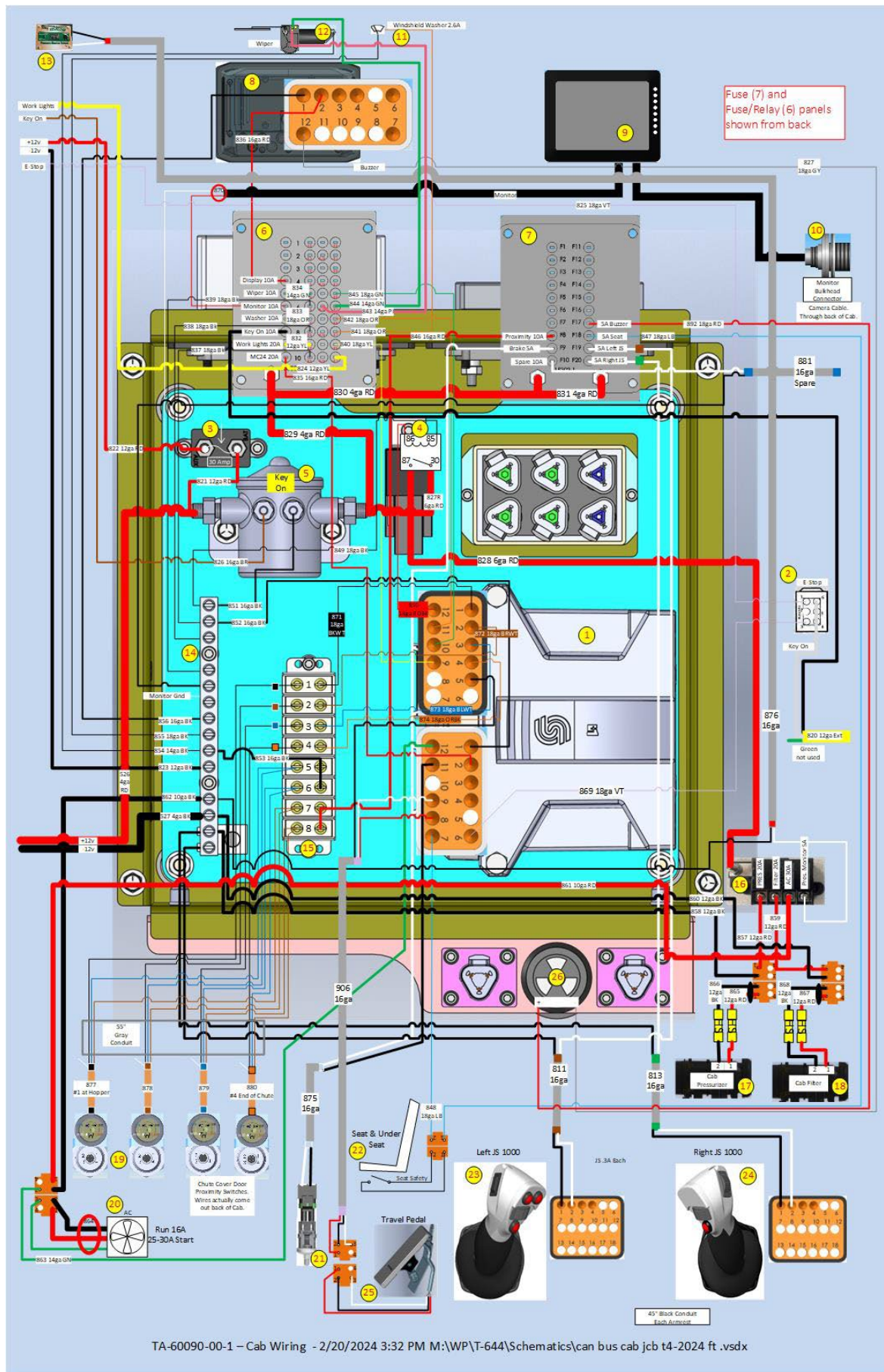


TA-60090-00-1 – Cab Wiring - 6/8/2023 2:09 PM M:\WP\T-644\Schematics\can bus cab jcb t4-2022 ft.vsd

## Cab Electrical BOM

Cab Box Parts				
Key	Description	Mfg #	Tucker #	Qty
1	MC024-010 Controller w/prog loaded	Berendsen - 11138528	TB66130-10	1
	Deutsch DTM06-12SA Male Plug	Deutsch - DTM06-12SA	TB80130-60-A	1
	Deutsch DTM06-12SB Male Plug	Deutsch - DTM06-12SB	TB80130-60-B	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	8
2	Deutsch DT04-6P-P021 1-6 Pin Buss Receptacle	Deutsch - DT04-6P-P021	TB80130-113	1
3	Circuit Breaker 6530 H.d.	Wholesale - HE3005530	E6530	1
4	NTE Electronics Relay # 02H7398 70 Amp	Newark - 02H7398	TB80130-12	1
	Relay Socket VCF7-1000	Newark - 17M3159	TB80130-13	1
5	Solenoid/Relay, 200 Amp Continous, JCB	Wholesale - HE24213	TB80587-1	1
6	Mini Fuse Panel, 5 Relays, 10 Fuses 15303-5	Waytek - 46345	TB66145-02	1
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	5
	Fuse, 20A Led Mini ATM Yellow 12V	Waytek - 46265	TB66145-20A	2
	Micro Relay, ISO 280 SPDT 35A, 12V	Waytek - 75659	TB66145-04	3
7	Mini Fuse Panel, 20 Position Bussman 15303-1	Waytek - 46077	TB66145-01	1
	Fuse, 5A Led Mini ATM Tan 12V	Waytek - 46261	TB66145-5A	4
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	2
8	DP720 Display w/prog loaded	Berendsen - 11151915	TB66130-12-720	1
	Deutsch DTM06-12SA Male Plug	Deutsch - DTM06-12SA	TB80130-60-A	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	5
9	Monitor 12" RLED Serial R6 Display Orlaco 0411130	Berendsen - 411130	TB66130-02-MON-12	1
	Cable, Camera 17M 7P Dynamic 46 Ft Orlaco 0304590	Berendsen - 304590	TB66130-03-17M	1
10	Bulkhead Connector 7P, Orlaco 0357051	Berendsen - 0357051	TB66130-03-BC	1
11	Windshield Washer Tank 3	Wholesale - TU14140	TB60813-30	1
	Windshield Washer Nozzle	Wholesale - TU14153	TB60813-31	1
12	Motor Wiper - Transporter	Wholesale - TU4R2.12.R110D	TB81995-06	1
	Arm Wiper, Stainless	Wholesale - AN4402	TB81995-02	1
	Blade Wiper Heavy Duty Stainless Steel	Wholesale - AN5120	TB81995-07	1
13	Electronic Cab Pressure Sensor Manometer	Visionaire - 616-KT EK1-ENG	TB80663	1
14	Ground Bar Kit 14 Position	Besco - ECGB14	TB80130-45	1
	Ground Bar Collar Strap	Besco - ECCS1	TB80130-45-01	1
15	Terminal Strip 8 Lug 20A #6-32	Waytek - 47308	TB80575-109-08	1
	Terminal Strip Jumper 20A	Waytek - 37212	TB80575-109-JUMPER	2
16	Mini Fuse Block, 4 Position	Waytek - 78140	TB66150-51	1
	Fuse LED ATC 5 Amp-Tan	Waytek - 46281	TB80652-8	1
	Fuse LED ATC 20 Amp-Yellow	Waytek - 46285	TB80652-10	2
	Fuse LED ATC 30 Amp-Green	Waytek - 46287	TB80652-11	1
17	Vortex Hyper Flow Cab Pressurizing Filter System	Visionaire - 616-RCF2001	TB80661	1
	Respa CF Replacement Filter	Visionaire - 616-FFFF008	TB80661-01	1
18	Sy-Klone RESPA-CFX 12v Recirculation Merv 16+ Filt	Visionaire - 616-REV0002	TB80662	1
	Respa CFX Replacement Filter	Visionaire - 616-FFFF011	TB80662-01	1
19	Sensor, N/O PNP Turck Proximity	Turck - Bi15-EM30-AP45XLD-H1141	TB66130-08-TU	4
20	Tucker 7110DD A/C & Heat, 12v w/RESPA System	Visionaire - 550-02-00-00	TB80660-T644	1
21	Switch N/O - 500 Series w-MetriPack	Wholesale - TU77030-00000050-01	TB80604-1	1
22	Seat HFC100, Vinyl, Mech Susp, Consoles	JR Merrit - 07.964	TB80590-4	1
	Switch Kit, Operator Present, OPS	JR Merrit - 70.268	TB80590-5	1
	Seat Belt, Lap, Statci 2 w/Hardware	JR Merrit - 12.020	TB80590-6	1
	Pouch, Document, Actimo 142259	JR Merrit - 07.938	TB80590-7	1
23	JS1H,Dual Axis,3 Button,1Roller,Trigger, Left	Berendsen - 83046229	TB66130-80-CL	1
	Deutsch DT16-18SB-K004 Male Plug	Deutsch - DT16-18SB-K004	TB80130-112-B	1
	Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	14
24	JS1H,Dual Axis,1 Button,3 Roller,Trigger, Right	Berendsen - 83040196	TB66130-80-CR	1
	Deutsch DT16-18SB-K004 Male Plug	Deutsch - DT16-18SB-K004	TB80130-112-B	1
	Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	14

# Cab Electrical Schematic, Serial Number 4240039 and Up

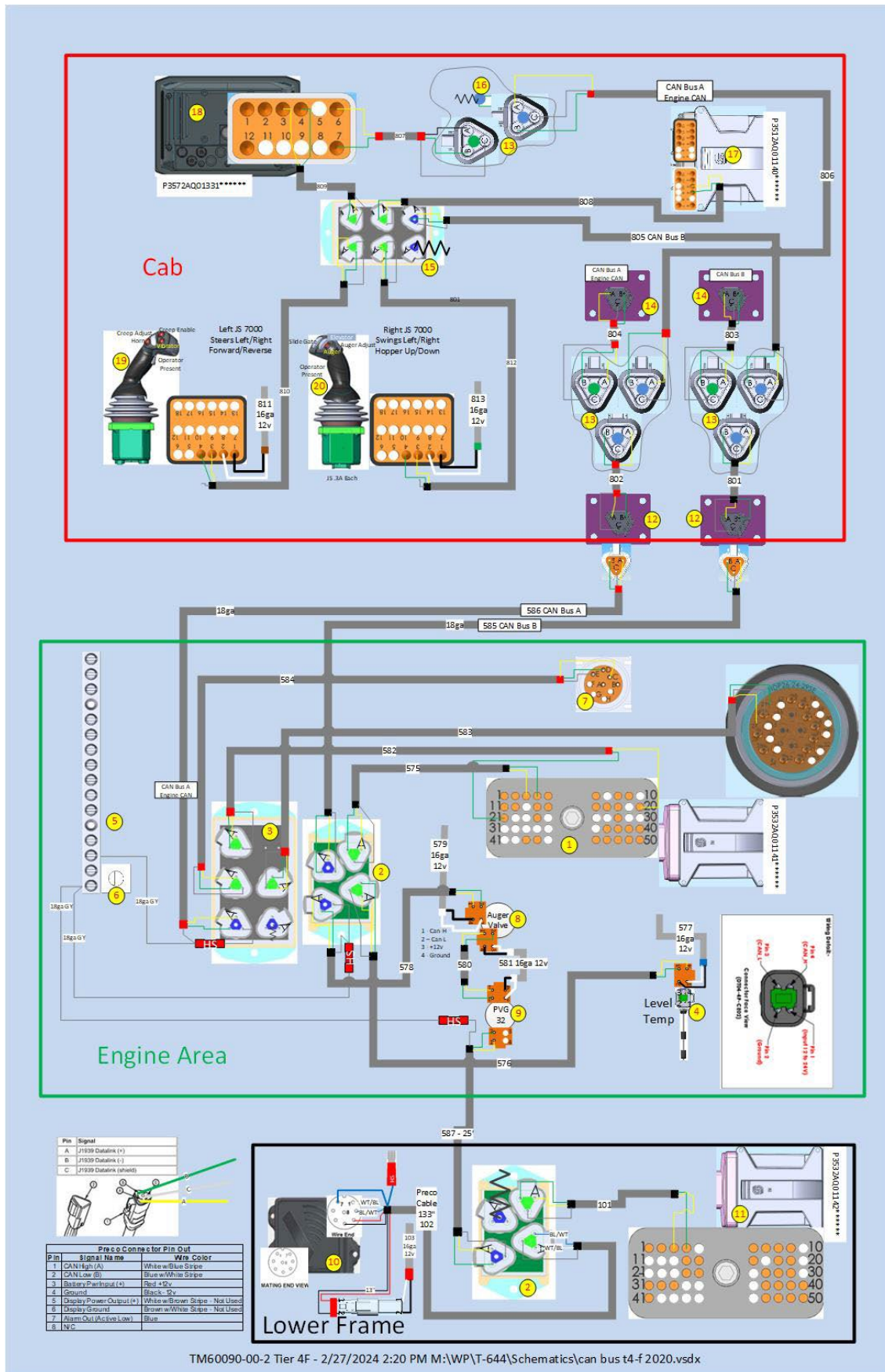


*Cab Electrical BOM, Serial Number 4240039 and Up*

Cab Box Parts				
Key	Description	Mfg #	Tucker #	Qty
1	MC024-010 Controller w/prog loaded	Berendsen - 11138528	TB66130-10	1
	Deutsch DTM06-12SA Male Plug	Deutsch - DTM06-12SA	TB80130-60-A	1
	Deutsch DTM06-12SB Male Plug	Deutsch - DTM06-12SB	TB80130-60-B	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	8
2	Deutsch DT04-6P-P021 1-6 Pin Buss Receptacle	Deutsch - DT04-6P-P021	TB80130-113	1
3	Circuit Breaker 6530 H.d.	Wholesale - HE3005530	E6530	1
4	NTE Electronics Relay # 02H7398 70 Amp	Newark - 02H7398	TB80130-12	1
	Relay Socket VCF7-1000	Newark - 17M3159	TB80130-13	1
5	Solenoid/Relay, 200 Amp Continuous, JCB	Wholesale - HE24213	TB80587-1	1
6	Mini Fuse Panel, 5 Relays, 10 Fuses 15303-5	Waytek - 46345	TB66145-02	1
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	5
	Fuse, 20A Led Mini ATM Yellow 12V	Waytek - 46265	TB66145-20A	2
	Micro Relay, ISO 280 SPDT 35A, 12V	Waytek - 75659	TB66145-04	3
7	Mini Fuse Panel, 20 Position Bussman 15303-1	Waytek - 46077	TB66145-01	1
	Fuse, 5A Led Mini ATM Tan 12V	Waytek - 46261	TB66145-5A	4
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	2
8	DP720 Display w/prog loaded	Berendsen - 11151915	TB66130-12-720	1
	Deutsch DTM06-12SA Male Plug	Deutsch - DTM06-12SA	TB80130-60-A	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	5
9	Monitor 12" RLED Serial R6 Display Orlaco 0411130	Berendsen - 411130	TB66130-02-MON-12	1
	Cable, Camera 17M 7P Dynamic 46 Ft Orlaco 0304590	Berendsen - 304590	TB66130-03-17M	1
10	Bulkhead Connector 7P, Orlaco 0357051	Berendsen - 0357051	TB66130-03-BC	1
11	Windshield Washer Tank 3	Wholesale - TU14140	TB60813-30	1
	Windshield Washer Nozzle	Wholesale - TU14153	TB60813-31	1
12	Motor Wiper - Transporter	Wholesale - TU4R2.12.R110D	TB81995-06	1
	Arm Wiper, Stainless	Wholesale - AN4402	TB81995-02	1
	Blade Wiper Heavy Duty Stainless Steel	Wholesale - AN5120	TB81995-07	1
13	Electronic Cab Pressure Sensor Manometer	Visionaire - 616-KT EK1-ENG	TB80663	1
14	Ground Bar Kit 14 Position	Besco - ECGB14	TB80130-45	1
	Ground Bar Collar Strap	Besco - ECCS1	TB80130-45-01	1
15	Terminal Strip 8 Lug 20A #6-32	Waytek - 47308	TB80575-109-08	1
	Terminal Strip Jumper 20A	Waytek - 37212	TB80575-109-JUMPER	2
16	Mini Fuse Block, 4 Position	Waytek - 45605	TB66146	1
	Fuse LED ATC 5 Amp-Tan	Waytek - 46281	TB80652-8	1
	Fuse LED ATC 20 Amp-Yellow	Waytek - 46285	TB80652-10	2
	Fuse LED ATC 30 Amp-Green	Waytek - 46287	TB80652-11	1
17	Vortex Hyper Flow Cab Pressurizing Filter System	Visionaire - 616-RCF2001	TB80661	1
	Respa CF Replacement Filter	Visionaire - 616-FEFF008	TB80661-01	1
18	Sy-Klone RESPA-CFX 12v Recirculation Merv 16+ Filt	Visionaire - 616-REV0002	TB80662	1
	Respa CFX Replacement Filter	Visionaire - 616-FEFF011	TB80662-01	1
19	Sensor, N/O PNP Turck Proximity	Turck - Bi15-EM30-AP45XLD-H1141	TB66130-08-TU	4
20	Tucker 7110DD A/C & Heat, 12v w/RESPA System	Visionaire - 550-02-00-00	TB80660-T644	1
21	Switch N/O - 500 Series w-MetriPack	Wholesale - TU77030-00000050-01	TB80604-1	1
22	Seat HFC100, Vinyl, Mech Susp, Consoles	JR Merrit - 07.964	TB80590-4	1
	Switch Kit, Operator Present, OPS	JR Merrit - 70.268	TB80590-5	1
	Seat Belt, Lap, Statci 2 w/Hardware	JR Merrit - 12.020	TB80590-6	1
	Pouch, Document, Actimo 142259	JR Merrit - 07.938	TB80590-7	1
23	JS1H, Single Axis, Left, Friction Hold	Berendsen - 83118366	TB66130-80-FH	1
	Deutsch DT16-18SB-K004 Male Plug	Deutsch - DT16-18SB-K004	TB80130-112-B	1
	Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	14
24	JS1H, Dual Axis, 1 Button, 3 Roller, Trigger, Right	Berendsen - 83106504	TB66130-80-CR	1
	Deutsch DT16-18SB-K004 Male Plug	Deutsch - DT16-18SB-K004	TB80130-112-B	1
	Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	14
25	Throttle Pedal T-644, 28 Degree	Berendsen - KEPA14181	TB66130-90	1
	Deutsch DT04-4P Female Receptacle	Deutsch - DT04-4P	TB80130-83	1
	Deutsch W4P Wedge for Receptacle	Deutsch - W4P	TB80130-84	1
	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	3
	Plug, Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
26	Preview Buzzer	Preco - FPV410B	TB80125-2-4	1

# CAN Bus

## CAN Bus Schematic



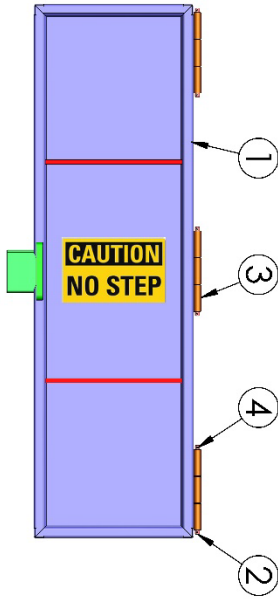
## CAN Bus BOM

CAN Bus Parts 2020				
Key	Description	Mfg #	Tucker #	Qty
1	MC050-010 Controller w/prog loaded-Eng Area	Berendsen - 11138530	TB66130-11-EA	1
	Deutsch DRC26-50S01 Male Plug	Deutsch - DRC26-50S01	TB80130-93	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	20
2	Can Data Link Module (4 Total Connectors)	Waytek - 80604	TB80140	2
	Deutsch DT06-3S-PP01 Male Plug Black 120 Ohm	Deutsch - DT06-3S-PP01	TB80130-77	1
3	Can Data Link Module (5 Total Connectors)	Waytek - 80610	TB80141	1
	Deutsch DT06-3S-PP01 Male Plug Black 120 Ohm	Deutsch - DT06-3S-PP01	TB80130-77	1
4	Rota Tank Level/Temp Sensor	Rota - TL5207	TB66213-ROTA-TLT	1
5	Ground Bar Kit 14 Position	Besco - ECGB14	TB80130-45	1
6	Ground Bar Collar Strap	Besco - ECCS1	TB80130-45-01	1
7	Deutsch HD10-9-1939 Flanged Receptacle	Deutsch - HD10-9-1939P	TB80575-129-1	1
	Deutsch HD10-9-GKT Gasket for Flanged Receptacle	Deutsch - HD10-9-GKT	TB80575-129-2	1
	Deutsch HDC16-9-L47N Cover for Flanged Receptacle	Deutsch - HDC16-9-L47N	TB80575-129-3	1
8	PVG100, 1 sec, 65, Motor, w/LX, Auger Valve	Berendsen - 161F5083	TB66130-13	1
9	PVG32, 6 sec, No LX	Berendsen - 159B2797	TB66130-14	1
10	Preview Back Up Sensor Can-Bus Sentry ST82062.4	Preco - ST82062.4	TB80125-2-3S	1
11	MC050-010 Controller w/prog loaded-Lower Frame	Berendsen - 11138530	TB66130-11-LF	1
	Deutsch DRC26-50S01 Male Plug	Deutsch - DRC26-50S01	TB80130-93	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	23
12	Deutsch DT04-3P-L012 Female Bulkhead Recept	Deutsch - DT04-3P-L012	TB80130-74	2
	Deutsch W3P-1939 Wedge for Receptacle, Blue	Deutsch - W3P-1939	TB80130-92-1939	2
13	Deutsch DT04-3P-P007 Receptacle "Y" Connector	Deutsch - DT04-3P-P007	TB80130-76	3
14	Deutsch DT04-3P-L012 Female Bulkhead Recept	Deutsch - DT04-3P-L012	TB80130-74	2
	Deutsch W3P Wedge for Receptacle, Green	Deutsch - W3P	TB80130-92	2
15	Can Data Link Module (6 Total Connectors)	Waytek - 80602	TB80142	1
	Deutsch DT06-3S-PP01 Male Plug Black 120 Ohm	Deutsch - DT06-3S-PP01	TB80130-77	1
16	Deutsch DT06-3S-PP01 Male Plug Black 120 Ohm	Deutsch - DT06-3S-PP01	TB80130-77	1
17	MC024-010 Controller w/prog loaded	Berendsen - 11138528	TB66130-10	1
	Deutsch DTM06-12SA Male Plug	Deutsch - DTM06-12SA	TB80130-60-A	1
	Deutsch DTM06-12SB Male Plug	Deutsch - DTM06-12SB	TB80130-60-B	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	8
18	DP720 Display w/prog loaded	Berendsen - 11151915	TB66130-12-720	1
	Deutsch DTM06-12SA Male Plug	Deutsch - DTM06-12SA	TB80130-60-A	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	5
19	JS7000,Dual Axis,3 Button,1Roller,Trigger, Left	Berendsen - 83046229	TB66130-80-CL	1
	Deutsch DT16-18SB-K004 Male Plug	Deutsch - DT16-18SB-K004	TB80130-112-B	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	14
20	JS7000,Dual Axis,1 Button,3 Roller,Trigger, Right	Berendsen - 83040196	TB66130-80-CR	1
	Deutsch DT16-18SB-K004 Male Plug	Deutsch - DT16-18SB-K004	TB80130-112-B	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	14

# Chute

## Chute Cover Doors

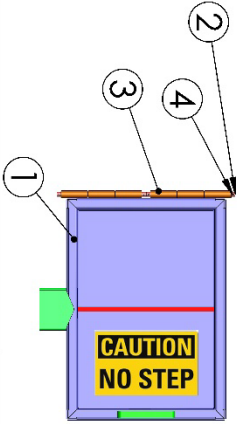
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1	60.907.10	Chute Door Assembly, Long	1
2	60.907.05	Chute Door Hinge Pin	3
3	60.907.04	Chute Door Hinge Tube	6
4	532-34TP	Pin Tension 5/32 X 3/4	6
5	80177	Vinyl Label Decal, Caution No Step 5"X7"	1



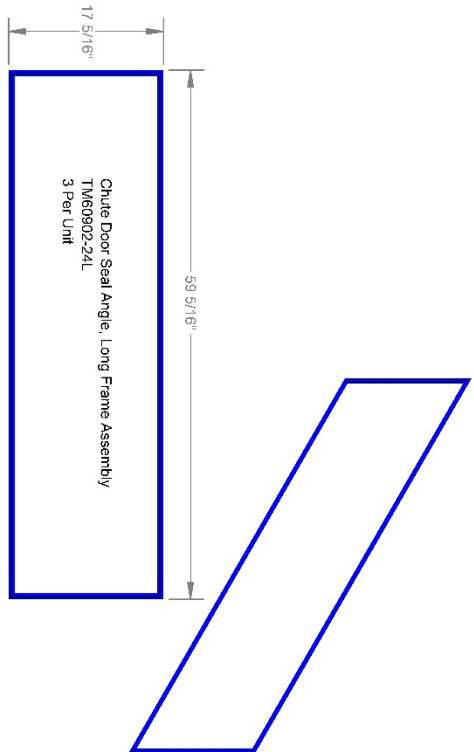
Chute Door Assembly, Long, Replacement  
TM60907-11R  
3 Per Unit

Complete Chute Door Kit  
Order: TM60907-CDK =  
3 - TM60907-11R  
1 - TM60907-10R

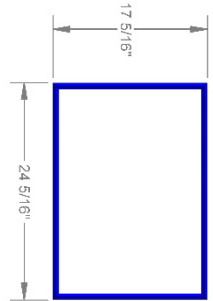
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.907.10	Chute Door Assembly, Short	1
2	60.907.05	Chute Door Hinge Pin	2
3	60.907.04	Chute Door Hinge Tube	4
4	532-34TP	Pin Tension 5/32 X 3/4	4
5	80177	Vinyl Label Decal, Caution No Step 5"X7"	1



Chute Door Assembly, Short, Replacement  
TM60907-10R  
1 Per Unit



Chute Door Seal Angle, Long Frame Assembly  
TM60902-24L  
3 Per Unit



Chute Door Seal Angle, Short Frame Assembly  
TM60902-24S  
1 Per Unit

**MACHINE & STEEL**  
SERVICE INC.  
P.O. BOX 492810 LEESSBURG, FLA. 34749-2810

1330BowlbuckleyParlV1-444V635331-eopperPartN\60907.00 Chute Door PartN\60907.00

**T-944**

**Chute Cover Door Replacements**

SIOP #  
DATE 1/30/2018

DR. BY MCT  
See Above

# Chute Replacement Kit



MACHINE & STEEL SERVICE INC.  
P.O. BOX 492810 DEERBURG, FLA. 34749-2810

T-644

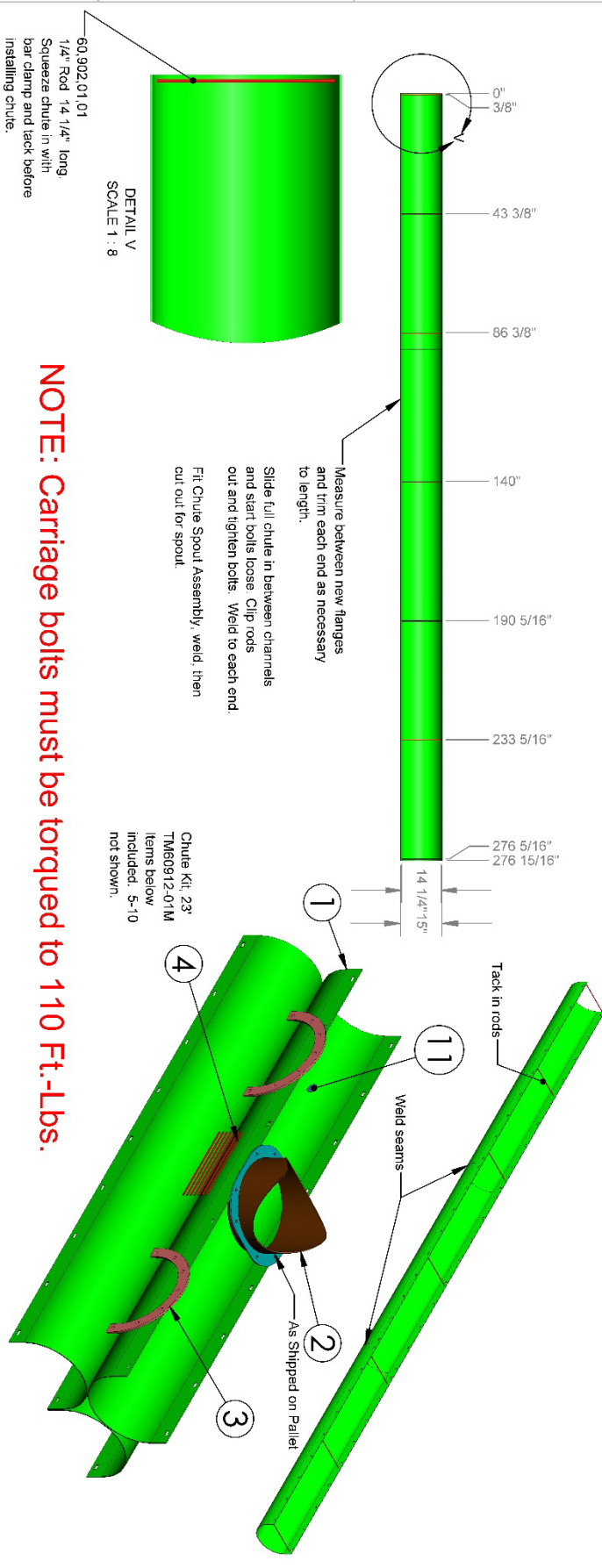
C:\PDM\Solidworks\Part\T-644160 900 Hopper Parts\60.902.00 Chute Parts\60.912.00 Chute Parts\60.912.01M

Chute Kit, 23'

SHOP #  
DATE 12/23/2025

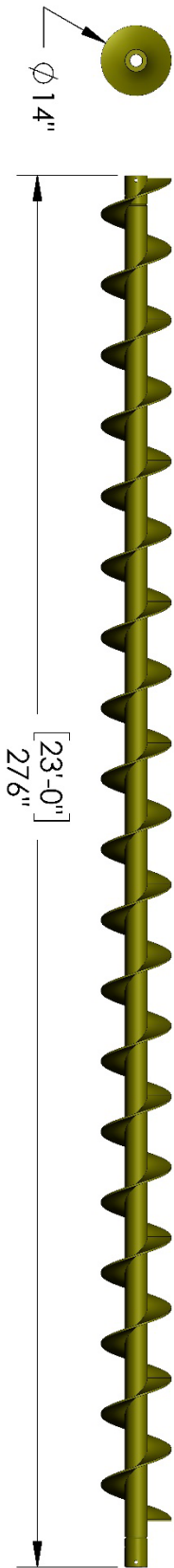
DR. BY MCT  
TM60912-01M

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.912.01	Chute Skin	3
2	60.902.22	Chute Spout Assembly	1
3	60.902.07	Chute Skin Flange	2
4	60.902.01.01	Chute Fab Rods	7
5	CB-0.5-13X1.5-GR8	Bolt Carriage 1/2-13 X 1 1/2, Grade 8	68
6	NSL-0.5-13-GR8	Nut Self Lock 1/2-13, Grade 8	72
7	WL-0.5	Washer Lock 1/2	72
8	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	4
9	TB80154	Label Auger-Danger 8701SL	3
10	TB80218	Sealant Chute Liner	1
11	60.902.38	Chute Bolt Washer	54



Auger – 23 Ft

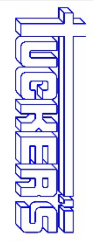
ITEM NO.	PART NUMBER	DESCRIPTION	Auger, 23' w-AR Flights Welded/QTY.
1	60.020.01	4" Sch. 80 Pipe x 22' for 23' Auger	1
2	TB81021-4AR	14"OD x 1/4" P x 4.5" ID x .375" AR-400F RH Flight	19
3	81027P	Auger Pipe Shaft Plug	2



TM60020-23  
 Auger, 23' w-AR Flights Welded  
 1 Per Unit  
 544.21 Lbs

I:\Solidworks\Part\T-644\60.020 Auger Parts\60.020.23

T-644



MACHINE & STEEL  
 SERVICE INC.  
 P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Auger, 23' w-AR Flights Welded

DR. BY	MCT
DATE	
SHOP #	TM60020-23

# Auger Front Drive Assembly Hardware



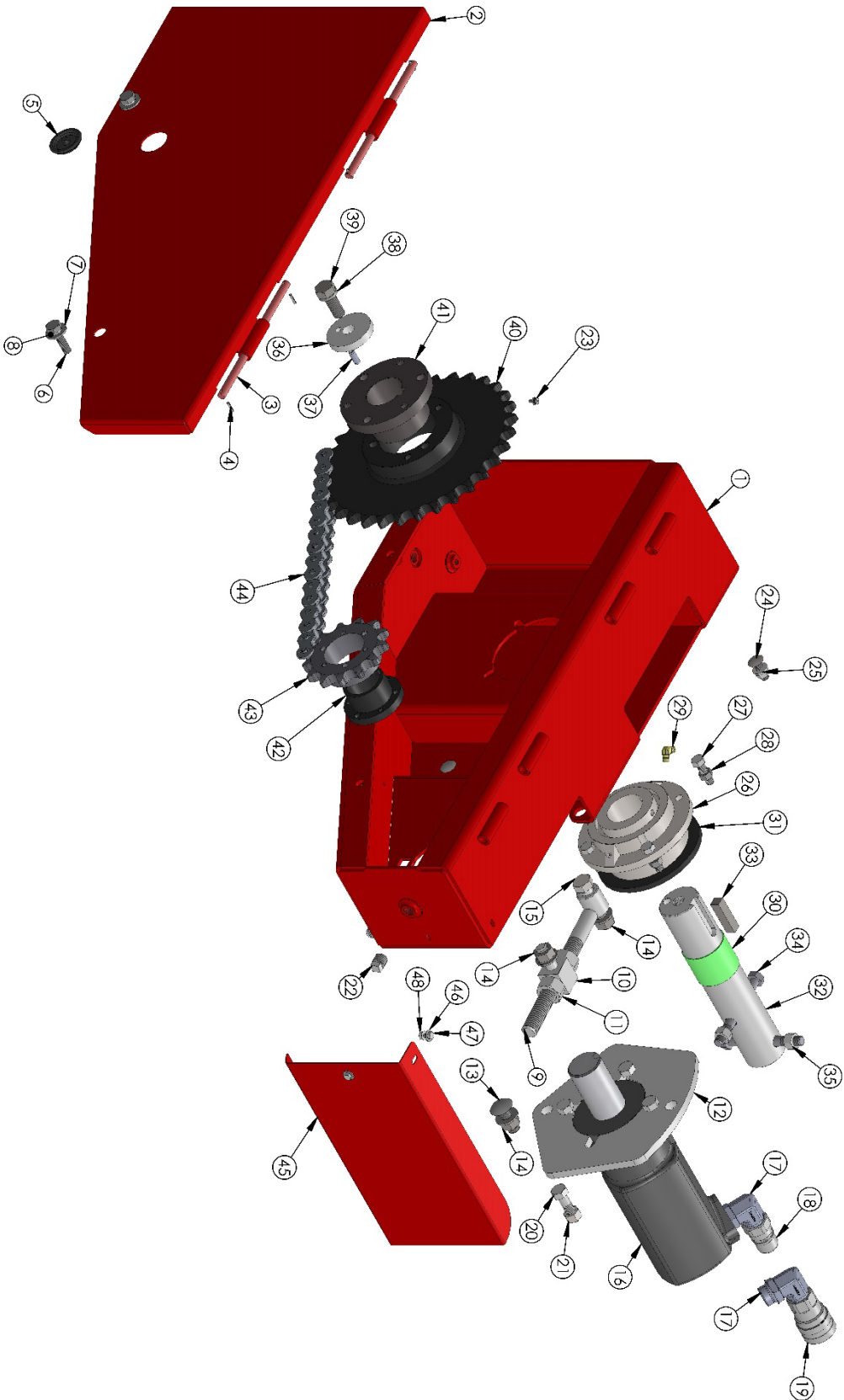
MACHINE & STEEL  
SERVICE, INC.  
LEESBURG, FLA. 34749-2810

T-644

T-644 Front Auger Drive Assembly Hardware

SHOP #  
DATE 10/21/2020  
DR. BY MCT  
TA-81977

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# Auger Front Drive Assembly BOM

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM81977-1	Front Auger Drive Housing Assy	1
2	TM81977-2	Front Auger Drive Cover Assy	1
3	TM60907-05	Chute Door Hinge Pin	2
4	MI-TP-0.15625X0.75	Pin Tension 5/32 X 3/4	4
5	TB80216	Plug, Chain Inspection	1
6	FR-0.5X2	Fast Thread Bolt .5 X 2	2
7	WF-0.5	Washer Flat 1/2	2
8	WL-0.5	Washer Lock 1/2	2
9	TM81977-6	Front Drive Motor Adjustment Bolt Assembly	1
10	TM81977-7	Front Auger Drive Motor Adj Block	1
11	NU-1-8-PL	Nut 1-8 (Plated)	2
12	TM81459	Plate Auger Motor Mount	1
13	CB-0.75-10X2	Bolt Carriage 3/4-10 X 2	1
14	NF-0.75-10	Nut Flanged Lock : 3/4-10	3
15	CS-HH-0.75-10X3.5	Screw Cap Hex: 3/4-10 X 3 1/2	1
16	TB80102	Motor Auger	1
17	HA-6806-16-16	Adppter, O-Ring to Pipe Elbow 90°: 6806-16-16	2
18	HNV-16M-16FP	Disconnect Male, Hydraulic: HNV-16M-16FP	1
19	HNV-16F-16FP	Disconnect Female, Hydraulic: HNV-16F-16FP	1
20	CS-HH-0.625-11X2.25	Screw Cap Hex: 5/8-11 X 2 1/4	4
21	NSL-0.625-11-GR5	Nut Self Lock : 5/8-11 - Grade 5	4
22	GP-12P	Plug Gdlv. 1/2"	1
23	MI-GF-0.125-ST	Grease Fitting 1/8" Stk.	1
24	CB-0.5-13X1.5	Bolt Carriage 1/2-13 X 1 1/2	11
25	NF-0.5-13	Nut Flanged Lock : 1/2-13	11

ITEM NO.	OrderNo	DESCRIPTION	QTY.
26	TB80305-11	Bearing Auger Timken	1
27	CS-HH-0.5-13X1.75	Screw Cap Hex: 1/2-13 X 1 3/4	4
28	NSL-0.5-13	Nut Self Lock : 1/2-13	4
29	2024-2-4S	Adppter, Aeroquip: 2024-2-4S	1
30	TM60020-02-02	Auger Front Drive Shaft Spacer, Front Motor	1
31	TB80137-2	Auger Drive Bearing Shield, 2-7/8" X 7/8"	1
32	TM81977-3	Front Drive Auger Drive Shaft	1
33	TM81977-3KEY	Front Drive - Shaft Key	1
34	TB58-512CS8	Bolt Auger, 5/8" x 5-1/2" Gr. 8	2
35	NSL-0.625-11-GR8	Nut self Lock : 0.625-11 - Grade 8	2
36	TM81029	Washer Idler Shaft	1
37	MI-TP-0.375X1.0	Pin Tension 3/8 X 1	1
38	WL-0.75	Washer Lock 3/4	1
39	CS-HH-0.75-10X2	Screw Cap Hex: 3/4-10 X 2	1
40	TB80405A	Sprocket Auger Shaft	1
41	TB80405B	Bushing Auger Shaft Spr.	1
42	TB80404B	Bushing Auger Mtr. Spr.	1
43	TB80404A	Sprocket Auger Motor	1
44	TM81807	Chain Kit Auger (26 Links #100)	1
45	TM8197791	Front Auger Drive Heat Shield	1
46	WF-0.25	Washer Flat 1/4	3
47	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	3
48	NF-0.25-20	Nut Flanged Lock : 1/4-20	3

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MACHINE & STEEL SERVICE, INC.  
P.O. BOX 492810 DEERBURG, FLA. 34749-2810

T-644

## T-644 Front Auger Drive BOM

SHOP #  
DATE 10/21/2020  
DR BY MCT  
TA-81977

## Sprocket Bushing Installation Instructions

IMPORTANT: DO NOT USE LUBRICANTS IN THIS INSTALLATION

### Installing Sprocket Bushings:

1. Remove all paint, oil, grease, etc. from tapered surface of bushing and bore of mating parts.
2. If bushing has a keyway, install shaft key. ( If a rectangular key is required, one will be furnished with the bushing.)
3. Select **Standard** or **Reverse** mounting assembly. See Figures 1 and 2.

Note: If bushing does not slide on shaft freely, wedge a screwdriver blade into the saw cut at the Flange OD to open the bore of the bushing. Caution: Excessive wedging will split the bushing.

4. **Standard Mount** – Slide bushing on shaft, flange first. If using the setscrew, gently snug it against the key. **DO NOT TIGHTEN SET SCREW TIGHT YET, Excessive Torque will cause mating part to be eccentric.** Position mating part in place on bushing Aligning drilled holes in mating part with tapped holes in bushing flange. Using lockwashers, install capscrews thru the mating hub and into the bushing flange. (**Note:** M thru S bushings can only be Standard Mounted. Be sure the two tapped holes in the mating hub **do not** align near the bushing saw cut. If they Do, rotate the bushing 90 degrees).
5. **Reverse Mount** – Place mating part over and onto shaft as far as possible with large bore end of taper outward. Slide bushing onto shaft so tapered end will engage into the mating part. If using the setscrew, gently snug it against the key. **DO NOT TIGHTEN SET SCREW TIGHT YET, Excessive Torque will cause mating part to be eccentric.** Align drilled holes in bushing flange with tapped holes in mating part. Using lockwashers, install the capscrews thru the bushing flange and into the mating hub.
6. **Use a Torque Wrench.** Tighten all capscrews evenly and progressively in rotation to the torque value listed in the table. **Excessive wrench torque, closing the gap between the bushing flange and mating hub, or the use of lubricants will break the mating hub.**

### Removing Sprocket Bushings:

1. Loosen and remove all capscrews.
2. For **Standard Mount**, thread capscrews into tapped holes in mating part to jack against bushing flange. For **Reverse Mount**, thread capscrews into tapped holes in bushing flange to jack against mating hub. Tighten bolts evenly and progressively in rotation to separate the two components.
3. Loosen setscrew to slide bushing from shaft.

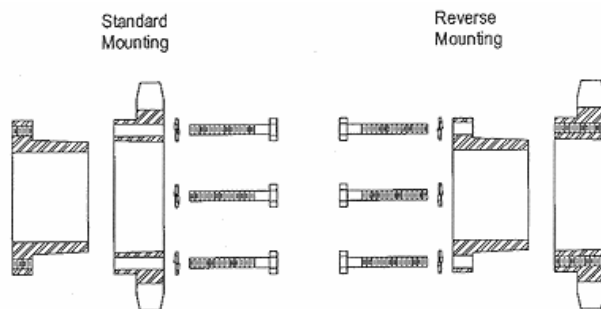


Fig. 1

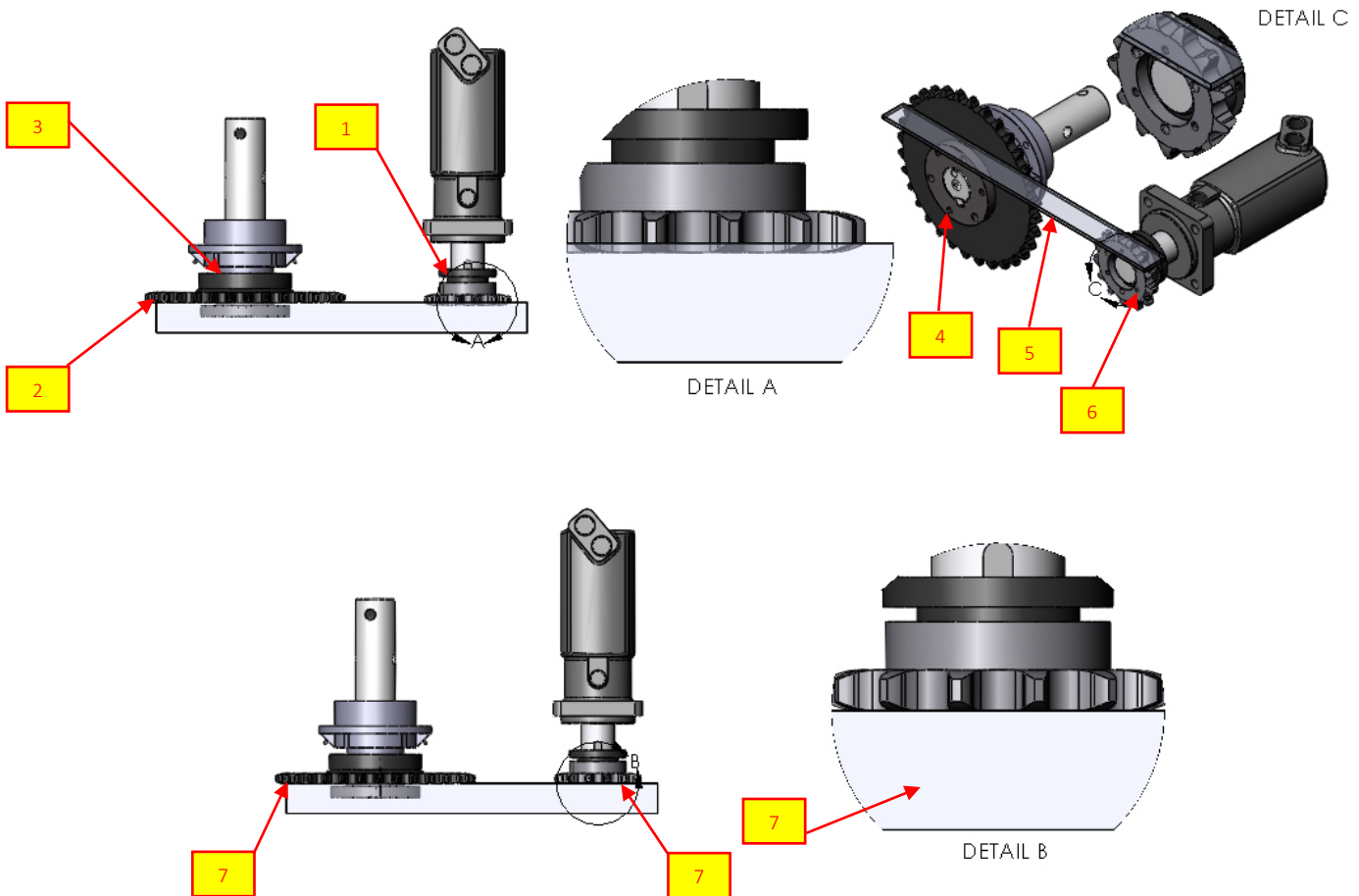
Fig. 2

Screw Tightening Information		
Tapered Bushing	Size & Thread of Capscrew	Ft-Lbs to apply with Torque Wrench
SK	5/16-18	15 (180 in)
E	½-13	60

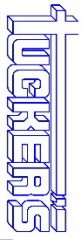
## Auger Sprocket Installation

Refer to Installing Sprocket Bushings:, before starting installation.

1. Bushing on Motor, then sprocket.
2. Sprocket on Auger Shaft first, then bushing.
3. Auger shaft bushing touches bearing.
4. Tighten Auger Shaft Sprocket first. Start with 20 Ft-Lbs each bolt and work up. Gradually tighten to 60 Ft-Lbs Torque.
5. With your straight edge across the Auger Shaft Sprocket, adjust the Motor Bushing and Sprocket so the tip of the tooth is aligned with straight edge. Sprocket should be hand snug to bushing.
6. Tighten Auger Motor bushing gradually to 15 Ft-Lbs (180 In-Lbs). It is best to use an Inch Pound torque wrench. It is critical to work each bolt gradually up. Do NOT guess on the torque. Use a Torque Wrench.
7. When all bolts are tight, the faces of both sprockets should be in line with the straight edge. If not, loosen the Auger Motor bolts and start again on 5.



# Front Drive Rear Bearing Housing

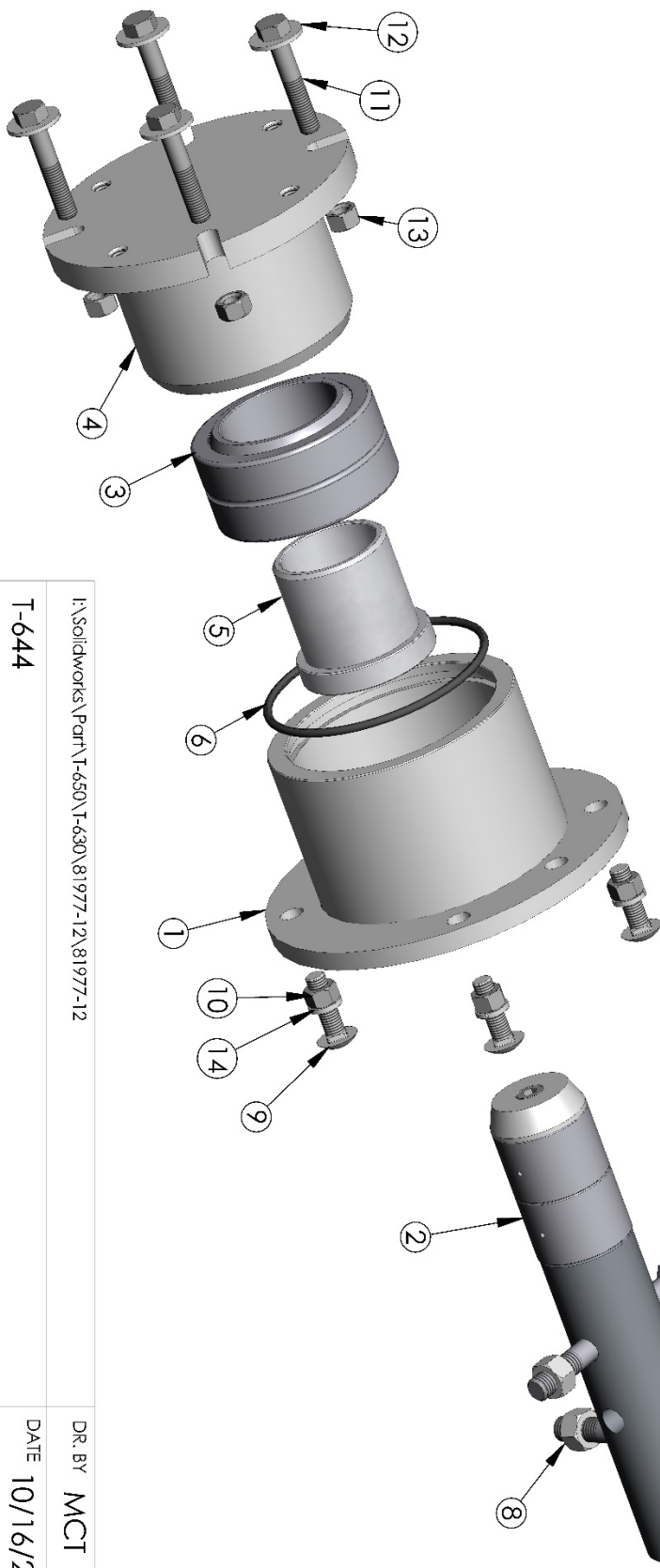


**MACHINE & STEEL**  
SERVICE, INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

## FD - Rear Bearing Housing Kit

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T-644

DR. BY MCT  
DATE 10/16/2020  
SHOP # 81977-12



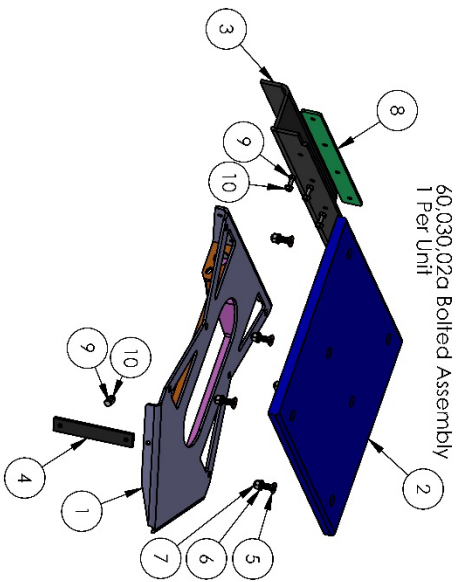
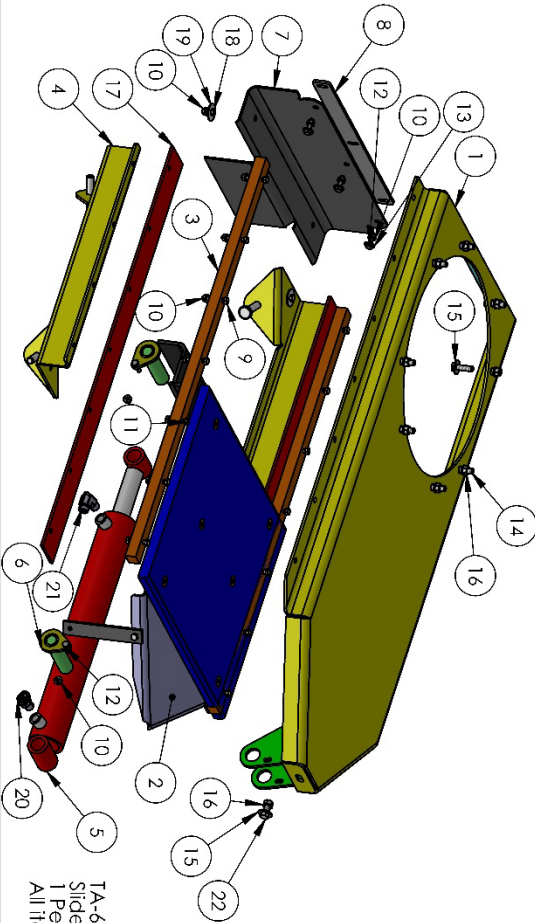
**TM81977-12**  
**FD - Rear Bearing Housing Kit**  
All items this page

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM81977-8	Front Drive - Rear O-Ring Housing	1
2	TM81977-9	Front Drive - Rear Idler Shaft	1
3	TB80312	Rear Auger Seal - Bearing	1
4	TM81977-11	Front Drive - Rear Bearing Housing	1
5	TB80313	Rear Auger Seal - Composite Brg	1
6	OR-568-357	O-Ring 5 1/2 x 5 7/8 x 3/16	1
7	TB58-512CS8	Bolt Auger, 5/8" x 5-1/2" Gr. 8	2
8	NSL-0.625-11-GR8	Nut Self Lock : 0.625-11 - Grade 8	2
9	CB-0.5-13X1.75	Bolt Carriage 1/2-13 X 1 3/4	4
10	NU-0.5-13-PL	Nut 1/2-13 (Plated)	4
11	CS-HH-0.5-13X2.75	Screw Cap Hex: 1/2-13 X 2 3/4	4
12	WF-0.5	Washer Flat 1/2	4
13	NSL-0.5-13	Nut Self Lock : 1/2-13	4
14	WL-0.5	Washer Lock 1/2	4

# Slide Gate

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.030.01	Slide Gate Frame Weldment	1
2	60.030.02a	60.030.02a Bolted Assembly	1
3	60.030.05	Slide Gate Door Shim	2
4	60.030.06	Slide Gate Funnel Flange Weldment	2
5	80.01-1	1/2" Cylinder Chute Spout Gate - Engine Hood	1
6	60.013.00	Engine Door/Slidegate Pin Assembly T-644	2
7	60.030.07	Slide Gate Mud Flap 1/8" Thick	1
8	60.030.08	Slide Gate Mud Flap Washer	1
9	CS-HH-0.25-20X1.75	Screw Cap Hex: 1/4-20 X 1 3/4	8
10	NF-0.25-20	Nut Flanged Lock : 1/4-20	21
11	1/4-11/2CS	Screw Cap Hex: 1/4-20 X 1 1/2	6
12	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	5
13	WF-0.25	Washer Flat 1/4	3
14	CS-HH-0.375-1.6X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	8
15	WF-0.375	Washer Flat 3/8	9
16	NF-0.375-16	Nut Flanged Lock : 3/8-16	9
17	8197927	Slide Gate Door Keeper Plate	2
18	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	2
19	1/4-11/4W	Washer Fender 1/4 X 1 1/4	2
20	no-H2503-06-06	Adaptor: ORFS to Pipe Elbow 45°: FF2503-06-06	1
21	no-H2501-06-06	Adaptor: ORFS to Pipe Elbow 90°: FF2501-06-06	1
22	38-1-CS	Screw Cap Hex: 3/8-16 X 1	1

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60030-02	Slide Gate Door Weldment	1
2	TM60030-03	Slide Gate Composite Valve - 1.5-7/8" x 1.9-7/8"	1
3	TB60030-04	Slide Gate Door Seal 1/4" Thick	1
4	TM65157	Grill Assy Rubber Bolt Bumper	1
5	CS-FHSB-0.375-1.6X1.5	Screw Cap: FH SK1 Brass 3/8-16 X 1-1/2	6
6	WL-0.375	Washer Lock 3/8	6
7	NU-0.375-16-PL	Nut 3/8-16 (Plated)	6
8	TM60030-09	Slide Gate Push Plate Seal Washer	1
9	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	5
10	NF-0.25-20	Nut Flanged Lock : 1/4-20	5



TA-60030-00  
Slide Gate Bolt On Assembly  
1 Per Unit  
All items on this page

**TOBER'S**  
MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 472810 LEEBURG, FLA. 34749-2810

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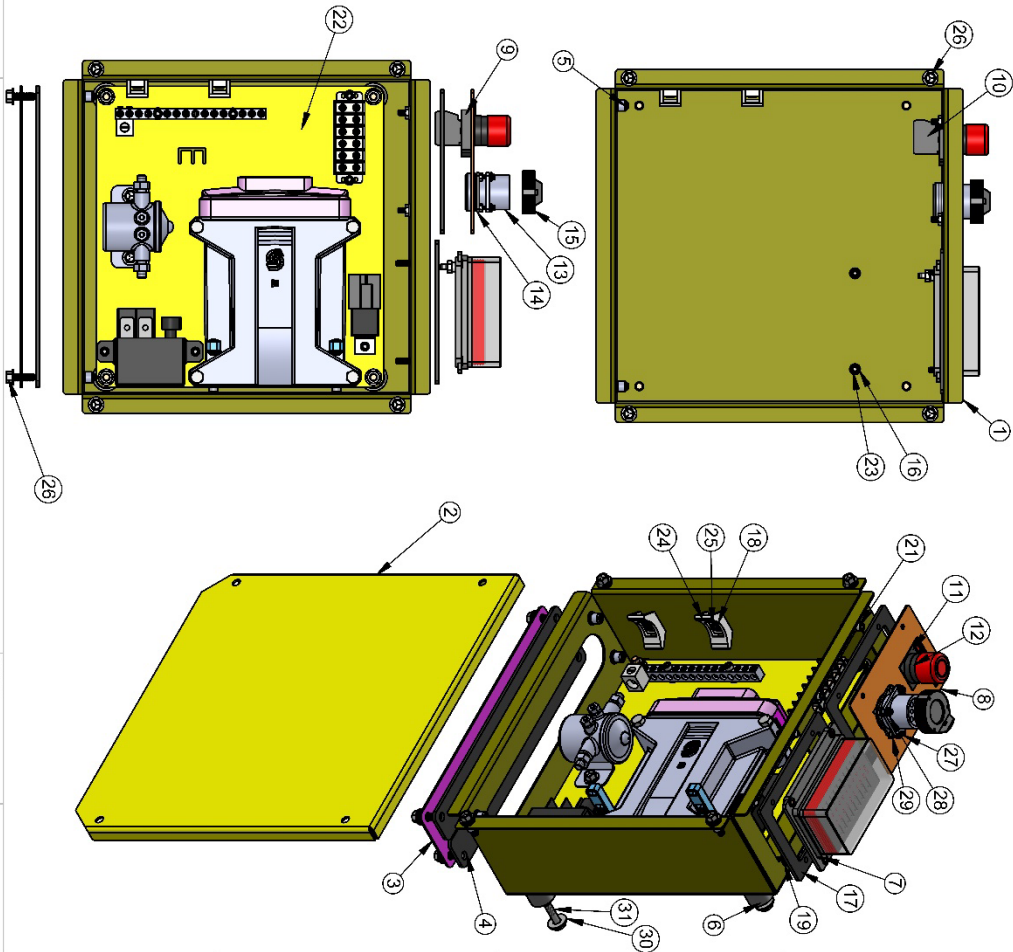
Slide Gate Bolt On Assembly

SHOP #  
DATE: 9/20/2018  
DR. BY: MCT B+  
60.030.00

# Engine

## Engine Electrical Panel Assembly

ITEM NO.	Orderno	DESCRIPTION	QTY.
1	TM60090-01	Electrical Junction Box	1
2	TM60090-02	Electrical Junction Box Lid	1
3	TM60090-03-1	Electrical Junction Box Gasket Hole	1
4	TB60090-04	Electrical Junction Box Gasket	1
5	NR-0.25-20-PL-0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	8
6	TB80655	Rubber Compensating Sandwich M/F 1/4-20	4
7	TB66145-01	Fuse Assembly Base w-Cover	1
8	TM60090-08	Electrical Junction Box E Stop Plate	1
9	TB80575-112B-NC	Contact Block w-Base - 1-NC	1
10	TB80575-112-NC	Contact Block Normally Closed	1
11	TB80575-113	E-Stop Name Plate	1
12	TB80575-111	E-Stop Mushroom Head	1
13	TB80575-129-1	Deutsch HD10-9-1999 Flanged Receptacle	1
14	TB80575-129-2	Deutsch HD10-9-GKT Gasket for Flanged Receptacle	1
15	TB80575-129-3	Deutsch HDCI 6-9-14/7N Cover for Flanged Receptacle	1
16	NR-8-32-PL-0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
17	TB80090-09	Electrical Junction Box Top Gasket	2
18	NR-10-24-PL-0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	2
19	CS-HHS-10-32X0.625	Screw Cap Hex: 10-32 X 3/8 Serrated Flange Bolt	4
20	NFS-10-24	Nut Serrated Flanged Lock : 10-24 X 3/4"	4
21	SSCS-SH-10-24X.75	Cap Screw-Stainless-Socket Head- #10-24 X 3/4"	4
22	TA-60090-06-01-KE	Electric Junction Box Sub Plate, Engine T4F	1
23	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head- #8-32 X 1/2"	2
24	TB66090-07	Fastener-Mount Cable Tie Holder	2
25	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head- #10-24 X 1/2"	2
26	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	8
27	SSCS-SH-4-40X0.5	Cap Screw-Stainless-Socket Head- #4-40 X 1/2"	4
28	WFSS-4	Washer Flat - Stainless - #4 (.125 X .312)	3
29	SSNL-4-40	Nut Self Lock - Stainless : 4-40	4
30	WF-0.25	Washer Flat 1/4	4
31	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	4



MACHINE & STEEL  
SERVICE, INC.  
P.O. BOX #92810  
LEESBURG, FLA. 34749-2810

1:SolidworksPart#:644160.080 Electrical Boxes160.080.00  
T-6444

Electrical Junction Box Assembly Engine T4F

SHOP #  
DATE: 9/1/2017  
DR. BY: MCT  
TA-60,090,00-2

# Engine Electrical Panel Subplate

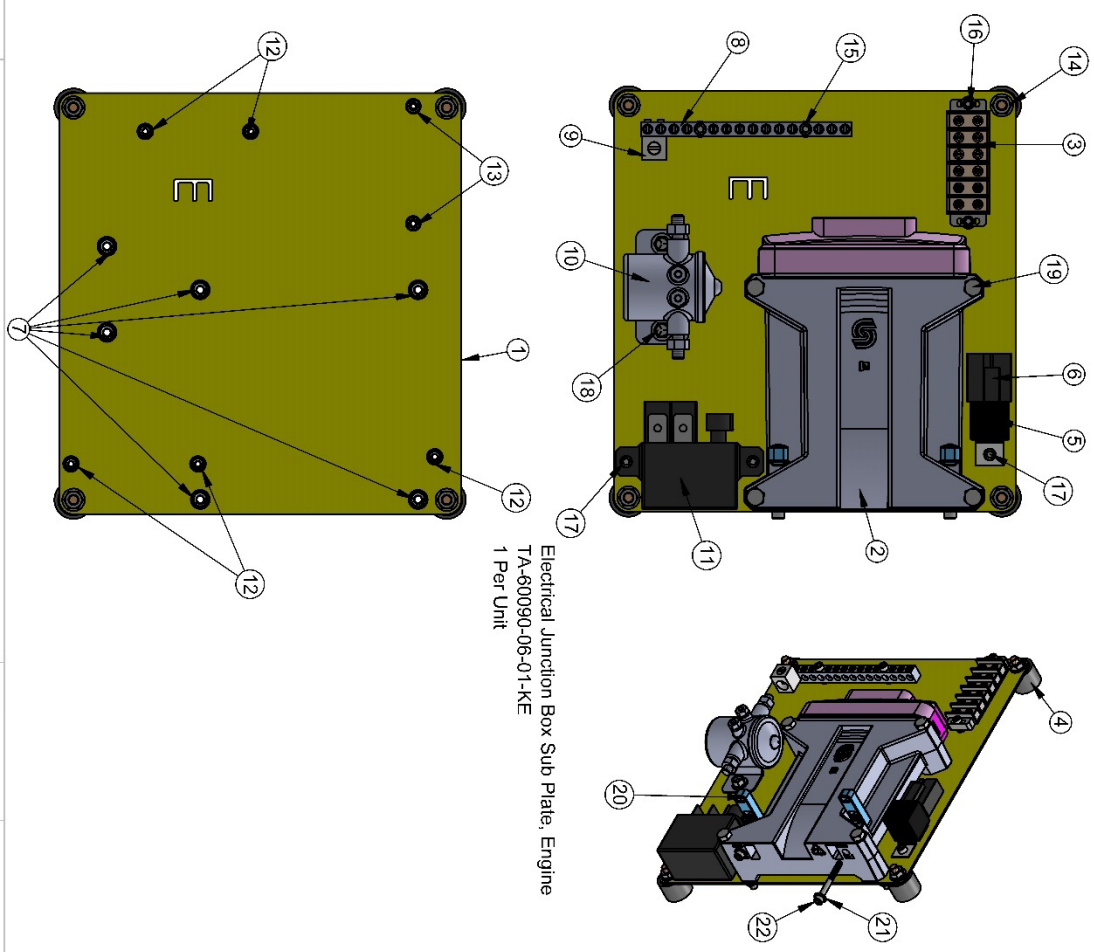
ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60090-06-01	Electrical Junction Box Sub Plate, Engine	1
2	TB6130-11-EA	MC05D-010 Controller w/prog loaded-Eng Aired	1
3	TB80575-109-06	Terminal Strip 6 Lug 20A #6-32	1
4	TB80655	Rubber Dampening Sandwich M/F 1/4-20	4
5	TB80130-12	NTE Electronics Relay # 02H7398 70 Amp	1
6	TB80130-13	Tyco Relay Socket VCF7-1000	1
7	NR-0-25-20-PL,0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	6
8	TB80130-45	Ground Bar	1
9	TB80130-45-01	Ground Bar Collar Strpp	1
10	TB80587-1	Relay Solenoid	1
11	TB80587-2	Grid Heater Relay, JCB	1
12	NR-10-24-PL,0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	5
13	NR-8-32-PL,0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
14	NFS-0.25-20	Nut Serrated Flanged Lock : 1/4-20	4
15	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head-#10-24 X 1"	2
16	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
17	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head-#10-24 X 1/2	3
18	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	2
19	CS-HH-0.25-20X2.5	Screw Cap Hex: 1/4-20 X 2 1/2	4
20	TM60090-10A	Electrical Junction Box Tie Lug Assembly	2
21	WFSS-10	Washer Flat - Stainless - #10 (.218 X .437)	2
22	SSCS-SH-10-24X1.75	Cap Screw-Stainless-Socket Head-#10-24 X 1 3/4"	2



ISSolidworksPart#T-644160 090 Electrical Boxes\$0.090,00  
T-644

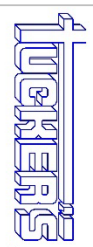
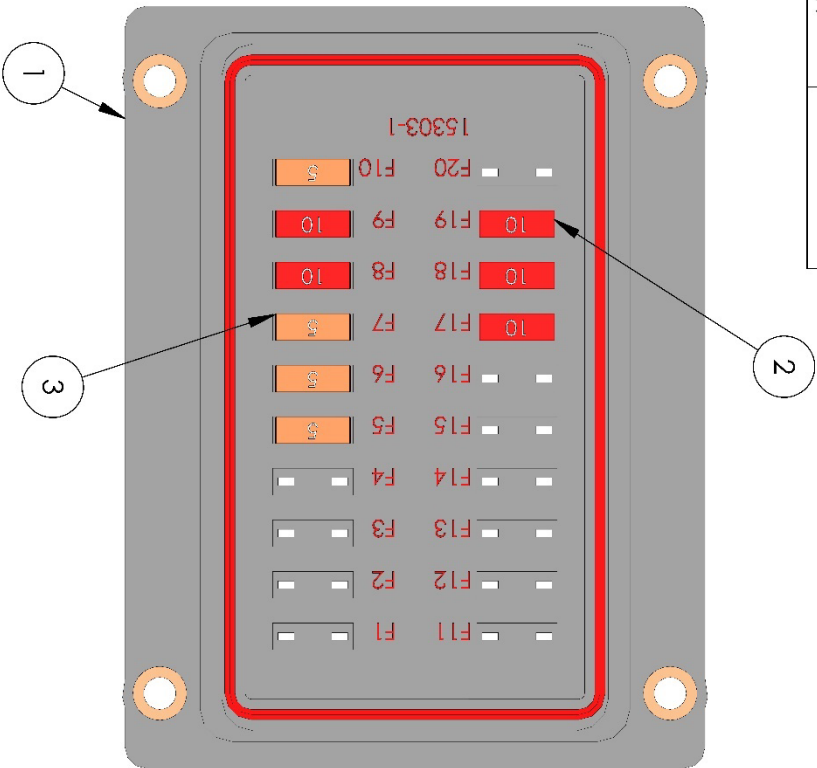
Electric Junction Box Sub Plate, Engine 14F

SHOP #  
DATE 9/14/2020  
DR. BY MCT  
TA-60090-06-01-KE



**Engine Panel Fuses**

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB661 45-01	Mini Fuse Panel, 20 Position Bussman 15303-1	1
2	TB661 45-10A	Fuse, 10A Led Mini ATM Red 12V	5
3	TB661 45-5A	Fuse, 5A Led Mini ATM Tan 12V	4



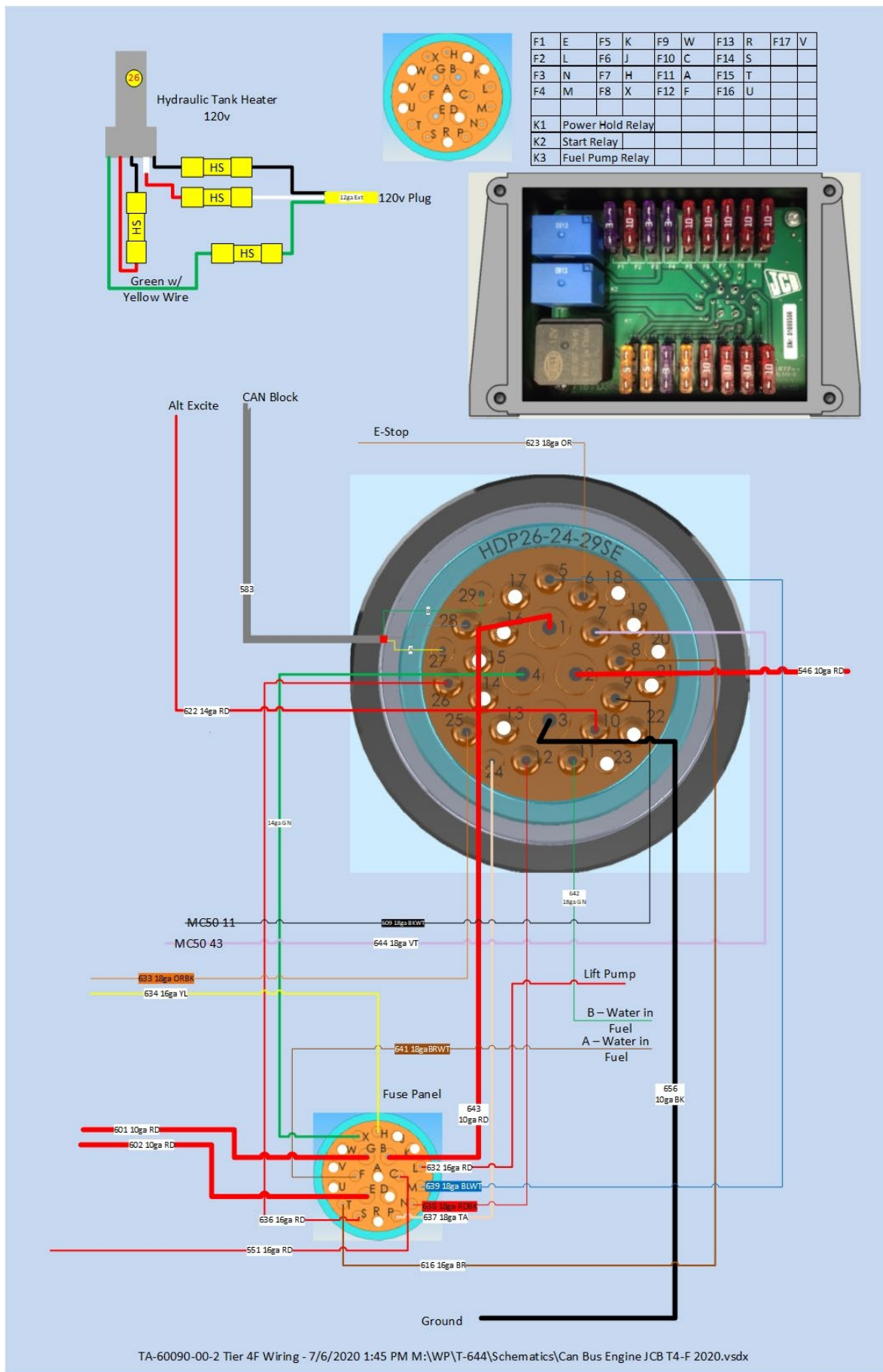
**MACHINE & STEEL SERVICE INC.**  
 P.O. BOX 492810 LEESBURG, FLA. 34749-2810

**Fuse Assembly - Engine**

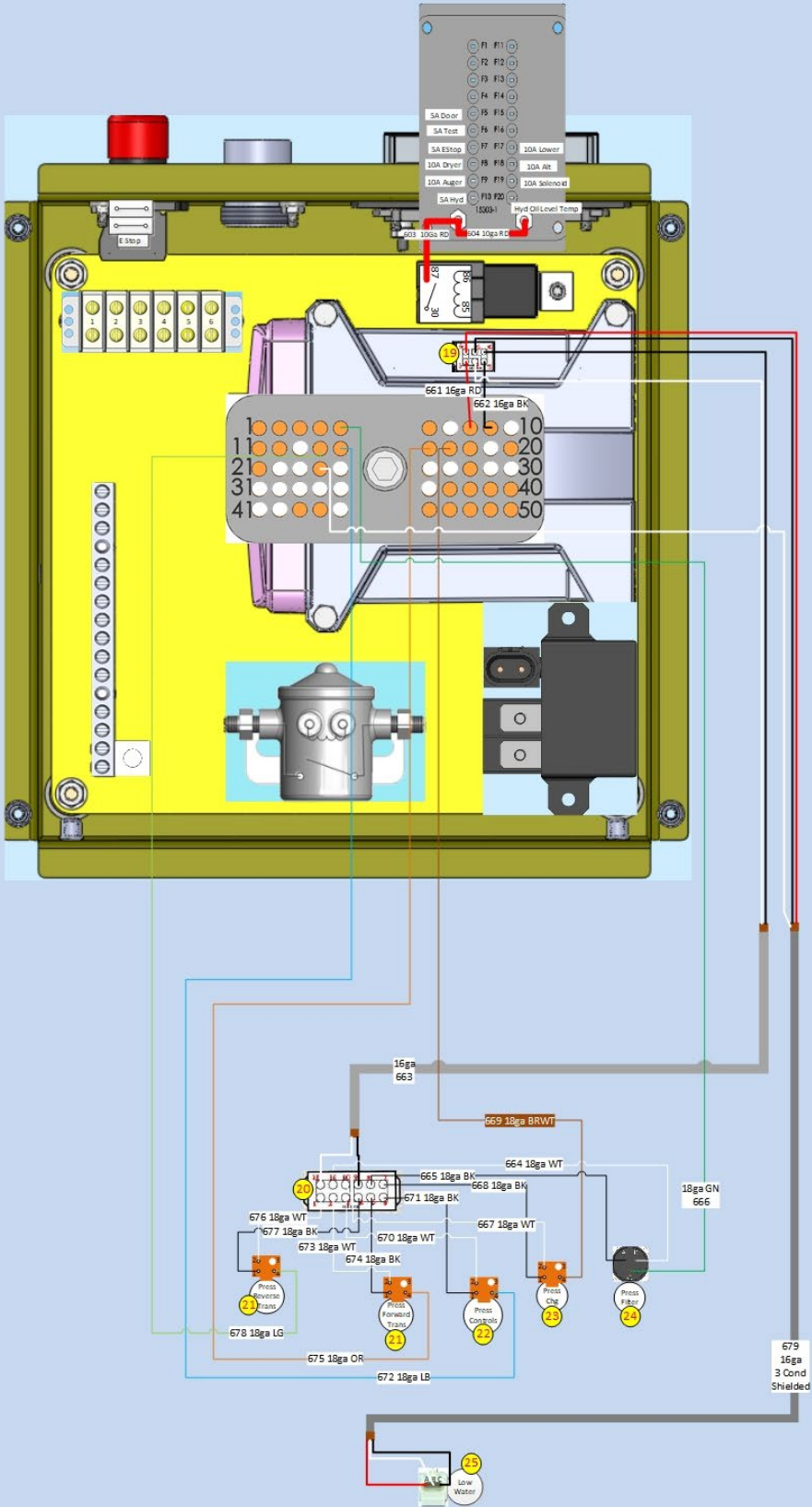
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T-644	DATE	9/14/2020
	SHOP #	



# Engine Electrical Panel Tier 4 Final Schematic 2



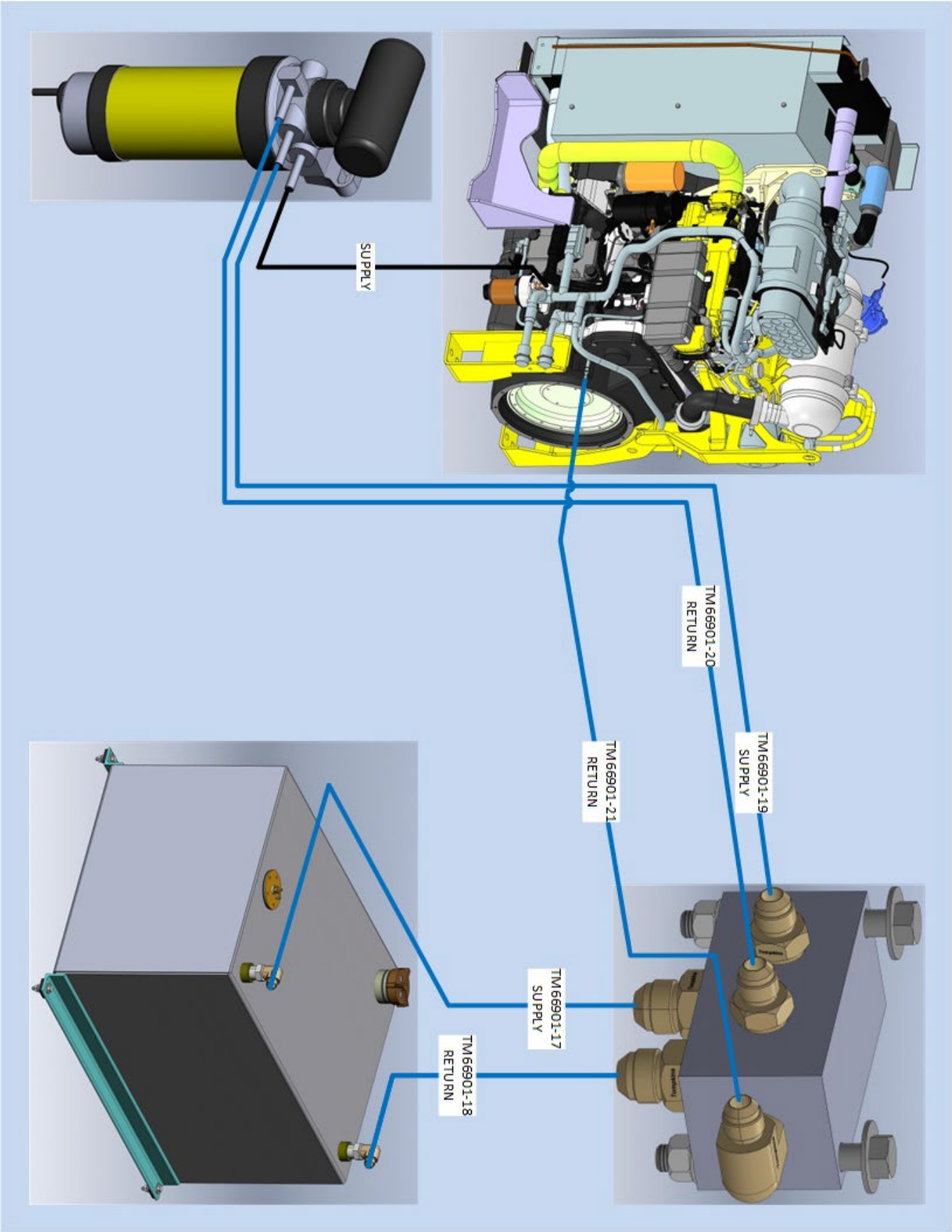
Engine Electrical Panel Tier 4 Final, 5 Volt Schematic 3



## Engine Electrical Panel BOM Tier 4 Final

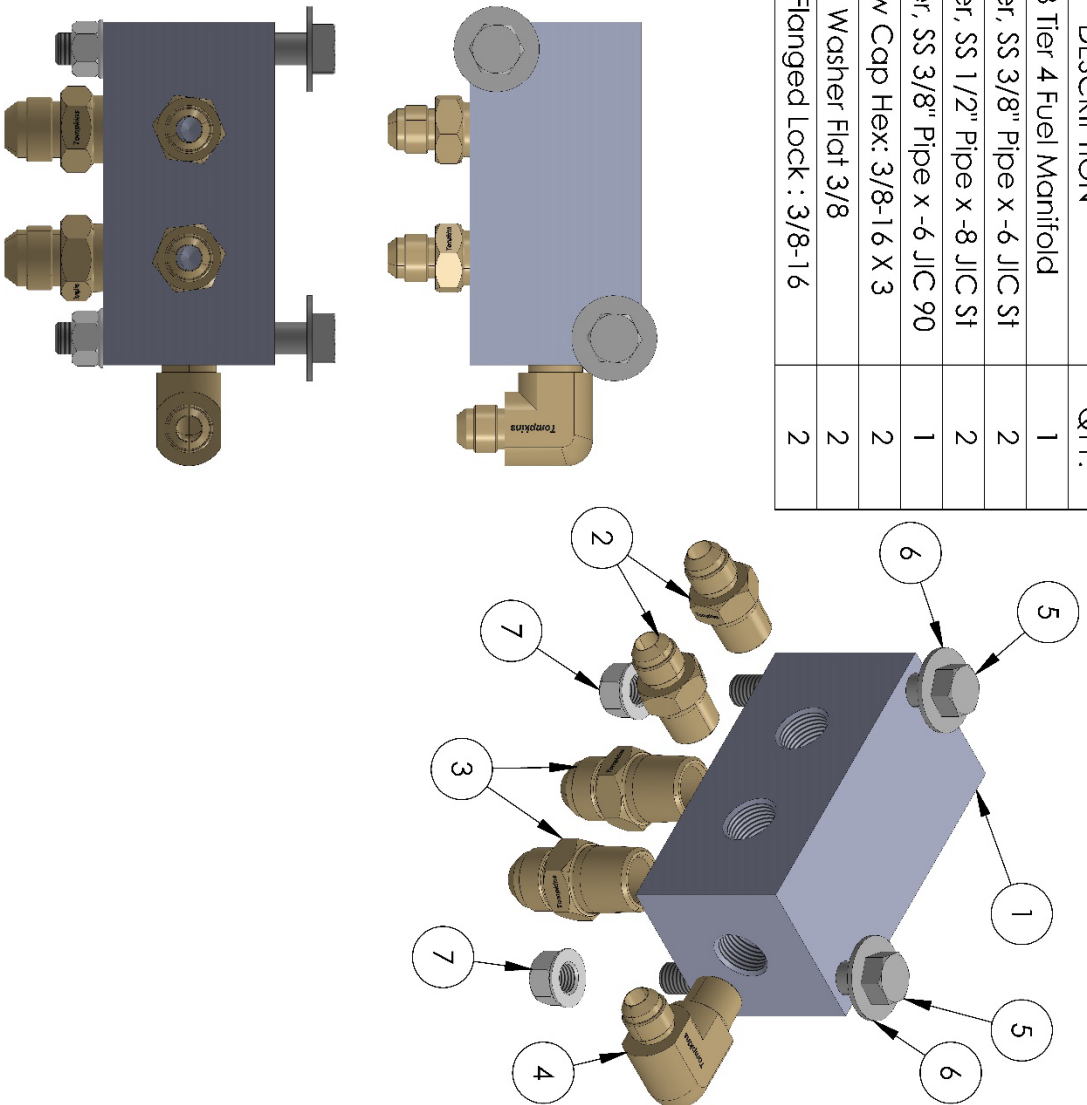
Engine Panel Electrical Parts				
Key	Description	Mfg #	Tucker #	Qty
1	MC050-010 Controller w/prog loaded-Eng Area	Berendsen - 11138530	TB66130-11-EA	1
	Deutsch DRC26-50S01 Male Plug	Deutsch - DRC26-50S01	TB80130-93	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	20
2	E-Stop Mushroom Head 22Mm	Grainger - 33HP43	TB80575-111	1
	Contact Block w-Base - 1-NC	Grainger - 6HX29	TB80575-112B-NC	1
	Contact Block Normally Closed	Grainger - 6HZ09	TB80575-112-NC	1
	E-Stop Name Plate	Grainger - 6JC63	TB80575-113	1
3	Deutsch HD10-9-1939 Flanged Receptacle	Deutsch - HD10-9-1939P	TB80575-129-1	1
4	Mini Fuse Panel, 20 Position Bussman 15303-1	Waytek - 46077	TB66145-01	1
	Fuse, 5A Led Mini ATM Tan 12V	Waytek - 46261	TB66145-5A	4
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	4
5	NTE Electronics Relay # 02H7398 70 Amp	Newark - 02H7398	TB80130-12	1
	Relay Socket VCF7-1000	Newark - 17M3159	TB80130-13	1
6	Terminal Strip 12 Lug 20A #6-32	Waytek - 47312	TB80575-109-6	1
7	JCB Alternator Diode Assembly	Tucker - TM81974-3	TM81974-3	1
8	Ground Bar Kit 14 Position	Besco - ECGB14	TB80130-45	1
	Ground Bar Collar Strap	Besco - ECCS1	TB80130-45-01	1
9	Solenoid/Relay, 200 Amp Continous, JCB	Wholesale - HE24213	TB80587-1	1
10	Grid Heater Relay, JCB	Allied - 70971558	TB80587-2	1
11	AD-9 Air Dryer for JCB	Wholesale - TU065499	TB80619-1	1
	Wire Harness AD-9 Air Dryer for JCB	Wholesale - TP109871N	TB80619-3	1
	AD-9 Air Dryer Muffler Silencer Kit	Wholesale - TU5004224N	TB80619-7	1
	AD-9 Air Dryer Hard Seat Purge Valve Maint. Kit	Wholesale - TP5005037	TB80619-5	1
	AD-9 Air Dryer Desiccant Cartridge Kit	Wholesale - TP107794	TB80619-6	1
12	Pump Transmission (Danfoss) H1, 115cc	Berendsen - 83060627	TB66203	1
13	PVG100, 1 sec, 65, Motor, w/LX, Auger Valve	Berendsen - 161F5083	TB66130-13	1
14	PVG32, 6 sec, No LX	Berendsen - 159B2797	TB66130-14	1
15	Rota Tank Level/Temp Sensor	Rota - TL5207	TB66213-ROTA-TLT	1
16	Viking Extreme Air Solenoid Valve	Grainger - P2LBX392ESH DAT46	TB64623	2
	2 St IEM Manifold NPT Viking Extreme	Grainger - P2LBXGAXN02NP	TB64624	1
17	Fuel Lift Pump - JCB Tier 4	Deutsch - 320/A7087	TB65975-15-T4	1
18	Sensor, N/O PNP Turck Proximity	Turck - Bi15-EM30-AP45XLD-H1141	TB66130-08-TU	1
19	Deutsch DT04-6P-EP14 2-3 Pin Buss Receptacle	Deutsch - DT04-6P-EP14	TB80130-113-EP14	1
20	Deutsch DT04-12PA-P026 2-6 Pin Buss Receptacle	Deutsch - DT04-12PA-P026	TB80130-114	1
21	Sensor, psi, 0-5800, Ratiometric, (400 Bar)	Berendsen - 11044542	TB66130-07	2
22	Sensor, psi, 0-3626, Ratiometric, (250 Bar)	Berendsen - 11044501	TB66130-06	1
23	Sensor, psi, 0-580, Ratiometric, (40 Bar)	Berendsen - 11044499	TB66130-05	1
24	Pressure Transducer TDH30KG010003B004, 0-100 PSI	Tranducers Direct - TD4526	TB66130-30	1
25	Casco Water Level Switch	Waytek - 76330	TB64575-57-1	1
26	3/4" MNPT 120 VAC In-Tank Oil Heater	Wholesale - TUET3-1001	TB64105	1

Fuel Line Schematic



# Fuel Manifold

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60510-30	JCB Tier 4 Fuel Manifold	1
2	2404-06-06	Adapter, SS 3/8" Pipe x -6 JIC St	2
3	2404-08-08	Adapter, SS 1/2" Pipe x -8 JIC St	2
4	2501-06-06	Adapter, SS 3/8" Pipe x -6 JIC 90	1
5	CS-HH-0.375-16X3	Screw Cap Hex: 3/8-16 X 3	2
6	WF-0.375	Washer Flat 3/8	2
7	NF-0.375-16	Nut Flanged Lock : 3/8-16	2

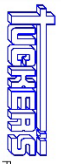
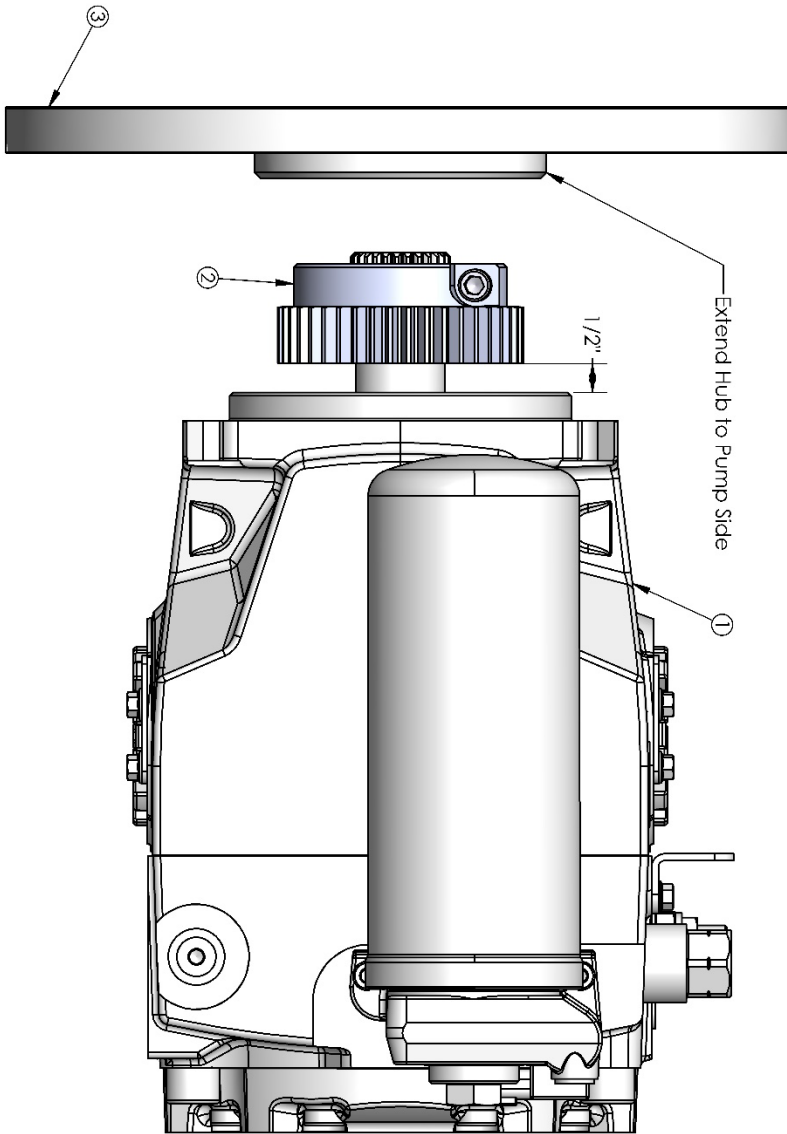


**TOEHEB'S**  
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 P.O. BOX 492810 LEESBURG, FLA. 34749-2810

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T-644		DATE	3/14/2018
JCB Tier 4 Fuel Manifold Kit		SHOP #	
			TA-60510-30

# JCB Tier 4 Pump to Engine Drive Plate

ITEM NO.	Order No	DESCRIPTION	QTY.
1	TB66203	Pump Transmission (Dantoss) H1, 115CC	1
2	TB80580-5-07	Engine To Pump Hub JCB Tier 4 Engine	1
3	TB80580-4-08	Drive Plate JCB Tier 3 & Tier 4 Engine	1



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ta-60500-00-01  
T-644

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Transmission Pump with Gear

SHOP #  
DATE 5/17/2018

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# JCB Tier 4 Pumps Hardware



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T-644

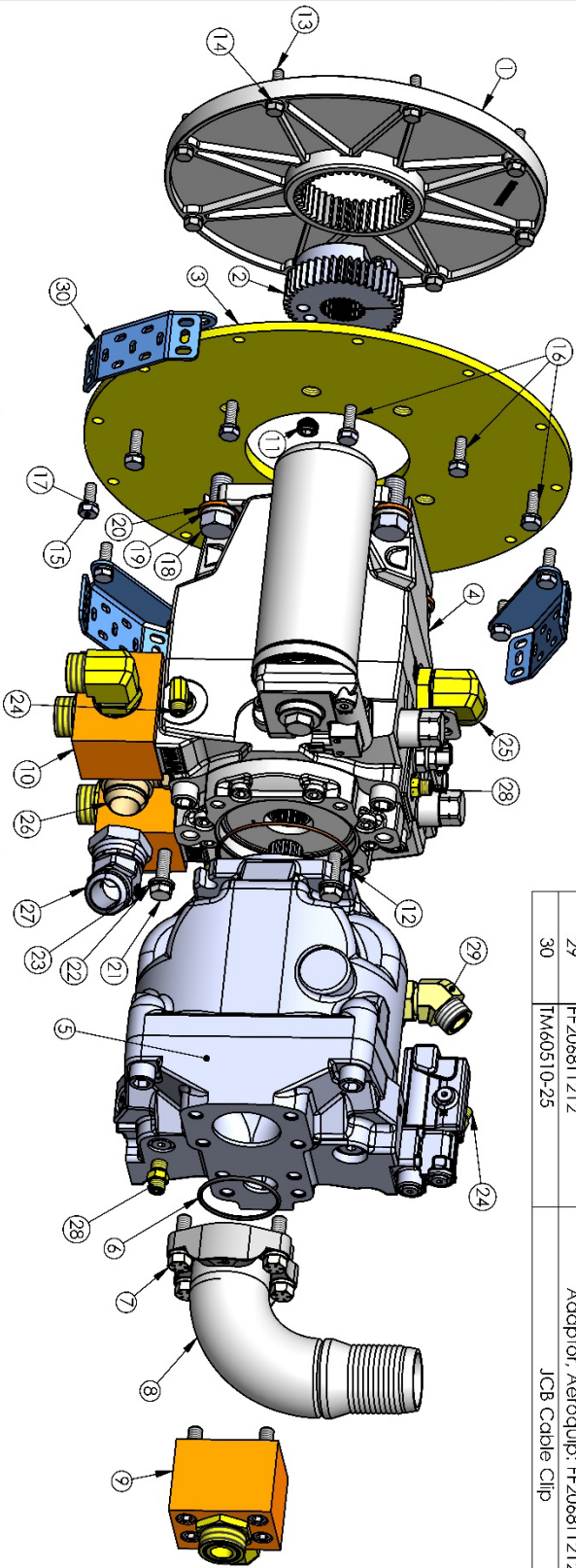
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## JCB Tier 4 to Pumps Hardware

SHOP #

DATE 09/19/2022 TA-60500-00-01

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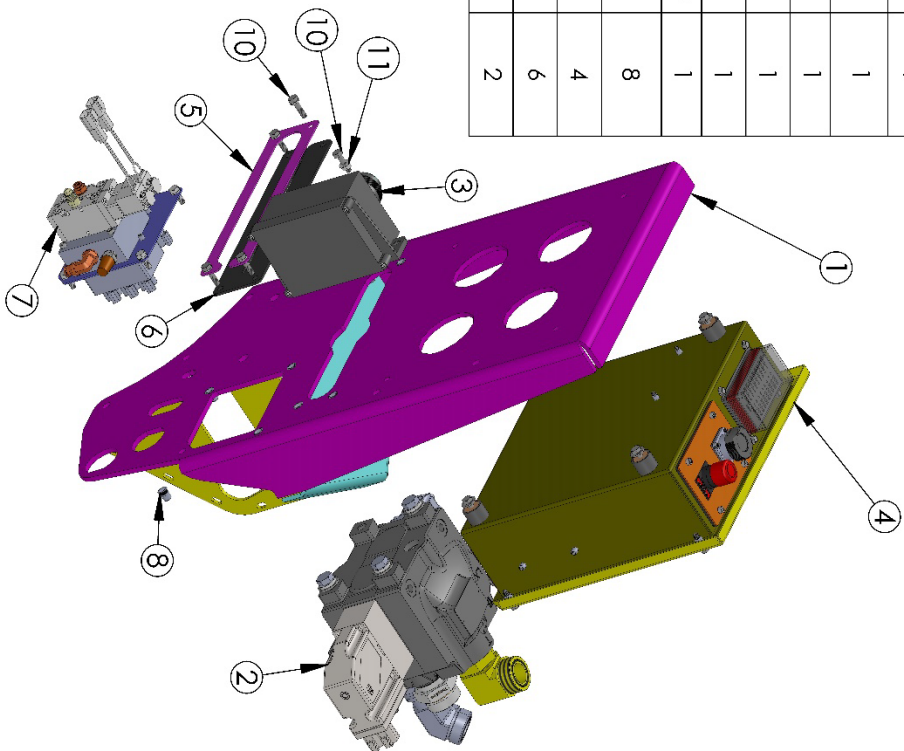


ITEM NO.	OrderNo	DESCRIPTION	Rear Control Ports/Q Ty.
1	TB80580-4-08	Drive Plate JCB Tier 3 & Tier 4 Engine	1
2	TB80580-5-07	Engine To Pump Hub JCB Tier 4 Engine	1
3	TB80580-5-09	Drive Bell Housing Plate SAE #3 281FC - JCB Tier 4	1
4	TB66203	Pump Transmission (Dantross) H1, 115cc	1
5	TB66204	Pump Controls, Dantross Ser. 45, 130cc	1
6	OR-568-232	O-Ring 2 3/4 x 3 x 1/8	1
7	HA-SFK-40	Adapter, Hydraulic Code 61 Split Flange Kit-40	1
8	TB80430-2	-40 Code 61 to 2-1/2" HB Sweep 90 deg	1
9	TA-651-38-4F	Dantross Aux Pump Block Assembly T4F	1
10	TA-651-38-3	Dantross Drive Pump Tee Block Assembly	2
11	SS-0-75-16X0.5	Screw Set: 3/4-16 X 1/2	2
12	OR-568-158	O-Ring, Viton 4 3/4 x 4 15/16 x 3/32	1
13	CS-HH-0.375-16X1.5	Screw Cap Hex: 3/8-16 X 1 1/2	8
14	WL-0.375	Washer Lock 3/8	8

ITEM NO.	OrderNo	DESCRIPTION	Rear Control Ports/Q Ty.
15	CS-HH-10-1.5X25MM	Screw Cap Hex: 10-1.5 X 25 mm	1
16	CS-HH-10-1.5X30MM10.9	Screw Cap Hex: 10-1.5-30mm 10.9	11
17	WL-10M	Washer, Lock 10 mm	12
18	CS-HH-0.75-10X1.75	Screw Cap Hex: 3/4-10 X 1 3/4	4
19	WL-0.75	Washer Flat 3/4	4
20	WFF-0.75	Washer Flat 3/4 (Soel)	4
21	CS-HH-12-1.75X25MM	Screw Cap Hex: 12-1.75X 25 mm	4
22	WL-12M	Washer Lock 12 mm	4
23	WF-12M	Washer Flat 12 mm	4
24	FE186810406S	EI #4 ORS Flat Face, #6 O-Ring Boss	3
25	FE186811616S	EI #16 ORS Flat Face, #16 O-Ring Boss	1
26	2062-20-20S	Adapter, Hydraulic: 2062-20-20S	1
27	2070-20-20S	Adapter, Hydraulic: 2070-20-20S	1
28	FE185210406S	HA-FE185210406S	2
29	FE206811212	Adaptor, Aeroquip: FE206811212S	1
30	TM60510-25	JCB Cable Clip	4

# Auger Valve Bracket Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60510-00	JCB Valve Bracket Assembly T4F	1
2	TA-60510-13	PVG100 Auger Valve Kit	1
3	JCB Supplied	Tier 4 Power Hold Box w-Connector	1
4	TA-60090-00-2	Electrical Junction Box Assembly Engine	1
5	TM60090-03-1	Electrical Junction Box Gasket Plate	1
6	TB60090-04	Electrical Junction Box Gasket	1
7	TA-60510-02	Viking Air Valve-CAN Bus Splitter Assembly	1
8	NR-0.25-20-PL,0.165-0.260	Rivet Nut 1/4-20 (Plated) 0.165-0.260 Thickness	8
9	WL-0.25	Washer Lock 1/4	4
10	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	6
11	NF-0.25-20	Nut Flanged Lock : 1/4-20	2



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T-644

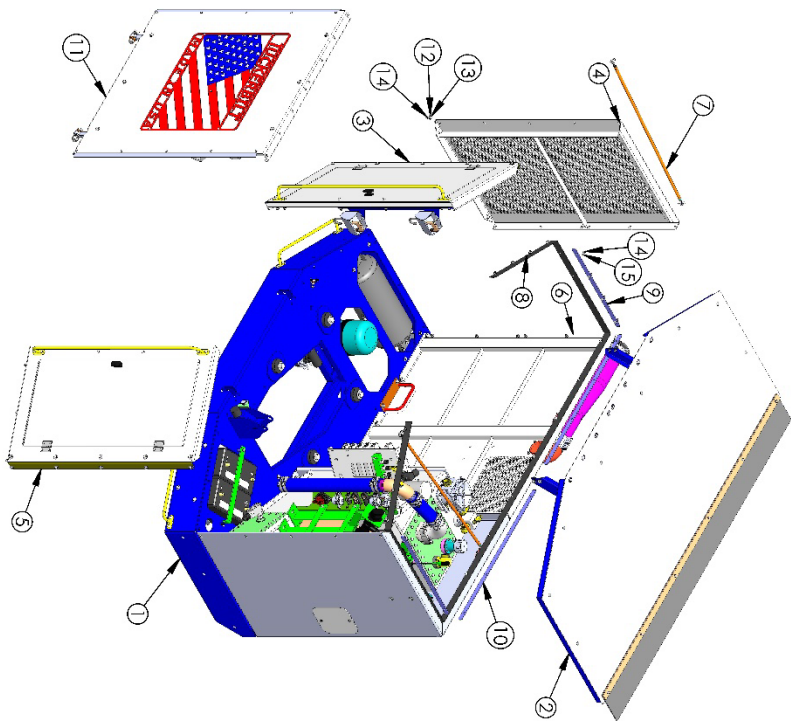
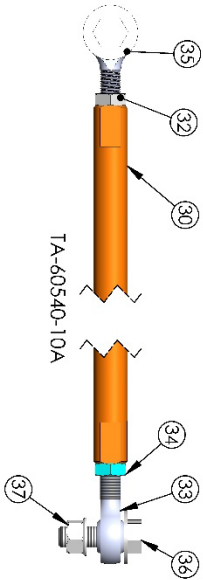
Auger Valve Bracket Assembly Hardware

DR. BY MCT  
DATE 10/7/2020  
SHOP # TA-60510-00

# Engine Base

## Engine Base Components

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TA-60500-00B	Engine Base Assembly Hardware	1
2	TA-60520-00	Engine Base Roof Assembly	1
3	TA-60540-00L	Engine Base Side Door Bolted Assembly Left	1
4	TM60550-00	Engine Base Cowl Assembly	1
5	TA-60540-00R	Engine Base Side Door Bolted Assembly Right	1
6	TA-60560-00	Engine Base Back Wall Assembly Hardware	1
7	TA-60540-10A	Engine Base Corner Strut Assembly	2
8	TB60570-01	Engine Base Wall Gasket	1
9	TM60570-02	Engine Base Wall Gasket Washer, Side	4
10	TM60570-03	Engine Base Wall Gasket Washer, Back	2
11	TA-60531-00	Engine Base Back Door Assembly Hardware	1
12	WF-0.375	Washer Flat 3/8	3
13	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	3
14	NF-0.375-16	Nut Flanged Lock : 3/8-16	27
15	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	24



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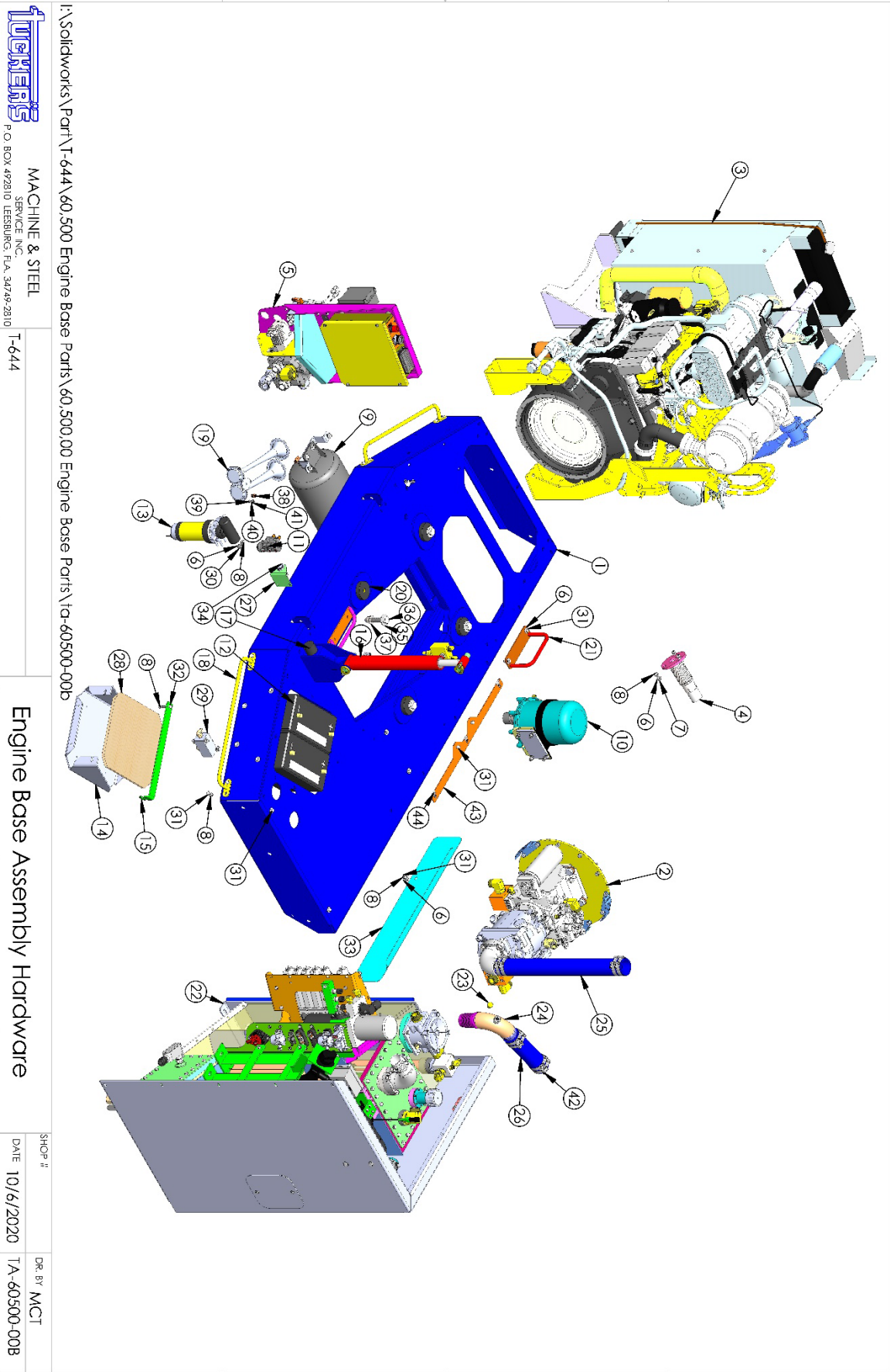
ta-60500-00  
T-644

Engine Base Corner Strut Assembly

SHOP #  
DATE  
DE BY MCT  
TA-60540-10A

ITEM NO.	OrderNo	DESCRIPTION	Bolted/QTY.
30	TM60540-10	Engine Base Corner Strut	1
31	RE-TRE6	Rod End TRE6 Male 3/8"-24	1
32	NJ-0.375-24	Nut Jam : 3/8-24	1
33	RE-TRELH6	Rod End TRELH6 Male 0.375-24, Left Hand	1
34	NJLH-0.375-24	Nut Jam : 3/8-24 Left Hand	1
35	WF-0.375	Washer Flat 3/8	2
36	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	2
37	NF-0.375-16	Nut Flanged Lock : 3/8-16	2

# Engine Base Assembly Hardware



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**LEEBURG**  
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Engine Base Assembly Hardware

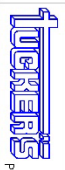
SHOP #  
 DATE 10/6/2020  
 DR. BY MCT  
 TA-60500-00B

# Engine Base Assembly BOM

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60500-00	Engine Base Assembly	1
2	TA-60500-00-01	JCB Tier 4 to Pumps Hardware	1
3	TB65975JCB-TIER4F	JCB 145HP @ 2200 RPM TIER 4 Final	1
4	TM60510-14	JCB Tier 4F Exhaust Stack Assembly	1
5	TA-60510-00	Auger Valve Bracket Assembly Hardware	1
6	WF-0.375	Washer Flat 3/8	17
7	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	3
8	NF-0.375-16	Nut Flanged Lock : 3/8-16	30
9	TA-80610	Air Tank Hardware	1
10	TA-80619-1	Air Dryer Assembly Hardware	1
11	TA-80609	Governor Assembly Hardware	1
12	TB80586-1	Battery - 9A31, T-644	2
13	TB65975-15-14	Fuel Lift Pump - JCB Tier 4	1
14	TM60500-08	Battery Tray	1
15	TM60500-07	Battery Strap	1
16	TA-60500-710	Back Door Cylinder Assembly Hardware	1
17	TB60500-01	Rubber Bumper 30mm OD x 12mm Hign, M8X1.25	1
18	TM60080-00-2	Handle Assembly Short	2
19	TB80608-2	Horn, Air	1
20	TB64106	Lord Vibration Mount - Engine	4
21	TM60560-04	Engine Base Back Wall Hose Guard Assembly	1
22	TA-60710-00	Hydraulic Oil Tank Assembly Hardware	1
23	900598-85	Adapter, Hydraulic: 900598-85	1
24	TM60700-16	Auxiliary Pump Suction/Prime Elbow	1
25	TM66901-44	Auxiliary Pump Suction, Long	1
26	TM66901-43	Auxiliary Pump Suction, Short	1

ITEM NO.	OrderNo	DESCRIPTION	QTY.
27	TM60500-15	Engine Base Door Sensor Bracket	1
28	TM60500-17	Engine Base Battery Tray Plywood	1
29	TA-60510-30	JCB Tier 4 Fuel Manifold Kit	1
30	CS-HH-0.375-16X1.5	Screw Cap Hex: 3/8-16 X 1 1/2	2
31	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	24
32	CS-HH-0.375-16X2.25	Screw Cap Hex: 3/8-16 X 2 1/4	1
33	TM60500-09	Engine Base Oil Tank Cover	1
34	TB66130-08-TU	Sensor, N/O PNP E57G Proximity	1
35	WF-0.75	Washer Flat 3/4	4
36	CS-HH-0.75-10X4	Screw Cap Hex: 3/4-10 X 4	4
37	NF-0.75-10	Nut Flanged Lock : 3/4-10	4
38	DOT-MC-0.25X0.25	DOT Male Connector PP68CG 1/4 X 1/4	1
39	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	3
40	WF-0.25	Washer Flat 1/4	3
41	NF-0.25-20	Nut Flanged Lock : 1/4-20	3
42	TB80431-1	2-1/2" Suction Hose SS T Bolt Clamps	8
43	TM60500-14	Engine Base Back Wall Bolt Clip	1
44	NCOB-0.375-16	Nut Clip-On Barrel: 3/8-16 .05-.2, .750 Hole	3
45	TM60500-21	Engine Base Auger Hose Guard	1

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T-644

## Engine Base Assembly Hardware

SHOP #  
DATE 10/8/2020  
DR BY MCT  
TA-60500-00B

# Engine Base Back Door Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60531-00	Engine Base Back Door Weldment Assembly	1
2	TM60531-08	Engine Base Back Door Deck Weldment	1
3	TM60530-10	Engine Base Back Door Seal Lip	2
4	TM60530-06	Engine Base Back Door Seal	2
5	TM60025-03-01	Flag Logo Stripes	1
6	TM60025-03-02	Flag Logo Stars	1
7	TB66130-08-TU	Sensor, N/O PNP Turck Proximity	1
8	RE-TR12LF	Rod End TR12 Femdale 3/4"-16 Lube Free	2
9	CS-HH-0.75-10X3	Screw Cap Hex: 3/4-10 X 3	2
10	WFF-0.75	Washer Flat 3/4 (Sae)	4
11	NF-0.75-10	Nut Flanged Lock : 3/4-10	2
12	CS-HH-0.75-16X3.5	Screw Cap Hex: 0.75-16 X 3.5	2
13	WL-0.75	Washer Lock 3/4	2
14	TM65157	Grill Assy Rubber Bolt Bumper	1
15	WF-0.375	Washer Flat 3/8	6
16	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	8
17	NF-0.375-16	Nut Flanged Lock : 3/8-16	8
18	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	23
19	NF-0.25-20	Nut Flanged Lock : 1/4-20	12
20	CS-FHS-0.25-20X0.75	Screw Cap: FH Sd. 1/4-20 X 3/4	2
21	TM60530-13	Engine Base Back Door Ladder Weldment	1

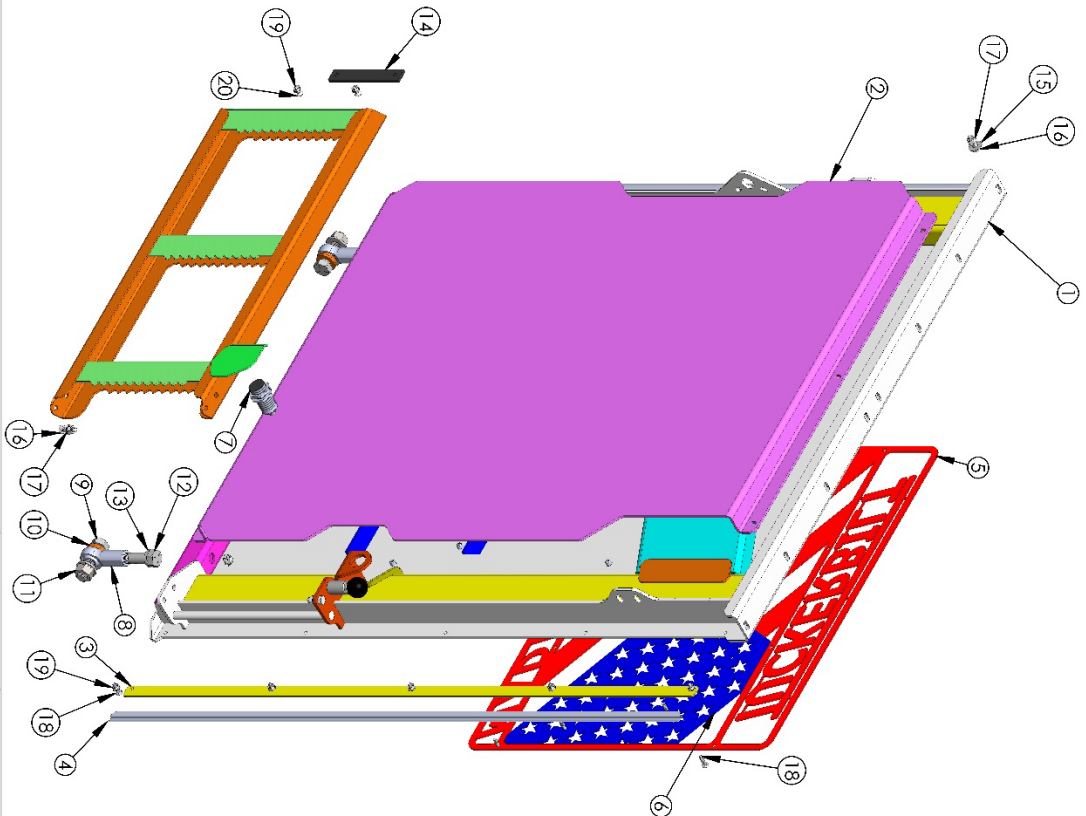
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T-644

## Engine Base Back Door Assembly Hardware



SHOP #

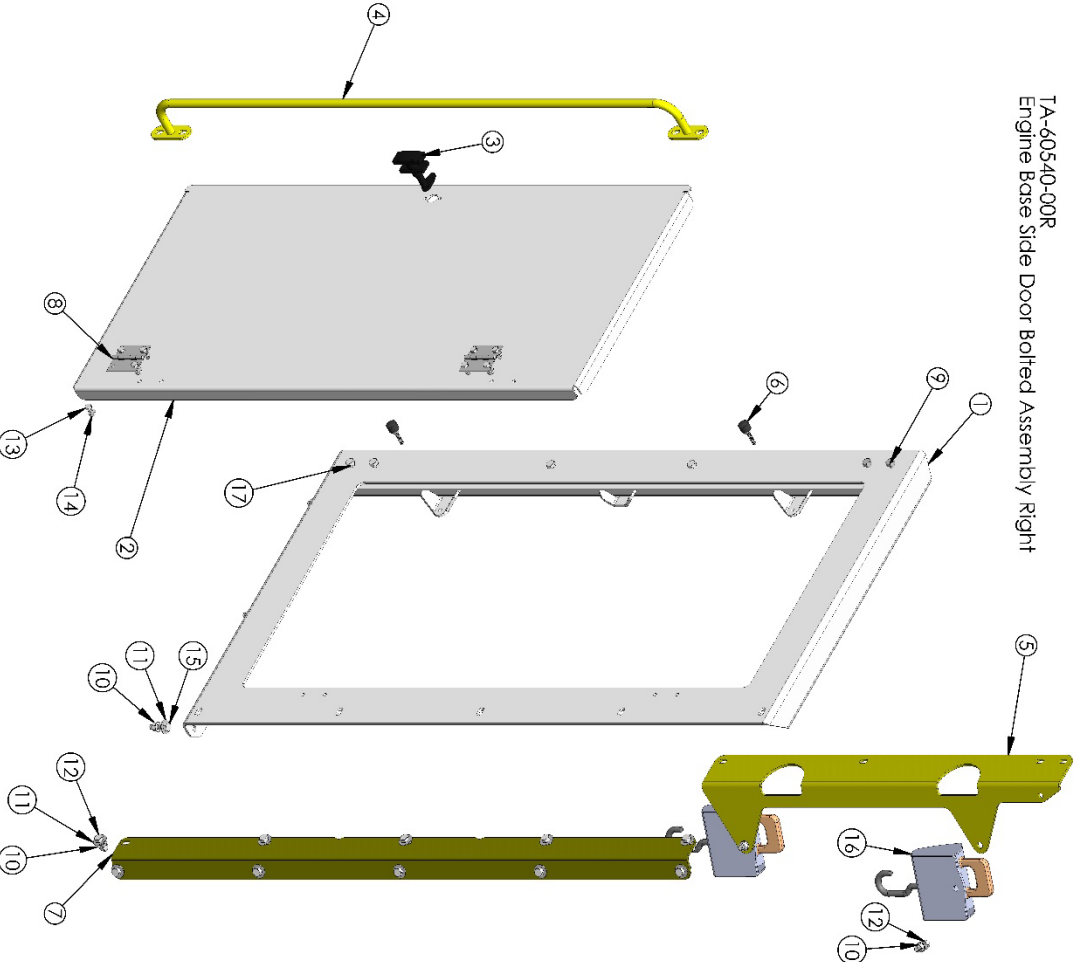
DATE 10/12/2020 DR. BY MCI TA-60531-00

# Engine Base Right Door

ITEM NO.	OrderNo	DESCRIPTION	Default/ QTY.
1	TM60540-02R	Engine Base Side Door Frame Weldment Right	1
2	TM60540-01A	Engine Base Side Door Assy.	1
3	TB60540-07	T-Handle Cam Latch, Door Handle	1
4	TM60080-00-1	Handle Assembly Long	1
5	TM60540-11R	Engine Base Corner Strut Bracket, Rear Right	1
6	TB60540-06	Adjustable Metal Core Bumper	2
7	TM60540-13	Engine Base Side Door Frame Bolt Plate	1
8	TM60870-00	Stainless Hinge for Cab-Engine Doors	2
9	CS-HH-0.375-16X2.75	Screw Cap Hex: 3/8-16 X 2 3/4	2
10	NF-0.375-16	Nut Flanged Lock : 3/8-16	21
11	WF-0.375	Washer Flat 3/8	13
12	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	12
13	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	8
14	NF-0.25-20	Nut Flanged Lock : 1/4-20	8
15	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	3
16	TB66572	CargoBuckle F18800 G3 Retractable Ratchet	2
17	CS-HH-0.375-16X2.5	Screw Cap Hex: 3/8-16 X 2 1/2	4

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 Tc-60500-00  
 T-644



TA-60540-00R  
 Engine Base Side Door Bolted Assembly Right

SHOP #  
 DATE 10/9/2020  
 DR. BY MCT  
 TA-60540-00R

# Engine Base Left Door

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60540-02L	Engine Base Side Door Frame Weldment Left	1
2	TM60540-01A	Engine Base Side Door Assy.	1
3	TB60540-07	T-Handle Cam Latch, Door Handle	1
4	TM60080-00-1	Handle Assembly Long	1
5	TM60540-11L	Engine Base Corner Strut Bracket, Rear Left	1
6	TB60540-06	Adjustable Metal Core Bumper	2
7	TM60540-13	Engine Base Side Door Frame Bolt Plate	1
8	TM60870-00	Stainless Hinge for Cab-Engine Doors	2
9	WF-0,375	Washer Flat 3/8	13
10	CS-HH-0,375-16X1	Screw Cap Hex: 3/8-16 X 1	12
11	NF-0,375-16	Nut Flanged Lock : 3/8-16	21
12	CS-HH-0,375-16X2,75	Screw Cap Hex: 3/8-16 X 2 3/4	2
13	CS-HH-0,25-20X0,75	Screw Cap Hex: 1/4-20 X 3/4	8
14	NF-0,25-20	Nut Flanged Lock : 1/4-20	8
15	CS-HH-0,375-16X1,25	Screw Cap Hex: 3/8-16 X 1 1/4	3
16	TB66572	CargoBuckle F18800 G3 Retractable Ratchet	2
17	CS-HH-0,375-16X2,5	Screw Cap Hex: 3/8-16 X 2 1/2	4

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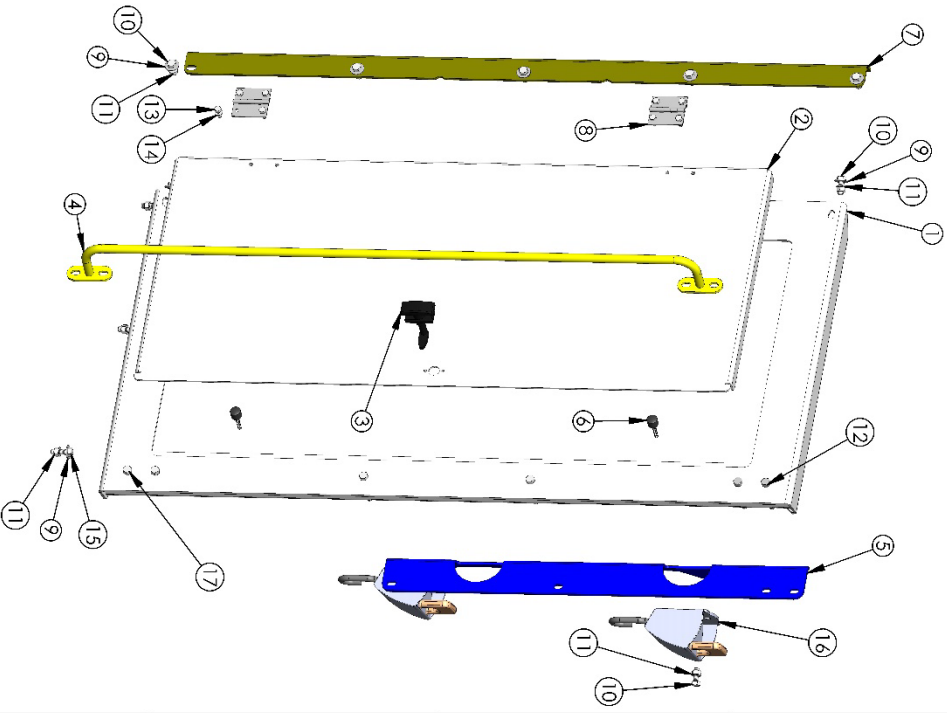
**MACHINE & STEEL**  
SERVICE INC.  
P.O. BOX 492810 LEESSBURG, FLA. 34749-2810

ta-60500-00  
T-644

Engine Base Side Door Bolted Assembly Left

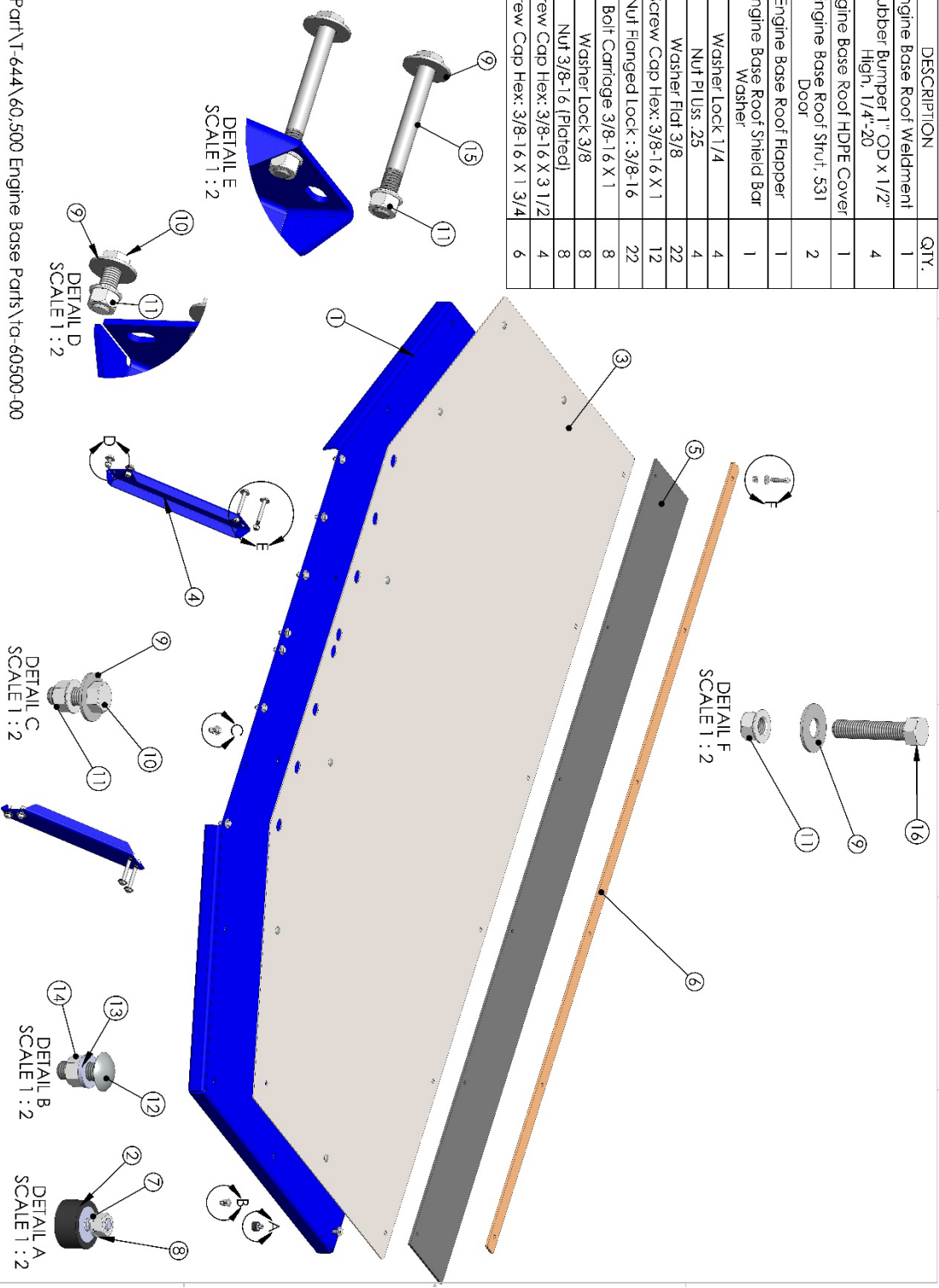
SHOP #  
DATE 10/8/2020  
DR BY MCT  
TA-60540-00L

TA-60540-00L  
Engine Base Side Door Bolted Assembly Left



# Engine Base Roof Hardware

ITEM NO.	ORDER NUMBER	DESCRIPTION	QTY.
1	TM60520-00	Engine Base Roof Weldment	1
2	1B66500-02	Rubber BUMPER 1" OD x 1/2" High, 1/4"-20	4
3	TM60520-08	Engine Base Roof HDPE Cover	1
4	TM60520-12	Engine Base Roof Strut, 531 Door	2
5	TM60520-11	Engine Base Roof Flapper	1
6	TM60520-10	Engine Base Roof Shield Bar Washer	1
7	WL-0.25	Washer Lock 1/4	4
8	NU-0.25-20-PL	Nut Pl Uss .25	4
9	WF-0.375	Washer Flat 3/8	22
10	38-1CS	Screw Cap Hex: 3/8-16 X 1	12
11	NF-0.375-16	Nut Flanged Lock : 3/8-16	22
12	38X16CB	Bolt Carriage 3/8-16 X 1	8
13	WL-0.375	Washer Lock 3/8	8
14	38N	Nut 3/8-16 (Plated)	8
15	91247A638	Screw Cap Hex: 3/8-16 X 3 1/2	4
16	38-134CS	Screw Cap Hex: 3/8-16 X 1 3/4	6



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MACHINE & STEEL SERVICE, INC.  
P.O. BOX 492810 DEERBURG, FLA. 34749-2810

TA-60500-00  
T-644

Engine Base Roof Assembly

SHOP #  
DATE 10/13/2020  
DR. BY MCT  
TA-60520-00

# Engine Base Back Wall & Exhaust Tier 4 Final Only

ITEM NO.	OrderNo	DESCRIPTION	T4F/QTY.
1	TM60560-00	Engine Base Back Wall Assembly	1
2	TM60560-07	Engine Base Back Wall Exhaust Elbow Assembly	1
3	TB66729-2	Engine Base Back Wall Exhaust Tailpipe	1
4	TM60903-40	Hopper Side Exhaust Tip Assembly	1
5	TB80651-S8C4	Muffler Step Band Clamp 4"	2
6	WF-0.25	Washer Flat 1/4	8
7	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	8
8	NF-0.25-20	Nut Flanged Lock : 1/4-20	8
9	WF-0.375	Washer Flat 3/8	14
10	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	5
11	NF-0.375-16	Nut Flanged Lock : 3/8-16	12
12	NCOB-0.375-16	Nut Clip-On Barrel: 3/8-16 .05-.2, .750 Hole	1
13	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	11
18	TM60540-08	Engine Base Corner Strut Bracket, Front	1

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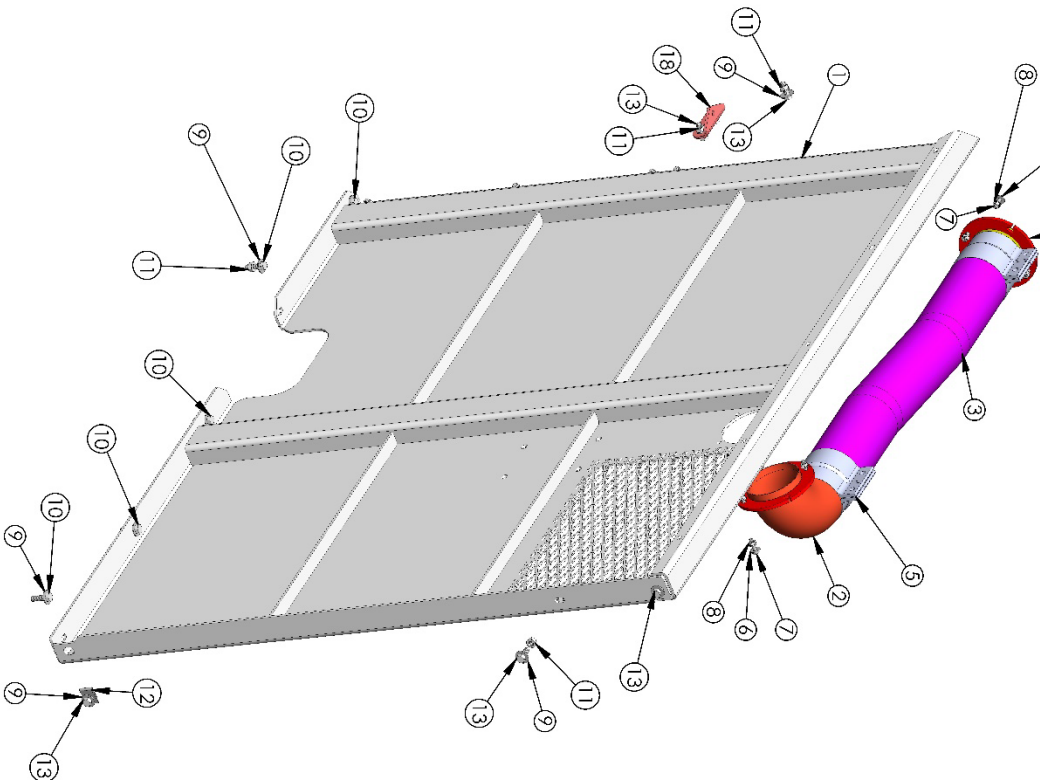
**TOWERBIS**  
SERVICE, INC.  
P.O. BOX 492810 DEERBURG, FLA. 34749-2810

MACHINE & STEEL  
T-644

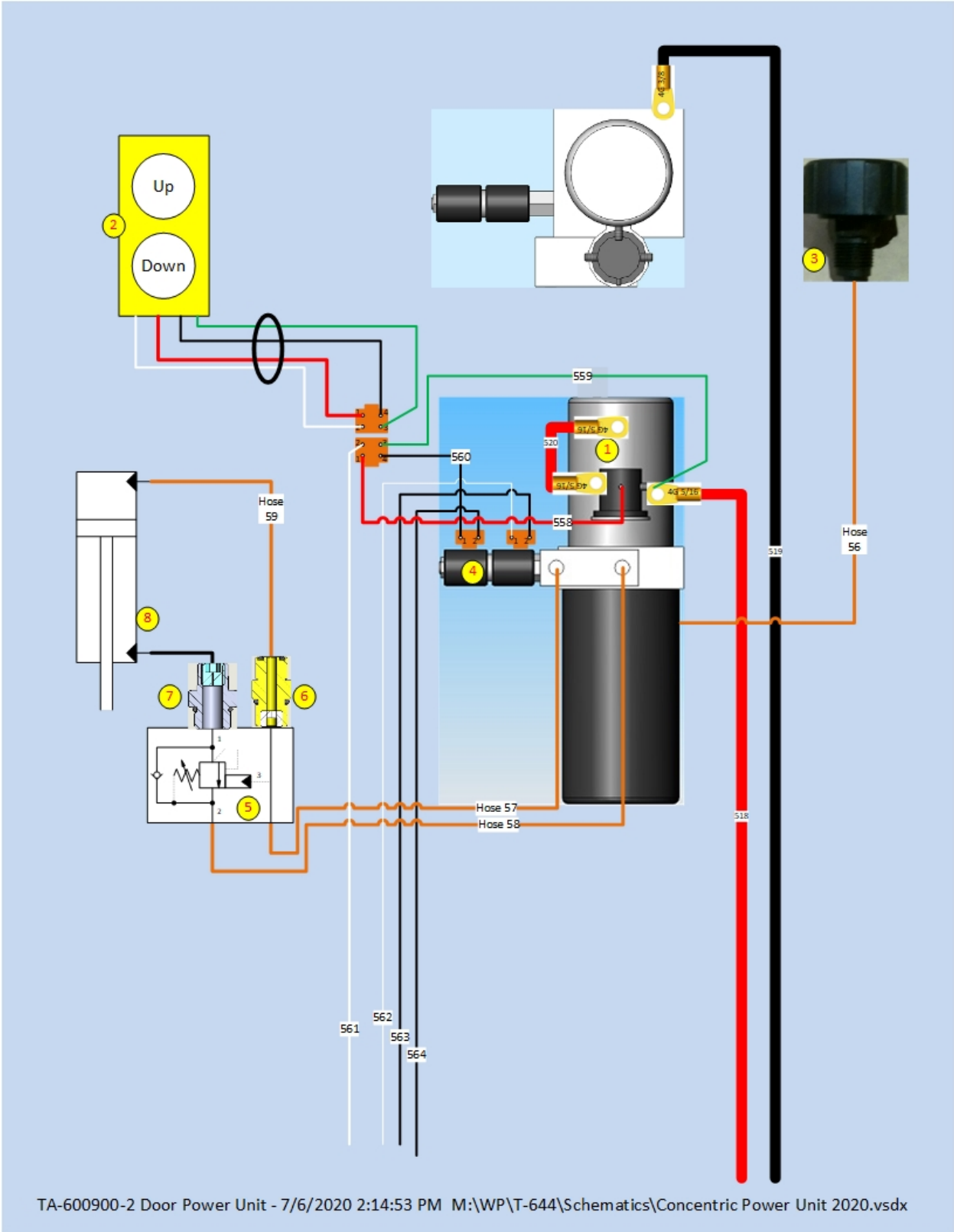
Engine Base Back Wall Assembly Hardware

SHOP #  
DATE 10/1/2020

DR. BY MCT  
60,560.00



Engine Bay Door Power Unit



TA-600900-2 Door Power Unit - 7/6/2020 2:14:53 PM M:\WP\T-644\Schematics\Concentric Power Unit 2020.vsd

## Engine Bay Door Power Unit BOM

T-644 Concentric Power Unit 2020				
Key	Description	Mfg #	Tucker #	Qty
1	Engine Door Hydraulic Power Unit	TB-Hoodlift-SPX	TB66130-33	1
2	Stone Hand Controller Up/Down	SPX-Stone - KG13	TB66130-34	1
3	Hydraulic Power Unit Breather	SPX-Stone - 1214-AA	TB66130-33-1	1
4	Solenoid Cartridge, Vickers - Double	Vickers - 02-199325 (SV9-10-A-0-00)	TB66130-35	1
	Solenoid, Vickers 12v Deustch Connector	Vickers - 300AA00101A	TB66130-36	2
5	Valve Body Lift Cyl. Saftey (Vickers)	Vickers - 35415A CBV	TB80215B	1
	Valve Cartridge Lift Cyl. Saftey (Vickers)	Vickers - CBV110C0A30	TB80215C	1
6	Engine Base Cylinder Orifice, Pin End		TM60510-12	1
7	Engine Base Cylinder Orifice, Rod End		TM60510-11	1
8	16" Cylinder Chute Spout Gate - Engine Hood	Aero Hardware - 6431 CYL	TB80701-1	1

## Filter List

T-644 Filters, JCB Tier 4 Interim and Final							
	Tucker #	Donaldson	Wix	Napa	JCB	Other	Service Hours
Respa CF Cab Pressurizing Replacement Filter	TB80661-01	NC	NC	NC		Visionaire - 616-FEFF008	1000
Respa CFX Recirculation Replacement Filter	TB80662-01	NC	NC	NC		Visionaire - 616-FEFF011	1000
Strainer for Danfoss Propel Pump Suction	TB66216	NC	NC	NC		Stauff - SUS-A-088-N24-226-125-A-O	Yearly
Strainer for Auxillary Pump	TB80100-1	NC	NC	NC		Michigan Fluid Power - SU75SF40	Yearly
Danfoss Propel Charge Pressure Filter	TB66203-01	NC	NC	NC		Danfoss - 11004919	After first 50, then every 500
Filter for Auxillary Return	2 - TB64101-01	NC	57756	NC		Stauff - 1020013910	After first 50, then every 500
Compressor Inner Filter	TB64575-24-I	P822858	42985	2985			500
Compressor Outer Filter	TB64575-24-O	P821575	46438	6438			500
Engine Primary Air Filter	TB64575-24-T4IP	NC	NC	NC	320/05763		500
Engine Safety Air Filter	TB64575-24-T4IS	NC	NC	NC	320/05764		500
Engine Fuel	TB65975-4-T4I	NC	NC	NC	320/07382		After first 50, then every 500
Engine Oil	TB65975-5	P502465	57233	NC	320/04133		After first 50, then every 500
Engine Lift Pump/Fuel Water Seperator	TB65975-6	P551433	33609	NC	32/925950		After first 50, then every 500
Engine CCV Filter	TB65975-6-CCV	NC	NC	NC	320/07735		1500
DEF Pump Filter and Tool, Tier 4 Final Only	TB65975-6-DEF	NC	NC	NC	334/D7569		1000 Or Yearly
NC = No Cross Reference Known at this time							
Wheel Gearbox	Change Lubricant after first 50 hours, then yearly. Uses HD 85W-140 Gear Lubricant						

# Frame

## Lower Frame Assembly Components For Serial Number 4220029 And Below

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TA-60100-00	Rear Frame Assembly Components	1
2	TA-60200-00	Front Frame Assembly Components	1
3	TA-60011-00-BRK	Articulate Pivot Pin Bottom Repair Kit	1
4	TA-60011-00-TRK	Articulate Pivot Pin Top Repair Kit	1
5	TA-60050-00-F	Bumper Assembly Components, Front	1
6	TA-60050-00-R	Bumper Assembly Components, Rear	1
7	TM60106-01	Rear Frame Encoder Bracket	1
8	TM60106-02	Rear Frame Encoder Base	1
9	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	6
10	NF-0.25-20	Nut Flanged Lock : 1/4-20	6
11	NCOB-0.25-20-0.781	Nut Clip-On Barrel: 1/4-20 .025-.15 .781 Hole	12
12	TB66130-37-61	Joyal PE30 Extended Thread Encoder Assembly	1
13	TM60106-03	Rear Frame Encoder Shield	1
14	TA-60400-00	Upper Turntable Hardware Assembly Kit	1
16	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	4
17	WF-0.25	Washer Flat 1/4	12
18	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	8
19	TM60101-05	Wheel Box Cover Plate	4
20	TM60101-06	Wheel Box Cover Plate Clamp	4
21	TM60107-00	Rear Frame Cover Assembly	1
22	TM60107-04	Rear Frame Cover Clamp Assembly	2
23	WF-0.375	Washer Flat 3/8	9
24	CS-HH-0.375-16X1.75	Screw Cap Hex: 3/8-16 X 1 3/4	10
25	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	3
26	NF-0.375-16	Nut Flanged Lock : 3/8-16	3
27	TM60200-14	Front Frame Cover Assembly	1
28	TM60200-15	Front Frame Cover Clamp Assembly	2
29	TB800343	Nuts Right Hand Wheel	44
30	TM60107-05	Rear Frame Cover Washer	4

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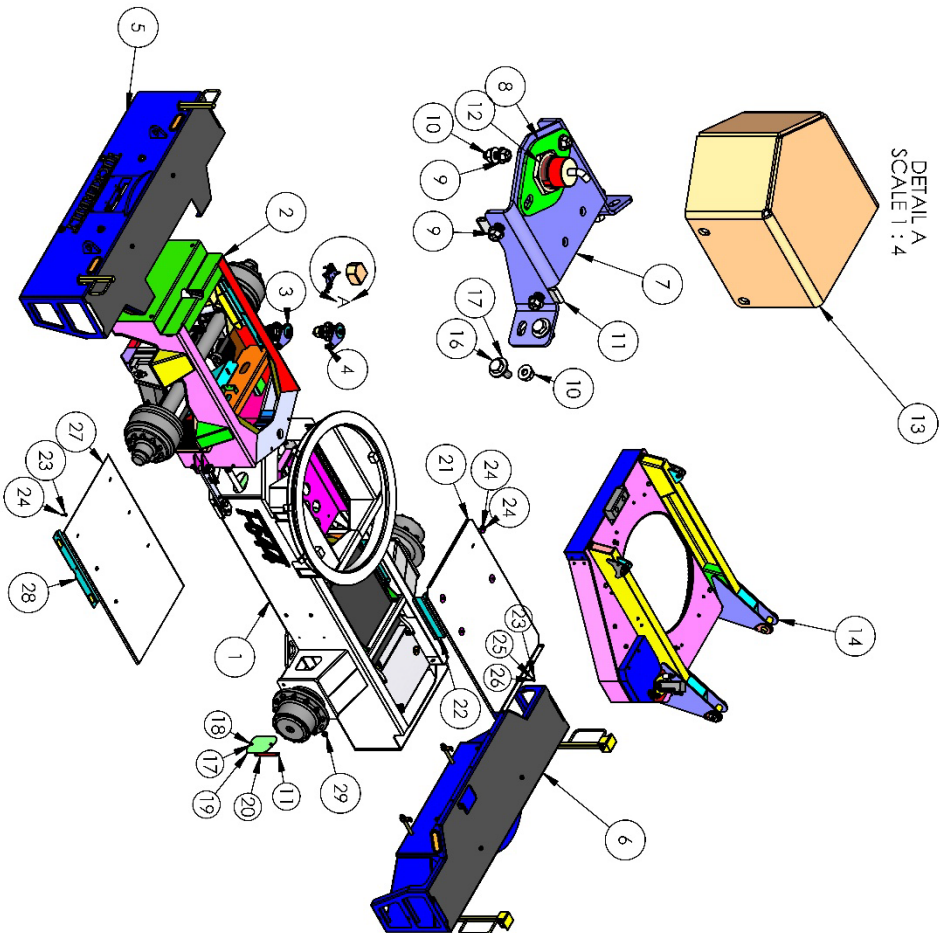


MACHINE & STEEL SERVICE, INC.  
P.O. BOX 492310, LEESBURG, FLA. 34748-2310

Serial Numbers Through 4220029  
T-644

T-644 Lower Frame Assembly

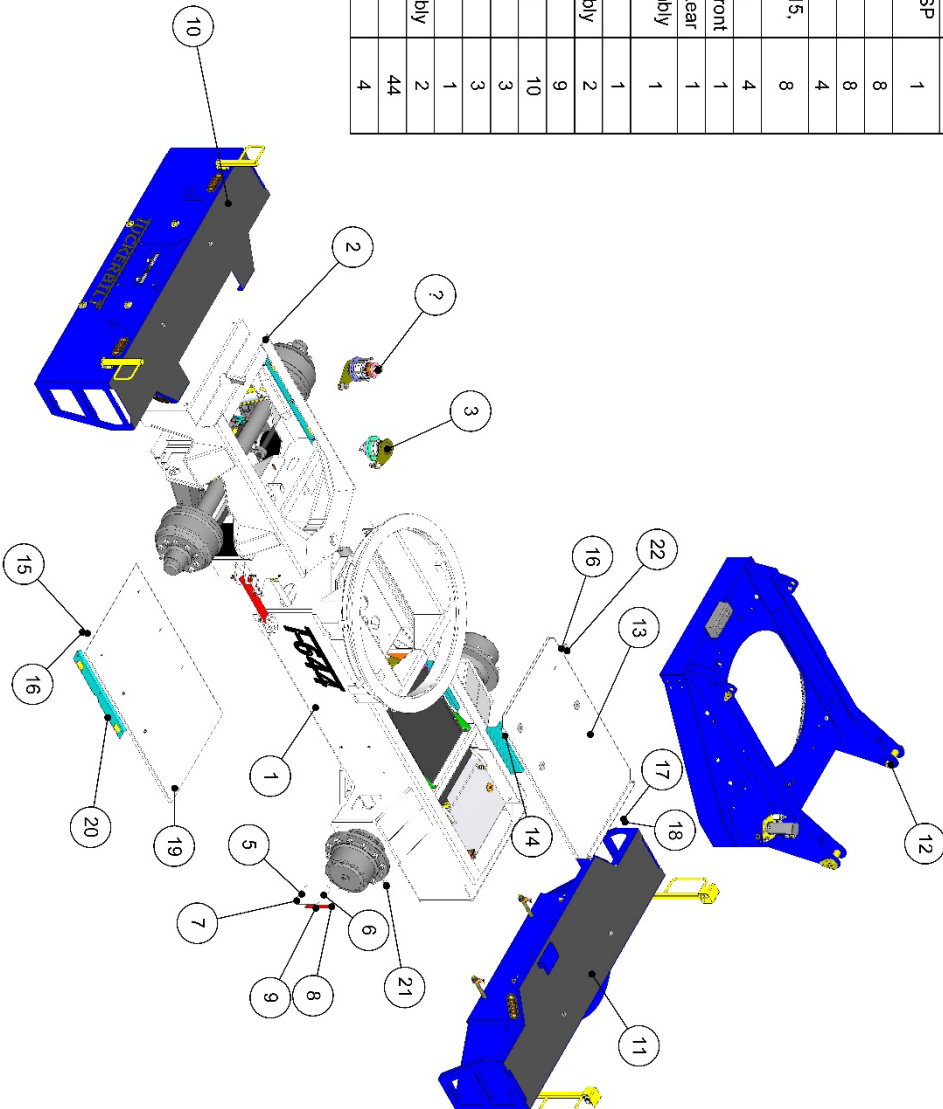
SHOR #  
DATE 9/17/2020  
DR. BY MCT A+



# Lower Frame Assembly Components For Serial Number 4230030 Through 4250050

ITEM NO.	Order/No	DESCRIPTION	QTY.
1	TA-60100-00	Rear Frame Assembly Components	1
2	TA-60210-00	Front Frame Assembly Components	1
3	TA60011-20-01	Articulate Pivot Pin, Top, 3SP Bearing	1
4	TA-60011-20-02	Articulate Pivot Pin Kit, Bottom, 3SP Bearing	1
5	CS-HH-0-25-20X1	Screw Cap Hex: 1/4-20 X 1	8
6	WF-0-25	Washer Flat 1/4	8
7	TM60101-05	Wheel Box Cover Plate	4
8	NCOB-0-25-20-0.781	Nut Clip-On Barrel: 1/4-20 .025-.15, .781 Hole	8
9	TM60101-06	Wheel Box Cover Plate Clamp	4
10	TA-60050-00-F	Bumper Assembly Components, Front	1
11	TA-60050-00-R	Bumper Assembly Components, Rear	1
12	TA-60400-00	Upper Turntable Hardware Assembly Kit	1
13	TM60107-00	Rear Frame Cover Assembly	1
14	TM60107-04	Rear Frame Cover Clamp Assembly	2
15	WF-0.375	Washer Flat 3/8	9
16	CS-HH-0.375-16X1.75	Screw Cap Hex: 3/8-16 X 1 3/4	10
17	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	3
18	NF-0.375-16	Nut Flanged Lock : 3/8-16	3
19	TM60200-14	Front Frame Cover Assembly	1
20	TM60200-15	Front Frame Cover Clamp Assembly	2
21	TB80343	Nuts Right Hand Wheel	44
22	TM60107-05	Rear Frame Cover Washer	4

Serial Numbers 4230030 Through 4250050



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SERVICE, INC.  
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Lower Frame Assembly

CUSTOMER: T-644

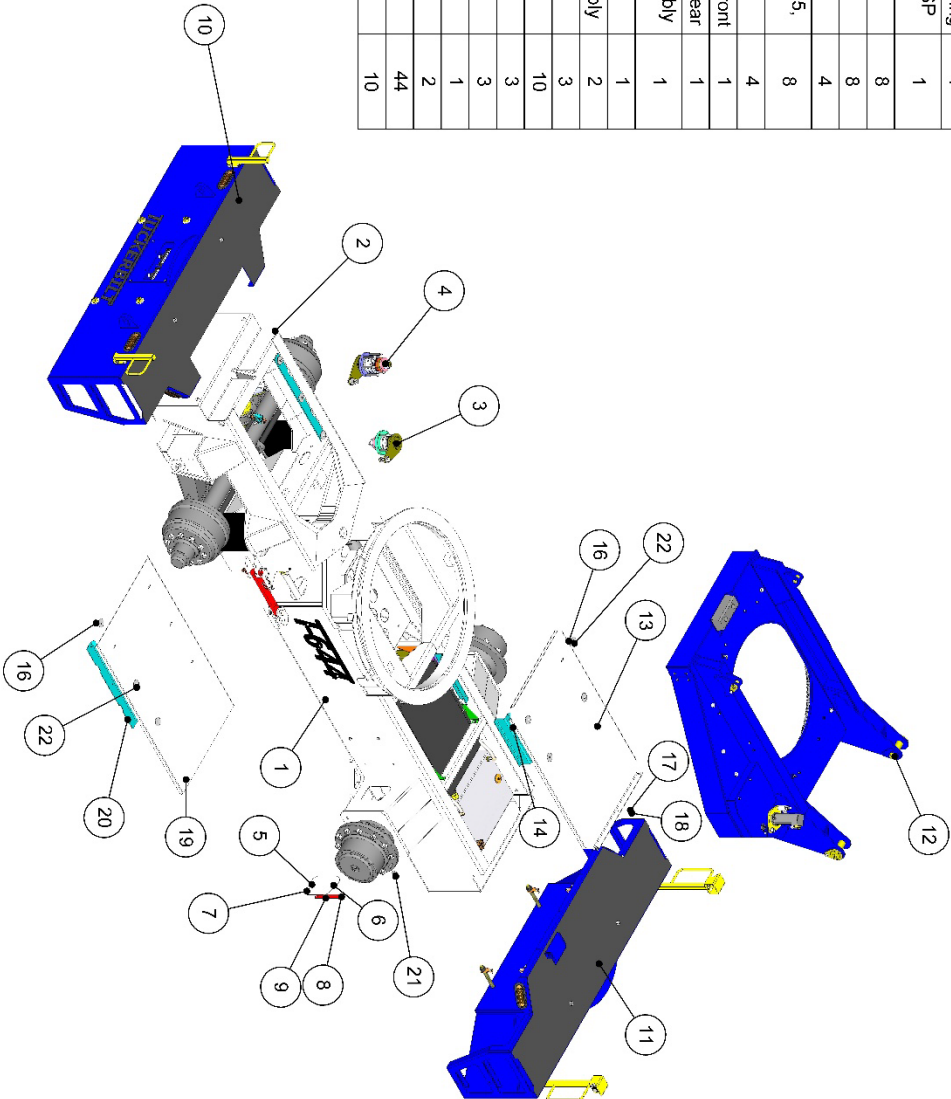
SHOP # -  
SALES # -  
DR. BY MCT  
DATE 02-13-2023

DWG. NO. TA-600000-B+

# Lower Frame Assembly Components For Serial Number 4250051 and Above

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TA-60100-00	Rear Frame Assembly Components	1
2	TA-60215-00	Front Frame Assembly Components	1
3	TA60011-20-01	Articulate Pivot Pin, Top, 3SP Bearing	1
4	TA-60011-20-02	Articulate Pivot Pin Kit, Bottom, 3SP Bearing	1
5	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	8
6	WF-0.25	Washer Flat 1/4	8
7	TM60101-05	Wheel Box Cover Plate	4
8	NCOB-0.25-20-0.781	Nut Clip-On Barrel: 1/4-20 .025-.15, .781 Hole	8
9	TM60101-06	Wheel Box Cover Plate Clamp	4
10	TA-60050-00-F	Bumper Assembly Components, Front	1
11	TA-60050-00-R	Bumper Assembly Components, Rear	1
12	TA-60400-00	Upper Turntable Hardware Assembly Kit	1
13	TM60107-00	Rear Frame Cover Assembly	1
14	TM60107-04	Rear Frame Cover Clamp Assembly	2
15	WF-0.375	Washer Flat 3/8	3
16	CS-HH-0.375-18X1.75	Screw Cap Hex: 3/8-16 X 1 3/4	10
17	CS-HH-0.375-18X1	Screw Cap Hex: 3/8-16 X 1	3
18	NF-0.375-16	Nut Flanged Lock : 3/8-16	3
19	TM60215-14	Front Frame Cover Assembly	1
20	TM60215-15	Front Frame Cover Clamp	2
21	TB80343	Nuts Right Hand Wheel	44
22	TM60107-05	Rear Frame Cover Washer	10

Serial Numbers 4250051 And Up



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SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Lower Frame Assembly

CUSTOMER: T-644

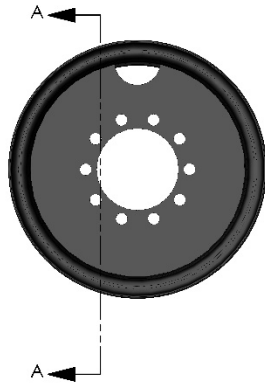
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DR. BY MCT  
DATE 02-13-2023

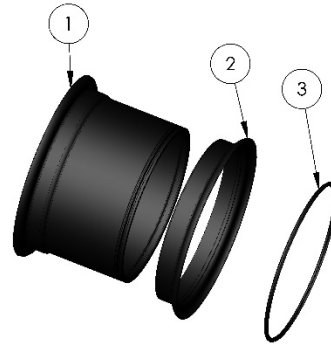
DWG. NO. TA-600000-2+  
**B+**

# Wheel Assemblies

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM81001	Front Wheel Assembly Welded & Painted	1
2	TB80221	Wheel Side Ring	1
3	TB80222	Wheel Lock Ring	1



TM81001-WA  
2 Per Unit



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DR. BY MCT

T-630

DATE 6/27/2013



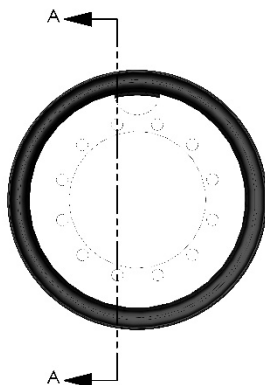
MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Front Wheel Assy w-Side Ring, Lock Ring

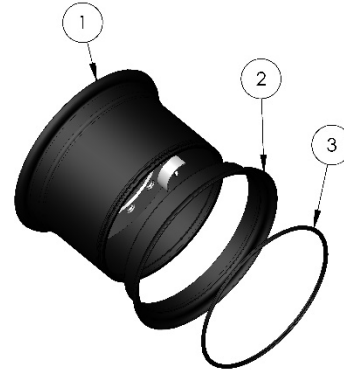
SHOP #

81001-WA

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM81000	Rear Wheel Assembly Welded & Painted	1
2	TB80221	Wheel Side Ring	1
3	TB80222	Wheel Lock Ring	1



TM81000-WA  
2 Per Unit



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DR. BY MCT

T-630

DATE 6/27/2013



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Rear Wheel Assy w-Side Ring & Lock Ring

SHOP #

81000-WA

*Pro-Trac Construction Tires*



<b>INDUSTRIAL LOADER L2 - (5 MPH MAX SPEED)</b>									
TIRE CODE	SIZE	PLY	WGT	O.D.	C.S.	TREAD DEPTH 32NDS	MAX LOAD	MAX PSI	RIM WIDTH
BSL-8000-PT	15.5-25 L2	12	168	50.3	15.5	29	12,300	58	12.00
BSL-8001-PT	17.5-25 L2	12	183	53.1	17.5	31	13,600	51	14.00
<b>BSL-8002-PT</b>	<b>17.5-25 L2</b>	<b>16</b>	<b>184</b>	<b>53.1</b>	<b>17.5</b>	<b>31</b>	<b>16,100</b>	<b>69</b>	<b>14.00</b>
BSL-8003-PT	20.5-25 L2	12	243	58.8	20.5	35	14,800	36	17.00
BSL-8042-PT	20.5-25 L2	16	263	58.8	20.5	35	18,200	51	17.00
BSL-8008-PT	23.5-25 L2	16	504	63.7	23.5	40	20,900	44	19.50

<http://www.pro-tractire.com/construction.php>

Tuckerbilt ®

T-644 Tire Pressure: 65 PSI

# Front Frame

## Front Frame Assembly Components for Serial Number 4250050 and Below

ITEM NO.	Order/No	DESCRIPTION	QTY.
1	TM60210-00	Front Frame Assembly	1
2	TM81762	Front Axle Assembly	1
3	TM60010-00-01	Cylinder Pin Assembly, Bolt on flange T-644	2
4	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	2
5	WFF-0.5	Washer Flat 1/2 (Soe)	2
6	NF-0.5-13	Nut Flanged Lock : 1/2-13	2
7	MI-CF-0.25-ST	Grease Fitting 1/4" Stit.	2
8	TB65572-01	Air Ride Nylon Endless Safety Sling	2
9	TB80570-41	Shock, Air Ride Suspension	2
10	CS-HH-0.75-10X4	Screw Cap Hex: 3/4-10 X 4	2
11	NF-0.75-10	Nut Flanged Lock : 3/4-10	2
12	TB80611	Valve Brake Quick Release	2
13	2083-6-4S	Adapter, Hydraulic: 2083-6-4S	2
14	DOT-ME190-0.375X0.25	DOT Male Elbow 90 Deg PP69EE 3/8 X 1/4	2
15	DOT-MEL45-0.375X0.375	DOT Male Elbow 45 Deg PP78EEE 3/8 X 3/8	2
16	HA-2024-6-4S	Adapter, Hydraulic: 2024-6-4S	2
17	2021-4-4S	Adapter, Aeroquip: 2021-4-4S	1
18	DOT-TEE-0.375X0.25-1PT	DOT Male Tee Tube-PP68EEE-DOT Tube-Pipe-Tube	2
19	DOT-MC-0.375X0.375	DOT Male Connector PP68EEE 3/8 X 3/8	1
20	DOT-MC-0.375X0.25	DOT Male Connector PP68EEE 3/8 X 1/4	1
21	BW-278351	BW Draincock 278351	1
22	HA-2083-4-4S	Adapter, Aeroquip: 2083-4-4S	1
23	TB80603	Air Bag T-650	2
24	TB65571-1	Air Ride Check Valve	1
25	TB65571-2	Air Ride Leveler Filter	1

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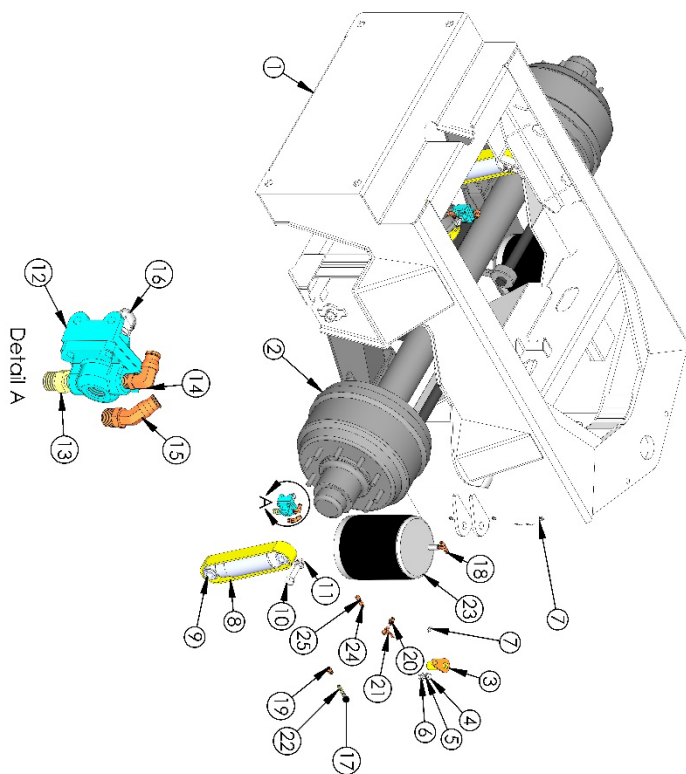
MACHINE & STEEL SERVICE, INC.  
P.O. BOX 492810, TERESBURG, FLA. 34749-2810

3SP Configuration T-644

### Front Frame Assembly Components

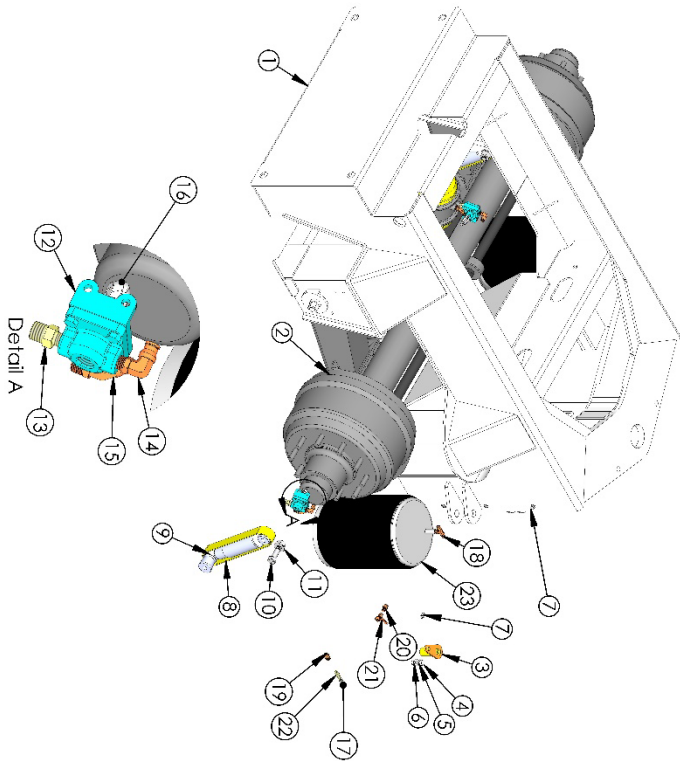
SHOP #  
DATE 1/27/2023

DR. BY MCT  
TA-60210-00



# Front Frame Assembly Components for Serial number 4250051 and Above

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60215-00	Front Frame Assembly, Hendrickson Front Axle Assembly, T-644, Hendrickson	1
2	TM60215-50	Cylinder Pin Assembly, Bolt on flange T-644	2
3	TM60010-00-01	Screw Cap Hex: 1/2-13 X 1 1/2	2
4	CS-HH-0.5-13X1.5	Washer Flat 1/2 (Soe)	2
5	WF-0.5	Nut Flanged Lock : 1/2-13	2
6	NF-0.5-13	Grease Fitting 1/4" Str.	2
7	MLGF-0.25-ST	Shock Strap, Hendrickson Suspension	2
8	TB60215-55	Shock, Hendrickson Suspension	2
9	TB60215-54	Screw Cap Hex: 0.75-1.6 X 3.5	2
10	CS-HH-0.75-1.6X3.5	Nut Flanged Lock : 0.75-1.6	2
11	NF-0.75-1.6	Valve Brake Quick Release	2
12	TB80611	Adapter, Hydraulic: 2083-6-4S	2
13	2083-6-4S	DOT Male Elbow 90 Deg PP69EE 3/8 X 1/4	2
14	DOT-MEL90-0.375X0.25	DOT Male Elbow 45 Deg PP78EE 3/8 X 3/8	2
15	DOT-MEL45-0.375X0.375	Adapter, Hydraulic: 2024-6-4S	2
16	HA-2024-6-4S	Adapter, Aeroquip: 2021-4-4S	1
17	2021-4-4S	DOT Male Pipe/ Tee P725EE-DOT Tube-Pipe-Tube	2
18	DOT-TEE-0.375X0.25-TP1	DOT Male Connector PP68EE 3/8 X 3/8	1
19	DOT-MC-0.375X0.375	DOT Male Connector PP68EE 3/8 X 1/4	1
20	DOT-MC-0.375X0.25	BW Drdincock 278351	1
21	BW-278351	Adapter, Aeroquip: 2083-4-4S	1
22	HA-2083-4-4S	Airbag, Hendrickson Suspension	2
23	TB60215-53		



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SERVICE, INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

3SP Configuration  
T-644 Hendrickson Suspension

## Front Frame Assembly Components

SHOP #  
DATE 7/1/2025  
DR BY MCT B+  
TA-60215-00

# Rear Frame

## Rear Frame Components

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.100.00	Rear Frame Assembly, 3SP	1
2	tb80200-auburn	Gearbox Wheel - Auburn "C" Mount	2
3	60.025.02	T-644 Logo	2
4	60.109.01a	Rear Frame Lock Bar	1
5	60.040.00	T-644 Smart Steer Cylinder	1
6	60.040.00	T-644 Smart Steer Cylinder	1
7	ta-60105-02	Rear Frame Hose Tray Kit	1
8	ta-65850-1	T-644 Aluminum Fuel Tank	1
9	60.010.00.01	Cylinder Pin Assembly, Bolt on flange T-644	2
10	1-4cs	Screw Cap Hex: 1-8 X 4	1
11	NSL-1-8	Nut Self Lock : 1-8	1
12	ta-66201-1	T-644 Wheel Motor Assembly Kit	2
13	WFF-0.5	Washer Flat 1/2 (Sae)	2
14	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	2
15	NF-0.5-13	Nut Flanged Lock : 1/2-13	2
16	TA-60100-HC,3SP	T-644 Frame Hose Clamp Kit 3SP	1
17	TA-60110-01	Rear Frame Park Brake Switch Bracket Assembly	1
18	ta-60.090.00-3	Electrical Junction Box Assembly Lower Frame	1
19	CS-HH-0.75-16X2.75XGR8	Screw Cap Hex: 3/4-16 X 2 1/4 Gr8	24
20	34lw	Washer Lock 3/4 GRADE 8	24
21	ta-66207-01	Oil Cooler Assembly MAR 248	1
22	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	6
23	NF-0.375-16	Nut Flanged Lock : 3/8-16	6

Serial Numbers 4230030 and Up

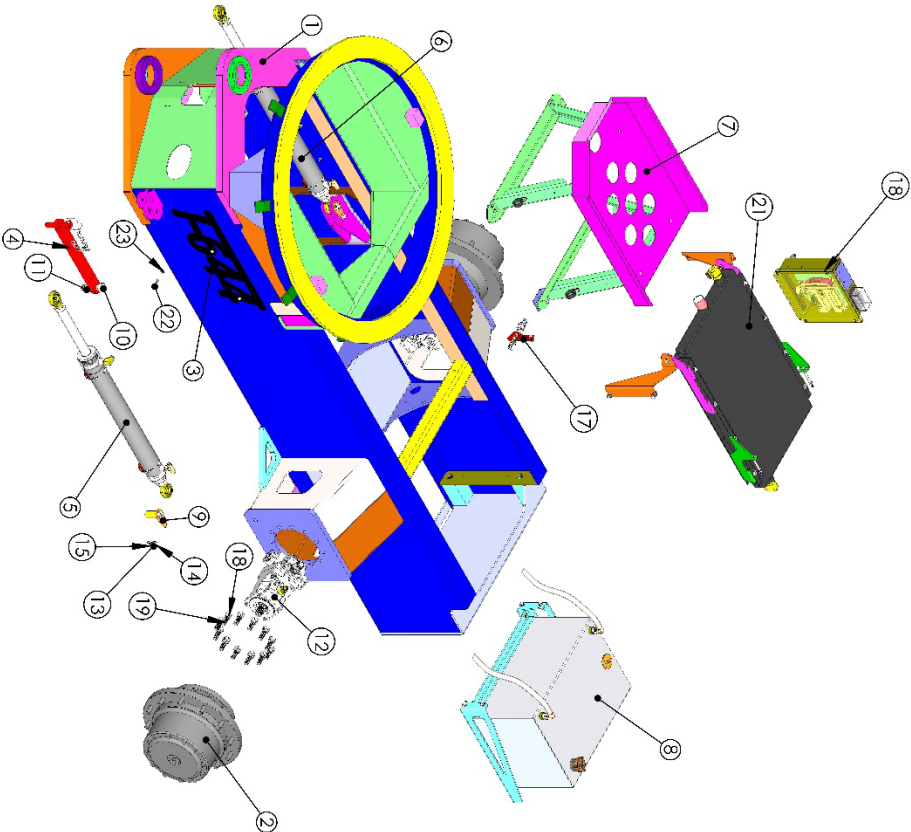
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T-644 3SP Configuration

## Rear Frame Assembly Components



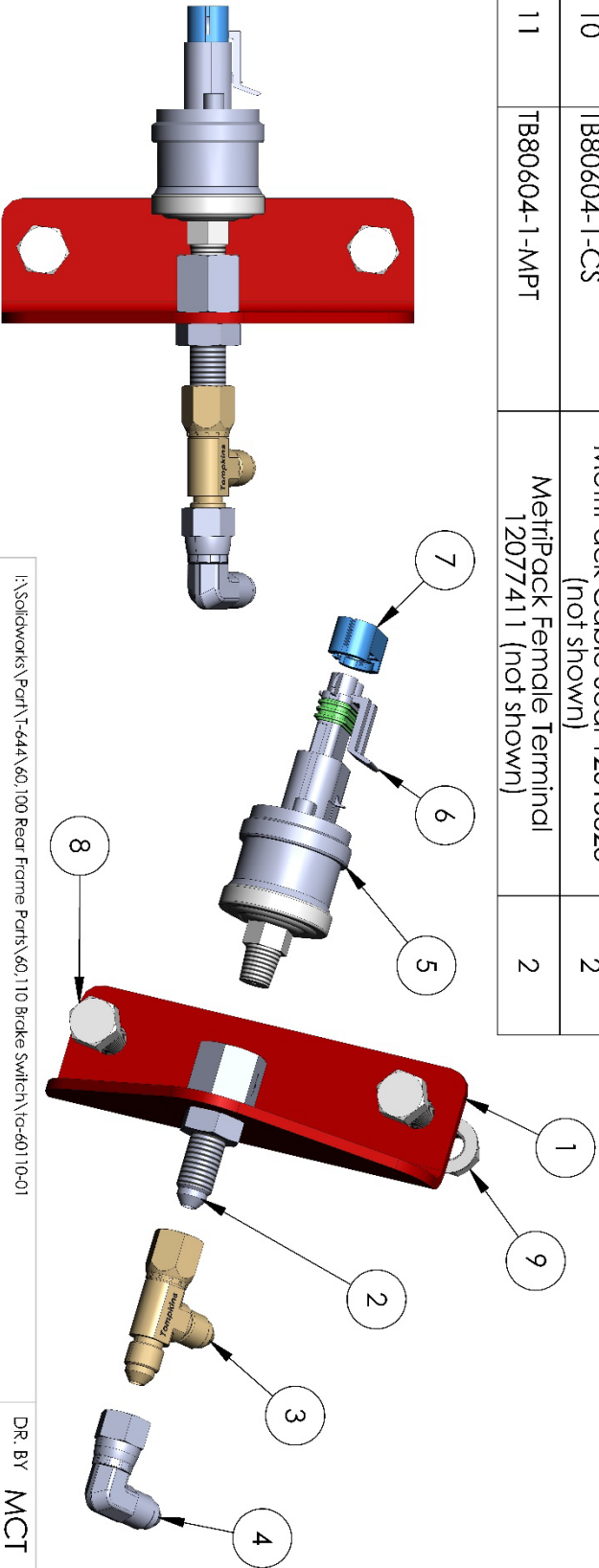
SHOP #

DATE 1/27/2023

DR. BY MCT  
TA-60100-00

# Rear Frame Park Brake Switch Bracket Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60110-01	Rear Frame Park Brake Switch Bracket	1
2	2705-LN-04-02	Adapter, JIC-Pipe Bulkhead w/LN: 2705-LN-04-02	1
3	6602-04-04-04	Adapter, Hydraulic: 6602-04-04-04	1
4	6500-04-04	Adapter, Hydraulic: 2071-4-4S	1
5	TB80604-1	Switch N/O - 500 Series w-MetriPack	1
6	TB80604-1-MPB	MetriPack Female Body 15300027	1
7	TB80604-1-TPA	MetriPack TPA 15300014 2 Contact Blue	1
8	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	2
9	NF-0.375-16	Nut Flanged Lock : 3/8-16	2
10	TB80604-1-CS	MetriPack Cable Seal 12015323 (not shown)	2
11	TB80604-1-MPT	MetriPack Female Terminal 12077411 (not shown)	2



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Rear Frame Park Brake Switch Bracket Assembly

T-644

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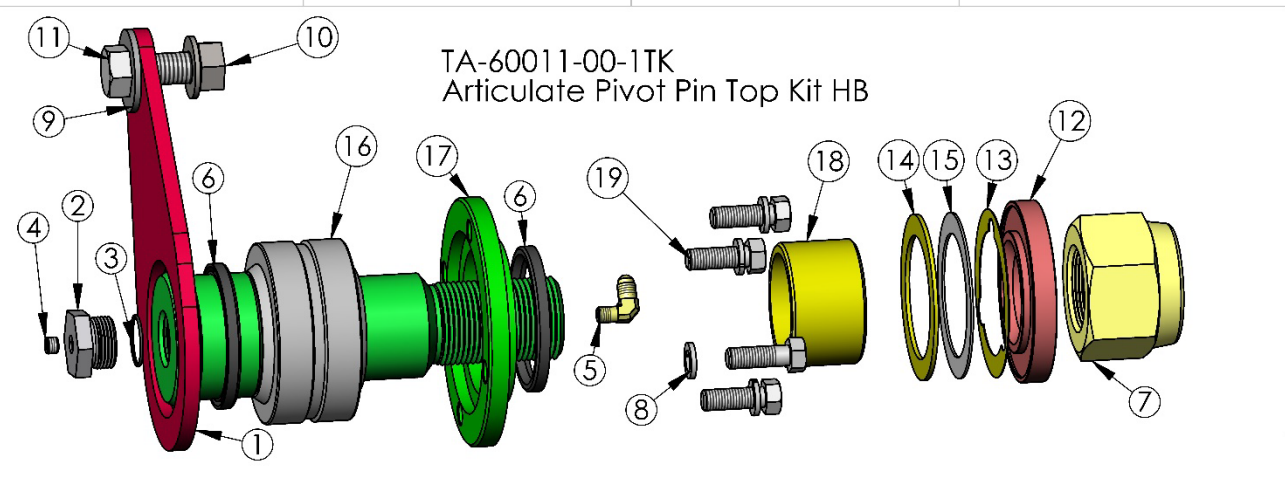
DATE 9/17/2018

SHOP #

60,110,01

# Top Articulate Pin Repair Kit

## Top Articulate Pin Repair Kit for Serial Number 4210022 and Below



ITEM NO.	OrderNo	DESCRIPTION	TA-60011-00-01 Top/QTY.
1	TM60011-00-01	Articulate Pivot Pin Assembly HB, T-644	1
2	TM81070-10	Articulate Shaft Thread Plug	1
3	OR-568-024	O-Ring 1 1/8 x 1 1/4 x 1/16	1
4	HA-2222-2S	Adapter, Hydraulic: 2222-2S	1
5	2024-2-4S	Adapter, Aeroquip: 2024-2-4S	1
6	TB80505	Seal Articulate Pin	2
7	TM60011-03	Articulate Pin Nut Plated	1
8	WL-0.5	Washer Lock 1/2	4
9	WF-0.75	Washer Flat 3/4	1
10	NF-0.75-10	Nut Flanged Lock : 3/4-10	1
11	CS-HH-0.75-10X2.25	Screw Cap Hex: 3/4-10 X 2 1/4	1
12	TM60011-08	Articulate Pin Step Washer	1
13	TB66305-020	Cone Shim .020 Timken Bearing	1
14	TM60011-04-03	Articulate Pin Step Washer Spacer, .1046	1
15	TM60011-04-01	Articulate Pin Step Washer Spacer, .0598	1
16	TB80304-HB	Bearing Articulate, HB	1
17	TM60011-06	Articulate Bearing Retainer, Machined	1
18	TM60011-07	Articulate Pin Collar HB	1
19	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	4

TM60011-04-03, TM60011-04-01, and TB66305-20 are used as needed. Use a feeler guage to confirm.

Not Shown: TM60011-04-02 Articulate Pin Step Washer Spacer, .0747, TB66305-005 Cone Shim .005 Timken Bearing, and TB66305-007 Cone Shim .007 Timken Bearing may be required depending on gap.

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Customer: T-644

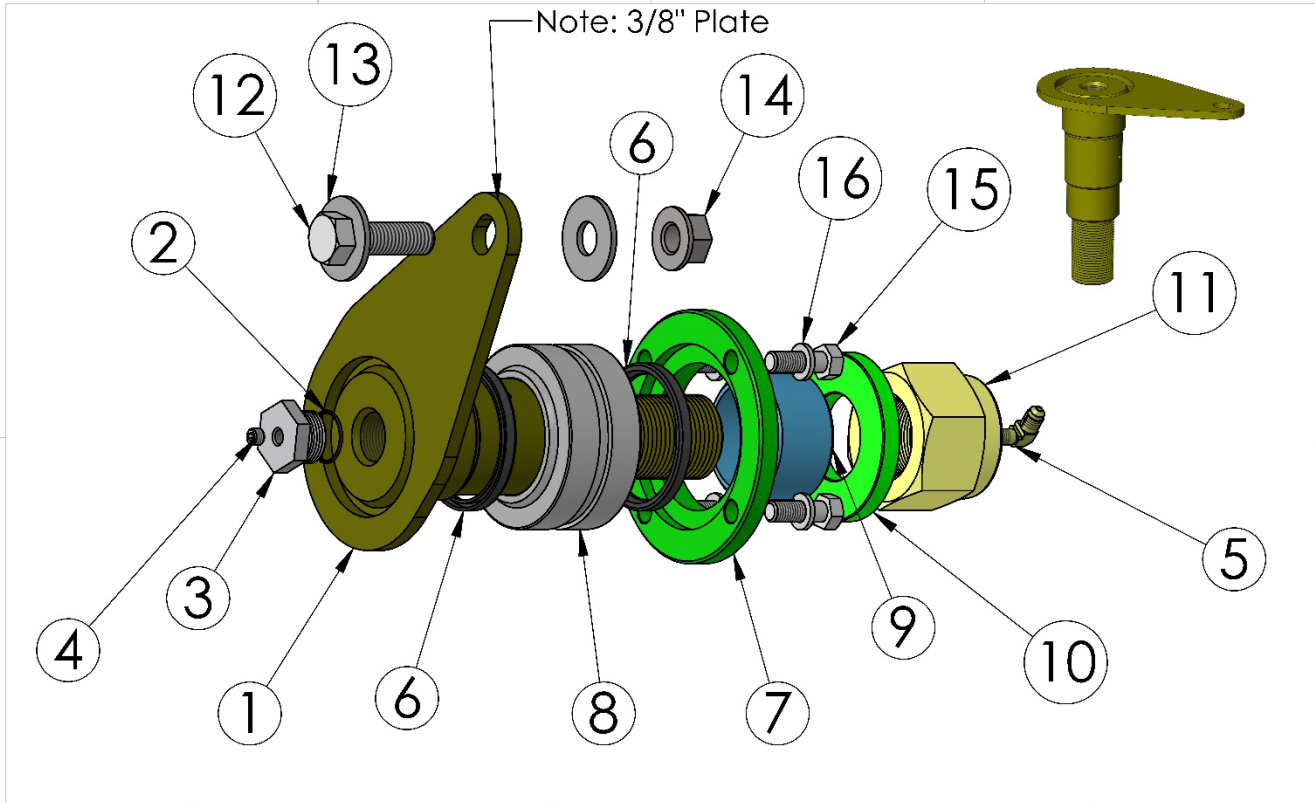
Articulate Pivot Pin Top Kit HB

DR. BY MCT

DATE 5/8/2019

TA-60011-00-1TK

# Top Articulate Pin Repair Kit for Serial Number 4210023 and Above



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,011,00,03	Articulate Pivot Pin Assembly Retro 2.75, T-644	1
2	OR-568-024	O-Ring 1 1/8 x 1 1/4 x 1/16	1
3	81070-10	Articulate Shaft Thread Plug	1
4	HA-2222-2S	Adapter, Hydraulic: 2222-2S	1
5	2024-2-4s	Adapter, Aeroquip: 2024-2-4S	1
6	80505	Seal Articulate Pin	2
7	60,011,06	Articulate Bearing Retainer, Machined	1
8	60,011,90	Articulate Bearing, Top 2-3/4"	1
9	60,011,07,02	Articulate Pin Collar 2.5SP	1
10	81076	Washer Articulate Pin	1
11	60,011,03	Articulate Pin Nut Plated	1
12	CS-HH-0.75-10X2.5	Screw Cap Hex: 3/4-10 X 2 1/2	1
13	WF-0.75	Washer Flat 3/4	2
14	NF-0.75-10	Nut Flanged Lock : 3/4-10	1
15	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	4
16	WL-0.5	Washer Lock 1/2	4

ta-60011-00-03:\Solidworks\Part\T-644\60,010 Pins\60,011 Articulate Pin\ta-60011-00-03

DR. BY MCT

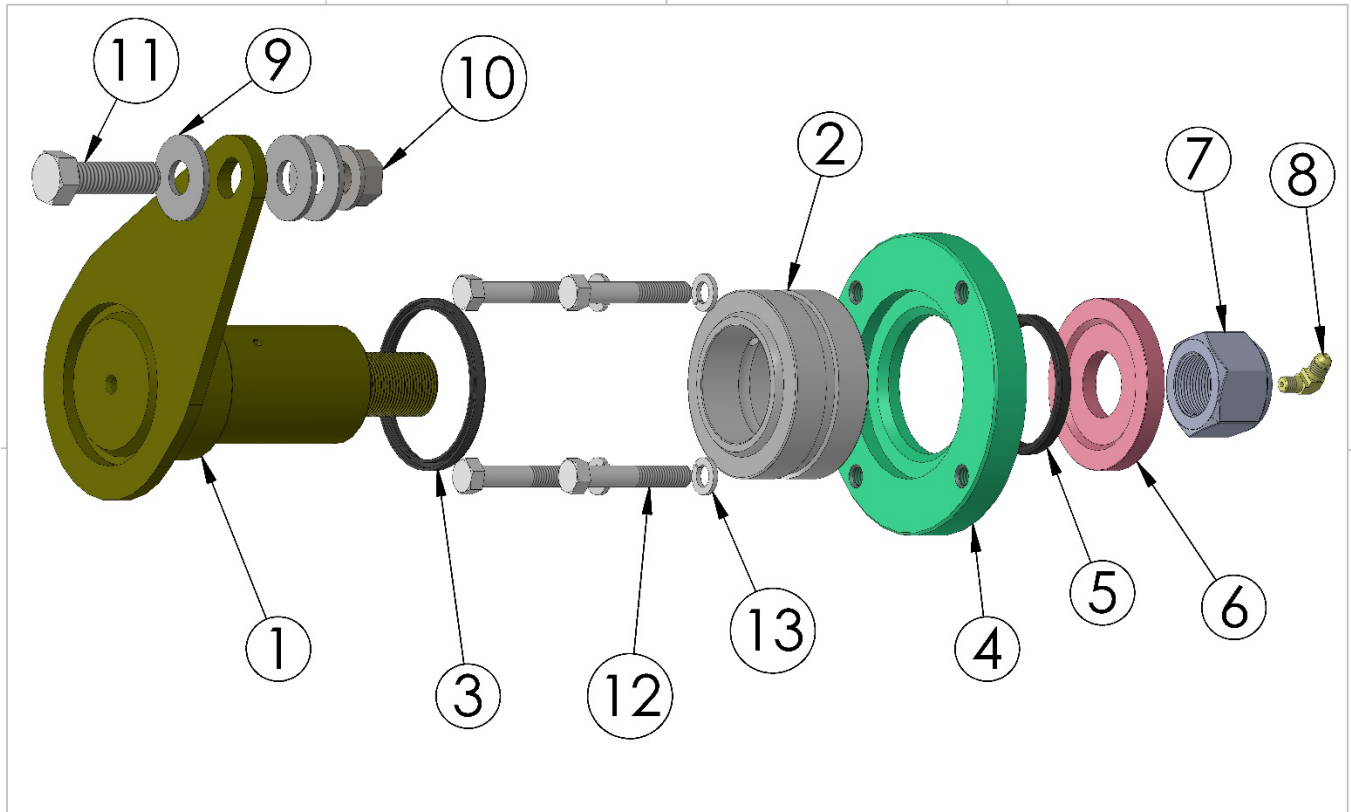
Articulate Pivot Pin Assembly, Top, Retro 2-3/4"

DATE 5/22/2023

T-644



## Top Articulate Pin Repair Kit for Serial Number 4230030 And Above



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,011,20,01	Articulate Pivot Pin Assembly, Top, Atlas	1
2	60,011,90	Articulate Bearing, Top 2-3/4"	1
3	60,011,93	Articulate Pivot Pin Seal CR 34835	1
4	60,011,22	Articulate Bearing Retainer, Top, Atlas, Machined	1
5	60,011,94	Articulate Pivot Pin Seal CR 27225	1
6	60,011,25	Articulate Pivot Pin Washer, Atlas	1
7	NSL-1.5-12	1-1/2"-12 Locknut	1
8	HA-2024-2-4S	Adapter, Aeroquip: 2024-2-4S	1
9	WF-0.75	Washer Flat 3/4	3
10	NF-0.75-10	Nut Flanged Lock : 3/4-10	1
11	CS-HH-0.75-10X2.5	Screw Cap Hex: 3/4-10 X 2 1/2	1
12	CS-HH-0.5-13 X 3	Screw Cap .5 X 3	4
13	WL-0.5	Washer Lock 1/2	4

ta-60,011,20,01

T-644

Articulate Pivot Pin, Top, 3SP Bearing

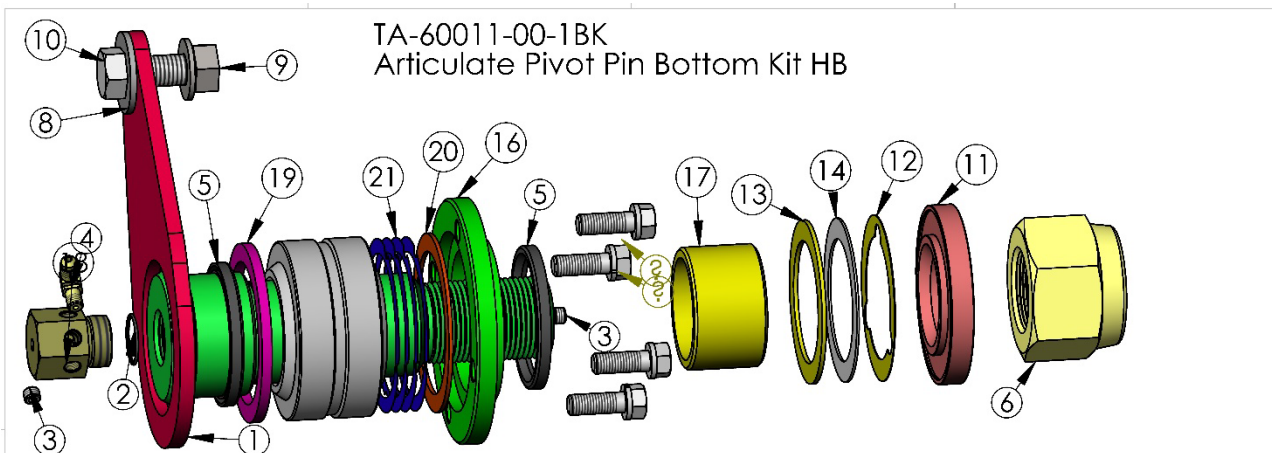
DR. BY MCT

DATE 3/14/2025

**TUCKER'S**

# Bottom Articulate Pin Repair Kit

## Bottom Articulate Pin Repair Kit for Serial Number 4210022 And Below



ITEM NO.	OrderNo	DESCRIPTION	TA-60011-00-01 Bottom/QTY.
1	TM60011-00-01	Articulate Pivot Pin Assembly HB, T-644	1
2	OR-568-024	O-Ring 1 1/8 x 1 1/4 x 1/16	1
3	HA-2222-2S	Adapter, Hydraulic: 2222-2S	2
4	2024-2-4S	Adapter, Aeroquip: 2024-2-4S	1
5	TB80505	Seal Articulate Pin	2
6	TM60011-03	Articulate Pin Nut Plated	1
7	WL-0.5	Washer Lock 1/2	4
8	WF-0.75	Washer Flat 3/4	1
9	NF-0.75-10	Nut Flanged Lock : 3/4-10	1
10	CS-HH-0.75-10X2.25	Screw Cap Hex: 3/4-10 X 2 1/4	1
11	TM60011-08	Articulate Pin Step Washer	1
12	TB66305-020	Cone Shim .020 Timken Bearing	1
13	TM60011-04-03	Articulate Pin Step Washer Spacer, .1046	1
14	TM60011-04-01	Articulate Pin Step Washer Spacer, .0598	1
15	TB80304-HB	Bearing Articulate, HB	1
16	TM60011-06	Articulate Bearing Retainer, Machined	1
17	TM60011-07	Articulate Pin Collar HB	1
18	TM81070-10E	Articulate Shaft Thread Plug for Encoder	1
19	TM60011-05	Spacer Articulating Bearing HB	1
20	TM60011-10	Articulate Bearing Retainer Filler	1
21	TB66306-005	Shim .005 Timken K21405	4
22	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	4

TM60011-04-03, TM60011-04-01, and TB66305-20 are used as needed. Use a feeler guage to confirm.

Not Shown: TM60011-04-02 Articulate Pin Step Washer Spacer, .0747, TB66305-005 Cone Shim .005 Timken Bearing, and TB66305-007 Cone Shim .007 Timken Bearing may be required depending on gap.

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Fax: (352) 365-1732

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Customer: T-644

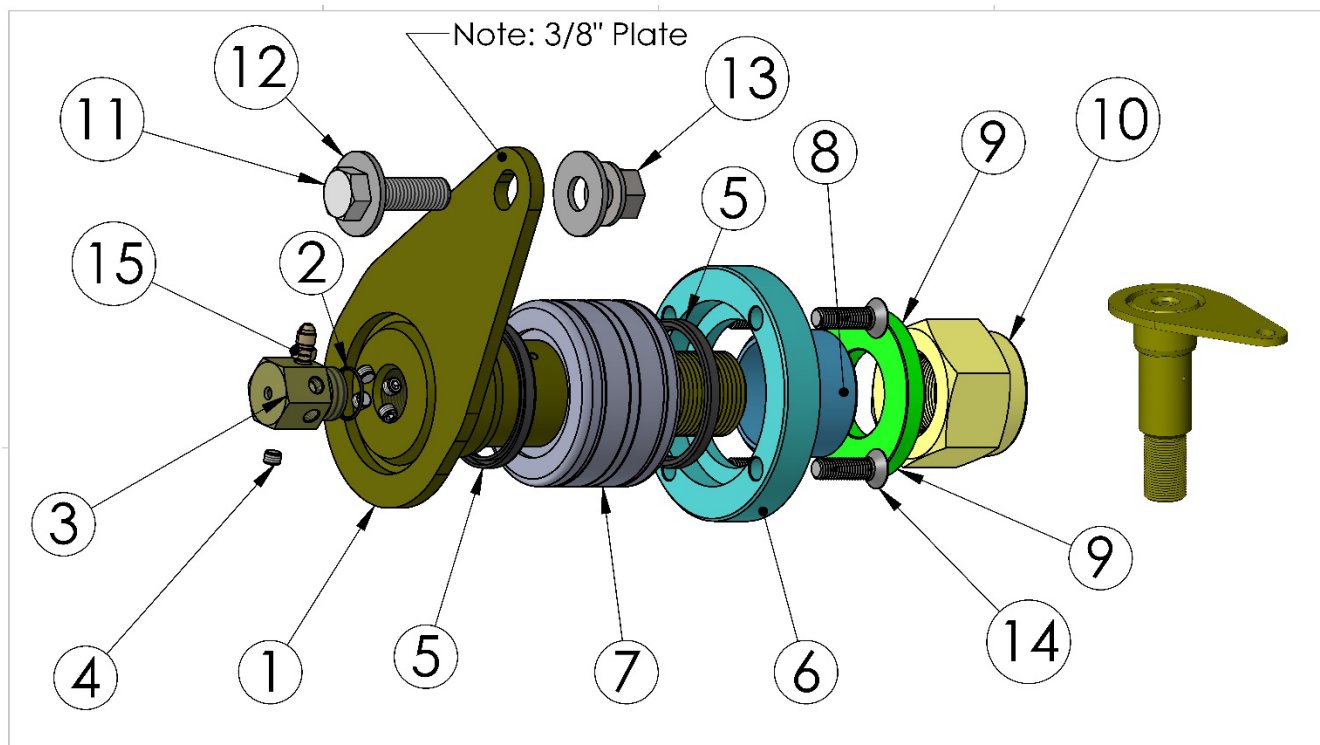
Articulate Pivot Pin Bottom Kit HB

DR. BY MCT

DATE 5/8/2019

TA-60011-00-1BK

## Bottom Articulate Pin Repair Kit for Serial Number 4210023 and Above



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,011,00,02	Articulate Pivot Pin Assembly 2.5SP, T-644	1
2	OR-568-024	O-Ring 1 1/8 x 1 1/4 x 1/16	1
3	81070-10a	Articulate Shaft Thread Plug for Encoder	1
4	HA-2222-2S	Adapter, Hydraulic: 2222-2S	6
5	80505	Seal Articulate Pin	2
6	60,011,06,02	Articulate Bearing Retainer 2.5 SP, Machined	1
7	60,011,91	Articulate Bearing, Bottom, 2-1/2" Shim Pack	1
8	60,011,07,02	Articulate Pin Collar 2.5SP	1
9	81076	Washer Articulate Pin	1
10	60,011,03	Articulate Pin Nut Plated	1
11	CS-HH-0.75-10X2.5	Screw Cap Hex: 3/4-10 X 2 1/2	1
12	WF-0.75	Washer Flat 3/4	2
13	NF-0.75-10	Nut Flanged Lock : 3/4-10	1
14	CS-FHS-0.5-13X1.75	Screw Cap: FH Skt. 1/2-13 X 1-3/4	4
15	2021-2-4S	Adaptor, Aeroquip: 2021-2-4S	1

ta-60011-00-02

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Articulate Pivot Pin Assembly, Bottom, Retro 2-1/2" Shim Pack

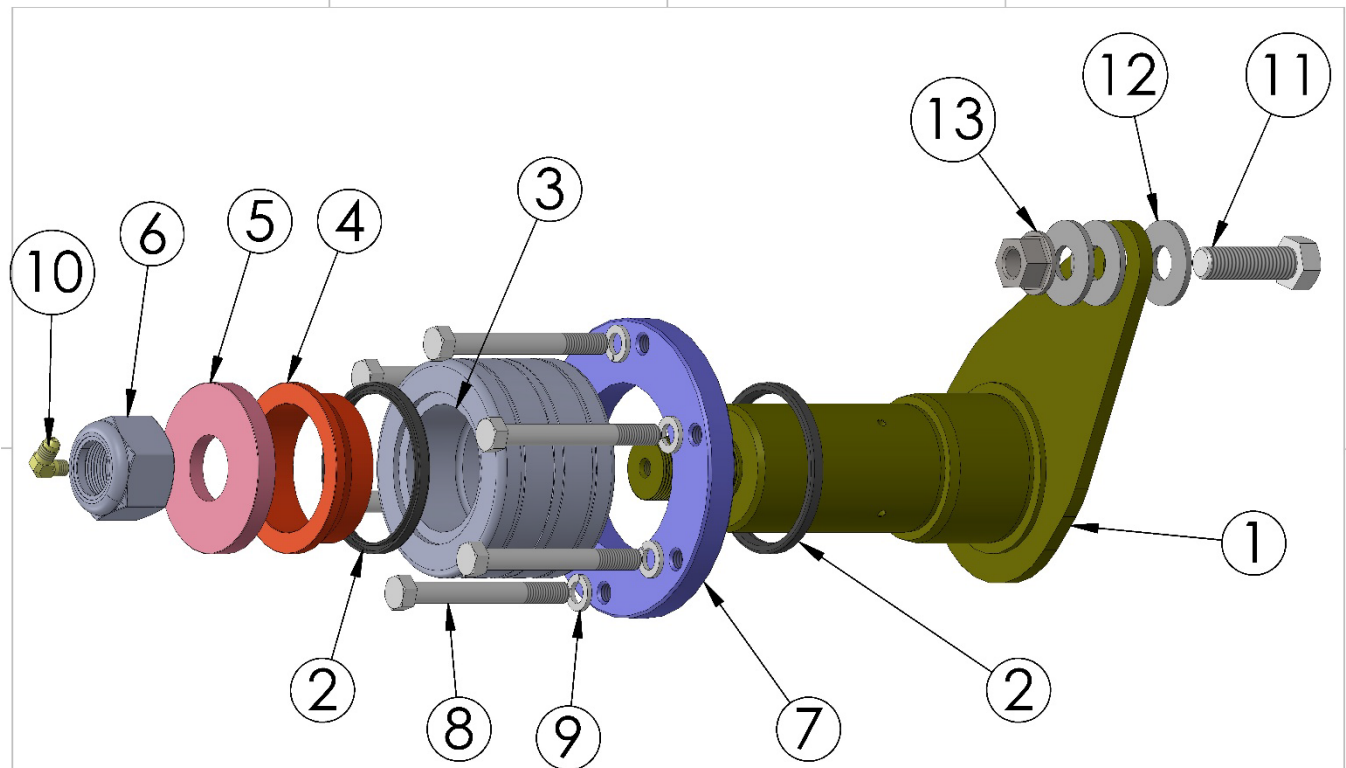
T-644

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DATE 6/5/2023

**TUCKER'S**

## Bottom Articulate Pin Repair Kit for Serial Number 4230030 and Above

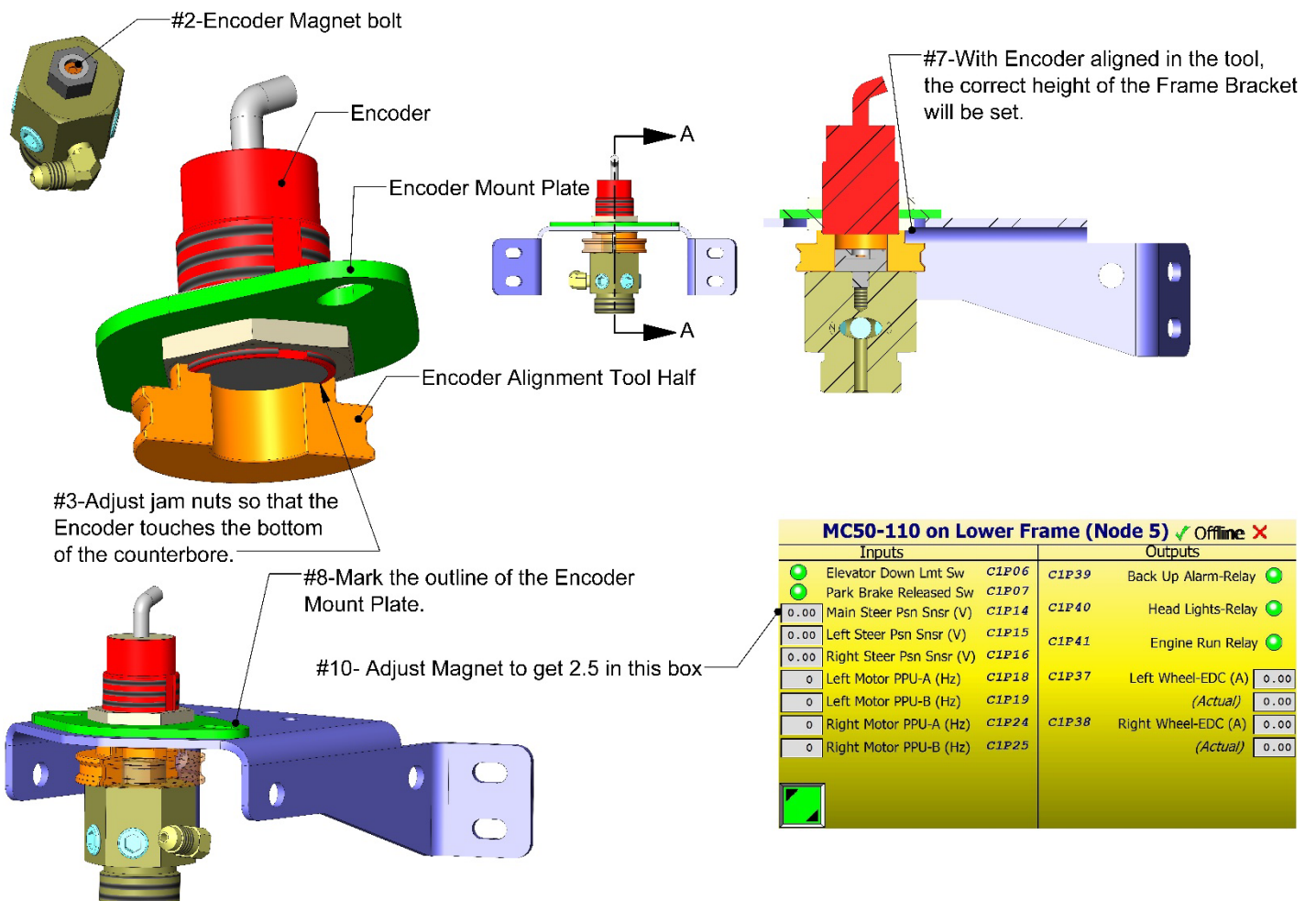


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,011,20,02	Articulate Pivot Pin Assembly, Bottom, Atlas	1
2	60,011,93	Articulate Pivot Pin Seal CR 34835	2
3	60,011,92	Articulate Bearing, Bottom, 3" Shim Pack	1
4	60,011,24	Articulate Bearing Hat Collar	1
5	60,011,25	Articulate Pivot Pin Washer, Atlas	1
6	NSL-1.5-12	1-1/2"-12 Locknut	1
7	60,011,23	Articulate Bearing Retainer, Bottom, Atlas	1
8	CS-HH-0.5-13X4.5	Screw Cap Hex: 1/2-13 X 4 1/2	6
9	WL-0.5	Washer Lock 1/2	6
10	HA-2024-2-4S	Adapter, Aeroquip: 2024-2-4S	1
11	CS-HH-0.75-10X2.5	Screw Cap Hex: 3/4-10 X 2 1/2	1
12	WF-0.75	Washer Flat 3/4	3
13	NF-0.75-10	Nut Flanged Lock : 3/4-10	1

ta-60,011,20,02		DR. BY MCT
T-644		DATE 3/14/2025
Articulate Pivot Pin Kit, Bottom,3SP Bearing		

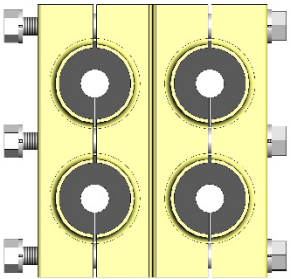
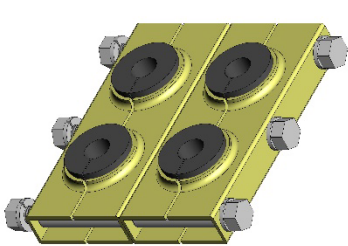
## Encoder Installation Alignment

1. Install Articulate Lock Bar for your protection and to align Front and Rear Frames.
2. Lightly tighten Encoder Magnet bolt so that the magnet can be turned with a wrench.
3. Use one half of the Encoder Alignment Tool to set the Encoder depth in the Encoder Mount Plate. The face of the Encoder should touch the bottom of the counter bore on the tool. Tighten jam nuts.
4. Place the two halves of the Encoder Alignment Tool around the Magnet with the large side down.
5. Place a tie wrap, or rubber band around the Encoder Tool to keep the halves in place.
6. Bolt the Encoder Mount Plate to the Frame Bracket snugly, but so that it can still be adjusted from front to back. Make sure the notch faces the driver side of the machine.
7. Bolt Frame Bracket to Rear Frame while ensuring that the encoder is lined up in the Alignment Tool. The Frame Bracket will rest on top of the Alignment Tool.
8. Use a marker or pencil to outline the Encoder Mount Plate on the Frame Bracket. This will allow you to line the plate back up without the Alignment Tool in later steps.
9. Remove Encoder Alignment Tool.
10. Without starting the engine, have a helper navigate from the Main Menu on the DP720 to - Diagnostics-MC50-Frame. They will be watching the Main Steer PSn Snsr (V). The goal is to set this to 2.5 Volts.
11. Slowly rotate the Encoder Magnet in small increments. Adjust so that the Main Steer Psnr is between 2.4-2.6 Volts.
12. Remove Encoder Mount Plate from Frame Bracket, then tighten the Encoder Magnet while holding with a wrench.
13. Reinstall the Encoder Mount Plate making sure to line up your previous outline marks.
14. Recheck the Main Steer Psnr (V) is between 2.4-2.6. Re-adjust if necessary.
15. Replace Cover When finished adjustments.
16. Follow Steering Calibration instructions in Operator's Manual to complete setup.

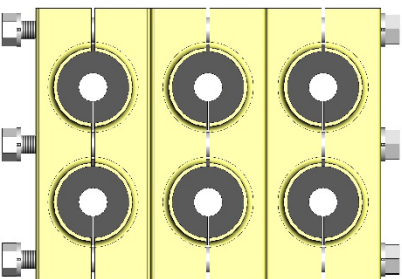
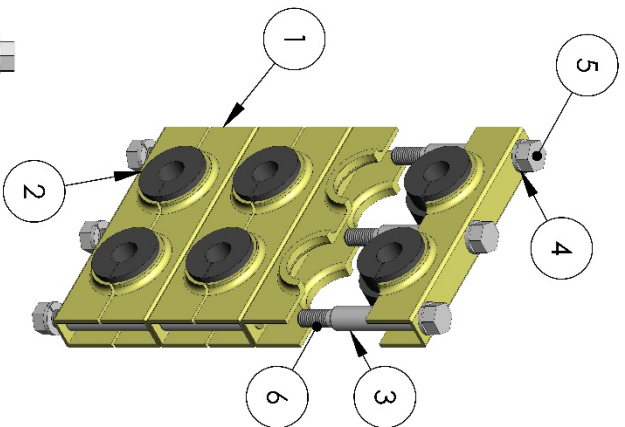


# Frame Hose Clamp Kit

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80680	Hose Clamping Unit	6
2	TB80681	Hose Split Bushing 4p	6
3	TB80684	Hose Clamp Stacking Nut	9
4	WL-0.3125	Washer Lock 5/16	6
5	CS-HH-0.3125-18X1	Screw Cap Hex: 5/16-18 X 1	6
6	TB80685	Hose Clamp Thrd. Adapter	6



Use with Linear Encoder



Use with Rotary Encoder

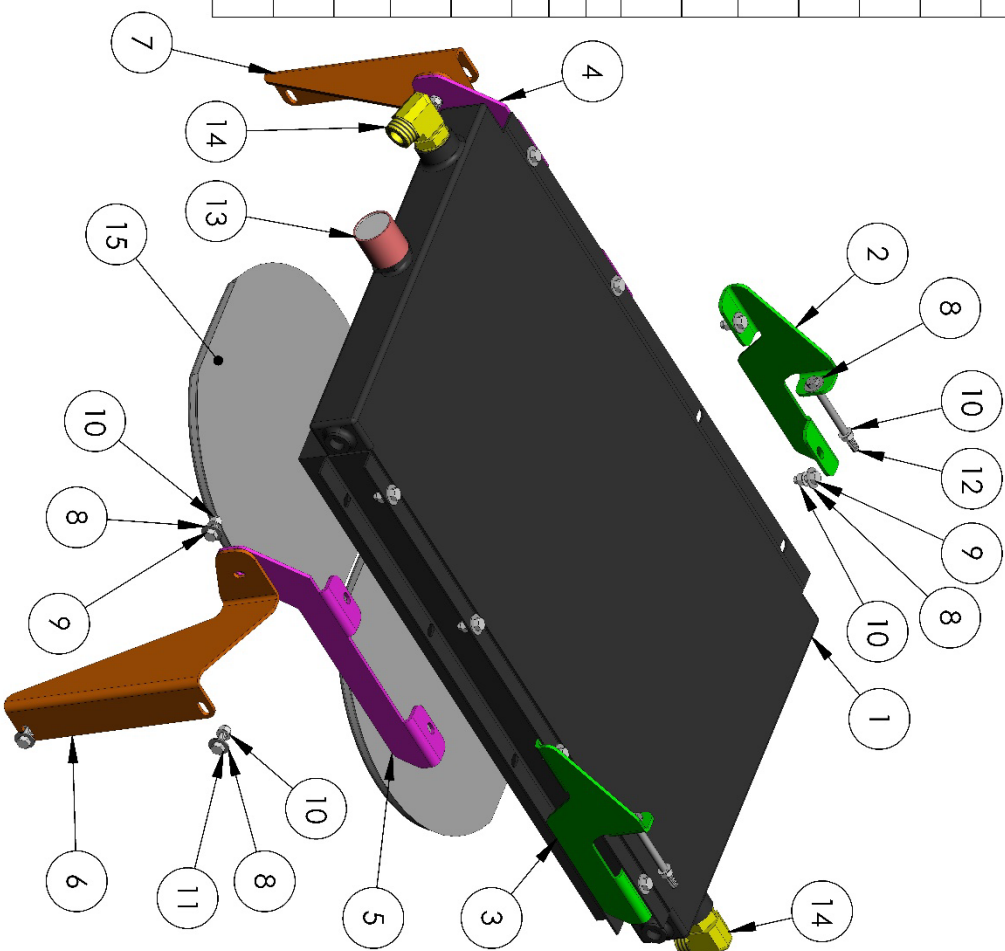
T-644	DR. BY MCT
T-644	DATE 9/17/2020

**TOEHEB'S**  
 MACHINE & STEEL  
 SERVICE INC.  
 P.O. BOX 492810 LEESBURG, FLA. 34749-2810

**T-644 Frame Hose Clamp Kit**  
 SHOP # TA-60100-HC

# Oil Cooler Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66207-01	Oil Cooler, 12v (Thermal MAR 248)	1
2	TM60115-03R	Rear Frame Oil Cooler Rear Clip, Right	1
3	TM60115-03L	Rear Frame Oil Cooler Rear Clip, Left	1
4	TM60115-02R	Rear Frame Oil Cooler Front Clip, Right	1
5	TM60115-02L	Rear Frame Oil Cooler Front Clip, Left	1
6	TM60115-01L	Rear Frame Oil Cooler Bracket, Left	1
7	TM60115-01R	Rear Frame Oil Cooler Bracket, Right	1
8	WF-0.375	Washer Flat 3/8	14
9	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	10
10	NF-0.375-16	Nut Flanged Lock : 3/8-16	14
11	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	2
12	CS-HH-0.375-16X4.5	Screw Cap Hex: 3/8-16 X 4 1/2	2
13	TB66207-02	Oil Cooler Fan Thermostat (Thermal 57566)	1
14	FF1868T1616S	EI# 16 ORS Flat Face, # 16 O-Ring Boss	2
15	TB66207-03	Oil Cooler, 12v Fan (Thermal MAR 248)	2



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T-644

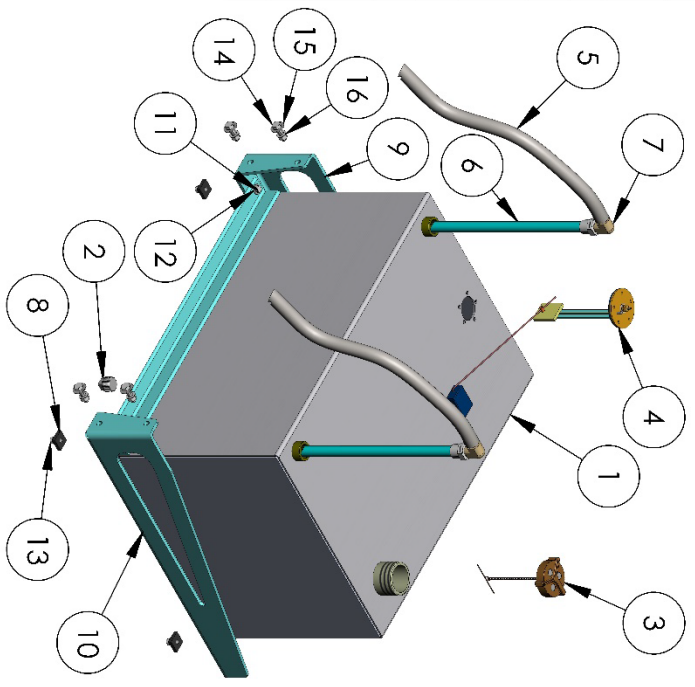
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DATE 9/22/2020

**HUGENBERG**  
MACHINE & STEEL SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Oil Cooler Assembly MAR 248

SHOP # TA-66207-01

ITEM NO.	OrderNo	DESCRIPTION	T-6444 Aluminum Fuel Tank/QTY.
1	TB65850-1	T-644 Aluminum Fuel Tank Assembly	1
2	TB80630	Aluminum Plug 0.75 NPT	1
3	TB80620	Gas Cap Fuel Tank 2"	1
4	TB66130-20	Fuel Tank Sending Unit Assembly	1
5	TM66901-17 & 18	Fuel Hose	2
6	TM81034-1	Fuel Tank 3/4" Stainless Drop Assembly	2
7	HA-2501-08-08	Adapter, SS 1/2" Pipe x -8 JIC 90	2
8	TB65157-2	Fuel Tank Rubber Mount Pad	4
9	TM60108-01L	Fuel Tank Bracket, Left	1
10	TM60108-01R	Fuel Tank Bracket, Right	1
11	CS-HH-0.25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	4
12	WF-0.25	Washer Flat 1/4	4
13	NF-0.25-20	Nut Flanged Lock : 1/4-20	4
14	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	4
15	WF-0.375	Washer Flat 3/8	4
16	NF-0.375-16	Nut Flanged Lock : 3/8-16	4



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T-6444

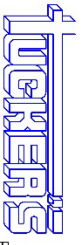
DR. BY MCT  
DATE 6/1/2018

# T-6444 Aluminum Fuel Tank

SHOP #

TA-65850-1

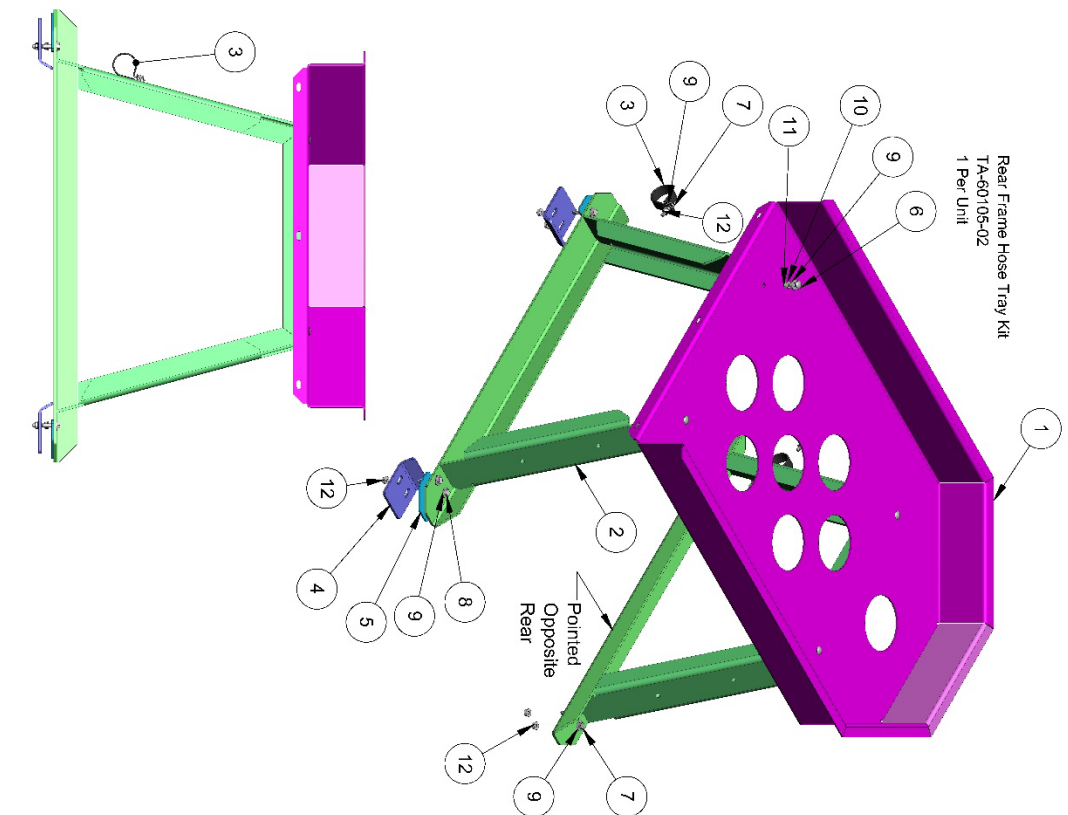
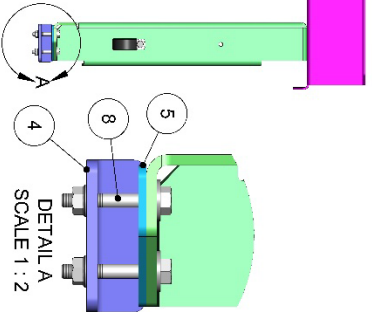
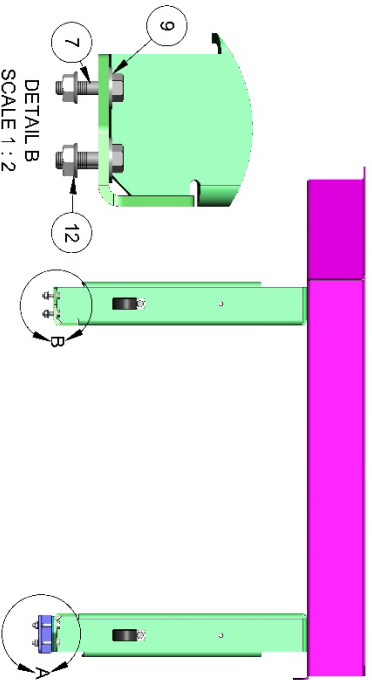
## Fuel Tank



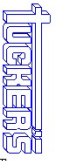
**MACHINE & STEEL**  
SERVICE INC.

P.O. BOX 492810 LEESBURG, FLA. 34749-2810

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60105-02	Rear Frame Hose Tray Assembly	1
2	TM60105-01	Rear Frame Hose Tray Frame Assembly	2
3	CL-LC-0.75X1.5	Loop Clamp, Vinyl, 3/4" W x 1-1/2" ID	2
4	TM60105-03	Rear Frame Hose Tray Frame Clip	2
5	TM60105-04	Rear Frame Hose Tray Frame Spacer	2
6	CB-0.25-20X1	Bolt Carriage 1/4-20 X 1	4
7	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	6
8	CS-HH-0.25-20X1.75	Screw Cap Hex: 1/4-20 X 1 3/4	4
9	WF-0.25	Washer Flat 1/4	14
10	WL-0.25	Washer Lock 1/4	4
11	NU-0.25-20-PL	Nut Fl Uss .25	4
12	NF-0.25-20	Nut Flanged Lock : 1/4-20	10



# Hose Tray



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEEBURG, FLA. 34749 2810

T-644

## Rear Frame Hose Tray Kit

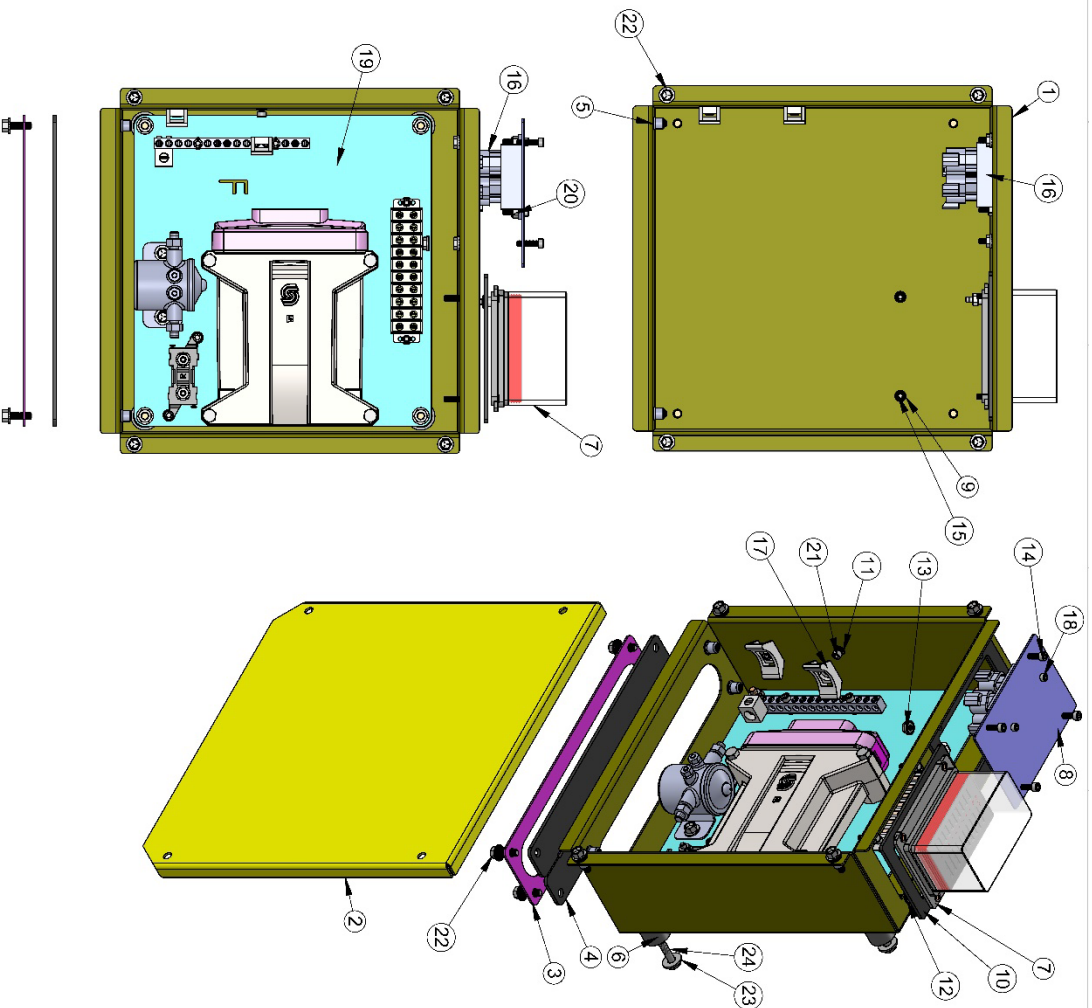
SHOP #

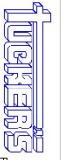
DATE 12/13/2017

DR. BY MCT A+

# Frame Electrical Panel Assembly for Serial Number 4230038 and Below

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,090,01	Electrical Junction Box	1
2	60,090,02	Electrical Junction Box Lid	1
3	60,090,03-1	Electrical Junction Box Gasket Plate	1
4	60,090,04	Electrical Junction Box Gasket	1
5	NR-0,25-20-PL,0,027-0,165	Rivet Nut 1/4-20 (Plated) 0,027-0,165 Thickness	8
6	80655	Rubber Dampening Sandwich M/F 1/4-20	4
7	66145-02	Relay Assembly Base w-Cover	1
8	60,090,07	Electrical Junction Box Frame Plate	1
9	NR-8-32-PL,0,020-0,080	Rivet Nut 8-32 (Plated) 0,020-0,080 Thickness	2
10	60,090,09	Electrical Junction Box Top Gasket	2
11	NR-10-24-PL,0,020-0,130	Rivet Nut 10-24 (Plated) 0,020-0,130 Thickness	2
12	CS-HHS-10-32X0,625	Screw Cap Hex: 10-32 X 5/8 Serrated Flange Bolt	4
13	NFS-10-24	Nut Serrated Flanged Lock : 10-24	4
14	SSCS-SH-10-24X,75	Cap Screw-Stainless-Socket Head-#10-24 X 3/4"	4
15	SSCS-SH-8-32X0,50	Cap Screw-Stainless-Socket Head-#8-32 X 1/2"	2
16	80140	Con Dato Link Module (4 Total Connectors)	1
17	TB66500-07	Fastener-Mount Cable Tie Holder	2
18	SSCS-SH-8-32X0,75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
19	TA-60,090,06,02KF	Electric Junction Box Sub Plate, Frame	1
20	SSNSL-8-32	Nut Self Lock - Stainless : 8-32	2
21	SSCS-SH-10-24X,50	Cap Screw-Stainless-Socket Head-#10-24 X 1/2"	2
22	CS-HHS-0,25-20X0,75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	8
23	WF-0,25	Washer Flat 1/4	4
24	CS-HH-0,25-20X1	Screw Cap Hex: 1/4-20 X 1	4





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LEESBURG, FLA. 34749-2810

**MACHINE & STEEL**  
SERVICE, INC.

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T-644

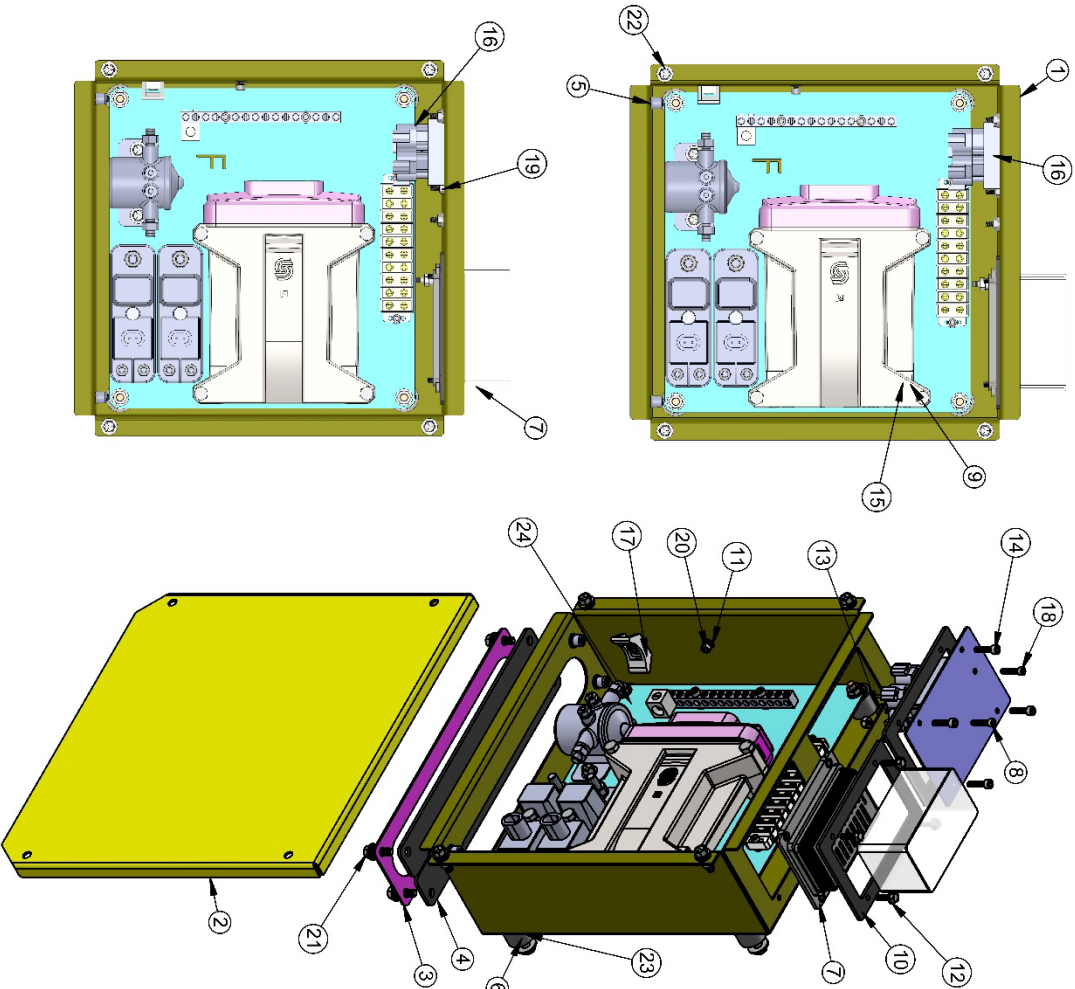
**Electrical Junction Box Assembly Lower Frame**

SHOP #  
DATE 9/1/2017

DR. BY **MCT A+**  
TA-60,090,00-3

# Frame Electrical Panel Assembly for Serial Number 4230039 and Above

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,090,01	Electrical Junction Box	1
2	60,090,02	Electrical Junction Box Lid	1
3	60,090,03-1	Electrical Junction Box Gasket Plate	1
4	60,090,04	Electrical Junction Box Gasket	1
5	m-0,25-20-pl,0,027-0,165	Rivet Nut 1/4-20 (Plated) 0,027-0,165 Thickness	8
6	80655	Rubber Dampening Sandwich M/F 1/4-20	4
7	66145-02	Relay Assembly Base w-Cover	1
8	60,090,07	Electrical Junction Box Frame Plate	1
9	m-8-32-pl,0,020-0,080	Rivet Nut 8-32 (Plated) 0,020-0,080 Thickness	2
10	60,090,09	Electrical Junction Box Top Gasket	2
11	m-10-24-pl,0,020-0,130	Rivet Nut 10-24 (Plated) 0,020-0,130 Thickness	2
12	CS-HHS-10-32X0,625	Screw Cap Hex: 10-32 X 5/8 Serrated Flange Bolt	4
13	NFS-10-24	Nut Serrated Flanged Lock : 10-24	4
14	SSCS-SH-10-24X,75	Cap Screw-Stainless-Socket Head-#10-24 X 3/4"	4
15	SSCS-SH-8-32X0,50	Cap Screw-Stainless-Socket Head-#8-32 X 1/2"	2
16	80140	Can Data Link Module (4 Total Connectors)	1
17	tb66500-07	Fastener-Mount Cable Tie Holder	1
18	SSCS-SH-8-32X0,75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
19	SSNSL-8-32	Nut Self Lock - Stainless : 8-32	2
20	SSCS-SH-10-24X,50	Cap Screw-Stainless-Socket Head-#10-24 X 1/2"	2
21	CS-HHS-0,25-20X0,75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	8
22	W/F-0,25	Washer Flat 1/4	4
23	CS-HH-0,25-20X1	Screw Cap Hex: 1/4-20 X 1	4
24	ta-60,090,06,02Ktb	Electric Junction Box Sub Plate Rev B, Frame	1



**MACHINE & STEEL**  
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P.O. BOX 492310 DEERBURG, FLA. 34749-2310

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T-644

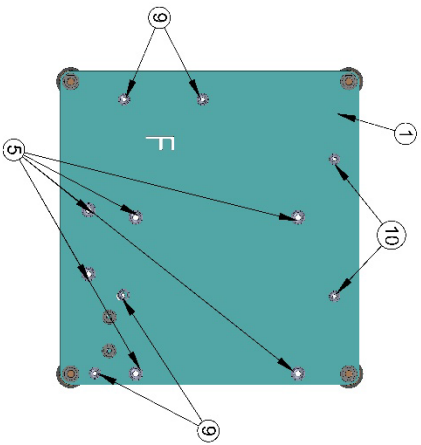
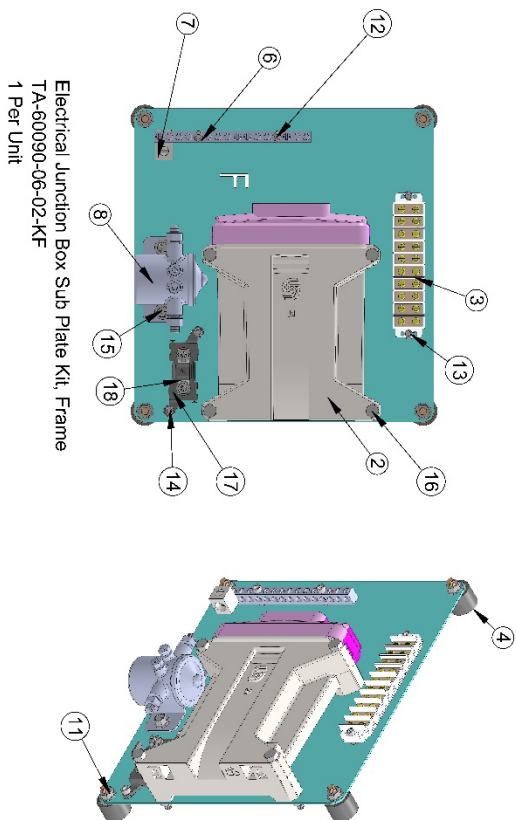
Electrical Junction Box Assembly Lower Frame Rev B

SHP #  
DATE 9/1/2017

DR BY MCT D+  
TA-60,090,00-3

# Frame Electrical Panel Subplate for Serial Number 4230038 and Below

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.090.06.02	Electrical Junction Box Sub Plate, Frame	1
2	66130-11-LF	MCO50-010 Controller w/prog loaded-Lower Frame	1
3	80575-109-10	Terminal Strip 10 Lug 20A #6-32	1
4	80655	Rubber Dampening Sandwich M/F 1/4-20	4
5	NR-0.25-20-PL.0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	6
6	80130-45	Ground Bar	1
7	80130-45-01	Ground Bar Collar Strap	1
8	TB80587-1	Relay Solenoid	1
9	NR-10-24-PL.0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	4
10	NR-8-32-PL.0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
11	NFS-0.25-20	Nut Serrated Flanged Lock : 1/4-20	4
12	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head-#10-24 X 1"	2
13	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
14	SSCS-SH-10-24X.50	Cap Screw-Stainless-Socket Head-#10-24 X 1/2"	2
15	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	2
16	CS-HH-0.25-20X2.5	Screw Cap Hex: 1/4-20 X 2 1/2	4
17	80130-100-03	Midl High Amp Fuse Block Fuse Module	1
18	80130-100-04-70A	Midl High Amp Fuse 70A	1
19	NFS-10-24	Nut Serrated Flanged Lock : 10-24	2



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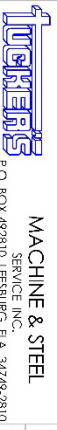
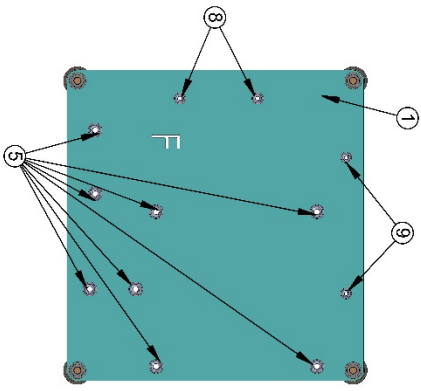
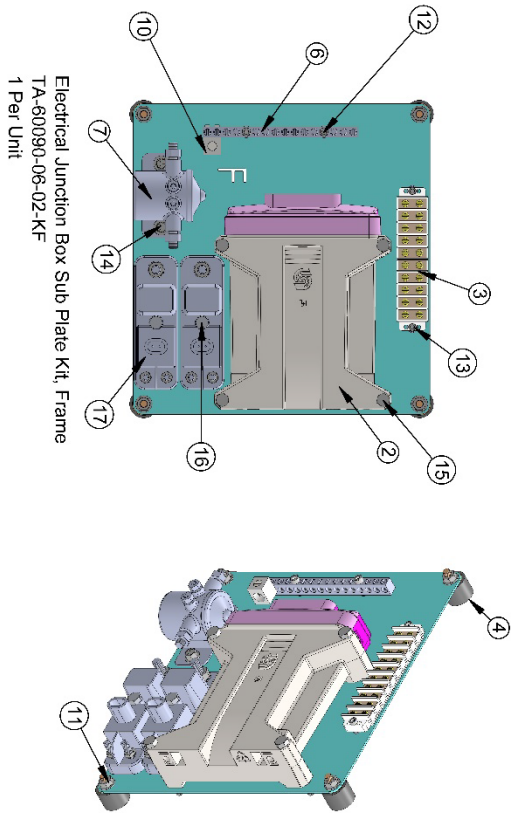
Electric Junction Box Sub Plate, Frame

SHOP #  
DATE 9/17/2020

DR. BY MCT A+  
TA-60.090.06.02KF

# Frame Electrical Panel Subplate for Serial Number 4230039 and Above

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60,090,06,02-02	Electrical Junction Box Sub Plate, Frame	1
2	66130-1-LF	MC050-010 Controller w/prog loaded-Lower Flame	1
3	80575-109-10	Terminal Strip 10 Lug 20A #6-32	1
4	80655	Rubber Dampening Sandwich M/F 1/4-20	4
5	n-0.25-20-pl,0.027-0.165	Rivet Nut 1/4-20 (Plated) 0.027-0.165 Thickness	8
6	80130-45	Ground Bar	1
7	TB80587-1	Relay Solenoid	1
8	n-10-24-pl,0.020-0.130	Rivet Nut 10-24 (Plated) 0.020-0.130 Thickness	2
9	n-8-32-pl,0.020-0.080	Rivet Nut 8-32 (Plated) 0.020-0.080 Thickness	2
10	80130-45-01	Ground Bar Collar Strap	1
11	NFS-0.25-20	Nut Serrated Flanged Lock : 1/4-20	4
12	SSCS-SH-10-24X1	Cap Screw-Stainless-Socket Head-#10-24 X 1"	2
13	SSCS-SH-8-32X0.75	Cap Screw-Stainless-Socket Head-#8-32 X 3/4"	2
14	CS-HHS-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4 Serrated Flange Bolt	2
15	CS-HH-0.25-20X2.5	Screw Cap Hex: 1/4-20 X 2 1/2	4
16	14-2CS	Screw Cap Hex: 1/4-20 X 2	2
17	66149	Power Relay Module, 70A, 2 Fuse, 37702-1AN0022	2



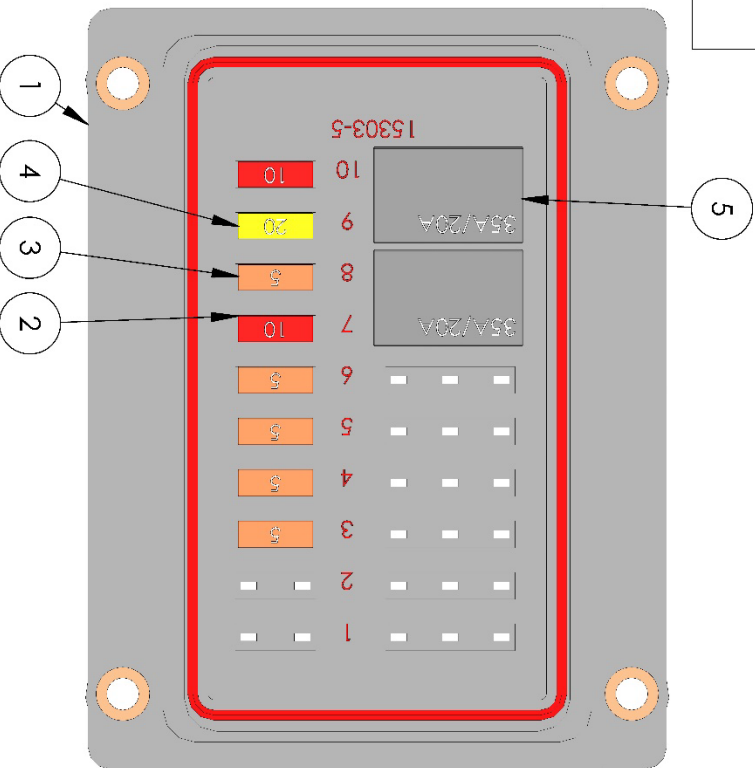
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SERVICE INC.  
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T-644

Electric Junction Box Sub Plate Rev B, Frame

SHOP #  
DATE 2/27/2024  
DR BY MCT D+  
TA-60,090,06,02KFB

Frame Panel Fuses-Relays for Serial Number 4230038 and Below

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66145-02	Mini Fuse Panel, 3 Relays, 10 Fuses 15303-5	1
2	TB66145-10A	Fuse, 10A Led Mini ATM Red 12V	2
3	TB66145-5A	Fuse, 5A Led Mini ATM Tan 12V	5
4	TB66145-20A	Fuse, 20A Led Mini ATM Yellow 12V	1
5	TB66145-04	Micro Relay, ISO 280 SPDT 35A, 12V	2



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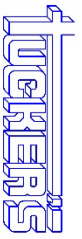
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DR. BY MCT

DATE 1/26/2023

Relay Assembly Frame

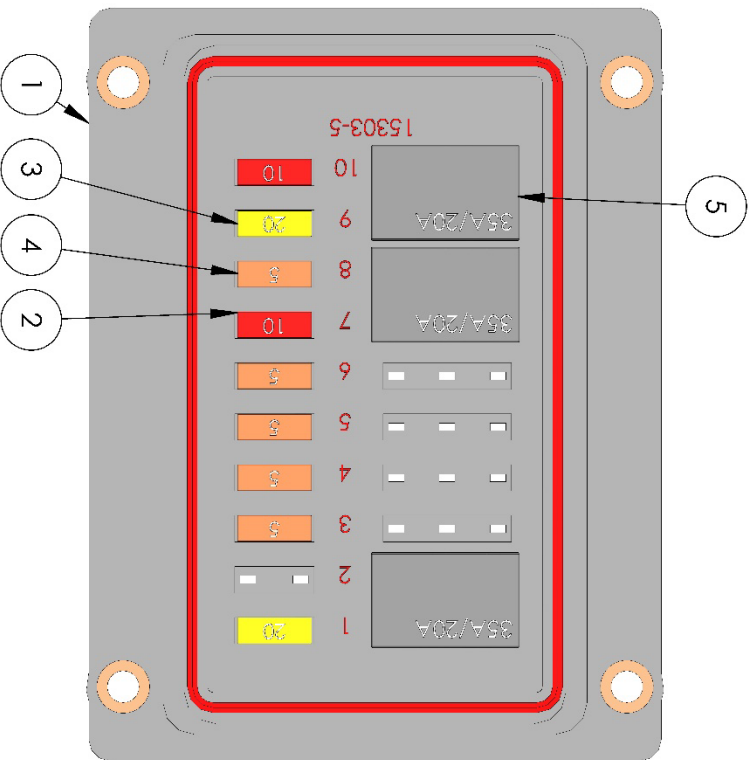
SHOP #



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Frame Panel Fuses-Relays for Serial Number 4230039 and Above

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66145-02	Mini Fuse Panel, 3 Relays, 10 Fuses 15303-5	1
2	TB66145-10A	Fuse, 10A Led Mini ATM Red 12V	2
3	TB66145-20A	Fuse, 20A Led Mini ATM Yellow 12V	2
4	TB66145-5A	Fuse, 5A Led Mini ATM Tan 12V	5
5	TB66145-04	Micro Relay, ISO 280 SPDT 35A, 12V	3



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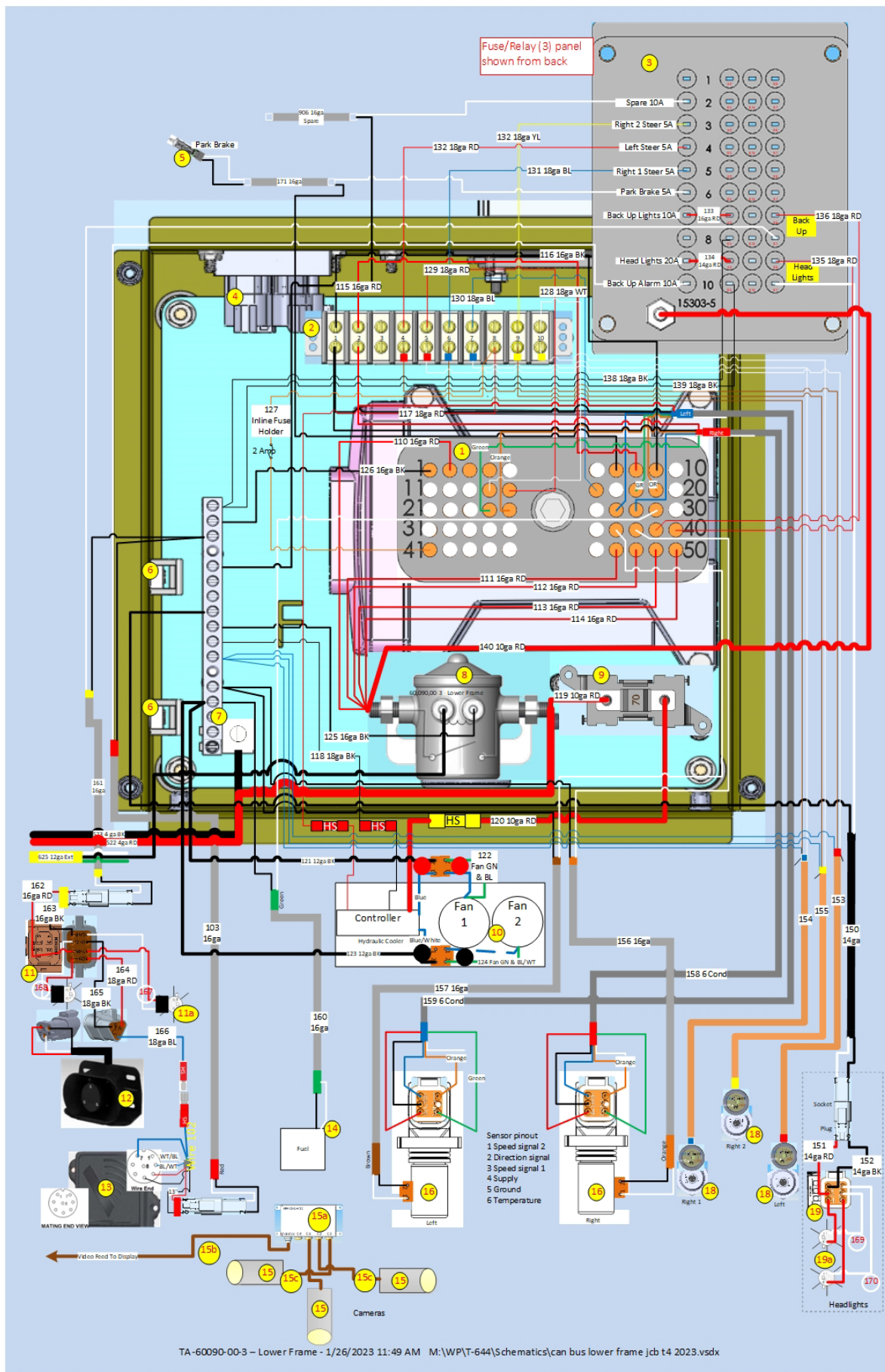


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**Relay Assembly Frame, Rev B**

DR. BY **MCT**  
DATE **2/26/2024**  
SHOP #

# Frame Electrical Panel for Serial Number 4230028 and Below





Frame Electrical Panel BOM for Serial Number 4230038 and below

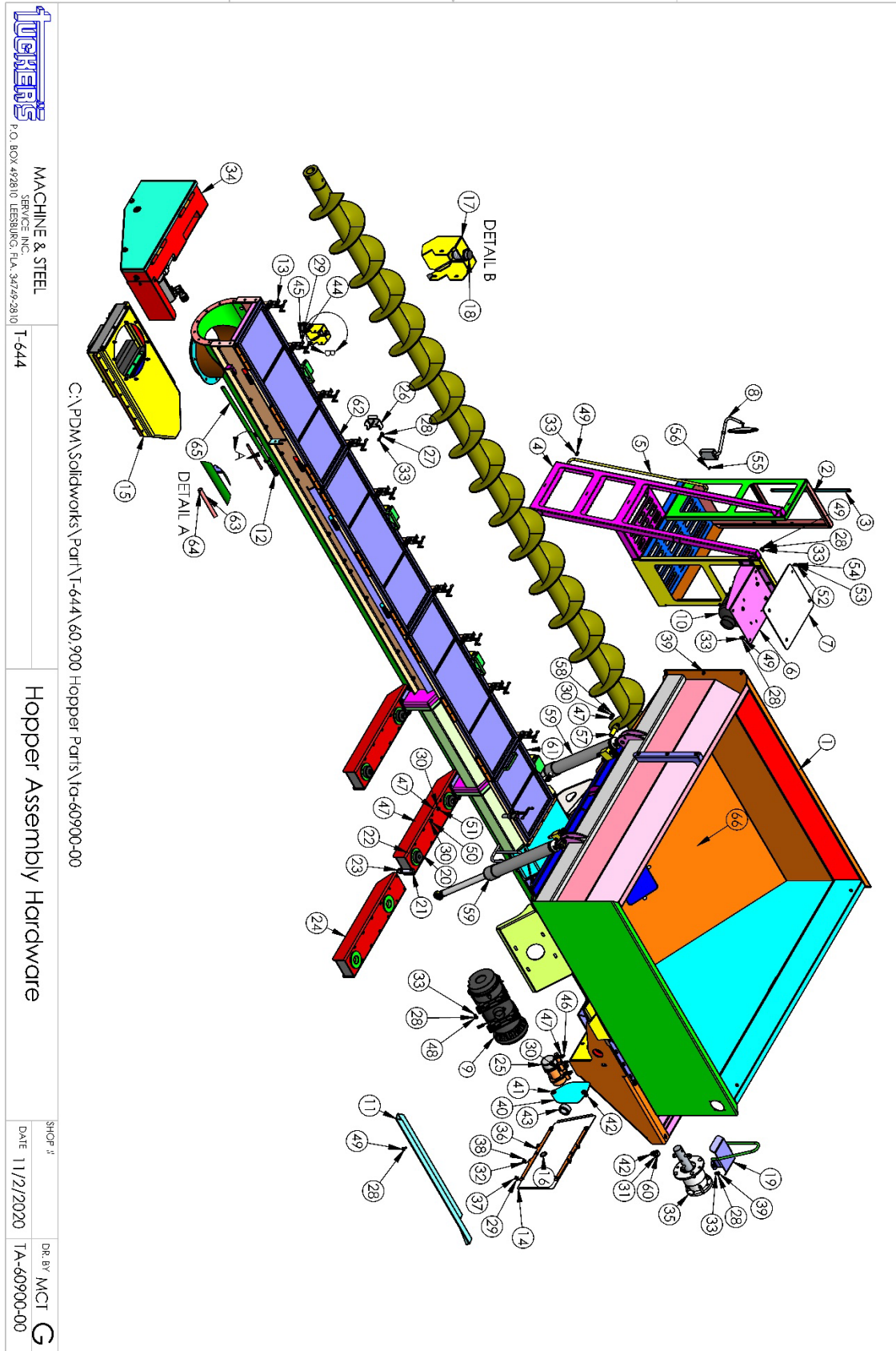
Frame Electrical Box Parts				
Key	Description	Mfg #	Tucker #	Qty
1	MC050-010 Controller w/prog loaded-Lower Frame	Berendsen - 11138530	TB66130-11-LF	1
	Deutsch DRC26-50S01 Male Plug	Deutsch - DRC26-50S01	TB80130-93	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	23
2	Terminal Strip 10 Lug 20A #6-32	Waytek - 47310	TB80575-109-10	1
3	Mini Fuse Panel, 5 Relays, 10 Fuses 15303-5	Waytek - 46345	TB66145-02	1
	Micro Relay, ISO 280 SPDT 35A, 12V	Waytek - 75659	TB66145-04	2
	Fuse, 5A Led Mini ATM Tan 12V	Waytek - 46261	TB66145-5A	4
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	2
	Fuse, 20A Led Mini ATM Yellow 12V	Waytek - 46265	TB66145-20A	1
4	Can Data Link Module (4 Total Connectors)	Waytek - 80604	TB80140	1
5	Switch N/O - 500 Series w-MetriPack	Wholesale - TU77030-00000050-01	TB80604-1	1
6	Fastener-Mount Cable Tie Holder	McMaster - 7582K82	TB66500-07	2
7	Ground Bar Kit 14 Position	Besco - ECGB14	TB80130-45	1
	Ground Bar Collar Strap	Besco - ECCS1	TB80130-45-01	1
8	Solenoid/Relay, 200 Amp Continous, JCB	Wholesale - HE24213	TB80587-1	1
9	Midi High Amp Fuse Block Fuse Module	Waytek - 46390	TB80130-100-03	1
	Midi High Amp Fuse 70A	Waytek - 46384	TB80130-100-04-70A	1
10	Oil Cooler, 12v (Thermal MAR 248)	Berendsen - MAR-248-2-4A-30	TB66207-01	1
	Oil Cooler Fan Thermostat (Thermal 57566)	Berendsen - 57566	TB66207-02	1
11	Deutsch DT04-08PA-P026 (2) 4 Pin Buss Receptacle	Deutsch - DT04-08PA-P026	TB80130-51-P026	1
11a	Light Back Up, Transporter	Wholesale - TPLED60W	TB80985-01	2
12	PreView SAS Back Up Alarm	Preco - SAS ALARM	TB80125-1-6	1
13	Preview Back Up Sensor Can-Bus Sentry ST82062.4	Preco - ST82062.4	TB80125-2-3S	1
14	Fuel Level Sending Unit SN35 33-240 OHM	Boyd Welding - 33002	TB66130-20	1
15	Camera, Famos 129 Deg w/24" Cable Orlaco 0171100	Berendsen - 171100	TB66130-01	3
15a	Multiview Box Screen Splitter Orlaco 0405100	Berendsen - 0405100	TB66130-02-SPL	1
15b	Cable, Camera 17M 7P Dynamic 46 Ft Orlaco 0304590	Berendsen - 304590	TB66130-03-17M	1
15c	Cable, Camera 3M 4P Dynamic 9.8 Ft Orlaco 0301890	Berendsen - 301890	TB66130-03-3M	2
16	Motor Wheel, Danfoss H1 Vari, 0-80cc	Berendsen - 83060628	TB66201-1	2
17	Rota EL series transducer, 10mm OD aluminum	Rota - ELCA 0610 0.5 G J C0762 C064 R	TB66130-38	3
18	Deutsch DT04-6P-EP14 2-3 Pin Buss Receptacle	Deutsch - DT04-6P-EP14	TB80130-113-EP14	1
19	Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	2

## Frame Electrical Panel BOM for Serial Number 4230039 and Above

Frame Electrical Box Parts				
Key	Description	Mfg #	Tucker #	Qty
1	MC050-010 Controller w/prog loaded-Lower Frame	Berendsen - 11138530	TB66130-11-LF	1
	Deutsch DRC26-50S01 Male Plug	Deutsch - DRC26-50S01	TB80130-93	1
	Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	24
2	Terminal Strip 10 Lug 20A #6-32	Waytek - 47310	TB80575-109-10	1
3	Mini Fuse Panel, 5 Relays, 10 Fuses 15303-5	Waytek - 46345	TB66145-02	1
	Micro Relay, ISO 280 SPDT 35A, 12V	Waytek - 75659	TB66145-04	2
	Fuse, 5A Led Mini ATM Tan 12V	Waytek - 46261	TB66145-5A	4
	Fuse, 10A Led Mini ATM Red 12V	Waytek - 46263	TB66145-10A	2
	Fuse, 20A Led Mini ATM Yellow 12V	Waytek - 46265	TB66145-20A	2
4	Can Data Link Module (4 Total Connectors)	Waytek - 80604	TB80140	1
5	Switch N/O - 500 Series w-MetriPack	Wholesale - TU77030-00000050-01	TB80604-1	1
6	Fastener-Mount Cable Tie Holder	McMaster - 7582K82	TB66500-07	1
7	Ground Bar Kit 14 Position	Besco - ECGB14	TB80130-45	1
	Ground Bar Collar Strap	Besco - ECCS1	TB80130-45-01	1
8	Solenoid/Relay, 200 Amp Continuous, JCB	Wholesale - HE24213	TB80587-1	1
9	Power Relay Module, 70A, 2 Fuse, 37702-1AN0022	Waytek - 46095	TB66149	2
	LittelFuse JCASE, Fuse,30A, Pink	Waytek - 46591	TB66150-30	2
10	Oil Cooler, 12v (Thermal MAR 248)	Berendsen - MAR-248-2-4A-30	TB66207-01	1
11	Deutsch DT04-08PA-P026 (2) 4 Pin Buss Receptacle	Deutsch - DT04-08PA-P026	TB80130-51-P026	1
11a	Light Back Up, Transporter	Wholesale - TPLED60W	TB80985-01	2
12	PreView SAS Back Up Alarm	Preco - SAS ALARM	TB80125-1-6	1
13	Preview Back Up Sensor Can-Bus Sentry ST82062.4	Preco - ST82062.4	TB80125-2-3S	1
14	Fuel Level Sending Unit SN35 33-240 OHM	Boyd Welding - 33002	TB66130-20	1
15	Camera, Famos 129 Deg w/24" Cable Orlaco 0171100	Berendsen - 171100	TB66130-01	3
15a	Multiview Box Screen Splitter Orlaco 0405100	Berendsen - 0405100	TB66130-02-SPL	1
15b	Cable, Camera 17M 7P Dynamic 46 Ft Orlaco 0304590	Berendsen - 304590	TB66130-03-17M	1
15c	Cable, Camera 3M 4P Dynamic 9.8 Ft Orlaco 0301890	Berendsen - 301890	TB66130-03-3M	2
16	Motor Wheel, Danfoss H1 Vari, 0-80cc	Berendsen - 83060628	TB66201-1	2
17	Rota EL series transducer, 10mm OD aluminum	Rota - ELCA 0610 0.5 G J C0762 C064 R	TB66130-38	3
18	Deutsch DT04-6P-EP14 2-3 Pin Buss Receptacle	Deutsch - DT04-6P-EP14	TB80130-113-EP14	2
19	Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	2
20	Light Strobe, Transporter	Wholesale - TPM63201Y	TB80985-01S	8
21	Deutsch DT04-12PA-P026 2-6 Pin Buss Receptacle	Deutsch - DT04-12PA-P026	TB80130-114	2

# Hopper

## Hopper Assembly Hardware for Serial Number 4250050 and below



# Hopper Assembly Hardware BOM for Serial Number 4250050 and below

ITEM NO.	OrderNo	DESCRIPTION	QTY.	ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60900-00	Hopper Assembly	1	34	TA-81977	T-644 Front Auger Drive Assembly Hardware	1
2	TM60904-00	Catwalk Assembly	1	35	TM81977-12	FD - Rear Bearing Housing Kit	1
3	TM60904-08	Catwalk Handrail Shim	1	36	TM60901-10	Auger Drive Box Cover Clip	2
4	TM60905-00	Catwalk Ladder Assembly	1	37	NCOB-0.25-20-0.531	Nut Clip-On Barrel: 1/4-20 .025-.15 .531 Hole	10
5	TM60080-00-1	Handle Assembly Long	1	38	CS-HH-0.25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	10
6	TM60904-10	Catwalk Cab Filter Bracket	1	39	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	5
7	TM60904-11	Cab Filter Cover	1	40	TM60901-12-1	Auger Drive Motor Block#1	1
8	TB80589-CSMA	Mirror, Convex Spot Mirror Assembly	1	41	CS-HH-0.75-10X1.5	Screw Cap Hex: 3/4-10 X 1 1/2	2
9	TB80661	Vortex Hyper Flow Cab Pressurizing Filter	1	42	NF-0.75-10	Nut Flanged Lock : 3/4-10	6
10	TB80662	Sy-Klone RESPA-CFX 12v Recirculation Merv 16+ Filter	1	43	TB80306	Bearing Hopper Pivot	2
11	TM60903-25	Hopper Side Hose Cover	1	44	NCOB-0.25-20-0.781	Nut Clip-On Barrel: 1/4-20 .025-.15 .781 Hole	16
12	TB80349	Grip Black Rubber	5	45	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	16
13	TB80532	Clamp (pipe) Auger Cover	11	46	CS-HH-0.5-13X2.5	Screw Cap .5 X 2.5	8
14	TM60901-09	Auger Drive Box Cover	1	47	NF-0.5-13	Nut Flanged Lock : 1/2-13	18
15	TA-60030-00	Slide Gate Bolt On Assembly	1	48	CS-HH-0.375-16X1.5	Screw Cap Hex: 3/8-16 X 1 1/2	4
16	TB80216	Plug, Chain Inspection	1	49	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	29
17	TM60902-27	Chute Sensor Cover Assembly	4	50	CS-HH-0.5-13X5.5	Screw Cap Hex: 1/2-13 X 5 1/2	4
18	TB6130-08-1U	Sensor, N/O PNP Turck Proximity	4	51	CS-HH-0.5-13X1.75	Screw Cap Hex: 1/2-13 X 1 3/4	4
19	TM60901-14	Auger Drive Box Hose Guard Assembly	1	52	CB-0.375-16X1	Bolt Carriage 3/8-16 X 1	4
20	TB4107	Lord Vibration Mount - Cab	4	53	WL-0.375	Washer Lock 3/8	4
21	CS-HH-0.875-9X5	Screw Cap Hex: 7/8-9 X 5	4	54	NU-0.375-16-PL	Nut 3/8-16 (Plated)	4
22	TB64108	Lord Vibration Mount - Washer for Cab	4	55	WL-0.25	Washer Lock 1/4	4
23	NSL-0.875-9	Nut Self Lock : 7/8-9	4	56	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	4
24	TM60902-31	Chute To Cab Perch Assembly	2	57	TM60010-00	Cylinder Pin Assembly T-644	2
25	TB66444	Vibrator, Hopper, 12v 3000 RPM Oil	2	58	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	2
26	TM60902-35	Chute Auger Hose Clip	6	59	TA-66050L	Lift Cylinder Assembly Hardware, Left	2
27	CS-HH-0.375-16X2.5	Screw Cap Hex: 3/8-16 X 2 1/2	12	60	CS-HH-0.75-10X2	Screw Cap Hex: 3/4-10 X 2	4
28	WF-0.375	Washer Flat 3/8	45	61	TM60907-10	Chute Door Assembly, Short, S.N. 4250050 And Below	1
29	WF-0.25	Washer Flat 1/4	22	62	TM60907-11	Chute Door Assembly, Long	3
30	WF-0.5	Washer Flat 1/2 (SAE)	18	63	TM60907-05	Chute Door Hinge Pin	11
31	WF-0.75	Washer Flat 3/4	4	64	MI-TP-0.15625X0.75	Pin Tension 5/32 X 3/4	22
32	WFF-0.25	Washer Flat 1/4 (SAE)	4	65	TM60902-30	Chute Door Opener Assembly	1
33	NF-0.375-16	Nut Flanged Lock : 3/8-16	44	66	TM60020-23	Auger, 23" w-AR Flights Welded	1

C:\PDM\Solidworks\Part\T-644\60.900 Hopper Parts\ta-60900-00



**TOWER SERVICE INC.**  
P.O. BOX 472010 LEESSBURG, FLA. 34749-2810

MACHINE & STEEL  
T-644

## Hopper Assembly Hardware BOM

SHOP #  
DATE 11/12/2020  
DR. BY MCT  
G

# Hopper Assembly Hardware for Serial Number 4250051 and above

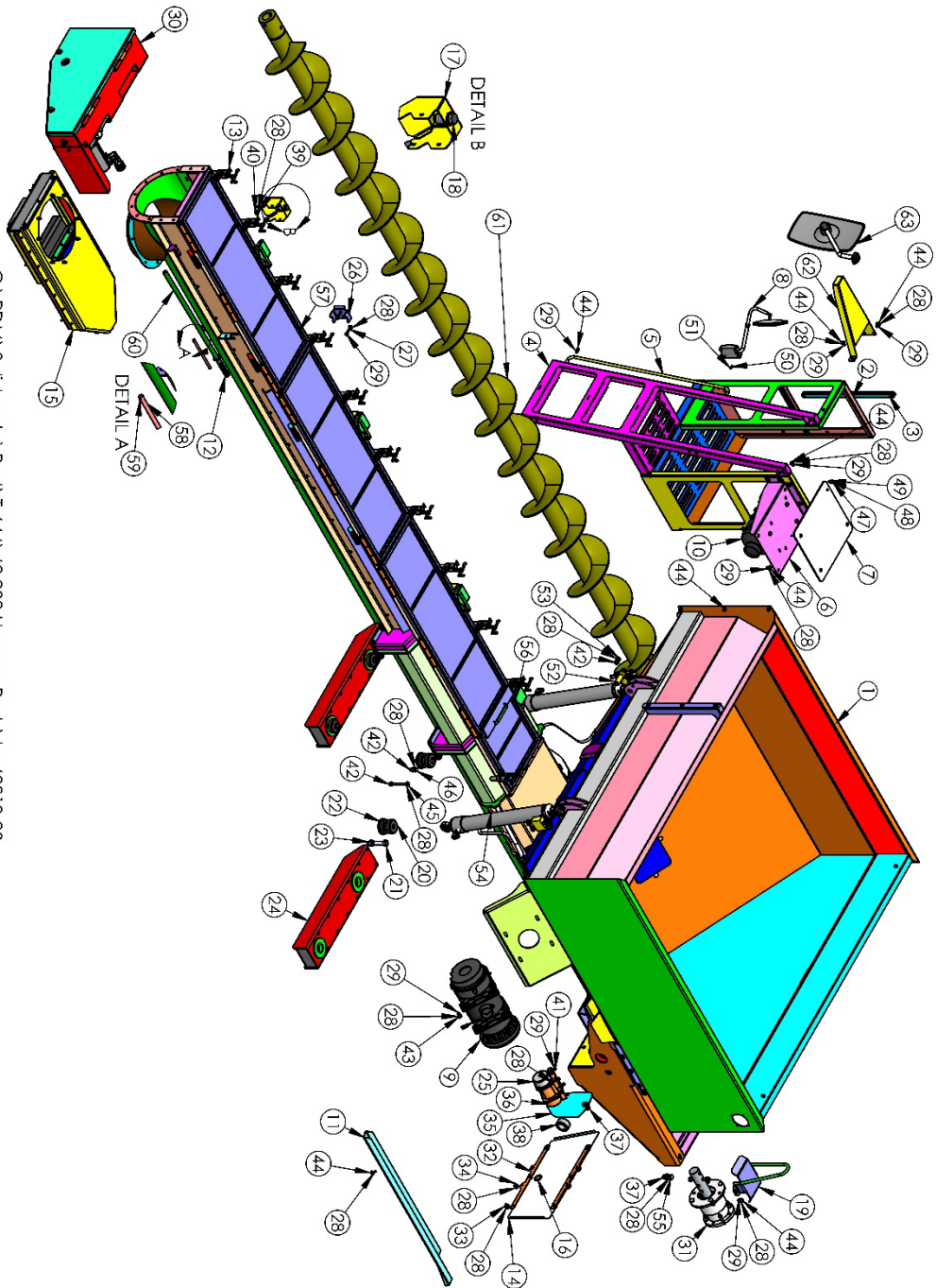


MACHINE & STEEL  
 SERVICE CENTER  
 P.O. BOX 492810, TEBBING, FLA. 32749-2810  
 T-644

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## Hopper Assembly Hardware

SHOP #  
 DATE 3/20/2025  
 DR BY MCT A+



# Hopper Assembly Hardware BOM for Serial Number 4250051 and above

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60910-00	Hopper Assembly Painted	1
2	TM60904-00	Catwalk Assembly	1
3	TM60904-08	Catwalk Handrail Shim	1
4	TM60905-00	Catwalk Ladder Assembly	1
5	TM60080-00-1	Handle Assembly Long	1
6	TM60904-10	Catwalk Cab Filter Bracket	1
7	TM60904-11	Cab Filter Cover	1
8	TB80589-CSMA	Mirror, Convex Spot Mirror Assembly	1
9	TB80661	Vortex Hyper Flow Cab Pressurizing Filter	1
10	TB80662	Sy-Klone RESPA-CFX 12v Recirculation Merv 16+ Filter	1
11	TM60903-25	Hopper Side Hose Cover	1
12	TB80349	Grip Block Rubber	5
13	TB80532	Clamp (p/b) Auger Cover	11
14	TM60901-09	Auger Drive Box Cover	1
15	TA-60030-00	Slide Gate Bolt On Assembly	1
16	TB80216	Plug, Chain Inspection	1
17	TM60902-27	Chute Sensor Cover Assembly	4
18	TB6130-08-TU	Sensor, N/O PNP Turck Proximity	4
19	TM60901-14	Auger Drive Box Hose Guard Assembly	1
20	TB4107	Lord Vibration Mount - Cab	4
21	CS-HH-0.875-9X5	Screw Cap Hex: 7/8-9 X 5	4
22	TB4108	Lord Vibration Mount - Washer for Cab	4
23	NSL-0.875-9	Nut Self Lock : 7/8-9	4
24	TM60902-31	Chute To Cab Perch Assembly	2
25	TB66444	Vibrator, Hopper, 12v 3000 RPM Oil	2
26	TM60902-35	Chute Auger Hose Clip	6
27	CS-HH-0.375-16X2.5	Screw Cap Hex: 3/8-16 X 2 1/2	12
28	WF-0.375	Washer Flat 3/8	96
29	NF-0.375-16	Nut Flanged Lock : 3/8-16	55
30	TA-81977	T-644 Front Auger Drive Assembly Hardware	1
31	TM81977-12	FD - Rear Bearing Housing Kit	1
32	TM60901-10	Auger Drive Box Cover Clip	2
33	NCOB-0.25-20-0.531	Nut Clip-On Barrel: 1/4-20 .025-.15 .531 Hole	10

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**TOWER SERVICE INC.**  
P.O. BOX 472810 LEBENSBURG, FLA. 34749-2810

MACHINE & STEEL  
T-644

ITEM NO.	OrderNo	DESCRIPTION	QTY.
34	CS-HH-0.25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	10
35	TM60901-12-1	Auger Drive Motor Blockoff	1
36	CS-HH-0.75-10X1.5	Screw Cap Hex: 3/4-10 X 1 1/2	2
37	NF-0.75-10	Nut Flanged Lock : 3/4-10	6
38	TB80306	Bearing Hopper Pivot	2
39	NCOB-0.25-20-0.781	Nut Clip-On Barrel: 1/4-20 .025-.15 .781 Hole	16
40	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	16
41	CS-HH-0.375-16 X 2	Screw Cap .375 X 2	8
42	NF-0.5-13	Nut Flanged Lock : 1/2-13	10
43	CS-HH-0.375-16X1.5	Screw Cap Hex: 3/8-16 X 1 1/2	4
44	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	37
45	CS-HH-0.5-13X5.5	Screw Cap Hex: 1/2-13 X 5 1/2	4
46	CS-HH-0.5-13X1.75	Screw Cap Hex: 1/2-13 X 1 3/4	4
47	CB-0.375-16X1	Bolt Carriage 3/8-16 X 1	4
48	WL-0.375	Washer Lock 3/8	4
49	NU-0.375-16 PL	Nut 3/8-16 (Plated)	4
50	WL-0.25	Washer Lock 1/4	4
51	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	4
52	TM60010-00	Cylinder Pin Assembly T-644	2
53	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	2
54	TA-66050L	Lift Cylinder Assembly Hardware, Left	2
55	CS-HH-0.75-10X2	Screw Cap Hex: 3/4-10 X 2	4
56	TM60907-13	Chute Door Assembly, Short, S.N. 4250051 And Above	1
57	TM60907-111	Chute Door Assembly, Long	3
58	TM60907-05	Chute Door Hinge Pin	11
59	ML-TP-0.15625X0.75	Pin Tension 5/32 X 3/4	22
60	TM60902-30	Chute Door Opener Assembly	1
61	TM60020-23	Auger, 23 w-AR Flights Welded	1
62	TM60904-12	Catwalk Mirror Bracket	1
63	TM60880-00	T-644 Mirror Assembly	1


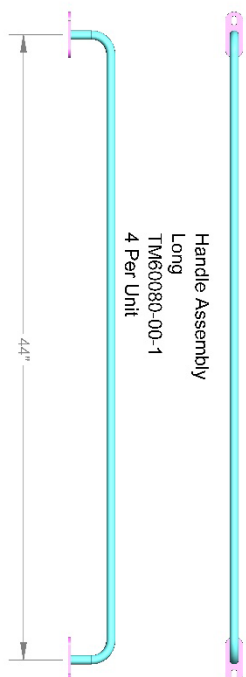
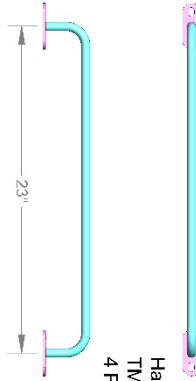
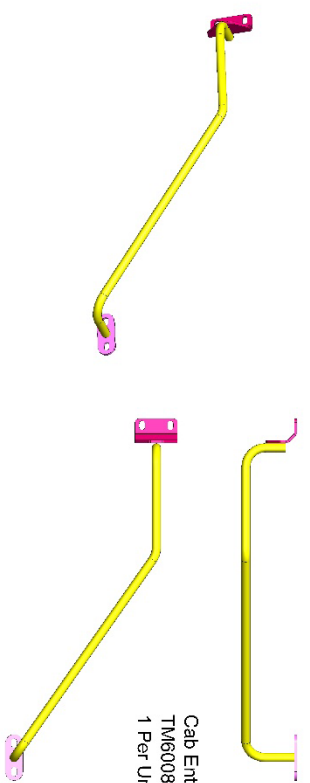
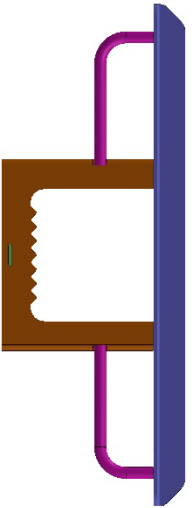
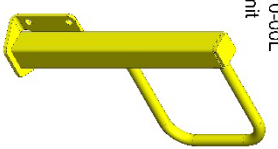
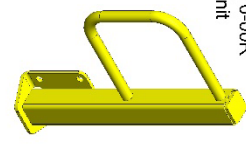
## Hopper Assembly Hardware BOM

SHOP #

DATE 3/20/2025

DR BY MCT A+

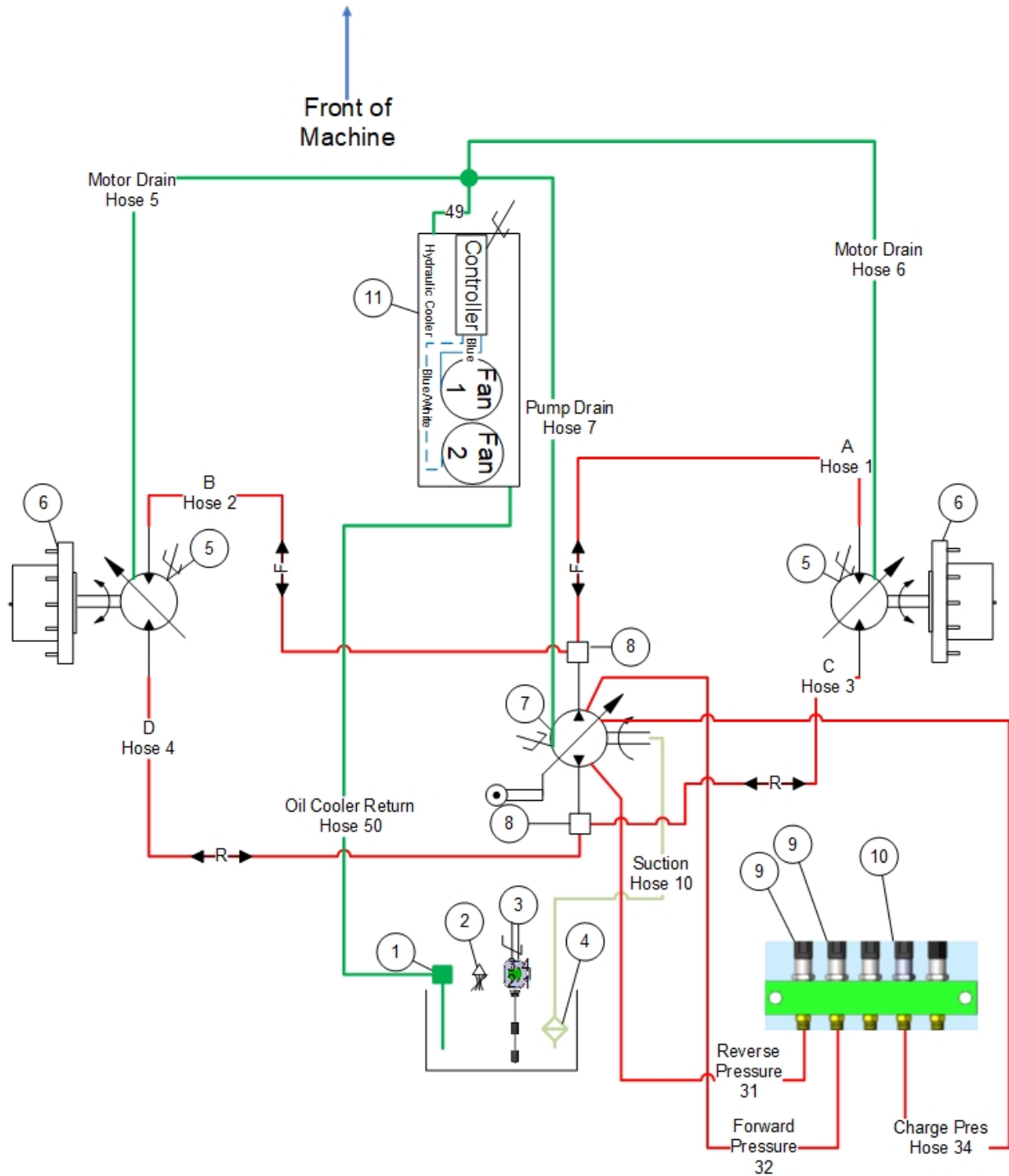
# Handle List

 <p>MACHINE &amp; STEEL SERVICE, INC. P.O. BOX 492810 TEBESBURG, FLA. 34729-2810</p>	<p>C:\PDM\Solidworks\Part\T-644\60080 Handles\60080.00 T-644</p>	<h2>Handles</h2>	<p>Shop: DATE 1/30/2018</p> <p>DR. BY MCT See Above</p>
 <p>Handle Assembly Long TM60080-00-1 4 Per Unit</p>  <p>Handle Assembly Short TM60080-00-2 4 Per Unit</p>  <p>Cab Entry Door Handrail Assembly T-644 TM60080-00-3 1 Per Unit</p>	 <p>Handle Step, Cab TM60080-04 1 Per Unit</p>		 <p>Front Bumper Handle Post Left TM60070-00L 1 Per Unit</p>  <p>Front Bumper Handle Post Right TM60070-00R 1 Per Unit</p>

# Hydraulics

## Propel

### Propel Drive Schematic



# Propel Drive Schematic BOM

T-644 Drive Hydraulic Circuit - Starting Serial 160002				
Key	Description	Mfg #	Tucker #	Qty
1	Hydraulic Oil Tank Return Block (T-644)		TM60710-24	1
2	Anti-Splash 5 PSI Breather	Stauff - SMBB-80E-S-O-40-B0.35-B-S095P-D0	TB66212	1
	Stauff Bayonet Extender	Stauff - EBF-2	TB66214	1
3	Rota Tank Level/Temp Sensor	Rota - TL5207	TB66213-ROTA-TLT	1
4	Strainer, Suction - Propel T-644	Stauff - SUS-A-088-N24-226-125-A-O	TB66216	1
5	Motor Wheel, Danfoss H1 Vari, 0-80cc	Danfoss - H1-B-080-AA-L1-BA-N-A-PB-VS-AS-S-A-10-NN-000-N-00-NNN	TB66201-1	2
	O-ring 568-248	O-ring 568-248	OR-568-248	2
6	Gearbox Wheel - Auburn "C" Mount 5" Pilot	Auburn Gear - OW3C143611Z	TB80200-AUBURN	2
7	Pump Transmission (Danfoss) H1, 115cc	Danfoss - H1-P-115-R-B-A-E7-C2-N-D3-G-G2-H6-L-28-L-28-L-M-20-PN-NNN-NNN	TB66203	1
	Danfoss Charge Pump Filter Element	Danfoss - 11004919	TB66203-01	1
8	Danfoss Drive Pump Tee Block		TM65138-3	2
9	Sensor, psi, 0-5800, Ratiometric, (400 Bar)	Danfoss - 11044542	TB66130-07	2
10	Sensor, psi, 0-580, Ratiometric, (40 Bar)	Danfoss - 11044499	TB66130-05	1
11	Oil Cooler, 12v (Thermal MAR 248)	Thermal Transfer - MAR-248-2-4A-30	TB66207-01	1
	Oil Cooler Fan Thermostat (Thermal 57566)	Thermal Transfer - 57566	TB66207-02	1

### Wheel Motor Viscosity

Viscosity	Minimum	mm <sup>2</sup> /s [SUS]	7 [49]
	Recommended range		12-80 [66-370]
	Maximum		1600 [7500]

### Max Motor Temps

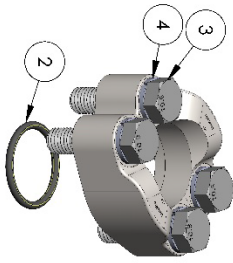
Temperature range <sup>1)</sup>	Minimum	°C (°F)	-40 [-40]
	Rated		104 [220]
	Maximum intermittent		115 [240]



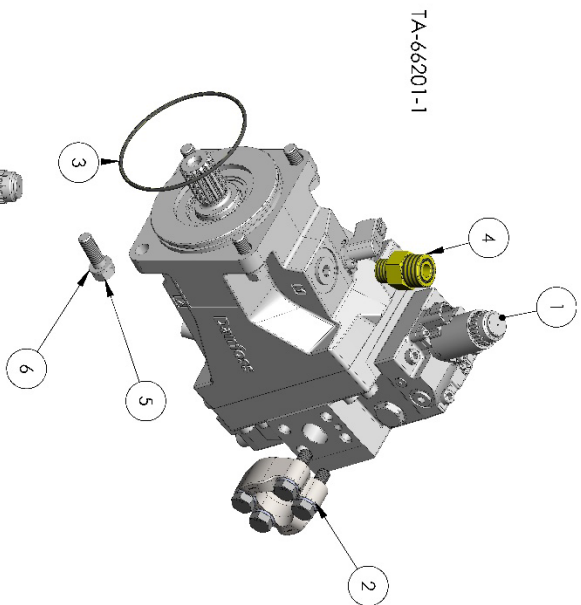
# Wheel Motor Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	1B66201-1	Motor Wheel, Danfoss HI Vari, 0-80CC	1
2	16SFXO-M12	Adapter -16, Hyd Code 62 Split Flange Kit Metric	2
3	OR-568-248	O-Ring 4 3/4 x 5 x 1/8	1
4	FF1852T1210S	ST #12 ORS Flat Face, #10 O-Ring Boss	1
5	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	4
6	WL-0.5	Washer Lock 1/2	4

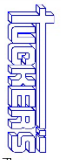
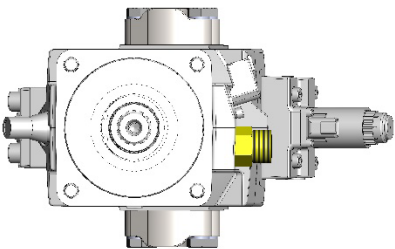
ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	HA-16SFXO-M12	HA-16SFXO-M12 Hcfl	2
2	OR-568-219	O-Ring 1 5/16 x 1 9/16 x 1/8	1
3	CS-HH-1/2-1.75x45MM10.9	Screw Cap Hex: 12-1.75-45mm 10.9	4
4	WL-12M	Washer Lock 12 mm	4



16SFXO-M12



TA-66201-1



**MACHINE & STEEL**  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

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T-644

T-644 Wheel Motor Assembly Kit

SHOP #  
DATE 4/3/2019

DR BY MCT A+  
TA-66201-1

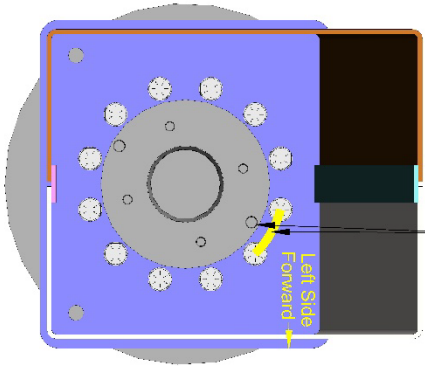
# Gearbox – Motor Installation

TB80200-2-04-1  
 14-00-139-026 Auburn Retaining Ring W10C  
 to Motor Side

TB80200-2-04  
 608910 Auburn Coupling W10C

## Drivers Side from inside frame (Left Side)

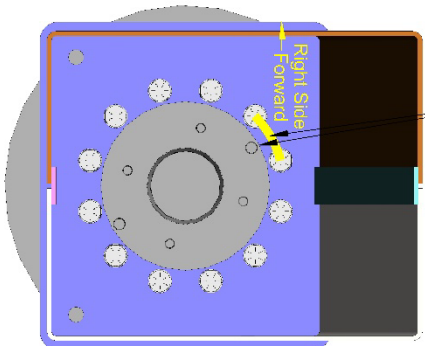
Gearbox installation alignment  
 critical for motor to install correctly.  
 Make sure this hole is between the two  
 bolts as shown.



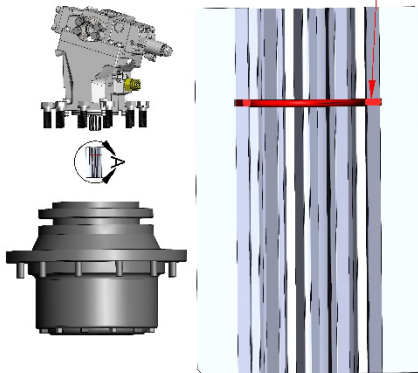
Install motor as shown

## Opposite Drivers Side from inside frame (Right Side)

Gearbox installation alignment  
 critical for motor to install correctly.  
 Make sure this hole is between the two  
 bolts as shown.



Install motor as shown



Serial Number  
 Welded inside  
 here on drivers  
 side.

- WL-0.75-GR8  
 Washer Lock 3/4 GRADE 8
- CS-HH-0.75-16X2.25XGR8  
 Screw Cap Hex: 3/4-16 X 2 1/4 G/8  
 Use Grade 8 only. Lubricate with  
 Never seize or similar and Torque  
 to: 320 Ft-Lbs



MACHINE & STEEL  
 SERVICE INC.  
 P.O. BOX 492810 LEESSBURG, FLA. 34749-2810

T-644

## Gearbox - Motor Installation

SHOP #  
 DATE 9/23/2020

DR. BY MCT A+

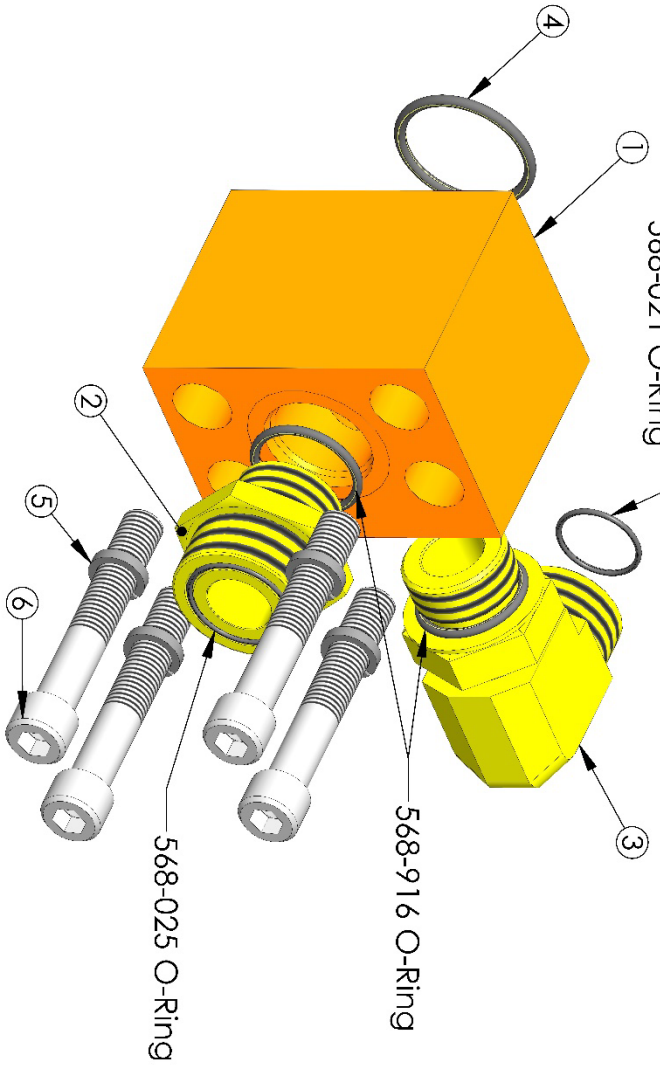


## Auxiliary Circuit BOM

T-644 Auxillary Hydraulic Circuit 2020				
Key	Description	Mfg #	Tucker #	Qty
1	3/4" MNPT 120 VAC In-Tank Oil Heater	ET3-1001	TB64105	1
2	Rota Tank Level/Temp Sensor	Rota - TL5207	TB66213-ROTA-TLT	1
3	Filter Assembly, Tank Return T-644 Stauff	Stauff - STNA47386	TB64101	1
	Filter Element, Tank Return T-644 Stauff	Stauff - 1020013910	TB64101-01	2
	Hydraulic Oil Tank Charge Pump Nipple		TM60710-19	1
	Stauff 1-1/2" diffuser	Stauff - STNA43280	TB64101-03	1
4	Hydraulic Oil Tank Return Block (T-644)		TM60710-24	1
5	Strainer, In Tank - 2-1/2"	MFP - SU75SF40	TB80100-1	1
6	Pressure Transducer TDH30KG010003B004, 0-100	Transducers Direct - TD4526	TB66130-30	1
7	Sensor, psi, 0-3626, Ratiometric, (250 Bar)	Danfoss - 11044501	TB66130-06	1
	Deutsch W4S Wedge for Plug	Deutsch - W4S	TB80130-86	2
8	Pump Controls, Danfoss Ser. 45, 130cc	Danfoss - ER-R-130B-LS-25-20-NN-N-3-S1NL-A1N-NNN-NNN	TB66204	1
	O-ring 568-158V Viton	O-ring 568-158V Viton	OR-568-158V	1
	Hose, Hydraulic FC619-40 Suction	Aeroquip - FC619-40	HH-FC619-40	36
	2-1/2" Suction Hose SS T-Bolt Clamps	TBC312	TB80431-1	8
9	Danfoss Drive Pump Tee Block		TM65138-3	1
10	PVG100, 1 sec, 65, Motor, w/LX, Auger Valve	Berendsen - 161F5083	TB66130-13	1
11	PVG32, 6 sec, No LX	Berendsen - 159-3706	TB66130-14	1
12	Transporter Hyd Cyl 2014+ (Sell TK Retrofits)		TM66050	2
13	Valve Body Lift Cyl. Saftey (Vickers)	Vickers - 31451A	TB80215B	1
	Valve Cartridge Lift Cyl. Saftey (Vickers)	Vickers - 1CEV30F20S	TB80215C	1
14	Motor, Swing w/Cross Relief	Charlynn - 104-4071	TB80103-1	1
15	Motor Auger	Charlynn - 1191030	TB80102	1
16	T-644 Smart Linear Cylinder		TM60040-00	2
17	Tucker 7110DD A/C & Heat, 12v w/RESPA System	Visionaire - 550-02-00-00	TB80660-T644	1
18	16" Cylinder Chute Spout Gate - Engine Hood	Bailey Int. - 320-327	TB80701-1	1
19	Auxillary Pump Suction/Prime Elbow Assembly		TM60700-16	1

# Auxiliary Pump Block BOM

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM65138-3	Danfoss Pumps Tee Block	1
2	FF6400-20-16	ST #20 ORS Flat Face, #16 O-Ring Boss	1
3	FF1868T1616S	EII #16 ORS Flat Face, #16 O-Ring Boss	1
4	OR-568-2222	O-Ring 1 1/2 x 1 3/4 x 1/8	1
5	WLHC-0.5	Washer Lock Hi-Collar 1/2	4
6	CS-SH-0.5-13X3.25	Screw Cap Skt.: 1/2-13 X 3.25	4



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T-644

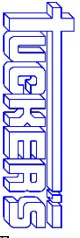
Danfoss Aux Pump Block Assembly T4F

DR. BY MCT

DATE 7/9/2020

SHOP #

TA-65138-4F



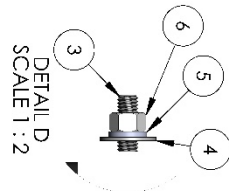
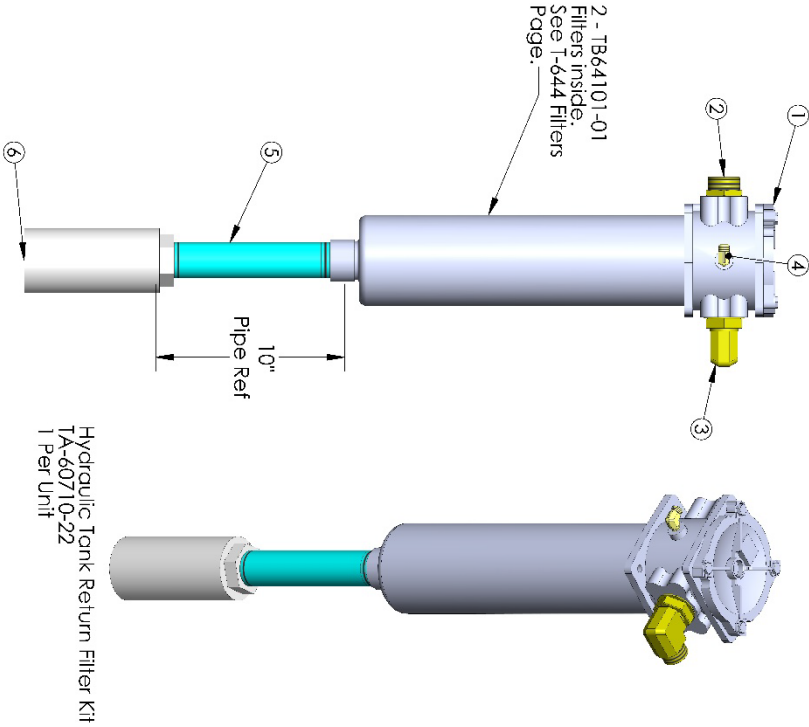
MACHINE & STEEL

SERVICE INC.

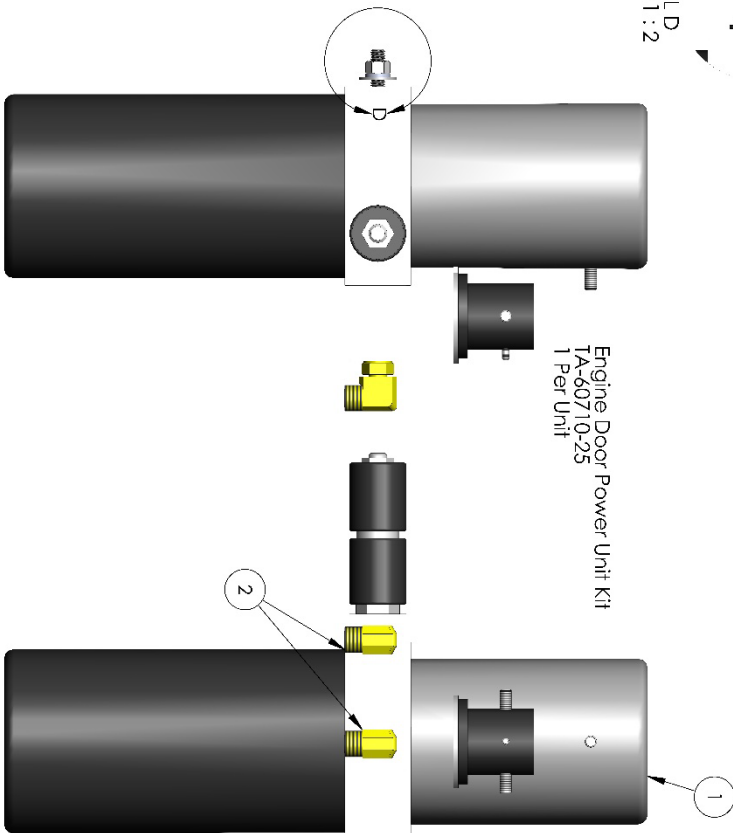
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

# Auxiliary Return Filter & Engine Door Pump Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB64101	Filter Assembly, Tank Return T-644 Stauff	1
2	FF1852T2020S	ST #20 ORS Flat Face, #20 O-Ring Boss	1
3	FF1868T2016S	Eil #16 ORS Flat Face, #20 O-Ring Boss	1
4	FP2032T0402S	Adapter, Hydraulic -FP2032T0402S	1
5	TM60710-20	Hydraulic Oil Tank Diffuser Nipple	1
6	TB64101-03	Stauff 1-1/2" diffuser	1



ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66130-33	Engine Door Hydraulic Power Unit	1
2	FF1868T0606S	Eil #6 ORS Flat Face, #6 O-Ring Boss	2
3	TB66130-33-STUD	Stud 3/8-16 x 1-1/2 Zinc Yellow-Chromate Plated	2
4	WF-0.375	Washer Flat 3/8	2
5	WL-0.375	Washer Lock 3/8	2
6	NU-0.375-16-PL	Nut 3/8-16 (Plated)	2



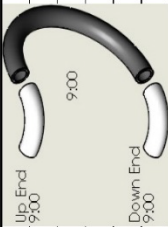
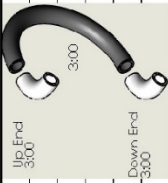
**TOBER'S**  
MACHINE & STEEL SERVICE, INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

T-644  
Hydraulic Tank Return Filter Kit

SHOP #  
DATE 11/6/2017  
DR. BY MCT A+  
TA-60,710,22

T-644 Hose List 1-34

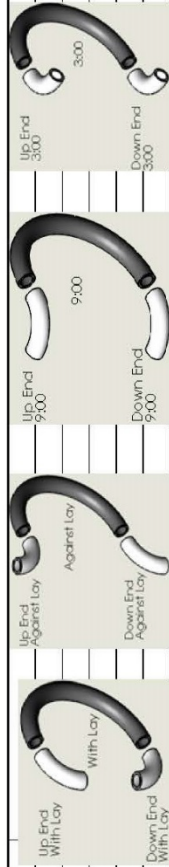
Number	Routing	Length	Hose	End 1	End 2
1	A-Pump Inside 90° to Right Motor Front, Against Lay	199	HH-GH493-16	HF-1BA16FR16	HF-1B16FHB16
2	B-Pump Inside St to Left Motor Front, With Lay	246	HH-GH493-16	HF-1BA16FR16	HF-1B16FHB16
3	C-Pump Outside St to Right Motor Rear, With Lay	208	HH-GH493-16	HF-1BA16FR16	HF-1B16FHB16
4	D-Pump Outside 90° to Left Motor Rear, Against Lay	252	HH-GH493-16	HF-1BA16FR16	HF-1B16FHB16
5	Wheel Motor Drain Left, Clock Up 9:00	26	HH-GH781-12	HF-1AA12FRB12	HF-1AA12FRB12
6	Wheel Motor Drain Right, Clock Up 3:00	26	HH-GH781-12	HF-1AA12FRB12	HF-1AA12FRB12
7	Wheel Motor Drain, Lower Frame Tee to Propel Drain	227	HH-GH781-16	HF-1AA16FR16	HF-1AA16FR16
8	Auger Motor Rear w/Male Quick, Rear Valve Port, Clock Up 3:00	332	HH-GH493-20	HF-4SA20FRB20	HF-4SA20FR20
9	Auger Motor Front w/Female Quick, Front Valve Port, Clock Up 3:00	329.5	HH-GH493-20	HF-4SA20FR20	HF-4SA20FR20
10	Propel Suction, Clock Up 9:00	60	HH-FC619-20	HF-1AV20FR20	HF-1AV20FJC20
11	Swing Motor Front, Valve Front Port, Clock Up 9:00	92	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
12	Swing Motor Rear, Valve Rear Port, Clock Up 9:00	92	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
13	Left Steer, Valve Front Port to Rear Right Cylinder, Clock Up 9:00	240	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
14	Right Steer, Valve Rear Port to Rear Left Cylinder, Clock Up 9:00	240	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
15	Left Steer, Rear to Right Steer Front, Clock Up 3:00	57	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
16	Right Steer, Rear to Left Steer Front, Clock Up 9:00	57	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
17	Fuel Supply to Engine Frame	192	HH-FC332-08	HF-FBM1513	HF-FBM1513
18	Fuel Return From Engine Frame	192	HH-FC332-08	HF-FBM1513	HF-FBM1513
19	Fuel Supply Engine Frame to Fuel Pump	34	HH-FC332-06	HF-FBM1512	TB80623
20	Fuel Return From Fuel Pump to Engine Frame	34	HH-FC332-06	HF-FBM1512	TB80623
21	Fuel Return From Engine to Engine Frame	91	HH-FC332-06	HF-FBM1512	TB80623
22	Service Brake	432	HH-GH781-4	HF-1AA4FJ4	HF-1AA4FJ4
23A	Park Brake at Cab to Park Brake Switch	385	HH-GH781-4	HF-1AA4FJ4	HF-1AA4FJ4
23B	Park Brake Switch to Axle	182	HH-GH781-4	HF-1AA4FJ4	HF-1AA4FJ4
24	Air Tank to Air Bags, Clock Up 3:00	365	HH-GH781-4	HF-1AA4FJ4	HF-1AA4FJ4
25	Lift Cylinder Front, Valve Rear Port	172	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR8
26	Lift Cylinder Rear, Valve Front Port	172	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR8
27	Lift Cylinder Cross Over, Left Rear to Right Front	31.5	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR8
28	Lift Cylinder Cross Over, Left Front to Right Rear	31.5	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR8
29	Lift Cylinder Top to Bottom, Left, Clock With Lay	27	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
30	Lift Cylinder Top to Bottom, Right	27	HH-GH781-8	HF-1AA8FR8	HF-1AA8FR88
31	Transducer 1 - Reverse Propel Pressure	26	HH-GH781-4	HF-1AA4FR4	HF-1AA4FR4
32	Transducer 2 - Forward Propel Pressure	24	HH-GH781-4	HF-1AA4FR4	HF-1AA4FR4
33	Transducer 3 - Auxillary Pump Pressure	29	HH-GH781-4	HF-1AA4FR4	HF-1AA4FR4
34	Transducer 4 - Charge Pressure, Clock Against Lay	20	HH-GH781-4	HF-1AA4FR4	HF-1AA4FR4



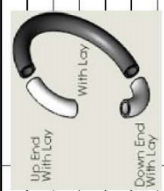
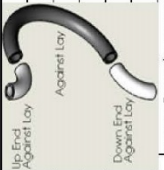
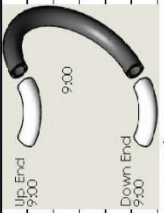
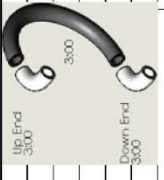
Hose & Ends Aeroquip Part Numbers

# T-644 Hose List 35-69

Number	Routing	Hose	Length	End 1	End 2
35	Transducer 5 - Return Filter Pressure	HH-GH781-4	37	HF-1AA4FR4	HF-1AA4FR4
36	Air Compressor to Dryer	HH-2807-10	120	HF-63-190600-10	HF-63-190600-10
37	Air Dryer to Tank	HH-GH781-8	25	HF-1AA8FJ8	HF-1AA8FJ8
38	Auxiliary Pump to PVG32 Pressure, With Lay	HH-GH781-16	30	HF-1AA16FR16	HF-1AA16FRB16
39	PVG32 Return to Filter, With Lay	HH-GH781-16	40	HF-1AA16FR16	HF-1AA16FR16
40	LS (PVG32) to LX (PVG100), Clock With Lay	HH-GH781-4	15	HF-1AA4FR4	HF-1AA4FRB4
41	LS (PVG100) to Auxiliary Pump Control	HH-GH781-4	20	HF-1AA4FR4	HF-1AA4FR4
42	Auxiliary Pump to PVG100 Pressure	HH-GH493-20	34	HF-4SA20FR20	HF-4SA20FR20
43	Auxiliary Pump Suction, Short	HH-FC619-40	11		
44	Auxiliary Pump Suction, Long	HH-FC619-40			
45	PVG100 Drain to Tank Block, Clock Both W/Lay	HH-GH781-4	74	HF-1AA4FRB4	HF-1AA4FR4
46	PVG100 Return to Tank Filter	HH-GH493-20	28	HF-4SA20FR20	HF-4SA20FR20
47	Auxiliary Pump Case Drain to Tank Block	HH-GH781-12	47.5	HF-1AA12FR12	HF-1AA12FR12
48	Air Valve Supply to Cab, Clock Against Lay	HH-GH781-4	189	HF-1AA4FJ4	HF-1AA4FJ4
49	Lower Frame Cross to Hydraulic Cooler	HH-GH781-16	66	HF-1AA16FR16	HF-1AA16FR16
50	Oil Cooler Return to Tank Block, Clock Against Lay	HH-GH781-16	242	HF-1AA16FR16	HF-1AA16FR16
51	A/C Pressure, Valve Rear Port, Clock Up 9:00	HH-GH781-8	172	HF-1AA8FR8	HF-1AA8FJ8
52	A/C Return, Clock Up 9:00	HH-GH781-8	172	HF-1AA8FR8	HF-1AA8FJ8
53	A/C Case Drain to Tank Block, Clock Up 9:00	HH-GH781-6	172	HF-1AA6FR6	HF-1AA6FJ6
54	Slide Gate Front, Valve Front Port	HH-GH781-4	341	HF-1AA6FR4	HF-1AA6FR4
55	Slide Gate Rear, Valve Rear Port	HH-GH781-4	329	HF-1AA6FR4	HF-1AA6FR4
56	Engine Hood Pump Breather Hose	HH-2556-6	24	HF-4738-6-6B	HF-4738-6-6B
57	Engine Hood Pump to Lock Valve	HH-GH781-4	66	HF-1AA4FR4	HF-1AA4FRB4
58	Engine Hood Pump to Lock Valve	HH-GH781-4	66	HF-1AA4FR4	HF-1AA4FRB4
59	Engine Hood Cylinder Lock Valve to Cylinder End	HH-GH781-4	16	HF-1AA4FR4	HF-1AA4FRB4
60	TT Bearing Grease Line 1	HH-GH781-4	15	HF-1AA4FJ4	HF-1AA2MP4
61	TT Bearing Grease Line 2	HH-GH781-4	18	HF-1AA4FJ4	HF-1AA2MP4
62	TT Bearing Grease Line 3	HH-GH781-4	28.5	HF-1AA4FJ4	HF-1AA2MP4
63	TT Top Grease Line Front	HH-GH781-4	25	HF-1AA4FJ4	HF-1AA4FJ4
64	TT Top Grease Line Back	HH-GH781-4	25	HF-1AA4FJ4	HF-1AA4FJ4
65	Articulate Pin Grease Line Top	HH-GH781-4	16	HF-1AA4FJ4	HF-1AA4MP4
66	Articulate Pin Grease Line Bottom	HH-GH781-4	16	HF-1AA4FJ4	HF-1AA4MP4
67	Air Compressor Suction	HH-2556-12	57	HF-4738-12-12B	HF-4738-12-12B
68	Heater Hose Pressure Line	MI-HO-HEAT-SIL-0.625	150		
69	Heater Hose Return Line	MI-HO-HEAT-SIL-0.625	150		



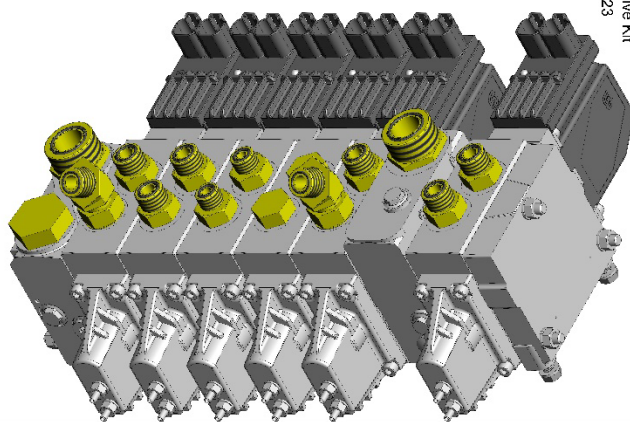
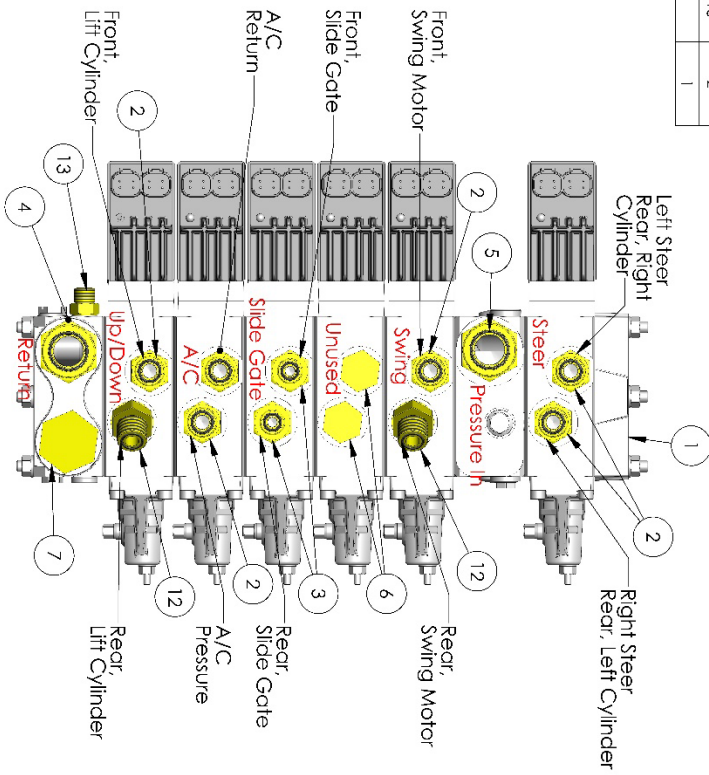
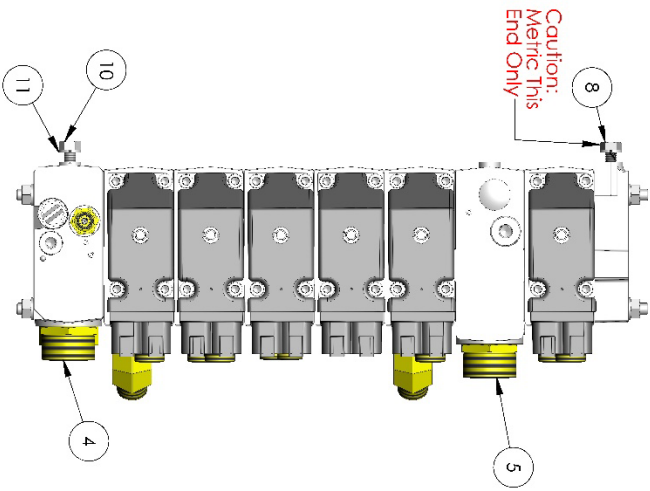
T-644 Hose List 70-72

Number	Hose	End 1	End 2
70	12 HH-GH781-4	HF-1AA4FJ4	HF-1AA2MP4
71	24 HH-2556-10		
72			
 <p>Up End With Lay Down End With Lay</p>			
 <p>Up End Against Lay Down End Against Lay</p>			
 <p>Up End 9:00 Down End 9:00</p>			
 <p>Up End 3:00 Down End 3:00</p>			
<b>Hose &amp; Ends Aeroquip Part Numbers</b>			
<b>Routing</b>			
Front Auger Grease Line			
**** Not Used			
Motor Oil Drain Hose			

# Valves

## PVG32, 6 Section, Valve Kit

ITEM NO.	OrderNo	DESCRIPTION	No. of Pieces/QTY.
1	TB61-30-14	PVG32, 6 sec. No LX	1
2	FF185210810S	ST #8 ORS Flat Face, #10 O-Ring Boss	6
3	FF400-6-10	ST #6 ORS Flat Face, #10 O-Ring Boss	2
4	FF185211616S	ST #16 ORS Flat Face, #16 O-Ring Boss	1
5	FF3800-16-16	ST #16 ORS Flat Face, #16 BSPP	1
6	900598-10S	Adapter, Hydraulic: 900598-10S	2
7	900598-16S	Adapter, Hydraulic: 900598-16S	1
8	CS-HH-8-1.25X20MM	Screw Cap Hex: 8-1.25 X 20 mm	2
9	WL-8M	Washer Lock 8 mm	2
10	CS-HH-0-3125-18X0.75	Screw Cap Hex: 5/16-18 X 3/4	2
11	WL-0-3125	Washer Lock 5/16	2
12	FF4802-08-10	Adapter, Hydraulic: FF4802-08-10	2
13	FF185210406S	HA-FF185210406S	1



PVG 32 Valve Kit  
TA-60,710,23  
1 Per Unit



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810  
LEESBURG, FLA. 34748-2810

1-644

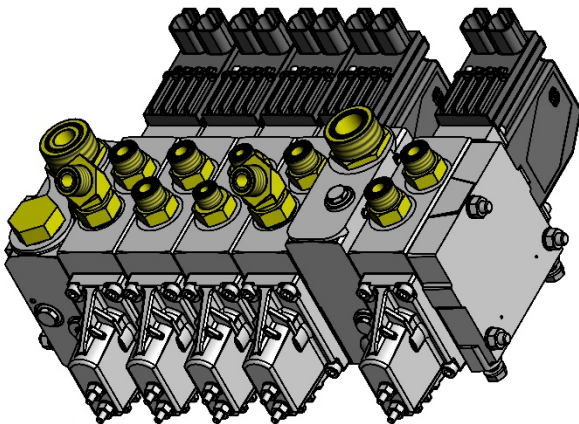
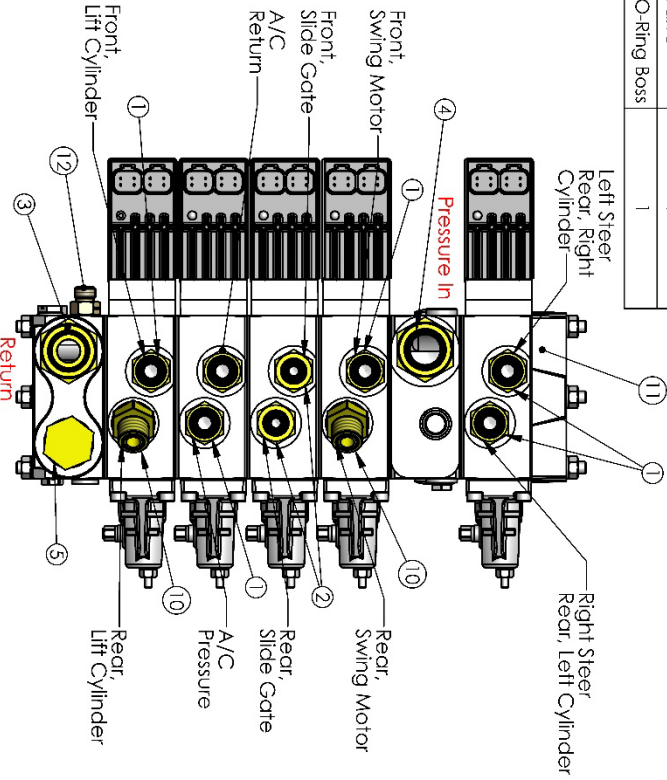
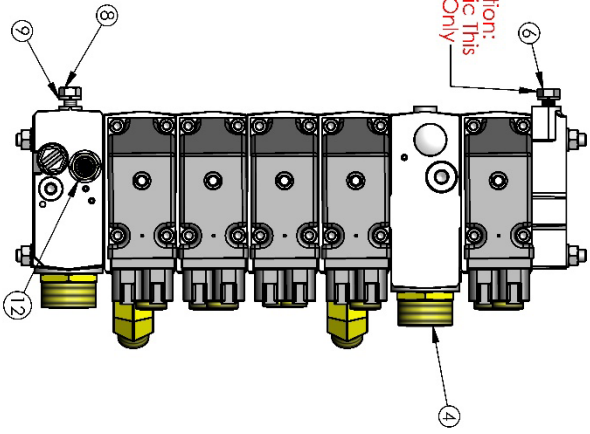
PVG 32 Valve Kit

SHOP #  
DATE 11/7/2017

DR. BY MCT B+  
TA-60,710,23

# PVG32, 5 Section, Valve Kit

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	HA-FF1852T0810S	ST #8 ORS Flat Face, #10 O-Ring Boss	6
2	HA-FF6400-6-10	ST #6 ORS Flat Face, #10 O-Ring Boss	2
3	HA-FF1852T1612S	ST #16 ORS Flat Face, #12 O-Ring Boss	1
4	HA-FF3800-16-16	ST #16 ORS Flat Face, #16 BSPP	1
5	HA-900598-12S	Adapter, Hydraulic: 900598-12S	1
6	CS-h-8-1.25x20mm	Screw Cap Hex: 8-1.25 X 20 mm	2
7	W-8mm	Washer Lock 8 mm	2
8	CS-HH-0.3125-18X0.75	Screw Cap Hex: 5/16-18 X 3/4	2
9	WL-0.3125	Washer Lock 5/16	2
10	ha-ff6802-08-10	Adapter, Hydraulic: FF6802-08-10	2
11	TB66130-14S75	PVG32 5 Section Valve	1
12	HA-FF6400-04-05	ST #4 ORS Flat Face, #5 O-Ring Boss	1



PVG 32 5 Section Valve Kit  
TA-60,710,23,5  
1 Per Unit



MACHINE & STEEL SERVICE, INC.  
P.O. BOX 49281D LEBENSBURG, FLA. 34749-2810

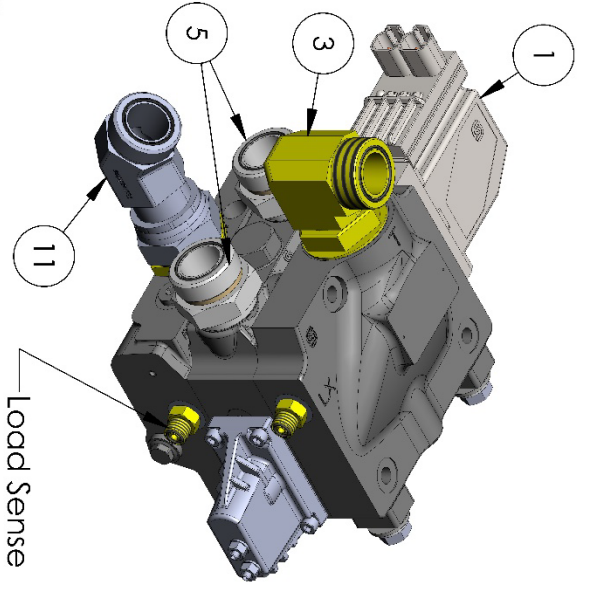
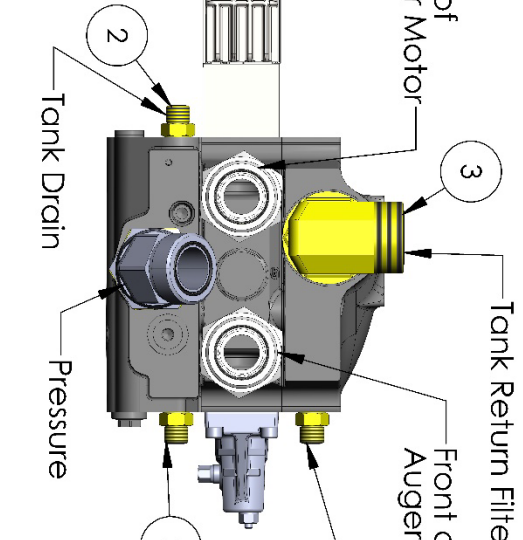
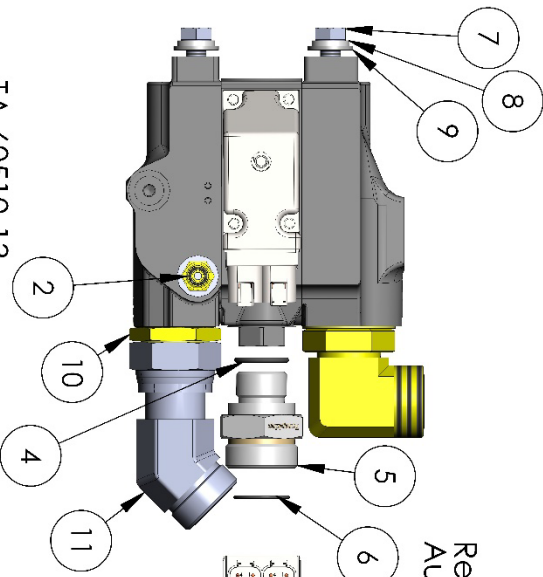
T-644

PVG 32, 5 Section, Kit

SHOP #  
DATE 04/01/2024  
DR. BY MCT H+

PVG100 Valve Kit

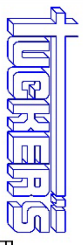
ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66130-13	PVG100, 1 sec. 65, Motor, w/LX, Auger Valve	1
2	FF1852T0406S	HA-FF1852T0406S	3
3	FF1868T2020S	EI1 #20 ORS Flat Face, #20 O-Ring Boss	1
4	OR-568-914	O-Ring 914 - Tube Size 7/8 OD	2
5	TM60510-10	PVG100 -14 to -20 Adaptor	2
6	OR-568-025	O-Ring 1 3/16 x 1 5/16 x 1/16	2
7	CS-HH-12-1.75X25MM	Screw Cap Hex: 12-1.75X 25 mm	3
8	WL-12M	Washer Lock 12mm	3
9	WFF-0.5	Washer Flat 1/2 (SAE)	3
10	FF6400-20-16	ST #20 ORS Flat Face, #16 O-Ring Boss	1
11	FF6502-20-20	Adapter, Hydraulic: FF6502-20-20	1



TA-60510-13  
PVG100 Auger Valve Kit  
1 Per Unit

C:\PDM\Solidworks\Part\T-644 60,500 Engine Base Parts\60,510 Engine Accessory Parts\60,510,00 gcc parts  
T-644

DR. BY MCT  
DATE 11/13/2017  
SHOP #



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

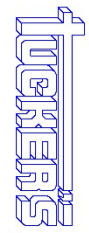
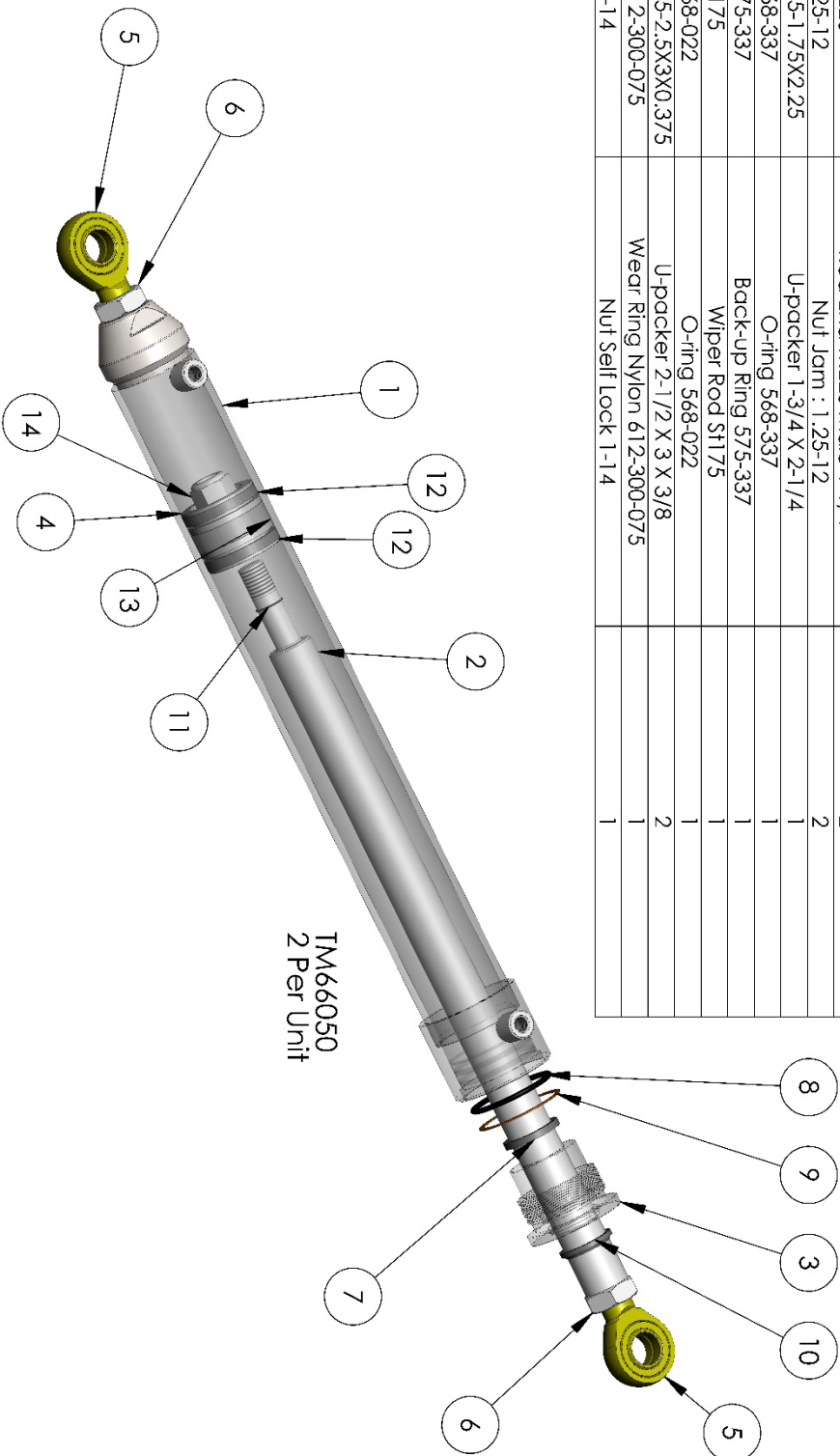
PVG100 Auger Valve Kit

TA-60510-13

# Cylinders

## Lift Cylinder BOM

ITEM NO.	OrderNo	DESCRIPTION	T-630 Hydraulic Cylinder 201 4/201 4 T-630 Hydraulic Cylinder/QTY.
1	TM6605424	Transporter Hydraulic Cylinder, Welded 24" 201 4+	1
2	TM6605324	Transporter Cylinder Rod 24" 2014+	1
3	TM66051	Transporter Cylinder Head 201 4+	1
4	TM66052	Transporter Hydraulic Cylinder Piston 201 4+	1
5	RE-TRE20	Rod End TRE20 Male 1-1/4"	2
6	NJ-1.25-12	Nut Jam : 1.25-12	2
7	MI-U25-1.75X2.25	U-packer 1-3/4 X 2-1/4	1
8	OR-568-337	O-ring 568-337	1
9	OR-575-337	Back-up Ring 575-337	1
10	MI-S1175	Wiper Rod S1175	1
11	OR-568-022	O-ring 568-022	1
12	MI-U25-2.5X3X0.375	U-packer 2-1/2 X 3 X 3/8	2
13	OR-612-300-075	Wear Ring Nylon 612-300-075	1
14	NSL-1-14	Nut Self Lock 1-14	1



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

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T-630

Transporter Hydraulic Cylinder 201 4+

DR: BY MCT

DATE 1/8/2014

SHOP #

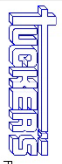
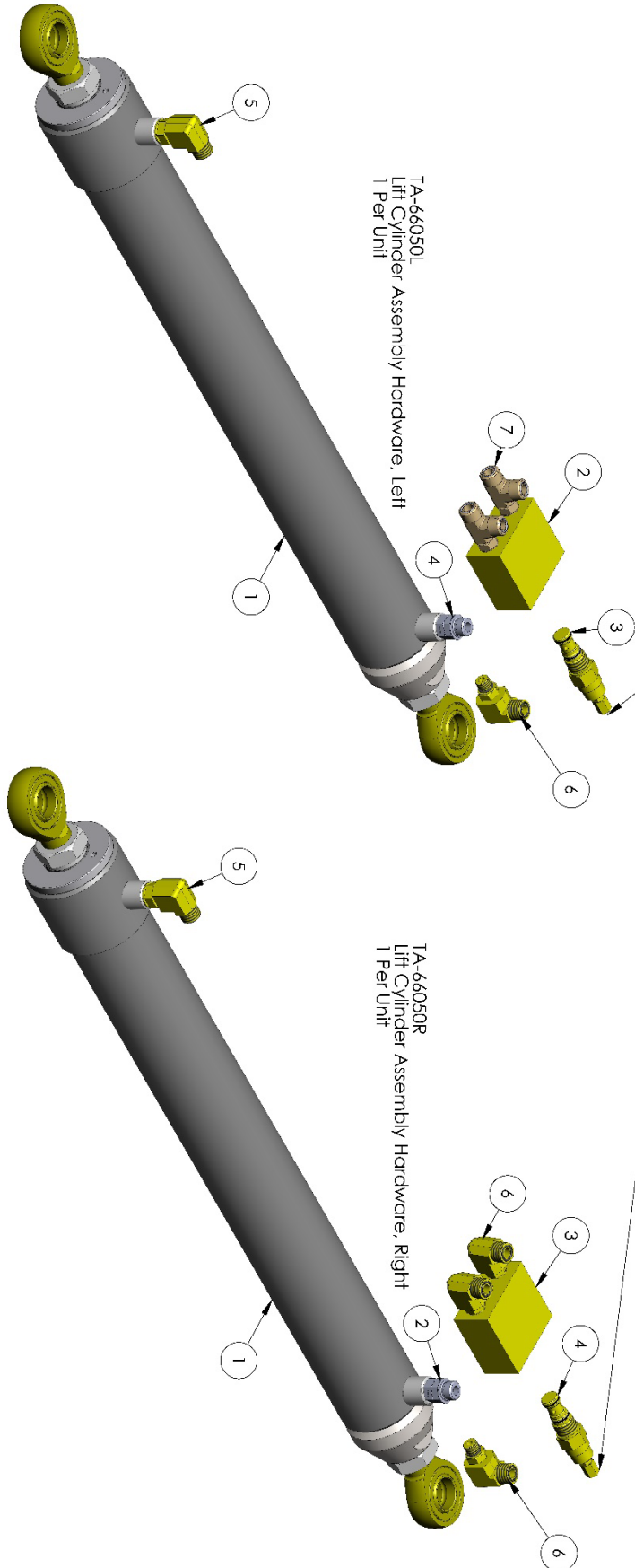
66050

# Lift Cylinder Assembly Hardware

ITEM NO.	Order/No	DESCRIPTION	QTY.
1	TM66050	2014 T-630 Hydraulic Cylinder	1
2	1B80215B	Valve Body Lift Cyl. Safety	1
3	1B80215C	Valve Cartridge Lift Cyl. Safety	1
4	6403-NWQ-08-08	Adapter, O-Ring Boss St Hydraulic: 6403-NWQ-8	1
5	FF186810808S	EI #8 ORS Flat Face, #8 O-Ring Boss	1
6	FF186810806S	EI #8 ORS Flat Face, #6 O-Ring Boss	1
7	FF6804-08-06-08	Adapter, Hydraulic: FF6804-08-06-08	2

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	66050	2014 T-630 Hydraulic Cylinder	1
2	HA-6403-NWQ-8	Adapter, O-Ring Boss St Hydraulic: 6403-NWQ-8	1
3	80215B	Valve Body Lift Cyl. Safety	1
4	80215C	Valve Cartridge Lift Cyl. Safety	1
5	HA-FT186810808S	EI #8 ORS Flat Face, #8 O-Ring Boss	1
6	HA-FT186810806S	EI #8 ORS Flat Face, #6 O-Ring Boss	3

Counter-Balance Valve Setting is 1-1/4 Turns Out From Full In



MACHINE & STEEL  
SERVICE, INC.  
P.O. BOX 492910 LEEBURG, FLA. 34729-2910

T-6444

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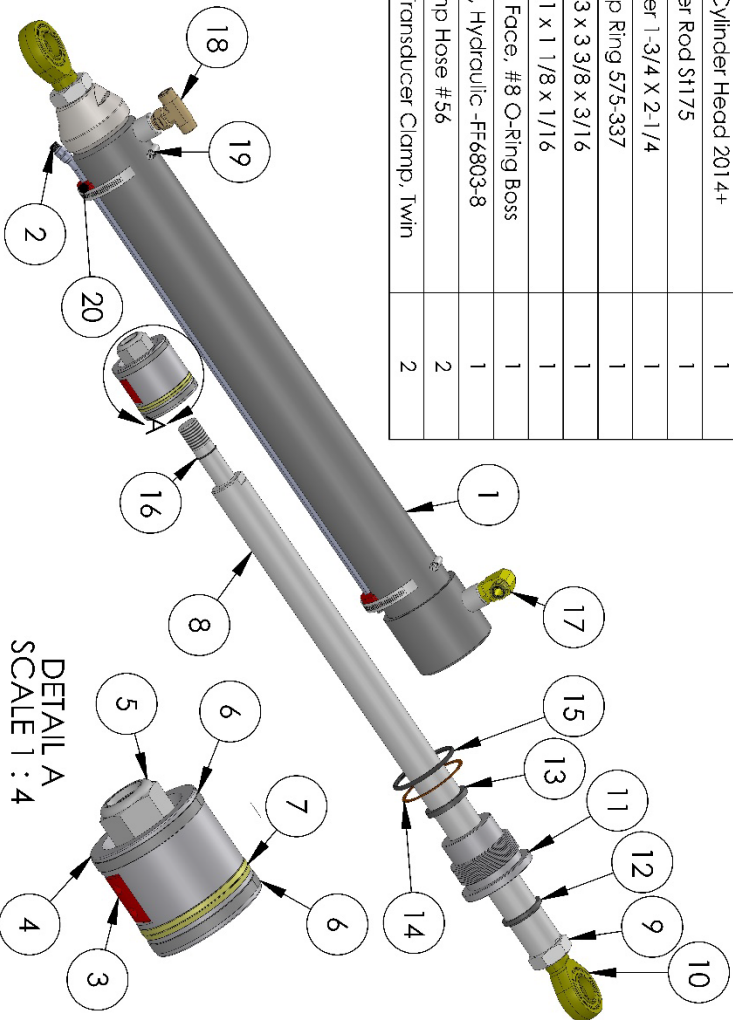
## Lift Cylinder Assembly Hardware

SHOP #  
DATE 10/23/2020  
DR. BY MCT  
B+

# Smart Steering Cylinder BOM

ITEM NO.	OrderNo	DESCRIPTION	
1	TM6605424	Transporter Hydraulic Cylinder, Welded 24" 2014+	1
2	TB66130-38	Rota EL series transducer, 10mm OD aluminum	1
3	TB66130-38-1	Rota EL series transducer magnet	1
4	TM60040-01	T-644 Cylinder Piston for Encoder	1
5	NSL-1-14	Nut Self Lock 1-14	1
6	OR-612-300-025	Wear Ring Nylon 612-300-025	2
7	OR-PSM-334	Piston Seal PSM Urethane 3"X2.625"X.25"	1
8	TM60040-02	Smart Cylinder Rod	1
9	NJ-1-25-12	Nut Jam : 1-25-12	2
10	RE-TRE20	Rod End TRE20 Male 1-1/4"-12 PTFE	2
11	TM66051	Transporter Cylinder Head 2014+	1
12	ML-ST175	Wiper Rod \$1175	1
13	ML-U25-1.75X2.25	U-packer 1-3/4 X 2-1/4	1
14	OR-575-337	Back-up Ring 575-337	1
15	OR-568-337	O-Ring 3 x 3 3/8 x 3/16	1
16	OR-568-022	O-Ring 1 x 1 1/8 x 1/16	1
17	FF1868T0808S	Eil #8 ORS Flat Face, #8 O-Ring Boss	1
18	HA-FF6803-8	Adapter Tee, Hydraulic -FF6803-8	1
19	CL-HO-56H	Clamp Hose #56	2
20	TM60040-05	Smart Cylinder Transducer Clamp, Twin	2

TM60040-00  
T-644 Smart Steer Cylinder  
2 Per Unit



DETAIL A  
SCALE 1 : 4

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T-644

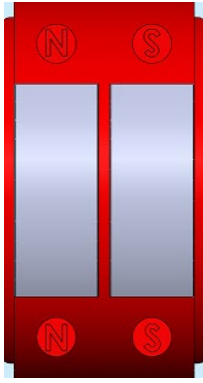
DR. BY MCT  
DATE 12/1/2019

T-644 Smart Steer Cylinder

SHOP #  
60,040,00



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SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810



# Safety – Handling

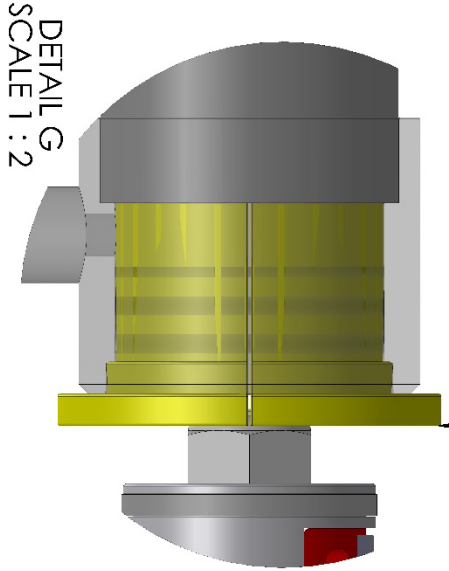
The Steering Cylinder magnets are Neodymium magnets, the strongest permanent magnets on Earth. They require handling with extreme care to prevent accidents.

Here are some safety guidelines to follow when working with Neodymium magnets.

- Take care to protect your hands and fingers. Two attracting magnets can severely pinch your fingers if they come between the magnets. The feeling would be no less than having your fingers being pressed between a pair of pliers.
- Free floating Neodymium magnets can slam together with great force. As they are brittle in nature they can often peel, crack or shatter and send shards of magnets flying. Hence it is essential to wear eye protection.
- Neodymium magnets have strong magnetic fields. Thus, if left near magnetic media like computers, floppy disks, hard drives, credit cards, magnetic I.D. cards, cassette tapes and video tapes these magnets are likely to cause damage. Neodymium magnets should also never be left near electronic devices. Watches should be removed before handling Neodymium magnets.
- Neodymium magnets should also not be allowed near a person who uses medical aids like a pacemaker. The magnet can cause the medical aid to malfunction.
- Neodymium magnets should never be heated above 120°C as they will lose their magnetic properties. In addition, they may catch fire and burn and produce toxic fumes.
- Neodymium magnets should not be handled in potentially explosive atmospheres.

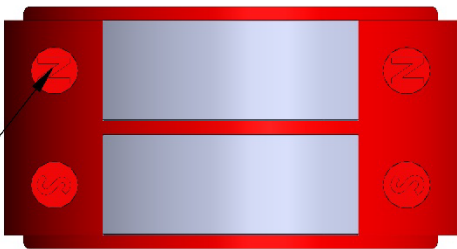
# Smart Steering Cylinder, 1

TM60040-91  
Smart Cylinder Assembly Tool, Sleeves  
Orient 2 halves as shown

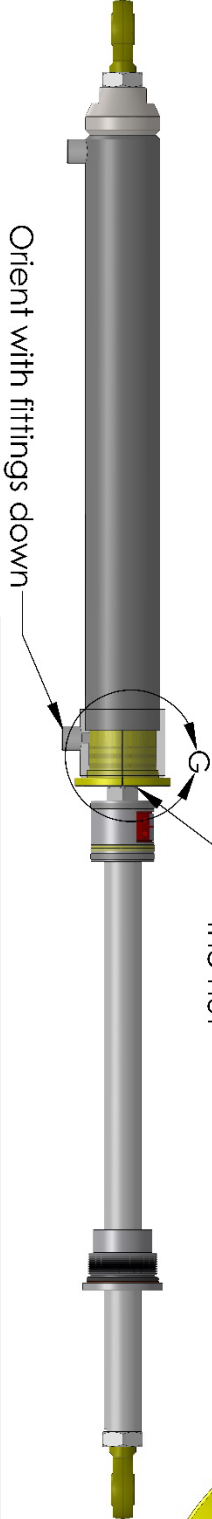


DETAIL G  
SCALE 1 : 2

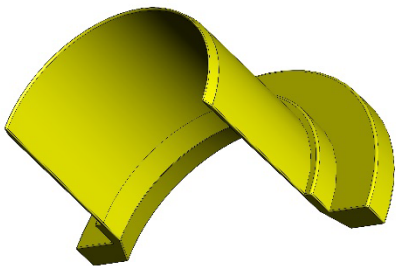
- Do not remove the magnet assembly from its container until you are ready to install it in the piston
- Inform receiving to not remove the magnet assembly from the container; small metal particles will be attracted to it and will be hard to remove
- When you are ready to install the magnet in the piston, do it in a clean environment as small metal particles will be attracted to it and will be hard to remove
- Do not let anyone with a pace maker work with this magnet
- Do not place a smart phone or laptop near the magnet



"N" toward  
the nut



TM60040-91  
Smart Cylinder Assembly Tool, Sleeve  
2 Required



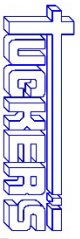
C:\PDM\Solidworks\Part\T-644\60,040 Smart Cylinder\60,040,00

T-644

DR. BY MCT  
DATE 12/1/2019

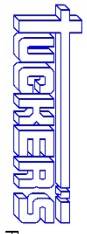
T-644 Smart Cylinder Rod Install

SHOP #  
60,040,00



MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

# Smart Steering Cylinder, 2



**MACHINE & STEEL**  
 SERVICE INC.  
 P.O. BOX 492810 LEESBURG, FLA. 34749-2810

**T-644 Smart Steer Cylinder**

DR: BY **MCT**  
 DATE **12/1/2019**  
 SHOP #  
**60,040,00**

T-644

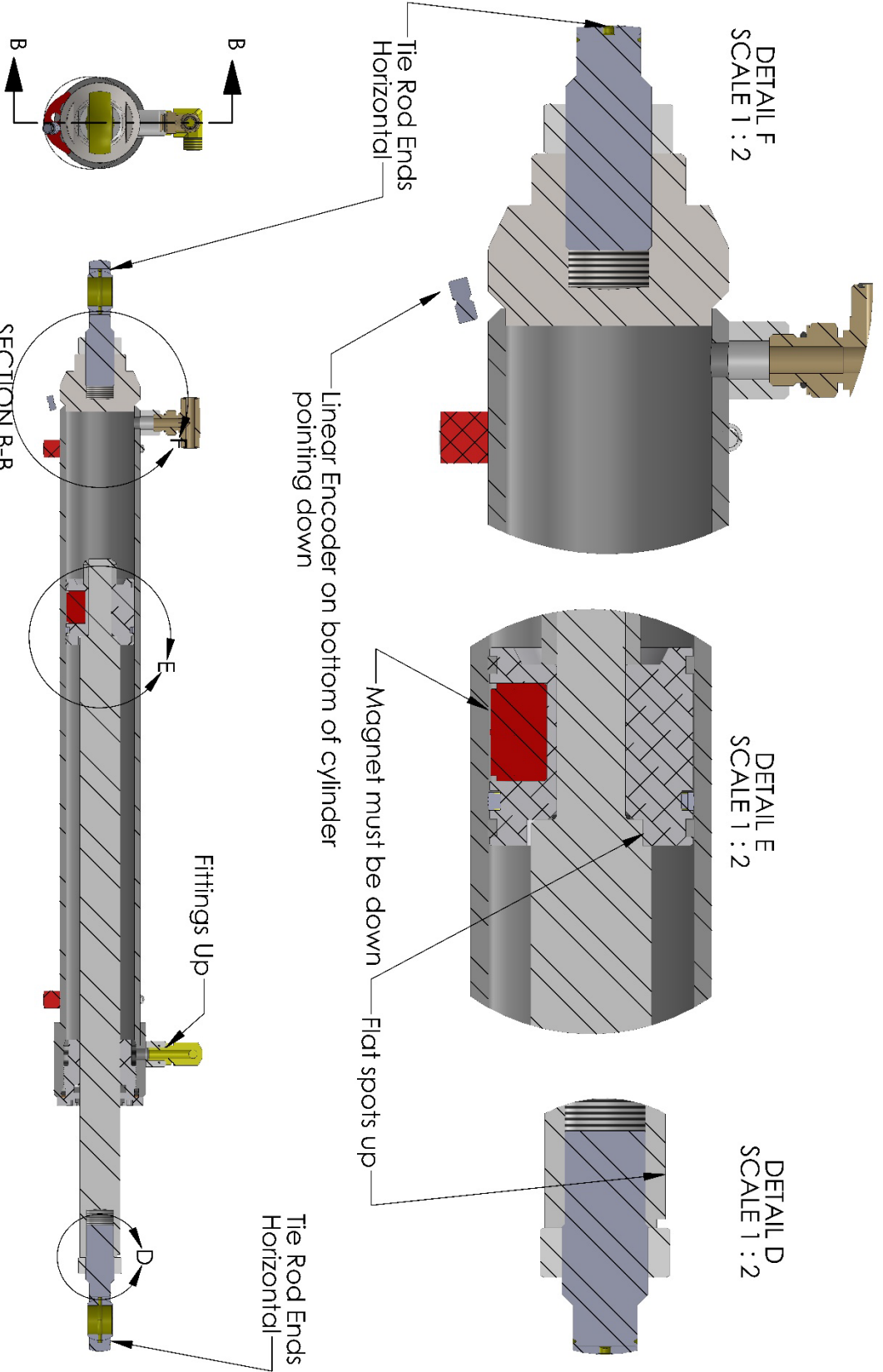
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DR: BY **MCT**

DATE **12/1/2019**

SHOP #  
**60,040,00**

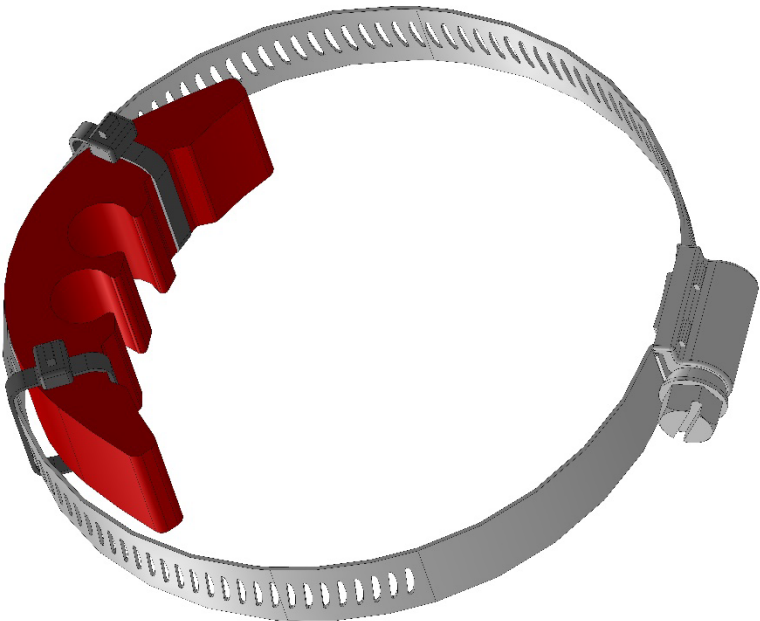
**SECTION B-B**  
 SCALE 1 : 6



# Smart Steering Cylinder Clamp Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60040-05	Smart Cylinder Transducer Clamp, Twin	1
2	CL-HO-56H	Clamp Hose #56	1
3	N/A	Medium Cable Tie	2

TM60040-05A  
 Smart Cylinder Transducer Clamp Assembly  
 2 Per Cylinder/4 Per Machine



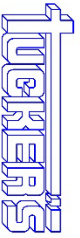
C:\PDM\Solidworks\Part\T-644\60,040 Smart Cylinder\60,040,05 clamp assembly

T-644

DR. BY MCT  
 DATE 6/8/2023

Smart Cylinder Transducer Clamp Assembly

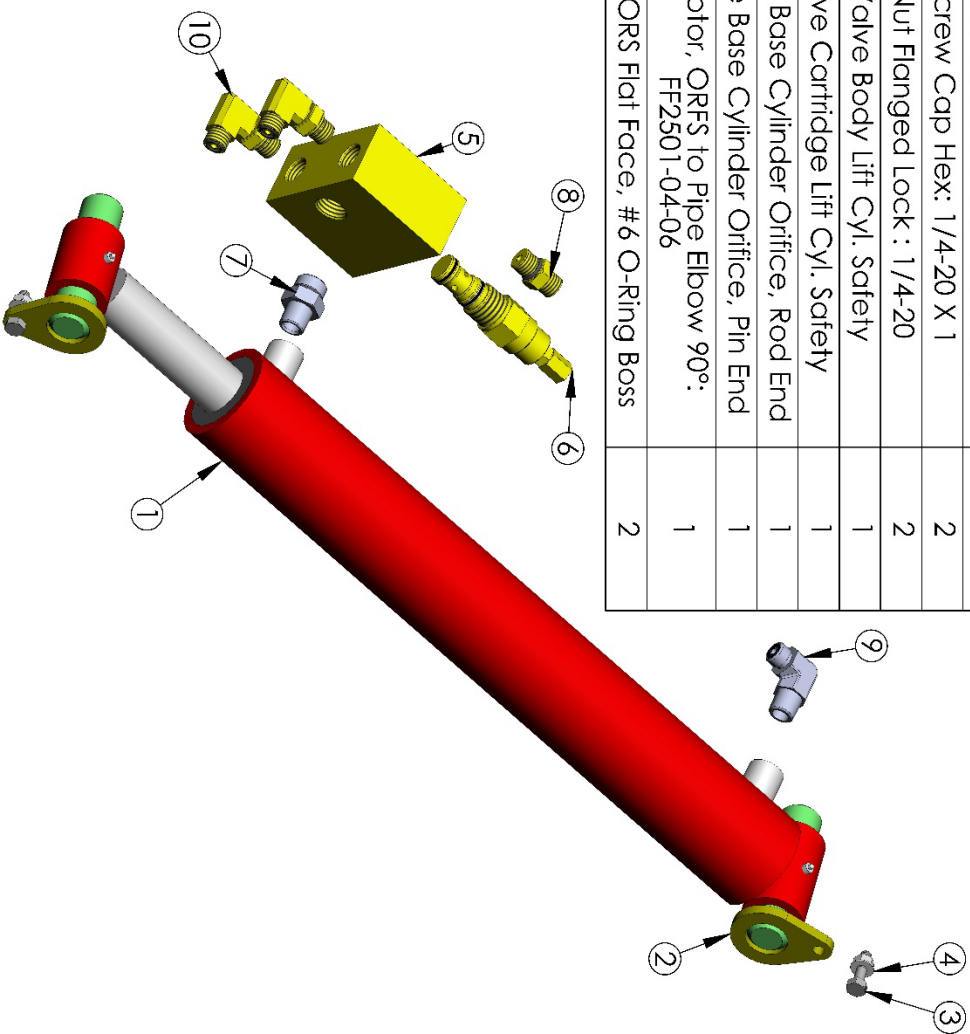
SHOP #  
 TA-60040-05



MACHINE & STEEL  
 SERVICE INC.  
 P.O. BOX 492810 LEEsburg, FLA. 34749-2810

# Back Door Cylinder Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80701-1	16" Cylinder Chute Spout Gate - Engine Hood	1
2	TM60013-00	Engine Door Pin Assembly T-644	2
3	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	2
4	NF-0.25-20	Nut Flanged Lock : 1/4-20	2
5	TB80215B	Valve Body Lift Cyl. Safety	1
6	TB80215C	Valve Cartridge Lift Cyl. Safety	1
7	TM60510-11	Engine Base Cylinder Orifice, Rod End	1
8	TM60510-12	Engine Base Cylinder Orifice, Pin End	1
9	FF2501-04-06	Adaptor, ORFS to Pipe Elbow 90°: FF2501-04-06	1
10	FF1868T0406S	EII #4 ORS Flat Face, #6 O-Ring Boss	2



C:\PDM\Solidworks\Part\T-644\60,500 Engine Base Parts\to-60500-710

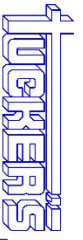
T-644

DR. BY MCT

DATE 10/7/2020

SHOP #

TA-60500-710



MACHINE & STEEL

SERVICE, INC.

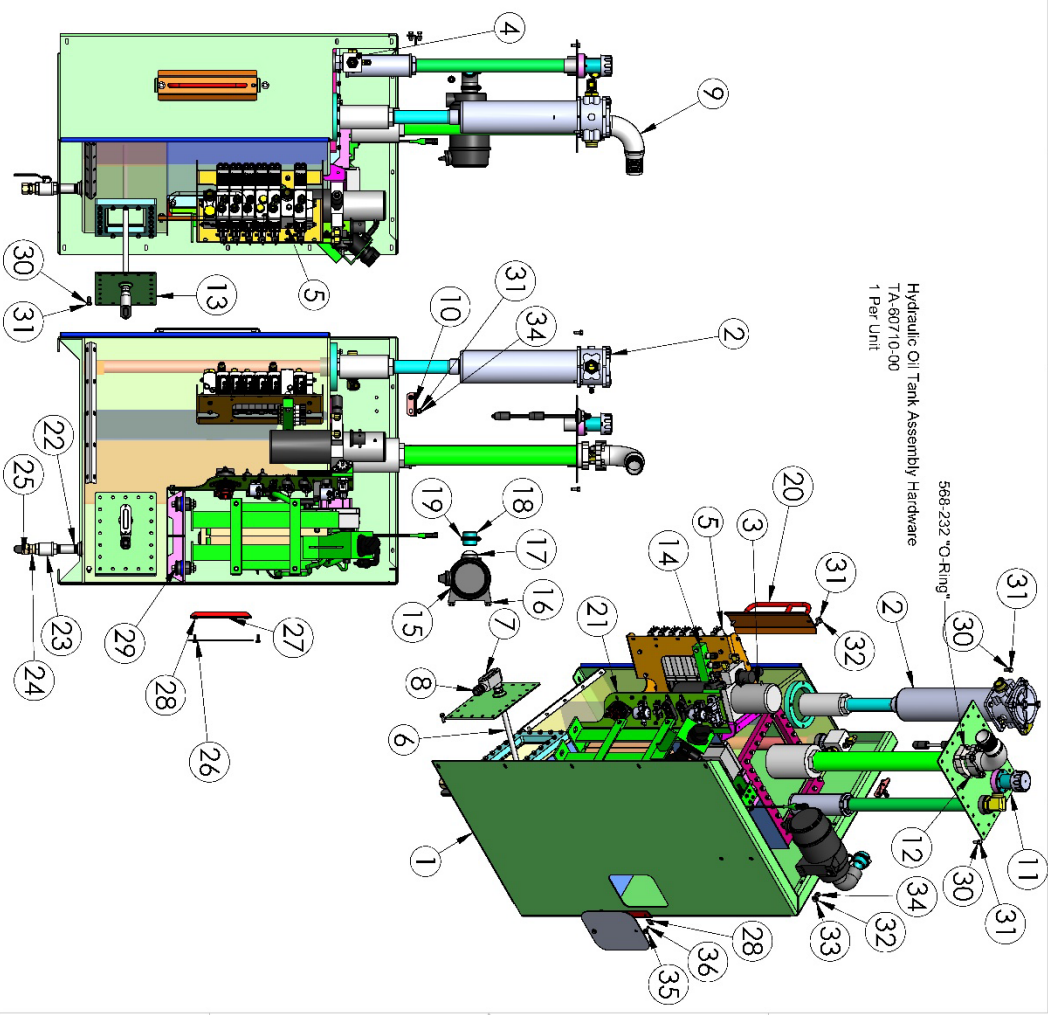
P.O. BOX 492810 LEESBURG, FLA. 34749-2810


Back Door Cylinder Assembly Hardware

# Hydraulic Oil Tank

## Hydraulic Oil Tank Assembly Hardware

ITEM NO.	OrderNo	DESCRIPTION	Default/ QTY.
1	TM60710-00	Hydraulic Oil Tank Weldment-Def Tank	1
2	TA-60710-22	Hydraulic Tank Return Filter Kit	1
3	TA-60710-25	Engine Door Power Unit Kit	1
4	TA-60710-24	Hydraulic Oil Tank Return Block Kit	1
5	TA-60710-23	PVG 32 Valve Kit	1
6	TB64105	3/4" MNPT 120 VAC In-Tank Oil Heater	1
7	TB80134	3/4 Elec. LB Body	1
8	EWSRDN34-5171	Dome Nut 3/4" NPT - ID .51-.71	1
9	TB80430-2	-40 Code 61 to 2-1/2" HB Sweep 90 deg	1
10	TM60540-08	Engine Base Corner Shut Bracket Front	1
11	TA-60710-06	Hydraulic Oil Tank Top Cleanout Lid Kit	1
12	HA-SFK-40	Adaptor, Hydraulic Code 61 Spill Flange Kit -40	1
13	TM60710-07	Hydraulic Oil Tank Bottom Cleanout Lid Assembly	1
14	TA-60510-08	Transducer Manifold Kit	1
15	TB64575-24	Air Cleaner Assy, Tier 4 Air Compressor	1
16	TB64575-24-3	Air Compressor Filter Mount Band	1
17	TB64575-24-2	Rubber Elbow 2"	1
18	TM60510-06	JCB Air Compressor Inlet Adaptor	1
19	CL-HO-32H	Clamp Hose 03248 #32	2
20	TM60710-17	Hydraulic Oil Tank Hose Loop Assembly	1
21	TA-60710-04	Hydraulic Oil Tank Switch Bracket Kit	1
22	TM60710-26	Plated 1" x 4" EXH Pipe Nipple	1
23	TB66711	Brass On/Off Ball Valve 1" NPT Female	1
24	2021-16-16S	Adaptor, Hydraulic: 2021-16-16S	1
25	210292-16S	Adaptor, Hydraulic: 210292-16S	1
26	TM60710-28	Hydraulic Oil Tank DEF Service Cover	1
27	TM60101-06	Wheel Box Cover Pidle Clamp	1
28	NC08-0-25-20-0-781	Nut Clip-On Barrel 1/4-20 025-.15-.781 Hole	2
29	TA-60710-14	DEF Tank Vibration Mount Assembly	4
30	WL-0-375	Washer Lock 3/8	52
31	CS-HH-0-375-16X1	Screw Cap Hex: 3/8-16 X 1	56
32	WF-0-375	Washer Flat 3/8	4
33	CS-HH-0-375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	2
34	NF-0-375-16	Nut Flanged Lock: 3/8-16	4
35	WF-0-25	Washer Flat 1/4	2
36	CS-HH-0-25-20X1	Screw Cap Hex: 1/4-20 X 1	2




**MACHINE & STEEL**  
 SERVICE INC.  
 P.O. BOX 492810 LEEBURG, FLA. 34749-2810 T-644

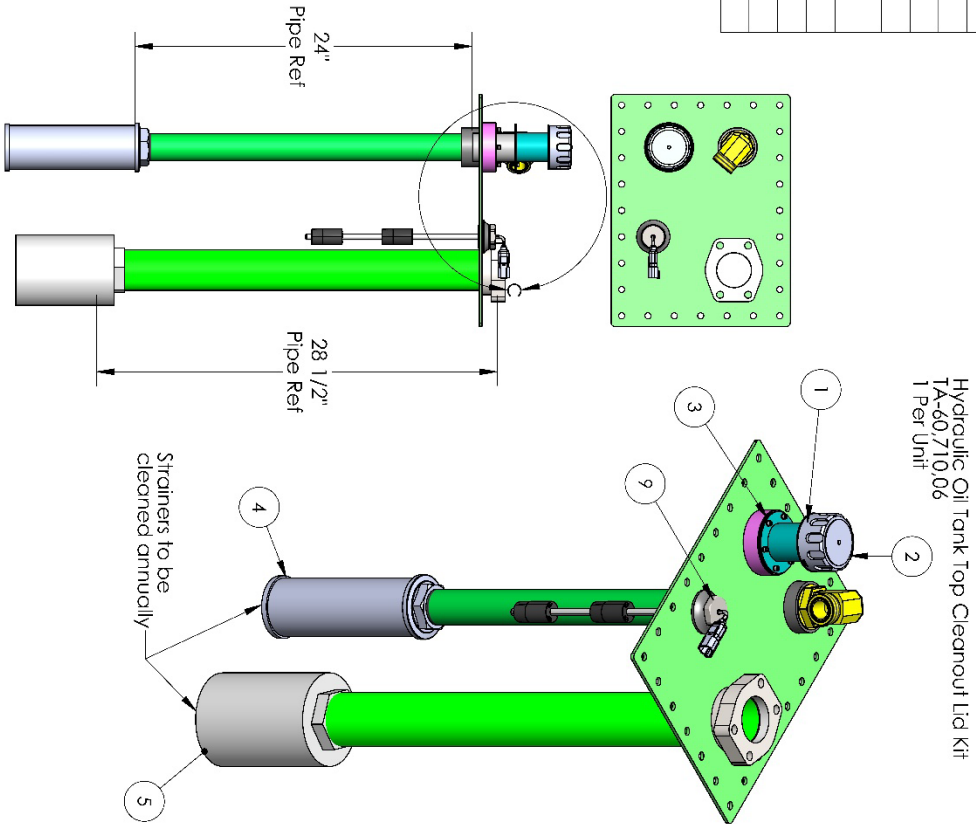
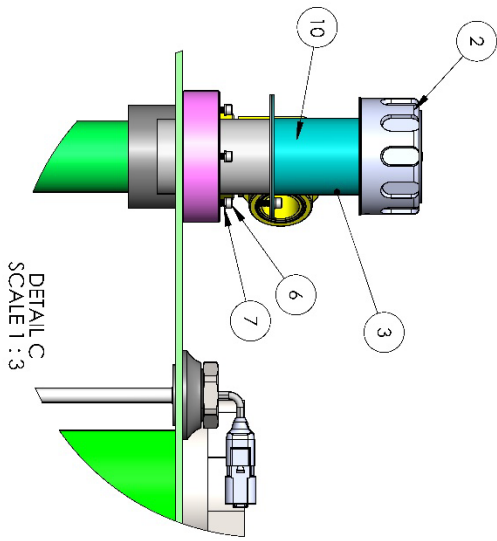
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**Hydraulic Oil Tank Assembly Hardware**

SHOP #:  
 DATE 10/15/2020  
 DR BY M.C.T. C+  
 TA-60710-00

# Hydraulic Oil Tank Clean-Out Lid

ITEM NO.	OrderNo	DESCRIPTION	60,710,06 Boiled/QTY.
1	TM60710-06	Hydraulic Oil Tank Top Cleanout Lid	1
2	TB66212	Anti-Splash 5 PSI Breather	1
3	TB66214	Stauff Bayonet Extender	1
4	TB66216	Strainer, Suction - Poppet T-644	1
5	TB80100-1	2.5" Suction Strainer	1
6	SSCS-SH-8-32X0.50	Cap Screw-Stainless-Socket Head - #8-32 X 1/2"	6
7	WL-8	Washer Lock #8	6
8	TF-1.0-SAE-1.6-O-RING	Flange Tank 1" BK. SAE -1.6 O-Ring	1
9	TB66213-ROTA-TLT	Rotat Tank Level/Temp Sensor	1
10	FF186812024S	EI #20 ORS Fldt Face, #24 O-Ring Boss	1



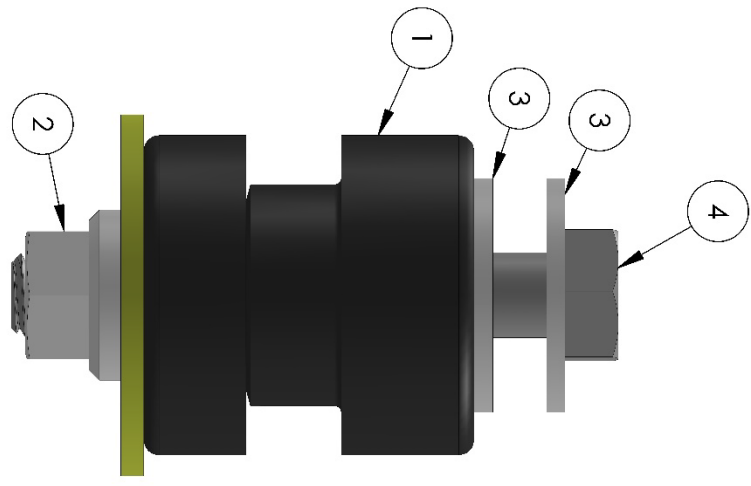
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**TOUGHERS**  
 MACHINE & STEEL SERVICE INC.  
 P.O. BOX 492810 LEESBURG, FLA. 34749-2810  
 T-644

Hydraulic Oil Tank Top Cleanout Lid Kit

SHOP #  
 DATE 11/6/2017  
 DR. BY MCT C+  
 TA-60,710,06

# Hydraulic Oil Tank DEF Mount Kit

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB66500-05	Vibration Dampening Mount for DEF Tank	1
2	NF-0.5-13	Nut Flanged Lock : 1/2-13	1
3	WF-0.5	Washer Flat 1/2	2
4	CS-HH-0.5-13X3.25	Screw Cap Hex: 1/2-13 X 3 1/4	1



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DR. BY MCT

DATE

SHOP #

TA-60710-14



MACHINERY & STEEL

SERVICE INC.

P.O. BOX 492810 LEESBURG, FLA. 34749-2810

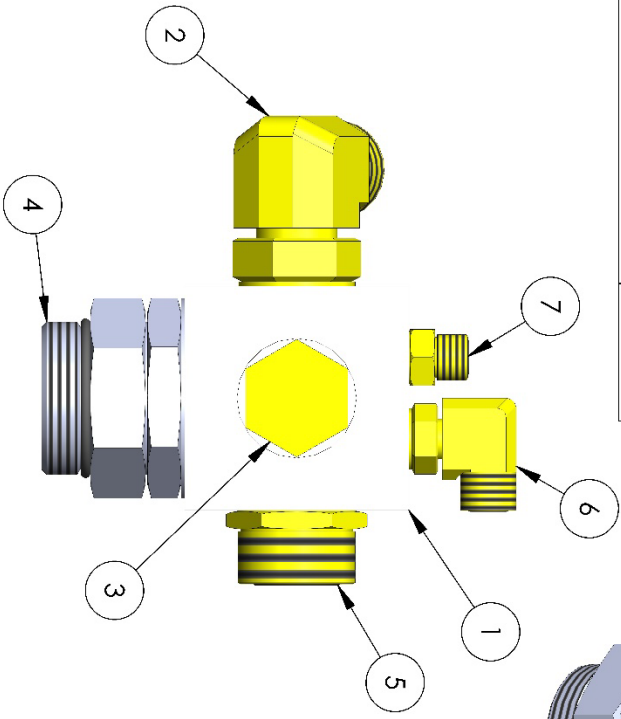
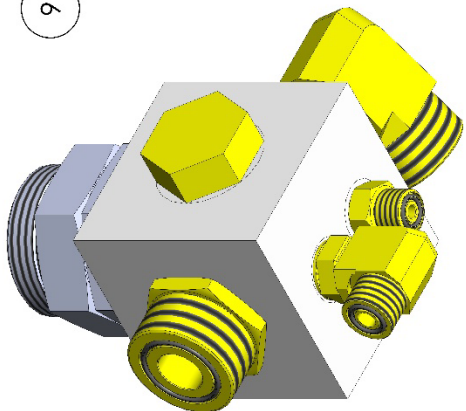
DEF Tank Vibration Mount Assembly

# Hydraulic Oil Tank Return Block

## O-Ring Chart

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60710-24	Hydraulic Oil Tank Return Block Kit	1
2	FF1868T1212S	EI1 #12 ORS Flat Face, #12 O-Ring Boss	1
3	900598-12S	Adapter, Hydraulic: 900598-12S	1
4	6403-NWO-24	Adapter, O-Ring Boss Adj. Union: 6403-NWO-24	1
5	FF1852T11612S	ST #16 ORS Flat Face, #12 O-Ring Boss	1
6	FF1868T0606S	EI1 #6 ORS Flat Face, #6 O-Ring Boss	1
7	FF1852T0406S	HA-FF1852T0406S	1

O-Rings			
Hose Size	SAE Boss O-Ring	Flat Face O-Ring	Split Flange O-Ring
2	568-902		
3	568-903		
4	568-904	568-011	
5	568-905		
6	568-906	568-012	
7	568-907		
8	568-908	568-014	568-210
10	568-910	568-016	
12	568-912	568-018	568-214
14	568-914		
16	568-916	568-021	568-219
20	568-920	568-025	568-222
24	568-924	568-029	568-225
32			568-228
40			568-232
48			568-237



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T-644

DR. BY MCT  
DATE

Hydraulic Oil Tank Return Block Kit

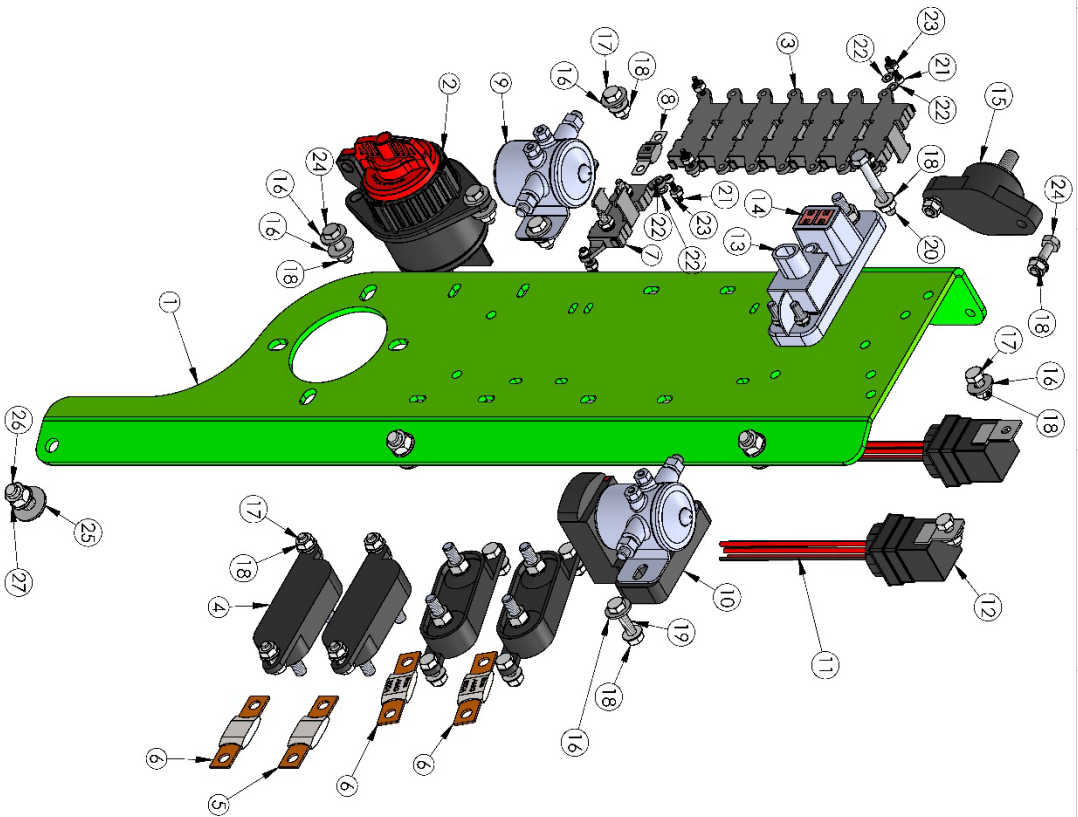
SHOP # TA-60710-24



MACHINE & STEEL SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

# Hydraulic Oil Tank Switch Bracket

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60710-04	Hydraulic Oil Tank Switch Bracket	1
2	TB80586-02	Battery Disconnect - Giggvac HBD31	1
3	TA-60710-04-01	Hydraulic Oil Tank Mini Fuse Block Kit	1
4	TB80130-87	Fuse Holder Busman 150 Amp-300 Amp	4
5	TB80130-88-150	Fuse Busman 150 Amp	1
6	TB80130-88-300	Fuse Busman 300 Amp	3
7	TB80130-100-03	Midl High Amp Fuse Block Fuse Module	1
8	TB80130-100-04-70A	Midl High Amp Fuse 70A	1
9	TB80587-1	Relay Solenoid	1
10	TB80586-3	Isolator, 48530 Smart Battery Isolator, 200A	1
11	TB66147	ISO Mini Weatherproof Relay Connector w/12' Leads	2
12	TB66148	Switched Mini Relay, 20/40A, 12V, SPDT	2
13	TB66149	Power Relay Module, 70A, 2 Fuse, 37702-1AN0022	1
14	TB66150-50	Littelfuse JCASE Fuse, 50A, Red	2
15	TB66130-39	Power Distribution Post 8 Point 3/8" Stud Block	1
16	WF-0.25	Washer Flat 1/4	10
17	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	12
18	NF-0.25-20	Nut Flanged Lock : 1/4-20	19
19	CS-HH-0.25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	2
20	CS-HH-0.25-20X2	Screw Cap Hex: 1/4-20 X 2	1
21	SSCS-SH-6-32X0.75	Cap Screw-Stainless-Socket Head- #6-32 X 3/4"	6
22	WFS-6	Washer Flat - Stainless - #6 (1.56 X .312)	12
23	SSNL-6-32	Nut Self Lock - Stainless : 6-32	6
24	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	4
25	WF-0.375	Washer Flat 3/8	3
26	CS-HH-0.375-1.6X1	Screw Cap Hex: 3/8-1.6 X 1	3
27	NF-0.375-1.6	Nut Flanged Lock : 3/8-1.6	3



**TOWER'S**  
MACHINE & STEEL  
SERVICE, INC.  
P.O. BOX 492810 TERESA, FLA. 34749-2810

T-644

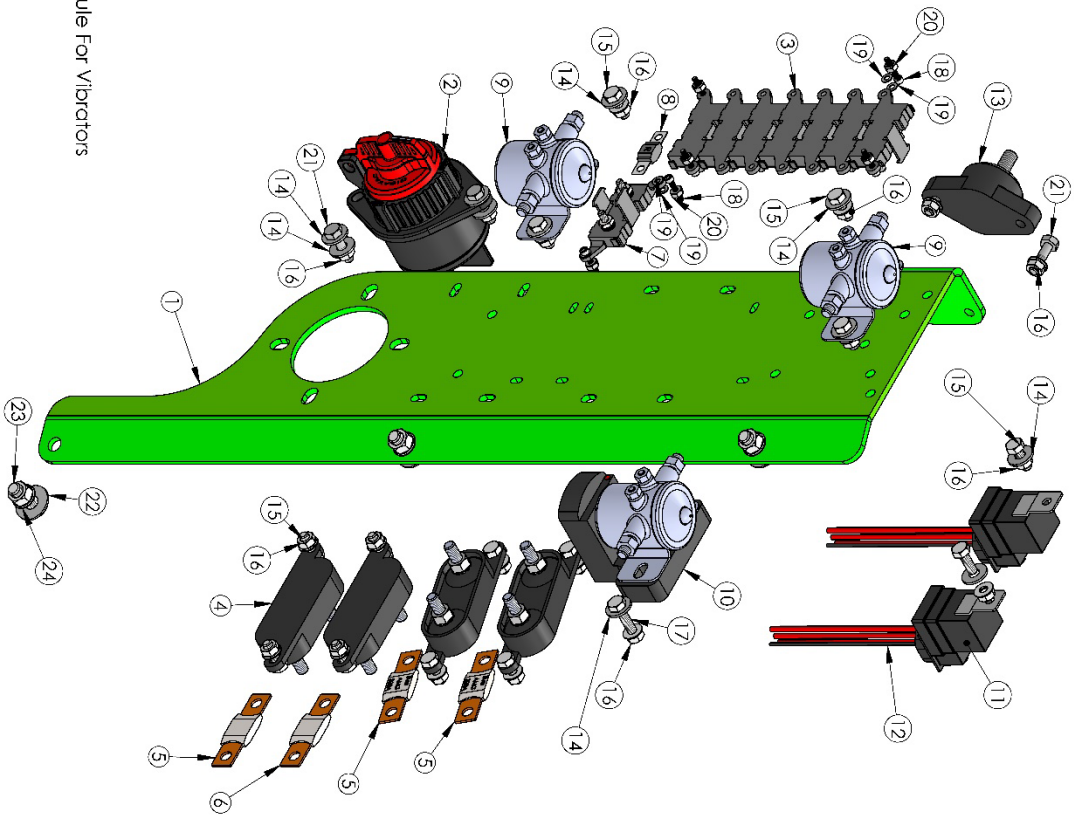
## Hydraulic Oil Tank Switch Bracket Kit

SHOP # \_\_\_\_\_  
DATE 10/14/2020 TA-60710-04  
DR. BY MCT C+

# Hydraulic Oil Tank Switch Bracket 4220025 and Above

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60710-04	Hydraulic Oil Tank Switch Bracket	1
2	TB80586-02	Battery Disconnect - Gigavac HBD31	1
3	TA-60710-04-01	Hydraulic Oil Tank Mini Fuse Block Kit	1
4	TB80130-87	Fuse Holder Busman 150 Amp-300 Amp	4
5	TB80130-88-300	Fuse Busman 300 Amp	3
6	TB80130-88-150	Fuse Busman 150 Amp	1
7	TB80130-100-03	Mid/ High Amp Fuse Block Fuse Module	1
8	TB80130-100-04-70A	Mid/ High Amp Fuse 70A	1
9	TB80587-1	Relay Solenoid	2
10	TB80586-3	Isolator, 48530 Smart Battery Isolator, 200A	1
11	TB66148	Skiffed Mini Relay, 20/40A, 12V, SPD <sup>T</sup>	2
12	TB66147	ISO Mini Weatherproof Relay Connector w/12' Leads	2
13	TB66130-39	Power Distribution Post 8 Point 3/8" Stud Block	1
14	WF-0.25	Washer Flat 1/4	12
15	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	14
16	NF-0.25-20	Nut Flanged Lock : 1/4-20	20
17	CS-HH-0.25-20X1.25	Screw Cap Hex: 1/4-20 X 1 1/4	2
18	SSCS-SH-6-32X0.75	Cap Screw-Stainless-Socket Head-#6-32 X 3/4	6
19	WFSS-6	Washer Flat - Stainless - #6 (1.56 X .312)	12
20	SSNSL-6-32	Nut Self Lock - Stainless : 6-32	6
21	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	4
22	WF-0.375	Washer Flat 3/8	3
23	CS-HH-0.375-16X1	Screw Cap Hex: 3/8-16 X 1	3
24	NF-0.375-16	Nut Flanged Lock : 3/8-16	3

Serial #4220025-4230031 Use TB80587-1 Solenoid In Place Of TB66149 Power Relay Module For Vibrators



**TERRELL'S**  
MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEBENSURG, FLA. 34749-2810

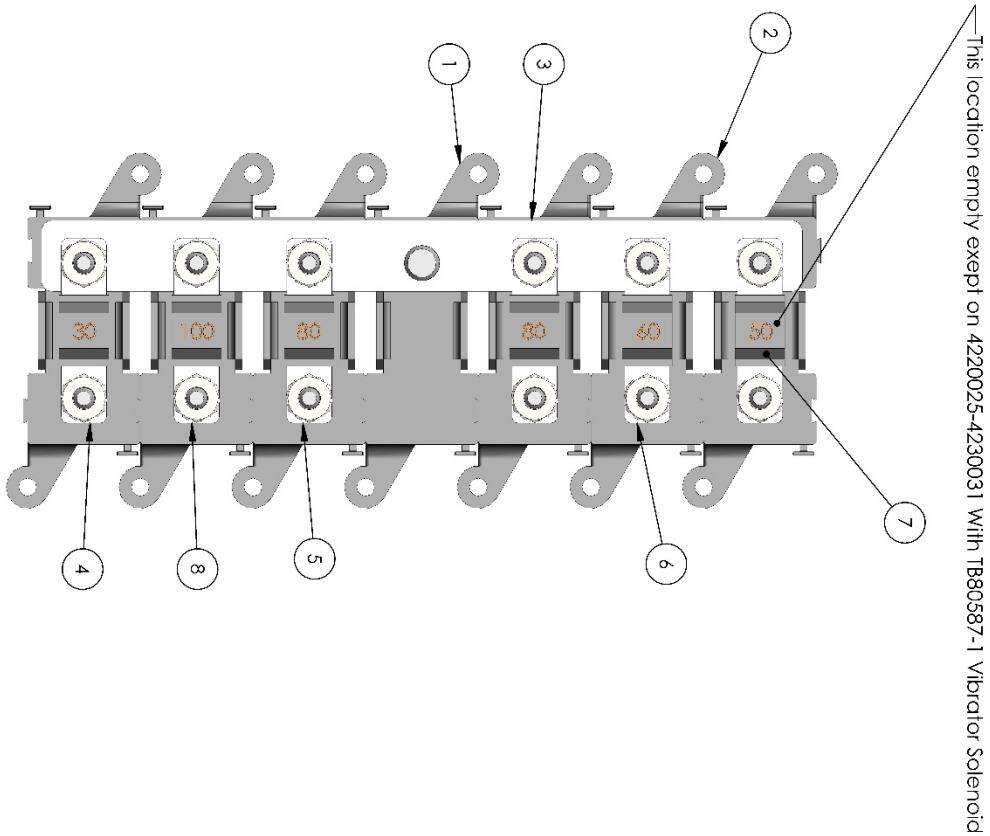
Hydraulic Oil Tank Switch Bracket Kit

SHOP #  
DATE 10/14/2020  
DR BY MCT C+  
TA-60710.04-2

# Hydraulic Oil Tank Fuse Assembly

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TB80130-100-02	Mid High Amp Fuse Block Input Module	1
2	TB80130-100-03	Mid High Amp Fuse Block Fuse Module	6
3	TB80130-100-01	Mid High Amp Bus Bar 7 Position	1
4	TB80130-100-04-30A	Mid High Amp Fuse 30A	1
5	TB80130-100-04-80A	Mid High Amp Fuse 80A	2
6	TB80130-100-04-60A	Mid High Amp Fuse 60A	1
7	TB80130-100-04-50A	Mid High Amp Fuse 50A	1
8	TB80130-100-04-100A	Mid High Amp Fuse 100A	1

Hydraulic Oil Tank Mini Fuse Block Kit  
 TA-60710-04-01  
 1 Per Unit

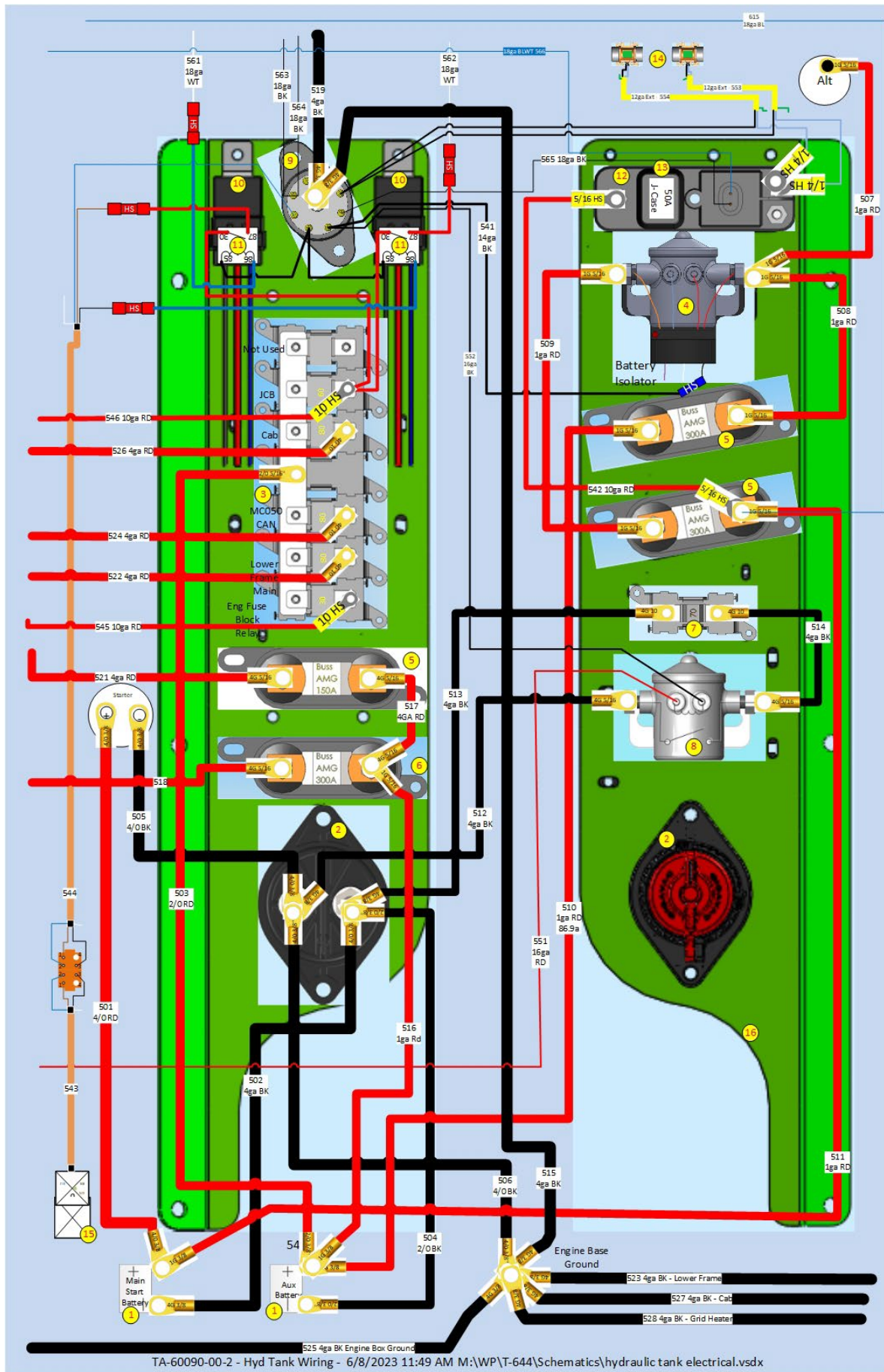


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**TUCKERS**  
 MACHINE & STEEL SERVICE, INC.  
 P.O. BOX 492310 LEEBURG, FL.A. 34729-2310  
 T-644

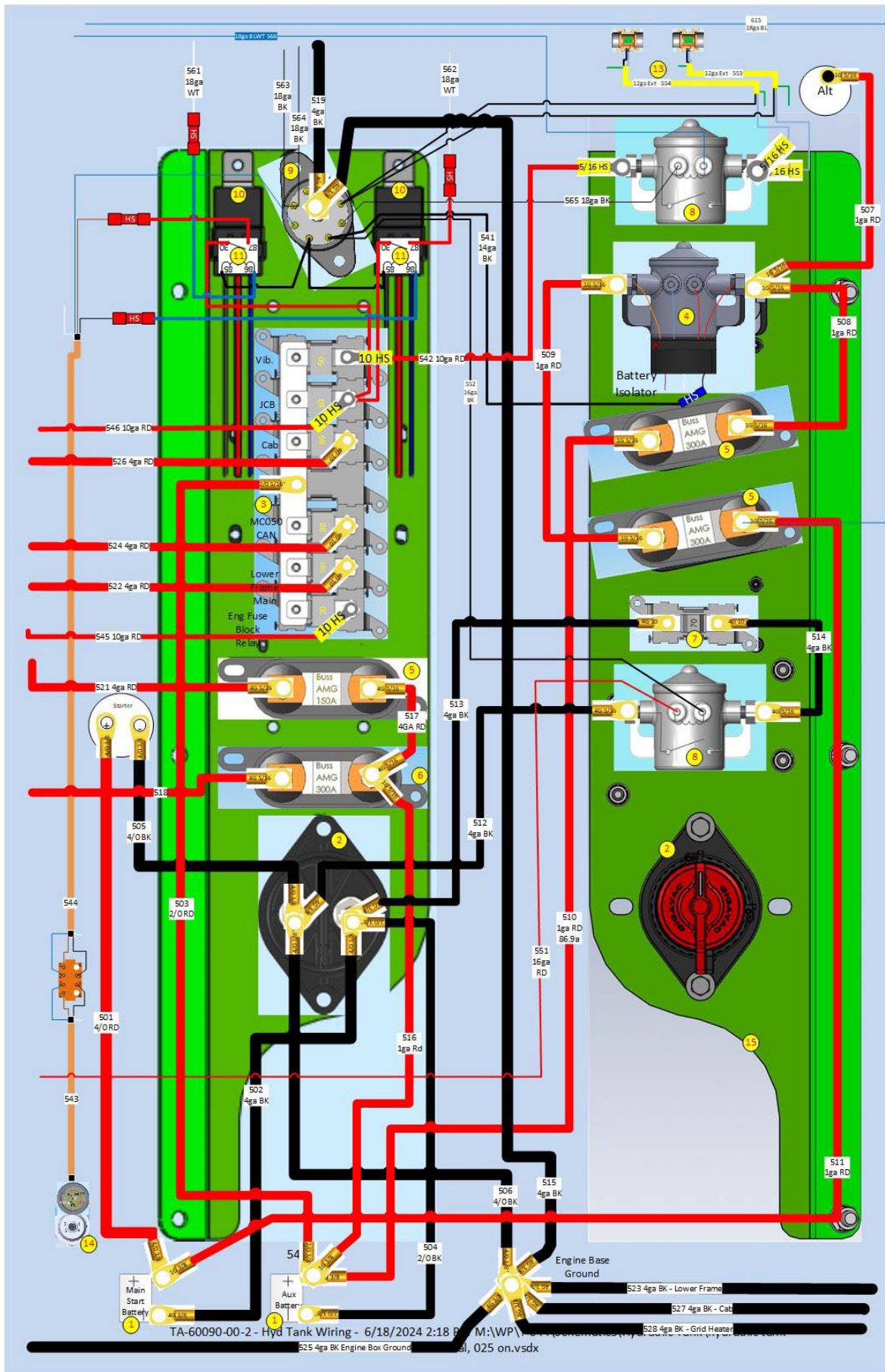
## Hydraulic Oil Tank Mini Fuse Block Kit

SHOP #  
 DATE 12/11/2013  
 DR. BY MCT F+

# Hydraulic Tank Electrical



# Hydraulic Tank Electrical 4220025 and Above



## Hydraulic Tank Electrical BOM

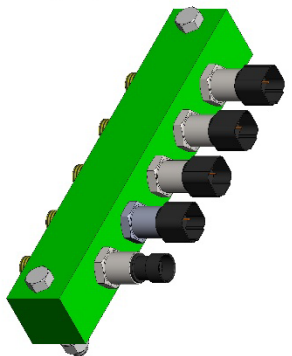
Hydraulic Tank Fin Wiring Parts				
Key	Description	Mfg #	Tucker #	Qty
1	Battery - 9A31, T-644	Wholesale - EX9A31	TB80586-1	2
2	Battery Disconnect - Gigavac	Waytek - 77080	TB80586-02	1
3	Midi High Amp Bus Bar 7 Position	Waytek - 46397	TB80130-100-01	1
	Midi High Amp Fuse Block Input Module	Waytek - 46391	TB80130-100-02	1
	Midi High Amp Fuse Block Fuse Module	Waytek - 46390	TB80130-100-03	6
	Midi High Amp Fuse 30A	Waytek - 46380	TB80130-100-04-30A	2
	Midi High Amp Fuse 80A	Waytek - 46385	TB80130-100-04-80A	3
4	Isolator, 48530 Smart Battery Isolator, 200A	Waytek - 77051	TB80586-3	1
5	Fuse Holder Bussman 150 Amp-300 Amp	Waytek - 46039	TB80130-87	3
	Fuse Bussman 300 Amp	Waytek - 46279	TB80130-88-300	3
6	Fuse Holder Bussman 150 Amp-300 Amp	Waytek - 46039	TB80130-87	3
	Fuse Bussman 150 Amp	Waytek - 46272	TB80130-88-150	3
7	Midi High Amp Fuse Block Fuse Module	Waytek - 46390	TB80130-100-03	1
	Midi High Amp Fuse 70A	Waytek - 46384	TB80130-100-04-70A	1
8	Solenoid/Relay, 200 Amp Continous, JCB	Wholesale - HE24213	TB80587-1	1
9	Power Distribution Post 8 Point 3/8" Stud Black	Waytek - 47225	TB66130-39	1
10	ISO Mini Weatherproof Relay Connector w/12" Lead	Waytek - 75610	TB66147	2
11	Skirted Mini Relay, 20/40A, 12V, SPDT	Waytek - 75605	TB66148	2
12	Power Relay Module, 70A, 2 Fuse, 37702-1AN0022	Waytek - 46095	TB66149	1
13	Littlefuse JCASE Fuse, 50A, Red	Waytek - 46593	TB66150-50	2
14	Vibrator, Hopper, 12v 3000 RPM Oli	Oli Vibrator - MVE 202 DC 12	TB66444	2
15	Sensor, N/O PNP Turck Proximity	Turck - Bi15-EM30-AP45XLD-H1141	TB66130-08-TU	1
16	Hydraulic Oil Tank Switch Bracket	Tucker - TM60710-04	TM60710-04	1

## Hydraulic Tank Electrical BOM 4220025 and Above

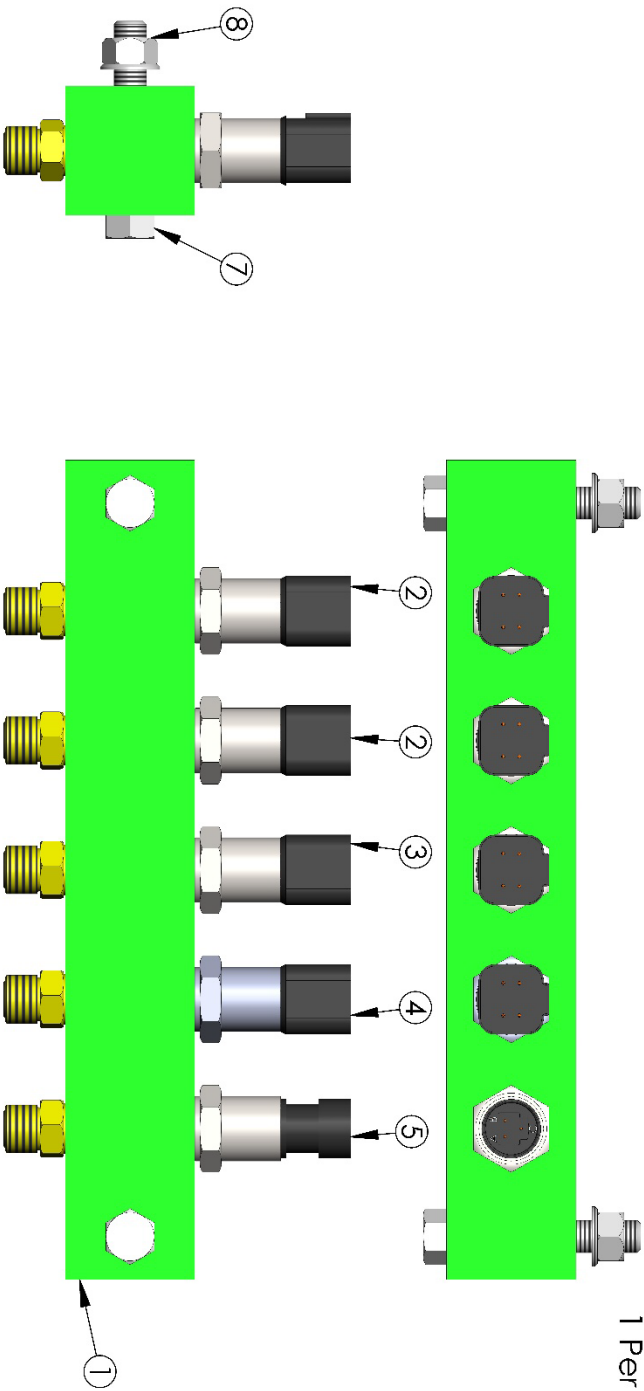
Hydraulic Tank Fin Wiring Parts 2022				
Key	Description	Mfg #	Tucker #	Qty
1	Battery - 9A31, T-644	Wholesale - EX9A31	TB80586-1	2
2	Battery Disconnect - Gigavac	Waytek - 77080	TB80586-02	1
3	Midi High Amp Bus Bar 7 Position	Waytek - 46397	TB80130-100-01	1
	Midi High Amp Fuse Block Input Module	Waytek - 46391	TB80130-100-02	1
	Midi High Amp Fuse Block Fuse Module	Waytek - 46390	TB80130-100-03	6
	Midi High Amp Fuse 30A	Waytek - 46380	TB80130-100-04-30A	1
	Midi High Amp Fuse 50A	Waytek - 46382	TB80130-100-04-50A	1
	Midi High Amp Fuse 60A	Waytek - 46383	TB80130-100-04-60A	1
	Midi High Amp Fuse 80A	Waytek - 46385	TB80130-100-04-80A	2
	Midi High Amp Fuse 100A	Waytek - 46386	TB80130-100-04-100A	1
4	Isolator, 48530 Smart Battery Isolator, 200A	Waytek - 77051	TB80586-3	1
5	Fuse Holder Bussman 150 Amp-300 Amp	Waytek - 46039	TB80130-87	3
	Fuse Bussman 300 Amp	Waytek - 46279	TB80130-88-300	3
6	Fuse Holder Bussman 150 Amp-300 Amp	Waytek - 46039	TB80130-87	3
	Fuse Bussman 150 Amp	Waytek - 46272	TB80130-88-150	3
7	Midi High Amp Fuse Block Fuse Module	Waytek - 46390	TB80130-100-03	1
	Midi High Amp Fuse 70A	Waytek - 46384	TB80130-100-04-70A	1
8	Solenoid/Relay, 200 Amp Continuous, JCB	Wholesale - HE24213	TB80587-1	2
9	Power Distribution Post 8 Point 3/8" Stud Black	Waytek - 47225	TB66130-39	1
10	ISO Mini Weatherproof Relay Connector w/12" Lead	Waytek - 75610	TB66147	2
11	Skirted Mini Relay, 20/40A, 12V, SPDT	Waytek - 75605	TB66148	2
12	Vibrator, Hopper, 12v 3000 RPM Oli	Oli Vibrator - MVE 202 DC 12	TB66444	2
13	Sensor, N/O PNP Turck Proximity	Turck - Bi15-EM30-AP45XLD-H1141	TB66130-08-TU	1
14	Hydraulic Oil Tank Switch Bracket	Tucker - TM60710-04	TM60710-04	1

# Transducer Manifold Kit

ITEM NO.	OrderNo	DESCRIPTION	Transducer Manifold Assembly Kit/QTY.
1	TM60510-08	JCB Transducer Manifold	1
2	TB66130-07	Sensor, psi, 0-5800, (400 Bar) SAE 4 DT04-4P	2
3	TB66130-06	Sensor, psi, 0-3626, (250 Bar) SAE 4 DT04-4P	1
4	TB66130-05	Sensor, psi, 0-580, (40 Bar) SAE 4 DT04-4P	1
5	TB66130-30	Filter Pressure Transducer TDH30KG010003B004, 0-100 PSI	1
6	FF1852T0404S	ST #4 ORS Flat Face, #4 O-Ring Boss	5
7	CS-HH-0.375-16X2.25	Screw Cap Hex: 3/8-16 X 2 1/4	2
8	NF-0.375-16	Nut Flanged Lock : 3/8-16	2



Transducer Manifold Kit  
TA-60,510,08  
1 Per Unit



C:\PDM\Solidworks\Part\T-644\60,700 Hydraulic Oil Tank Parts\60,710,00\60,710,00 acc

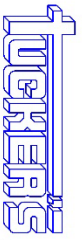
T-644

DR. BY MCT

DATE 9/8/2015

SHOP #

TA-60,510,08



MACHINE & STEEL

SERVICE INC.

P.O. BOX 492810 LEESBURG, FLA. 34749-2810

Transducer Manifold Kit

# Paint

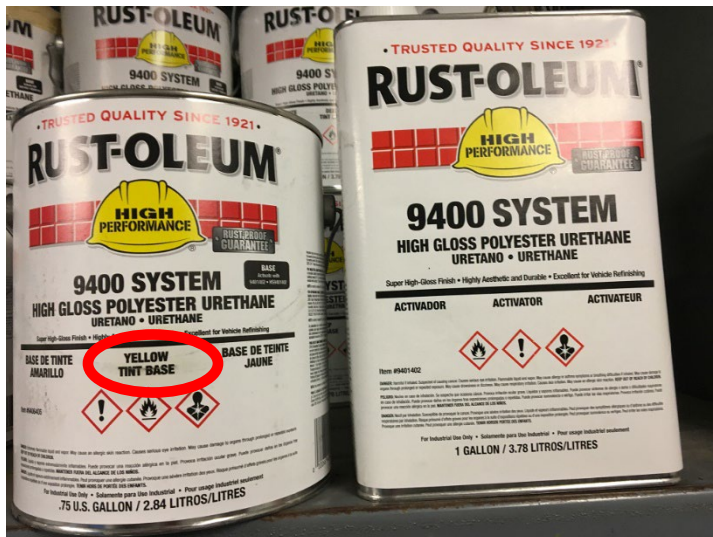
White, Blue, Yellow



White



Safety Blue



Safety Yellow

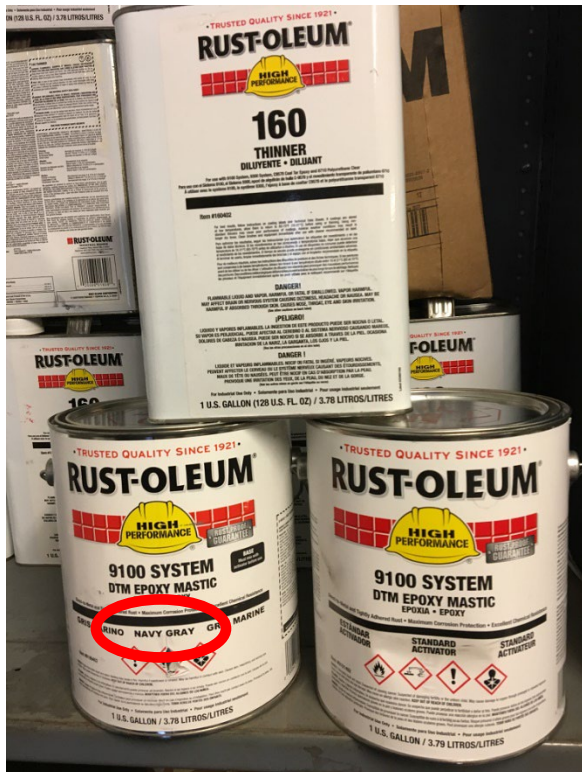
Red, Black, Gray



Safety Red



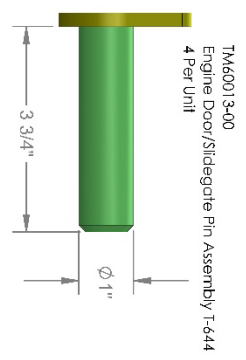
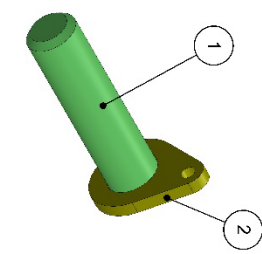
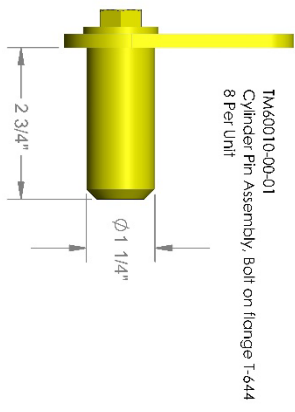
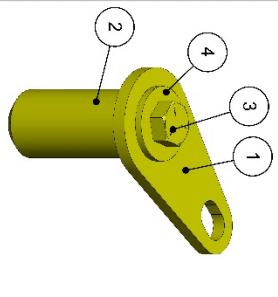
Black



Navy Gray

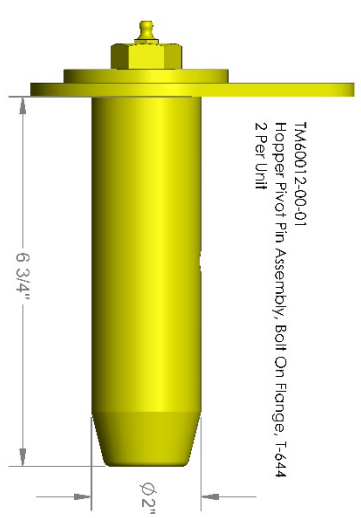
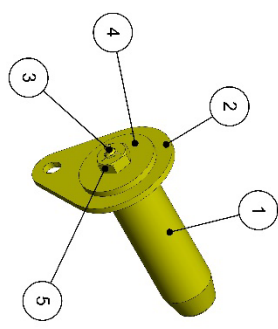
# Pin list

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.010.02.01	Cylinder Pin Flange, Bolt on	1
2	60.010.01.01	Cylinder Pin Shaft, Bolt on flange	1
3	CS-HH-0.5-12 X 1	1/2" -12 X 1" Hex Head Cap Screw	1
4	WF-0.5	Washer Flat 1/2"	1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.013.01	Door Cylinder/Slidebar Pin	1
2	60.013.02	Door Cylinder/Slidebar Pin Ear	1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	60.012.01.01	Hopper Pivot Pin Shaft, Bolt on Flange	1
2	60.012.02.01	Hopper Pivot Pin Flange, Bolt On	1
3	18gf-st	Grease Fitting 1/8" Sirt.	1
4	60.012.04	Hopper Pivot Pin Flange Keeper	1
5	60.012.05	Hopper Pivot Pin Flange Keeper Bolt	1



**LEESBURG** MACHINE & STEEL  
SERVICE INC.  
P.O. BOX 492810 LEESBURG, FLA. 34749-2810

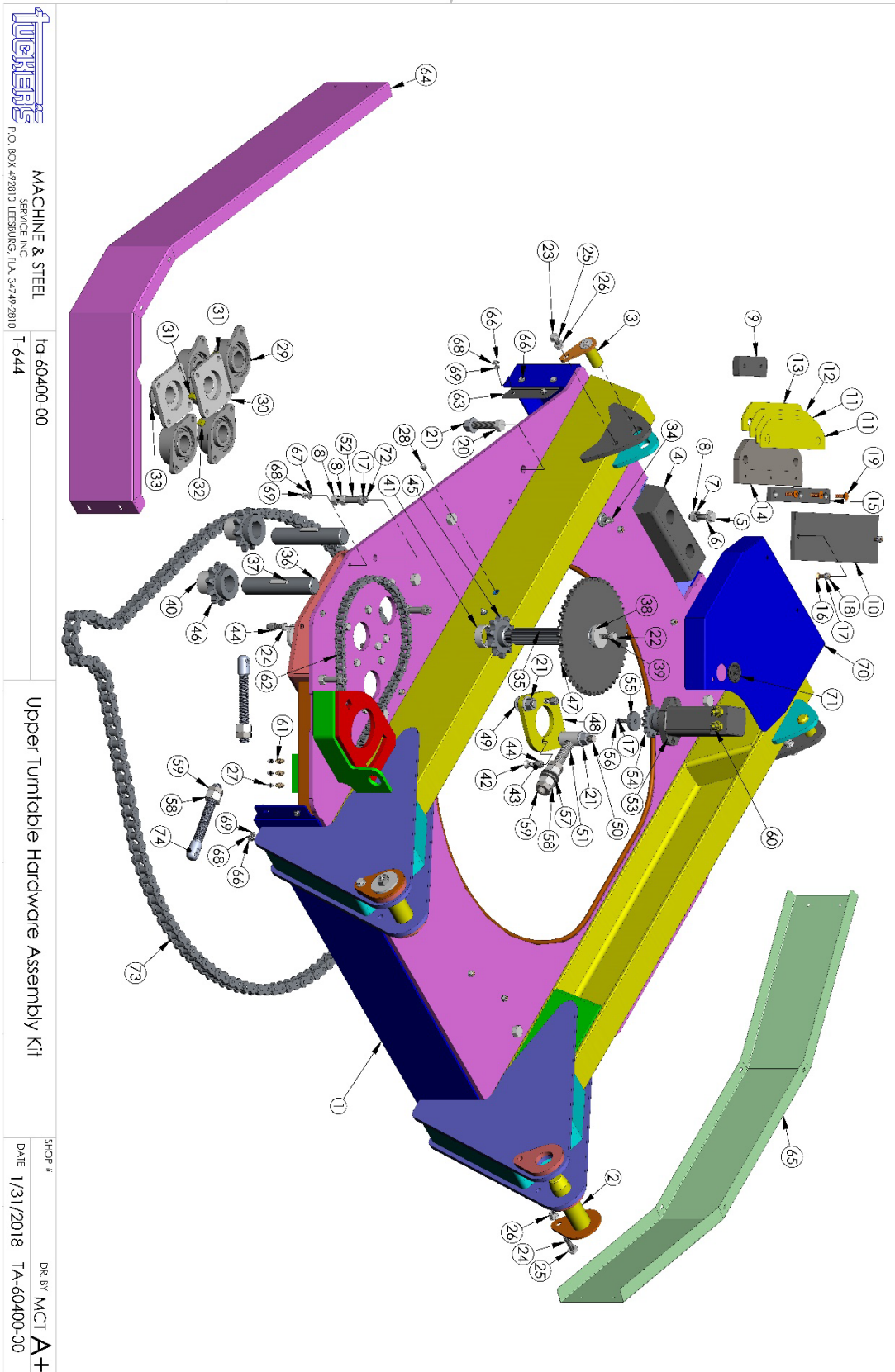
**Replacement Pins BOM**

CUSTOMER: T-644

SICP # -      DR. BY MCT      DWG. NO. 60.010  
SALES # -      DATE 06/09/2024

# Turntable

## Upper Turntable



# Upper Turntable BOM

ITEM NO.	OrderNo	DESCRIPTION	QTY.
1	TM60400-00	Upper Turntable Weldment	1
2	TM60012-00-01	Hopper Pivotal Pin Assembly, Bolt On Flange, T-644	2
3	TM60010-00-01	Cylinder Pin Assembly, Bolt on flange T-644	2
4	TB60400-01	Dock Bumper - Turntable to Hopper	1
5	CS-HH-0.625-11X2.5	Screw Cap Hex: 0.625-11 X 2.500	2
6	WF-0.625	Washer Flat 5/8	2
7	WL-0.625	Washer Lock 5/8	2
8	NU-0.625-11-PL	Nut: 5/8-11	8
9	TM60400-15	Upper Turntable Thrust Nylontron	5
10	TM60400-16	Upper Turntable Slide Pad Nylontron	6
11	TM60400-18-3	Upper Turntable Hook Slide Shim 1.4 Ga.	10
12	TM60400-18-2	Upper Turntable Hook Slide Shim 10 Ga.	5
13	TM60400-18-1	Upper Turntable Hook Slide Shim 1/4"	5
14	TM60400-17	Upper Turntable Hook Slide Base Plate	5
15	TM60400-19	Upper Turntable Hook Slide Nylontron	5
16	TB80546	Brass Bolt, Wear Pad, 3/8-24 x 1-1/2	12
17	WL-0.375	Washer Lock 3/8	16
18	NU-0.375-24-PL	Nut 3/8-24 (Plated)	12
19	CS-FHSB-0.375-16X1.25	Screw Cap: FH SKt, Brass 3/8-16 X 1-1/4	15
20	CS-HH-0.75-10X4.25 Grade 8	Screw Cap Hex: 3/4-10 X 4-1/4 Grade 8	10
21	NF-0.75-10	Nut Flanged Lock : 3/4-10	12
22	CS-HH-0.5-13X1.25	Screw Cap Hex: 1/2-13 X 1 1/4	2
23	CS-HH-0.5-13X1.5	Screw Cap Hex: 1/2-13 X 1 1/2	2
24	CS-HH-0.5-13X2	Screw Cap Hex: 1/2-13 X 2	18
25	WF-0.5	Washer Flat 1/2 (Soel)	4
26	NF-0.5-13	Nut Flanged Lock : 1/2-13	4
27	MI-GF-0.125-ST	Grease Fitting 1/8" Sft.	3
28	MI-GF-0.25-ST	Grease Fitting 1/4" Sft.	2
29	TB80501	Bearing Swing Assy. - 2 Bolt	4
30	TB80502	Bearing Swing Assy. Center - 4 Bolt	2
31	TB-3350X2	Fitting W/h 45 Deg, 1/8 MP - 1/8 FP	2
32	TB-3400X2	Fitting W/h 90 Deg, 1/8 MP - 1/8 FP	1
33	MI-GF-0.125-90	90 Deg 1/8 Grease Fitting	3
34	2024-4-4S	Adaptor Aeroquip	4
35	TB81305	Shaft 1-3/4 8/16 DP 13 Tooth	1
36	TM81295	Shaft Idler Sprocket, Turntable	2
37	TM812951	Keystock Turntable Idler Shaft	2
38	TM81285	Retainer Swing Shaft Sprocket	2
39	WL-0.5	Washer Lock 1/2	2
40	TM81274	Spacer Turntable Drive 1-5/8"	2

ITEM NO.	OrderNo	DESCRIPTION	QTY.
41	TM81303	Spacer .8125 Turntable Drive	1
42	CS-FHS-0.5-13X2.25	Screw Cap: FH SKt, 1/2-13 X 2-1/4	2
43	WLHC-0.5	Washer Lock HI-Collar 1/2	2
44	NSL-0.5-13	Nut Self Lock : 1/2-13	18
45	TM80408-01	Sprocket Splined Lower Swing	1
46	TM81306-01	Sprocket 100 Outer-flower Swing	2
47	TM80407-01	Sprocket Splined Swing Drive, Upper	1
48	TM60400-09	Upper Turntable Swing Motor Plate	1
49	CB-0.75-10X2	Bolt Carriage 3/4-10 X 2	1
50	CB-0.75-10X5P	Bolt Carriage 3/4-10 X 5 Gr. 5 Plated	1
51	TM60400-12	TI Motor Chain Adjustment Bolt T-644	1
52	TM60400-30	Upper Turntable Swing Chain Cover Mount Stud	3
53	TB80103-1	Motor, Swing w/Cross Relief	1
54	TM80406	Sprocket Splined Swing Motor	1
55	TM81284	Retainer Swing Motor Sprocket	1
56	CS-HH-0.375-16X1.25	Screw Cap Hex: 3/8-16 X 1 1/4	1
57	WF-1	Washer Flat 1	2
58	NU-1-8-PL	Nut 1-8 (Plated)	4
59	NJ-1-8	Nut Jam : 1-8	4
60	FI1852T0810S	ST #8 ORS Flat Face, #10 O-Ring Boss	2
61	2021-2-4S	Adapter, Hydraulic: 2021-2-4S	3
62	TA-605C	#60 Turntable Swing Chain Kit (45")	1
63	TM60400-33	Upper Turntable Side Cover Lap Plate	3
64	TM60400-28	Upper Turntable Side Cover Left	1
65	TM60400-29	Upper Turntable Side Cover Right	1
66	CS-HH-0.25-20X0.75	Screw Cap Hex: 1/4-20 X 3/4	14
67	CS-HH-0.25-20X1	Screw Cap Hex: 1/4-20 X 1	4
68	WF-0.25	Washer Flat 1/4	18
69	NF-0.25-20	Nut Flanged Lock : 1/4-20	18
70	TM60400-27	Upper Turntable Swing Chain Cover Assembly	1
71	TB80216	Plug, Chain Inspection	1
72	CS-HH-0.375-16X0.75	Screw Cap Hex: 3/8-16 X 3/4	3
73	TM81292-01	Chain Kit TH #100	1
74	TM81291-01	Bolt, Turntable, 100 Chain Adjuster	2

## Appendix:

### Fastener Information

#### Bolt Torque

Bolt Tightening Torque						
All values ft-lb unless otherwise noted						
To convert ft-lb to in-lb: lb*12=in-lb						
Example: 9 ft-lb * 12 = 108 in-lb						
Example: 75 in-lb / 12 = 6.25 ft-lb						
Multiply by 1.3558 to get N-m						
U.S Bolt Threads						
Thread Size	Grade 5	Grade 8		Thread Size	Grade 5	Grade 8
Coarse thread				Fine thread		
1/4-20 (.250)	76 in-lb	9		1/14-28 (.250)	87 in-lb	10
5/16-18 (.3125)	13	18		5/16-24 (.250)	14	20
3/8-16 (.375)	23	33		3/8-24 (.375)	26	37
7/16-14 (.4375)	37	52		7/16-20 (.4375)	41	58
1/2-13 (.500)	57	80		1/2-20 (.500)	64	90
9/16-12 (.5625)	82	115		9/16-18 (.5625)	91	129
5/8-11 (.625)	112	159		5/8-18 (.5625)	128	180
3/4-10 (.750)	200	282		3/4-16 (.750)	223	315
7/8-9 (.875)	322	454		7/8-14 (.875)	355	501
1-8 (1.000)	483	454		1-12 (1.000)	529	746
1 1/8-7 (1.125)	596	966		1-14 (1.000)	541	764
1 1/4-7 (1.250)	840	1363		1 1/8-12 (1.125)	668	1083
1 3/8-6 (1.375)	1102	1787		1 1/4-12 (1.250)	930	1509
1 1/2-6 (1.500)	1462	2371		1 3/8-12 (1.375)	1254	2034
				1 1/2-12 (1.500)	1645	2668
Metric Bolt Threads						
Thread Size	Grade 8.8	Grade 10.9				
M4 x .70	2.30					
M5 x .80	4.58	7.00				
M6 x 1.00	7.80	11.63				
M8 x 1.25	18.75	27.75				
M8 x 1.00	20.25					
M10 x 1.50	38.25	56.25				
M10 x 1.00	42.75					
M10 x 1.25	40.50					
M12 x 1.75	65.25	97.50				
M12 x 1.25	72.00					
M12 x 1.50	69.00					
M14 x 2.00	105.00	153.75				
M14 x 1.50	112.50					
M16 x 2.00	161.25	232.50				
M18 x 2.50	225.00					
M20 x 2.50	322.50					
M22 x 2.50	435.00					
M24 x 3.00	555.00					

Torque Conversion to Metric

Torque Conversion Chart English to Metric									
Foot Pounds (ft. lbs.)	Newton Meters (N-m)	Foot Pounds (ft. lbs.)	Newton Meters (N-m)	Foot Pounds (ft. lbs.)	Newton Meters (N-m)	Foot Pounds (ft. lbs.)	Newton Meters (N-m)	Foot Pounds (ft. lbs.)	Newton Meters (N-m)
1 =	1.3	32 =	43.4	63 =	85.4	94 =	127.4	125 =	169.5
2 =	2.7	33 =	44.7	64 =	86.8	95 =	128.8	126 =	170.8
3 =	4.1	34 =	46.1	65 =	88.1	96 =	130.2	127 =	172.2
4 =	5.4	35 =	47.4	66 =	89.5	97 =	131.5	128 =	173.5
5 =	6.8	36 =	48.8	67 =	90.8	98 =	132.9	129 =	174.9
6 =	8.1	37 =	50.7	68 =	92.2	99 =	134.2	130 =	176.2
7 =	9.5	38 =	51.5	69 =	93.6	100 =	135.6	131 =	177.6
8 =	10.8	39 =	52.9	70 =	94.9	101 =	136.9	132 =	179
9 =	12.2	40 =	54.2	71 =	96.3	102 =	138.3	133 =	180.3
10 =	13.6	41 =	55.6	72 =	97.6	103 =	139.6	134 =	181.7
11 =	14.9	42 =	56.9	73 =	99	104 =	141	135 =	183
12 =	16.3	43 =	58.3	74 =	100.3	105 =	142.4	136 =	184.4
13 =	17.6	44 =	59.7	75 =	101.7	106 =	143.7	137 =	185.7
14 =	18.9	45 =	61	76 =	103	107 =	145.1	138 =	187.1
15 =	20.3	46 =	62.4	77 =	104.4	108 =	146.4	139 =	188.5
16 =	21.7	47 =	63.7	78 =	105.8	109 =	147.8	140 =	189.8
17 =	23	48 =	65.1	79 =	107.1	110 =	149.1	141 =	191.2
18 =	24.4	49 =	66.4	80 =	108.5	111 =	150.5	142 =	192.5
19 =	25.8	50 =	67.8	81 =	109.8	112 =	151.8	143 =	193.9
20 =	27.1	51 =	69.2	82 =	111.2	113 =	153.2	144 =	195.2
21 =	28.5	52 =	70.5	83 =	112.5	114 =	154.6	145 =	196.6
22 =	29.8	53 =	71.9	84 =	113.9	115 =	155.9	146 =	198
23 =	31.2	54 =	73.2	85 =	115.2	116 =	157.3	147 =	199.3
24 =	32.5	55 =	74.6	86 =	116.6	117 =	158.6	148 =	200.7
25 =	33.9	56 =	75.9	87 =	118	118 =	160	149 =	202
26 =	35.2	57 =	77.3	88 =	119.3	119 =	161.3	150 =	203.4
27 =	36.6	58 =	78.6	89 =	120.7	120 =	162.7	151 =	204.7
28 =	38	59 =	80	90 =	122	121 =	164	152 =	206.1
29 =	39.3	60 =	81.4	91 =	123.4	122 =	165.4	153 =	207.4
30 =	40.7	61 =	82.7	92 =	124.7	123 =	166.8	154 =	208.8
31 =	42	62 =	84.1	93 =	126.1	124 =	168.1	155 =	210.2

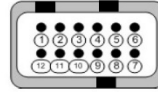
# Pin Schedules

## Pin Schedule DP720

Customer: Tucker's  
 Project: T-644 Transporter  
 Date: 2/27/2024

Deutsch 12-pin connectors  
 Plug: DTM06-12SA (Grey)

C2 Connector - Black



**in Cab**  
 Node: 2  
 DP720 #11151915  
 Wedgeloock: WM12S  
 Socket: 0462-201-20141 (qty 12 ea)  
 Blank: 0413-204-2005 (AR)  
 P357CO2AQ1331RxDxx

Pin #	Pin Type	P	R	M	Description	Wire #	Gauge	Wire Color
C1-P1	Power Ground -				to Battery "NEG"	856	16	Black
C1-P2	Power Supply +				to Battery "POS"	836	16	Red
C1-P3	CAN0 +				CAN Hi (Bus B)	809	18	Yellow
C1-P4	CAN0 -				CAN Lo (Bus B)	809	18	Green
C1-P5	CAN Shield/AIN							
C1-P6	CAN1 +/AIN/DIN				CAN Hi (Bus A)	807	18	Yellow
C1-P7	CAN1 -/AIN/DIN				CAN Lo (Bus A)	807	18	Green
C1-P8	Snsr Pwr +/AIN/DIN							
C1-P9	Snsr Gnd -							
C1-P10	DIN/mV/mA/ohm/Freq							
C1-P11	DIN/mV/mA/ohm/Freq							
C1-P12	DOUt				Buzzer, +12V = Buzzer On	827	18	Gray

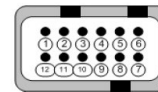
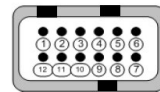
## Pin Schedule MC24 Cab

Customer: Tucker's  
 Project: T-644 Transporter  
 Date: 2/27/2024

Deutsch 12-pin connectors  
 Plug: DTM06-12SA (Grey)  
 Plug: DTM06-12SB (Black)  
 Wedgeloock: WM12S  
 Socket: 0462-201-20141 (qty 12 ea)  
 Blank: 0413-204-2005 (AR)  
 P351CO2AQ1140RxDxx

C2 Connector - Black

C1 Connector - Gray



**in Cab**  
 Node: 3  
 MC24-110 #11138528

Pin #	Pin Type	P	R	M	Description	Wire #	Gauge	Wire Color
C1-P1	Power Ground -				to Battery "NEG"	852	16	Black
C1-P2	Power Supply +				to Battery "POS"	835	16	Red
C1-P3	CAN +				CAN Hi (Bus B)	808	18	Yellow
C1-P4	CAN -				CAN Lo (Bus B)	808	18	Green
C1-P5	AIN/CAN Shield							
C1-P6	DIN			7	E-Stop in Cab, N.O., +12V = OK	869	18	Violet
C1-P7	DIN			7	Seat Switch, +12V = Seat Switch Enabled	848	18	Light Blue
C1-P8	5 Vdc Sensor Power+				Foot Pedal	906	16	Red
C1-P9	Sensor Ground -				Foot Pedal	906	16	White
C1-P10	DIN			7				
C1-P11	DIN			7	Brake Valve Pressure Sw, N.O., +12V = brakes activated	875	16	Black
C1-P12	DIN			7	A/C Turned On Sw, N.O., +12V = A/C selected	863	14	Green
C2-P1	DIN			7	Chute Door #1 Sensor Starting from Hopper, +12V = Door Closed	871	18	Black/White
C2-P2	DIN/AIN/freqIN			7	Chute Door #2 Sensor Starting from Hopper, +12V = Door Closed	872	18	Brown/White
C2-P3	DIN/AIN/freqIN			7	Chute Door #3 Sensor Starting from Hopper, +12V = Door Closed	873	18	Blue/White
C2-P4	DIN/AIN/freqIN			7	Chute Door #4 Sensor Starting from Hopper, +12V = Door Closed	874	18	Orange/Black
C2-P5	DIN/AIN/freqIN			7	Foot Pedal	906	16	Black
C2-P6	DIN/AIN/freqIN			7				
C2-P7	AIN/Temp/Rheo			7				
C2-P8	AIN/Temp/Rheo			7				
C2-P9	PWMOUT/DOUt/PVGOUT	2	4		Work Lights, relay, +12V = relay activated	840	18	Yellow
C2-P10	PWMOUT/DOUt/PVGOUT	2	4		Windshield Wipers, relay, +12V = relay activated	845	18	Green
C2-P11	PWMOUT/DOUt/PVGOUT	2	5		Windshield Washer, relay, +12V = relay activated	842	18	Orange
C2-P12	PWMOUT/DOUt/PVGOUT	2	6		A/C relay, +12V = relay activated, Engine is on and running	850	18	Red/Black

### Pairing

- 1 Adjacent pins support Quadrature Encoders
- 2 Adjacent pins support Bi-Directional Coils

### Range

- 3 0 to 5.25 V only input range
- 4 40-4000 Hz (same freq applies to 4 adjacent pins)
- 5 40-4000 Hz (same freq applies to 4 adjacent pins)

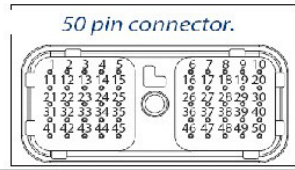
### Multiplexing

- 6 Multiplexed input refreshes at 20.48 ms
- 7 Standard input refreshes at 2.56 ms

# Pin Schedule MC50 Engine

Customer: Tucker's  
 Project: T-644 Transporter  
 Date: 2/27/2024

Socket: 0462-201-20141 (qty 50 ea)  
 Blank: 0413-204-2005 (AR)



**Engine Area**

Node: 4  
 MC50-110 #11138530 P353C02AQ1141RxDxx

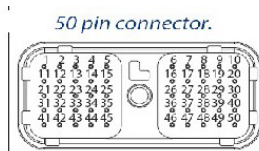
Pin #	Pin Type	P	R	M	Description	Wire #	Gauge	Wire Color
C1-P1	Power Ground -				to Battery "NEG"	608	16	Black
C1-P2	Power Supply +			8	to Battery "POS"	610	16	Red
C1-P3	CAN0 +				CAN Hi (Bus B)	575	18	Yellow
C1-P4	CAN0 -				CAN Lo (Bus B)	575	18	Green
C1-P5	AIN/CAN0 shield	3	7		Filter Pressure (0 to 5 V)	666	18	Green
C1-P6	DIN				E-Stop in Engine Area, N.C., +12V = OK	621	18	Red
C1-P7	DIN							
C1-P8	5 Vdc Sensor Power+			7	to Pressure Snrs, * Max 450mA	661	16	Red
C1-P9	Sensor Ground -				to Pressure Snrs, * Max 450mA	662	16	Black
C1-P10	DIN							
C1-P11	DIN				"Engine Air Filter Needs Service" Indicator Light	609	18	Black/White
C1-P12	DIN				Engine Cover Sensor, +12V = Engine Bay Door Closed	657	22	Black
C1-P13	DIN							
C1-P14	DIN/AIN			7	Pressure Snsr, B-Port (Reverse), 10-90% ratiometric, 400 Bar	678	18	Light Green
C1-P15	DIN/AIN			7	Pressure Snsr, Aux Pump, 10-90% ratiometric, 250 Bar	672	18	Light Blue
C1-P16	DIN/AIN			7	Pressure Snsr, A-Port (Forward), 10-90% ratiometric, 400 Bar	675	18	Orange
C1-P17	DIN/AIN			7	Pressure Snsr, Charge Pump, 10-90% ratiometric, 40 Bar	669	18	Brown/White
C1-P18	DIN/AIN/freqIN	1	7		Crank Battery Voltage	615	18	Blue
C1-P19	DIN/AIN/freqIN	1	7					
C1-P20	CAN1 +				CAN Hi (Bus A)	582	18	Yellow
C1-P21	CAN1 -				CAN Lo (Bus A)	582	18	Green
C1-P22	AIN/CAN1 shield	3	7					
C1-P23	DIN/AIN/freqIN			7				
C1-P24	DIN/AIN/freqIN	1	7		Coolant Level Snsr, Analog, 0.95-1.45 VDC In Fluid. 3.75-4.25 VDC In Air	679	16	White
C1-P25	DIN/AIN/freqIN	1	7					
C1-P26	DIN/AIN/freqIN			7				
C1-P27	AIN/Temp/Rheo	3	7					
C1-P28	AIN/Temp/Rheo	3	7		Charge Pump Filter Bypass Sensor, ground input to controller	655	16	White
C1-P29	AIN/Temp/Rheo	3	7					
C1-P30	AIN/Temp/Rheo	3	7					
C1-P31	DOut							
C1-P32	DOut							
C1-P33	DOut							
C1-P34	DOut/PVG Pwr 1			7				
C1-P35	DOut/PVG Pwr 2			7				
C1-P36	DOut/PVG Pwr 3			7				
C1-P37	PWM/D/PVG Out 1	2	4		EDC, Forward, H1 Pump (800 to 1600mA), coil	652	16	White
C1-P38	PWM/D/PVG Out 1	2	4		EDC, Reverse, H1 Pump (800 to 1600mA), coil	653	16	White
C1-P39	PWM/D/PVG Out 1	4			Air Supply valve, coil	628	18	Red/Black
C1-P40	PWM/D/PVG Out 1	4			Vibrator Motor, relay, +12V = relay activated	566	18	Blue/White
C1-P41	PWM/DOut	6			Engine is on and running Output, +12V, available			
C1-P42	PWM/D/PVG Out 2	2	5					
C1-P43	PWM/D/PVG Out 2	2	5		Starter Engine signal, +12V = signal to engine ECU	644	18	Violet
C1-P44	PWM/D/PVG Out 2	5			Horn, relay, +12V = relay activated	630	18	Orange/Black
C1-P45	PWM/D/PVG Out 3	5						
C1-P46	PWM/DOut	6			CCO/ "Propel enable" coil, +12V = Enabled	654	16	White
C1-P47	Power Supply +				to Battery "POS"	611	16	Red
C1-P48	Power Supply +				to Battery "POS"	612	16	Red
C1-P49	Power Supply +				to Battery "POS"	613	16	Red
C1-P50	Power Supply +				to Battery "POS"	614	16	Red

- Pairing**
- 1 Adjacent pins support Quadrature Encoders
  - 2 Adjacent pins support Bi-Directional Coils
- Range**
- 3 0 to 5.25 V only input range
  - 4 40-4000 Hz (same freq applies to 4 adjacent pins)
  - 5 40-4000 Hz (same freq applies to 4 adjacent pins)
  - 6 1144 Hz fixed freq
- Multiplexing**
- 7 Multiplexed input refreshes at 20.48 ms
  - 8 Standard input refreshes at 2.56 ms

# Pin Schedule MC50 Chassis

Customer: Tucker's  
 Project: T-644 Transporter  
 Date: 2/27/2024

Socket: 0462-201-20141 (qty 50 ea)  
 Blank: 0413-204-2005 (AR)



**Chassis**  
 Node: 5  
 MC50-110 #11138530

P353CO2AQ1142RxDxx

Pin #	Pin Type	P	R	M	Description	Wire #	Gauge	Wire Color
C1-P1	Power Ground -				to Battery "NEG"	126	16	Black
C1-P2	Power Supply +			8	to Battery "POS"	110	16	Red
C1-P3	CAN0 +				CAN Hi (Bus B)	101	18	Yellow
C1-P4	CAN0 -				CAN Lo (Bus B)	101	18	Green
C1-P5	AIN/CAN0 shield		3	7				
C1-P6	DIN				Limit Sw, Elevator, N.O., +12V = Elevator down	137	18	Red
C1-P7	DIN				Parking Brake Sensor, +12V = Brake released	171	16	Black
C1-P8	5 Vdc Sensor Power+			7	to Motor Sensors * Max 450mA	115	16	Red
C1-P9	Sensor Ground -				to Motor Sensors * Max 450mA	116	16	Black
C1-P10	DIN							
C1-P11	DIN							
C1-P12	DIN							
C1-P13	DIN							
C1-P14	DIN/AIN			7	Center Steer Angle Sensor, 180 deg, 10-90% Ratio, or linear positon sensor (0.5-4.5v)	128	18	White
C1-P15	DIN/AIN			7	Left steer linear positon sensor (0.5-4.5v)	129	18	Red
C1-P16	DIN/AIN			7	Right steer linear positon sensor (0.5-4.5v)	130	18	Blue
C1-P17	DIN/AIN			7				
C1-P18	DIN/AIN/freqIN		1	7	Left Motor, Speed, Square Pulse, Quadrature A (78 PPR)	159	22	Green
C1-P19	DIN/AIN/freqIN		1	7	Left Motor, Speed, Square Pulse, Quadrature B	159	22	Orange
C1-P20	CAN1 +							
C1-P21	CAN1 -							
C1-P22	AIN/CAN1 shield		3	7				
C1-P23	DIN/AIN/freqIN			7				
C1-P24	DIN/AIN/freqIN		1	7	Right Motor, Speed, Square Pulse, Quadrature A (78 PPR)	158	22	Green
C1-P25	DIN/AIN/freqIN		1	7	Right Motor, Speed, Square Pulse, Quadrature B	158	22	Orange
C1-P26	DIN/AIN/freqIN			7				
C1-P27	AIN/Temp/Rheo		3	7	Left Motor, Bearing Temp, -40C=2203mV → 104C=734mV	159	22	Blue
C1-P28	AIN/Temp/Rheo		3	7	Right Motor, Bearing Temp, -40C=2203mV → 104C=734mV	158	22	Blue
C1-P29	AIN/Temp/Rheo		3	7	Fuel Level Snsr, ohms			
C1-P30	AIN/Temp/Rheo		3	7				
C1-P31	DOut				Oil Cooler Fan 1, + 12V = relay activated	145	18	Red
C1-P32	DOut				Oil Cooler Fan 2, + 12V = relay activated	144	18	Red
C1-P33	DOut				Propel Strobe Light, + 12V = relay activated	141	18	Red
C1-P34	DOut/PVG Pwr 1			7				
C1-P35	DOut/PVG Pwr 2			7				
C1-P36	DOut/PVG Pwr 3			7				
C1-P37	PWM/D/PVG Out 1		2	4	EDC, Left Wheel, H1B Motor (500 to 1600mA), coil	157	16	White
C1-P38	PWM/D/PVG Out 1		2	4	EDC, Right Wheel, H1B Motor (500 to 1600mA), coil	156	16	White
C1-P39	PWM/D/PVG Out 1		4	4	Back-Up Lights & Alarm, relay, +12V = relay activated	136	18	Red
C1-P40	PWM/D/PVG Out 1		4	4	Head Lights, relay, +12V = relay activated	135	18	Red
C1-P41	PWM/DOut		6	6	Serial 4230038 and below (Hydraulic Oil Cooler relay, +12V = relay activated. Engine	127	14	Inline Fuse
C1-P42	PWM/D/PVG Out 2		2	5				
C1-P43	PWM/D/PVG Out 2		2	5				
C1-P44	PWM/D/PVG Out 2		5	5				
C1-P45	PWM/D/PVG Out 3		5	5				
C1-P46	PWM/DOut		6	6				
C1-P47	Power Supply +				to Battery "POS"	111	16	Red
C1-P48	Power Supply +				to Battery "POS"	112	16	Red
C1-P49	Power Supply +				to Battery "POS"	113	16	Red
C1-P50	Power Supply +				to Battery "POS"	114	16	Red

### Pairing

- 1 Adjacent pins support Quadrature Encoders
- 2 Adjacent pins support Bi-Directional Coils

### Range

- 3 0 to 5.25 V only input range
- 4 40-4000 Hz (same freq applies to 4 adjacent pins)
- 5 40-4000 Hz (same freq applies to 4 adjacent pins)
- 6 1144 Hz fixed freq

### Multiplexing

- 7 Multiplexed input refreshes at 20.48 ms
- 8 Standard input refreshes at 2.56 ms

# Wire Schedule

## Wiring 101-120

T-644 Wiring 2024					
Key	Wire Routing	Description	Mfg #	Tucker #	Qty
101	CAN "B" Data Link 4 Module Top Right Green port to MC50 Male Plug Pins 3 & 4	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	3
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	2
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-25	12
102	CAN "B" Data Link 4 Module Bottom Right Green port to MC50 Deutsch Receptacle for Radar	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Deutsch W2S-P012 Wedge for Plug	Deutsch - W2S-P012	TB80130-26-P012	1
		Quick Disconnect Female 22-18 HS Red (1/4 spade)	Waytek - 30982	ECQDFHS2218RD14	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	5
		Heat Shrink Tubing Red	Cable Ties - HS359-S100-RD	ECHS-0.25-RD	1
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		Cable, Interconnect, WB Preview 25'	Preco - HRPV410T	TB80125-2-1	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
103	12v Ground Bar and Fuse F10 to Radar Unit	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPYNY1614BL	1
		Deutsch DT04-2P-E008 Female Receptacle	Deutsch - DT04-2P-E008	TB80130-69-E008	1
		Deutsch W2P Wedge for Receptacle	Deutsch - W2P	TB80130-70	1
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	2
		Heat Shrink Tubing Red	Cable Ties - HS359-S100-RD	ECHS-0.25-RD	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	128
		Ring Terminal (1/4 stud) 10-12 - Heat Shrink	Waytek - 32803	ECRTHS1210YL14	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	2
		Deutsch WP-2S Wedge for Plug	Deutsch - WP-2S	TB80130-86P-2	1
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	1
104	Yellow Wire From Fan 2 Relay Output to Fan 2 Plug Socket "1".	Wire 12ga - Yellow TXL	Waytek - WM12-4	EW12YL	81
		Ring Terminal (1/4 stud) 10-12 - Heat Shrink	Waytek - 32803	ECRTHS1210YL14	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	2
		Deutsch WP-2S Wedge for Plug	Deutsch - WP-2S	TB80130-86P-2	1
105	Blue Wire From Fan 1 Relay Output to Fan 1 Plug Socket "1".	Wire 12ga - Blue TXL	Waytek - WM12-6	EW12BL	65
		Deutsch Male Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Deutsch W6S-P012 Wedge for Plug	Deutsch - W6S-P012	TB80575-124-P012	1
		Deutsch DT06-6S Male Plug	Deutsch - DT06-6S	TB80575-123EP11	1
106	Strobe 2-3 Pin Buss Plug, Pink "5" - Fuse Panel "2-87"	Wire 14ga - Pink TXL	Waytek - WM14-12	EW14PI	13
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Deutsch W6S-P012 Wedge for Plug	Deutsch - W6S-P012	TB80575-124-P012	1
		Deutsch DT06-6S Male Plug	Deutsch - DT06-6S	TB80575-123EP11	1
107	White Wire - Strobe 2-3 Pin Buss Plug "3", Rear Bumper Strobe 2-6 Pin Buss Plug "6" and Black Wire - Strobe 2-3 Pin Buss Plug "1", Rear Bumper Strobe 2-6 Pin Buss Plug "3"	Wire 14ga - Pink TXL	Waytek - WM14-12	EW14PI	13
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	4
		Deutsch DT06-12SA Male Plug	Deutsch - DT06-12SA	TB80130-115	1
		Deutsch W12S Wedge for Plug	Deutsch - W12S	TB80130-116	1
108	White Wire - Strobe 2-3 Pin Buss Plug "4", Rear Bumper Strobe 2-6 Pin Buss Plug "6" and Black Wire - Strobe 2-3 Pin Buss Plug "6", Rear Bumper Strobe 2-6 Pin Buss Plug "3"	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	249
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	4
		Deutsch DT06-12SA Male Plug	Deutsch - DT06-12SA	TB80130-115	1
		Deutsch W12S Wedge for Plug	Deutsch - W12S	TB80130-116	1
109	Fuse Panel "3" to Terminal Strip "9"	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	249
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
110	MC50 "2" to Main Lower Frame Panel Relay Output Side	Wire 18ga - Yellow TXL	Waytek - WM18-4	EW18YL	7
		Ring Terminal (5/16-st) 14-16 - Heat Shrink	Waytek - 31905	ECRTHS1614BL516	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
111	MC50 "47" to Main Lower Frame Panel Relay Output Side	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	13
		Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
112	MC50 "48" to Main Lower Frame Panel Relay Output Side	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	11
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
113	MC50 "49" to Main Lower Frame Panel Relay Output Side	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	11
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
114	MC50 "50" to Main Lower Frame Panel Relay Output Side	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	11
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
115	MC50 "8" to Terminal Strip "2"	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	13
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
116	MC50 "9" to Terminal Strip "1"	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	13
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
117	Terminal Strip "8" to Oil Cooler Fan Controller Red Signal Wire	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	12
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
118	Ground Bar to Oil Cooler Fan Controller Black Signal Ground Wire	Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	47
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPYNY2218RD	1
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
119	Main Relay, Input side to 70 Amp Fan Fuse	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	34
		Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	1
		Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	1
120	70 Amp Fan Fuse to Fan Controller 10ga Red Power Wire	Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	4
		Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	1
		Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210I0	1
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	34

# Wiring 121-145

121	Black wire from Ground Bar to Fan 1 Plug Socket "2" joining Fan 1 Blue Wire into Socket "1"	Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	2
		Deutsch WP-25 Wedge for Plug	Deutsch - WP-25	TB80130-86P-2	1
		Deutsch DTP04-2P-EE01 Female Receptacle, Shrink	Deutsch - DTP04-2P-EE01	TB80130-83P-2-EE01	1
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	1
		Wire 12ga - Black TXL	Waytek - WM12-0	EW12BK	65
122	Fan 1 Green Wire to Fan 1 Plug "2" and Blue Wire to Fan 1 Plug "1"	Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	2
		Deutsch WP-25 Wedge for Plug	Deutsch - WP-25	TB80130-86P-2	1
		Deutsch DTP06-2S-EE01 Male Plug, Shrink Boot	Deutsch - DTP06-2S-EE01	TB80130-85P-2-EE01	1
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	1
		Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
123	Black wire from Ground Bar to Fan 2 Plug Socket "2" joining Fan 2 Blue/White Wire into Socket "1"	Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	2
		Deutsch WP-25 Wedge for Plug	Deutsch - WP-25	TB80130-86P-2	1
		Deutsch DTP04-2P-EE01 Female Receptacle, Shrink	Deutsch - DTP04-2P-EE01	TB80130-83P-2-EE01	1
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	1
		Wire 12ga - Black TXL	Waytek - WM12-0	EW12BK	81
		Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	2
124	Fan 2 Green Wire to Fan 2 Plug "2" and Blue/White Wire to Fan 2 Plug "1"	Deutsch WP-25 Wedge for Plug	Deutsch - WP-25	TB80130-86P-2	1
		Deutsch DTP06-2S-EE01 Male Plug, Shrink Boot	Deutsch - DTP06-2S-EE01	TB80130-85P-2-EE01	1
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
125	Ground Bar to Main Relay Right side of Coil	Ring Terminal (10 Stud) 14-16 - Vinyl	Waytek - 31588	ECRTV11614BL10	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	12
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
126	Ground Bar to MC50 "1"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	6
127	MC50 "41" to Terminal Strip "8"	Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Sealed Fuse Holder 6" 14 Ga ATM/MINI	Waytek - 46277	TB80130-31-ATM	1
128	MC50 "14" to Terminal Strip "3"	Fuse, 2A Mini ATM Gray 12V	Waytek - 47425	TB66145-2A	1
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
129	MC50 "15" to Terminal Strip "5"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	14
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
130	MC50 "16" to Terminal Strip "7"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Blue TXL	Waytek - WM18-6	EW18BL	14
131	Fuse Panel "5" to Terminal Strip "6"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
132	Fuse Panel "4" to Terminal Strip "4"	Wire 18ga - Blue TXL	Waytek - WM18-6	EW18BL	8
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
133	Fuse Panel "7" to Fuse Panel "7-30", Back Up	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	3.5
134	Fuse Panel "9" to Fuse Panel "9-30", Head Lights	Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	2
		Wire 14ga - Red TXL	Waytek - WM14-2	EW14RD	3.5
135	MC50 "40" to Fuse Panel "9-86", Head Lights	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	17
136	MC50 "39" to Fuse Panel "7-86", Back Up	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	18
137	MC50 "6" to Fuse Panel "8", Elevator Down	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	17
138	Ground Bar to Fuse Panel "8-85", Back Up	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	14
139	Ground Bar to Fuse Panel "10-85", Head Lights	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	15
140	Main Relay, Output side to Fuse Panel Input	Lug Copper 6 Ga. (5/16 stud)	Waytek - 36072	ECCLNI06-516	1
		Lug Copper 6 Ga. (10 stud)	Waytek - 34000	ECCLNI06-10	1
		Wire 6ga - Red Battery Cable	Waytek - WZ6-2	EW6RD	15
141	MC50 "33" to Fuse Panel "1-86", Strobe	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	17.5
142	Fuse Panel "1" to Fuse Panel "1-30", Strobe	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	2
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	3.5
143	Ground Bar to Fuse Panel "2-85", Strobe	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	14.5
144	MC50 "32" to Oil Cooler Fan 2 Relay	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Female Terminal Delphi 12048074 Metri-Pack 150	Waytek - 31077	TB64575-57-5	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	16.5
145	MC50 "31" to Oil Cooler Fan 1 Relay	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Female Terminal Delphi 12048074 Metri-Pack 150	Waytek - 31077	TB64575-57-5	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	9

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146	Ground Bar to Oil Cooler Fan 2 Relay	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	14
		Connector 2, Female Delphi 12052641 Metri-Pack 150	Waytek - 38201	TB64575-57-6	1
		Cable Seal Delphi 15324973 Metri-Pack 150	Waytek - 39008	TB64575-57-4	2
147	Ground Bar to Oil Cooler Fan 1 Relay	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	14
		Connector 2, Female Delphi 12052641 Metri-Pack 150	Waytek - 38201	TB64575-57-6	1
		Cable Seal Delphi 15324973 Metri-Pack 150	Waytek - 39008	TB64575-57-4	2
148	Main Relay, Output side to Fan 2 relay	Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	2
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	5
149	Main Relay, Output side to Fan 1 relay	Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	2
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	4.5
150	Ground Bar and Fuse Panel "10-87" to Headlights Socket	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	1
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	2
		Deutsch W2P Wedge for Receptacle	Deutsch - W2P	TB80130-70	1
		Deutsch DT04-2P-E008 Female Receptacle	Deutsch - DT04-2P-E008	TB80130-69-E008	1
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	1
		SIOOW Service Cord 14 Ga. 2 Conductor	Waytek - SJ14-2	TB80130-101-14-2	287
151	Headlight Plug "1" to 6 Pin Plug "5"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch W6S-P012 Wedge for Plug	Deutsch - W6S-P012	TB80575-124-P012	1
		Deutsch DT06-6S-EP11 Male Plug	Deutsch - DT06-6S-EP11	TB80575-123-EP11	1
		Wire 14ga - Red TXL	Waytek - WM14-2	EW14RD	6
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
152	Headlight Plug "2" to 6 Pin Plug "6"	Wire 14ga - Red TXL	Waytek - WM14-2	EW14RD	6
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
153	Left Steer Cylinder Transducer to Blue - Ground Bar, Brown - Terminal Strip "4", White - Terminal Strip "5"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	2
		Heat Shrink Tubing Red	Cable Ties - HS359-S100-RD	ECHS-0.25-RD	2
		Female Cordset 4 Socket M12 x 10 Meter Straight	IFM - EVC003	TB66213-M12F-4-10M-ST	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
154	Right Steer Cylinder Transducer to Blue - Ground Bar, Brown - Terminal Strip "6", White - Terminal Strip "7"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	2
		Heat Shrink Tubing Blue	Cable Ties - HS359-S100-BL	ECHS-0.25-BL	2
		Female Cordset 4 Socket M12 x 5 Meter Straight	IFM - EVC002	TB66213-M12F-4-5M-ST	1
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	3
155	Steering Encoder Plug White wire "1", Red Wire "3", Black Wire "4" to White - Terminal Strip "3", Red - Terminal Strip "2", Black Terminal Strip "1"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Heat Shrink Tubing Violet	Cable Ties - HS359-S100-VT	ECHS-0.25-VT	2
		Wire 16 Ga 3 Cond Shielded	Newark - 88K7190	TB80130-3-16S	169
155a	Encoder Receptacle, Wedge, and Sealing Plug	Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Deutsch W4P Wedge for Receptacle	Deutsch - W4P	TB80130-84	1
		Deutsch DT04-4P-E008 Female Receptacle Shrink	Deutsch - DT04-4P-E008	TB80130-83-E008	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
156	Right Wheel Motor 12v to Black - Ground Bar, White - MC50 "38"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch W2S-P012 Wedge for Plug	Deutsch - W2S-P012	TB80130-26-P012	1
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Heat Shrink Tubing Orange	Cable Ties - HS359-S100-OR	ECHS-0.25-OR	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	62
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
157	Left Wheel Motor 12v to Black - Ground Bar, White - MC50 "37"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch W2S-P012 Wedge for Plug	Deutsch - W2S-P012	TB80130-26-P012	1
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Heat Shrink Tubing Brown	Cable Ties - HS359-S100-BR	ECHS-0.25-BR	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	164
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	2
158	Right Wheel Motor Control Plug to Red - Terminal Strip "2", Black Terminal Strip "1", Green - MC50 "24", Orange - MC50 "25", Blue - MC50 "28"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	8
		Deutsch WM-6S Wedge for Plug	Deutsch - WM-6S	TB80130-72	1
		Deutsch DTM06-6S-EE03 Male Plug Shrink Boot	Deutsch - DTM06-6S-EE03	TB80130-71-EE03	1
		Heat Shrink Tubing Red	Cable Ties - HS359-S100-RD	ECHS-0.25-RD	2
		Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	1
		Wire 22 Ga 6 Cond Shielded Alpha Wire	Newark - 88K1337	TB80130-6-22S	54
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	2
159	Left Wheel Motor Control Plug to Red - Terminal Strip "2", Black Terminal Strip "1", Green - MC50 "18", Orange - MC50 "19", Blue - MC50 "27"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	8
		Deutsch WM-6S Wedge for Plug	Deutsch - WM-6S	TB80130-72	1
		Deutsch DTM06-6S-EE03 Male Plug Shrink Boot	Deutsch - DTM06-6S-EE03	TB80130-71-EE03	1
		Heat Shrink Tubing Blue	Cable Ties - HS359-S100-BL	ECHS-0.25-BL	2
		Plug, Deutsch Sealing Size 20	Deutsch - 0413-204-2005	TB80130-64	1
		Wire 22 Ga 6 Cond Shielded Alpha Wire	Newark - 88K1337	TB80130-6-22S	175
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
160	Fuel Tank Indicator to Black - Ground Bar, White MC50 "29"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Ring Terminal (10-st) 14-16 - Heat Shrink	Waytek - 31802	ECRTHS1614BL10	2
		Heat Shrink Tubing Green	Cable Ties - HS359-S100-GR	ECHS-0.25-GR	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	71

# Wiring 161-510

161	Backup Alarm and Lights Socket, White "1", Black, "2" to Black - Ground Bar, White - Fuse Panel "8-87"	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY16148L	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203P	2
		Deutsch W2P Wedge for Receptacle	Deutsch - W2P	TB80130-70	1
		Deutsch DT04-2P-E008 Female Receptacle	Deutsch - DT04-2P-E008	TB80130-69-E008	1
162	Backup Alarm and Lights Plug "1" to 8 Pin Buss Connector "2"	Heat Shrink Tubing Yellow	Cable Ties - HS359-S100-YL	ECHS-0.25-YL	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	133
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch W85 Wedge for Plug	Deutsch - W85	TB80130-54	1
		Deutsch DT06-08SA-E008 Male Plug	Deutsch - DT06-08SA-E008	TB80130-53-E008	1
163	Backup Alarm and Lights Plug "2" to 8 Pin Buss Connector "4"	Heat Shrink Tubing Yellow	Cable Ties - HS359-S100-YL	ECHS-0.25-YL	2
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	12
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	12
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
164	8 Pin Buss "8" to Backup Power Socket "A"	Deutsch W35-P012 Wedge for Plug, Green	Deutsch - W35-P012	TB80130-90-P012	1
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	12
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	12
165	8 Pin Buss "6" to Backup Power Socket "B"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	12
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Quick Disconnect Male 22-18 HS Red (1/4 spade)	Waytek - 30918	ECCQDMHS2218RD14	1
		Wire 18ga - Blue TXL	Waytek - WM18-6	EW18BL	6
166	Backup Power Socket "C" to Radar Spade Connector	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Quick Disconnect Male 22-18 HS Red (1/4 spade)	Waytek - 30918	ECCQDMHS2218RD14	1
		Wire 18ga - Blue TXL	Waytek - WM18-6	EW18BL	6
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Light Back Up Plug T-630	Wholesale - TPLT1408	TB80985-02	1
167	8 Pin Buss "7" - Red Wire, "5" - White wire from Right Backup Light Plug	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Light Back Up Plug T-630	Wholesale - TPLT1408	TB80985-02	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
168	8 Pin Buss "1" - Red Wire, "3" - White wire from Left Backup Light Plug	Light Back Up Plug T-630	Wholesale - TPLT1408	TB80985-02	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
169	6 Pin Buss "4" - Red Wire, "2" - White wire from Right Drive Light Plug	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
170	6 Pin Buss "3" - Red Wire, "1" - White wire from Left Drive Light Plug	Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Headlight, LED 7" 36 Watt	Wholesale - TUYITAMOTOR	TB66130-40-36W	1
171	White Wire - Fuse "6" and Black Wire - MC50 "7" to Park Brake Plug	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		MetriPack 280 Female Terminal 12077411	Waytek - 30037	TB80604-1-MPT	2
		Metri-Pack 280 Series Cable Seal, Green	Waytek - 39000	TB66145-CSGR	2
		MetriPack TPA 280 Series 15300014 2 Contact Blue	Waytek - 38035	TB80604-1-TPA	1
172	White Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "9" and Black Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "12"	MetriPack 280 Female Body 15300027	Waytek - 38063	TB80604-1-MPB	1
		Heat Shrink Tubing Clear	Cable Ties - HS359-S100-CL	ECHS-0.25-CL	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	41
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
173	White Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "8" and Black Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "11"	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	28
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	28
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
174	White Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "4" and Black Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "1"	Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
175	White Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "7" and Black Wire - Strobe, Rear Bumper Strobe 2-6 Pin Buss Plug "10"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
176	White Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "9" and Black Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "12"	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	28
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	28
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
177	White Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "8" and Black Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "11"	Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	28
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
178	White Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "4" and Black Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "1"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
179	White Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "7" and Black Wire - Strobe, Front Bumper Strobe 2-6 Pin Buss Plug "10"	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS16148L	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	57
180	Ground Bar - Strobe 2-3 Pin Buss Plug, Black "6"	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY16148L	1
		Wire 14ga - Black TXL	Waytek - WM14-0	EW14BK	5.5
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Red	Wholesale - TPBC4/0	TB80653-1-4R	61
501	Main Start Battery "+" to Starter "+"	Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Red	Wholesale - TPBC4/0	TB80653-1-4R	61
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	36
		Lug Copper 2/0 Ga. (3/8" stud)	Waytek - 36359	ECCLNI2/0-0.375	2
502	Main Start Battery "-" to Disconnect	2/0 Battery Cable, Red	Wholesale - TPBC2/0	TB80653-1R	47
		Lug Copper 2/0 Ga. (3/8" stud)	Waytek - 36359	ECCLNI2/0-0.375	2
		2/0 Battery Cable, Black	Wholesale - TPBC2/0	TB80653-1	38
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	65
503	Aux Battery "+" to Fuse Group	Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	65
		Lug Copper 2/0 Ga. (3/8" stud)	Waytek - 36359	ECCLNI2/0-0.375	2
		2/0 Battery Cable, Black	Wholesale - TPBC2/0	TB80653-1	38
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
504	Aux Battery "-" to Disconnect	4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	30
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	30
		Lug Copper 2/0 Ga. (3/8" stud)	Waytek - 36359	ECCLNI2/0-0.375	2
		2/0 Battery Cable, Black	Wholesale - TPBC2/0	TB80653-1	38
505	Switched side of Disconnect to Starter "-"	Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	65
		Lug Copper 2/0 Ga. (3/8" stud)	Waytek - 36359	ECCLNI2/0-0.375	2
		2/0 Battery Cable, Black	Wholesale - TPBC2/0	TB80653-1	38
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
506	Switched side of Disconnect to Engine Base Ground	4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	30
		Lug Copper 4/0 Ga. (3/8" stud)	Waytek - 36452	ECCLNI4/0-0.375	2
		4/0 Battery Cable, Black	Wholesale - TPBC4/0	TB80653-1-4B	30
		Lug Copper 2/0 Ga. (3/8" stud)	Waytek - 36359	ECCLNI2/0-0.375	2
		2/0 Battery Cable, Black	Wholesale - TPBC2/0	TB80653-1	38
507	Alternator to "+" side of Battery Isolator	Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	2
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	102
		Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	2
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	8
		Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	2
508	"+" Battery Isolator to upper 300A Fuse	Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	9
		Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	1
		Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	1
		Lug Copper 1ga. 3/8 Stud	Waytek - 36012	ECCLNI01-38	1
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	49
509	Battery Isolator to lower 300A Fuse	Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	2
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	9
		Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	1
		Lug Copper 1ga. 3/8 Stud	Waytek - 36012	ECCLNI01-38	1
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	49

# Wiring 511-554

511	Lower 300A Fuse to Start Battery "+"	Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	1
		Lug Copper 1ga. 3/8 Stud	Waytek - 36012	ECCLNI01-38	1
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	44
512	Switched side of Disconnect to Power Hold Relay	Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
		Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	1
		Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	13
513	70A Fuse to Disconnect	Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
		Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	1
		Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	15
514	Power Hold Relay to 70A Fuse	Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
		Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
		Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	8
515	Frame Ground "-" to Ground Distribution	Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	2
		Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	48
516	Start Battery "+" to Lower 300A Fuse above Disconnect	Lug Copper 1ga. 5/16 Stud	Waytek - 36011	ECCLNI01-516	1
		Lug Copper 1ga. 3/8 Stud	Waytek - 36012	ECCLNI01-38	1
		Wire 1ga - Red Battery Cable	Waytek - WZ1-2	EW1RD	42
517	300A to 150A Fuse above Disconnect	Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	2
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	8
		Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	2
518	300A Fuse to Door Pump Relay	Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	24
		Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	2
		Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	13
519	Ground Distribution to Engine Door Pump Ground	Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	4
		Lug Copper 4 Ga. (1/4 stud)	Waytek - 36061	ECCLNI04-14	1
520	Engine Door Pump Solenoid Power Wire	Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	4
		Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
521	150A Fuse to Grid Heater Relay	Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	94
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
		Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
522	Midi Fuse 80A to Lower Main Frame, Red	Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	1
		Battery Cable 4 Ga. 2 Conductor-Blk w/Red Stripe	Waytek - WF4-2	TB80130-101-4-2	300
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
523	Engine Base Ground to Lower Main Frame Ground, Black	Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	1
		Battery Cable 4 Ga. 2 Conductor-Blk w/Red Stripe	Waytek - WF4-2	TB80130-101-4-2	300
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
524	Midi Fuse 80A to Engine Box Solenoid, Red	Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	99
		Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	1
525	Engine Base Ground to Engine Box Ground, Black	Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	75
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
		Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLNI04-516	1
526	Midi Fuse 80A to Cab, Red	Battery Cable 4 Ga. 2 Conductor-Blk w/Red Stripe	Waytek - WF4-2	TB80130-101-4-2	300
		Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	1
		Battery Cable 4 Ga. 2 Conductor-Blk w/Red Stripe	Waytek - WF4-2	TB80130-101-4-2	300
527	Engine Base Ground to Cab Ground, Black	Lug Copper 4 Ga. (1/4 stud)	Waytek - 36061	ECCLNI04-14	1
		Lug Copper 4ga. 3/8 Stud	Waytek - 36063	ECCLNI04-38	1
		Wire 4ga - Black Battery Cable	Waytek - WB4-0	EW4BK	88
528	Engine Base Ground to Grid Heater Ground, Black	Spade Terminal (8st) 14-16 Heat Shrink	Waytek - 31924	ECSTHS1614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	7
		Wire 14ga - Black TXL	Waytek - WM14-0	EW14BK	7
541	Battery Isolator "-" to Ground Distribution	Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	2
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	9
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
543	Ladder side Sensor Wire with Plug. Brown wire "1", Blue Wire "2", Black Wire "3", 194"	Deutsch W45-P012 Wedge for Plug	Deutsch - W45-P012	TB80130-86-P012	1
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret Plug, Deutsch Sealing Size 12-16	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Female Cordset 4 Socket M12 x 2 Meter 90Deg	IFM - EVC004	TB66213-M12F-4-2M	1
		Spade Terminal (8-st) 18-22 Heat Shrink	Waytek - 30924	ECSTHS2218RD08	1
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	2
544	Ladder Sensor Socket, Brown wire "1", Blue Wire "2", Black wire "3" Side to Hydraulic Tank, Brown wire - Butt Connector for left Relay "87", Blue wire - to Ground Distribution, Black wire to Butt Connector for Right Relay "86"	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	3
		Deutsch W4P Wedge for Receptacle	Deutsch - W4P	TB80130-84	1
		Deutsch DT04-4P-E008 Female Receptacle Shrink Plug, Deutsch Sealing Size 12-16	Deutsch - DT04-4P-E008	TB80130-83-E008	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Tyco Terminal 280756-4 (AWG 12-10) .375 Spade	Newark - 95C1520	TB80130-15	1
		Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	1
545	Bottom Midi 30A Fuse to Engine Electrical Box Relay for Fuse Block	Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	156
		Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
		Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	1
546	Midi 60A Fuse to JCB Connector "2"	Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	140
		Ring Terminal (10-st) 14-16 - Heat Shrink	Waytek - 31802	ECRTHS1614BL10	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
551	Power Hold Relay Coil to "C" JCB Power Hold Relay/Fuse Connector	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	114
		Spade Terminal (8st) 14-16 Heat Shrink	Waytek - 31924	ECSTHS1614BL08	1
		Ring Terminal (10-st) 14-16 - Heat Shrink	Waytek - 31802	ECRTHS1614BL10	1
552	Ground Distribution to Power Hold Relay Coil	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	30
		Ring Terminal (1/4 stud) 10-12 - Heat Shrink	Waytek - 32803	ECRTHS1210YL14	1
		Spade Terminal (8-st) 10-12 Heat Shrink	Waytek - 32924	ECSTHS1210YL08	1
553	Vibrator Relay to Right Vibrator	Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV1210YL10	2
		Cord Extension 12/3 - 50 ft Roll	Amazon - 74050	EW12-3YL	216
		Ring Terminal (1/4 stud) 10-12 - Heat Shrink	Waytek - 32803	ECRTHS1210YL14	1
554	Vibrator Relay to Left Vibrator	Spade Terminal (8-st) 10-12 Heat Shrink	Waytek - 32924	ECSTHS1210YL08	1
		Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV1210YL10	2
		Cord Extension 12/3 - 50 ft Roll	Amazon - 74050	EW12-3YL	228

# Wiring 558-580

Pendant Plug	Door Pump Pendant Plug	Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
	Red wire, Pin 1	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
	White Wire to Pin 2	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
	Green wire, Pin 3	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
	Black wire, Pin 4	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
Door Pump	Door Pump Receptacle	Deutsch DT04-4P-E008 Female Receptacle Shrink	Deutsch - DT04-4P-E008	TB80130-83-E008	1
		Deutsch W4P Wedge for Receptacle	Deutsch - W4P	TB80130-84	1
558	Pin 1 to Door Pump Solenoid Energize	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	1
		Ring Terminal (10-st) 18-22 - Heat Shrink	Waytek - 30802	ECRTHS2218RD10	1
		Pendant Cord - Red			
559	Pin 3 to Door Pump Input Power	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	1
		Ring Terminal (5/16-st) 22-18 - Heat Shrink	Waytek - 30905	ECRTHS2218RD516	1
		Pendant Cord - Green			
560	Pin 4 to Left Coil Pin 1	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Pendant Cord - Black			
561	Left Relay #86 to Door Pump Receptacle Pin 2	Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	1
		Pendant Cord - White			
Pump Relays	Black Wires #85, to Ground Distribution	Spade Terminal (8-st) 10-12 Heat Shrink	Waytek - 32924	ECSTHS1210YL08	2
	Red Wires #30, to Midi 60A	Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	2
562	Right Pump Relay to Right Pump Coil Pin 1	Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Deutsch W2S-P012 Wedge for Plug	Deutsch - W2S-P012	TB80130-26-P012	1
		Wire 18ga - White TXL	Waytek - WM18-9	EW18WT	24
563	Ground Distribution to Right Engine Door Pump Coil Pin 2	Spade Terminal (8-st) 18-22 Heat Shrink	Waytek - 30924	ECSTHS2218RD08	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	30
564	Ground Distribution to Left Engine Door Pump Coil Pin 2	Spade Terminal (8-st) 18-22 Heat Shrink	Waytek - 30924	ECSTHS2218RD08	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Deutsch W2S-P012 Wedge for Plug	Deutsch - W2S-P012	TB80130-26-P012	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	30
565	Ground Distribution to Vibrator Relay	Spade Terminal (8st) 14-16 Heat Shrink	Waytek - 31924	ECSTHS1614BL08	1
		Female Terminal Delphi 12048074 Metri-Pack 150	Waytek - 31077	TB64575-57-5	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	18
566	Vibrator Relay to Engine MC50 Pin 40	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Connector 2, Female Delphi 12052641 Metri-Pack 150	Waytek - 38201	TB64575-57-6	1
		Female Terminal Delphi 12048074 Metri-Pack 150	Waytek - 31077	TB64575-57-5	1
		Cable Seal Delphi 15324973 Metri-Pack 150	Waytek - 39008	TB64575-57-4	2
		TPA Delphi 12052634 Metri-Pack 150 2 Contacts	Waytek - 38202	TB64575-57-7	1
		Wire 18ga - Blue w/White Stripe TXL	TieWraps.Com - STW-18 BLWT	EW18BLWT	96
575	CAN "B" Data Link 4 Module Top Right Green port to MC50 Male Plug Pins 3 & 4	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	2
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	41
576	CAN "B" Data Link 4 Module Bottom Right Green port to Hydraulic Tank Level & Temp Sensor	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	5
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	64
577	12v Ground Bar and Fuse F10 to Hydraulic Tank Level & Temp Sensor	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Heat Shrink Tubing Blue	Cable Ties - HS359-S100-BL	ECHS-0.25-BL	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	92
578	CAN "B" Data Link 4 Module Bottom Left Blue to PVG 100 Auger Valve	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	1
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	5
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	29
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		Type CR, 18/2 Canbus Wire	Northwire - FJ1939182-002	TB80130-101-18-2	14.5
579	12v Ground Bar and Fuse F9 to PVG 100 Auger Valve	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Heat Shrink Tubing White	Cable Ties - HS359-S100-WT	ECHS-0.25-WT	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	41
580	PVG 100 Auger Valve to PVG 32 Valve	Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	2
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	4
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		Type CR, 18/2 Canbus Wire	Northwire - FJ1939182-002	TB80130-101-18-2	65

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581	PVG 100 Auger Valve to PVG 32 Valve	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	4
		Heat Shrink Tubing White	Cable Ties - HS359-S100-WT	ECHS-0.25-WT	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	65
582	CAN "A" Data Link 5 Module Top Left Green port to MC50 Male Plug Pins 20 & 21	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	3
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	2
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
583	CAN "A" Data Link 5 Module Middle Right Green port to JCB HDP26-24-29SE Pins 27, 28, & 29	J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-25	34
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	4
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	2
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-25	19
584	CAN "A" Data Link 5 Module Middle Left Green port to JCB Test Port C, D, & E	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	3
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	3
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
585	CAN "B" Data Link 5 Module Top Left Blue port to "B" Bulkhead adaptor at Cab	J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-25	34
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	2
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	6
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
586	CAN "A" Data Link 5 Module Bottom Left Blue port and Ground to "A" Bulkhead adaptor at Cab	Type CR, 18/2 Canbus Wire	Northwire - FJ1939182-002	TB80130-101-18-2	300
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	2
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	6
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
587	PVG 32 Valve and Ground Wire to CAN "B" Data Link 4 Module Bottom Left Blue	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	29
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
		Type CR, 18/2 Canbus Wire	Northwire - FJ1939182-002	TB80130-101-18-2	300
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	1
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
601	Engine Panel Controller Power Relay, Input side to JCB Power Hold Connector "G"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	5
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Wire 18ga - Gray TXL	Waytek - WM18-8	EW18GY	50
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		Type CR, 18/2 Canbus Wire	Northwire - FJ1939182-002	TB80130-101-18-2	300
602	Engine Panel Controller Power Relay, Input side to JCB Power Hold Connector "E"	Sealed Fuse Holder 12" 10 Ga ATC/ATO	Waytek - 46238	TB80130-31-10GA	1
		Fuse LED ATC 30 Amp-Green	Waytek - 46287	TB80652-11	1
		Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	1
		Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210	1
		Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
603	Engine Panel, Fuse Panel Relay "87" to Fuse Panel Stud	Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	24
		Sealed Fuse Holder 12" 10 Ga ATC/ATO	Waytek - 46238	TB80130-31-10GA	1
		Fuse LED ATC 30 Amp-Green	Waytek - 46287	TB80652-11	1
		Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	1
		Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210	1
604	Engine Panel, Fuse Panel Jumper to second Stud	Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	23
605	Engine Panel Terminal Strip "3" to Fuse Panel Relay "86"	Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	1
		Tyco Terminal 280756-4 (AWG 12-10) .375 Spade	Newark - 95C1520	TB80130-15	1
606	Engine Panel Ground to Fuse Panel Relay "85"	Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	7
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
607	Engine Panel Ground to JCB Test Port "A"	Tyco Terminal 42281-1 (AWG 18-14) ,250 Spade	Newark - 33B9009	TB80130-14	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	7
608	Engine Panel Ground to MC50 "1"	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Tyco Terminal 42281-1 (AWG 18-14) ,250 Spade	Newark - 33B9009	TB80130-14	1
609	Engine Panel MC50 "11" to Engine Connector "9"	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	13
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
610	Engine Panel MC50 "2" to Main Engine Panel Relay Output Side	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	12
610	Engine Panel MC50 "2" to Main Engine Panel Relay Output Side	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
610	Engine Panel MC50 "2" to Main Engine Panel Relay Output Side	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	9.5
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
610	Engine Panel MC50 "2" to Main Engine Panel Relay Output Side	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Wire 18ga - Black w/White Stripe TXL	TieWraps.Com - STW-18 BKWT	EW18BKWT	41
610	Engine Panel MC50 "2" to Main Engine Panel Relay Output Side	Ring Terminal (5/16-st) 14-16 - Heat Shrink	Waytek - 31905	ECRTHS1614BL516	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
610	Engine Panel MC50 "2" to Main Engine Panel Relay Output Side	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	11

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611	Engine Panel MC50 "47" to Main Engine Panel Relay Output Side	Ring Terminal (5/16 stud) 10-12 - Heat Shrink	Waytek - 32804	ECRTHS1210YL516	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	10
612	Engine Panel MC50 "48" to Main Engine Panel Relay Output Side	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	10
613	Engine Panel MC50 "49" to Main Engine Panel Relay Output Side	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	10
614	Engine Panel MC50 "50" to Main Engine Panel Relay Output Side	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	1
615	Engine Panel MC50 "18" to Lower 300A Fuse, Battery Side (Wire 521)	Ring Terminal (5/16-st) 14-16 - Heat Shrink	Waytek - 31905	ECRTHS1614BL516	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Blue TXL	Waytek - WM18-6	EW18BL	108
616	Power Hold Relay Connector "T" to Engine Connector "8"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 16ga - Brown TXL	Waytek - WM16-1	EW16BR	41.5
617	Engine Panel Ground to Main Engine Panel Relay Coil	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Ring Terminal (10-st) 14-16 - Heat Shrink	Waytek - 31802	ECRTHS1614BL10	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	12
618	Engine Panel Relay Coil to Fuse Panel "F19"	Ring Terminal (10-st) 14-16 - Heat Shrink	Waytek - 31802	ECRTHS1614BL10	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	25
619	Engine Panel Terminal Strip "4" to Fuse Panel "F18"	Spade Terminal (8-st) 14-16 Vinyl Blue	Waytek - 31524	ECSTVI1614BL08	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	11
620	Engine Panel E-Stop to Fuse Panel "F7"	Spade Terminal (8-st) 22-18 Vinyl Red	Waytek - 30524	ECSTVI2218RD08	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	8
621	Engine Panel E-Stop to MC50 "6"	Spade Terminal (8-st) 22-18 Vinyl Red	Waytek - 30524	ECSTVI2218RD08	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	9.5
622	Engine Panel Terminal Strip "6" to Engine Plug "10"	Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTVI1614BL08	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 14ga - Red TXL	Waytek - WM14-2	EW14RD	53
623	Engine Panel E-Stop to Engine Plug "6"	Spade Terminal (8-st) 22-18 Vinyl Red	Waytek - 30524	ECSTVI2218RD08	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Orange TXL	Waytek - WM18-3	EW18OR	44
624	Engine Panel JCB Test Port Fuse Panel "F6"	Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	1
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	10
625	Engine Panel Fuse Panel "F17" Black Wire to Lower Frame Main Relay Coil Left Side	Ring Terminal (10stud) 10-12 - Heat Shrink	Waytek - 32802	ECRTHS1210YL10	1
		Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	1
		Cord Extension 12/3 - 50 ft Roll	Amazon - 74050	EW12-3YL	300
626	Engine Panel Grid Heater Relay to Grid Heater "+"	Lug Copper 4 Ga. (1/4 stud)	Waytek - 36061	ECCLNI04-14	1
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	1
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	38
627	Engine Panel Ground to Air Valve "2" Air Pressure to Brake Valve	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch W25-P012 Wedge for Plug	Deutsch - W25-P012	TB80130-26-P012	1
		Deutsch DT06-25-EP11 Male Plug	Deutsch - DT06-25-EP11	TB80130-25-EP11	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	9
628	Engine Panel MC50 "39" to Air Valve "1" Air Pressure to Brake Valve	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
		Wire 18ga - Red w/Black Stripe TXL	TieWraps.Com - STW-18 RDBK	EW18RDBK	10
629	Engine Panel Ground to Air Valve "2" Horn	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch W25-P012 Wedge for Plug	Deutsch - W25-P012	TB80130-26-P012	1
		Deutsch DT06-25-EP11 Male Plug	Deutsch - DT06-25-EP11	TB80130-25-EP11	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	9
630	Engine Panel MC50 "44" to Air Valve "1" Horn	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		Wire 18ga - Orange w/Black Stripe TXL	TieWraps.Com - STW-18 ORBK	EW18ORBK	10
631	Engine Panel Ground to Lift Pump "2"	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch W25-P012 Wedge for Plug	Deutsch - W25-P012	TB80130-26-P012	1
		Deutsch DT06-25-EP11 Male Plug	Deutsch - DT06-25-EP11	TB80130-25-EP11	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	103
632	Power Hold Relay Connector "L" to Lift Pump "1"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	97
633	Engine Panel Grid Heater Relay Coil "2" to Engine Plug "25"	Connector, Cable Seal (Amp 281934-2)	Waytek - 38277	TB66251	1
		Connector, Female Terminal (Amp 282110-1)	Waytek - 38271	TB66252	1
		Connector, Female Body (Amp 282080-1)	Waytek - 38280	TB66250	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Orange w/Black Stripe TXL	TieWraps.Com - STW-18 ORBK	EW18ORBK	36
634	Engine Panel Grid Heater Relay Coil "1" to Power Hold Relay "H"	Connector, Cable Seal (Amp 281934-2)	Waytek - 38277	TB66251	1
		Connector, Female Terminal (Amp 282110-1)	Waytek - 38271	TB66252	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Yellow TXL	Waytek - WM18-4	EW18YL	31
635	Power Hold Relay Connector "X" to Engine Connector "4"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
		Wire 14ga - Green TXL	Waytek - WM14-5	EW14GN	41.5

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636	Power Hold Relay Connector "S" to Engine Connector "26"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	41.5
637	Power Hold Relay Connector "P" to Engine Connector "24"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	2
		Wire 18ga - Tan TXL	Waytek - WM18-11	EW18TA	41.5
638	Power Hold Relay Connector "N" to Engine Connector "12"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Wire 18ga - Red w/Black Stripe TXL	TieWraps.Com - STW-18 RDBK	EW18RDBK	41.5
639	Power Hold Relay Connector "M" to Engine Connector "5"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Wire 18ga - Blue w/White Stripe TXL	TieWraps.Com - STW-18 BLWT	EW18BLWT	41.5
640	Engine Panel Ground to JCB Water in Fuel Sensor "C"	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Deutsch W35-P012 Wedge for Plug, Green	Deutsch - W35-P012	TB80130-90-P012	1
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	103
641	Power Hold Relay Connector "F" to JCB Water in Fuel Sensor "A"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Wire 18ga - Brown w/White Stripe TXL	TieWraps.Com - STW-18 BRWT	EW18BRWT	96
642	JCB Water in Fuel Sensor "B" to Engine Connector "11"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Wire 18ga - Green TXL	Waytek - WM18-5	EW18GN	118
643	Power Hold Relay Connector "B" to Engine Connector "1"	Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-2045	2
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	41.5
644	Engine Panel MC50 "43" to Engine Connector "7"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Wire 18ga - Violet TXL	Waytek - WM18-7	EW18VT	41
651	12v Ground Bar and Fuse F8 to Air Dryer	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	2
		Heat Shrink Tubing Violet	Cable Ties - HS359-S100-VT	ECHS-0.25-VT	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	115
652	12v Ground Bar and Connector Pin "37" to Transmission Pump Left Side	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Deutsch W25-P012 Wedge for Plug	Deutsch - W25-P012	TB80130-26-P012	1
		Heat Shrink Tubing Green	Cable Ties - HS359-S100-GR	ECHS-0.25-GR	2
653	12v Ground Bar and Connector Pin "38" to Transmission Pump Right Side	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	110
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Deutsch DT06-2S-EP11 Male Plug	Deutsch - DT06-2S-EP11	TB80130-25-EP11	1
		Deutsch W25-P012 Wedge for Plug	Deutsch - W25-P012	TB80130-26-P012	1
		Heat Shrink Tubing Yellow	Cable Ties - HS359-S100-YL	ECHS-0.25-YL	2
654	12v Ground Bar and Connector Pin "46" to Transmission Pump Center	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	97
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	2
		Deutsch DT06-2S Male Plug	Deutsch - DT06-2S	TB80130-25	1
		Deutsch W25C Keyed Wedge for Plug	Deutsch - W25C	TB80130-26C	1
		Heat Shrink Tubing Red	Cable Ties - HS359-S100-RD	ECHS-0.25-RD	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	109
655	12v Ground Bar and Connector Pin "28" to Transmission Pump Charge Filter	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	3
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch DTM06-2S-E007 Male Plug, Shrink	Deutsch - DTM06-2S-E007	TB80130-67-E007	1
		Deutsch WM-2S Wedge for Plug	Deutsch - WM-2S	TB80130-68	1
		Heat Shrink Tubing Clear	Cable Ties - HS359-S100-CL	ECHS-0.25-CL	2
656	Ground Bar to Engine Connector "3"	Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	60
		Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
657	Engine Door Sensor Socket. Engine Panel - Blue wire to Ground Bar, Brown Wire to Fuse Panel "F5", Black Wire to MC50 "12", Socket end - Blue wire to "3"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-203-12141	TB80130-2045	1
		Wire 10ga - Black GXL	Waytek - WL10-0	EW10BK	38
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
661	MC50 Connector Pin "8" to Deutsch 6 Pin Buss Connector "1"	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Female Cordset 4 Socket M12 x 2 Meter 90Deg	IFM - EVC004	TB66213-M12F-4-2M	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
662	MC50 Connector Pin "9" to Deutsch 6 Pin Buss Connector "3"	Deutsch DT06-6S-EP11 Male Plug	Deutsch - DT06-6S-EP11	TB80575-123-EP11	1
		Deutsch W65-P012 Wedge for Plug	Deutsch - W65-P012	TB80575-124-P012	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	16
663	Deutsch 6 Pin Buss Connector "2" - White Wire to Deutsch 12 Pin Buss Connector "12". 6 Pin Connector "4, Black Wire" to 12 Pin "9"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	4
		Deutsch DT06-12SA Male Plug	Deutsch - DT06-12SA	TB80130-115	1
		Deutsch W12S Wedge for Plug	Deutsch - W12S	TB80130-116	1
664	Deutsch 12 Pin Buss Connector "11" to Filter Pressure Transducer "B"	Heat Shrink Tubing Brown	Cable Ties - HS359-S100-BR	ECHS-0.25-BR	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	88
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
665	Deutsch 12 Pin Buss Connector "8" to Filter Pressure Transducer "A"	Packard Connector Female 12103881	Waytek - 31091	TB80130-41-3S	1
		3 Contact Packard Connector 12065287	McMaster - 829-12065287	TB80130-41-3	1
		Wire 18ga - White TXL	Waytek - WM18-9	EW18WT	14
665	Deutsch 12 Pin Buss Connector "8" to Filter Pressure Transducer "A"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Packard Connector Female 12103881	Waytek - 31091	TB80130-41-3S	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	14

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666	Filter Pressure Transducer "C" to MC50 Connector "5"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Packard Connector Female 12103881	Waytek - 31091	TB80130-41-35	1
		Wire 18ga - Green TXL	Waytek - WM18-5	EW18GN	82
667	Deutsch 12 Pin Buss Connector "10" to Charge Pressure Transducer "2"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Wire 18ga - White TXL	Waytek - WM18-9	EW18WT	15
668	Deutsch 12 Pin Buss Connector "7" to Charge Pressure Transducer "1"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	15
669	Charge Pressure Transducer "4" to MC50 Connector "17"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Brown w/White Stripe TXL	TieWraps.Com - STW-18 BRWT	EW18BRWT	83
670	Deutsch 12 Pin Buss Connector "3" to Aux Pressure Transducer "2"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Wire 18ga - White TXL	Waytek - WM18-9	EW18WT	16
671	Deutsch 12 Pin Buss Connector "6" to Aux Pressure Transducer "1"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	16
672	Aux Pressure Transducer "4" to MC50 Connector "15"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
673	Deutsch 12 Pin Buss Connector "2" to Transmission Forward Pressure Transducer "2"	Wire 18ga - Light Blue TXL	Waytek - WM18-16	EW18LB	84
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
674	Deutsch 12 Pin Buss Connector "5" to Transmission Forward Pressure Transducer "1"	Wire 18ga - White TXL	Waytek - WM18-9	EW18WT	17
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
675	Transmission Forward Pressure Transducer "4" to MC50 Connector "16"	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	17
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
676	Deutsch 12 Pin Buss Connector "1" to Transmission Reverse Pressure Transducer "2"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Orange TXL	Waytek - WM18-3	EW18OR	85
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
677	Deutsch 12 Pin Buss Connector "4" to Transmission Reverse Pressure Transducer "1"	Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Wire 18ga - White TXL	Waytek - WM18-9	EW18WT	18
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch W4S-P012 Wedge for Plug	Deutsch - W4S-P012	TB80130-86-P012	1
678	Transmission Reverse Pressure Transducer "4" to MC50 Connector "14"	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	18
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
679	Low Water Level Connector, Red Wire "A", White Wire "B", Black Wire "C" to Engine Panel. Red Wire to Buss 6 Pin Connector "6", Black Wire to Buss 6 Pin Connector "5", and White Wire to MC50 Connector "24"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Light Green TXL	Waytek - WM18-15	EW18LG	86
		Female Terminal Delphi 12048074 Metri-Pack 150	Waytek - 31077	TB64575-57-5	3
		Cable Seal Delphi 15324973 Metri-Pack 150	Waytek - 39008	TB64575-57-4	3
		TPA Delphi 12052845 Metri-Pack 150 3 Contacts	Waytek - 38205	TB64575-57-3	1
		Connector 3, Female Delphi 12110293 Metri-Pack 150	Waytek - 38204	TB64575-57-2	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
801	CAN "B" Bulkhead Connector to CAN "B" "Y" Connector Single End	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Heat Shrink Tubing Brown	Cable Ties - HS359-S100-BR	ECHS-0.25-BR	2
		Wire 16 Ga 3 Cond Shielded	Newark - 86K7190	TB80130-3-16S	79
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	1
802	CAN "A" Bulkhead Connector to CAN "A" "Y" Connector Single End	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	3
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	12
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
803	CAN "B" "Y" Connector "Y" End Green to Wiring Box Bulkhead "B" Connector	Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	3
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	12
804	CAN "A" "Y" Connector "Y" End Green to Wiring Box Bulkhead "A" Connector	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Deutsch Male Solid Pin 16, 16-20 Wire	Deutsch - 0460-202-16141	TB80130-203P	3
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
805	CAN "B" "Y" Connector "Y" End Blue to CAN Datalink Module Top Right Blue	J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	12
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	2
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	6
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	24

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806	CAN "A" "Y" Connector "Y" End Blue to CAN "A" "Y" Connector at Display Single End Blue	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	2
		Deutsch W3S-1939-P012 Wedge for Plug, Blue	Deutsch - W3S-1939-P012	TB80130-90-1939-P012	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	6
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	73
807	CAN "A" "Y" Connector at Display "Y" End Green to 6 & 7 on Display	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	2
808	CAN "B" Datalink Module Top Center Green to MC24 Pins 3 & 4	J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	31
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	2
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
809	CAN "B" Datalink Module Top Left Green to Display Pins 3 & 4	Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	12
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	2
810	CAN "B" Datalink Module Bottom Left Green to Left Joystick Pins 3 & 4	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	3
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	100
		Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
811	Black - 12v Ground Bar, White Fuse - "F19" to Left Joystick Black - "1", White - "2"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Heat Shrink Tubing Brown	Cable Ties - HS359-S100-BR	ECHS-0.25-BR	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	100
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
812	CAN "B" Datalink Module Bottom Center Green to Right Joystick Pins 3 & 4	Deutsch DT06-3S-EP11 Male Plug, Black, Seal, Ret	Deutsch - DT06-3S-EP11	TB80130-89-EP11	1
		Deutsch W3S-P012 Wedge for Plug, Green	Deutsch - W3S-P012	TB80130-90-P012	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	5
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	2
		J1939/11 18/2 Canbus Cable Shielded No Filler	Waytek - CB23-00065	TB80130-101-18-2S	100
813	Black - 12v Ground Bar, White Fuse - "F20" to Left Joystick Black - "1", White - "2"	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	2
		Heat Shrink Tubing Green	Cable Ties - HS359-S100-GR	ECHS-0.25-GR	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	100
820	Black Wire in 12ga Extension, Cab Panel Fuse/Relay Panel "8" to Engine Panel Terminal Strip "3". White Wire Cab Panel Deutsch Buss "6" to Engine Panel E-Stop	Spade Terminal (8-st) 10-12 Heat Shrink	Waytek - 32924	ECSTHS1210YL08	2
		Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	1
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch W6S-P012 Wedge for Plug	Deutsch - W6S-P012	TB80575-124-P012	1
		Deutsch DT06-6S-EP11 Male Plug	Deutsch - DT06-6S-EP11	TB80575-123-EP11	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	3
821	Main Relay Input side to Battery side of Circuit Breaker	Cord Extension 12/3 - 50 ft Roll	Amazon - 74050	EW12-3YL	300
		Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV11210YL10	1
		Ring Terminal (5/16s) 10-12 - Vinyl	Waytek - 32504	ECRTV11210YL516	1
822	Aux side of Circuit Breaker to Upper Instrument Panel Key Switch "4"	Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	3
		Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV11210YL10	2
822-1	Aux side of Circuit Breaker to Upper Instrument Panel Key Switch Relay "30"	Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	142
		Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV11210YL10	2
823	Ground Bar to Upper Instrument Panel Terminal Strip "1"	Tyco Terminal 280755-4 (AWG 10-7) .375 Spade	Newark - 07H2888	TB80130-15-1	1
		Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	142
		Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
824	Fuse/Relay Panel "10-87" to Upper Instrument Panel Terminal Strip "5", Work Lights	Spade Terminal (8-st) 10-12 Vinyl Yellow	Waytek - 32524	ECSTV11210YL08	1
		Wire 12ga - Black TXL	Waytek - WM12-0	EW12BK	132
		Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	1
825	6 Pin Deutsch Buss Connector "1" to Upper Instrument Panel E-Stop	Spade Terminal (8-st) 10-12 Vinyl Yellow	Waytek - 32524	ECSTV11210YL08	1
		Wire 12ga - Yellow TXL	Waytek - WM12-4	EW12YL	141
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
826	Mail Relay Coil to Upper Instrument Panel Fuse "6"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Wire 18ga - Violet TXL	Waytek - WM18-7	EW18VT	134
		Ring Terminal (10 Stud) 14-16 - Vinyl	Waytek - 31588	ECRTV11614BL10	1
826-1	Mail Relay Coil to Upper Instrument Panel Fuse "4"	Quick Disconnect Female 14-16 Vinyl (1/4 spade)	Waytek - 31511	ECQDFV11614BL14	1
		Wire 16ga - Brown TXL	Waytek - WM16-1	EW16BR	147
		Ring Terminal (10 Stud) 14-16 - Vinyl	Waytek - 31588	ECRTV11614BL10	2
827	DP720 Display Pin "12" to Upper Instrument Panel Buzzer	Wire 16ga - Brown TXL	Waytek - WM16-1	EW16BR	147
		Quick Disconnect Female 22-18 Vinyl (1/4 spade)	Waytek - 30511	ECQDFV12218RD14	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
827R	Main Relay Output Side to A/C Relay "30"	Wire 18ga - Gray TXL	Waytek - WM18-8	EW18GY	120
		Lug Copper 6 Ga. (5/16 stud)	Waytek - 36072	ECCLN106-516	1
		Tyco Terminal 280755-4 (AWG 10-7) .375 Spade	Newark - 07H2888	TB80130-15-1	1
828	AC Relay "87" to A/C Fuse Module Input	Wire 6ga - Red Battery Cable	Waytek - WZ6-2	EW6RD	6
		Tyco Terminal 280755-4 (AWG 10-7) .375 Spade	Newark - 07H2888	TB80130-15-1	1
		Lug Copper 6 Ga. (10 stud)	Waytek - 34000	ECCLN106-10	1
829	Main Relay Output side to Fuse/Relay Panel Input Stud	Wire 6ga - Red Battery Cable	Waytek - WZ6-2	EW6RD	25
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLN104-10	1
		Lug Copper 4ga. 5/16 Stud	Waytek - 36127	ECCLN104-516	1
830	Fuse/Relay Panel Input Stud to Fuse Panel Input Stud	Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	11
		Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLN104-10	2
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	6

## Wiring 831-855

831	Fuse Panel Input Stud Jumper	Lug Copper 4 Ga. (10 stud)	Waytek - 35005	ECCLNI04-10	2
		Wire 4ga - Red Battery Cable	Waytek - WB4-2	EW4RD	7
832	Fuse/Relay Panel "9" to Fuse/Relay Panel "9-30", Work Lights	Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	2
		Wire 12ga - Yellow TXL	Waytek - WM12-4	EW12YL	3.5
833	Fuse/Relay Panel "7" to Fuse/Relay Panel "7-30", Windshield Washer	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	2
		Wire 18ga - Orange TXL	Waytek - WM18-3	EW18OR	3.5
834	Fuse/Relay Panel "5" to Fuse/Relay Panel "5-30", Wiper	Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	2
		Wire 14ga - Green TXL	Waytek - WM14-5	EW14GN	3.5
835	Fuse/Relay Panel "10" to MC24 Gray Plug "2"	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
836	Fuse/Relay Panel "4" to DP720 "2"	Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	17
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
837	Ground Bar to Fuse/Relay Panel "10-85"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	131
838	Ground Bar to Fuse/Relay Panel "8-85"	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
839	Ground Bar to Fuse/Relay Panel "6-85"	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	12
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
840	Fuse/Relay Panel "9-86" to MC24 Black Plug "9"	Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	12
841	Fuse/Relay Panel "8-87" to Windshield Washer	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
842	Fuse/Relay Panel "7-86" to MC24 Black Plug "11"	Wire 18ga - Yellow TXL	Waytek - WM18-4	EW18YL	16
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
843	Fuse/Relay Panel "6-87a" to Windshield Wiper	Quick Disconnect Female 22-18 HS Red (1/4 spade)	Waytek - 30982	ECQDFHS2218RD14	1
		Wire 18ga - Orange TXL	Waytek - WM18-3	EW18OR	118
844	Fuse/Relay Panel "6-87" to Windshield Wiper	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
845	Fuse/Relay Panel "5-86" to MC24 Black Plug "10"	Wire 18ga - Orange TXL	Waytek - WM18-3	EW18OR	13
		Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	1
846	Fuse Panel "F8" to Terminal Strip "7"	Quick Disconnect Female 14-16 HS (1/4 spade)	Waytek - 31773	ECQDFHS1614BL14	1
		Wire 14ga - Pink TXL	Waytek - WM14-12	EW14PI	104
847	Fuse Panel "F18" to Seat Socket "1"	Delphi 12110845 Metri-Pack 280 Series, 14-12 GA	Waytek - 31069R	TB66145-14-12	1
		Quick Disconnect Female 14-16 HS (1/4 spade)	Waytek - 31773	ECQDFHS1614BL14	1
848	Seat Socket "2" to MC24 Gray Plug "7"	Wire 14ga - Green TXL	Waytek - WM14-5	EW14GN	105
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
849	Ground Bar to A/C Relay "85"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Wire 18ga - Green TXL	Waytek - WM18-5	EW18GN	13
850	A/C Relay "86" to MC24 Black Plug "12"	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
851	Ground Bar to Main Relay Coil	Wire 16ga - Red TXL	Waytek - WM16-2	EW16RD	15
		Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
852	Ground Bar to MC24 Gray Plug "1"	Deutsch Male Solid Pin 20, 16-18 Wire	Deutsch - 0460-010-20141	TB80130-202P	1
		Deutsch WM-2P Wedge for Receptacle	Deutsch - WM-2P	TB80130-66	1
853	Ground Bar to Terminal Strip "5"	Deutsch DTM04-2P-E007 Female Receptacle, Shrink	Deutsch - DTM04-2P-E007	TB80130-65-E007	1
		Wire 18ga - Light Blue TXL	Waytek - WM18-16	EW18LB	40
854	Ground Bar to Wiper Bolt	Deutsch Male Solid Pin 20, 16-18 Wire	Deutsch - 0460-010-20141	TB80130-202P	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
855	Ground Bar to Windshield Washer	Wire 18ga - Light Blue TXL	Waytek - WM18-16	EW18LB	33
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
856	Ground Bar to A/C Relay "85"	Tyco Terminal 42281-1 (AWG 18-14) ,250 Spade	Newark - 33B9009	TB80130-14	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	12
857	A/C Relay "86" to MC24 Black Plug "12"	Tyco Terminal 42281-1 (AWG 18-14) ,250 Spade	Newark - 33B9009	TB80130-14	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
858	Ground Bar to Main Relay Coil	Wire 18ga - Red w/Black Stripe TXL	TieWraps.Com - STW-18 RDBK	EW18RDBK	8
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
859	Ground Bar to MC24 Gray Plug "1"	Ring Terminal (10 Stud) 14-16 - Vinyl	Waytek - 31588	ECRTV11614BL10	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	10
860	Ground Bar to Terminal Strip "5"	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
861	Ground Bar to Wiper Bolt	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	15
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
862	Ground Bar to Windshield Washer	Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	13
863	Ground Bar to Wiper Bolt	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Ring Terminal (1/4-st) 14-16 - Heat Shrink	Waytek - 31803	ECRTHS1614BL14	1
864	Ground Bar to Windshield Washer	Wire 14ga - Black TXL	Waytek - WM14-0	EW14BK	101
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
865	Ground Bar to Windshield Washer	Quick Disconnect Female 22-18 HS Red (1/4 spade)	Waytek - 30982	ECQDFHS2218RD14	1
		Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	113

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856	Ground Bar to DP720 Plug "1"	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	120
857	A/C Fuse Block 20A to Cab Pressurizer Bulkhead Connector "1"	Quick Disconnect Female 12-10 HS (1/4 spade)	Waytek - 32919	ECQDFHS1210YL14	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Deutsch WP-4P Wedge for Receptacle	Deutsch - WP-4P	TB80130-84P	1
		Deutsch DTP04-4P-L012 Female Receptacle	Deutsch - DTP04-4P-L012	TB80130-83P-L012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	2
		Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	12
858	Ground Bar to Cab Pressurizer Bulkhead Connector "2"	Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Wire 12ga - Black TXL	Waytek - WM12-0	EW12BK	29
859	A/C Fuse Block 20A to Cab Filter Bulkhead Connector "1"	Quick Disconnect Female 12-10 HS (1/4 spade)	Waytek - 32919	ECQDFHS1210YL14	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Deutsch WP-4P Wedge for Receptacle	Deutsch - WP-4P	TB80130-84P	1
		Deutsch DTP04-4P-L012 Female Receptacle	Deutsch - DTP04-4P-L012	TB80130-83P-L012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	2
		Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	12
860	Ground Bar to Cab Filter Bulkhead Connector "2"	Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Wire 12ga - Black TXL	Waytek - WM12-0	EW12BK	29
861	A/C Fuse Block 30A to A/C Bulkhead Connector "1"	Quick Disconnect Female 12-10 HS (1/4 spade)	Waytek - 32919	ECQDFHS1210YL14	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Deutsch WP-4P Wedge for Receptacle	Deutsch - WP-4P	TB80130-84P	1
		Deutsch DTP04-4P-L012 Female Receptacle	Deutsch - DTP04-4P-L012	TB80130-83P-L012	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Wire 10ga - Red GXL	Waytek - WL10-2	EW10RD	19
862	Ground Bar to A/C Bulkhead Connector "2"	Pin Terminal 10-12 - Nylon	Waytek - 32785	ECPTNY1210YL	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Wire 10ga - Black GXL	Waytek - WL10-0	EW10BK	31
863	MC24 Gray Connector "12" to A/C Bulkhead Connector "3"	Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-2025	1
		Deutsch Male Solid Pin 12, 12-14 Wire	Deutsch - 0460-204-12141	TB80130-204P	1
		Wire 14ga - Green TXL	Waytek - WM14-5	EW14GN	31
864	A/C Plug to A/C Bulkhead Connector	Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	3
		Deutsch WP-4S Wedge for Plug	Deutsch - WP-4S	TB80130-86P	1
		Deutsch DTP06-4S-EE01 Male Plug, Shrink	Deutsch - DTP06-4S-EE01	TB80130-85P-EE01	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	1
		Heat Shrink Tubing Red - 3/4" (2/0 & 4/0 Wire)	Waytek - 22462C	ECHS-0.75-RD	1
		Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
865	Cab Pressurizer Extension Wire Plug "1" to Butt Connector	Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210	1
		Deutsch WP-4S Wedge for Plug	Deutsch - WP-4S	TB80130-86P	1
		Deutsch DTP06-4S-EE01 Male Plug, Shrink	Deutsch - DTP06-4S-EE01	TB80130-85P-EE01	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	2
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	1
		Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	41
866	Cab Pressurizer Extension Wire Plug "2" to Butt Connector	Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
		Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210	1
		Wire 12ga - Black TXL	Waytek - WM12-0	EW12BK	41
867	Cab Filter Extension Wire Plug "1" to Butt Connector	Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
		Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210	1
		Deutsch WP-4S Wedge for Plug	Deutsch - WP-4S	TB80130-86P	1
		Deutsch DTP06-4S-EE01 Male Plug, Shrink	Deutsch - DTP06-4S-EE01	TB80130-85P-EE01	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	2
		Heat Shrink Tubing Black - 3/4" (2/0 & 4/0 Wire)	Waytek - 22212C	ECHS-0.75-BK	1
868	Cab Filter Extension Wire Plug "2" to Butt Connector	Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	69
		Deutsch Female Solid Socket 12, 12-14 Wire	Deutsch - 0462-203-12141	TB80130-204S	1
		Butt Connector 10-12 - Heat Shrink	Waytek - 32980	ECBCHS1210	1
869	6 Pin Deutsch Buss Connector "3" to MC24 Gray Connector "6"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-203S	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Violet TXL	Waytek - WM18-7	EW18VT	11
870	Camera Monitor Power & Ground	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 22-18 - Nylon	Waytek - 30785	ECPTNY2218RD	1
871	Terminal Strip "1" to MC24 Black Connector "1"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Black w/White Stripe TXL	TieWraps.Com - STW-18 BKWT	EW18BKWT	7
872	Terminal Strip "2" to MC24 Black Connector "2"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Brown w/White Stripe TXL	TieWraps.Com - STW-18 BRWT	EW18BRWT	7
873	Terminal Strip "3" to MC24 Black Connector "3"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Blue w/White Stripe TXL	TieWraps.Com - STW-18 BLWT	EW18BLWT	7
874	Terminal Strip "4" to MC24 Black Connector "4"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		Wire 18ga - Orange w/Black Stripe TXL	TieWraps.Com - STW-18 ORBK	EW18ORBK	7
875	White - Fuse Panel "F9", Black MC24 Gray Connector "11" to Brake Sensor Plug	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Deutsch Female Solid Socket 20, 16-18 Wire	Deutsch - 0462-005-20141	TB80130-202S	1
		MetriPack 280 Female Terminal 12077411	Waytek - 30037	TB80604-1-MPT	2
		Metri-Pack 280 Series Cable Seal, Green	Waytek - 39000	TB66145-CSGR	2
		MetriPack TPA 280 Series 15300014 2 Contact Blue	Waytek - 38035	TB80604-1-TPA	1
		MetriPack 280 Female Body 15300027	Waytek - 38063	TB80604-1-MPB	1
Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	138		

# Wiring 876-909

876	White - A/C Fuse Panel 5A, Black - Ground Bar to Pressure Monitor	Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Quick Disconnect Female 14-16 HS (1/4 spade)	Waytek - 31773	ECQDFH51614BL14	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	2
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	122
877	Chute Cover Door 1. Cab Panel - Blue wire to Terminal Strip "5", Brown Wire to Terminal Strip "7", Black Wire to Terminal Strip "1", 102"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	3
		Heat Shrink Tubing Black	Cable Ties - HS359-S100-BK	ECHS-0.25-BK	2
		Female Cordset 4 Socket M12 x 10 Meter 90Deg	IFM - EVC006	TB66213-M12F-4-10M	1
878	Chute Cover Door 2. Cab Panel - Blue wire to Terminal Strip "5", Brown Wire to Terminal Strip "7", Black Wire to Terminal Strip "2", 145"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	3
		Heat Shrink Tubing Brown	Cable Ties - HS359-S100-BR	ECHS-0.25-BR	2
		Female Cordset 4 Socket M12 x 10 Meter 90Deg	IFM - EVC006	TB66213-M12F-4-10M	1
879	Chute Cover Door 3. Cab Panel - Blue wire to Terminal Strip "6", Brown Wire to Terminal Strip "8", Black Wire to Terminal Strip "3", 206"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	3
		Heat Shrink Tubing Blue	Cable Ties - HS359-S100-BL	ECHS-0.25-BL	2
		Female Cordset 4 Socket M12 x 10 Meter 90Deg	IFM - EVC006	TB66213-M12F-4-10M	1
880	Chute Cover Door 4. Cab Panel - Blue wire to Terminal Strip "6", Brown Wire to Terminal Strip "8", Black Wire to Terminal Strip "4", 266"	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	3
		Heat Shrink Tubing Black	Cable Ties - HS359-S100-BK	ECHS-0.25-BK	2
		Female Cordset 4 Socket M12 x 10 Meter 90Deg	IFM - EVC006	TB66213-M12F-4-10M	1
881	White Wire - Fuse Panel "F10", Black Wire - Ground Bar to outside of Cab Box as a spare for customer additions	Delphi 12110847 Metri-Pack 280 Series, 18-16 GA	Waytek - 30069R	TB66145-18-16	1
		Pin Terminal 16-14 - Nylon	Waytek - 31785	ECPTNY1614BL	1
		Heat Shrink Tubing Blue	Cable Ties - HS359-S100-BL	ECHS-0.25-BL	1
		Wire WD16-2 Jacketed Plastic Primary	Waytek - WD16-2	TB80130-2	100
891	Key Switch Ignition Post to Fuse Panel Input Stud	Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV11210YL10	2
		Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	7
891-1	Key Switch Power Relay to Fuse Panel Input Stud	Tyco Terminal 28075S-4 (AWG 10-7), .375 Spade	Newark - 07H2888	TB80130-15-1	1
		Ring Terminal (10stud) 10-12 - Vinyl	Waytek - 32502	ECRTV11210YL10	2
892	Fuse Panel 5A to Buzzer	Wire 12ga - Red TXL	Waytek - WM12-2	EW12RD	100
		Quick Disconnect Female 22-18 Vinyl (1/4 spade)	Waytek - 30511	ECQDFV12218RD14	2
893	Fuse Panel 5A to E-Stop	Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	12
		Quick Disconnect Female 22-18 Vinyl (1/4 spade)	Waytek - 30511	ECQDFV12218RD14	1
893-1	Fuse Panel 5A to E-Stop	Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Wire 18ga - Violet TXL	Waytek - WM18-7	EW18VT	6
		Ring Terminal (5/16s) 10-12 - Vinyl	Waytek - 32504	ECRTV112218RD10	1
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
894	Fuse Panel 5A to USB Charger	Wire 18ga - Violet TXL	Waytek - WM18-7	EW18VT	6
		Quick Disconnect Female 22-18 Vinyl (1/4 spade)	Waytek - 30511	ECQDFV12218RD14	2
894-1	Fuse Panel 5A to USB Charger	Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	17
		Ring Terminal (5/16s) 10-12 - Vinyl	Waytek - 32504	ECRTV112218RD10	2
895	Fuse Panel 5A to Left Cab Fan	Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	12
		Quick Disconnect Female 14-16 Vinyl (1/4 spade)	Waytek - 31511	ECQDFV11614BL14	1
895-1	Fuse Panel 5A to Left Cab Fan	Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
		Wire 16ga - Green TXL	Waytek - WM16-5	EW16GN	13
		Ring Terminal (10 Stud) 14-16 - Vinyl	Waytek - 31588	ECRTV11614BL10	1
896	Fuse Panel 5A to Right Cab Fan	Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
		Wire 16ga - Green TXL	Waytek - WM16-5	EW16GN	14.5
		Quick Disconnect Female 14-16 Vinyl (1/4 spade)	Waytek - 31511	ECQDFV11614BL14	1
896-1	Fuse Panel 5A to Right Cab Fan	Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
		Wire 16ga - Green TXL	Waytek - WM16-5	EW16GN	14
897	Terminal "1" to Left Work light Ground	Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	14
898	Terminal "3" to Right Work light Ground	Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
		Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	14
899	Terminal "2" to USB Charger Ground	Quick Disconnect Female 22-18 Vinyl (1/4 spade)	Waytek - 30511	ECQDFV12218RD14	1
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
900	Terminal "2" to Right Cab Fan Ground	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	6
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
901	Terminal "2" to Left Cab Fan Ground	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	17.5
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
902	Terminal "1" to Terminal Mount Screw to Ground Instrument Panel	Wire 16ga - Black TXL	Waytek - WM16-0	EW16BK	17.5
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Ring Terminal (10 Stud) 22-18 - Vinyl	Waytek - 30503	ECRTV12218RD10	1
903	Terminal "5" to Left Work Right "+"	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	6
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
904	Terminal "5" to Right Work Right "+"	Wire 16ga - Yellow	Waytek - WM16-4	EW16YL	16
		Spade Terminal (8st) 14-16 Vinyl Blue	Waytek - 31524	ECSTV11614BL08	1
		Butt Connector 14-16 - Heat Shrink Blue	Waytek - 31070	ECBCHS1614BL	1
905	Terminal "6" to Air Gauge "+"	Wire 16ga - Yellow	Waytek - WM16-4	EW16YL	16
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
		Butt Connector (8-st) 18-22 - Heat Shrink	Waytek - 30971	ECBCHS2218RD	1
906	Pedal Encoder Plug White wire "1", Red Wire "3", Black Wire "4" to White- MC24 Black Connector "5", Red - MC24 Grey Connector "8", Black - MC24 Grey Connector "9"	Wire 18ga - Yellow TXL	Waytek - WM18-4	EW18YL	13
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	3
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	3
		Deutsch W45-P012 Wedge for Plug	Deutsch - W45-P012	TB80130-86-P012	1
907	Key Switch Relay "30" To Key Switch "3"	Deutsch DT06-4S-EP11 Male Plug, Black, Seal, Ret Plug, Deutsch Sealing Size 12-16	Deutsch - DT06-4S-EP11	TB80130-85-EP11	1
		Deutsch 114017	Deutsch - 114017	TB80575-104	1
		Heat Shrink Tubing Violet	Cable Ties - HS359-S100-VT	ECHS-0.25-VT	2
		Wire 16 Ga 3 Cond Shielded	Newark 86K7190	TB80130-3-165	12
908	Key Switch Relay "86" To Key Switch "4"	Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Deutsch W65-P012 Wedge for Plug	Deutsch - W65-P012	TB80575-124-P012	1
		Deutsch DT06-6S Male Plug	Deutsch - DT06-6S	TB80575-123EP11	1
		Plug, Deutsch Sealing Size 12-16	Deutsch - 114017	TB80575-104	4
909	Key Switch Relay "85" Ground Buss "2"	Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	10
		Deutsch Female Solid Socket 16, 16-20 Wire	Deutsch - 0462-201-16141	TB80130-2035	1
		Deutsch W65-P012 Wedge for Plug	Deutsch - W65-P012	TB80575-124-P012	1
909	Key Switch Relay "85" Ground Buss "2"	Tyco Terminal 42281-1 (AWG 18-14), .250 Spade	Newark - 33B9009	TB80130-14	1
		Wire 18ga - Red TXL	Waytek - WM18-2	EW18RD	13
909	Key Switch Relay "85" Ground Buss "2"	Tyco Terminal 42281-1 (AWG 18-14), .250 Spade	Newark - 33B9009	TB80130-14	1
		Spade Terminal (6-st) 18-22 Vinyl Red	Waytek - 30523	ECSTV12218RD06	1
909	Key Switch Relay "85" Ground Buss "2"	Wire 18ga - Black TXL	Waytek - WM18-0	EW18BK	13

## Fault Schedule

### Fault List - 1-65

#	Component	System	Fault
1	MC50-Engine Area	CAN A (Port 1)	No Rx by DP720
2	"	CAN B (Port 0)	No Rx by DP720
3	MC50-Lower Frame	CAN B (Port 0)	No Rx by DP720
4	MC24-Cab	CAN B (Port 0)	No Rx by DP720
5	Engine	CAN A (Port 1)	No Rx by DP720
6	Joystick, Left	CAN B (Port 0)	No Rx by DP720
7	Joystick, Right	CAN B (Port 0)	No Rx by DP720
8	Preco Radar	CAN B (Port 0)	No Rx by DP720
9	PVED-CC Coil, Elevator	CAN B (Port 0)	No Rx by DP720
10	PVED-CC Coil, Auger	CAN B (Port 0)	No Rx by DP720
11	PVED-CC Coil, Swing	CAN B (Port 0)	No Rx by DP720
12	PVED-CC Coil, Steering	CAN B (Port 0)	No Rx by DP720
13	PVED-CC Coil, Slide Gate	CAN B (Port 0)	No Rx by DP720
14	PVED-CC Coil, Hopper	CAN B (Port 0)	No Rx by DP720
15	PVED-CC Coil, AC	CAN B (Port 0)	No Rx by DP720
16	MC50-Engine Area	CAN A (Port 1)	Bus Off
17	"	CAN B (Port 0)	Bus Off
18	MC50-Lower Frame	CAN B (Port 0)	Bus Off
19	MC24-Cab	CAN B (Port 0)	Bus Off
20	DP720	CAN A (Port 1)	Bus Off
21	"	CAN B (Port 0)	Bus Off
22	MC24-Cab	Sensor Power, C1P08	Volts > 5.15
23	"	"	Volts < 4.85
24	"	System Power, C1P02	Volts < 9.00
25	MC50-Engine Area	"	Volts > 5.15
26	"	"	Volts < 4.85
27	"	System Power, C1P02	Volts < 9.00
28	MC50-Lower Frame	"	Volts > 5.15
29	"	"	Volts < 4.85
30	"	System Power, C1P02	Volts < 9.00
31	MC24-Cab	Work Lights Relay, C2P09	Open Circuit
32	"	"	Over Current
33	"	Windshield Wiper Relay, C2P10	Open Circuit
34	"	"	Over Current
35	MC50-Engine Area	PSI Snsr, "Forward", C1P16	Volts too Hi
36	"	"	Volts too Lo
37	"	PSI Snsr, "Reverse", C1P14	Volts too Hi
38	"	"	Volts too Lo
39	"	PSI Snsr, "Charge", C1P17	Volts too Hi
40	"	"	Volts too Lo
41	"	PSI Snsr, "Aux", C1P15	Volts too Hi
42	"	"	Volts too Lo
43	"	Hyd Temp Snsr, C1P27	Snsr Not Detected (65535 err)
44	Reserved		
45	Reserved		
46	"	Flow Meter, C1P23	Volts too Hi
47	"	"	Volts too Lo
48	"	EDC Coil, "Forward", C1P37	Open Circuit
49	"	"	Short Circuit
50	"	"	Current Mismatch
51	"	EDC Coil, "Reverse", C1P38	Open Circuit
52	"	"	Short Circuit
53	"	"	Current Mismatch
54	"	Motor Starter Relay, C1P43	Open Circuit
55	"	"	Over Current
56	"	Vibrator Coil, C1P40	Open Circuit
57	"	"	Over Current
58	MC24-Cab	Windshield Washer, C2P11	Open Circuit
59	"	"	Over Current
60	MC50-Engine Area	Air Supply Valve Coil, C1P39	Open Circuit
61	"	"	Over Current
62	"	Horn Relay, C1P44	Open Circuit
63	"	"	Over Current
64	"	Coolant Level Snsr, C1P24	< 100mV
65	"	Coolant Level Snsr Power Supply, C1P42	Over Current (Old Sensor)

## Fault List – 66-128

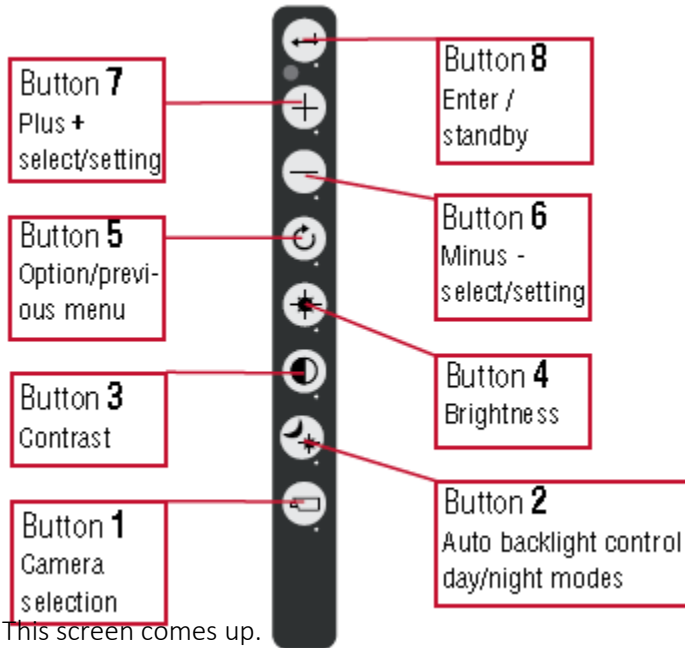
#	Component	System	Fault
66	MC50-Lower Frame	Speed Snsr, Left Motor,	Temp Volts too Hi
67	"	(C1P18, C1P19, C1P27)	Temp Volts too Lo
68	"	"	Zero Hz on CH. A
69	"	"	Zero Hz on CH. B
70	"	"	Ch. A Hz ≠ Ch. B Hz
71	"	"	A-B Phase Out of Spec
72	"	"	Ch. A % Duty Out of Spec
73	"	"	Ch. B % Duty Out of Spec
74	"	"	Ch. A Signal Short to Pwr
75	"	"	Ch. A Signal Short to Ground
76	"	"	Ch. A Signal Open
77	"	"	Snsr Open Ground
78	"	"	Snsr Open Pwr
79	"	"	Ch. B Signal Short to Pwr
80	"	"	Ch. B Signal Short to Ground
81	"	"	Ch. B Signal Open
82	"	Speed Snsr, Right Motor,	Temp Volts too Hi
83	"	(C1P23, C1P24, C1P28)	Temp Volts too Lo
84	"	"	Zero Hz on CH. A
85	"	"	Zero Hz on CH. B
86	"	"	Ch. A Hz ≠ Ch. B Hz
87	"	"	A-B Phase Out of Spec
88	"	"	Ch. A % Duty Out of Spec
89	"	"	Ch. B % Duty Out of Spec
90	"	"	Ch. A Signal Short to Pwr
91	"	"	Ch. A Signal Short to Ground
92	"	"	Ch. A Signal Open
93	"	"	Snsr Open Ground
94	"	"	Snsr Open Pwr
95	"	"	Ch. B Signal Short to Pwr
96	"	"	Ch. B Signal Short to Ground
97	"	"	Ch. B Signal Open
98	"	Fuel Level Snsr, C1P29	ohms too Hi
99	"	"	ohms too Lo
100	"	"	Snsr Not Detected (65535 err)
101	"	EDC Coil, "Left Wheel", C1P37	Open Circuit
102	"	"	Short Circuit
103	"	"	Current Mismatch
104	"	EDC Coil, "Right Wheel", C1P38	Open Circuit
105	"	"	Short Circuit
106	"	"	Current Mismatch
107	"	Back-Up Alarm Relay, C1P39	Open Circuit
108	"	"	Over Current
109	"	Head Lights, Relay, C1P40	Open Circuit
110	"	"	Over Current
111	Joystick, Left	CAN Device	Component, Sys, Setup, Cal Flt
112	Joystick, Right	"	"
113	Preco Radar	"	"
114	PVED-CC Coil, Elevator	"	"
115	PVED-CC Coil, Auger	"	"
116	PVED-CC Coil, Swing	"	"
117	PVED-CC Coil, Steering	"	"
118	PVED-CC Coil, Slide Gate	"	"
119	PVED-CC Coil, Hopper	"	"
120	PVED-CC Coil, AC	"	"
125	Steer sensor position fault		
126	Pressure filter fault	Engine Area	C1P05
127	Charge pump filter fault	Engine Area	C1P28
128			

## Camera Monitor Settings

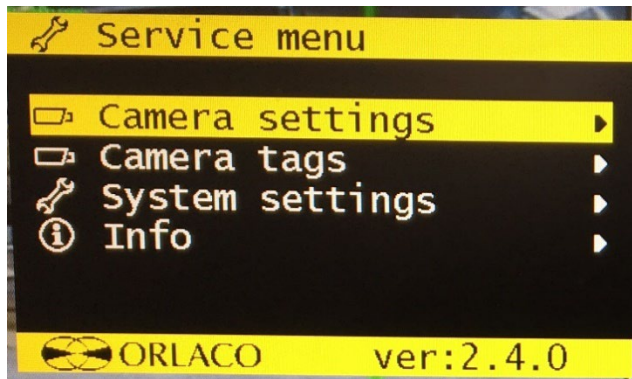
### Camera Monitor Settings page 1

To set or adjust camera settings:

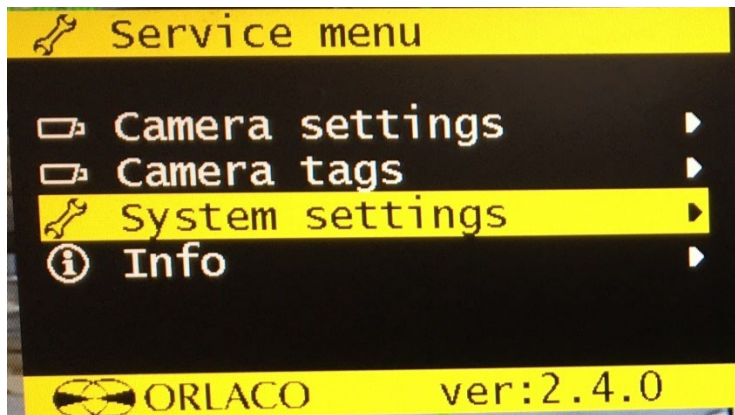
Press buttons 1, 6, & 7 at the same time.



This screen comes up.



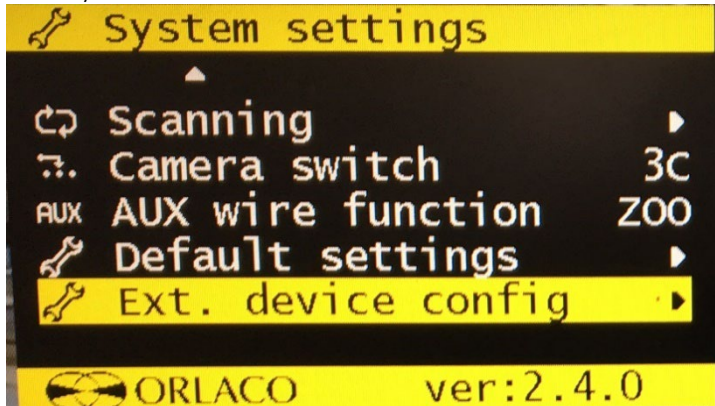
"-" Button 6 to System Settings



Press "Enter" button 8 on system settings

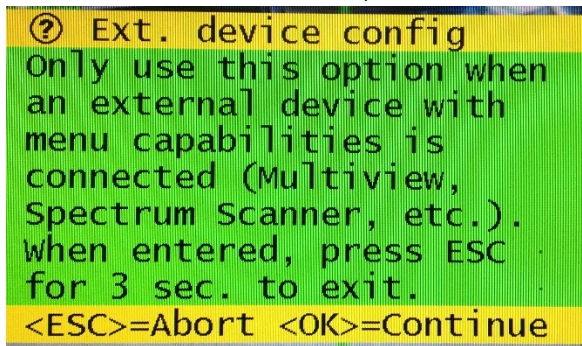
## Camera Monitor Settings page 2

“+” Key 7 to:

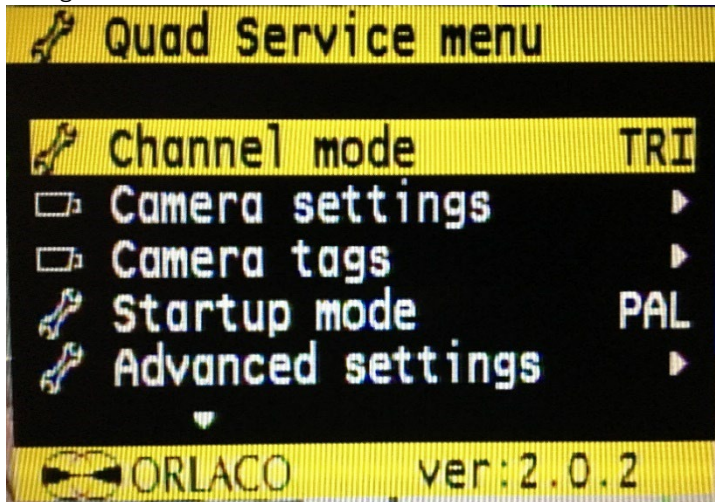


Press “Enter” button 8 on  
Ext. device config

Press “Enter” button 8 to accept



Press “Enter” button 8 on Channel mode. Then “+” or “-” until “TRI” is selected then press “Enter” button 8 to get back to this screen.



### Camera Monitor Settings page 3

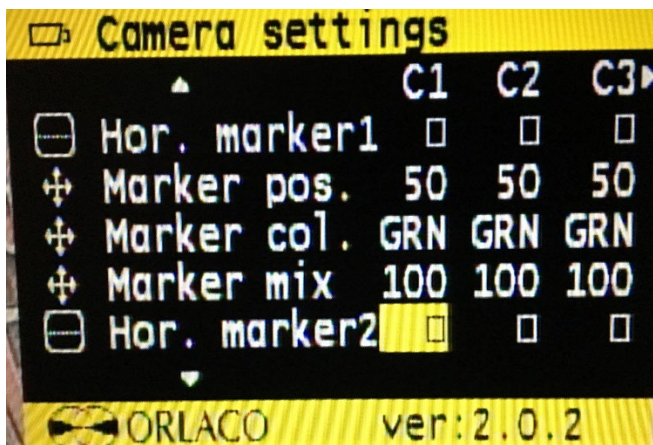
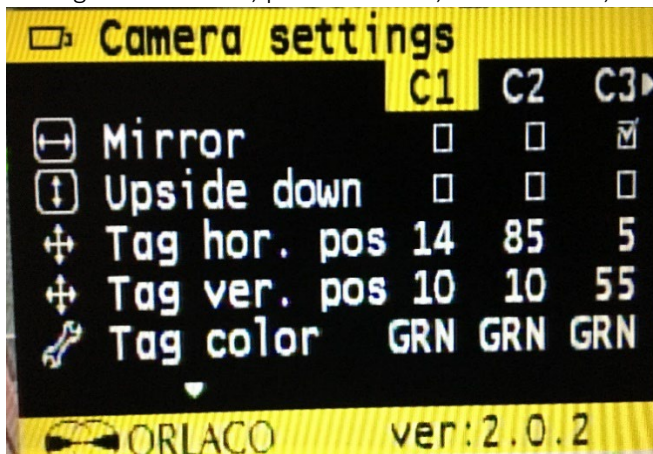
“-” Button 6 to Camera Settings

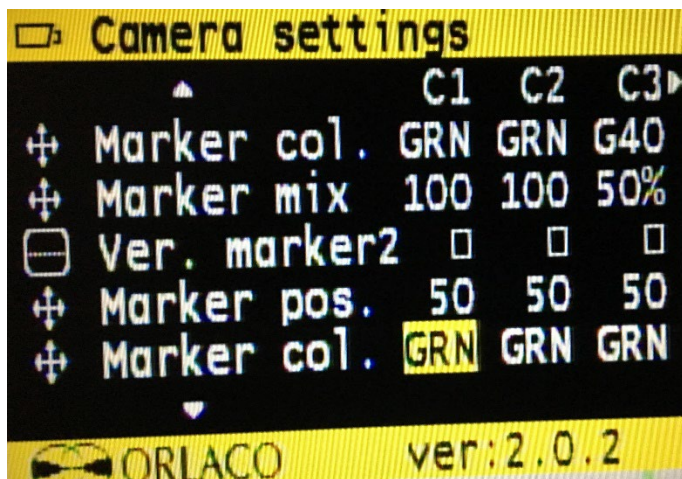
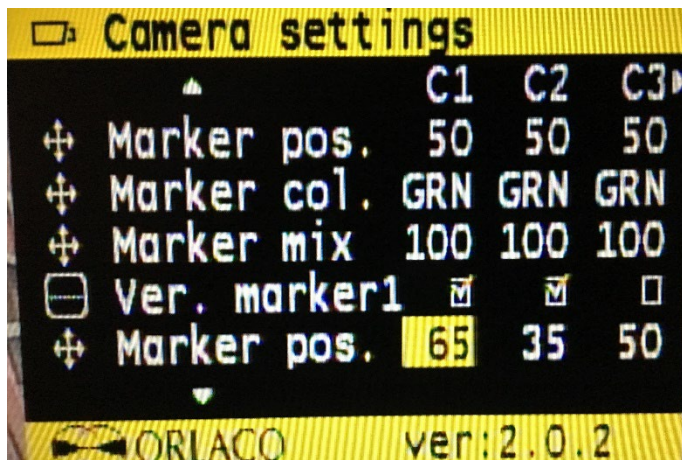


Press “Enter” button 8 on Camera settings

The next 4 pictures need to be set for C1, C2 & C3

Start by pressing “Enter” button 8 while on C1. Then use the “-” to go down the list or “+” to go up the list. Once on the setting needing changing, press “Enter” button 8. Then “-” or “+” to change. When all setting for C1 are set, press button 5, the “+” to C2, then “Enter” button 8. Repeat for C3.





Press button 5 to return to the menu, then “-“ to Camera Tags, press “Enter” button 8.



## Camera Monitor Settings page 5

Press "Enter" button 8 to select 1. Use the "+" & "-" to move to the letter required, the "Enter" button 8. Repeat until spelled, then press "Enter" button 8 to complete number 1. "-" to number 2, then enter and repeat.



Press button 5 to return to the menu. Press and hold button 5 for 3 seconds to back up to the original menu, then press and hold button 5 again for 3 seconds to exit configuration.

## *Kendall Hyken•052 Farm Tractor Lubricant*

Kendall® Hyken 052 is a multifunctional fluid specially formulated for use in farm tractors and other off-highway equipment requiring one lubricant for the transmission, final drive, wet brakes and hydraulic systems. It meets the performance requirements of all major brands of farm tractors and other farm equipment that utilize a common fluid reservoir.

Hyken 052 is formulated to provide excellent oxidation resistance, excellent wear protection, protection against rust and corrosion, and resistance to foaming. It has carefully balanced frictional properties to ensure proper operation of wet brakes and transmission clutches.

### ***Applications***

Hyken 052 is recommended for use where the equipment manufacturer specifies:

- AGCO (Deutz-Allis) Power Fluid 821XL
- AGCO (White Farm) Q-1826, Q-1802 (Type 55 Fluid), Q-1766B
- Case IH MS1210, MS1209, MS1207, MS1206
- Case New Holland (CNH) MAT3525 (134-D Fluid), MAT3509, MAT3506, MAT3505
- Caterpillar TO-2 (obsolete)
- Denison Hydraulics HF-0, HF-1, HF-2
- Ford ESN-M2C134-D, ESN-M2C86-C, ESN-M2C86-B, ESN-M2C41-B
- Ford-New Holland FNHA-2-C-201.00
- John Deere JDM J20C, J14C (Type 303 Fluid)
- Kubota UDT Fluid
- Landini Tractor II Hydraulic Fluid
- Massey Ferguson CMS M1145, M1143, M1141, M1135, M1129A
- Sundstrand Hydrostatic Transmission Fluid
- Vickers (Eaton) M-2950-S, I-286-S
- Volvo VME WB 101 (VCE 1273.03)
- ZF TE-ML 03E, 05F, 06E, 06K, 17E

Hyken 052 also meets API GL-4 performance requirements.

### ***Features/Benefits***

- Excellent oxidation resistance and thermal stability
- Excellent wear protection for clutches, gears and hydraulic pumps
- Prevents brake chatter and grabbing
- Protects against rust and corrosion
- Excellent seal compatibility
- Good foam resistance
- Suitable for year-round use in most climates

## Kendall Hyken® 052 Farm Tractor Lubricant Properties

### Typical Properties

Specific Gravity @ 60°F	0.872
Density, lbs/gal @ 60°F	7.26
Color, ASTM D1500	305
Flash Point (COC), °C (°F)	210 (410)
Pour Point, °C (°F)	-43 (-45)
Viscosity, Brookfield cP @ -20°C (Brookfield) cP @ -35°C (Brookfield)	2,800 26,700
Viscosity, Kinematic cSt @ 40°C cSt @ 100°C	61.0 9.3
Viscosity Index	146
Ash, Sulfated, ASTM D874, wt %	1.41
Total Base Number (TBN), ASTM D2896	9.6
Zinc, wt %	0.149

### Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.