

LEYMAN

LIFT GATES

PARTS MANUAL

Legend™ TLS®

TLS3510RL

TLS4500RL

TLS4510RL

Hide-A-Way® Trailer Side Gates



Rev1.0_07/26

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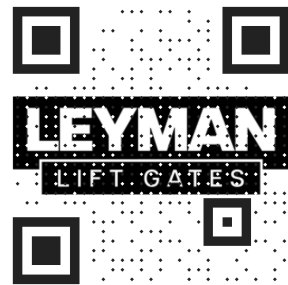
Scan QR Code For Additional Manuals



Installation Manual



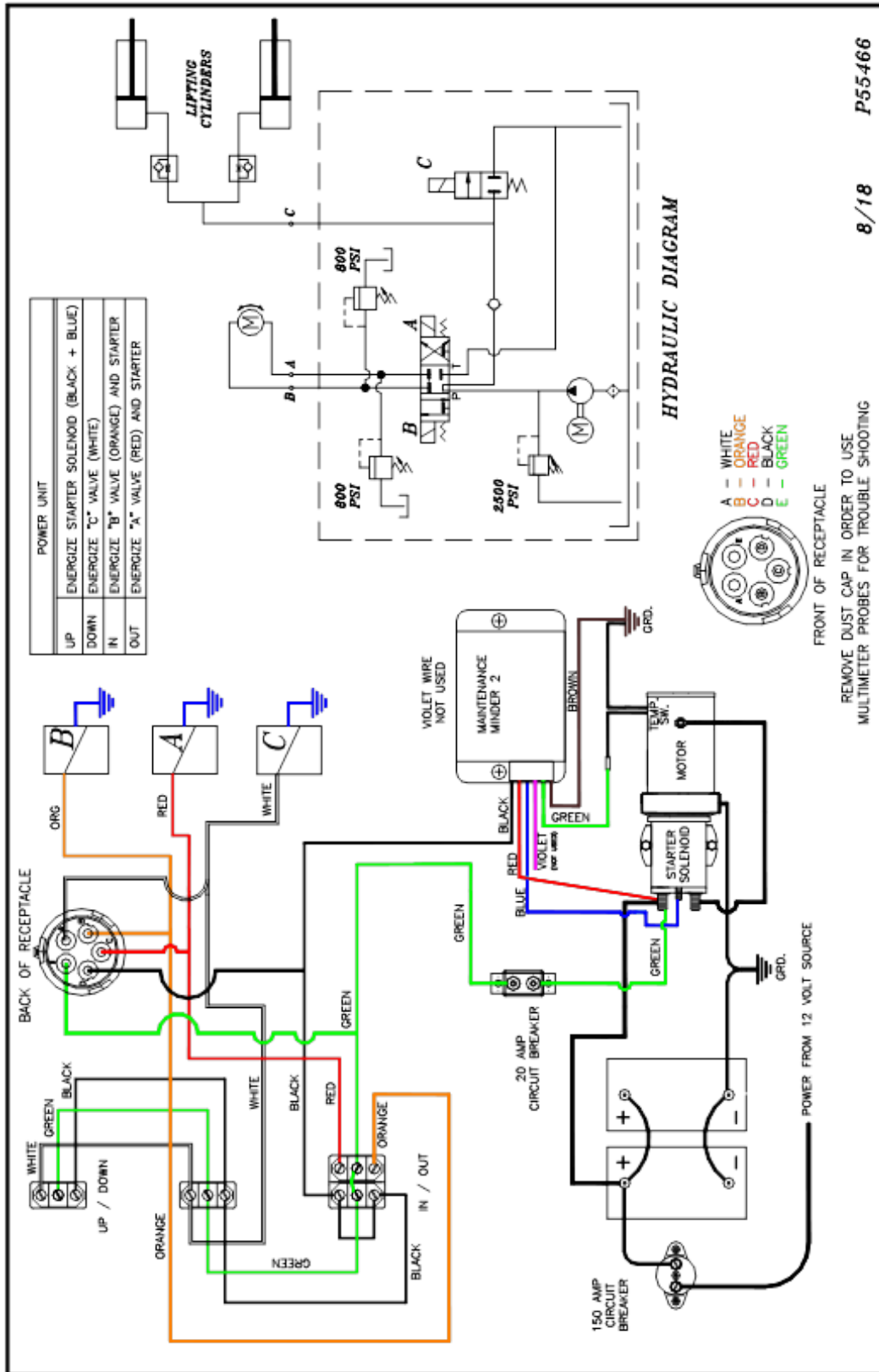
Parts Manual



Operations Manual

WIRING DIAGRAM – BUCHER (MM2 + TEMP SW.)

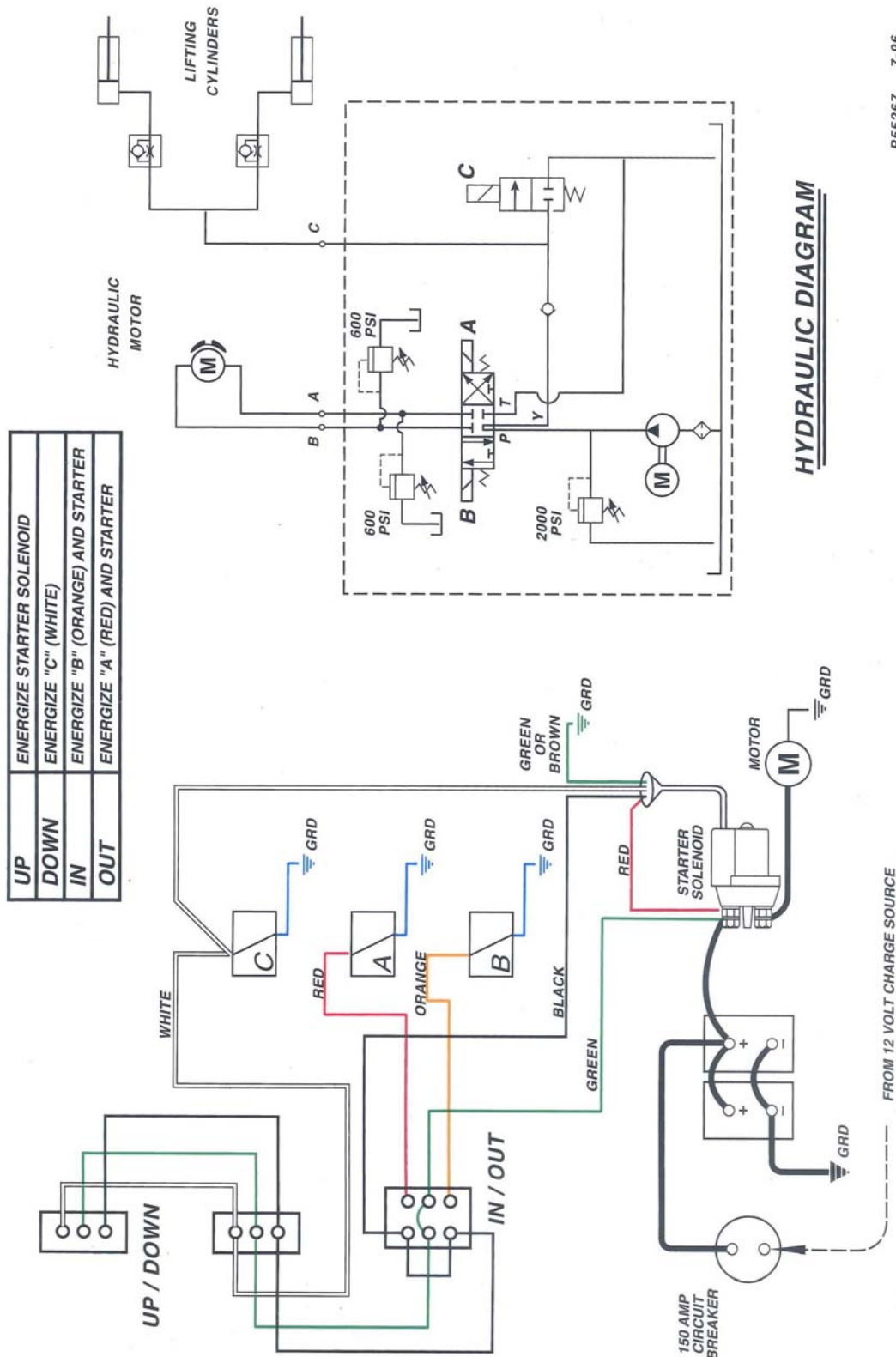
TLS3510RL / TLS4510RL



DIAGRAMS

WIRING DIAGRAM – SPX WITH SMART START SOLENOID

TLS4000RL – GOLD MOTOR AND NO TEMPERATURE SWITCH



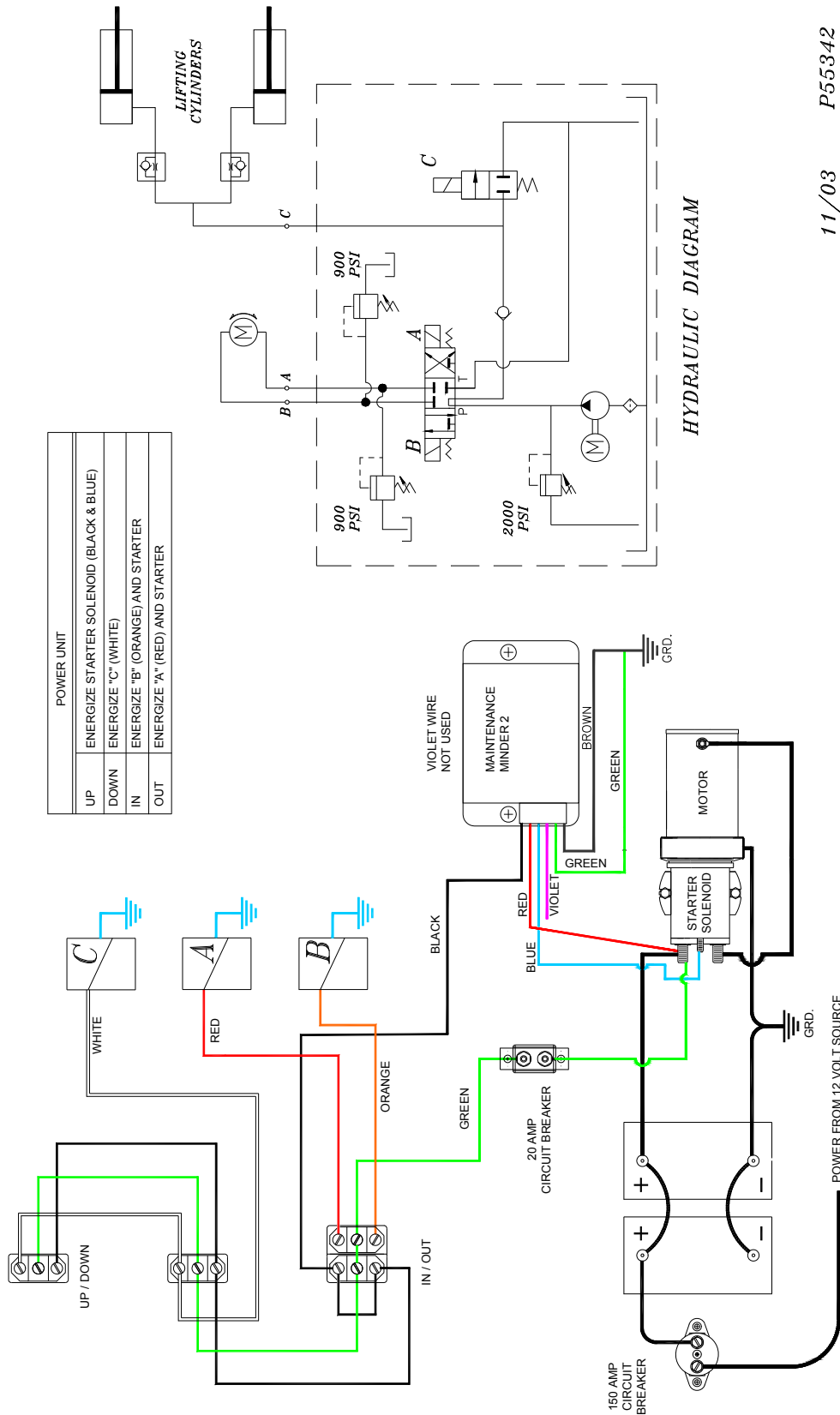
P55267 7-96

HYDRAULIC DIAGRAM

DIAGRAMS

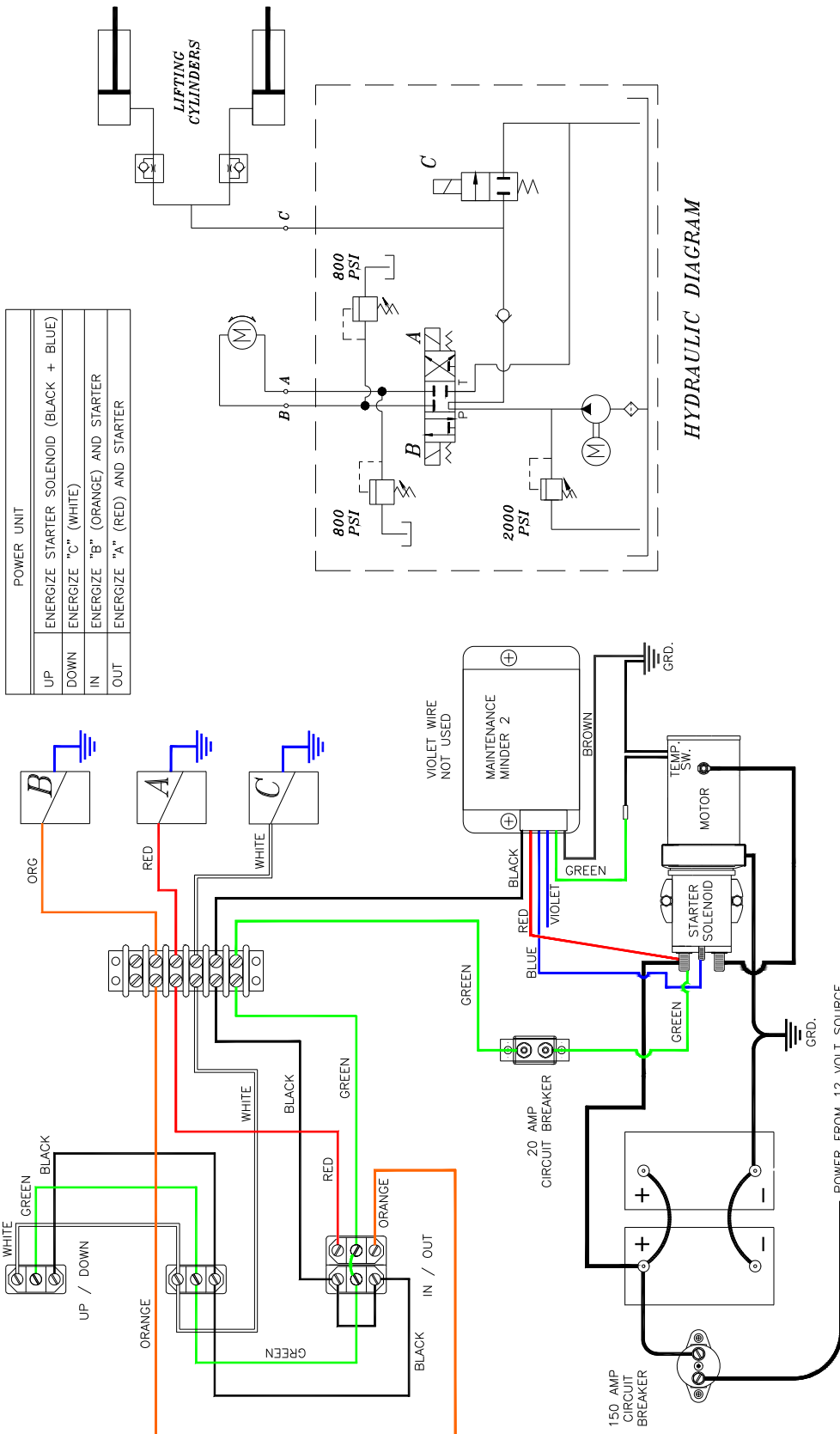
WIRING DIAGRAM – SPX WITH MAINTENANCE

MINDER 2 TLS4000RL – GOLD MOTOR AND NO TEMPERATURE SWITCH

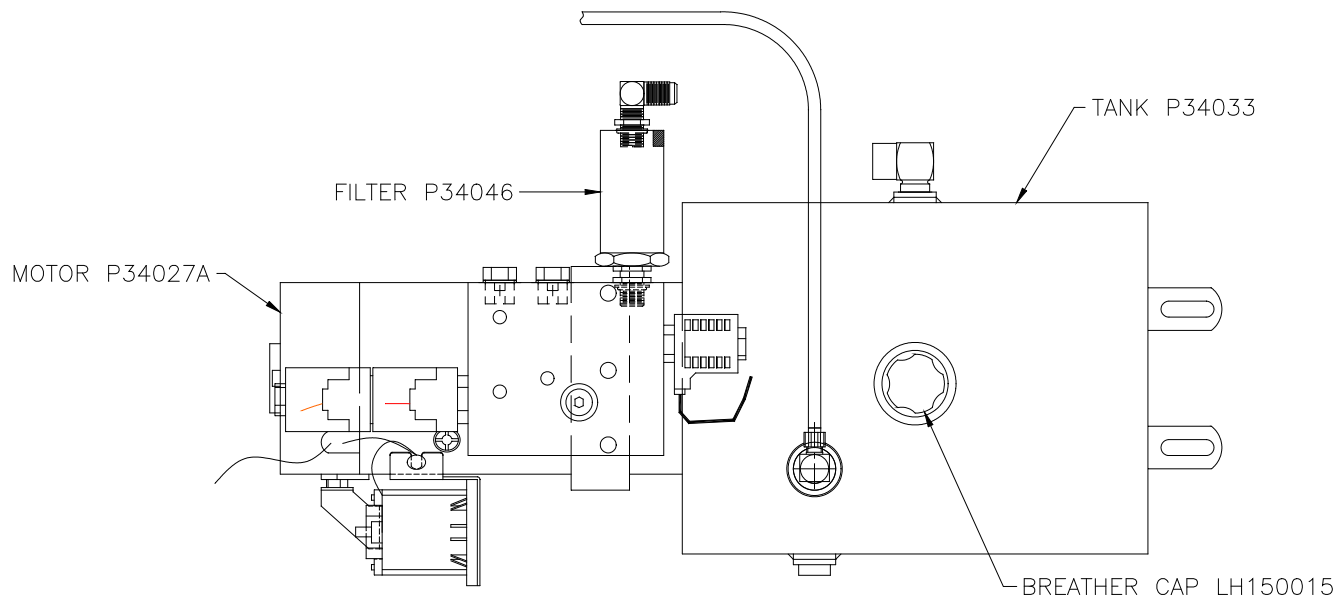


DIAGRAMS

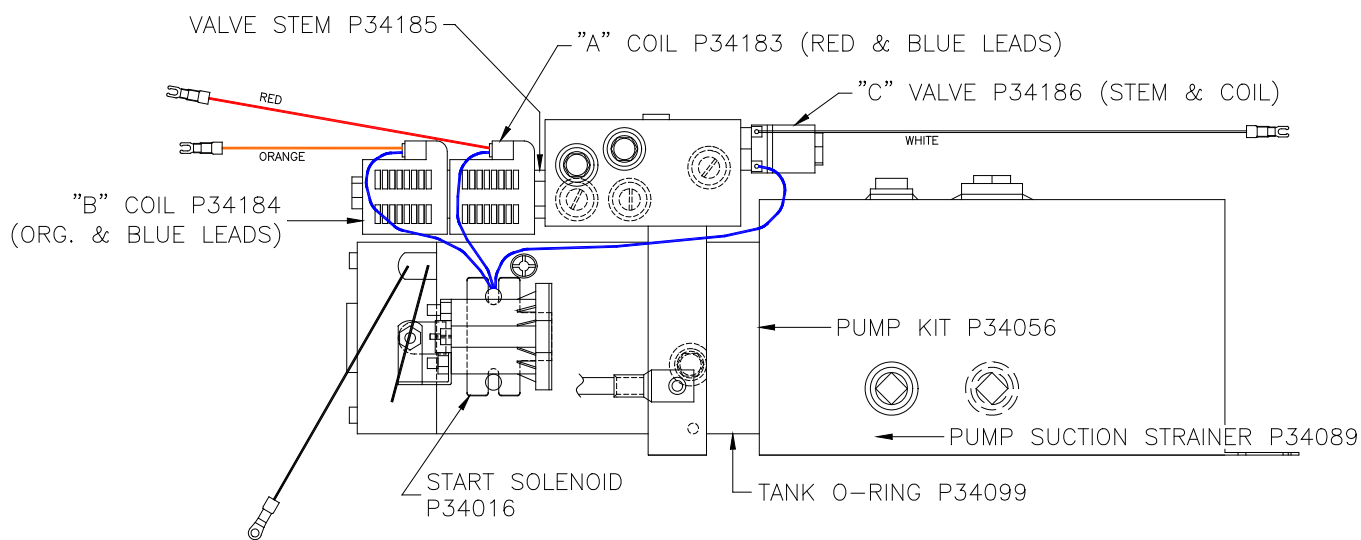
WIRING DIAGRAM – SPX OR MONARCH (MM2 + TEMP SW.) TLS4000RL



BUCHER POWER UNIT



TOP VIEW



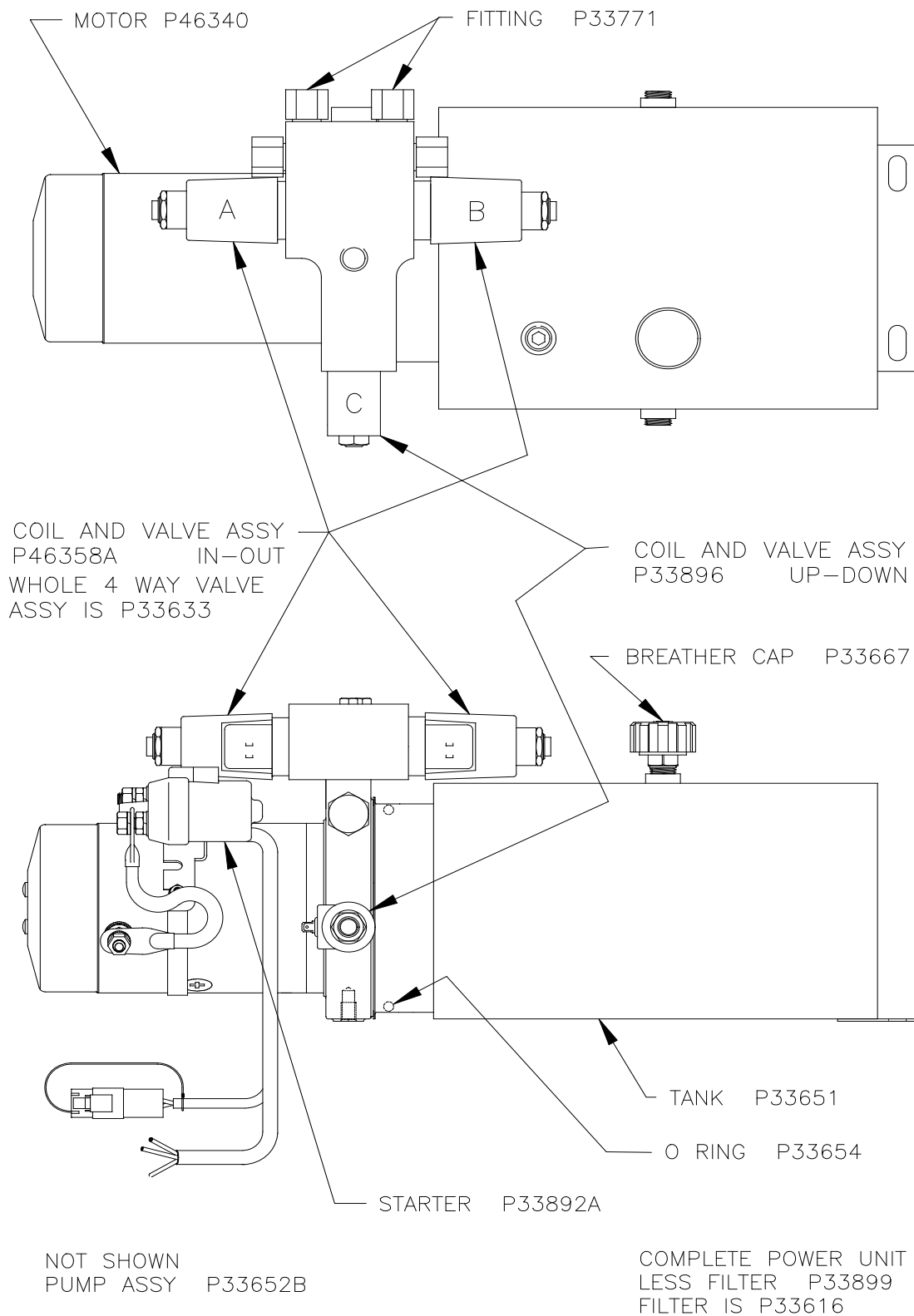
FRONT VIEW

COMPLETE POWER UNIT (LESS FILTER AND FITTINGS) P34171
 MAINTENANCE MINDER 2® CONTROLLER P46608H

DIAGRAMS

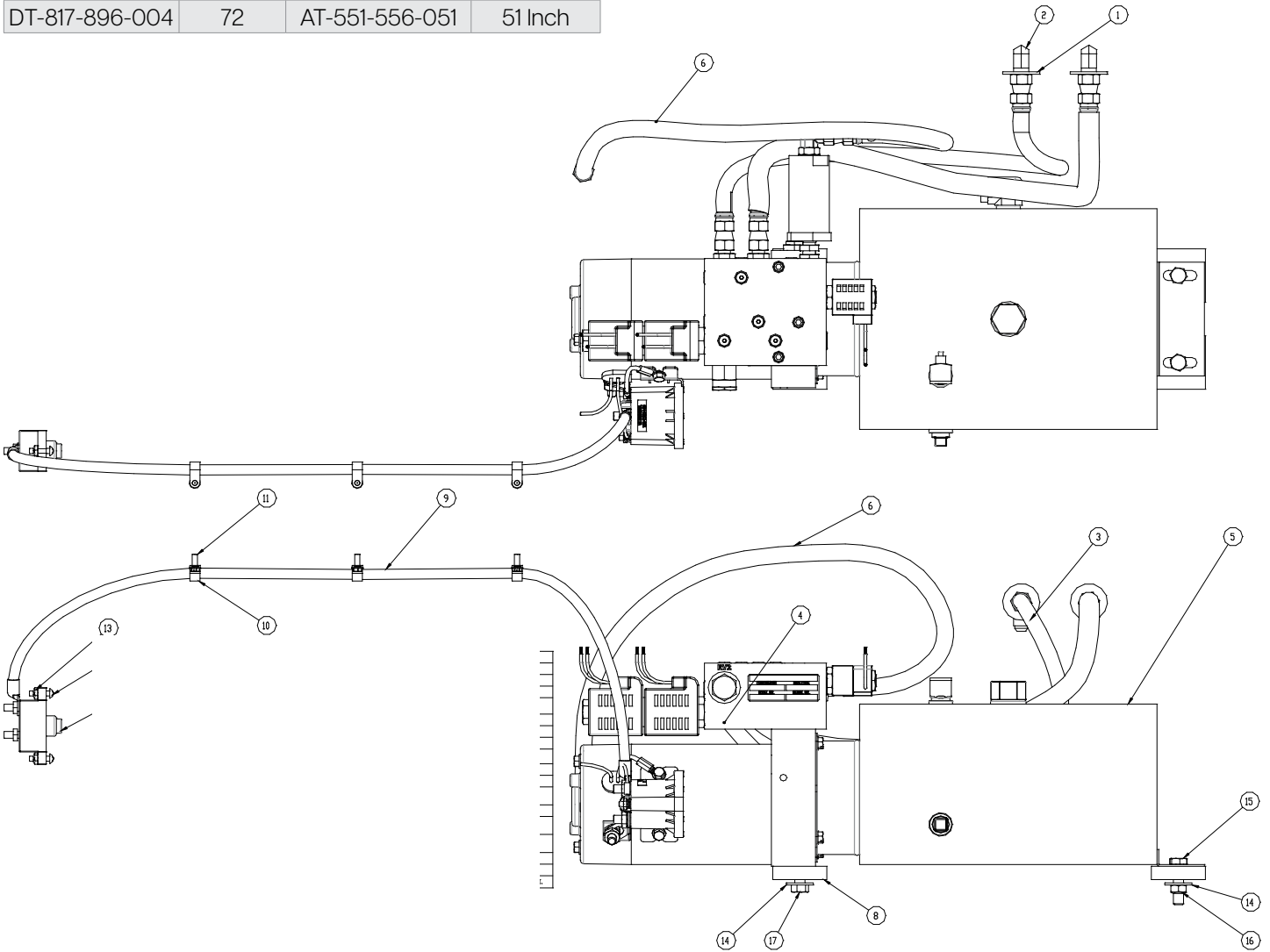
POWER UNIT REPLACEMENT PARTS TLS4000RL

Fenner (Gold Motor) And Smart Start Solenoid



HYDRAULICS - INTERIOR PARTS TLS3510RL/TLS4510RL

PART NUMBER	GATE WIDTH	ITEM 9 BATTERY CABLE SUB ASSEMBLY	ITEM 9 LENGTH
DT-817-896-001	42	AT-551-556-036	36 Inch
DT-817-896-002	48	AT-551-556-039	39 Inch
DT-817-896-003	60	AT-551-556-045	45 Inch
DT-817-896-004	72	AT-551-556-051	51 Inch



DIAGRAMS

HYDRAULICS - INTERIOR PARTS TLS3510RL/TLS4510RL – cont

INDEX NUMBER	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	2	P26004	Flat Washer	
2	2	P34106	Bulkhead Elbow	w/Nut
3	1	AT-501-354-018	Hydraulic Line 18"	
4	1	AT-501-354-023	Hydraulic Line 23"	
5	1	CA-501-443	Bucher Power Unit	
6	1	AT-501-354-027	Hydraulic Line 27"	
7	1	P46864	Circuit Breaker	150 AMP
8	4	AP-817-838	Plastic Space	
9	1	AT-551-771-055	2 Gauge Battery Cable Assembly	
10	3	P46250	Loop Clamp	
11	3	P17518	Self Tapping Screw	10-32 X 1/2
12	2	P19534	Round Head Machine Screw	10-24 X 3/4
13	2	P23504	Lock Nut	10-24
14	4	P46501	Flat Washer	3/8
15	2	P10030	Hex Bolt	3/8-16 X 1-1/2
16	2	P23501	Lock Nut	3/8-16
17	2	P10512	Hex Bolt	3/8-16 X 1-1/4



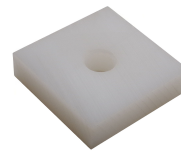
Flat Washer
P26004



Bulkhead Elbow
P34106



Circuit Breaker
P46864



Plastic Space
AP-817-838



Loom Clamp
P46250



Self-Tap Screw
P17518



Round Head Machine Screw
P19534



Lock Nut
P23504



Flat Washer
P46501



Self-Tap Screw
P10030



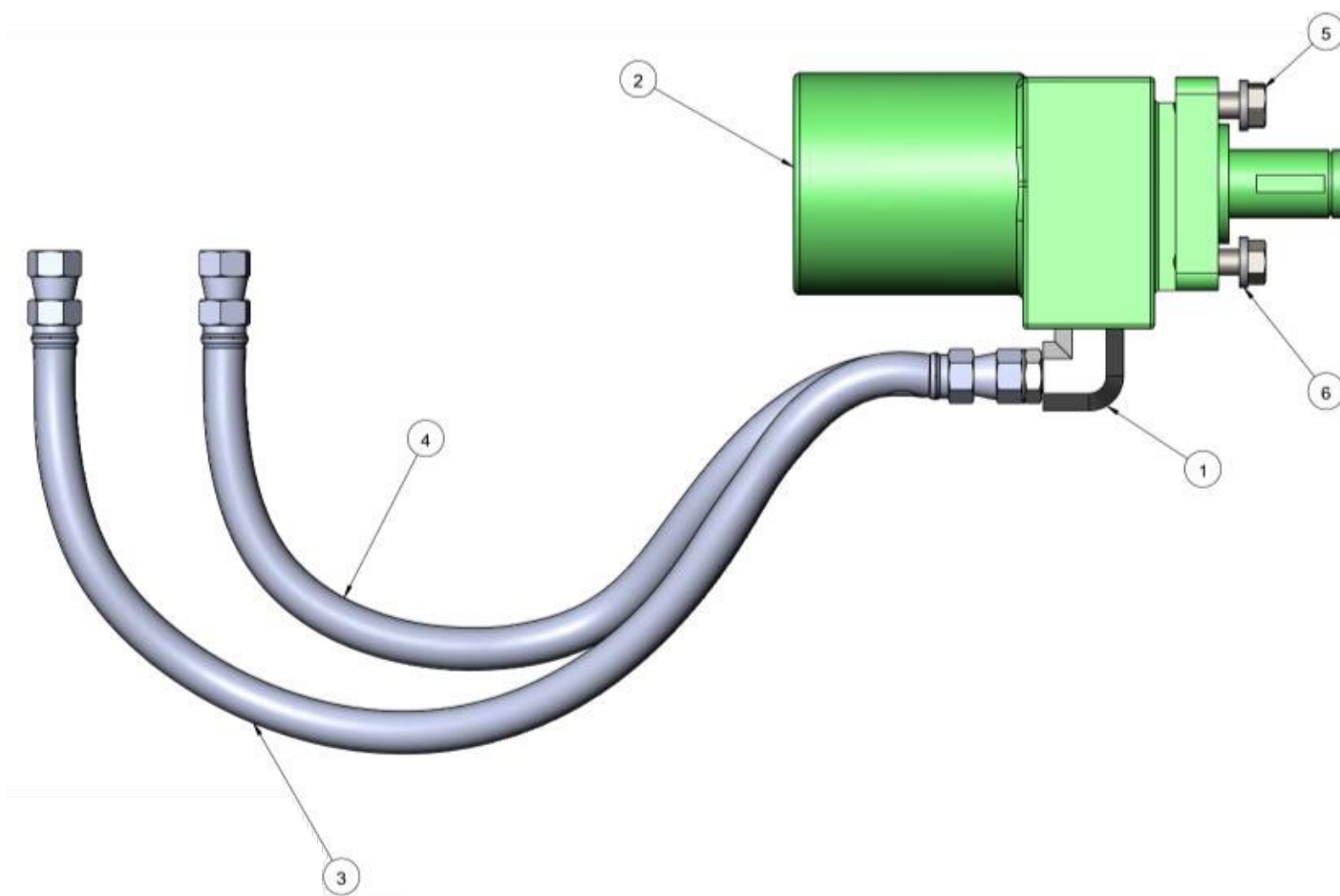
Lock Nut
P23501



Hex Bolt
P10512

DIAGRAMS

HYDRAULICS - INTERIOR PARTS TLS3510RL/TLS4510RL – cont



ITEM NUMBER	QTY	PART NUMBER	DESCRIPTION	MATERIAL SIZE
1	2	P34204	90° Elbow	JIC 10 - JIC 06
2	1	P33625	Hydraulic Motor	
3	1	AT-501-354-020	Hydraulic Line 3/18 Diameter – 20' Long	
4	1	AT-501-354-016	Hydraulic Line 3/18 Diameter – 16' Long	
5	4	P11021	HHCS	3/8-16 x LG, Gr 5 Plated
6	4	P26017	Lock Washer	3/8



90° Elbow
P34204



Hydraulic Motor
P33625



Hydraulic Line 3/18
Diameter – 20' Long
AT-501-354-020



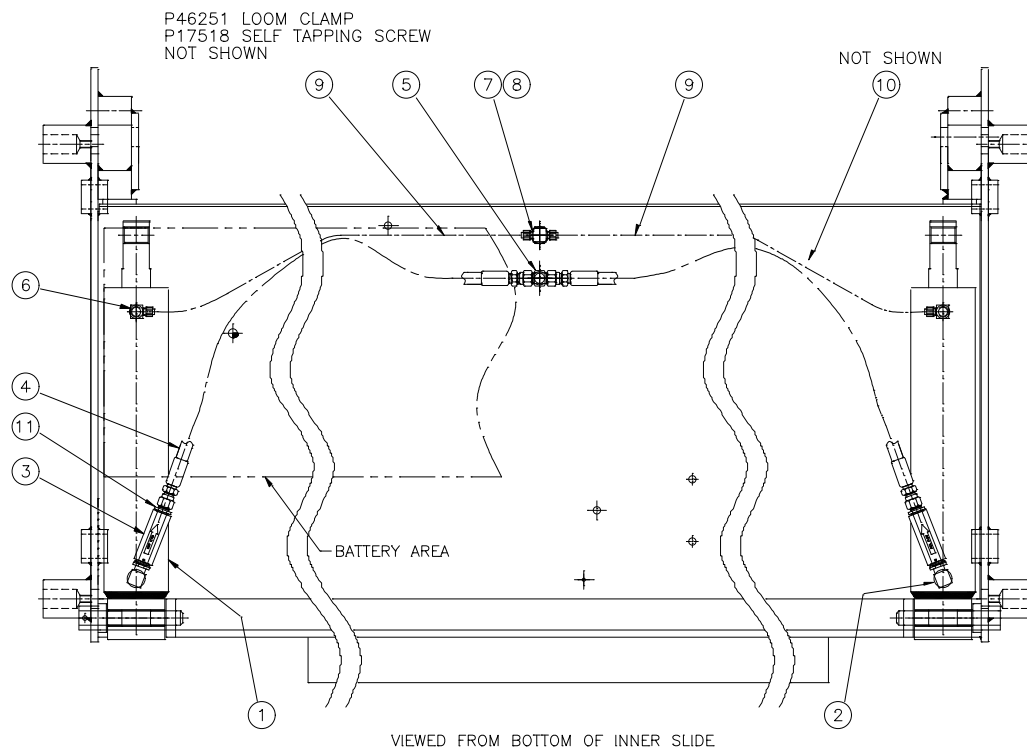
HHCS
P11021



Lock Washer
P26017

DIAGRAMS

HYDRAULICS BOTTOM SIDE PARTS TLS3510RL/TLS4510RL



INDEX #	QTY	PART #	DESCRIPTION	COMMENTS
1	2	P34182	Hydraulic Cylinder	3" Bore x 12" Stroke – Seal Kit P34217
2	2	P34041	Male Elbow	SAE O-RING (M) – SAE O-RING (M)
3	2	P34161	Flow Control	2.0 GPM SAE O-RING
4	2	See Chart	Hydraulic Line	
5	1	P34105	Bulkhead Tee	
6	2	P33932	Brass Male Elbow	
7	1	P33699	Brass Tee	1/4 NPT TO 1/4 TUBE
8	1	P33617	Reducer	3/8 NPT – 1/4 NPT
9	2	See Chart	1/4 " Poly Tube	
10	4	P36335	Wire Tie	
11	2	P34044	Adapter	SAE O-RING (M) - JIC (M)



Hydraulic Cylinder
P34182



Male Elbow
P34041



Flow Control
P34161



Bulkhead Tee
P34105



Brass Male Elbow
P33932



Brass Tee
P33699



Reducer
P33617

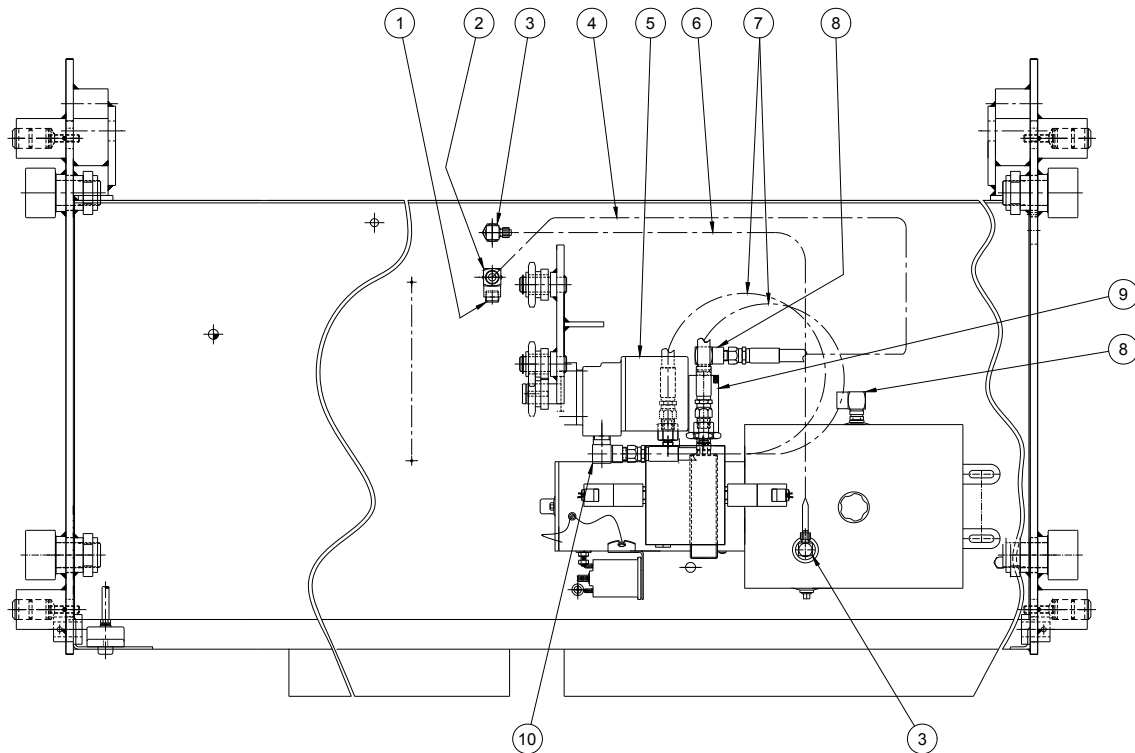


Wire Tie
P46335

GATE WIDTH	ITEM 4 HYDRAULIC LINE W/ENDS	ITEM 9 POLY TUBE
42	AT-501-354-027	P33702-021
48	AT-501-354-030	P33702-028
60	AT-501-354-035	P33702-034
72	AT-501-354-040	P33702-037

DIAGRAMS

HYDRAULICS BOTTOM SIDE PARTS TLS4500RL



INDEX #	QTY	PART #	DESCRIPTION	COMMENTS
1	1	P34044	Cap Nut	JIC 9/16-18
2	1	P34048	Tee	JIC 9/16-18 M-M-F
3	2	P33932	Brass Male Elbow	3/8NPT TO 1/4" HOSE
4	1	AT-501-354-027	Hydraulic Hose	3/8 w/ JIC ENDS
5	1	P33635	Hydraulic Motor	
6	1	P33702-026	1/4" Poly Tube	
7	2	AT-501-292-020	Hydraulic Hose	1/4 NPT – 3/8 NPT
8	2	P34020	Elbow	SAE O-RING - JIC
9	1	P34046	Inline Filter	
10	2	P33202	Street Elbow	1/2(M) TO 3/8(F)



Cap Nut
P34044



Tee
P34048



Brass Male Elbow
P33932



Elbow
P34020

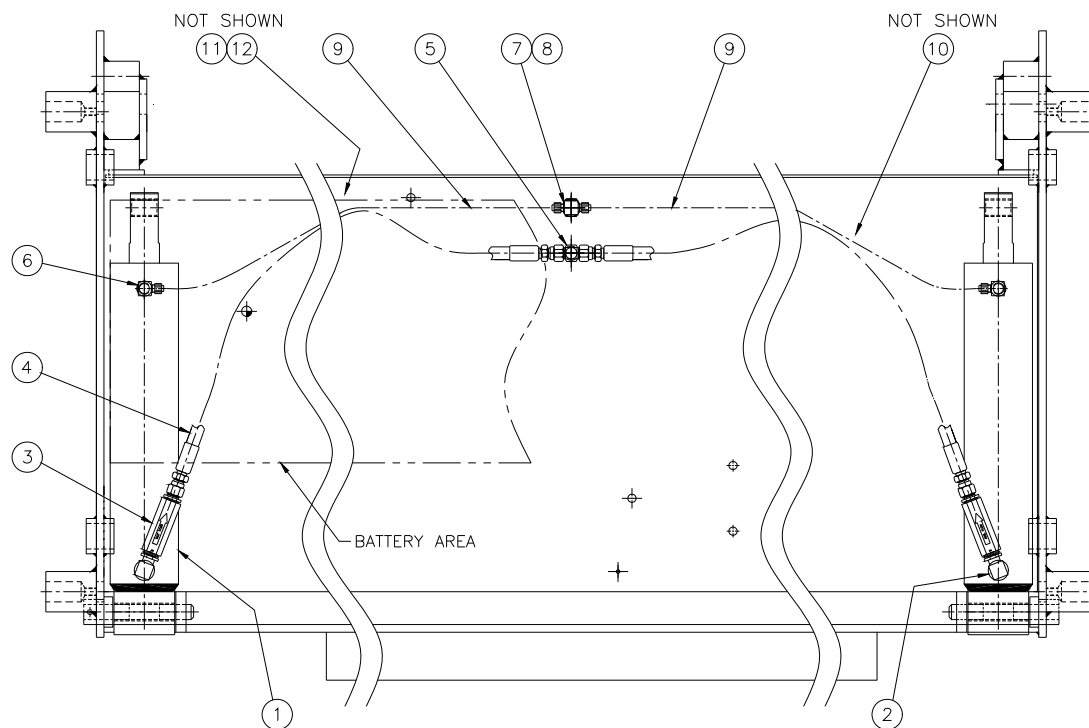


Inline Filter
P34046



Street Elbow
P33202

HYDRAULICS BOTTOM SIDE PARTS TLS4500RL



INDEX #	QTY	PART #	DESCRIPTION	COMMENTS
1	2	P34182	Hydraulic Cylinder	3" BORE x 12" STROKE
2	2	P34041	Male Elbow	SAE O-RING (M) – SAE O-RING (M)
3	2	P34161	Flow Control	2.0 GPM
4	2	See Chart	Hydraulic Line	
5	1	P34105	Bulkhead Tee	
6	2	P33932	Brass Male Elbow	
7	1	P33699	Brass Tee	1/4 NPT TO 1/4 TUBE
8	1	P33617	Reducer	3/8 NPT – 1/4 NPT
9	2	See Chart	1/4 " POLY TUBE	
10	4	P46335	Wire Tie	



Hydraulic Cylinder
P34182



Male Elbow
P34041



Flow Control
P34161



Bulkhead Tee
P34105



Brass Male Elbow
P33932



Brass Tee
P33699



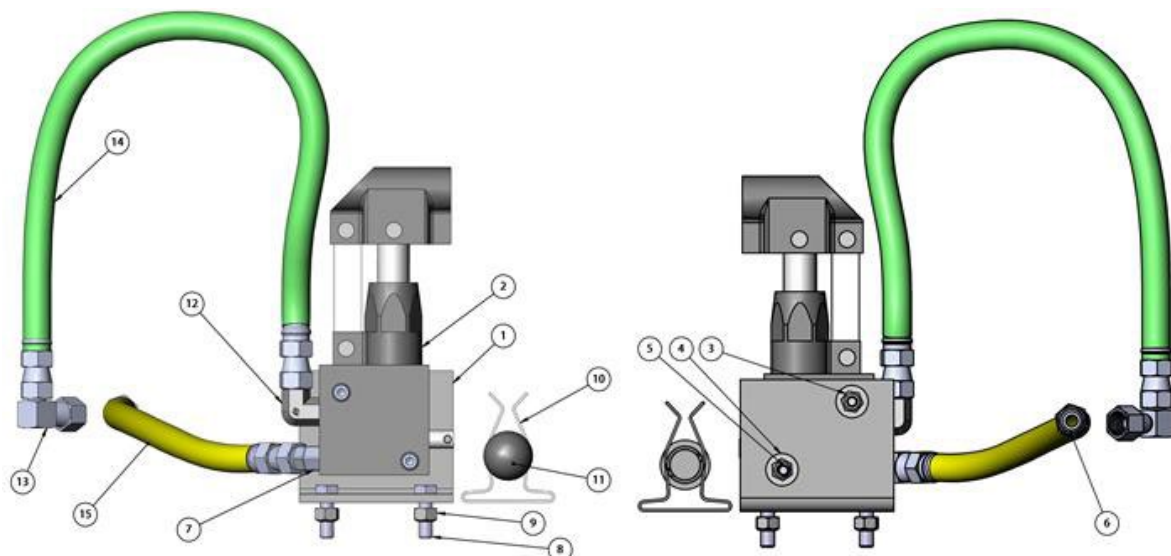
Reducer
P33617



Wire Tie
P46335

GATE WIDTH	ITEM 4 HYDRAULIC LINE W/ENDS	ITEM 9 POLY TUBE
42	AT-501-354-027	P33702-021
48	AT-501-354-030	P33702-028
60	AT-501-354-035	P33702-034
72	AT-501-354-040	P33702-037

EMERGENCY HAND PUMP OPTION #184



ITEM #	QTY	PART #	DESCRIPTION	MATERIAL/SIZE
1	1	AP-501-267	Hand Pump Mounting Bracket	
2	1	P33902	Hand Pump With Handle	
3	2	P23502	Lock Nut	1/2-20
4	2	P26001	1/4 Diameter Flat Washer	
5	2	P15541	Socket Head Cap Screw 1/4-20 x 2"	
6	1	P34006	Adapter 1/4 Male NPT to 9/16 Male 90°	
7	1	P34245	45° Elbow From 1/4-18 NPT Male to 7/16-18 JIC Male	
8	2	P10040	HHCS 5/16-18 x 1" Plated Grade 2	
9	2	P23510	5/16-16 Hex Lock Nut	
10	2	P46192	Tool Holder (Handle Mounting Bracket)	
11	REF	P33902A	Handle	
12	1	P34127	1/4-18 NPT M 9/16-18 JIC M	
13	1	P34051	90° Elbow	
14	1	AT-501-354-014	Hydraulic Line Assembly 3/8 Diameter	
15	1	AT-501-292-020	Hydraulic Line Assembly	



Hand Pump w/Handle
P33902



HHCS 5/16-18 x 1"
Plated Grade 2
P10040



Handle Holder
P46192

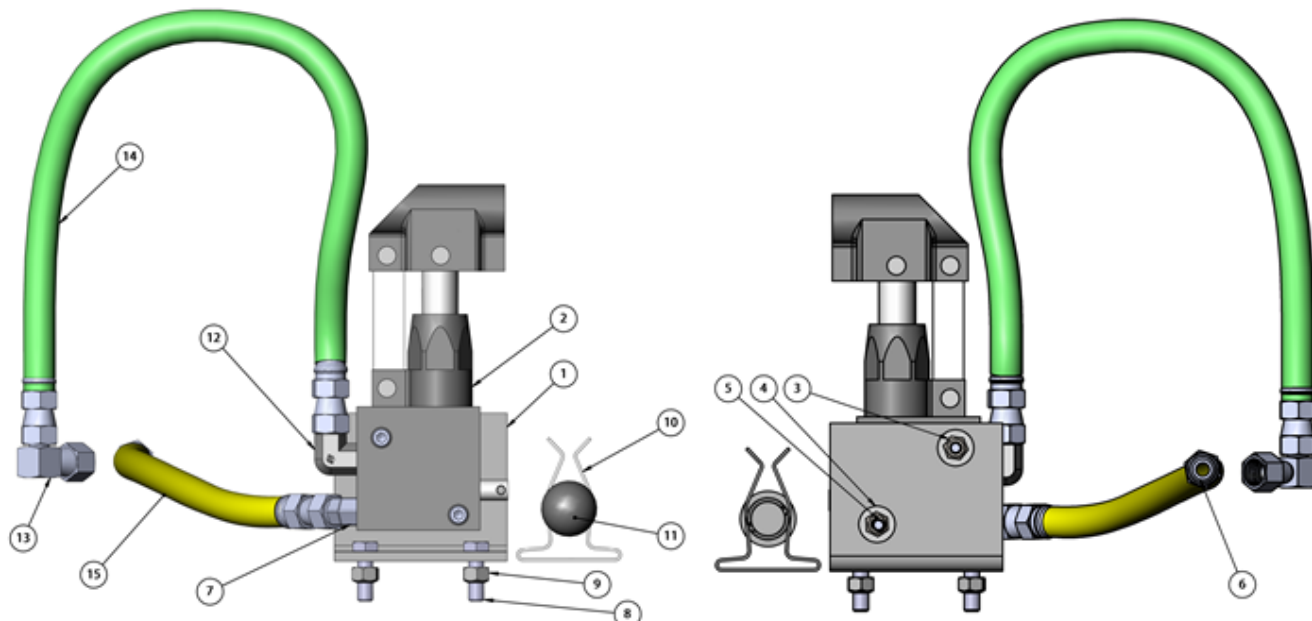


1/4-18 NPT M
9/16-18 JIC M
P34127



90° Elbow
P34051

EMERGENCY HAND PUMP OPTION #261



INDEX #	QTY	PART #	DESCRIPTION	COMMENTS
1	1	AP-501-267	Mounting Bracket	
2	1	P33902	Hand Pump W/Handle	
3	2	P23502	Lock Nut	1/4-20
4	2	P26001	1/4 Diameter Flat Washer	1/4
5	2	P15541	Socket Head Cap Screw	1/4-20 X 2
6	1	P34004	Adapter 1/4 Male NPT to 9/16 Male 90°	
7	1	P34245	45° Elbow From 1/4-18 NPT Male to 7/16-18 JIC Male	
8	2	P10040	HHCS 5/16-18 x 1" Plated Grade 2	5/16
9	2	P23510	5/16-16 Hex Lock Nut	
10	2	P46192	Tool Holder (Handle Mounting Bracket)	
11	REF	P33902A	Handle	1/4-20
12	1	P34127	1/4-18 NPT M 9/16-18 JIC M	
13	1	P34051	90° Elbow	
14	1	AT-501-354-014	Hydraulic Line Assembly 3/8 Diameter	
15	1	AT-501-292-020	Hydraulic Line Assembly	



Hand Pump w/Handle
P33902



HHCS 5/16-18 x 1"
Plated Grade 2
P10040



Handle Holder
P46192



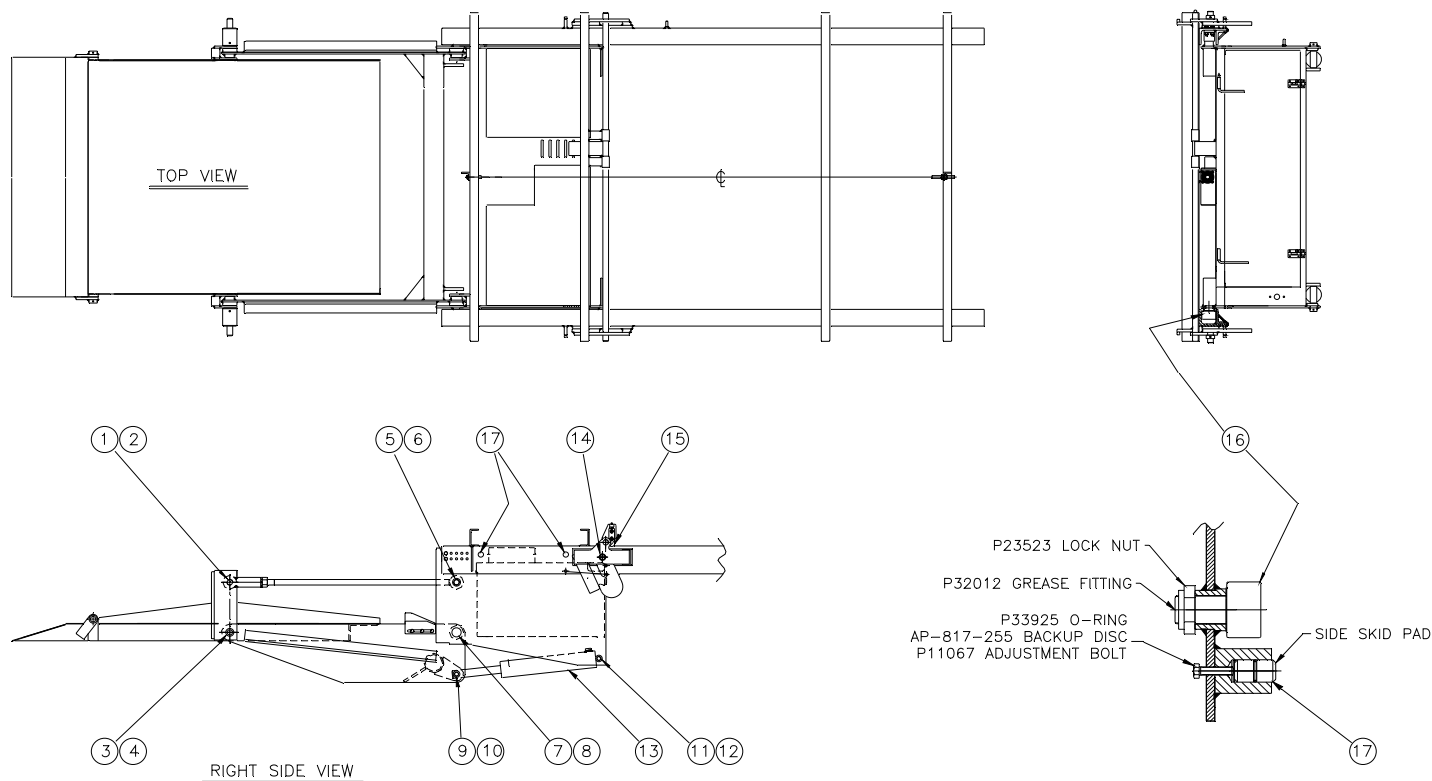
1/4-18 NPT M
9/16-18 JIC M
P34127



90° Elbow
P34051

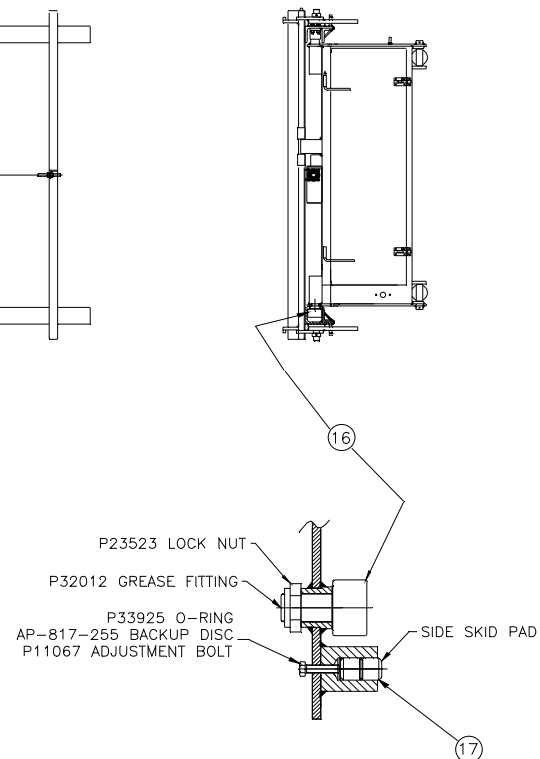
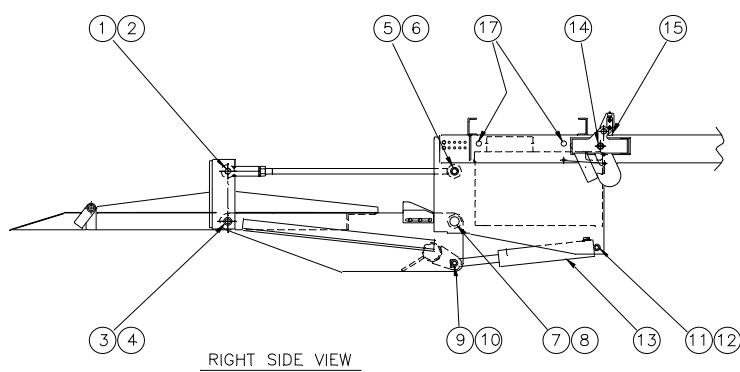
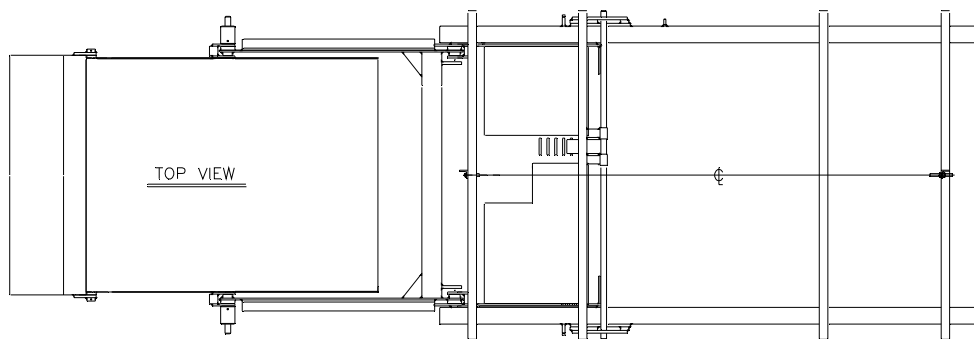
DIAGRAMS

REPLACEMENT BEARINGS AND PINS



INDEX NUMBER	QTY	PART NUMBER	PART NAME	MATERIAL./SIZE
1	2	P43567	Bearing	1 id. x 1-1/2 lg.
2	2	BA-817-844 / BP-817-472	Pin & Boss / Pin only	1 dia. x 7-5/8 lg.
3	2	P43567	Bearing	1 id. x 1-1/2 lg.
4	2	AP-817-842	Pin (Comp Arm to Platform)	1 dia. x 3-5/8 lg.
5	2	P43567	Bearing	1 id. x 1-1/2 lg.
6	2	AP-817-842	Pin (Tension arm to Inner)	1 dia. x 3-5/8 lg.
7	2	P43566	Bearing	1-1/4 id. x 1-1/2 lg.
8	2	AP-817-843	Pin (Comp Arm to Inner)	1-1/4 dia. x 3-5/8 lg.
9	4	P43620	Bearing (cyl. rod end)	3/4 id. x 5/8 lg.
10	2	AA-817-742	Pin Kit (Rod end w/hdw)	3/4 dia. x 3-3/4 lg.
11	4	P43573	Bearing (cyl. base end)	3/4 id. x 3/4 lg.
12	2	AA-817-743	Pin(Base end w/hdw)	3/4 dia. x 6-1/8 lg.
13	2		Hyd. Cylinder	
14	2	P43570	Bearing	1 id. x 1/2 lg.
15	2	AP-817-233	Skid Pad	Pushes "J" Hook
16	4	P37544	Roller	Ref. P23523 Nut & P32012 Gr. Fitting
17	4	AP-817-044	Side Skid Pad	1 od. x 1-13/16 lg.
	8 ea	P11062 and P23502	Bolt and Lock Nut	Use w/items 4, 6, 10, 12
	2 ea	P11063 and P23502	Bolt and Lock Nut	Use w/item 8
	2	P47538	Roll pin	Use w/item 2
	8	P32016	Grease Fitting	Use w/items 2, 4, 6, 8

REPLACEMENT BEARINGS AND PINS – cont



Bearing
P43567



Pin
BP-817-472



Bearing
P43567



Pin (Comp Arm to Platform)
AP-817-842



Bearing
P43567



Pin (Tension Arm to Inner)
AP-817-842



Bearing
P43566



Pin (Tension Arm to Inner)
AP-817-843



Bearing (cyl. rod end)
P43620



Bearing (cyl. base end)
P43573



Pin (Base end w/hdw)
AA-817-743



Bearing
P43570



Roller
P37544

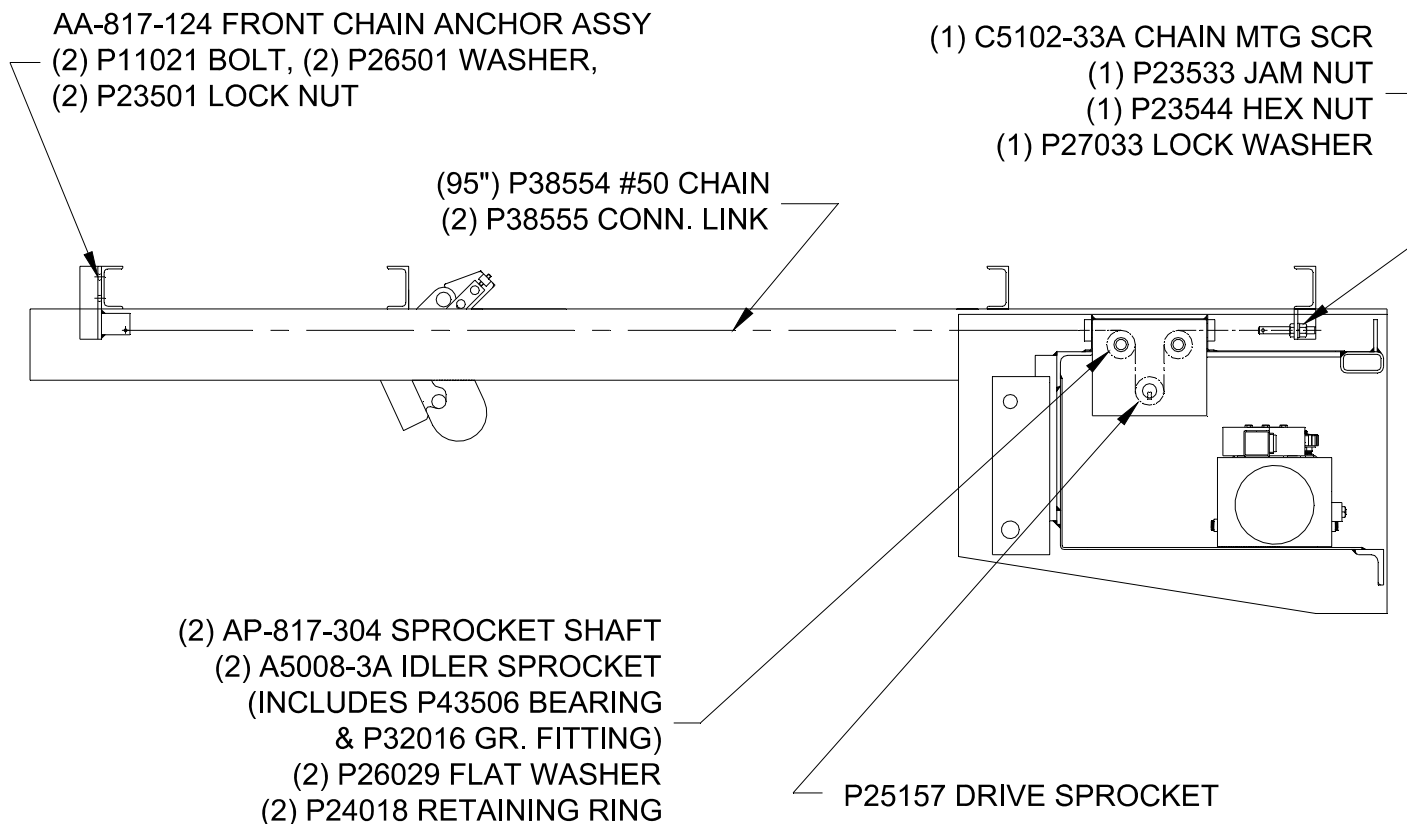


Side Skid Pad
AP-817-044



Bolt and Lock Nut
P47538

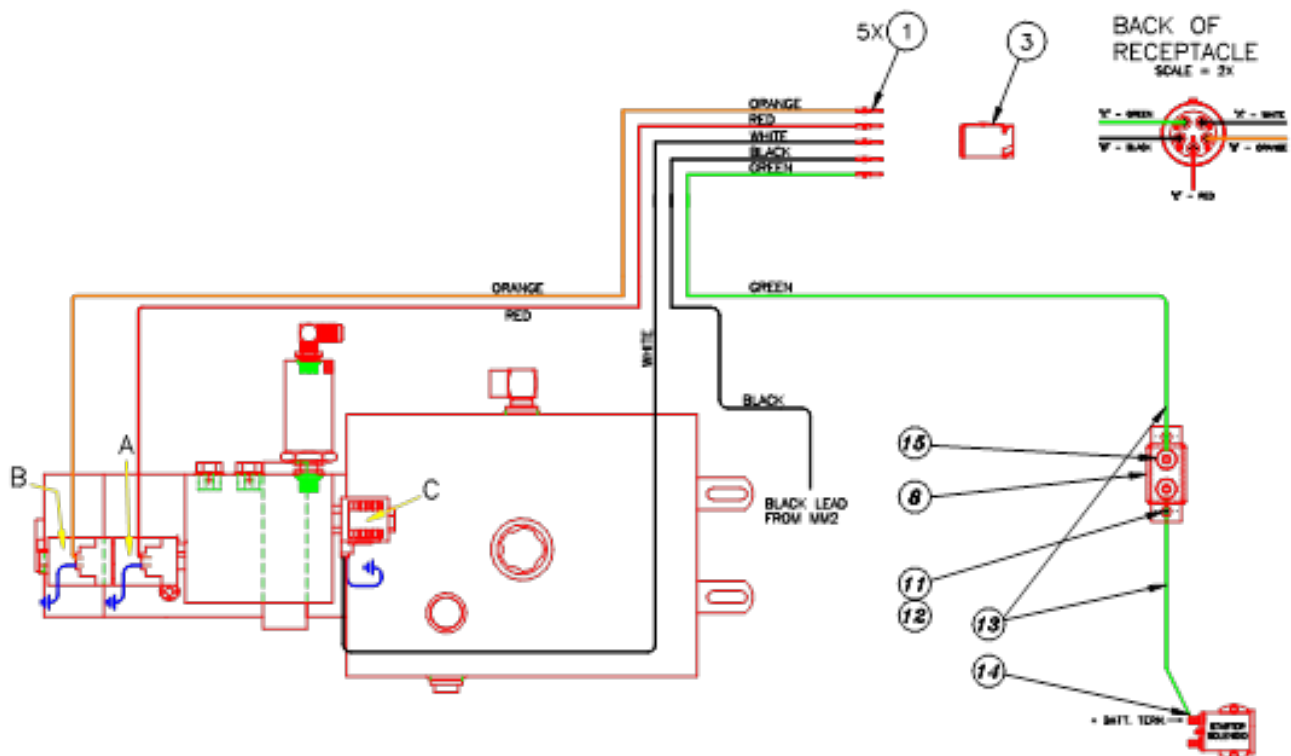
CHAIN AREA REPLACEMENT PARTS



DIAGRAMS

BASIC ELECTRICS – REPLACEMENT PARTS

TLS3510RL/TLS4510RL



INDEX #	QTY	PART #	DESCRIPTION	MATERIAL/SIZE
1	5	P46888	Pin, Solid	0460-215-16141
2	1	P46445	Cord Grip 1/2 NPT	For 16-5 & 1/0 Cable
3	1	P46886	Receptacle	HD14-5-16P
4	1	P46738	Cord Grip 16mm x 1.5	
5	1	S350-001.000	HR Round Plug	3/16 Diameter x 1 inch lg
6	1	P46251	Loom Clamp 3/4 Inch	For 16-5 Cable
7	1	P46250	Loom Clamp 1/2 Inch	For Ground Cable
8	1	P46236	20 Amp Circuit Breaker	
9	6	P46335	Cable Tie, 7 Inch	Inside Enclosure
10	1	P17518	Self Tapping Screw	
11	2	P19501	Screw 10-24 x 1/2	
12	2	P23504	Nut	
13	2	P46301	Green 16 Gauge Wire	1 PC 22 Inch, 1 PC 13 Inch
14	1	P46751	Ring Terminal	16-14, 3/8 Screw
15	2	P46507	Ring Terminal Small	16-14, #10 Screw



Cord Grip
P46445



Receptacle
P46886



Cord Grip 16mm x 1.5
P46738



20 Amp Circuit Breaker
P46236

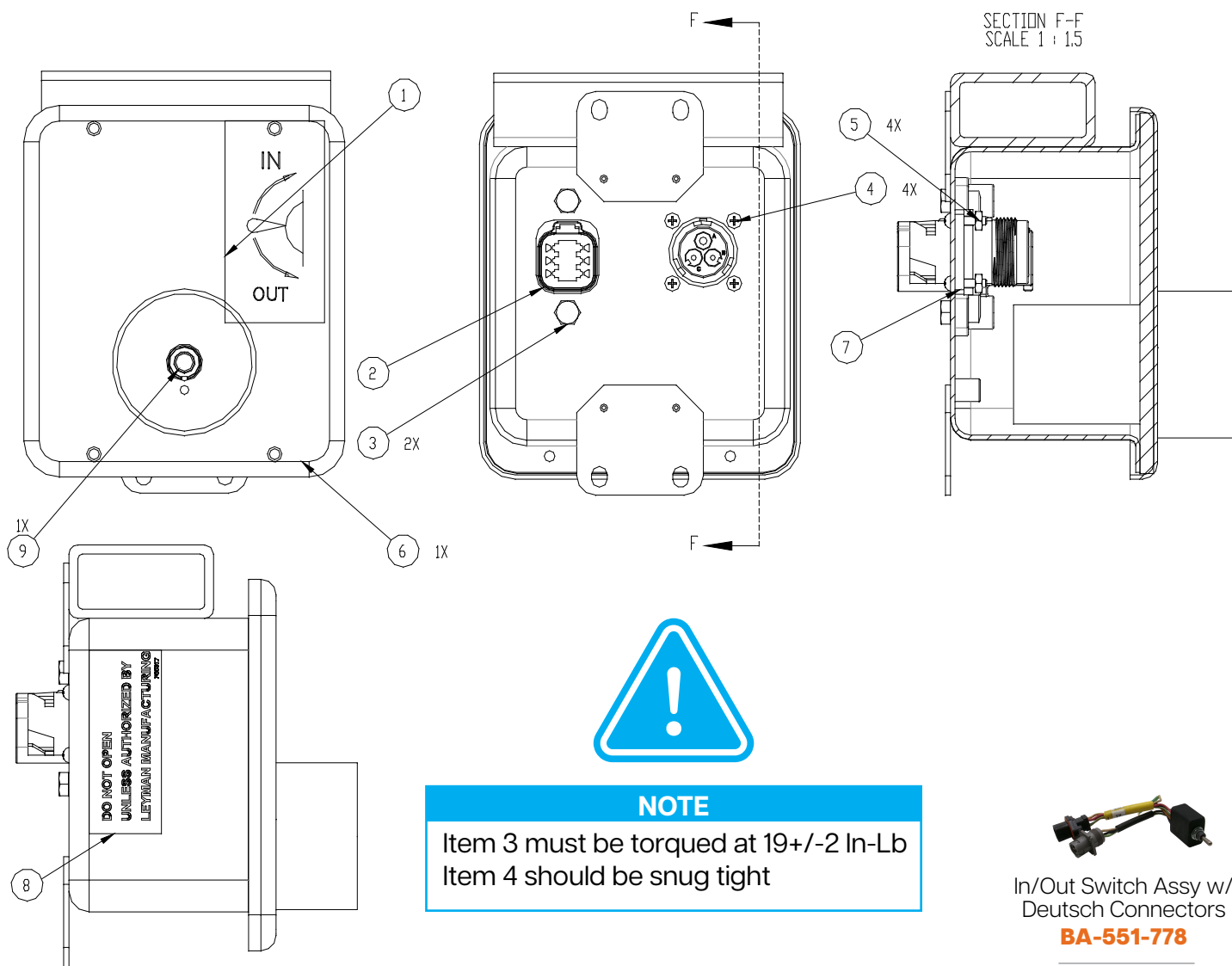


Small Ring Terminal
P46507

DIAGRAMS

BASIC ELECTRICS – REPLACEMENT PARTS

MONARCH W/POTTED SWITCHES for TLS3510RL/TLS4510RL



INDEX NUMBER	QTY	PART NUMBER	DESCRIPTION
1	1	P55222	In/Out Toggle Switch Decal
2	1	BA-551-778	In/Out Switch Assy w/Deutsch Connectors
3	2	P10816	HHCS M5 x 0.8 x 12
4	4	P19537	Round Head Machine Screw 4-40 x 1/2
5	4	P23547	4-40 Zinc Plated Machine Nut
6	1	BA-551-780	Switch Box Weldment / Assy
7	1	P46901	3 Pin Receptical Gasket, HD10-3-GKT
8	1	P55317	Do Not Open Decal
9	1	P46291	Halk Boot



In/Out Switch Assy w/
Deutsch Connectors

BA-551-778



3 Pin Receptical Gasket,
HD10-3-GKT

P46901



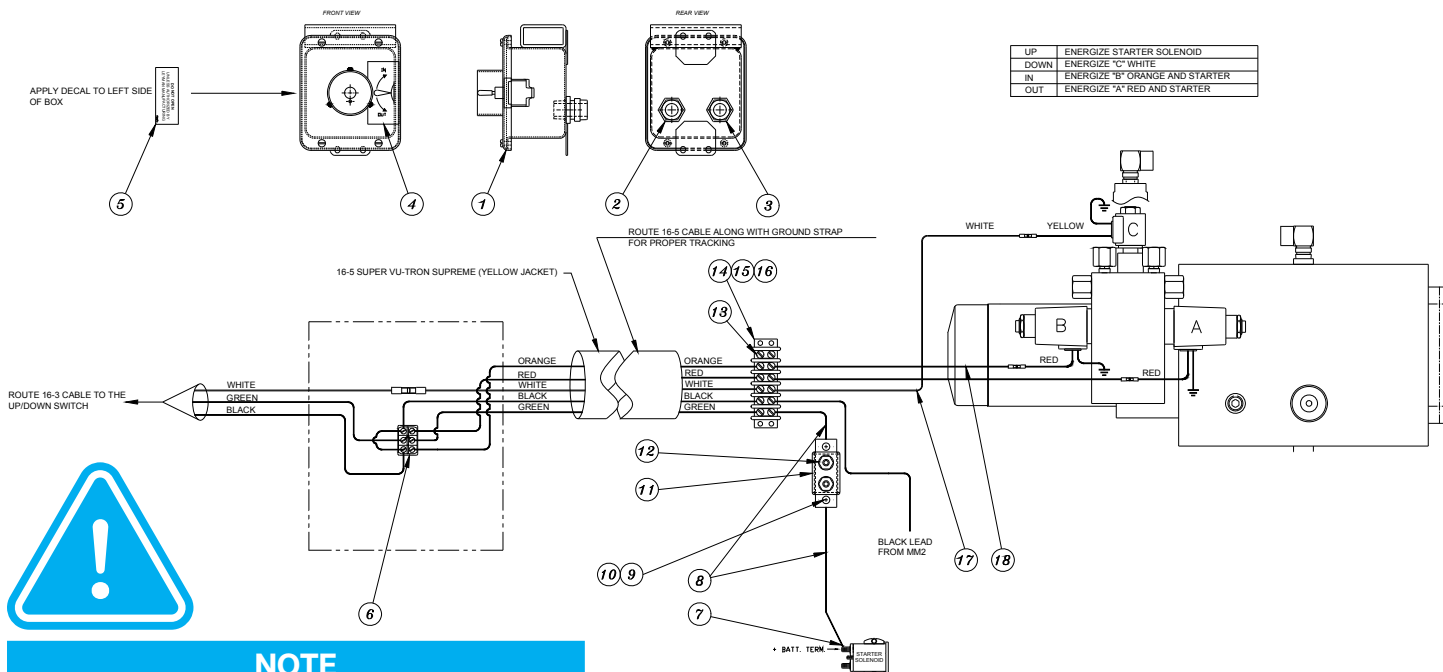
Halk Boot

P46291

DIAGRAMS

BASIC ELECTRICS – REPLACEMENT PARTS

MONARCH W/POTTED SWITCHES for TLS4500RL



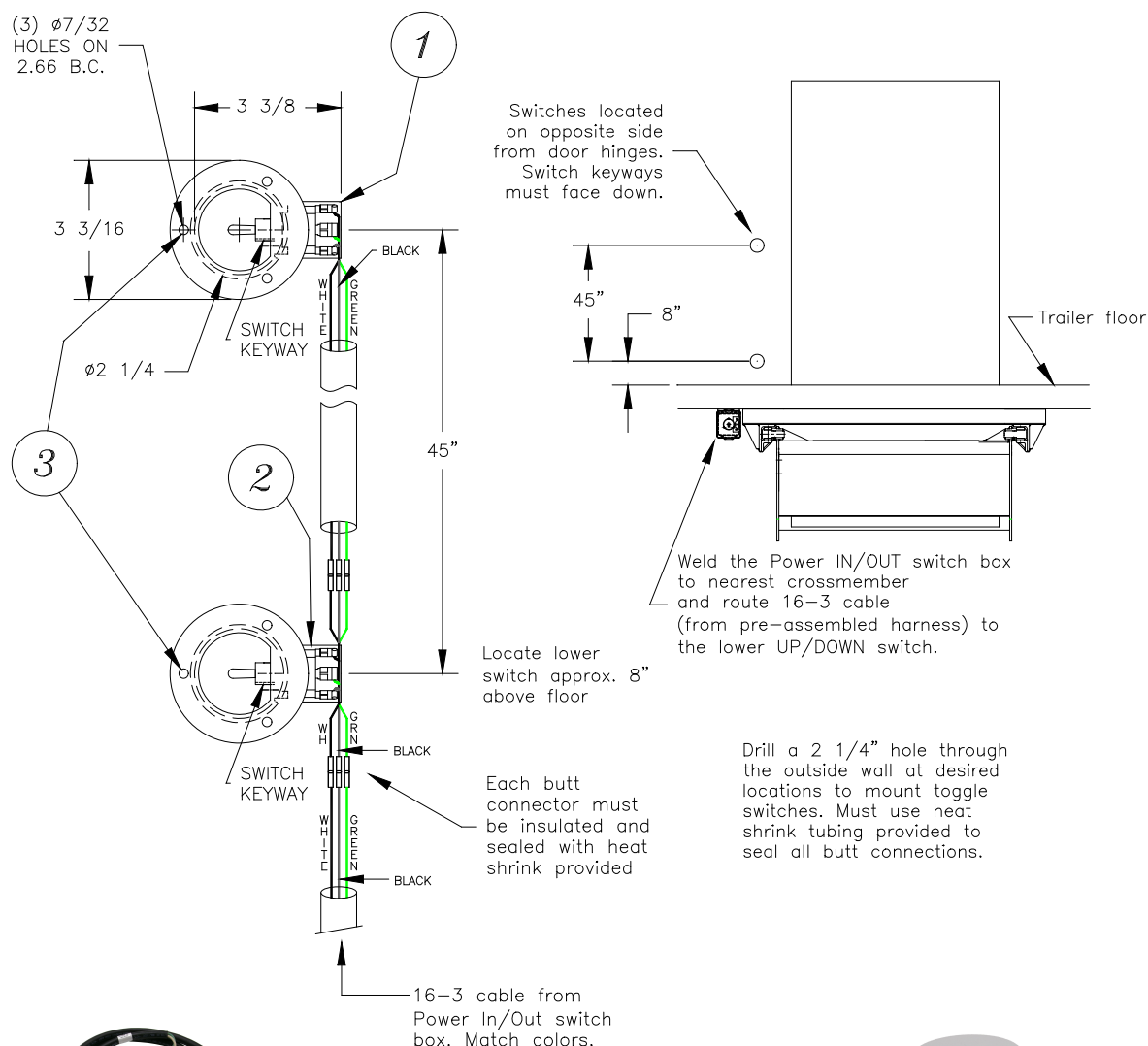
NOTE

Spray fluid film sealer on terminal strip after making connections

INDEX NUMBER	QTY	PART NUMBER	DESCRIPTION	COMMENTS
1	1	BA-551-317	Switch Box Assembly	
2	1	P46445	Cord Grip	FOR 16-5 CABLE
3	2	P46517	Cord Grip	FOR 16-3 CABLE
4	1	P55222	In/Out Decal	
5	1	P55317	"Do Not Open" Decal	
6	1	AA-551-537	In/Out Potted Switch Assy	
7	1	P46235	Large Ring Terminal	
8	2	P46301	Wire – Green	12" Long Each
9	2	P19501	Screw	10-24 X 1/2
10	2	P23504	Nut	
11	1	P46236	20 Amp Circuit Breaker	
12	2	P46507	Small Ring Terminal	
13	10	P46319	Fork Terminal	
14	1	P46449	Terminal Block	
15	2	P19501	Screw	
16	2	P23535	Lock Nut	
17	1	P46631	White Shrink Tube	18" Use to identify wire lead
18	1	P46632	Orange Shrink Tube	18" Use to identify wire lead
19	1	P55345	Electrics/Hyd. Diagram	For MM2, +temp switch
	204"	P46748	16-5 Cable (yellow)	High Flex Cable

DIAGRAMS

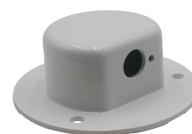
TOGGLE SWITCH REPLACEMENT PARTS



Top Up/Down Switch Assembly
AA-551-538



Small Ring Terminal
P46729



Recessed Switch Plate
P46292

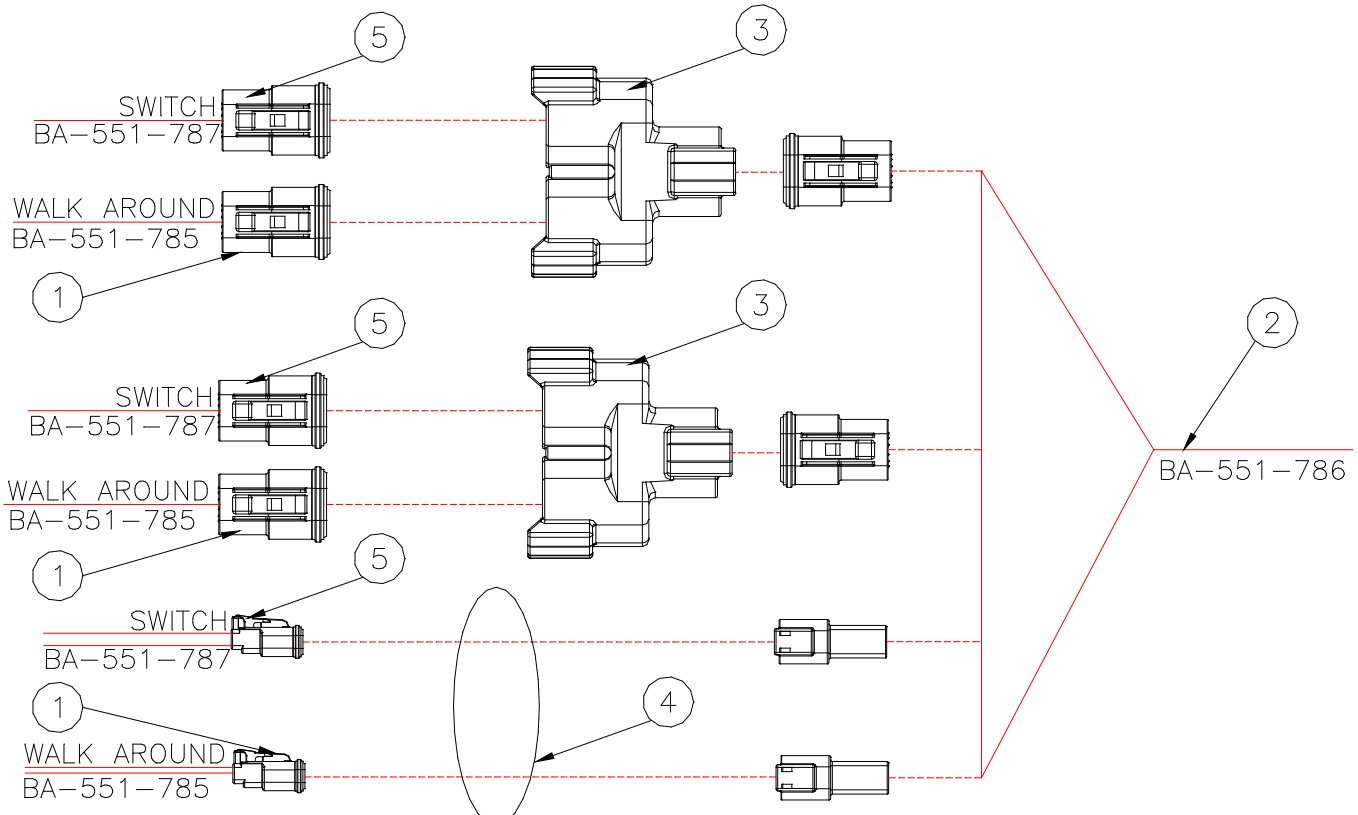
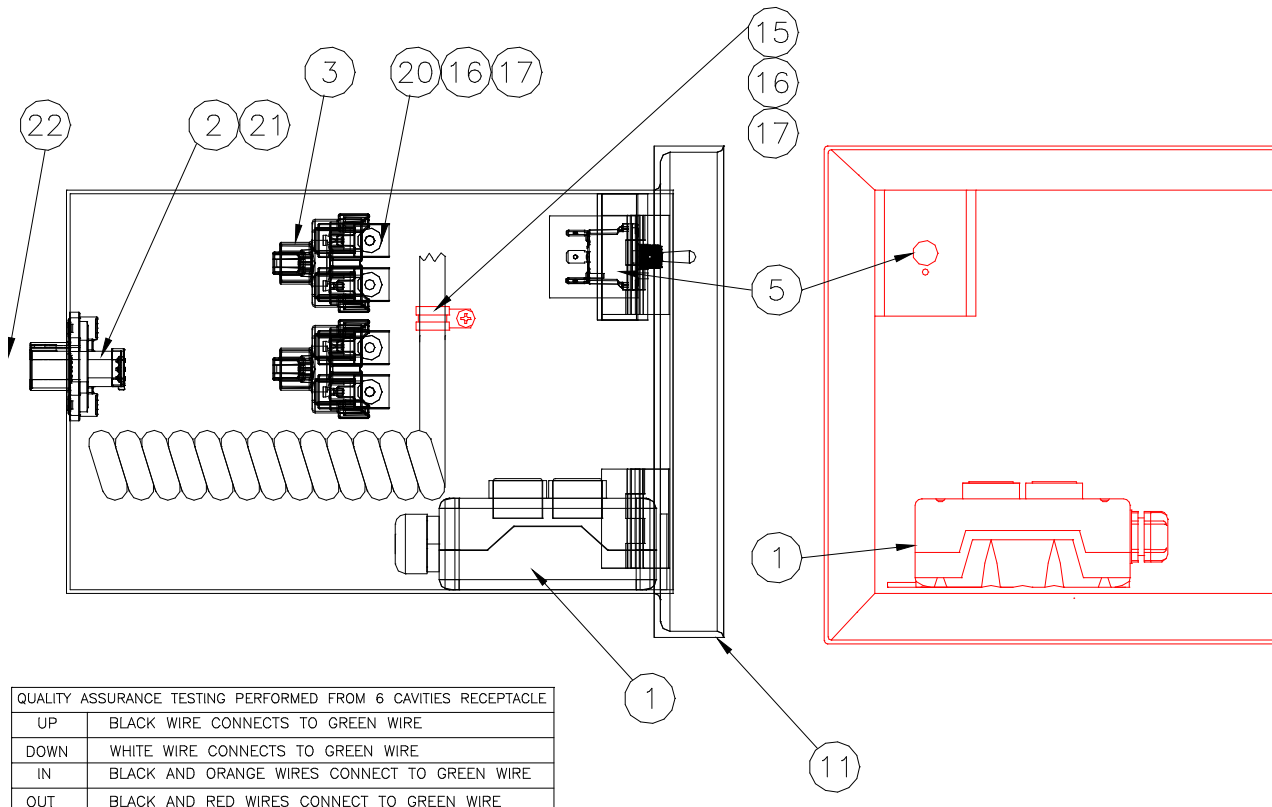


Rubber Half Boot
P46291

INDEX #	QTY	PART #	DESCRIPTION	COMMENTS
1	1	AA-551-538	Top Up/Down Switch Assembly	Including Recess Switch Plate
2	1	P46729	Lower Up/Down Switch	Including Recess Switch Plate
3	6	P17536	Sheet Metal Screw	
4	4	P46250	Loom Clamp	Not Shown
5	4	P17518	Self Tapping Screw	Not Shown
	2	P46292	Recessed Switch Plate	Reference Items 1 & 2
	2	P46291	Rubber Half Boot	Reference Items 1 & 2

DIAGRAMS

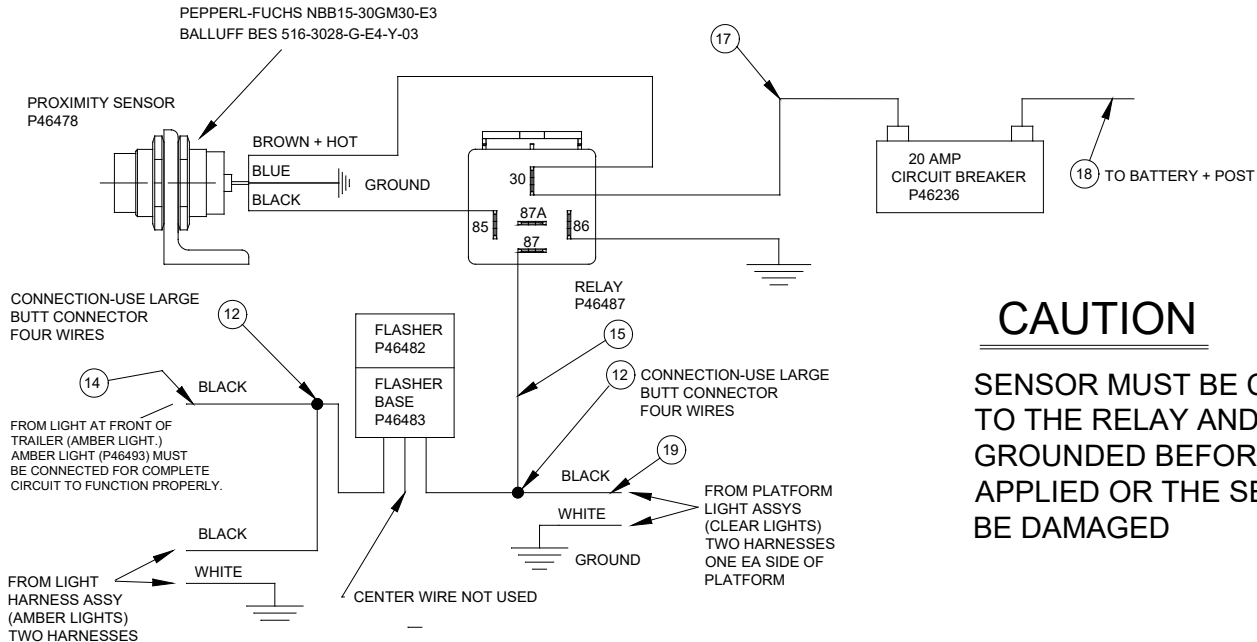
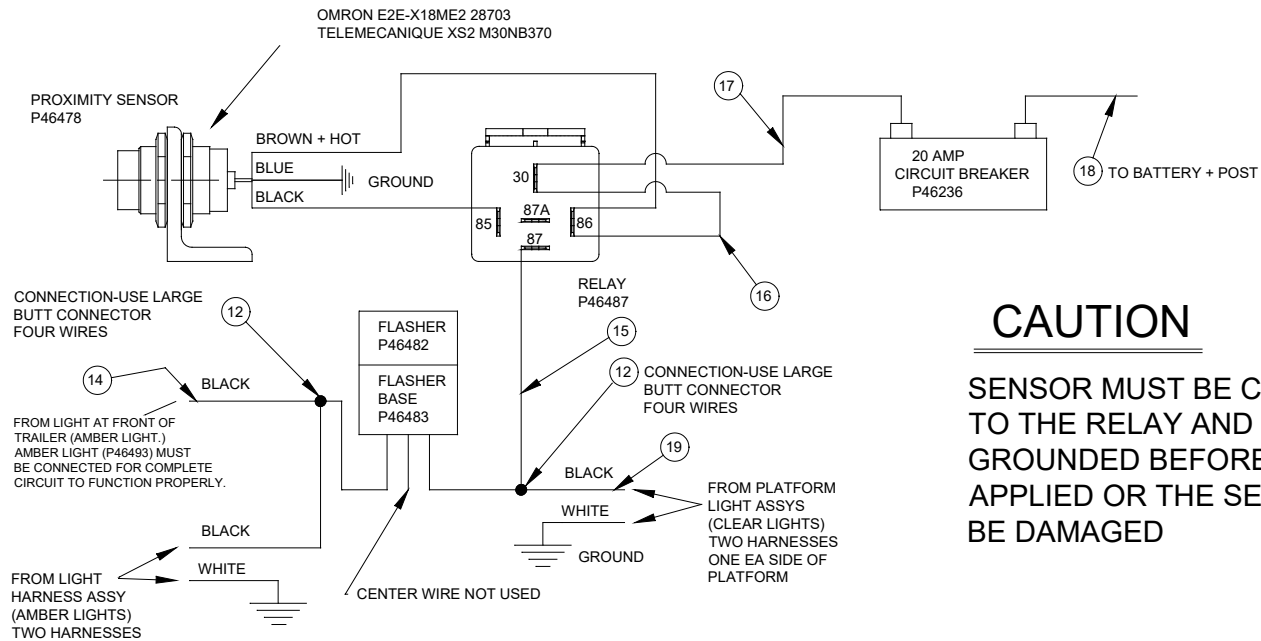
Walk Around Electrics (Option #183TLS-DEUTSCH)



Walk Around Electrics (Option #183TLS-DEUTSCH) – cont.

INDEX #	QTY	PART #	DESCRIPTION	MATERIAL / SIZE
1	1	BA-551-785	2-Button Control Assembly	
2	1	BA-551-786	Walk Around Storage Box – Inside Harness	
3	2	P46913	Receptacle “Y” Connector	
4	1	P46335	Cable Tie Black Nylon	
5	1	P46912	Potted Toggle Switch Assembly	
6				
7				
8				
9				
10				
11	1	P46915	Push Button Box	Ref. Dwg. CA-551-789
12				
13				
14	5	P17518	Self Tapping Screw	
15	6	P46450	Loom Clamp	
16	5	P19501	Round Head Screw	#10-24 x 1/2
17	5	P23504	Lock Nut	#10-24
18	1	S560-014.000	Support Angle	ST ANGLE 1-1/2 x 1-1/2 x 1/4 x 14
19	1	S560-006.000	Brace	HR FLAT 1/4 x 1/2 x 6
20	4	P46914	Mounting Clip	1011-026-0205
21	2	P10816	HHCS M5 x 0.8 x 12	Torqued at 19+/-2 IN-LB
22	1	BA-551-784	External Side Wall Harness for Hand Held Control	ST ANGLE 1-1/2 x 1-1/2 x 1/4 x 14

LIGHTS AND SENSORS (Option #155)



LIGHTS AND SENSORS (Option #155) – cont.

INDEX #	QTY	PART #	DESCRIPTION	MATERIAL / SIZE
1	1	P46478	Proximity sensor	
2	1	AP-817-139	Sensor mount	Weld to inner slide cover
3	1	S566-006.000	Sensor target	2 x 1-1/2 x 1/8 x 6
4	1	P46487	Relay	
5	1	P46482	Flasher	Blk wire on sol to blk wire
6	1	P46483	Flasher base	Blk wire on sol to blk wire
7	1	P46236	Circuit breaker	20 amp, auto reset
8	4	P17518	Self tapping screw	CirB-2, relay-1, flasher base-1
9	2	P46751	Large ring terminal	To starter lg hot post
10	3	P46318	Female terminal push on	For relay connections
11	5	P46047	Small ring terminal	To circuit breaker & 3 grounds
12	2	P46157	Lg butt connector	
13	1	BA-551-193	Light harness assy	Includes all lights
14	1	P46017	Black wire 16-GA	600" To front of trailer
15	1	P46017	Black wire 16-GA	8" From clear lights to relay
16	1	P46301	Green wire 16-G	3" From relay 30 to relay 86
17	1	P46301	Green wire 16-G	8" From relay to circuit breaker
18	1	P46301	Green wire 16-GA	48" From circuit breaker to battery
19	2	P46017	Black wire 16-GA	180" From relay to clear lights
20	1	P46665	Female terminal push on	For double wire connection
21	1	P46739	Cord grip	
22	1	P46740	Black nylon nut	

REPLACEMENT OF SAFETY DECALS

Leyman Manufacturing will replace safety stickers at any time **FREE OF CHARGE**.

Locate the following decals on trailer side wall near door –

P55236	Operating Instructions
P55157	Urgent Warning – Read Before Operation (Qty. 2)
P55294	CAUTION Do Not Stand....
P55193	Maximum Capacity Decal - LPS

Locate the following decal on trailer side wall under door threshold –

P55138	Keep Feet from Edge....
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Locate the following decals at Toggle Switches –

P55222	IN / OUT
P55221	UP / DOWN (Qty. 2)



[illegible]