LB|P

LeeBoy Group

OPERATIONS, SERVICE AND PARTS MANUAL

LB Performance Model PF-1510B Paver/Finisher

Manual No. 1013138-02

This manual applies to serial number and above: 123273

SAFETY PRECAUTIONS

Hot Material Precautions

- Always wear protective gear for face, hands, feet, and body when operating the machine.
- Allow machine to cool before repairing or maintaining working components.
- When hot asphalt touches skin, flush area immediately with cold water. DO NOT apply ice to the affected area. DO NOT ATTEMPT TO REMOVE ASPHALT CEMENT with products containing solvents or ammonia. Natural separation will occur in 48 to 72 hours. Get medical attention immediately.
- DO NOT remove radiator cap, drain plugs, service grease fittings or pressure taps when engine is hot. Add coolant to the radiator and perform other services only when the engine is stopped and fully cooled.

Hydraulic System Precautions

- Make sure that all components are in good working condition. Replace any worn, cut, abraded, flattened, or crimped hoses and metal lines.
- DO NOT attempt makeshift repairs using tape, clamps, or cements. The hydraulic system operates under extremely high pressure and such repairs could cause serious injury.
- Wear proper hand and eye protection when searching for a high pressure leak. Use a piece of wood or cardboard as a back stop, instead of hands, to isolate and identify leaks. Pressurized hydraulic fluid or oil has sufficient force when it escapes to penetrate the skin which could cause serious personal injury. Insure all pressure is relieved before disconnecting line, hoses, and/or valves.
- If injured by concentrated high pressure steam or hydraulic fluid, seek medical attention immediately. Serious infections or toxic reactions can develop from hydraulic fluid penetrating the skin's surface.

Refueling Precautions

- When refueling, keep the hose nozzle or the funnel in contact with the metal of the fuel tank to avoid the possibility of an electrical spark lighting the fuel. Maintain control of filler nozzle.
- DO NOT overfill the fuel tank as overflow creates a fire hazard when spilled on hot components.
- DO NOT smoke when refueling and never refuel when the engine is running. Fuel is highly flammable and should be handled with care. Death or serious injury can occur due to explosion and/or fire.
- DO NOT fill tank to capacity. Allow room for expansion to reduce the risk of fuel expanding and spilling from the tank.
- Tighten fuel cap securely. Should the fuel cap be lost, replace it with an original manufacturer's approved cap. Pressurization of the tank may result from use of a non-approved cap that could cause injury or improper operation.
- Prevent fires by keeping the machine free of accumulated debris, grease and spilled fuel.
- Use the correct fuel grade for the operating season.

Battery Precautions

- Keep all sparks and flames away from batteries, as gas given off by electrolytes is explosive. Acid propelled by an explosion can cause blindness if it comes in contact with eyes. Always wear safety glasses when working near batteries.
- If you come into contact with battery electrolyte solution, wash off immediately. Chemicals can cause burns.
- Always disconnect the battery ground cable before working on the electrical system to avoid injury from spark or short circuit. Electrical shock and burns can occur.
- To avoid electrolyte loss, DO NOT tip batteries more than 45 degrees.
- Use jumper cables ONLY in the recommended manner. Improper use can result in battery explosion or unexpected machine motion.

Table 2-1. Machine System Capacity

ITEM	SPECIFICATION
Fuel System Capacity	170 L (45 Gal.)
Hydraulic System Capacity	193 L (51 Gal.)
Hopper Capacity	8 Tons (7.1 Tonnes)
Hopper Volume	129 ft.3 (3.7 m3)

Table 2-2. Performance Specifications

ITEM	SPECIFICATION
Paving Speed (@ 2200 RPM)	0 - 51.5 m/min. 0 - 169 fpm
Travel Speed	0 - 3.4 mph (0 - 5.5 km/h)
Auger Speed (w/ Engine @ 2200 RPM)	120 RPMs (Maximum)
Paving Width (w/ Cut-off Plates)	6 ft. - 14 ft. 1.83 m - 4.27 m
Paving Width (Maximum w/ Optional Extensions)	16 ft. (4.88 m)
Paving Depth (Screed Dependent)	1/4 in. - 6 in. (6 - 152 mm)
Screed Center Crown	3 in. positive to 3/4 in. negative (76 mm positive to 19 mm negative)
Screed Vibrator Speed	0 - 2200 RPM (50 Hz)

Table 2-3. Electrical Specifications

ITEM	SPECIFICATION
Electrical System	12-Volt, Negative Ground, 120 Amp

Table 2-4. Miscellaneous Specifications

ITEM	SPECIFICATION
Loading Ramp Angle	13° (maximum)
Track Tension Pressure	2100 PSI
Track Pressure Release	2400 PSI

Figure 2-2. Hydraulic Oil Specifications

ATTRIBUTE	REQUIREMENTS
Viscosity	60 SUS minimum at operating temperature
	7500 SUS minimum at starting temperature
	150 to 225 SUS at 100° F (38° C)
	44 to 48 SUS at 210° F (99° C)
Viscosity Index	90 Minimum
Aniline Point	-175 Minimum
Recommended Additives	Rust and oxidation inhibitor
	Foam depressant

ITEM NO.	CONTROL NAME	FUNCTION
4	Screed Control Console	Screed control consoles located on both sides of the machine. **(Page 3-)**
5	Power Crown Valve	the Power Crown function provides hydraulically-powered means of adjusting main screed crown settings while automatically maintaining the preset lead-to-tail crown relationship. Turn ON to operate; ensure the valve is OFF when not in use.
6	Power Crown Handle	Rotate forward to increase center crown from flat to 3 in (76 mm) at outer ends of main screed. Rotate rearward to reduce center crown to a setting of .75 in (19 mm) inverted or negative crown.
7	Center Crown Gauge	Indicates crown setting.
8	Depth Crank	Controls the Angle of Attack (AOA), which affects depth of paving material laid by the screed.
9	Vibrator Control	Adjusts frequency of screed vibration. Rotating counterclockwise increases vibration from 0 to 2200 RPMs (50 Hz).

Screed Extensions

Install the bolt-on screed extension to the outer ends of the hydraulic extensions, making sure to align the screed plates to produce a smooth mat. **(Figure 4-4)**

The spacer plate should be moved to the outboard end of the one-foot (305mm) extension along with the edger guide.

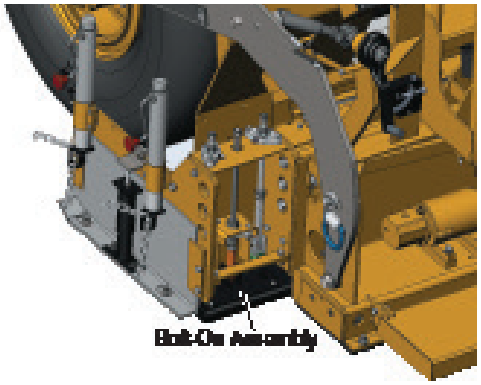


Figure 4-4. Bolt-On Assembly

Cut-Off Shoes

The cut-off shoes attach to the bottom of the edger-plates. They provide a means of reducing the standard eight- feet (2.44 m) paving width in three-inch (76 mm) increments to 24 inches (610 mm). Remove the wear strips on the bottom of the edger plates before installing the cut-off shoes. **(Figure 4-5)**

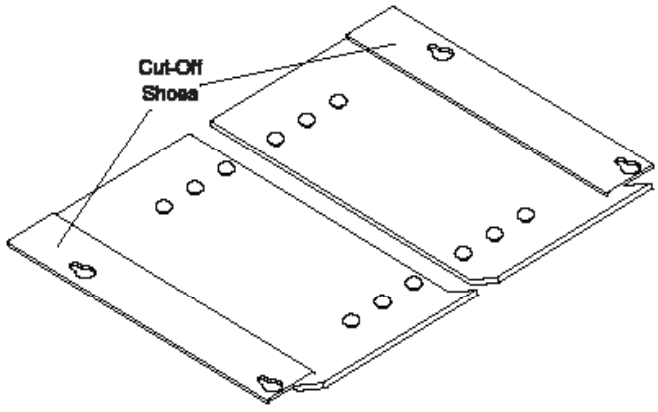


Figure 4-5. Cut-Off Shoes

Auger Sonic Feed Sensor

Install the Sonic Feed Control Sensor on the edger plate as needed (on the side in use). **(Figure 4-6)** This component makes it easy to consistently control the material height at any paving width and maintain traction while paving. The sensor automatically adjusts auger speed to control material flow, maintaining a smooth, consistent pavement finish. This feature is required equipment for many state DOT road projects.

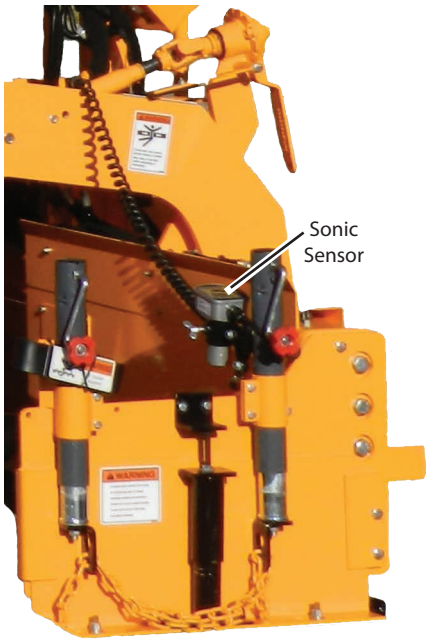


Figure 4-6. Sonic Feed Control Sensor

Simply place the sensor in its mount on the edger plate on the screed side in use. The mount is strategically located slightly in front of the material flow where it can accurately sense material movement. Plug the sensor cable into the connector on the back of the paver.

Date Setting

Use the UP/DOWN soft keys and stop the cursor (>) next to the action item Date. Press the Select ( ) soft key to initiate change to the month value. Use the (+/-) soft keys to increment or decrement the number. Use the DOWN arrow to reach the day value and year value and the +/- soft keys to make changes. **(Figure 4-28)**

Time Setting

Use the UP/DOWN soft keys and stop the cursor (>) next to the action item Time. Press the Select ( ) soft key to initiate change to the hour value. Use the (+/-) soft keys to increment or decrement the number. Use the DOWN arrow to reach the minutes value and the +/- soft keys to make changes. **(Figure 4-23)**

NOTE: A reboot is required for changes to the date setting to take effect.

Figure 4-23. Time Setting Screen

Basic Paving

When starting to lay the mat, it is essential that the bottom of the screed be elevated above the grade a distance equal to the desired mat depth, plus enough extra height to allow for mat compaction by rolling.

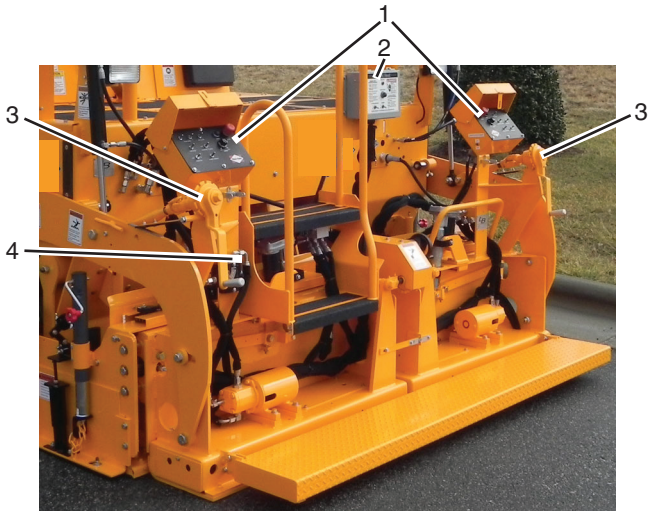


Figure 4-36. Screed Controls

1 - Screed Control Consoles

2 - Screed Heat Control Box

3 - Depth Cranks

4 - Vibrator Control

Follow these basic steps for paving:

1. Follow the start-up procedures.
2. Turn on the screed heat. Be sure the screed has been heated before paving.
3. Position paver at the starting point for the mat, extending the screed appropriately (if the width is needed) using the screed control console switches.
4. The auger/conveyor sonic sensor should also be connected.
5. Position the steering guide in relation to the steering reference. If using the optional TopCon System V, make certain the system is set up and operating properly.
6. Open the hopper wings to receive asphalt from the material truck.

NOTE: Allow only a partial load of asphalt to enter the hopper when first starting to pave.

7. Activate the conveyor and open the flowgate for material delivery to the augers. The conveyor speed can be adjusted while paving as needed.
   - The direction-speed levers must be positioned forward in the AUTO mode. The conveyor operates according to feed control sensors. When the material moves into the sonic range, the auger speed will automatically slow proportionately and turn off, then turn back on when the material level drops.
   - In the MANUAL position, conveyor operates at the speed set by the auger speed knob on the screed control console.
8. Position the truck loaded with paving material against the push rollers in front of the paver.
   - If the throttle is in MANUAL set to 2200 RPMs.
   - If the throttle is in AUTO, ensure the engine reaches 2200 RPMs when moving forward and the right and left auger conveyor switches are set to AUTO.
   - Fill the hopper and allow the augers to fill up and stop, then turn on the screed vibrator. Begin paving, moving slowly at first to adjust the screed as needed.
9. Move the direction-speed lever forward and make a paving pass, making adjustments as necessary to produce the desired mat. Refer to “Mat Texture Adjustment” and “Setting the Crown” on the following page.
10. Return paver back to starting position to begin the next pull.
11. Repeat these steps as you continue to pave.
    - If additional heat is needed, restart the screed electric heat system.

10-Hour or Daily Routine Maintenance

1. Spray down the machine, especially areas that come into contact with asphalt. **(Page 5-13)**
2. Check fuel level. Always refill at the end of the day to prevent condensation in the tank.
3. Check engine oil level. Add oil if needed. **(Page 5-17)**
4. Check hydraulic oil level. Add oil if needed. **(Page 5-15)**
5. Check gear box pump oil level. Add oil if needed. **(Page 5-10)**
6. Inspect fan belt for wear or damage.
7. Grease inner and outer conveyor bearings. **(Page 5-8)**
8. Grease rear outer conveyor and auger/conveyor bearings. **(Page 5-8)**
9. Grease vibrator shaft bearings. **(Page 5-THIS IS NOT DESCRIBED IN THE CONTENT)**
10. Grease auger bearings. **(Page 5-9)**
11. Perform any maintenance listed in the Engine Operator's Manual.

50-Hour or Weekly Routine Maintenance

1. Perform previous maintenance procedures.
2. Adjust conveyor chain tension. **(Page 5-11)**
3. Check air cleaner system. **(Page 5-18)**
4. Grease screed depth cranks. **(Page 5-9)**
5. Grease screed extensions. **(Page 5-10)**
6. Grease screed pivot points. **(Page 5-)**
7. Grease front wheel king pins. **(Page 5-10)**
8. Perform any maintenance listed in the Engine Operator's Manual.

250-Hour or Quarterly Routine Maintenance

1. Perform previous maintenance procedures.
2. Change engine oil and filter. **(Page 5-17)**
3. Inspect and clean engine air cleaner if needed. **(Page 5-18)**
4. Perform any maintenance listed in the Engine Operator's Manual.

500-Hour or Semi-Annual Routine Maintenance

1. Perform previous maintenance procedures.
2. Change hydraulic oil and filter. **(Page 5-16)**
3. Inspect hopper hinge assembly. **(Page 5-NO CONTENT ON THIS)**
4. Check auger/conveyor drive chains. Adjust if needed. **(Page 5-12)**
5. Inspect and clean battery cables if needed.
6. Perform any maintenance listed in the Engine Operator's Manual.

1000-Hour or Annual Routine Maintenance

1. Perform previous maintenance procedures.
2. Replace fuel filter. **(Page 5-20)**
3. Grease auger/conveyor chain box. **(Page 5-9)**
4. Change planetary hub oil. **(Page 5-THERE IS NO CONTENT)**
5. Repack front wheels with grease. **(Page 5-THERE IS NO CONTENT describing procedure)**
6. Change air filter. **(Page 5-18)**
7. Perform any maintenance listed in the Engine Operator's Manual.

HYDRAULIC SYSTEM

Hydraulic Oil Check Level/Fill

1. Park on a level surface with the parking brake applied.
2. Start the engine and allow the machine to achieve normal operating temperature.
3. Check the hydraulic oil level using the sight gauge. If the level is below the black line shown below, you will need to add hydraulic oil. **(Figure 5-18)**

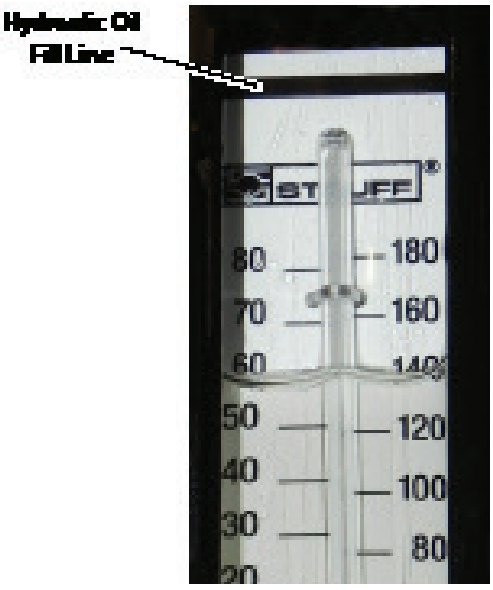


Figure 5-18. Hydraulic Oil Sight Gauge

To add hydraulic oil:

1. Open the hydraulic oil tank access door on the deck.

Figure 5-19. Hydraulic Oil Fill Cap

2. Remove the fill cap on top the hydraulic tank. Note that the dipstick is attached to the cap or lid and is removed as a single assembly. **(Figure 5-19)**
3. Wipe off the dipstick with a clean rag or paper towel.
4. Insert the dipstick back into the tank as far as the cap will allow.
5. Pull the dipstick out of the tank and observe the reading. The hydraulic oil must be present to the correct level mark on the dipstick.
6. If necessary, add hydraulic oil to the tank directly through the opening at the fill cap. Fill the tank to the FULL mark.
7. DO NOT OVERFILL THE TANK. Leave about one inch (25mm) of space for expansion of hot oil.
8. Screw the fill cap/dipstick assembly back onto the hydraulic tank opening.
9. Clean any spilled oil with a clean rag or shop cloth.
10. Close and secure the hood.

Drain the Hydraulic System

The hydraulic system should be drained and all filters replaced every six months, or 500 operational hours, whichever comes first, as outlined below. It's important to realize that once the hydraulic system has been drained, the machine is completely disabled until the system has been refilled and is back on line.

1. Park the machine on a level surface with the parking brake applied.
2. Shut down the engine and allow the hydraulic oil to cool.
3. Obtain a container of sufficient capacity to hold the oil to be drained from the hydraulic tank, approximately 24 gallons (91 liters).
4. Open the deck hood to access the hydraulic oil tank.
5. Remove the hydraulic tank fill cap. Dipstick is attached underneath the cap. **(Figure 5-19)**
6. Remove the oil drain plug on the bottom of the hydraulic tank.

PV480 DIAGNOSTIC TROUBLE CODE (DTC) CHART

LEGEND

SPN: Suspect Parameter Number
DPF: Diesel Particulate Filter
FMI: Failure Mode Identifier
EGR: Exhaust Gas Recirculation
ECU: Engine Control Unit
CPU: Central Processing Unit
NE-G: Negative Ground
NE: Neutral
G: Ground
SCV: Selective Control Valve
MAF: Mass Air Flow
PM: Particulate Matter
DC: Direct Current
IC: Integrated Circuit
EBC: Electronic Brake Control
PLV: Pressure Limiting Valve
CAN: Controller Area Network
CM: Control Module
DDC: Direct Digital Control
SW: Switch
TSC: Torque Speed Control
ETC: Electronic Throttle Control
CCVS: Current Controlled Voltage Source
MPROP: Manifold Pressure Rail Operating Pressure
EEPROM: Electrically Erasable Programmable Read-Only Memory

SPN	FMI	DTC	SYMPTOM/CAUSE	RECOVERY FROM ERROR
29	3	Accelerator position sensor 2: High	Battery short circuit out of sensor/ harness. Voltage of accelerator position sensor 2 is 4.8V or less.	Forced idle. (Accelerator = 0%) Diagnostic counter = zero
29	4	Accelerator position sensor 2: Low	Ground short circuit or open circuit of sensor/harness. Voltage of accelerator position sensor 2 is 0.3V or less.	Forced idle. (Accelerator = 0%) Diagnostic counter = zero
91	2	Accelerator position sensor correlation error	Deviation from designed correlation in two sensors. Voltage of accelerator position sensor 1 is 4.8V or less.	Forced idle. (Accelerator = 0%) Diagnostic counter = zero
91	3	Accelerator position sensor sensor 1: High	Battery short circuit or open circuit of sensor/harness. Voltage of accelerator position sensor 1 is 4.8V or less.	Forced idle. (Accelerator = 0%) Diagnostic counter = zero
91	4	Accelerator position sensor 1: Low	Ground short circuit or open circuit of sensor/harness. Voltage of accelerator position sensor 1 is 0.3 or less.	Forced idle. (Accelerator = 0%) Diagnostic counter = zero
100	1	Oil pressure error.	Engine oil pressure.	Key switch turn OFF.
102	3	Boost pressure sensor: High	Failure of sensor. Voltage of boost pressure sensor is 4.9V or above.	Key switch turn OFF. (Default value is set in consideration with high altitude usage. Engine power drops.)
102	4	Boost pressure sensor: Low	Failure of sensor. Voltage of boost pressure sensor is 0.2V or below.	Key switch turn OFF. (Default value is set in consideration with high altitude usage. Engine power drops.)
108	3	Barometric pressure sensor error: High	Barometric voltage 4.4V or more.	Diagnostic counter = zero (Default value is set in consideration with high altitude usage. Engine power drops.)

Section 6
SCHEMATICS

HARNESS, SCREED VALVE (LEFT)

Schematic for Part # 1012006

COLOR	FUNCTION
YEL	SLOPE UP
YEL/RED	SLOPE DOWN
ORN	EXTENSION IN
ORN/WHT	EXTENSION OUT
BLK	GROUND

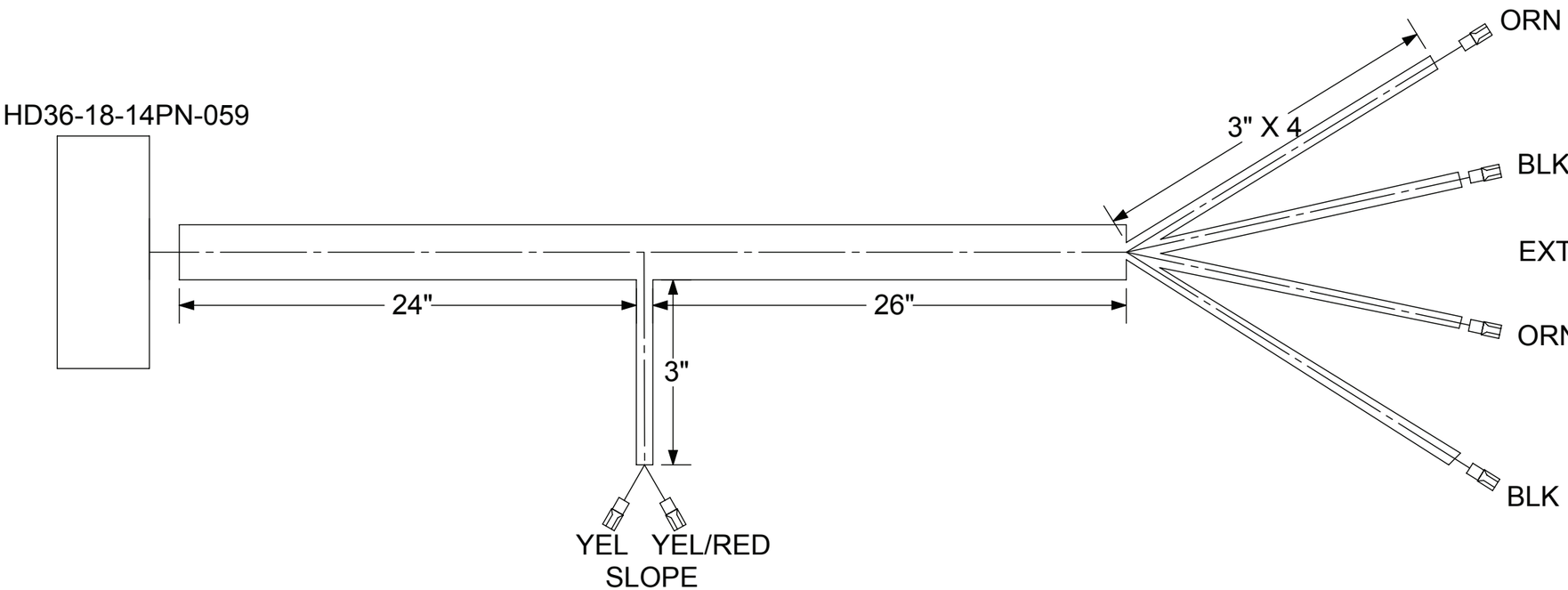


Figure 6-5. Screed Valve Harness (Left)

DIAGRAM, ELECTRICAL, ONE-LINE, PF1510, TIER 4I (3 OF 7)

Schematic for Part # 1010472

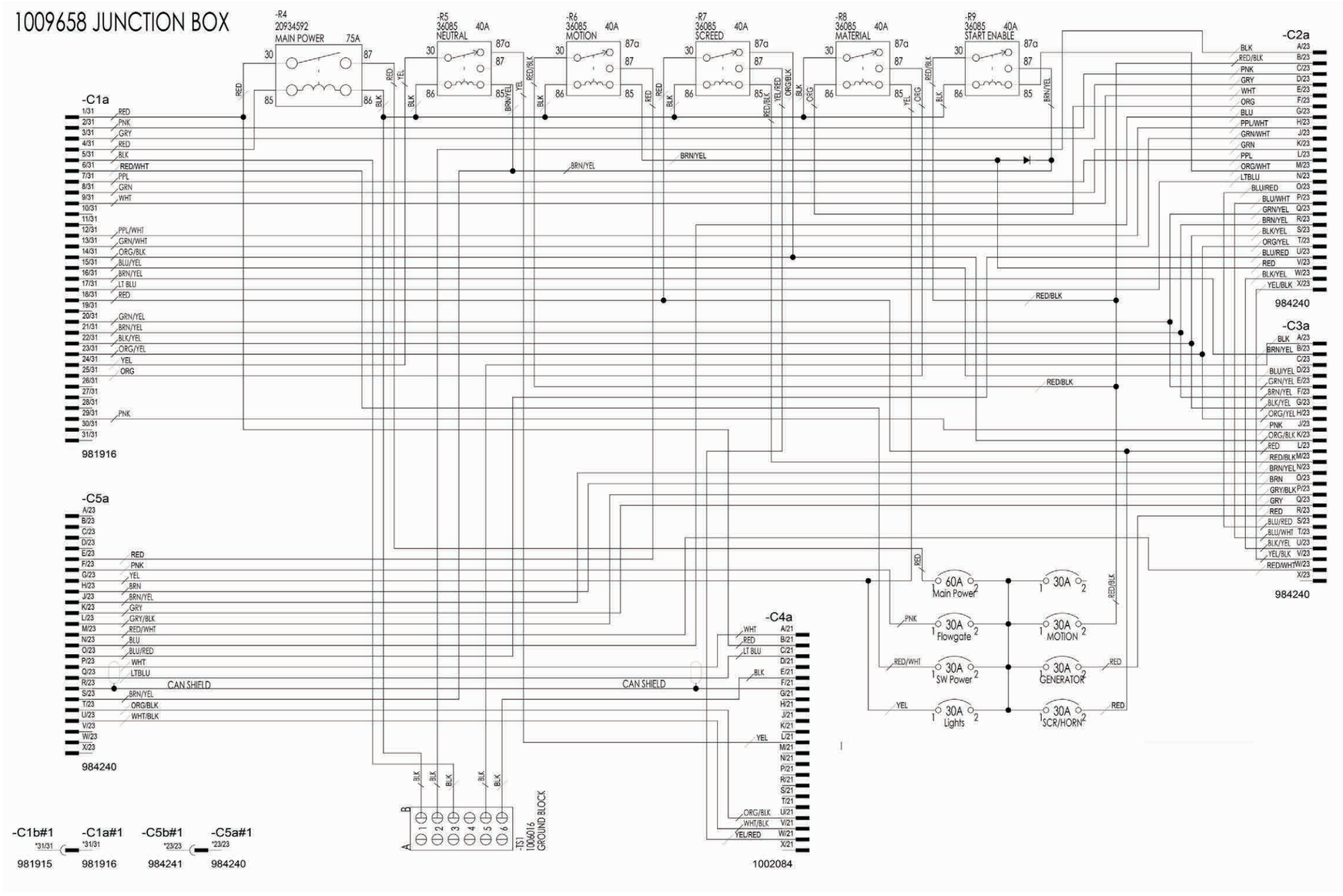
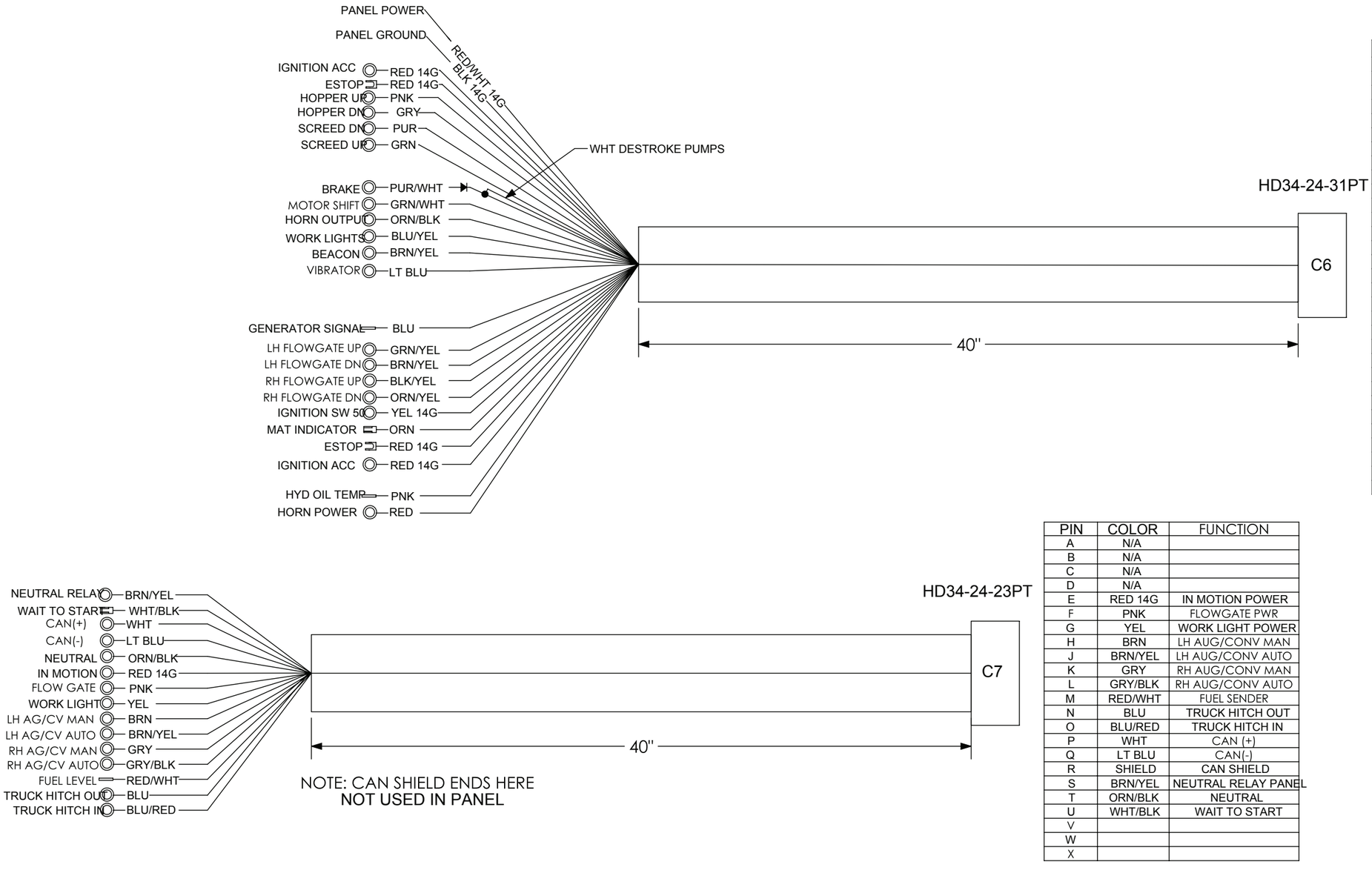


Figure 6-10. One-Line Electrical Diagram, PF1510 Tier 4i (3 of 7)

ASSEMBLY, CONTROL PANEL, TIER 4I (1 OF 2)

Schematic for Part # 1009655



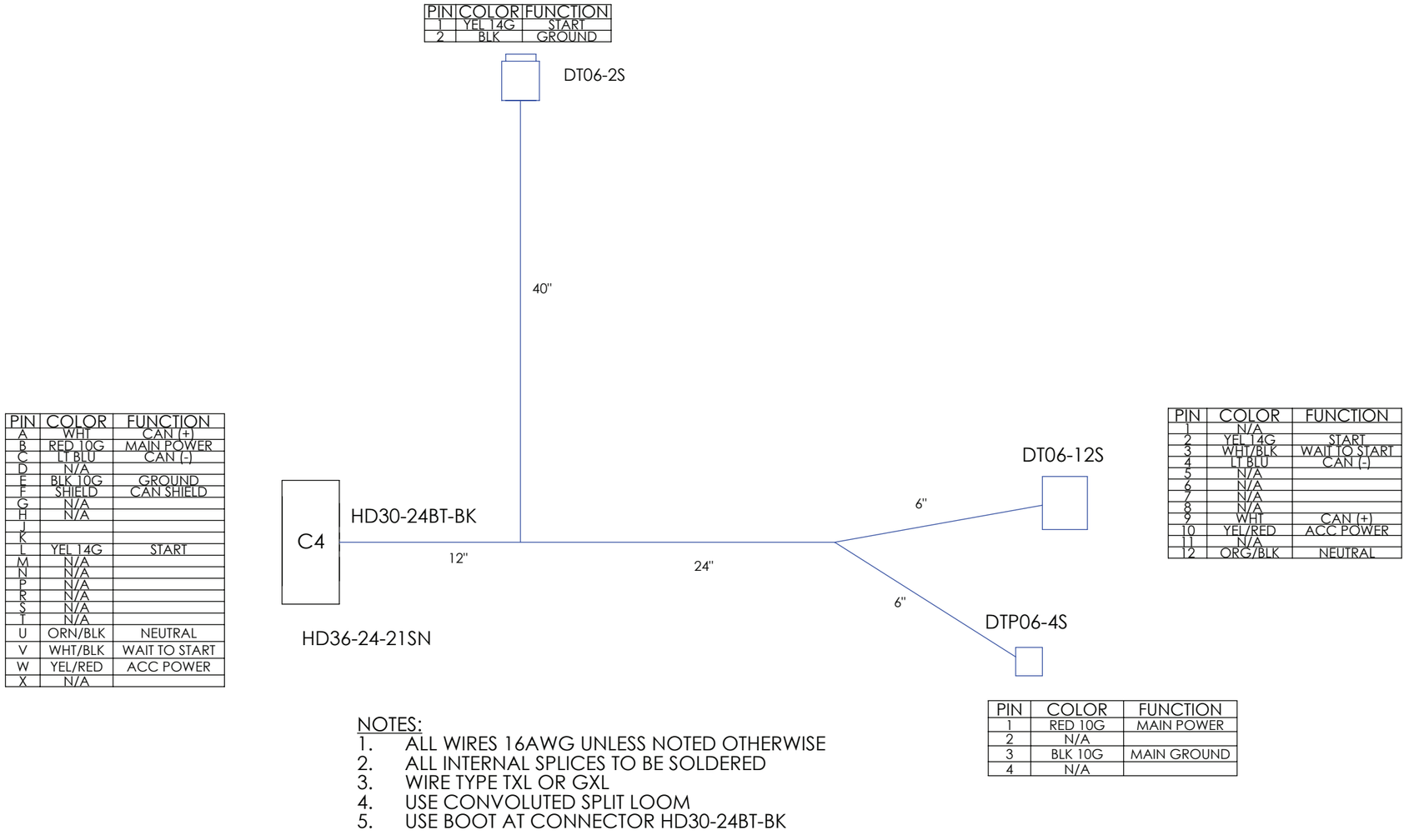
PIN	COLOR	FUNCTION
1	RED 14G	MAIN POWER
2	PNK	HOPPER UP
3	GRY	HOPPER DN
4	RED 14G	ACC POWER
5	BLK 14G	PANEL GROUND
6	RED/WHT 14G	PANEL POWER
7	PRP	SCREED DN
8	GRN	SCREED UP
9	WHT	DESTROKE PUMPS
10	RED 14G	MAIN POWER
11	RED 14G	ACC POWER
12	PRP/WHT	BRAKE SWTO COIL
13	GRN/WHT	MOTOR SWTO COIL
14	ORN/BLK	HORN OUTPUT
15	BLU/YEL	WORK LIGHTS
16	BRN/YEL	BEACON
17	LT BLU	TO VIB COIL
18	RED	HORN POWER
19	N/A	
20	GRN/YEL	LH FLOWGATE UP
21	BRN/YEL	LH FLOWGATE DN
22	BLK/YEL	RH FLOWGATE UP
23	ORN/YEL	RH FLOWGATE DN
24	YEL 14G	IGNITION SW 50
25	ORN	MAT INDICATOR
26	N/A	
27	N/A	
28	N/A	
29	PNK	HYD OIL TEMP
30	N/A	
31	BLU	GENERATOR SIGNAL

PIN	COLOR	FUNCTION
A	N/A	
B	N/A	
C	N/A	
D	N/A	
E	RED 14G	IN MOTION POWER
F	PNK	FLOWGATE PWR
G	YEL	WORK LIGHT POWER
H	BRN	LH AUG/CONV MAN
J	BRN/YEL	LH AUG/CONV AUTO
K	GRY	RH AUG/CONV MAN
L	GRY/BLK	RH AUG/CONV AUTO
M	RED/WHT	FUEL SENDER
N	BLU	TRUCK HITCH OUT
O	BLU/RED	TRUCK HITCH IN
P	WHT	CAN (+)
Q	LT BLU	CAN(-)
R	SHIELD	CAN SHIELD
S	BRN/YEL	NEUTRAL RELAY PANEL
T	ORN/BLK	NEUTRAL
U	WHT/BLK	WAIT TO START
V		
W		
X		

Figure 6-15. Control Panel Assembly Tier 4i (1 of 2)

HARNESS, ENGINE, PF1510, TIER 4I

Schematic for Part # 1010473



NOTES:
1. ALL WIRES 16AWG UNLESS NOTED OTHERWISE
2. ALL INTERNAL SPLICES TO BE SOLDERED
3. WIRE TYPE TXL OR GXL
4. USE CONVOLUTED SPLIT LOOM
5. USE BOOT AT CONNECTOR HD30-24BT-BK

Figure 6-20. Engine Harness, PF1510 Tier 4i

SCHEMATIC, HYDRAULIC (4 OF 5)

Schematic for Part # 1010244

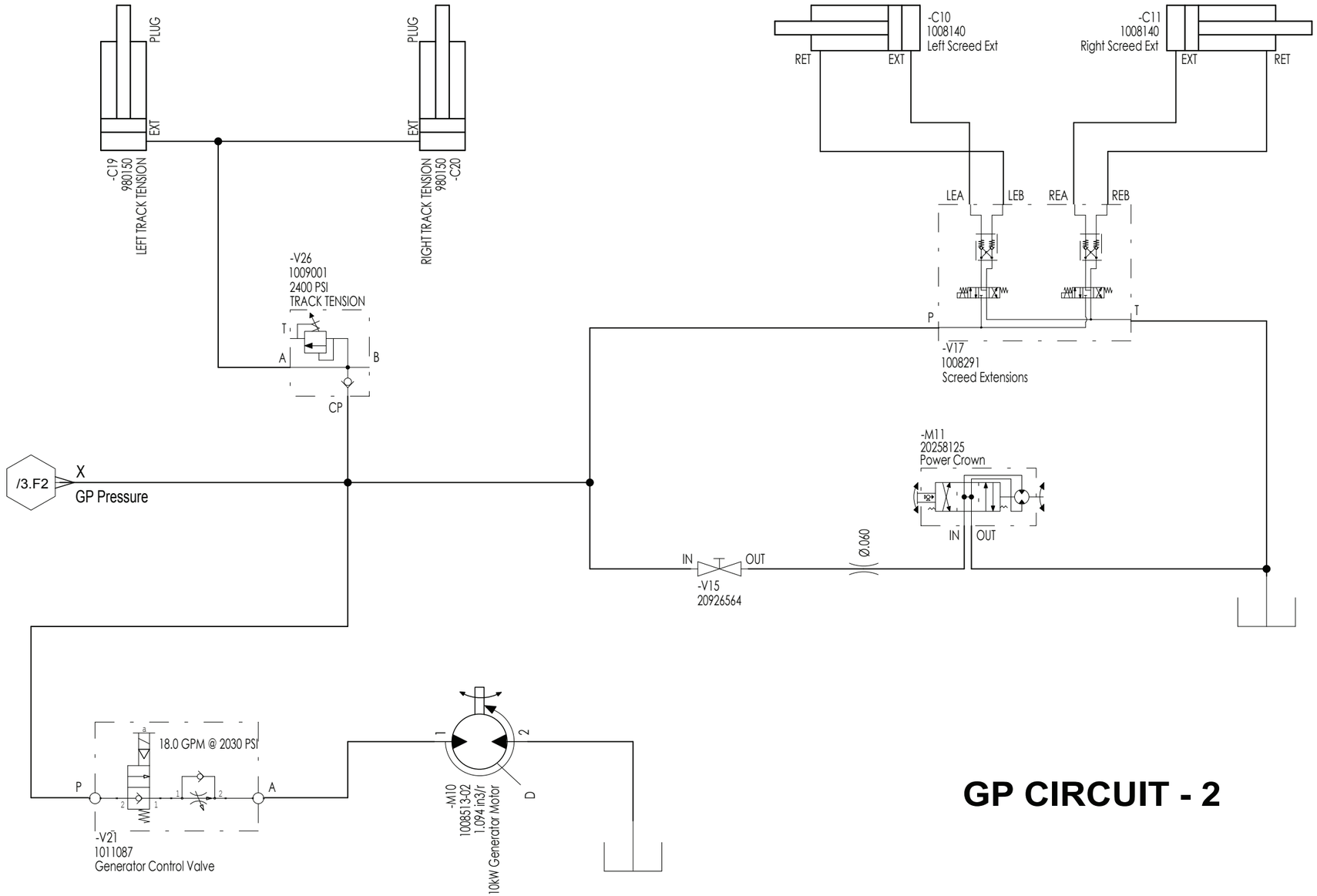


Figure 6-25. Hydraulic Schematic (4 of 5)

Engine Subassembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
GRP	1007118		Group, Engine, PF1510, OP30	
1	1011119	1	Engine, QSB 3.3, Tier 4i	Includes items 2 - 32
2	1011119-01	1	Radiator, QSB 3.3, Tier 4i	
3	1011119-02	1	Mount, Engine, Front Left, Tier 4i	
4	1011119-03	1	Mount, Engine, Front Right, Tier 4i	
5	1011119-04	1	Mount, Engine, Front Brace, Tier 4i	
6	1011119-05	1	Mount, Engine, Rear Left, Tier 4i	
7	1011119-06	1	Mount, Engine, Rear Right, Tier 4i	
8	1011119-07	1	Bracket, Relay, Engine, Tier 4i	
9	1011119-08	1	Isolator, Front, Tier 4i	
10	1011119-09	1	Isolator, Rear, Tier 4i	
11	1011119-10	1	Fan, Engine, Tier 4i	
12	1011119-11	1	Radiator, Pipe, Top, Tier 4i	
13	1011119-12	1	Radiator, Pipe, Lower, Tier 4i	
14	1011119-13	1	Dipstick, Oil, QSB 3.3, Tier 4i	
15	1011119-14	1	Starter, QSB 3.3, Tier 4i	
16	1011119-15	1	Alternator, QSB 3.3, Tier 4i	
17	1011119-16	1	Fuel Pump, QSB 3.3, Tier 4i	
18	1011119-17	1	Filter, Fuel/Water Separator	
19	1011119-18	1	Filter, Crankcase Ventilation	
20	1011119-19	1	Belt, V-Ribbed	
21	38734-01	1	Lube Filter	
22	1009242-02	1	Fuel Filter (3 Micron)	
23	1010076-02	1	Air Filter (Primary)	
24	1010076-01	1	Air Filter (Secondary)	
25	1009242-14	1	Radiator Cap	
26	1011119-20	2	Hump Hose, 2.5”	
27	1011119-21	1	Exhaust	
28	1005230-22	4	2” Silicone Hose, 5” Long	
29	1011119-22	1	Exhaust, Flapper, Rain Cap	
30	1011119-23	1	Exhaust, Flex Coupling	
31	1011119-24	1	Exhaust, Tail Pipe	
32	1011119-25	2	Exhaust Clamp	
33	1011208	1	Weldment, Mount, Air Filter, Tier 4i	
34	1007274	1	Box, Pump, TD AM216, .77:1 Ratio	
35	1007273	1	Pump, Auger, Load Sense, 60cc	
36	1007272	1	Pump, Gear, Pressure Compensating, 60cc	
37	1007255	1	Pump, Tandem, Traction	

Control Group - Console Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
GRP	1008348		Assembly, Console	
1	1008320	1	Weldment, Base, Console	
2	1008325	1	Weldment, Swing Arm, Console	
3	1008332	1	Cover, Channel, Swing Arm	
4	1008331	1	Plate, Swing Arm, Link	
5	989469SRV	1	Assembly, Beacon Light	Includes items 6 - 7
6	99492	1	Pipe, Coupling, 1/2	
7	989472	1	Mount, Beacon Light Base	
8	211748-02	1	Strobe Light, Amber	
9	720290	1	Solenoid, 12V, Constant Duty	
10	1008753	1	Bracket, Relay, Starter	
11	1008759	1	Cable, Battery, 54"	
12	1005993	1	Negative Battery Cable	
13	1005992	1	Positive Battery Cable	
14	1008439	1	Bracket, Mount, Traction Cables	
15	1008436	1	Cable, Traction, 94"	
16	1008437	1	Cable, Traction, 113"	
17	20936241	A/R	Rod End 5/16-24NF Female	
18	1008438	1	Plate, Extension, Traction Lever	
19	857971	1	Spacer	
20	100-5-18-32-5	2	CSHH, 5/16-18 x 2.00, GR5	
21	302-5	2	Washer, Lock, 5/16	
22	200-5-18-5	2	Nut, Hex, 5/16-18, GR5	
23	100-4-20-8-F	4	CSHH, 1/4-20 x .50, FT	
24	300-4	4	Washer, Flat, 1/4	
25	100-6-16-18-5	3	CSHH, 3/8-16 x 1.125, GR5	
26	300-6	12	Washer, Flat, 3/8	
27	204-6-16-5	5	Nut, Lock, Stover, 3/8-16, GR5	
28	100-6-16-20-5	4	CSHH, 3/8-16 x 1.25, GR5	
29	302-6	6	Washer, Lock, 3/8	
30	200-6-16-5	7	Nut, Hex, 3/8, GR5	
31	100-6-16-24-5	2	CSHH, 3/8-16 x 1.50, GR5	
32	1009655	1	Assembly, Control Panel	See Figure 7-8

Conveyor System Parts List

Item No.	Part Number	Qty.	Description	Remarks
GRP	1007114		Group, Conveyor, PF1510, OP20	
1	1007315	4	Cover, Conveyor Chain, Side	
2	100-8-13-20-5F	16	CSHH, 1/2-13 x 1.25, GR5, FT	
3	300-8	22	Washer, Lock, 1/2	
4	302-8	22	Washer, Flat, 1/2	
5	1007310	1	Cover, Conveyor Chain, Center	
6	100-8-13-24-5	22	CSHH, 1/2-13 x 1.50, GR5	
7	1007318	4	Bracket, Return, Conveyor Chain	
8	20994661	4	Plate, Wear	
9	105-8-13-24-F	8	CSFHS, 1/2-13 x 1.50, FT	
10	200-8-13-5	4	Nut, Hex, 1/2-13, GR5	
11	21000856	2	Conveyor Chain	
12	1007319	4	Weldment, Idler Shaft, Conveyor	
13	20931440	4	Assembly, Bearing	
14	1007366	2	Plate, Take Up, Conveyor	
15	100-8-13-80-5F	4	CSHH, 1/2-13 x 5.00, GR5, FT	
16	20931465	2	Bearing	
17	1007314	2	Plate, Floor, Conveyor	
18	1008739	2	Plate, Conveyor Extension	
19	100-6-16-16-5F	8	CSHH, 3/8-16 x 1.00, GR5, FT	Not Shown
20	300-6	8	Washer, Flat, 3/8	Not Shown
21	302-6	8	Washer, Lock, 3/8	Not Shown
REF	21004981	A/R	Kit, Repair, 4 Pitch Chain	Not Shown

Tank Group (2 of 2) Parts List

Item No.	Part Number	Qty.	Description	Remarks
30	988731	1	Tank, Citrus, 7 Gal, Poly	Includes item 4
31	1008232	1	Weldment, Battery/Washdown	
32	100-6-16-28-5	2	CSHH, 3/8-16 x 1.75, GR5	
33	302-6	2	Washer, Lock, 3/8	
34	200-6-16-5	2	Nut, Hex, 3/8-16, GR5	
35	1011738	1	Pump, Spray Down Facet	
36	5404-6-2	1	Adapter, Hex Pipe Nipple, -6 NPTF/-2 NPTF	
37	1603-6-6-6	1	Adapter, Union, Swivel, -6 NPSM/-6 NPSM/-6 NPSM	
38	5406-6-2	1	Adapter, Reducer, Pipe, -6/-2	
39	1011844	1	Switch, Pressure, 10 PSI Rise	
40	1011781	1	Mount, Spraydown Pump, Facet	
41	2501-6-2	1	Adapter, Elbow, 90°, -6 JIC/-2 NPTF	
42	5500-6-6	1	Adapter, Elbow, 90°, -8 JIC x -8 O-RIng	
43	480160	1	Valve, Ball, 3/8” THD	
44	2404-6-6	1	Adapter, Connector, -6 JIC/-6 NPTF	
45	100-4-20-12-5F	2	CSHH, 1/4-20 x .75, GR5, FT	
46	300-4	2	Washer, Flat, 1/4	

Electric Screed (3 of 3) Parts List

Item No.	Part Number	Qty.	Description	Remarks
GRP	1012204		Screed, Electric, WL	
1	1008532	1	Weldment, Screed Frame, Right	
2	1005289	1	Plate, Lap, Main Screed, Left	
3	1006144	2	Assembly, Vibrator Motor, 161-01E	
4	20978383	2	Screw, Machine, Hex Head	
5	15539141	2	Weldment, Slope Bar	
6	1008291	1	Manifold, Valve, Extension/Tunnel	
7	20981577	2	Indicator, Depth Gauge	
8	20263059	2	Extension, Depth Indicator	
9	1010290	1	Weldment, Power Crown Cover	
10	1010291	1	Plate, Side Cover	
11	100-6-16-20-5	7	CSHH, 3/8-16 x 1.25, GR5	
12	302-6	25	Washer, Lock, 3/8	
13	200-6-16-5	10	Nut, Hex, 3/8-16, GR5	
14	20988200	21	Washer - Special	
15	200-8-13-5	28	Nut, Hex, 1/2-13, GR5	
16	100-8-13-28-5	12	CSHH, 1/2-13 x 1.75, GR5	
17	100-8-13-36-5	2	CSHH, 1/2-13 x 2.25, GR5	
18	302-12	4	Washer, Lock, 3/4	
19	100-12-10-44-5	2	CSHH, 3/4-10 x 2.75, GR5	
20	100-12-10-32-5	2	CSHH, 3/4-10 x 2.00, GR5	
21	302-4	22	Washer, Lock, 1/4	
22	300-4	10	Washer, Flat, 1/4	
23	200-4-20-5	12	Nut, Hex, 1/4-20, GR5	
24	100-4-20-60-5	2	CSHH, 1/4-20 x 3.75, GR5	
25	300-6	9	Washer, Flat, 3/8	
26	302-8	22	Washer, Lock, 1/2	
27	300-8	8	Washer, Flat, 1/2	
28	100-8-13-18-5F	4	CSHH, 1 /2-13 x 1.13, GR5, FT	
29	100-8-13-20-5F	6	CSHH, 1/2-13 x 1.25, GR5, FT	
30	301-4	4	Washer, Flat, 1/4	
31	100-4-20-16-5	4	CSHH, 1/4-20 x 1.00, GR5	
32	100-8-13-76-5	2	CSHH, 1/2-13 x 4.75, GR5	
33	100-6-16-12-5F	4	CSHH, 3/8-16 x .75, GR5, FT	
34	20922969	2	Bushing, Machine, 3/4 x 1.25, LT 18	
35	20923033	2	Bushing, Machine, 3/4 x 1.25, Med 14	
36	302-8	22	Washer, Lock, 1/2	

Extension w/Slide Assembly (Left) Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	1010341	1	Weldment, Slide, Extension, Left	
2	1008141	1	Assembly, Extension, Left	
3	1008139	2	Rod, Guide	
4	1008140	1	Cylinder, Hydraulic	
5	1005871	1	Plate, Access Hole Cover, Screed	
6	1008153	1	Cylinder Cover Assembly	
7	1010346	1	Weldment, Cover, Hinge. Left	
8	1010356	1	Cover, Extension, Front, Left	
9	1010357	1	Cover, Extension, Top, Left	
10	1009023	1	Decal, Operation, Height-Gauge	
11	100-12-10-24-5F	2	CSHH, 3/4-10 x 1.50, GR5, FT	
12	100-12-16-24-5F	1	CSHH, 3/4-16 x 1.50, GR5, FT	
13	302-12	3	Washer, Lock, 3/4	
14	105-12-10-20-F	2	CSSH, 3/4-10 x 1.25, FT	
15	100-6-16-8-5F	3	CSHH, 3/8-16 x .50, GR5, FT	
16	100-6-16-20-5	2	CSHH, 3/8-16 x 1.25, GR5	
17	300-6	3	Washer, Flat, SAE, 3/8	
18	302-6	5	Washer, Lock, 3/8	
19	100-4-20-12-5F	10	CSHH, 1/4-20 x .75, GR5, FT	
20	300-4	9	Washer, Flat, 1/4	
21	302-4	10	Washer, Lock, 1/4	
22	200-4-20-5	3	Nut, Hex, 1/4-20, GR5	

Screed Control Box and Panel (Left) Parts List

Item No.	Part Number	Qty.	Description	Remarks
GRP	1010382		Assembly, Control Box, Screed (Left)	
1	20313235	1	Control Box Weldment	
2	20313151	1	Weldment, Cover	
3	1006046	1	Connector, HD34-18-14SN	
4	100-4-20-12-5F	8	CSHH, 1/4-20 x .75, GR5, FT	
5	300-4	10	Washer, Flat, 1/4	
6	302-4	6	Washer, Lock, 1/4	
7	205-4-20-5	2	Nut, Lock, Nylon, 1/4-20	
8	1010433	1	Control Panel, Screed, Left	Includes items 9 - 20
9	1006050	1	Plate, Screed Control Panel	
10	982249	1	Switch, Push Button	
11	20933875	1	Hole Plug (1/2" Hole)	
12	37521	1	Switch, Toggle, 3-Position	
13	851392	4	Switch, Toggle, 3-Position	
14	1006010	1	Switch, Toggle, 3-Position	
15	1010077	1	Rheostat, 35 Ohm, 25 Watt	
16	20933453	1	Knob	
17	1011261	1	Switch, Emergency Stop	
18	1006051	1	Decal, Control Panel, Screed (Left)	
19	1006046	1	Connector, HD34-18-14SN	
20	981916	1	Connector, 31-Pin, HD34-24-31	

Truck Hitch Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
GRP	1008464	1	Option, Truck Hitch	
1	43909621	1	Valve, Truck Hitch	
2	1008472	1	Kit, Hose, Truck Hitch	
3	1010246	1	Harness, Ground, 4 Position	
4	1008591	2	Clamp, Hose Kit, 1/2 OD, 2 Hole, No Base Plate	
5	20327755	1	Assembly, Truck Hitch	Includes items 6 - 42
6	20218236	1	Weldment, Mounting Plate	
7	20931036	4	Bearing, Spherical	
8	20218285	1	Weldment, Pin	
9	15542376	1	Weldment, Tube, Truck Hitch	
10	20217675	1	Weldment, Slide (Right)	
11	20217667	1	Weldment, Slide (Left)	
12	20218228	2	Wheel	
13	20217766	2	Keeper	
14	95201547	4	Fitting, Grease, 1/8	
15	20218251	2	Weldment, Offset Arm	
16	20218210	1	Weldment, Arm (Right)	
17	20218202	1	Weldment, Arm (Left)	
18	20217733	2	Plate, End Cover	
19	20174561	1	Cylinder, Hydraulic, Dual Rod, 1.50” Bore	
20	20930848	8	Bearing	
21	21057864	2	Weldment, Push Roller	
22	20962239	2	Shaft, Push Roller	
23	20218004	2	Shaft, Side Roller	
24	20262655	2	Weldment, Side Roller	

Description	Part Number	Figure #	Item #
Connector, 31 Pin, HD34-24-31	981916	7.8	17
Connector, 31 Pin, HD34-24-31	981916	7.9	4
Connector, 31-Pin, HD34-24-31	981916	7.31	20
Connector, 31-Pin, HD34-24-31	981916	7.32	20
Connector, HD34-18-14SN	1006046	7.31	3
Connector, HD34-18-14SN	1006046	7.31	19
Connector, HD34-18-14SN	1006046	7.32	3
Connector, HD34-18-14SN	1006046	7.32	19
Control Box Weldment	20313235	7.31	1
Control Box Weldment	20313235	7.32	1
Control Panel, Screed, Left	1010433	7.31	8
Control Panel, Screed, Left	1011902	7.32	8
Conveyor Chain	21000856	7.12	11
Cover, Channel, Swing Arm	1008332	7.7	3
Cover, Control	1008220	7.4	1
Cover, Conveyor Chain, Center	1007310	7.12	5
Cover, Conveyor Chain, Side	1007315	7.12	1
Cover, Extension, Front, Left	1010356	7.26	8
Cover, Extension, Front, Right	1010358	7.28	8
Cover, Extension, Top, Left	1010357	7.26	9
Cover, Extension, Top, Right	1010359	7.28	9
Cover, Inner Shaft	1008486	7.14	26
Cover, Main Deck,	1005307	7.19	4
Cover, Outer Shaft	1008487	7.14	27
Cover, Shaft Long	1008488	7.14	21
CSFHS, 1/2-13 x 1.25, FT	105-8-13-20-F	7.35	33
CSFHS, 1/2-13 x 1.50, FT	105-8-13-24-F	7.12	9
CSHH, 1 /2-13 x 1.13, GR5, FT	100-8-13-18-5F	7.21	28
CSHH, 1 /2-13 x 2.50, GR5	100-8-13-40-5	7.29	32
CSHH, 1/2-13 x 1.25, GR5, FT	100-8-13-20-5F	7.12	2
CSHH, 1/2-13 x 1.25, GR5, FT	100-8-13-20-5F	7.21	29
CSHH, 1/2-13 x 1.25, GR5, FT	100-8-13-20-5F	7.35	34
CSHH, 1/2-13 x 1.50, GR5	100-8-13-24-5	7.12	6
CSHH, 1/2-13 x 1.50, GR5	100-8-13-24-5	7.13	15
CSHH, 1/2-13 x 1.50, GR5	100-8-13-24-5	7.20	23
CSHH, 1/2-13 x 1.75, GR5	100-8-13-28-5	7.19	22

Description	Part Number	Figure #	Item #
Nut, Lock, Nylon, 1/4-20	205-4-20-5	7.32	7
Nut, Lock, Nylon, 5/8-11, GR5	205-10-11-5	7.4	8
Nut, Lock, Stover, 1/2-13, GR5	204-8-13-5	7.14	25
Nut, Lock, Stover, 1/2-13, GR5	204-8-13-5	7.23	13
Nut, Lock, Stover, 1/2-13, GR5	204-8-13-5	7.24	13
Nut, Lock, Stover, 1/4-20, GR5	204-4-20-5	7.4	18
Nut, Lock, Stover, 1-14, GR5	204-16-14-5	7.18	10
Nut, Lock, Stover, 1-8, GR5	204-16-8-5	7.18	17
Nut, Lock, Stover, 3/4-10, GR5	204-12-10-5	7.10	9
Nut, Lock, Stover, 3/4-10, GR5	204-12-10-5	7.18	16
Nut, Lock, Stover, 3/8-16, GR5	204-6-16-5	7.4	20
Nut, Lock, Stover, 3/8-16, GR5	204-6-16-5	7.8	24
Nut, Lock, Stover, 3/8-16, GR5	204-6-16-5	7.7	27
Nut, Lock, Stover, 5/16-18, GR5	204-5-18-5	7.4	16
Nut, Lock, Stover,, 9/16-12, GR5	204-9-12-5	7.14	11
Nut, Lock, Stover, 5/8-11, GR5	204-10-11-5	7.1	3
-O, P, Q-			
O-Ring, H1-B Drive Motor, 60cc	1011460-01	7.1	36
Oscillating Beam 8’	15621725	7.10	1
Pad, Bolt-On Poly, Smooth Ride	1007003-01A	7.1	2
Pin, Cotter	95929683	7.10	6
Pin, Cotter, 1/4 x 2.50	95997938	7.35	29
Pin, Hinge, Hopper	1007396	7.6	3
Pin, Roll, 1/4 x 2.50	95998597	7.4	12
Pipe, Coupling, 1/2	99492	7.7	6
Pivot Mount, Topcon/Spectra Physics	851575SRV	7.36	10
Plate, Access Hole Cover, Screed	1005871	7.26	5
Plate, Access Hole Cover, Screed	1005871	7.28	5
Plate, Adapter	20994133	7.13	14
Plate, Apron, Center, Conveyor	1007367	7.11	14
Plate, Control Panel	1009652	7.8	1
Plate, Conveyor Extension	1008739	7.12	18
Plate, Cover, Access	1010466	7.3	19
Plate, Crown Gauge	1006253	7.20	10
Plate, Crown Indicator	20956090	7.20	11