LeeBoy

OPERATIONS, SERVICE AND PARTS MANUAL

LEEBOY MODEL 1000F TILT HOPPER PAVER

Manual No. 1003684-01

This manual applies to serial number and above: 60474

DISCLAIMER AND COPYRIGHT

Disclaimer:

All information, illustrations and specifications in this manual are based on the latest information available at the time of publishing. The illustrations used in this manual are intended as representative reference views only. Moreover, because of our continuous product improvement policy, we may modify information, illustrations and/or specifications to explain and/or exemplify a product, service or maintenance improvement. We reserve the right to make any change at any time without notice. VT LeeBoy, Inc., VT LeeBoy, and LeeBoy are all the same entity and are used interchangeably.

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INTRODUCTION

Thank you for purchasing the LeeBoy Model 1000F Tilt Hopper Paver. We wish you many years of safe and efficient operation of your paver.

READ THIS MANUAL PRIOR TO OPERATING the paver. This manual is an important part of the paver and should be kept with the paver at all times in the dedicated storage container on the paver. Even though you may be familiar with similar equipment, you MUST read and understand this manual before operating this paver. Reading the manual will help you and others avoid injury and help prevent any damage to the paver. If this manual becomes lost or damaged, contact your authorized LeeBoy Dealer immediately to order a replacement (see **Contact Information** in Section 2).

This manual is intended as a guide for the safe and efficient use of the paver. This manual covers the procedures for proper operation and maintenance of the paver. This manual contains information that was available at the time of printing and are subject to change without notice.

This manual should be used with all related supplemental books, engine and transmission manuals, and parts books. Related Service Bulletins should be reviewed to provide information regarding some of the recent changes.

If any questions arise concerning this publication or others, contact your local LeeBoy Dealer for the latest available information.

This manual provides information for use by the equipment operator under the following headings:

Section 1: Safety—
Contains general and specific safety guidelines for product and safety label locations.

Section 2: Information—
Contains warranty, contact information, product identification nameplate, overview of product functions, specification tables, and product dimensions.

Section 3: Component Location—
Contains graphic and table overview combinations of major component locations and functions.

Section 4: Operation—
Contains all needed safe operation procedures and guidelines for product, including optional equipment.

Section 5: Maintenance—
Contains all needed information for safe maintenance procedures (i.e., changing filters, mechanical lubrication, adjustments, removal and installation, etc.) and troubleshooting charts for common problems and corrections. For specific engine maintenance procedures, refer to the engine manufacturer manual.

Section 6: Schematics—
Contains electrical and hydraulic schematics for product functionality.

Section 7: Illustrated Parts List (IPL)—
Contains exploded assemblies'/parts' illustrations and corresponding identification tables for all serviceable components including fasteners. Also contains alphabetical parts index.

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Section 1
SAFETY

This manual provides important information to familiarize you with safe operating and maintenance procedures. Even though you may be familiar with similar equipment, you MUST read and understand this manual before operating the LeeBoy Model 1000F Tilt Hopper Paver and follow its instructions when operating the paver.

Safety is everyone's business and is our top concern. Knowing the guidelines covered in this Section will help ensure your safety, the safety of those around you and the paver's proper operation.

LOOK FOR THESE SYMBOLS WHICH POINT OUT ITEMS OF EXTREME IMPORTANCE TO THE SAFETY OF YOU AND YOUR COWORKERS. READ AND UNDERSTAND THOROUGHLY. HEED THE WARNING AND FOLLOW THE INSTRUCTIONS.

Keep safety labels in good condition. If safety labels become missing or damaged, replacement safety labels are available from your LeeBoy Dealer (see **Contact Information** in Section 2 and **Safety Label Locations** at the end of this Section).

⚠ DANGER

Indicates a hazardous situation which, if not avoided, *will* result in death or serious injury.

⚠ WARNING

Indicates a hazardous situation which, if not avoided, *could* result in death or serious injury.

⚠ CAUTION

Indicates a hazardous situation which, if not avoided, *could* result in minor or moderate injury.

NOTICE

Indicates a situation which can cause damage to the equipment, personal property and/or the environment, or cause the LeeBoy Model 1000F Tilt Hopper Paver to operate improperly.

NOTE: Indicates a procedure, practice, or condition that should be followed in order for the paver or component to function in the manner intended.

SAFETY PRECAUTIONS

⚠ CAUTION

The safety messages that follow have CAUTION level hazards.

Pre-Operation Hazard

Read and understand this Operation Manual before operating or servicing the engine to ensure that safe operating practices and maintenance procedures are followed.

- Never permit anyone to service or operate the LeeBoy Model 1000F Tilt Hopper Paver without proper training.
- Safety signs and labels are additional reminders for safe operating and maintenance techniques.
- Contact LeeBoy or an authorized LeeBoy Dealer for additional training.
- Make sure you are aware of all laws and regulations that are in effect where the paver is operated. Make sure you have all necessary licenses to operate the paver.

⚠ DANGER

The safety messages that follow have CAUTION level hazards.

Electrocution Hazard

Always inspect all wires and cables for damage before operating the machine. Damaged wires and cables could cause an electrical shock that could result in serious injury or death

If your machine comes in contact with electric power lines, observe the following:

- Stay in the operators seat.
- Warn other workers to stay away and do not touch any control or any part of the machine.
- If contact can be broken, drive the machine away from the danger zone.
- If contact cannot be broken, stay in the operators seat until told that power is off.
- Failure to observe this admonishment could result in electrocution or death.

Suffocation Hazard

Never operate the internal combustion engine on this machine in an enclosed area with poor ventilation. Failure to do so could result in carbon monoxide poisoning or death.

⚠ WARNING

The safety messages that follow have WARNING level hazards.

Crush Hazard

Keep bystanders away from work area before and during operation.

Modification Hazard

Never modify the LeeBoy Model 1000F Tilt Hopper Paver without written consent of LeeBoy. Any modification can affect the safe operation of the paver and may cause personal injury or death.

Exposure Hazard

Always wear personal protective equipment, including appropriate clothing, gloves, work shoes, and eye and hearing protection, as required by the task at hand.

Explosion Hazard

While the engine is running or the battery is charging, hydrogen gas is being produced and can be easily ignited. Keep the area around the battery well-ventilated and keep sparks, open flame and any other form of ignition out of the area.

- Always disconnect the negative (-) battery cable before servicing the paver.
- Do not start the engine by shorting the starter circuit or any other starting method not stated in this manual. Only use the starting procedure as described in this manual to start the engine.
- Never charge a frozen battery. Always slowly warm the battery to room temperature before charging.

Fire and Explosion Hazard

- Diesel fuel is flammable and explosive under certain conditions.
- Never use a shop rag to catch the fuel.
- Wipe up all spills immediately.
- Never refuel with the engine running.
- Store any containers containing fuel in a well-ventilated area, away from any combustibles or sources of ignition.

Fire Hazard

Have appropriate safety equipment available. Have all fire extinguishers checked periodically for proper operation and/or readiness.

- Always read and follow safety-related precautions found on containers of hazardous substances like parts cleaners, primers, sealants and sealant removers.
- Undersized wiring systems can cause an electrical fire.

⚠ WARNING

The safety messages that follow have WARNING level hazards.

Exhaust Hazard

All internal combustion engines create carbon monoxide gas during operation and special precautions are required to avoid carbon monoxide poisoning:

- Never block windows, vents or other means of ventilation if the LeeBoy Model 1000F Tilt Hopper Paver is operating in an enclosed area.
- Always ensure that all connections are tightened to specifications after repair is made to the exhaust system.

Entanglement/Sever Hazard

Verify there are no people, obstacles or other equipment near the LeeBoy Model 1000F Tilt Hopper Paver before starting the engine. Sound the horn as a warning before starting the engine.

If the engine must be serviced while it is operating, remove all jewelry, tie back long hair and keep hands, other body parts and clothing away from moving/rotating parts.

- Always stop the engine before beginning service.
- Verify that all paver guards and covers are attached properly to the paver before starting the engine. Do not start the engine if any guards or covers are not properly installed on the paver.
- If you must run the engine during maintenance procedures, make sure you have a helper to keep bystanders clear of the paver and make observations of moving parts as requested by the operator.
- Always turn the start switch to the OFF position after operation is complete and remove the key from the switch. Keep the key in your possession when the paver is not operating.
- Attach a “Do Not Operate” tag near the key switch while performing maintenance on the equipment.
- Never operate the engine while wearing a headset to listen to music or radio because it will be difficult to hear the warning signals.
- Always start the engine or operate the controls while you are seated in the operators seat.

Alcohol and Drug Hazard

Never operate the engine while under the influence of alcohol or drugs, or when ill.

Piercing Hazard

Avoid skin contact with high-pressure hydraulic fluid or diesel fuel spray caused by a hydraulic or fuel system leak such as a broken hydraulic hose or fuel injection line. High-pressure hydraulic fluid or fuel can penetrate your skin and result in serious injury. If you are exposed to high-pressure hydraulic fluid or fuel spray, obtain prompt medical treatment.

- Never check for a hydraulic fluid or fuel leak with your hands. Always use a piece of wood or cardboard. Have your authorized LeeBoy Dealer or distributor repair the damage.

Flying Object Hazard

Always wear eye protection when cleaning the LeeBoy Model 1000F Tilt Hopper Paver with compressed air or high-pressure water. Dust, flying debris, compressed air, pressurized water or steam may injure your eyes.

Coolant Hazard

Wear eye protection and rubber gloves when handling engine coolant. If contact with the eyes or skin should occur, flush eyes and wash immediately with clean water.

Burn Hazard

Some of the paver surfaces become very hot during operation and shortly after shutdown.

- Keep hands and other body parts away from hot paver surfaces.
- Handle hot components with heat-resistant gloves.

⚠CAUTION

The safety messages that follow have CAUTION level hazards.

Poor Lighting Hazard

Ensure that the work area is adequately illuminated. Always install wire cages on portable safety lights.

Tool Hazard

Always use tools appropriate for the task at hand and use the correct size tool for loosening or tightening LeeBoy Model 1000F Tilt Hopper Paver parts.

NOTICE

The safety messages that follow have NOTICE level hazards.

Any part which is found defective as a result of inspection or any part whose measured value does not satisfy the standard or limit must be replaced.

Always tighten components to the specified torque. Loose parts can cause LeeBoy Model 1000F Tilt Hopper Paver damage or cause it to operate improperly.

Only use replacement parts approved by LeeBoy. Other replacement parts may affect warranty coverage.

Follow the guidelines of the EPA or other governmental agencies for the proper disposal of hazardous materials such as engine oil, diesel fuel and engine coolant. Consult the local authorities or reclamation facility.

Clean all accumulated dirt and debris away from the body of the paver and its components before you inspect the paver or perform preventive maintenance procedures or repairs. Operating a paver with accumulated dirt and debris will cause premature wear of paver components. Accumulated dirt and debris also hinders effective paver inspection.

Retrieve any tools or parts that may have dropped inside of the paver to avoid improper paver operation.

Dispose of hazardous materials in accordance with all applicable laws and regulations. Never dispose of hazardous materials by dumping them into a sewer, on the ground, or into groundwater or waterways.

If any alert indicator illuminates during paver operation, stop the engine immediately. Determine the cause and repair the problem before continuing to operate the paver.

SAFETY LABEL LOCATIONS

If your LeeBoy Model 1000F Tilt Hopper Paver has been repainted, it is extremely important that all the decals referring to CAUTION, WARNING, and DANGER be replaced in their proper locations. The illustrations on this page will aid you in determining the proper locations; for additional help, you should refer to the parts listing in the parts section of this manual and note the description column.

A description of location is provided below for each safety label. For additional instructions, contact your dealer see **Contact Information** in Section 2).

NOTE: It is the responsibility of the owner and operator to make sure that all safety labels are readable and located on paver as designated by LeeBoy.

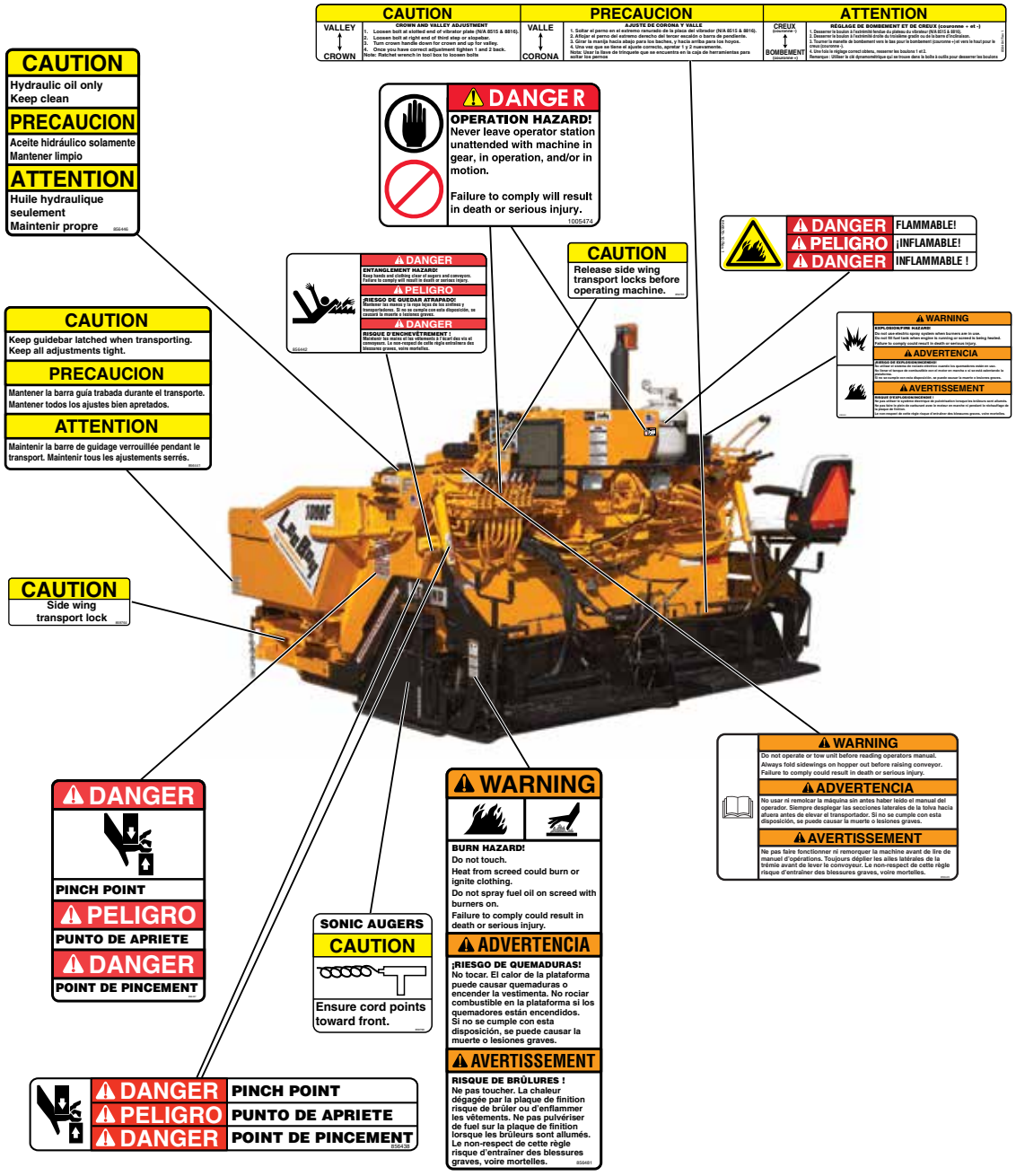

Figure 1-1. LeeBoy Model 1000F Tilt Hopper Paver Safety Labels and Safety Label Locations

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Section 2
INFORMATION AND SPECIFICATIONS

LIMITED WARRANTY POLICY

Warranty

Subject to the limitations, exclusions, and claims procedures set forth herein, LeeBoy warrants [to the first retail purchaser] that this product will be free from [substantial] defects in materials and workmanship during the warranty period.

If a defect in material or workmanship is found, your authorized LeeBoy Dealer is to be notified during the warranty period. LeeBoy and its authorized Dealer will repair or replace any part or component of the unit or part that fails to conform to the warranty during the warranty period.

The warranty period will begin on the initial start-up, training and delivery of the unit by the Dealer to the customer, and will expire after twelve (12) months following the delivery of the paver to the first retail purchaser. (See Dealer for additional warranty.)

Manufacturers' Warranties: Engines are warranted by their manufacturers and may have warranty coverage that differs from that of LeeBoy. LeeBoy does not warrant any engine.

Replacement parts furnished by LeeBoy are covered for the remainder of the warranty period applicable to the unit or component in which such parts are installed.

LeeBoy has the right to repair any component or part before replacing it with a new one.

All new replacement parts purchased by a LeeBoy Dealer will carry a six-month warranty.

This Limited Warranty is governed by the laws of the State of North Carolina.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED, STATUTORY AND IMPLIED WARRANTIES APPLICABLE TO UNITS, ENGINES, OR PARTS INCLUDING WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE OR AGAINST INFRINGEMENT.

Limitations

LeeBoy has no obligation for:

1. Any defects caused by misuse, misapplication, negligence, accident or failure to maintain or use in accordance with the most current operating instructions.
2. Unauthorized alterations.
3. Defects or failures caused by any replacement parts or attachments not manufactured by or approved by LeeBoy.
4. Failure to conduct normal maintenance and operating service including, without limitation, providing lubricants, coolant, fuel, tune-ups, inspections or adjustments.
5. Unreasonable delay, as established by LeeBoy, in making the applicable units or parts available upon notification of a service notice ordered by same.
6. Warranty Responsibility: The warranty responsibility on all engines rests with the manufacturer of the engine.
7. Warranty and Parts Support: LeeBoy may have support agreements with some engine manufacturers for warranty and parts support. However, LeeBoy does not warrant the engine.
8. This Limited Warranty sets forth your sole remedy in connection with the sale or use of the LeeBoy product covered by this Limited Warranty.
9. This Limited Warranty extends only to the first retail purchaser, and is not transferable.
10. In the event any portion of this Limited Warranty shall be determined to be invalid under any applicable law, such provision shall be deemed null and void and the remainder of the Limited Warranty shall continue in full force and effect.

Items Not Covered

LeeBoy is not responsible for the following:

1. All used units or used parts of any kind.
2. Repairs due to normal wear and tear or brought about by abuse or lack of maintenance of the Machine.
3. Attachments not manufactured or installed by LeeBoy.
4. Liability for incidental or consequential damages of any type including, but not limited to, lost profits or expenses of acquiring replacement equipment.
5. Liability for incidental or consequential damages of any type including, but not limited to, lost profits or expenses of acquiring replacement equipment.

Other Limitations

IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT OR WARRANTY OR ALLEGED NEGLIGENCE OR LIABILITY WITHOUT FAULT, SHALL LEEBOY BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOSS OF PROFIT OR REVENUE, COST OF CAPITAL, COST OF SUBSTITUTED EQUIPMENT, FACILITIES OR SERVICES, DOWNTIME COSTS, LABOR COSTS OR CLAIMS OF CUSTOMERS, PURCHASERS OR LESSEES FOR SUCH DAMAGES. IN NO EVENT WILL WARRANTY COMPENSATION, OR OTHER DAMAGES AVAILABLE FROM LEEBOY, EXCEED THE PURCHASE PRICE OF THE PRODUCT.

CONTACT INFORMATION

For information regarding parts and repairs about your LeeBoy product, first contact the dealer you purchased your product from.

If you have a persistent problem your dealer is unable to resolve, contact LeeBoy directly.

Record dealer information in the space provided. For additional information about LeeBoy, please visit: www.leeboy.com.

Sales Representative: _____

Dealership Name: _____

Dealership Address: _____

Dealership Phone: _____

RECORD OF OWNERSHIP

Please fill out the following information and use it when you need to contact LeeBoy for service, parts or literature.

Paver Model Number: _____

Paver Serial Number: _____

Date of Purchase: _____

NAMEPLATE

Nameplate **(Table 2-9)** contains the specific model number and serial number used to identify the components for any parts or service information.

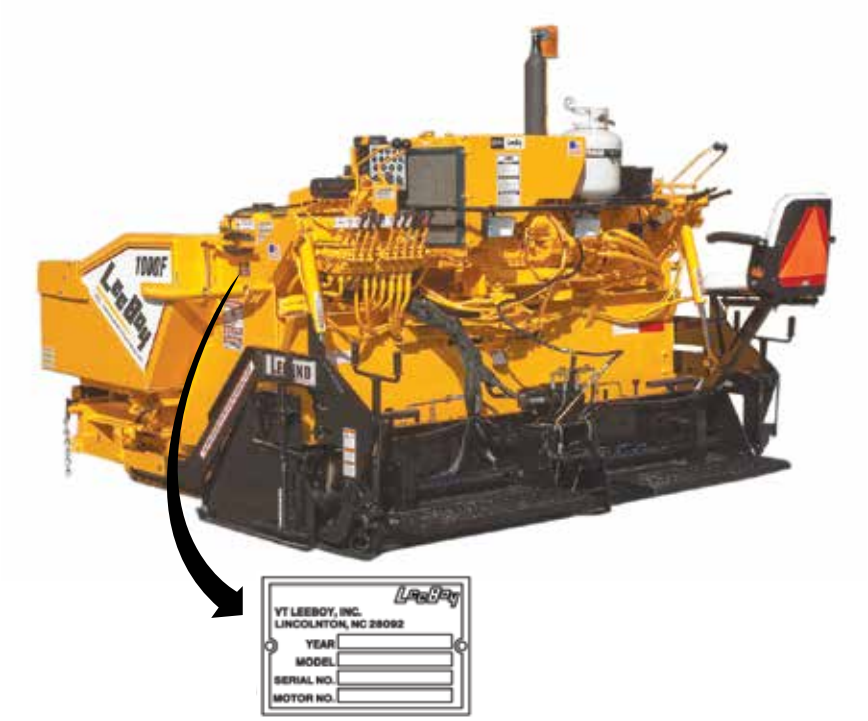


Figure 2-1. Nameplate Location

GENERAL INFORMATION

The descriptions and specifications provided in this section are applicable to the LeeBoy Model 1000F Tilt Hopper Paver.

This section contains a description of how the major components operate. It also includes specifications for the major system components. Included in this section are paver weights, dimensions, performance, and major system specifications for the paver.

Engine

The LeeBoy Model 1000F Tilt Hopper Paver uses a Kubota, V1505-T-E3B, 44.2 HP four-cylinder engine to drive the hydraulic function pump and steering pump. The engine is mounted near the center of the paver.

A fuel lift pump mounted on the engine draws diesel fuel from the fuel tank. The fuel tank is mounted at the right side of the engine compartment.

An air cleaner is mounted on the top of the right-hand pump cover. The air cleaner removes fine particles such as dust, sand, chaff and lint from the air.

As air is taken into the air cleaner assembly, a cyclone type action deposits some of the fine particles in the evacuator mounted on the bottom of the air cleaner housing. The evacuator is held closed during engine operation by suction. When the engine is shut off the weight of the debris helps to open the rubber flaps allowing the debris to fall out. The rubber flaps can also be squeezed to open for cleaning.

Primary and secondary fuel filters remove contaminants from the diesel fuel before the fuel flows to the injection pump for injection into the engine combustion chamber.

A radiator mounted in front of the engine cools the engine. As coolant flows through the radiator, airflow from the engine-driven fan removes heat from the coolant.

Refer to the engine owner's Operation and Maintenance Manual for a complete description of the engine.

Hydraulic System

The hydraulic system includes three hydraulic pumps driven by the engine: 1) Left Drive Pump, 2) Right Drive Pump, and 3) Auxilliary Pump.

The auxiliary pump is mounted on the rear of the drive pumps, to the right side of the engine, and driven by the drive pump output shaft. This gear type pump provides hydraulic flow to operate all the hydraulic cylinders used to control the paver functions.

The auxiliary pump has it's own suction hose from tank.

Torque Hubs

The paver drive system contains two torque hubs. The torque hubs provide power to propel the tracks.

Hopper

The hopper wings are hydraulically controlled to raise and lower. The hopper wings also hinge in and out to allow for more compact transportation. The hopper when fully open can hold a payload up to 6 tons. Maximum tilt is 50°.

Material in the hopper is moved toward the back of the paver to the screed by gravity.

Auger

The Auger rotates clockwise (CW) to assist in moving material to the screed. The auger can be manually controlled at the operator platform on the paver or by the screed operator on the screed.

The auger can also be controlled automatically when the sonic auger system is installed and active. The sonic auger sensor mounted on the screed end gates detect the amount of material present and control the auger to keep the material flow constant.

Screed

The Screed is the last part of the paver that contacts the paved material. Operation of the screed is usually done by the screed operator. Paving material is fed from the hopper to the augers to the front of the screed. The Screed has hydraulically controlled extensions that move in and out to allow a wider paving base from 8 ft. up to 13 ft.

Screed heating is accomplished by four LPG burners.

The hydraulically driven vibrator mounted on the main screed frame can be used to increase paving material compaction.

SPECIFICATION CHARTS

The specifications provided in this section are applicable to the LeeBoy Model 1000F Tilt Hopper Paver. Included in this section are specifications for paver weights, dimensions, performance, and torque values for both metric and standard inch fasteners.

⚠CAUTION **Replace original equipment only with LeeBoy approved components.**

Table 2-1. Dimension Specifications (See Figure 2-1)

ITEM	SPECIFICATION
Overall Length	10’ 4” (3.15 m)
Overall Height	7” 6” (2.29 m)
Overall Width (transport)	8’ 6” (2.59 m)
Overall Width (hopper wings down)	9’ (2.70 m)
Paver Weight	10,000 lbs (4,536 kg)
Screed Weight	2,000 lbs. (907 kg)
Basic Paving Width	8’ (2.44 m)
Maximum Paving Width	13’ (3.96 m)
Screed Plate Material	3/8” (9.5 mm) AR400 Steel
Main Screed Wear Plate	13” (33 cm)
Extensions Width of Wear Plate	6” (15.2 cm)
Material Flow Gate Width	Two 4’ (1,219 mm) independent hydraulically operated gates
Material Augers Diameter	Two 9” (229 mm) diameter independent hydraulically operated casted augers
Push Rollers Diameter	Two 3” (76 mm) diameter rollers with sealed bearings mounted on swivel frame

Table 2-2. Performance Specifications

ITEM	SPECIFICATION
Travel Speed	0 - 220 FPM (0.067 KPM)
Paving Speed	0 - 140 FPM (0.042 KPM)

Table 2-3. Engine Specifications

ITEM	SPECIFICATION
Manufacturer and Model	Kubota, V1505-T-E3B
Emission Regulation	Tier 4i
Type	Vertical 4-cycle Liquid Cooled Diesel
Number of Cylinders	4
Bore, Stroke, and Displacement	3.07” (78 mm) ; 3.09” (78.4 mm); 91.41 in^3 (1.498 L)
Combustion System	Direct Injection
Power Rating kW (HP)	33.0 kW (44.2 HP)
Maximum Speed	3000 RPM
Fuel Filter Type	Kubota Diesel

Table 2-4. Hopper Specifications

ITEM	SPECIFICATION
Capacity	6 Tons (5,443 kg)
Maximum Tilt	50°
Height	22" (559 mm)

Table 2-5. Machine System Capacity Specifications

ITEM	SPECIFICATION
Engine Lubrication Oil - Pan capacity	1.77 gal (6.7 L)
Hydraulic Oil Reservoir	45 gal (170.34 L)
Torque Hubs	32 oz. (0.355 L) each
Fuel	13 gal (49.21 L)
Propane	One (1) 20 lb. tank
Antifreeze	Glycol based, Red, Extended Life; 1.32 gal (5 L)

Table 2-6. Electrical Specifications

ITEM	SPECIFICATION
Battery	One, Maintenance Free
Battery Ampere Hour Rating	825 CCA
Battery Voltage	12 Volts
Alternator Type and Voltage	12 Volt, negative ground
Alternator Output Amperage	40 Amps
Alternator Fan Belt Tension	Manual belt tension mechanism keeps serpentine belt under tension at all times
Starter Voltage and Type	12 Volt, negative ground

Table 2-7. Hydraulic Pressures Specifications

ITEM	SPECIFICATION
Drive	3000 PSI (207 Bar)
Augers and Cylinders	2200 PSI (152 Bar)

Table 2-8. Lubricant Specifications

ITEM	SPECIFICATION
Engine Oil	15W-40
Hydraulic Oil	All Weather VG 32
Torque Hub	50 WT Gear Oil
Grease	Shell Avania EP Grease or Equivalent
Chain Lube	Chain Lube

Table 2-9. Screed Specifications

ITEM	SPECIFICATION
Extensions	Two 30” hydraulically operated extensions
Vibration	One hydraulic vibrator producing 3,200 vibrations per minute
Crown/Valley	Adjustable, at least 2” (51 mm) of crown and 1-1/2” 38 mm) of valley
Propane Heat	Two (2) 54,000 BTU propane burners on main screed One (1) 36,000 BTU propane burner on each extension

DIMENSIONS

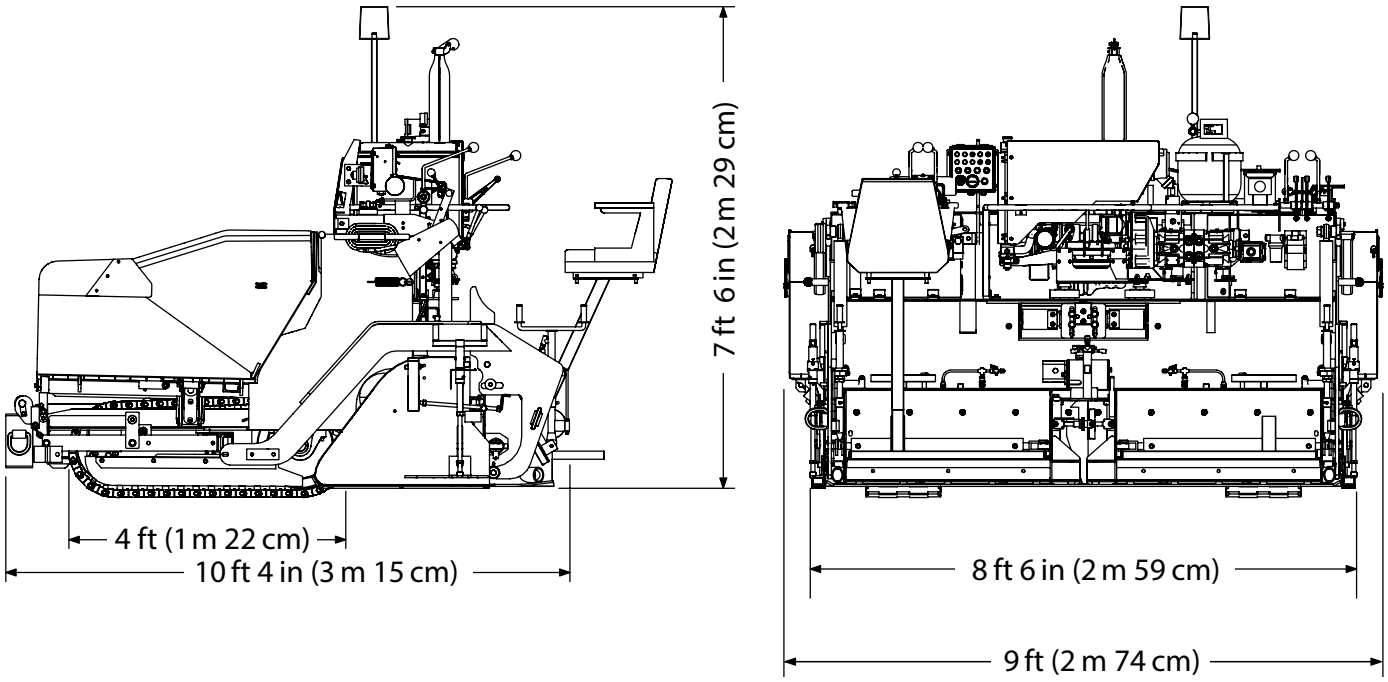


Figure 2-1. 1000F Tilt Hopper Paver Dimensions

TORQUE SPECIFICATIONS: INCH

⚠WARNING **The following Table lists torque values for standard hardware and are intended as a guide for average application involving typical stresses and machined surfaces. Values are based on physical limitations of clean, plated and lubricated hardware. In all cases, when an individual torque value is specified, it should be followed instead of values given in this table.**

⚠CAUTION **Replace original equipment with hardware of equal grade.**

Table 2-10. Torque Specifications For Standard Inch Fasteners

		CAPSCREWS: SAE GRADE 5				CAPSCREWS: SAE GRADE 8			
SIZE	THREAD	TORQUE FT. LBS.		TORQUE N•m		TORQUE FT. LBS.		TORQUE N•m	
		Dry	Lubed	Dry	Lubed	Dry	Lubed	Dry	Lubed
1/4	20 UNC	8	6	11	9	12	9	16	12
	28 UNF	10	7	13	10	14	10	19	14
5/16	18 UNC	17	13	24	18	25	18	33	25
	24 UNF	19	14	26	20	27	20	37	28
3/8	16 UNC	31	23	42	31	44	33	59	44
	24 UNF	35	26	47	36	49	37	67	50
7/16	14 UNC	49	37	67	50	70	52	95	71
	20 UNF	55	41	75	56	78	58	105	79
1/2	13 UNC	75	57	100	77	105	80	145	110
	20 UNF	85	64	115	86	120	90	165	120
9/16	12 UNC	110	82	145	110	155	115	210	155
	18 UNF	120	91	165	125	170	130	230	175
5/8	11 UNC	150	115	205	155	210	160	285	215
	18 UNF	170	130	230	175	240	180	325	245
3/4	10 UNC	265	200	360	270	375	280	510	380
	16 UNF	295	225	405	300	420	315	570	425
7/8	9 UNC	430	320	580	435	605	455	820	615
	14 UNF	475	355	640	480	670	500	905	680
1	8 UNC	645	485	875	655	910	680	1230	925
	14 UNF	720	540	980	735	1020	765	1380	1040
1-1/8	7 UNC	795	595	1080	805	1290	965	1750	1310
	12 UNF	890	670	1210	905	1440	1080	1960	1470
1-1/4	7 UNC	1120	840	1520	1140	1820	1360	2460	1850
	12 UNF	1240	930	1680	1260	2010	1500	2730	2050
1-3/8	6 UNC	1470	1100	1990	1490	2380	1780	3230	2420
	12 UNF	1670	1250	2270	1700	2710	2040	3680	2760
1-1/2	6 UNC	1950	1460	2640	1980	3160	2370	4290	3210
	12 UNF	2190	1650	2970	2230	3560	2670	4820	3620

TORQUE SPECIFICATIONS: METRIC

⚠WARNING The following Table lists torque values for standard hardware and are intended as a guide for average application involving typical stresses and machined surfaces. Values are based on physical limitations of clean, plated and lubricated hardware. In all cases, when an individual torque value is specified, it should be followed instead of values given in this table.

⚠CAUTION Replace original equipment with hardware of equal grade.

Table 2-11. Torque Specifications For Metric Fasteners

NOMINAL SIZE & PITCH	CLASS 8.8 [GRADE 5 EQUIVALENT]				CLASS 10.9 [GRADE 8 EQUIVALENT]			
	TORQUE FT. LBS.		TORQUE N•m		TORQUE FT. LBS.		TORQUE N•m	
	Dry	Lubed	Dry	Lubed	Dry	Lubed	Dry	Lubed
M4 x 0.7	2.27	1.70	3.07	2.30	2.27	2.31	4.17	3.13
M5 x 0.8	4.58	3.43	6.20	4.65	6.22	4.67	8.43	6.33
M6 x 1	7.75	5.83	10.5	7.90	10.60	7.97	14.3	10.8
M8 x 1.25	18.89	14.17	25.6	19.2	18.95	19.26	34.8	26.1
M10 x 1.25	39.11	29.52	53.0	40.1	53.87	40.59	73.0	55.0
M12 x 1.75	64.94	48.71	88.0	66.0	88.56	66.42	120.0	90.0
M14 x 2	103.32	77.49	140.0	105.0	140.22	107.01	190.0	145.0
M16 x 2	162.36	121.77	220.0	165.0	221.40	166.05	300.0	225.0
M20 x 2.5	317.34	236.16	430.0	320.0	428.04	321.03	580.0	435.0
M24 x 3	516.12	409.59	740.0	555.0	754.38	557.19	1010.0	755.0
M27 x 3	797.04	597.78	1080.0	810.0	1084.86	811.80	1470.0	1100.0
M30 x 3.5	1084.86	811.80	1470.0	1100.0	1476.00	1107.00	2000.0	1500.0

NOTES

NOTES

Section 3
COMPONENT LOCATION

3

LOCATION OF OPERATION PANELS AND CONTROLS

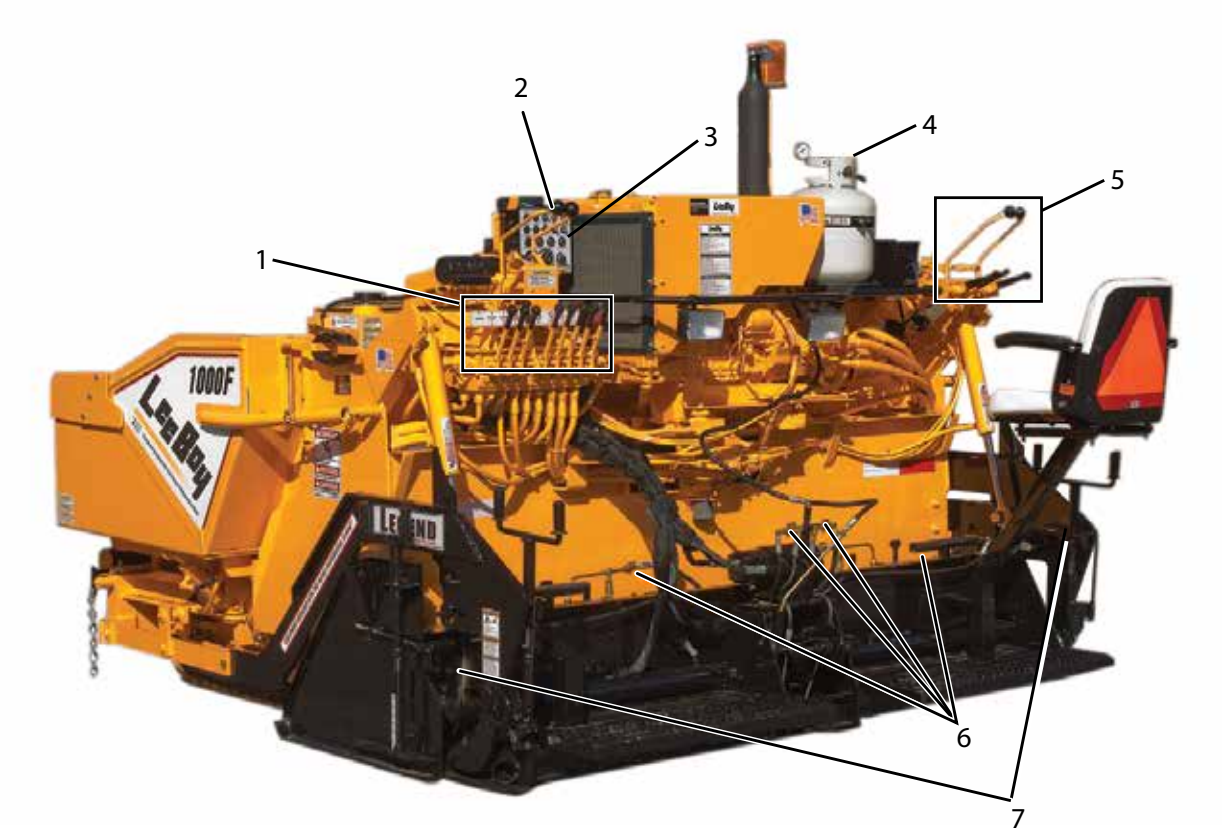


Figure 3-1. Location of Operation Panels and Controls

1 - Left Operator Controls

2 - Steering and Speed Controls

3 - Control Panel Box

4 - Propane Controls

5 - Right Operator Controls

6 - Burner Controls

7 - End Gate Controls

Table 3-1. Location of Operation Panels and Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	Left Operator Controls	Contains hydraulic controls to operate screed and other functions.
2	Steering and Speed Controls	Contains controls for steering and speed control.
3	Control Panel Box	Contains switches, warning lights and ignition switch.
4	Propane Controls	Controls for propane tank.
5	Right Operator Controls	Contains controls for steering and speed control and controls for sidewings, extensions and augers.
6	Burner Controls	Contains controls for burners.
7	End Gate Control Handles	Contains controls for end gates.

LEFT OPERATOR CONTROLS

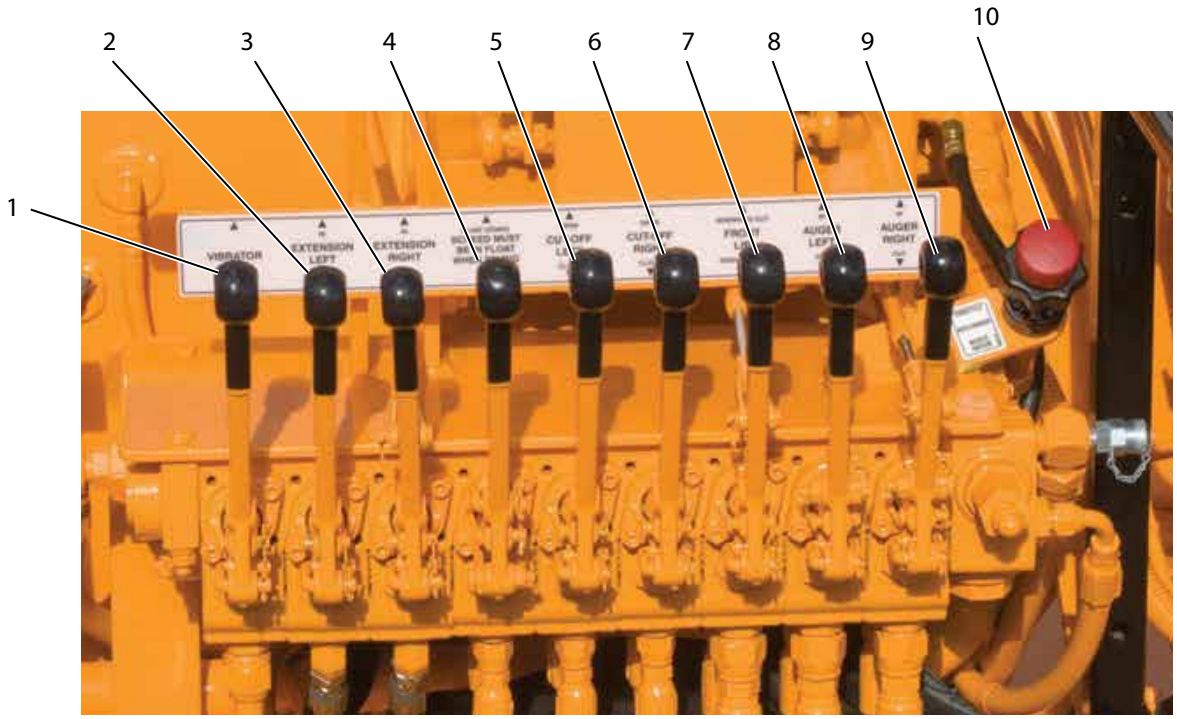


Figure 3-2. Left Operator Controls

1 - Vibrator Lever

2 - Extension Left In/Out Lever

3 - Extension Right In/Out Lever

4 - Screed Float Down/Up Lever

5 - Cut-off Left Open/Close Lever

6 - Cut-off Right Open/Close Lever

7 - Front Lip Sidewings In/Sidewings Out Lever

8 - Auger Left In/Out Lever

9 - Auger Right In/Out Lever

10 - Throttle Knob

Table 3-2. Left Operator Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	Vibrator Lever	Turns screed vibration on and off.
2	Extension Left In/Out Lever	Extends and retracts left screed extension.
3	Extension Right In/Out Lever	Extends and retracts right screed extension.
4	Screed Float Down/Up Lever	Raises and lowers screed. NOTE: Must be locked in FLOAT to pave. Lever forward (UP) and locked.
5	Cut-off Left Open/ Close Lever	Opens or closes the left cut-off.
6	Cut-off Right Open/ Close Lever	Opens or closes the right cut-off.
7	Front Lip Sidewings In/ Sidewings Out Lever	Lever folds out the side wings to load asphalt into the paver. Push lever up to OUT position to move sidewings out. Once side wings out, hopper will begin to tilt up. Pull lever down to IN position to move sidewings in. NOTE: Sidewings will not fold in until hopper is in lowest position. ⚠WARNING **Before operating side wings, verify there are no people, obstacles or other equipment in the path of the paver.**
8	Auger Left In/Out Lever	Distributes asphalt to left screed extension.
9	Auger Right In/Out Lever	Distributes asphalt to right screed extension.
10	Throttle Knob	Sets engine RPM. Turn clockwise (CW) for higher RPM. Push red knob in to lower RPM, pull up to increase RPM.

STEERING AND SPEED CONTROLS

Figure 3-3. Steering and Speed Controls

1 - Drive Left Forward/Reverse Steering Joystick

2 - Drive Right Forward/Reverse Steering Joystick

3 - Neutral Lock with Neutral Safety Switch

Table 3-3. Steering and Speed Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	Drive Left Forward/ Reverse Steering Joystick	Lever controls the speed and direction of travel forward and reverse. Pushing joystick forward moves machine forward. The farther forward, the faster the speed. Pulling joystick backward moves machine backward. The farther backward, the faster the speed. When joystick is centered, the machine is in neutral. Pushing left joystick farther forward than right joystick steers the paver to the right. The farther forward, the more the paver turns. ⚠WARNING **Before moving paver, verify there are no people, obstacles or other equipment in the path of the paver.** NOTE: Machine must be in neutral with neutral lock engaged to start machine.
2	Drive Right Forward/ Reverse Steering Joystick	Lever controls the speed and direction of travel forward and reverse. Pushing joystick forward moves machine forward. The farther forward the faster the speed. Pulling joystick backward moves machine backward. The farther backward, the faster the speed. When joystick is centered, the machine is in neutral. Pushing right joystick farther forward than left joystick steers the paver to the left. The farther forward, the more the paver turns. ⚠WARNING **Before moving paver, verify there are no people, obstacles or other equipment in the path of the paver.** NOTE: Machine must be in neutral with neutral lock engaged to start machine.
3	Neutral Lock with Neutral Safety Switch	Locks the left and right forward/reverse steering joysticks in neutral and applies the start/neutral switch. NOTE: Unit will not crank unless Neutral Safety Switch is engaged.

CONTROL PANEL BOX

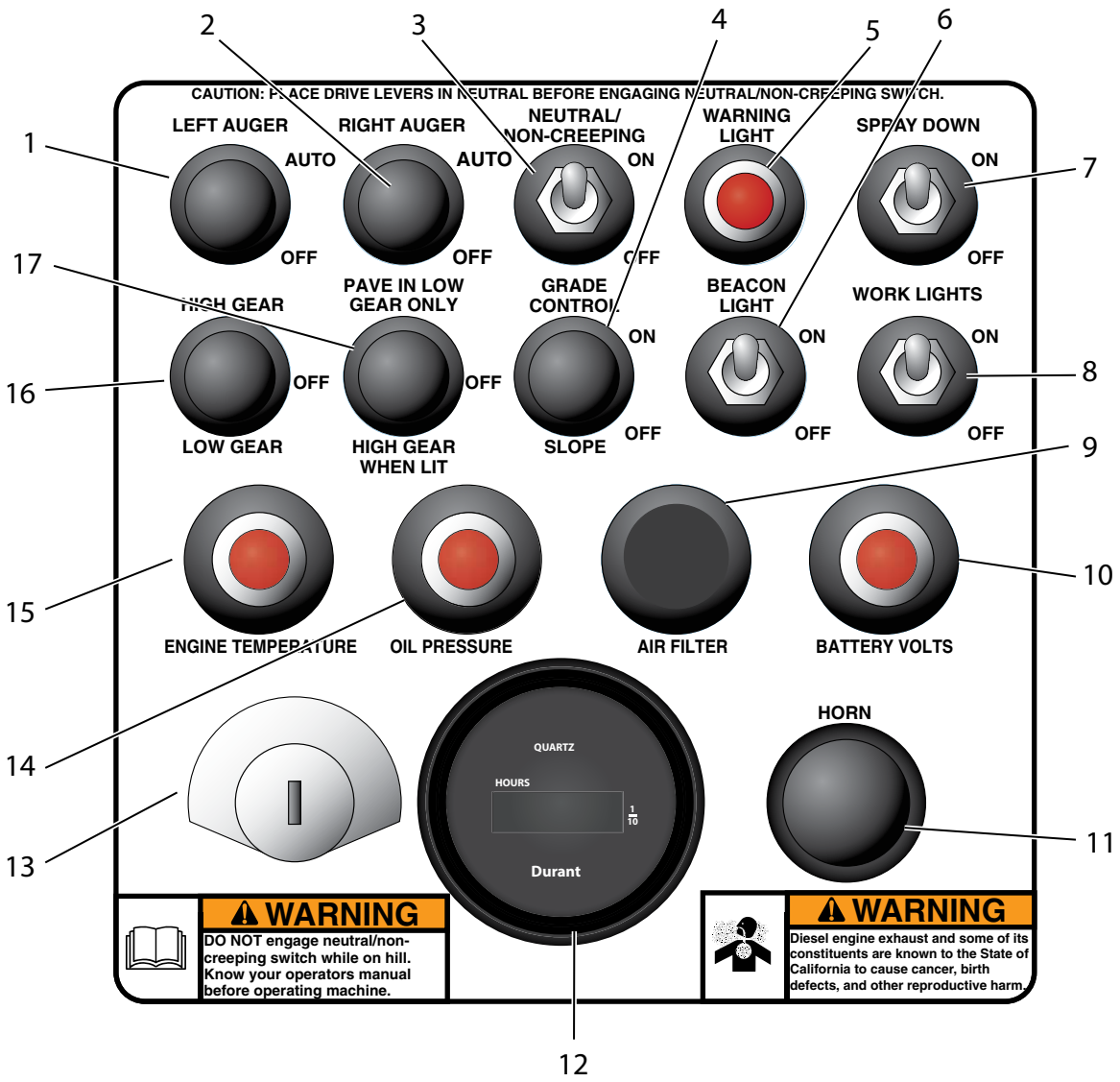


Figure 3-4. Control Panel Box

1 - Left Auger Auto/Off Switch (Option)

2 - Right Auger Auto/Off Switch (Option)

3 - Neutral/Non-Creeping On/Off Switch

4 - Grade Control-Slope On/Off Switch (Option)

5 - Warning Light

6 - Beacon Light On/Off Switch

7 - Spray Down On/Off Switch

8 - Work Lights On/Off Switch

9 - (Not an Option on Model 1000F)

10 - Battery Volts Light

11 - Horn Button

12 - Hour Meter

13 - Ignition Switch

14 - Oil Warning Light

15 - Engine Temperature Warning Light

16 - High Gear/Low Gear Switch (Option)

17 - High Gear When Lit Light (Option)

Table 3-4. Control Panel Box

ITEM NO.	CONTROL NAME	FUNCTION
1	Left Auger Auto/Off Switch (Option)	Distributes asphalt to left screed.
2	Right Auger Auto/Off Switch (Option)	Distributes asphalt to right screed.
3	Neutral/Non-Creeping On/Off Switch	Pauses the machine by making the neutral band wider so it can be easily found. Push switch ON to pause the machine. Pull switch OFF to resume forward/reverse travel. ⚠WARNING **Never use the NEUTRAL/NON-CREEPING Switch on a hill.**
4	Grade Control-Slope On/Off Switch (Option)	When switch is in GRADE position, power is ON all the time regardless of position of forward/reverse steering joystick. When switch is in SLOPE position, power is present only when forward/reverse steering joystick is in FORWARD position. With forward/reverse steering joystick in NEUTRAL, all power is turned off.
5	Warning Light	Indicates neutral/non-creeping switch is in use.
6	Beacon Light On/Off Switch	Turns beacon light on or off.
7	Spray Down On/Off Switch	Turns spray down on or off.
8	Work Lights On/Off Switch	Turns works lights on or off.
9	-	Not an option on Model 1000F
10	Battery Volts Light	Indicates low or no battery charge.
11	Horn Button	Sounds horn.
12	Hour Meter	Indicates working hours on machine.
13	Ignition Switch with Cold Weather Start-up	Controls starting, stopping and running of engine. Insert key and turn key clockwise (CW) to START position. For cold weather start-up, turn key counterclockwise (CCW) to PREHEAT position for approximately 30 seconds to 2 minutes to preheat engine, then turn key clockwise (CW) to START position. Turn key on counterclockwise (CCW) to the OFF position and remove key. *NOTICE* **After engine starts, throttle back - make sure the engine does not over rev. RPM's too high may possibly do engine damage.** NOTE: Engine will not start unless neutral lock is engaged. NOTE: Allow engine to warm up for several minutes before moving paver. The warm up will give the hydraulic oil time to warm, providing for more efficient operation. In cold weather let hydraulic oil warm to 50°F (10°C) or 60°F (16°C) before moving.
14	Oil Warning Light	Indicates low oil level.
15	Engine Temperature Warning Light	Indicates an engine fault.
16	High Gear/Low Gear Switch (Option)	Push switch UP for high gear. Pull switch OFF for low gear. NOTE: The two-speed paver may be shifted while moving. Always pave in low gear.
17	High Gear When Lit Light (Option)	Indicates paver is in high gear.

PROPANE CONTROLS

Figure 3-5. Propane Controls

1 - Propane Pressure Regulator Valve

2 - Propane Pressure Regulator Gauge

3 - Propane Tank Open/Close Valve

Table 3-5. Propane

ITEM NO.	CONTROL NAME	FUNCTION
1	Propane Pressure Regulator Valve	Regulates propane line pressure.
2	Propane Pressure Regulator Gauge	Indicates propane line pressure.
3	Propane Tank Open/ Close Valve	Opens and closes propane pressure.

RIGHT OPERATOR CONTROLS

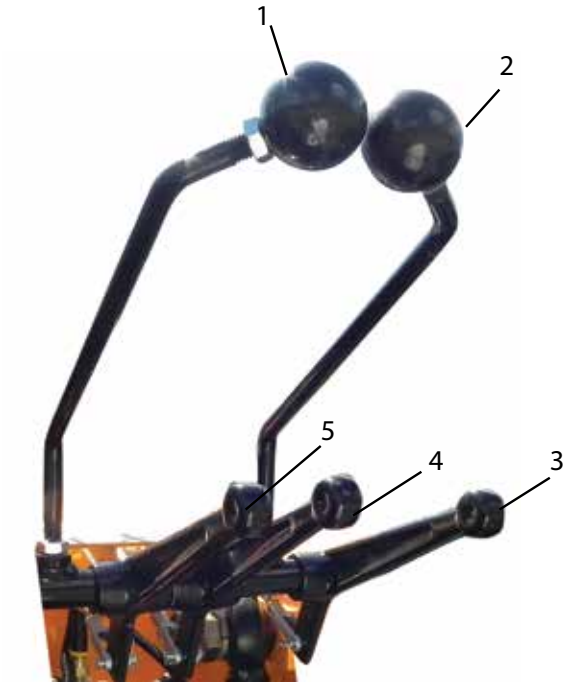


Figure 3-6. Right Operator Controls

1 - Drive Left Forward/Reverse Steering Joystick

2 - Drive Right Forward/Reverse Steering Joystick

3 - Front Lip/Sidewings In/Sidewings Out Lever

4 - Extension Right In/Out Lever

5 - Auger Right In/Out Lever

Table 3-6. Right Operator Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	Drive Left Forward/ Reverse Steering Joystick	Lever controls the speed and direction of travel forward and reverse. Pushing joystick forward moves machine forward. The farther forward, the faster the speed. Pulling joystick backward moves machine backward. The farther backward, the faster the speed. When joystick is centered, the machine is in neutral. Pushing left joystick farther forward than right joystick steers the paver to the right. The farther forward, the more the paver turns. ⚠WARNING **Before moving paver, verify there are no people, obstacles or other equipment in the path of the paver.** NOTE: Machine must be in neutral with neutral lock engaged to start machine.
2	Drive Right Forward/ Reverse Steering Joystick	Lever controls the speed and direction of travel forward and reverse. Pushing joystick forward moves machine forward. The farther forward the faster the speed. Pulling joystick backward moves machine backward. The farther backward, the faster the speed. When joystick is centered, the machine is in neutral. Pushing right joystick farther forward than left joystick steers the paver to the left. The farther forward, the more the paver turns. ⚠WARNING **Before moving paver, verify there are no people, obstacles or other equipment in the path of the paver.** NOTE: Machine must be in neutral with neutral lock engaged to start machine.
3	Front Lip Sidewings In/ Sidewings Out Lever	Lever folds out the side wings to load asphalt into the paver. Push lever up to OUT position to move sidewings out. Once side wings out, hopper will begin to tilt up. Pull lever down to IN position to move sidewings in. NOTE: Sidewings will not fold in until hopper is in lowest position. ⚠WARNING **Before operating side wings, verify there are no people, obstacles or other equipment in the path of the paver.**
4	Extension Right In/Out Lever	Extends and retracts screed extension.
5	Auger Right In/Out Lever	Distributes asphalt to right screed extension.

BURNER CONTROLS

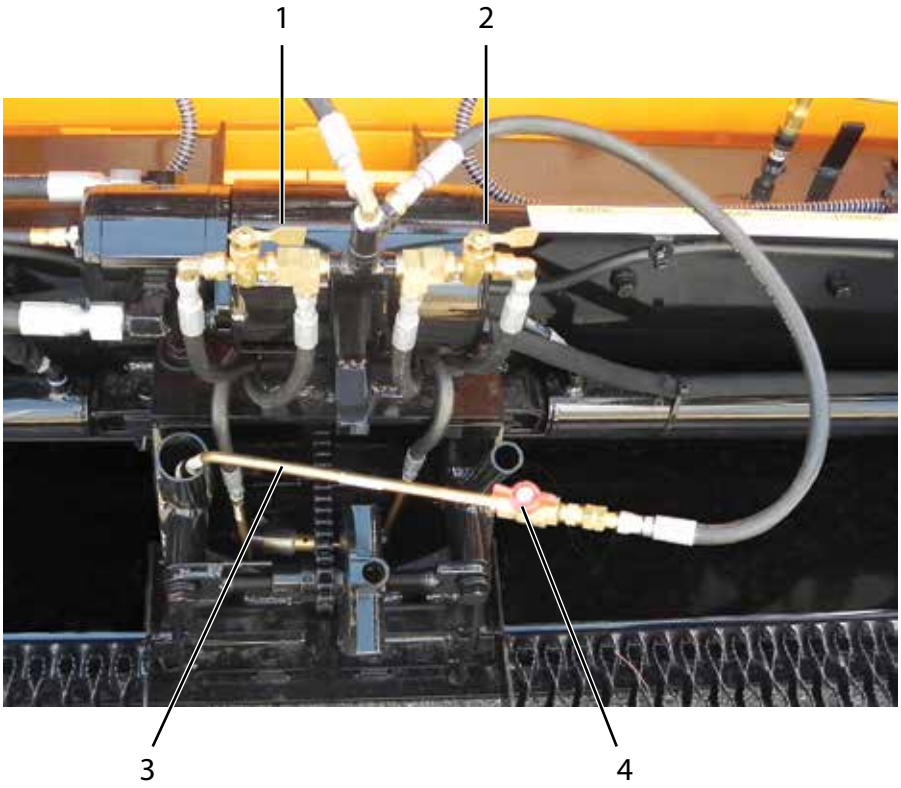


Figure 3-7. Burner Controls

1 - Left Burner Valve

2 - Right Burner Valve

3- Burner Ignitor

4 - Burner Ignitor Valve

Table 3-7. Burner Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	Left Burner Valve	Controls flow of propane to left screed burner.
2	Right Burner Valve	Controls flow of propane to right screed burner.
3	Burner Ignitor	Used to light burners.
4	Burner Ignitor Valve	Controls flow of propane to ignitor.

BURNER CONTROLS (CONT.)

Figure 3-8. Extension Burner Controls

1 - Right Extension Burner Valve

2 - Left Extension Burner Valve

Table 3-9. Burner Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	Right Extension Burner Valve	Controls flow of propane to right extension burner.
2	Left Extension Burner Valve	Controls flow of propane to left extension burner.

END GATE CONTROLS

Figure 3-9. End Gate Controls

1 - End Gate Depth Screw

2 - Tilt Screw

3 - Flight Screw

Table 3-10. End Gate Controls

ITEM NO.	CONTROL NAME	FUNCTION
1	End Gate Depth Screw	Sets end gate to desired depth.
2	Tilt Screw	Changes pitch of end gate.
3	Flight Screw	Controls depth of material.

NOTES

Section 4
OPERATION

GENERAL INFORMATION

Before operating the LeeBoy Model 1000F Tilt Hopper Paver, you must read the following safety information and review **Safety** in Section 1.

⚠ DANGER Operation Hazard! Never allow anyone who is not properly trained to operate this paver. Only authorized personnel who are properly trained in the operation of the paver can operate the LeeBoy Model 1000F Tilt Hopper Paver.

⚠ DANGER Operation Hazard! Do not operate a paver that requires repairs or scheduled maintenance. Put an information tag on the instrument panel that says "DO NOT OPERATE." Remove the key from the ignition switch. Repair all damage at once and perform routine maintenance. Minor damage can result in major system failure.

⚠ DANGER Operation Hazard! Never leave machine operator station unattended with machine in gear and/or in motion. Operator station is defined as the platform area within arms reach of active steering and speed controls. Operator must remain in operator's station at all times when machine is in gear and/or in motion. Before leaving machine operator station, operator must return forward/ reverse steering joysticks to neutral position.

SAFETY

- Verify there are no people, obstacles or other equipment near or in the line of travel of the LeeBoy Model 1000F Tilt Hopper Paver before starting the engine.
- Work slowly in tight areas.
- Avoid steep hills if possible.
- Always look before changing the direction of travel.
- Always park the paver on solid, level ground in low range. If this is not possible, always park the paver at a right angle to the slope. Lower screed when parked.
- Use proper flags, barriers and warning devices, especially when parking in areas of traffic.
- Do not run engine in a closed building for long periods of time.
- Never open a valve to burner unless a flame is present. Heat screed for no more than 15 minutes.
- Make sure all valves are closed before propane is turned ON.
- Avoid leaving engine running without operator present.
- Never work on the paver when the engine is running.
- Never fill the fuel tank when the engine is running.
- Do not change the engine governor settings.
- Always replace damaged or lost decals.
- Disconnect battery cables when working on the electrical system or when welding on the unit.
- If battery needs a charge, be sure battery charger is off when making connections.
- Be sure the correct battery polarity is observed [negative (-) to negative (-) and positive (+) to positive (+)], when connecting a battery charger or jumper cable.

PRE-START INSPECTION AND PREPARATION

To prevent costly down time, the LeeBoy Model 1000F Tilt Hopper Paver should be checked thoroughly before each use. Use the list below to assist in checking out the paver.

1. Inspect paver. Have any malfunctioning, broken or missing parts repaired or replaced before using, including:
   - Hydraulic hoses/fittings
   - Pumps
   - Motors
   - Electrical wires and connections
   - Steps and supports
2. Check engine oil (refer to current engine operator's manual), hydraulic oil, torque hub oil and diesel fuel.
3. Check the engine neutral start switch (the engine should only start when the left and right forward/reverse steering joysticks are in the neutral position).
4. Check all electrical functions before distributing asphalt.
5. Check burner ignition (see **"Starting To Pave" on page 4-10**).
6. Ensure operator's area is free of debris.
7. Ensure that all the instruction and safety labels are in place and readable. These are as important as any other equipment on the paver.
8. Read and follow all instruction and safety labels.
9. Ensure all covers and guards are in place.
10. Wear OSHA required safety equipment when running the paver.
11. Ensure paver is properly lubricated (see **"Lubrication Chart" on page 5-4**).
12. Never fill the fuel tank when the engine is running.

⚠WARNING Explosion Hazard! Never fill fuel tank near an open flame, when smoking, when the engine is running or when screed heat is on.

13. Clear auger before starting engine.
14. Spray cleaning solvent or release agent on any part of the paver that comes in contact with asphalt (see **"Spray Down" on page 4-6**).

STARTING THE ENGINE

Preliminary

1. Check fuel level, fuel lines, and tank for leaks.
2. Check crankcase oil level.

NOTICE Failure to maintain correct engine oil level is the greatest single cause of engine failures.

3. Check hydraulic oil level. Oil level is determined by petcock on hydraulic oil tank.

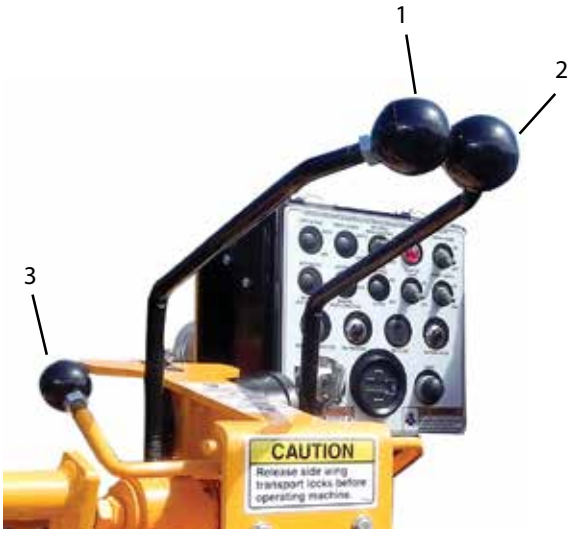


Figure 4-1. Steering/Speed Controls

1 - Drive Left Forward/Reverse Steering Joystick

2 - Drive Right Forward/Reverse Steering Joystick

3 - Neutral Lock with Neutral Safety Switch

4. Make sure forward/reverse steering joysticks **(Figure 4-1,1,2)** are in NEUTRAL position and Neutral Lock **(Figure 4-1,3)** is engaged.
5. Refer to engine operator's manual for instructions when starting engine for the first time. Follow engine manufacturer's recommendations for fuel and oil.

Engine Start-Up

NOTE: Forward/reverse steering joysticks (**Figure 4-1**) must be in NEUTRAL position and Neutral Lock must be engaged to start engine.

1. Position forward/reverse steering joysticks **(Figure 4-1,1,2)** to NEUTRAL.

NOTICE Do not operate the starter longer than 10-15 seconds. If the engine does not start, allow the starter to cool 2-3 minutes before trying again.

NOTICE **The use of starting additives, such as ether, is not recommended.**

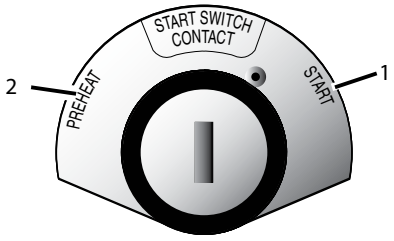


Figure 4-2. Ignition Switch

1 - Start Position

2 - Preheat Position

2. Insert key into the ignition switch on control panel and turn key clockwise (CW) to START position **(Figure 4-2,1)**.

NOTE: Allow engine to warm up for several minutes before moving paver. The warm up will give the hydraulic oil time to warm, providing for more efficient operation. In cold weather let hydraulic oil warm to 50°F (10°C) or 60°F (16°C) before moving.

NOTE: For convenience, there is an extra key inside the switch box in case the original key is lost.

Cold Weather Start-Up

It is important that the operator follow all proper procedures especially concerning safe operation of starting the paver in cold weather. Refer to **Engine Start-Up,** step 1. Now refer to step 1, below:

1. Turn key counterclockwise (CCW) to PREHEAT position for approximately 30 seconds to 2 minutes to preheat engine **(Figure 4-2,2)**.
2. Turn key clockwise (CW) to START position **(Figure 4-2,1)**. After engine starts, throttle back - make sure the engine does not over rev. (RPM's too high may possibly do engine damage.)
3. After start-up, allow engine and hydraulic oil to warm up before activating components. This is extremely important in cold weather.

Stopping the Engine

1. Throttle back to idle by pushing the switch down **(Figure 3-1,11)** until idle speed is reached.
2. Turn key in ignition switch on control panel counterclockwise (CCW) to the OFF position and remove key.

PAVER OPERATING INFORMATION

1. Start the paver. See **"Starting The Engine" on page 4-4.**
2. Release Neutral Lock (**Figure 4-1,3**) by pulling lever toward operator.
3. To drive the paver forward, slowly push both forward/reverse steering joysticks (**Figure 4-1,1,2**) evenly from the NEUTRAL position until the paver is moving at the desired speed.
4. To drive the paver in reverse, slowly pull the drive forward/reverse steering joysticks back from the neutral position until the paver is moving in reverse at the desired speed.

⚠WARNING **Rapid counter-rotation in either direction, clockwise (CW) or counterclockwise (CCW) could result in operator being thrown from machine resulting in personal injury or death. Counter-rotation is defined as either one forward/ reverse steering joystick in extreme forward position and opposite forward/reverse steering joystick in extreme rear position, machine is in gear and moving forward or reverse. Make only slow adjustments to forward/reverse steering joysticks to turn machine.**

5. To turn the paver left while moving in the forward direction, either push the right-hand forward/ reverse steering joystick further than the left-hand forward/reverse steering joystick or pull the left-hand forward/reverse steering joystick back. This causes the right side of the paver to move faster than the left-hand side and results in a left turn.
6. To turn the paver right while moving in the forward direction, either push the left-hand forward/reverse steering joystick further than the right-hand forward/ reverse steering joystick or pull the right-hand joystick back. This causes the left side of the paver to move faster than the right-hand side and results in a right turn.
7. Advancing either forward/reverse steering joystick while pulling back on the other forward/reverse steering joystick results in a tighter turn.
8. To stop the paver, return both forward/reverse steering joysticks to the neutral position and engage Neutral Lock (**Figure 4-1,3**).

PAVER OPERATION

1. Follow start-up procedures (see **"Starting The Engine" on page 4-4**).
2. Position paver to start of mat.
3. Open cut-off gates by pushing the right cut-off open/close lever **(Figure 3-2,6)** and left cut-off open/close lever **(Figure 3-2,5)** upward to the OPEN position.
4. Adjust screed as needed (see **"Setting Screed To Pave" on page 4-10**).
5. When material starts to discharge from under screed, the screed float down/up lever **(Figure 3-2,4)** on the control panel should be set to the FLOAT position.

⚠CAUTION **Never fold hopper wings fully in when hopper is full of asphalt.**

6. Open hopper sidewings by pushing front lip sidewings in/sidewings out lever **(Figure 3-2,7)** upward to the OUT position. When first starting to pave, allow only a partial load of asphalt to enter the hopper.

NOTE: Augers are not needed when paving a basic 8 foot pull.

7. Start paving. Move slowly at first so adjustments can be made to screed.

⚠CAUTION **Never backup with cut-off gates open. Cut-off gates are designed to break away from cylinders when hitting a manhole or other hard object. This only occurs going forward not in reverse.**

8. To prevent excessive handwork, about 2 to 3 ft. (0.6 to 0.9 m) from end of pull, set left cut-off and right cut-off levers **(Figure 3-2,5,6)** to the CLOSE position. Return paver back to starting position to begin next pull. Position and set screed end gate on joint side back to 0 ft. or flush with bottom of main screed. Repeat process as done in first pull.
9. The paver can operate using one side only. However, material from opposite side cannot be augered to the working side. The auger center cover prevents this. It is possible to leave both cut-offs shut and open the end gates on screed. This method is generally used in doing potholes and patching.

Hydraulic Cut-off Gates Operation

The cut-off gates are one of the most important functions of the paver, when used properly. Cut-offs are used primarily to control the flow of asphalt to the screed. Cut-offs can be used when making passes, at the beginning and ending of each pass or pull.

NOTE: The cut-offs have been designed to break away if you accidentally hit a manhole or ridge. This feature will prevent excessive damage to cut-off (tack underneath will break).

⚠CAUTION **Never backup with cut-off gates open. Cut-off gates are designed to break away from cylinders when hitting a manhole or other hard object. This only occurs going forward not in reverse.**

1. Push the right cut-off open/close lever **(Figure 3-2,5)** and left cut-off open/close lever **(Figure 3-2,6)** upward to the OPEN positions to increase asphalt flow to the screed.
2. Pull the right cut-off open/close lever **(Figure 3-2,6)** and left cut-off open/close lever **(Figure 3-2,5)** downward to the CLOSE positions to decrease asphalt flow to the screed.

NOTE: Always pull levers to CLOSE position. If levers are allowed to return to center position on their own, they may bypass center and cause cut-off to drift open once pressure is lost.

Spray Down

Always spray down the LeeBoy Model 1000F Tilt Hopper Paver before using.

The spray down on your paver is used to spray cleaning solvent or release agent on any part of the paver that comes in contact with the asphalt. Buildup of asphalt will cause damage to components. Spray all areas of the paver that have direct contact with asphalt.

⚠WARNING **Fire Hazard! Never spray cleaning solvent or release agent on or near a screed heating element that is hot or being heated or on or near any open flame or source of ignition. Cleaning solvent and release agent could ignite causing serious personal injury.**

NOTE: When using spray down, consider the environment and do not allow cleaning solvent to run onto the ground.

Figure 4-3. Spray Down Hose

1 - Spray Hose Wand Handle

NOTE: A hose reel is available as an option.

1. Pull out the amount of hose needed and set SPRAY DOWN switch to ON (up) position **(Figure 3-4,7)**. Squeeze the wand handle **(Figure 4-3,1)** and spray. Release wand handle when done spraying.
2. After spraying, set the SPRAY DOWN switch to the OFF (down) position **(Figure 3-4,7)** and let the hose wind back up.

NOTICE **If spray down pump is not turned off after each use, the pump will run over bypass and, after a period of time, will burn up motor.**

Burner Ignition Procedure

⚠WARNING **Propane gas used to heat the screed is volatile and combustible. Use extreme care and follow the instructions.**

NOTE: Heating the screed helps prevent hot mix from sticking to the cold screed plate and produces a smooth, tight mat surface. Heating should not only be performed at the beginning of the job, but also if the paver is idle for a long time between loads (allowing screed plate to cool).

The following procedure will provide the necessary steps in manually lighting the burners. It is important to remember that propane is a volatile and combustible gas and for this reason safety should be a major consideration. When treated with respect the propane will not present a problem.

1. Turn all burner valves at center of screed **(Figure 4-5,1,2,3)** and on both right and left side extensions **(Figure 4-6,1)** counterclockwise (CCW) to the OPEN position.
2. Turn propane tank open/close valve counterclockwise (CCW) to OPEN position **(Figure 4-4,1)** and adjust propane pressure regulator valve in or out until propane pressure regulator gauge reads 15 lbs.. (1 bar) **(Figure 4-4,3)**.

Figure 4-4. Propane Tank With Regulator

1 - Propane Tank Open/Close Valve

2 - Propane Pressure Regulator Gauge

3 - Propane Pressure Regulator Valve

3. Light burner ignitor **(Figure 4-5,4)** as you open the ignitor valve **(Figure 4-5,3)**.

⚠WARNING **Never open a valve to a burner unless flame is present. A buildup of unburned gas could result in a gas explosion.**

4. Direct ignitor flame into hole in screed cover **(Figure 4-5,5)** and turn burner valve to ON position.

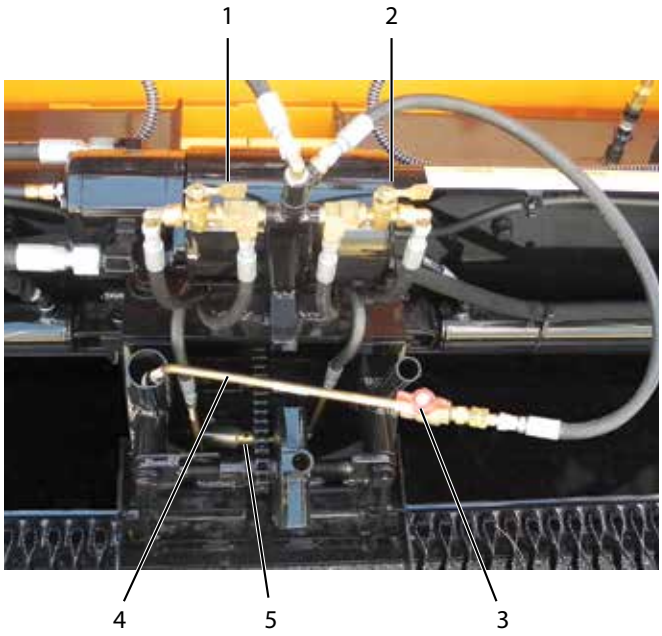


Figure 4-5. Burner Valves

1, 2 - Burner Valves

3 - Burner Ignitor Valve

4 - Burner Ignitor

5 - Burner Ignitor Hole

5. Repeat procedure in Step 4 for opposite side.

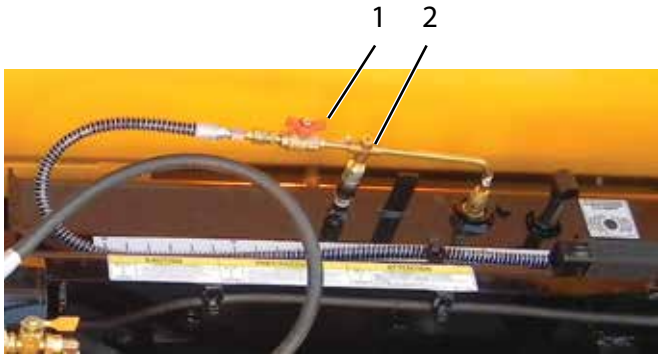


Figure 4-6. Extension Burner Valve

1 - Extension Burner Valve

2 - Coupling Connector

6. The extension burners are held in position to the screed with a quick coupling connection. Remove the extension burner from coupling connector and light **(Figure 4-6,2)**.
7. Repeat procedure in Step 6 for opposite side.
8. Turn off burner ignitor valve **(Figure 4-5,3)**.
9. Heat screed for no more than 5 to 10 minutes before paving.

NOTE: When heating screed, position the screed approximately 2 in. (5 cm) from the ground.

To extinguish the burners:

1. After screed has heated for about 15 minutes, turn Propane Tank Open/Close Valve **(Figure 4-4,1)** clockwise (CW) to the CLOSE position.
2. Once flame goes out completely, turn the burners off by turning the burners valves **(Figure 4-5,1,2,3)** clockwise (CW) to the CLOSE position.

To light automatic ignitors (Option):

1. Turn the propane open/close valve to the OPEN position **(Figure 4-4,1)**.
2. Push preheat button for 5 seconds.
3. Turn the burner switch to the ON position. When screed is heated, pull burner switch to the OFF position.
4. Turn the propane open/close valve to the CLOSE position **(Figure 4-4,1)**.

NOTE: If paving on a cool, windy day, it may be necessary to maintain low heat on the screed. To accomplish this, reduce the pressure on the Propane Pressure Regulator Gauge **(Figure 4-4,2)** from 15 lbs. (1 bar) to 2 lbs. (0.14 bar). This will provide a low even heat that will not harm the screed. Do not attempt to regulate the burner with the burner valve.

NOTICE **Too much heat for too long can warp screed plate, cause extensions to lock up, and cause mat texture problems. A warped screed plate should be replaced.**

NOTICE **If extension lock up occurs, let unit cool before forcing in or out.**

Two-speed Drive (Option)

A high and low gear switch is used with the optional two-speed transmission. The High Gear/Low Gear Switch **(Figure 3-4,16)** is used with the torque hub. Pull the High Gear/Low Gear Switch UP **(Figure 3-4,16)** for high gear. The High Gear When Lit Light **(Figure 3-4,17)** will illuminate to indicate the paver is in high gear. Push the High Gear/Low Gear Switch **(Figure 3-4,16)** DOWN for low gear.

NOTE: The two-speed paver may be shifted while moving. Always pave in low gear.

Sonic Augers Operation (Option)

The sonic augers are most often used when paving 9 or 10 ft. (2.7 or 3 meters) where augers are capable of running material over top of end gates, causing extra handwork. The sonic auger gauges the amount of material that is in the extensions.

⚠CAUTION Never run augers when paving 8 ft. (2.4 m) wide.

1. Set the LEFT AUGER and RIGHT AUGER switches **(Figure 3-4,1,2)** on the control panel to the ON position.
2. Pull the auger levers to the OUT position to fill the end gates **(Figure 3-2,8,9)**.The sonic will turn the augers OFF and ON, automatically. To override the automatics, the toggle switches must be set to MANUAL.
3. Adjust height of material at end gate with the sonic auger adjustment **(Figure 4-7,1)**. Turn the dial to keep the extension full. Be careful not to over run the extension with the material.

NOTE: When running material through augers manually, try to pave so material flow to extension is adequate and maintained.

NOTICE To prevent hydraulic oil from overheating, turn augers OFF while waiting on material or hand work.

4. When paver stops, set the LEFT AUGER and RIGHT AUGER switches on the control panel to the OFF position and push AUGER levers to OFF.

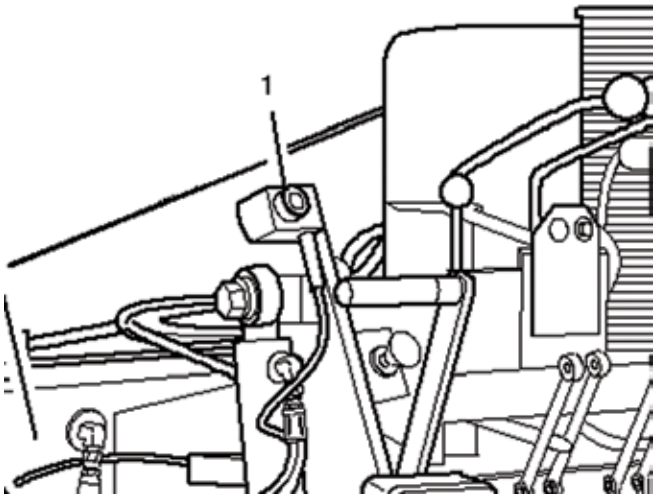


Figure 4-7. Sonic Auger Height Adjustment

1 - Adjustment Dial

Electric Flight Screws Operation (Option)

The electric flight screw option is an added convenience to the operator. Refer to **Figure 4-8** and use the following procedures:

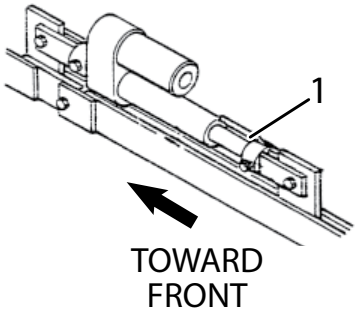


Figure 4-8. Flight Screw

1 - Electric Flight Screw in Center Position

1. Before paving, center the electric flight screws on each side of the paver.
2. While paving, manual flight screws are used to make major depth adjustments. Use the electric flight screws to make minor adjustments.

STARTING TO PAVE

The LeeBoy Model 1000F Tilt Hopper Paver is capable of placing bituminous base, binder and surface courses, lime or Portland cement stabilized sub-base and graded aggregate materials up to a thickness of 6 in (20 cm).

The paver is equipped with optional electric and manual thickness controls and an 8 ft. to 13 ft. (2.8 m to 4 m) wide screed. The paver can handle everything such as driveways and small parking lots to large parking areas and secondary roads.

Before starting to pave, keep the following points in mind:

1. Plan the project so that the narrowest passes are first, (the basic width of the paver) leaving the widest pass until last.

NOTE: When paving, gradually raise hopper as material is needed to screed. Do not dump hopper full and raise all the way up at one time. This will cause mat thickness to vary.

2. Make sure to use a reference guideline. This can be a curb, gutter, adjacent mat or a string line. It is important that the first pass be straight. It will be the guideline for the following passes. Use the guide bar gauges as shown in **Figure 4-9**

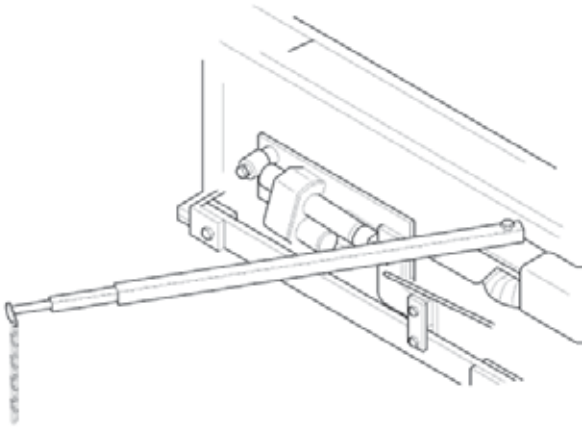


Figure 4-9. Guide Bar Gauges

NOTICE **Never run the paver through a pile of mix that has been dumped in front of the paver. Not only will this effect the level of the mat being laid but damage may result.**

3. It is the operator's responsibility to guide the truck up to the paver and signal the driver when and how much to dump into the hopper. Truck drivers must maintain a light pressure on truck brakes to keep truck from dumping material on the roadway.
4. Always pave in low range.

⚠WARNING **Before starting forward with paver make certain that no one is in front of the paver.**

⚠CAUTION **Avoid low hanging limbs, power lines, and other foreign objects that can endanger crew or paver.**

Setting Screed To Pave

1. Move to the starting position.
2. Extend the screed to the desired width.
3. To set depth, place screed on starter blocks **(Figure 4-10)**.

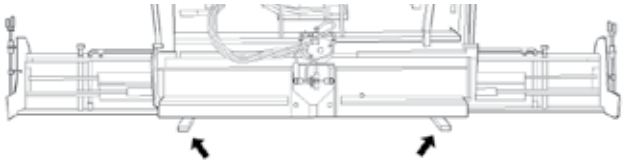


Figure 4-10. Starter Blocks

4. Level screed with flight screws **(Figure 4-13,3)** until neutral position is felt.

NOTE: Neutral position is when the pressure on the flight screw is the same when screwing either clockwise (CW) or counterclockwise (CCW).

5. Set the left or right SCREED FLOAT lever **(Figure 3-2,4)** to the FLOAT position. This will remove the hydraulic pressure from the cylinder, allowing screed to float.
6. Turn flight screw about one complete turn clockwise.

Setting Crown or Valley

1. Loosen hex head bolt next to vibration motor (**Figure 4-11**,1)

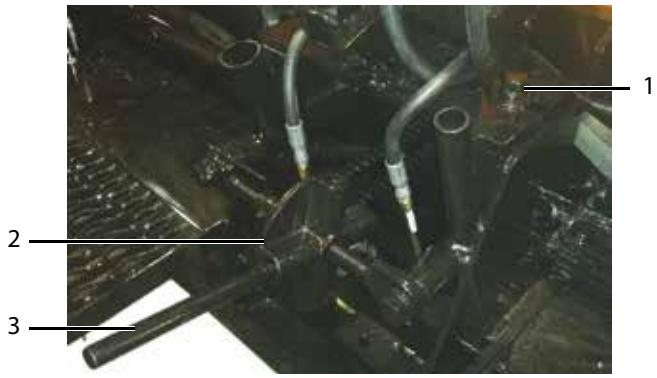


Figure 4-11. Crown Adjustment

1 - Hex Head Bolt

2 - Crown Adjuster

3 - Crown Handle

2. Remove crown handle from toolbox and insert into crown adjuster **(Figure 4-11,2,3)**.
3. For increased positive crown, turn crown handle down.
4. For increased negative crown, turn crown handle up.
5. Retighten hex head bolt next to vibration motor.

NOTE: If the job demands a specific amount of crown, it can be set by stretching a string line from one side of the screed to the other (along trailing edge). Turn crown control and measure from the center of screed plate to taut string line.

NOTE: Maximum crown is 2 in. (5 cm).

NOTE: Positive crown is when the middle of the mat is raised to permit water to drain to each side **(Figure 4-12,1)**. Negative crown is the lowering of the center of the screed plate **(Figure 4-12,3)**. Negative crown might be used in an alley where drainage down the center of the alley is necessary **(Figure 4-12)**.

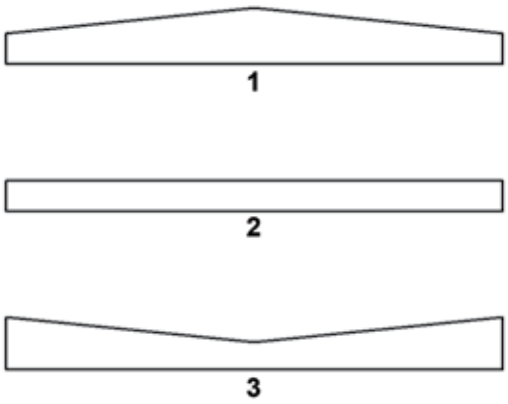


Figure 4-12. Crown Settings

1 - Positive (+)

2 - Zero (0)

3 - Negative (-)

NOTE: Crown may be placed in the leading edge and/or the trailing edge of the screed plate. Crown in the leading edge aids material flow under the screed plate only. Trailing edge crown puts a crown in the mat. As an example: trailing edge crown is 0, leading edge crown is 1/8 in. With this setup, there will not be any crown placed in the mat laid by the paver; however, material flow under the screed plate will be improved.

NOTE: Trailing edge crown is set at 0 when shipped from the factory. The chain connecting the leading and trailing edge crown control assures that the relationship of the edges remains constant as the trailing edge is changed to meet job conditions.

NOTE: Regardless of the settings you have placed on the paver, the final judge of what you are doing is the mat itself. For example, if you have set the crown on the screed, check the mat behind the paver to determine if you really are getting the crown you desire.

Begin paving the first pass following the guide line.

Reverse the paver and return to the starting point for the next pass. The depth control handle on the end gate (on the paved side) should be set so that the bottom of the end plate is about 1/4 in. below the screed plate if the adjacent mat has been rolled.

Setting Screed End Gates

1. On the first pass, turn the end gate depth screw **(Figure 4-13,1)** to lower the end gate until it is about 0.25 in. (6.35 mm) below the screed.

NOTE: Most operators run end gates within 0.25 in. (6.35 mm) of flush.

2. Turn the flight screw **(Figure 4-13,2)** on the end gate so the front of the end gate tilts down slightly when the screed is lifted. This will allow the end gate to set itself to grade.

NOTE: When paving, never let the end gate carry the weight of the screed. This will cause screed compaction to vary.

3. During operation, if the end gate starts to dig in at front, adjust the tilt screw so the end gate tilts back.

4. When making a joint, the end gate must be set to where it fits flush with bottom of screed.

NOTE: Keep runners clean. When making a joint, spray cleaning solvent on runners **(Figure 4-13,4)**.

Figure 4-13. End Gates

1 - End Gate Depth Screw

2 - Tilt Screw

3 - Flight Screw

4 - Runner

⚠WARNING Fire Hazard! Never spray cleaning solvent or release agent on or near a screed that is hot or being heated or on or near any open flame or ignition source. Cleaning solvent and release agent could ignite causing serious personal injury.

5. On the first pass, leave about 6 - 8 in. (15 - 20 cm) of unrolled asphalt where the joint is being made.

6. In laying a joint, if the joint looks too high or too low, adjust the flight screw **(Figure 4-13,3)** on the screed about one (1) turn at a time and allow 4 - 5 ft. (1.2 - 1.4 m) of travel to correct itself.

NOTE: Too much adjustment up or down may cause rising and falling effect in the paved material.

7. If making a cold joint, set end gate down about 1/4 in. (6.35 mm); this will give a nice, even edge.

Setting Screed Extensions - Mat Texture

Screed extension single adjustment:

NOTE: Used when paving over 8 ft. (2.4 m).

The screed extensions should be heated with initial heating cycle before making adjustments. Use the wrench provided to make adjustments. If correct adjustment is made, the pressure on the rear edge of extended screed is the same as on the rear edge of main screed. The result of making this adjustment will be a smooth mat the length of the screed.

⚠WARNING Fire Hazard! Never spray cleaning solvent or release agent on or near a screed that is hot or being heated or on or near any open flame or ignition source. Cleaning solvent and release agent could ignite causing serious personal injury.

NOTE: When using spray down, consider the environment and do not allow cleaning solvent to run onto the ground.

1. Heat the screed extension before making adjustment to extended width..

Figure 4-14. Angle of Attack (AOA) Adjuster

1 - Angle of Attack (AOA) Adjuster

2. Adjust tilt on the rear edge of the extension by turning the angle of attack (AOA) adjuster (**Figure 4-14,1**) counterclockwise (CCW). This is done to give the same amount of compaction and slickness on the extension and main screed.
3. If drag occurs in center of the screed, then too much pressure is on the screed extension and the extension is carrying all the weight. Correct this by turning the adjustment clockwise (CW) until both the screed and the screed extension produce the same mat texture.

NOTE: Turning the extension angle of attack (AOA) adjuster **(Figure 4-14,1)** clockwise (CW) will increase the pressure on the back of the screed. Turning the adjuster counterclockwise (CCW) will decrease the pressure on the back of the screed.

NOTE: Increasing the pressure on the back of the extension will give you a smoother, slicker finish. Decreasing the pressure will give you a coarser finish. Putting too much pressure on the back of the extension will take the weight off of the screed wearplate and will cause poor material compacting, resulting in a poor finish in the middle of the main screed.

UNLOADING AND LOADING

Trailers used to haul the paver should have ample capacity to carry the weight of the paver. Place the trailer in a clear, level area for loading or unloading.

⚠CAUTION Work slowly and carefully to avoid accidents. Keep the area clear.

Unloading

1. Remove tie down equipment.
2. Start and warm up engine.
3. Set throttle at 1/2 operating RPM. Set steering control lever so paver moves very slowly.
4. Make sure:
   a. Neutral/Non-creeping Switch - OFF
   b. Side wing transport locks - RELEASED
   c. Screed position - UP
   d. Extendible screed - IN
   e. Gates below augers - CLOSED

NOTICE Never back up with cut-off gates open.

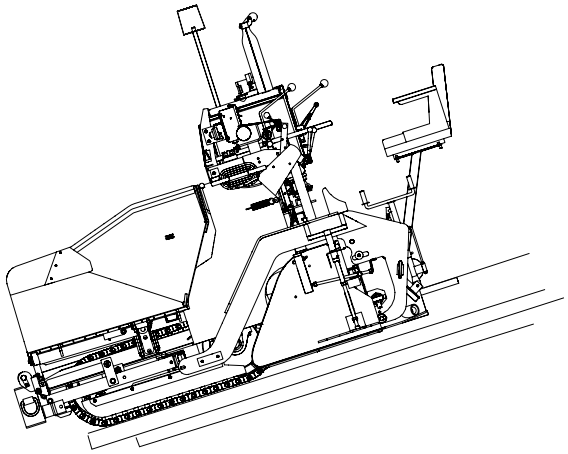


Figure 4-15. Correct Loading/Unloading Position

NOTE: Always have a helper on the ground to assist the operator in the unloading procedure.

⚠WARNING Make sure engine is operating at a high enough RPM so that the hydraulic pump is providing sufficient flow to operate all functions properly.

⚠CAUTION Do not let the screed strike the ramp when moving off the ramp. This can break the bearings on the thickness control screws or welds on the leveling arms. A longer ramp or blocks may be necessary to reduce the loading angle.

NOTE: If you have a problem unloading the paver - STOP - LOOK - THINK.

5. Move paver forward down the ramp as shown (**Figure 4-15**).

Loading

⚠CAUTION Paver must be loaded screed end first to prevent damage. If the paver is loaded hopper end first, the weight of the operator on the walkway will tend to tip the paver onto the screed (Figure 4-16).

1. Move paver to base of ramp. Line up tracks with the ramp.
2. Make sure:
   a. Neutral/Non-creeping Switch - OFF
   b. Side wing transport locks - RELEASED
   c. Screed position - UP
   d. Extendible screed - IN
   e. Gates below augers - CLOSED

NOTICE Never back up with cut-off gates open.

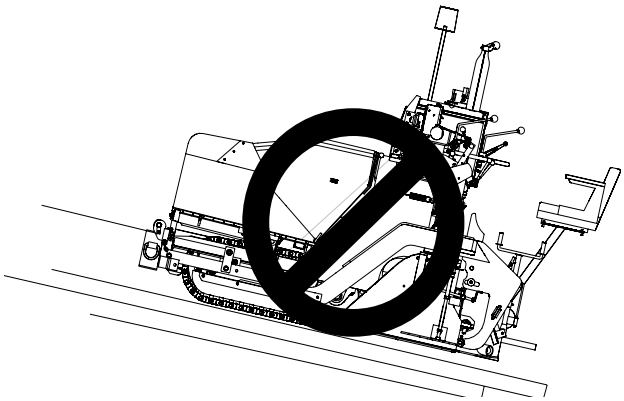


Figure 4-16. INCORRECT Loading/Unloading Position

NOTE: Always have a helper on the ground to assist the operator in moving the paver onto the transport.

⚠CAUTION To prevent an excessive jolt to the undercarriage and throughout the paver, reduce traveling speeds to a minimum before the paver tracks come in contact with loading ramps or an abrupt change in the surface. If encountered, the track drive sprocket or possible other components may be damaged because of the excessive jolt.

3. Load paver screed end first. Set throttle at 1/2 operating RPM and steering control lever so paver moves very slowly onto the ramp.

4. With the steering control levers, slowly guide the paver up the ramp.
5. Place paver in center of trailer or desired position.
6. Lower screed to deck.
7. Shut down engine.
8. Secure paver to transport as directed by regulations.

Tie Down Procedure

1. Position paver on trailer centered from side to side **(Figure 4-17)**.

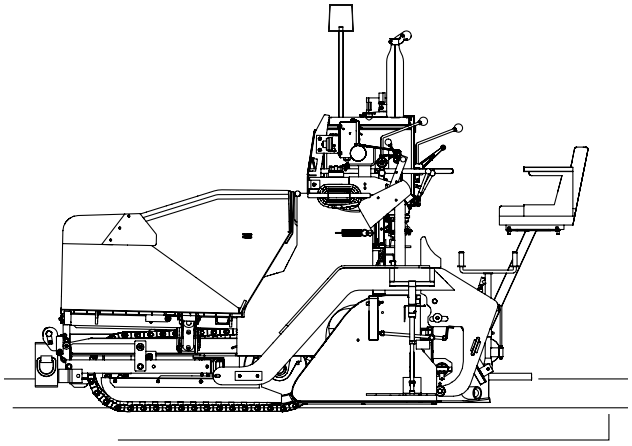


Figure 4-17. Paver On Transport

2. Attach tie down chains to the hopper end of paver at the D-rings **(Figure 4-18,1)**.
3. Attach tie down chains to paver at the D-rings on screed arms **(Figure 4-18,1)**.
4. Engage side wing transport locks **(Figure 4-18,2)**.
5. Place chocks at wheels or tracks.
6. Make sure all chains are tight before moving.

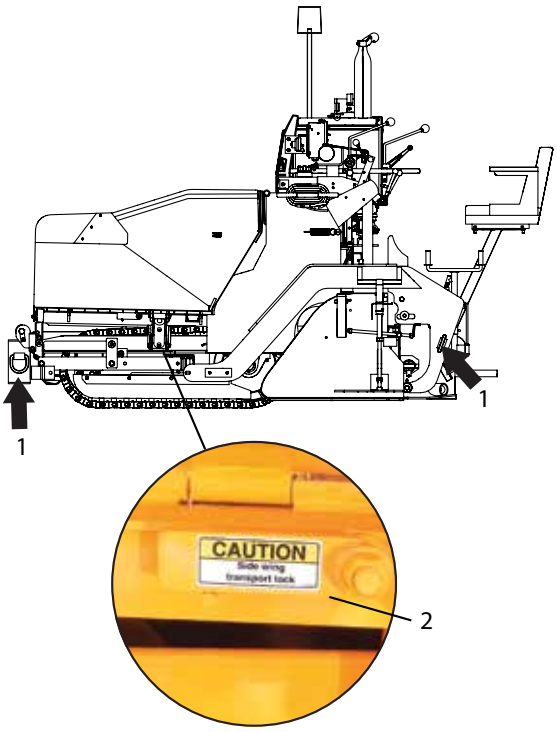


Figure 4-18. Tie Down Points and Transport Lock

1 - Tie Down D-rings

2 - Side Wing Transport Lock

SETUP OF TOPCON IV SONIC GRADE SENSORS (OPTION)

1. Loosen the “Z”-Arm bolt (**Figure 4-20,1)**, and swing the “Z”-Arm out beyond the end gate (**Figure 4-20,2)**.
2. Position the tracker 14 inches (35.5 cm) to 30 inches (76.2 cm) above the reference to be used.
3. Turn the Grade Adjustment Knob (**Figure 4-20,3)**, on the sonic tracker counterclockwise (CCW) until an On Grade symbol appears (**Figure 4-20,4)**.
4. Set the Auger/Conveyor Auto/Off/Manual Switch (located on the Operator’s Console, **Figure 3-1, 20,21)** to AUTO and begin paving. Use the Grade Adjustment Knob on the sonic tracker to adjust for proper mat thickness.

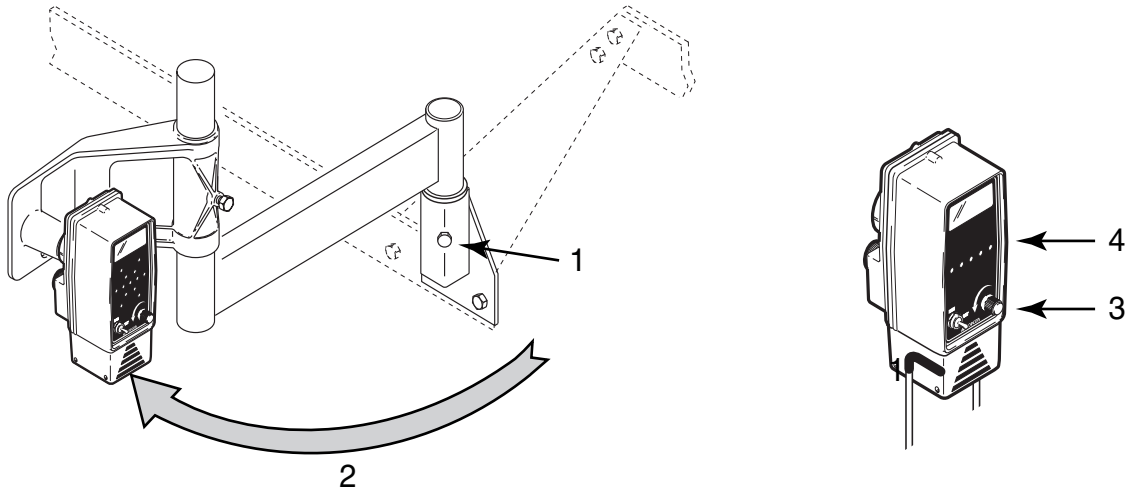


Figure 4-20. TopCon IV Sonic Grade Sensors

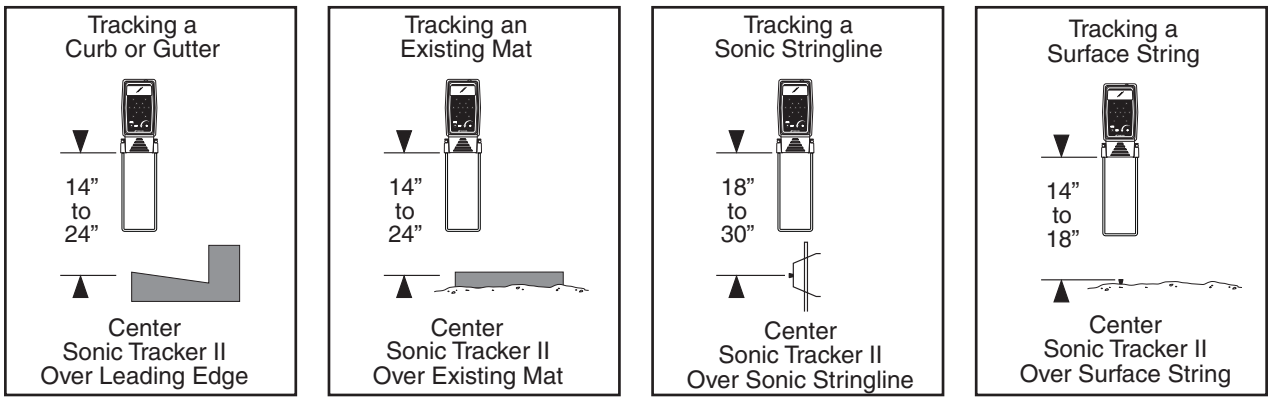


Figure 4-21. Sonic Tracker

UMBRELLA (OPTION)

Assembly Instructions

1. Install Umbrella Mounting bracket (See bracket mounting instructions furnished with each bracket).
2. Insert ball stud **(Figure 4-19,3)** on curved shaft into umbrella support shaft **(Figure 4-19,1)**, align holes, and drive 3/16" X 1" spiral spring pins **(Figure 4-19,2)** into position. Install locking handle **(Figure 4-19,5)**.
3. Place canvas cover **(Figure 4-19,7)** over umbrella frame assembly **(Figure 4-19,8)** and hook corners to bows - tie each bow securely with tie straps.
4. Insert umbrella frame assembly **(Figure 4-19,8)** with canvas in place into tube on curved shaft **(Figure 4-19,3)** and insert bolt **(Figure 4-19,6)**. Tighten snugly with nut **(Figure 4-19,4)**
5. Install complete umbrella into clamp on umbrella mounting bracket. Each bow may be raised individually until locked into open position **(Figure 4-19,15)**. Each bow has two positions in which it can be locked open. This is to allow for arc stretch in canvas.

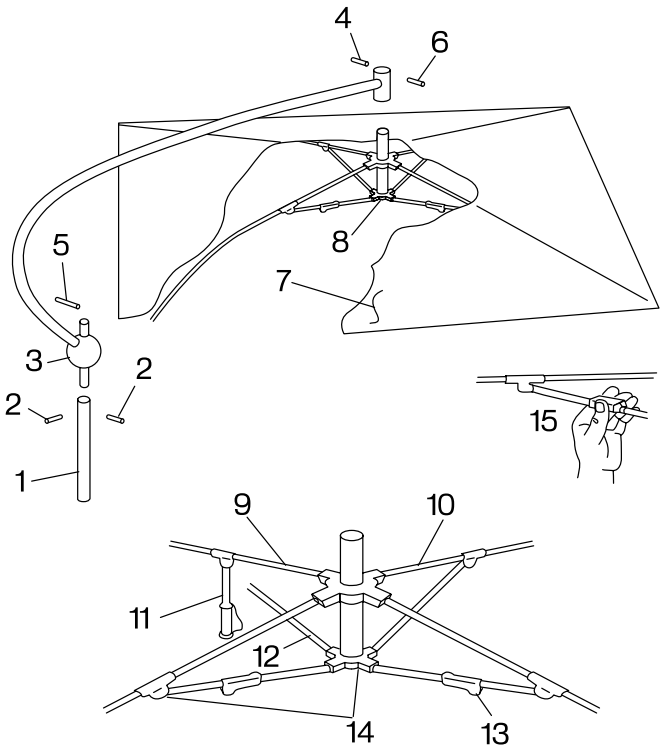


Figure 4-19. Umbrella Illustration

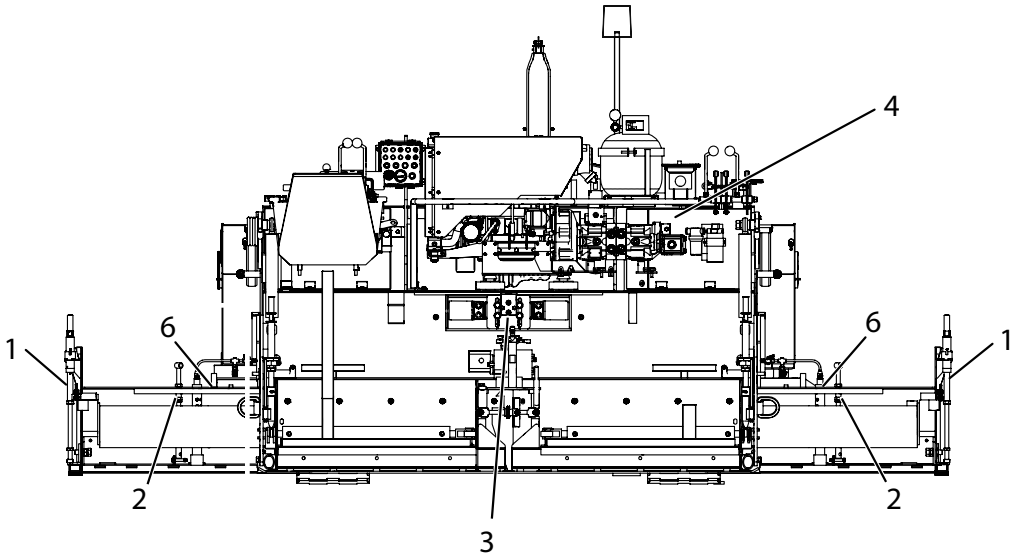
NOTES

Section 5
MAINTENANCE

Table 5-1. Periodic Maintenance Schedule

SYSTEM	ITEM	10 Hours Daily	50 Hours Weekly	100 Hours Monthly	250 Hours Quarterly	500 Hours Semi-Annually	1000 Hours Annually
Paver	Lubricate paver **(Figure 5-1, Table 5-1. Lubrication Points Schedule)**	X	X				
Hydraulic	Check oil level	X					
	Torque hub oil level			X			
	Replace oil charge filter cartridge				X		
	Replace oil						X
	Replace oil suction filter						X
	Replace strainer filter						X
	Replace drive torque hub oil					X	
Engine	Inspect belts, replace A/R				X		
	Inspect air intake hoses and clamps				X		
	Inspect alternator and connections						X
	Replace engine oil and oil filter cartridge				X	X	X
	Check oil level - change at initial 50 hours	X					
Electrical	Check all wiring connections		X				
	Service battery				X		
Engine Air Cleaner	Check/clean air cleaner element				X		
	Replace air cleaner element				X		
	Check air cleaner indicator	X					
Fuel	Replace fuel filter cartridge				X	X	X
	Inspect Fuel System Hoses and Clamps		X				
Cooling	Coolant Level, check and change A/R	X					
	Inspect Coolant Hoses and Clamps				X		
Mechanical	Adjust auger chains			X			
	Screed extension top guide adjustment			X			

LUBRICATION CHART



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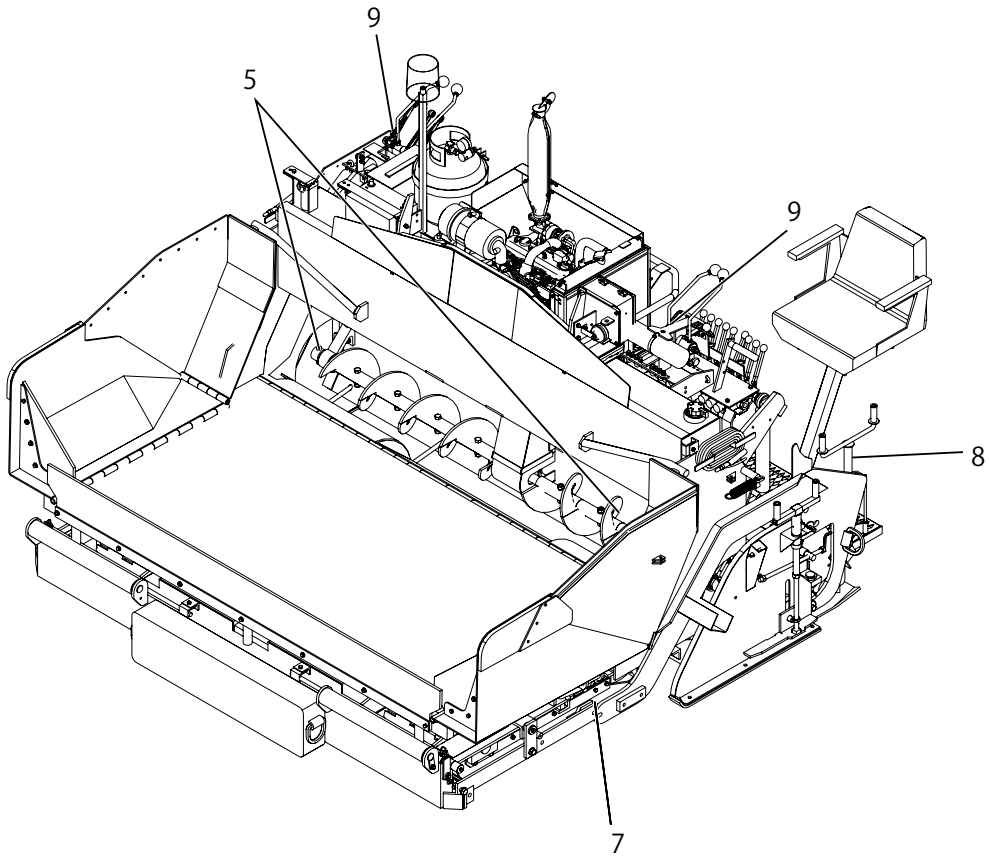


Figure 5-1. Lubrication Points

Table 5-1. Lubrication Points Schedule

ITEM NO.	LUBRICANT TYPE	DESCRIPTION AND LOCATION	INTERVAL
Legend	A	**Grease With Shell Avania EP Grease 2 Or Equivalent**	
	B	**Spray With An Approved Release Agent**	
1	A	Depth Screw (grease first in lock position, unlock and turn 180° and grease)	Weekly
2	A	Flange Bearing and Fitting, on flight screw plus flange bearing, on T-handle of extension, (both sides)	Weekly
3	B	Auger Chain, middle of paver	Weekly
4	B	Cable End, throughout paver	Weekly
5	A	Auger, grease fitting on end mount (end of day)	Daily
6	B	Screed Extensions, left and right (clean surface)	Daily
7	A	Pillar block bearing, on rear axle	3 Months
8	A	Main Flight Screws Ball Socket and Nut	Weekly
9	A	Drive Lever, on pivot housing	Weekly
10	A	Extension Slides	Daily
11	B	Spray any part of paver that contacts asphalt	Daily
12	B	Paver, clean all surfaces	Daily

GENERAL INFORMATION

Before performing any maintenance procedures on the LeeBoy Model 1000F Tilt Hopper Paver, read the following safety information and review ***Safety*** in Section 2.

⚠WARNING Tool Hazard! ALWAYS use tools appropriate for the task at hand and use the correct size tool for loosening or tightening screed parts.

⚠WARNING Burn Hazard! ALWAYS handle hot components with heat-resistant gloves.

This section gives the necessary procedures for routine and general maintenance on the LeeBoy Model 1000F Tilt Hopper Paver. Follow all the Maintenance Schedules and Maintenance Procedures to maintain the machine in top operating order.

MAINTENANCE SCHEDULE

General Information

The Maintenance Schedule lists the recommended time intervals between LeeBoy Model 1000F Tilt Hopper Paver maintenance inspections and lubrication procedures.

Table 5-1. Periodic Maintenance Schedule gives inspection and lubrication information for the LeeBoy Model 1000F Tilt Hopper Paver.

The "Hour" and "Periodic" time periods list most service intervals. The maintenance schedule begins with 10-hour, or daily, maintenance intervals and continues through the 1000-hour, or annual, maintenance schedule intervals.

Preventive maintenance on the paver will provide years of trouble-free operation. Adjustment can be performed in the field with ordinary hand tools. Engine preventive maintenance, other than oil, air and fuel filter changes, is not covered in this section. Refer to current engine operator's manual for engine service information.

Anytime the paver has been repainted or the decals have been removed, damaged or can't be read, a new set of decals should be ordered and re-installed for safe operation (see **"Safety Label Installation" on page 5-23**).

NOTICE The changing of oil and cleaning of the LeeBoy Model 1000F Tilt Hopper Paver should only be done in a designated area that can contain the oil and chemicals involved in any maintenance requirement. These by-products should be discarded in accordance with environmental regulations.

NOTICE Do not substitute fasteners of any kind unless the fasteners are equal in size and grade as original equipment.

NOTE: When performing any routine maintenance such as 50, 100, 250, 500 and 1000 hours, always include previous routine maintenance hours in the higher hourly schedule.

NOTE: If the paver is operated more than 10 hours per day, follow the "Hour" schedule. If the paver is operated less than 10 hours per day, follow the "Periodic" schedules, where they apply.

⚠WARNING Fire Hazard! Never spray cleaning solvent or release agent on or near a screed heating element that is hot or being heated or on or near any open flame or ignition source. Cleaning solvent and release agent could ignite causing serious personal injury.

NOTICE If mix is allowed to remain on the screed overnight, possible damage can result on start-up the next day. Poor housekeeping will increase maintenance costs.

Preparing Paver for Maintenance

When performing maintenance, perform the following steps before leaving the operator's position, unless the maintenance procedure instructs otherwise.

1. Park the paver on a flat even surface.
2. Lower all attachments to ground level.
3. Place drive levers in NEUTRAL.
4. Apply Neutral Lock.
5. Run engine at 1/2 speed (RPM) without load for 3 to 5 minutes.
6. Reduce engine speed (RPM) to slow idle.
7. Place ignition switch in the OFF position.

⚠WARNING If maintenance must be performed with engine running, do not leave paver unattended.

Paver Lubrication

Proper lubrication is necessary to maintain the LeeBoy Model 1000F Tilt Hopper Paver at top efficiency. Refer to the lubrication information in **Table 5-1. Lubrication Points Schedule**. All lubrication points are shown in **Figure 5-1.**

10-Hour or Daily Routine Maintenance

1. Scrape off mix and spray cleaning solvent or release agent on the hopper, extensions, and any place that has come in contact with the mix. All cleaning should be performed while the paver is hot.

⚠WARNING Fire Hazard! Never spray cleaning solvent or release agent on or near a screed heating element that is hot or being heated or on or near any open flame or ignition source. Cleaning solvent and release agent could ignite causing serious personal injury.

NOTICE If mix is allowed to remain on the screed overnight, possible damage can result on start-up the next day. Poor housekeeping will increase maintenance costs.

2. Remove any debris from screed and check for leaks.

⚠WARNING Pierce Hazard! Avoid skin contact with high-pressure hydraulic fluid spray caused by a hydraulic system leak such as a broken hydraulic hose line. High-pressure hydraulic fluid can penetrate your skin and result in serious injury. If you are exposed to high-pressure hydraulic fluid spray, obtain prompt medical treatment. Have your authorized LeeBoy Dealer repair the damage.

3. Tighten fittings as necessary. Replace hoses and fittings as needed.

⚠WARNING Crush Hazard! Never work under hopper without making sure that it is being supported by safety prop and that all unauthorized personnel are clear of the area.

4. Raise hopper and clean mix off all flat surfaces. This operation is quick and simple when the paver is still hot. Immediately after raising hopper, place the safety prop **(Figure 5-2,1)** in proper position.

Figure 5-2. Safety Prop

1 - Safety Prop

NOTICE If mix is allowed to remain in the paver overnight, possible damage can result upon start-up the next day. Poor housekeeping will increase maintenance costs.

5. Keep the fuel tank full to keep condensation from forming. Fill at end of day.
6. Perform engine preventive maintenance as described in your engine operator's manual. Any engine preventive maintenance should always begin with an oil check.
7. Lubricate paver according to Lubrication Chart in **"Table 5-1. Lubrication Points Schedule" on page 5-5.**
8. Check for damaged or loose element wires and harness connections. Repair or replace as required.
9. Check for damaged, loose, or missing decals. Replace decals as required (see **"Safety Label Installation" on page 5-23**).

50-Hour (Initial) or Weekly Routine Maintenance

NOTICE The LeeBoy Model 1000F Tilt Hopper Paver hydraulic system requires clean, contaminant-free oil (see *Table 2-7. Lubricant Specifications*). Take care when working with the hydraulic system to ensure it is completely clean.

1. Check hydraulic oil (see **"Checking Hydraulic Oil Level" on page 5-16)** and add if necessary.

⚠WARNING Fire and Explosion Hazard! Do not smoke when observing battery electrolyte level. The fumes can explode.

⚠WARNING Burn Hazard! Electrolyte is an acid that can burn if it contacts skin or eyes. If contact is made, flush area immediately with water and obtain prompt medical attention.

2. Check all battery connections and remove any corrosion that is present. (Check cables daily.)
3. Check air cleaner, if the engine is equipped with a dry type element. Improperly serviced air cleaners wear out engines--FAST! In just a few hours a small amount of dirt will wear out a set of piston rings. Refer to your engine's operator's manual for service information.

⚠WARNING If maintenance must be performed with engine running, do not leave paver unattended.

4. Perform engine preventive maintenance as described in your engine operator's manual. Any engine preventive maintenance should always begin with an oil check.
5. Check auger chains, lubricate and adjust.
6. For both sides of the screed, lubricate all grease fittings on the flight screw, the fitting on the depth screw, and the fittings on the flange bearings located on top of the extension screed **(Figure 5-1)**. Grease nuts on extension screws.

100-Hour or Monthly Routine Maintenance

1. Check oil level in drive torque hubs. The torque hub is positioned so the center plug **(Figure 5-3,1)** is at the twelve o'clock position. Remove the plug either at the three or nine o'clock position **(Figure 5-3,2)**. If oil comes out, no oil is needed. Insert plug and tighten. If oil does not come out, remove the plug at the 12 o'clock position and fill torque hub with 50 wt. gear oil until oil starts to appear at the other hole. Replace both plugs and repeat process on other torque hub.

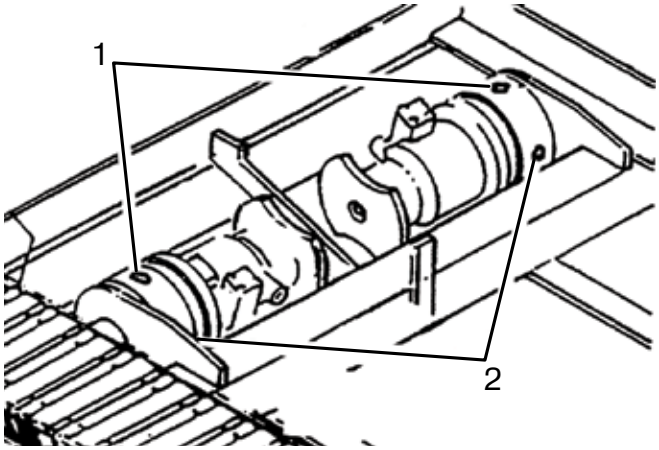


Figure 5-3. Torque Hub Plug Orientation

1 - 12 o'clock position

2 - 3 or 9 o'clock position

2. Change engine oil with 15W-40 oil. To assure complete removal of contaminants in the oil, perform the oil change while engine is warm.
3. After draining used oil, clean and reinstall drain plug and fill crankcase to the full mark with manufacturer's recommended oil. Change oil filter at every other oil change.
4. Change oil in air cleaner and rinse filter element in clean fuel to remove impurities.
5. Replace air filter. Refer to your engine operator's manual for service information.
6. Perform any other engine preventive maintenance as described in the engine operator's manual.
7. Check and adjust all chains, as required.

250-Hour or Quarterly Routine Maintenance

1. Perform the 250-hour preventive maintenance as described in the engine operator's manual.
2. Change charge filter between valve bank and main pump.
3. Change return filter on hydraulic tank.
4. Check air cleaner.

NOTICE Improperly serviced air cleaners quickly wear out engines and piston rings.

500-Hour or Semi-Annual Routine Maintenance

1. All bearings are sealed and have grease fittings. These should be greased with multipurpose grease using a hand grease gun. Be careful to avoid blowing the seals.
2. Perform the 500-hour preventive maintenance as described in the engine operator's manual.
3. Replace air filter. Refer to the current engine operator's manual for service information.
4. Change engine oil and filters.
5. After draining used oil, clean and reinstall drain plug and fill crankcase to the full mark with manufacturer's recommended oil.
6. Change oil in drive torque hubs with 50 wt. gear oil.

1000-Hour or Annual Routine Maintenance

1. Drain and flush the hydraulic tanks. A drain plug is located on the bottom of each tank for this purpose. Fill with 15W-40 oil (see **"Changing Hydraulic Oil" on page 5-17**).
2. Perform the 1000-hour preventive maintenance as described in the engine operator's manual.
3. Change oil in drive torque hubs with 50 wt. gear oil.

MAINTENANCE ADJUSTMENTS

Replacing Tracks

1. Loosen track cylinder by unscrewing manifold relief.
2. Remove any pin from track by cutting end of pin at top of front idler.
3. Once pin has been trimmed on the end, drive pin out.
4. When pin is removed, back machine off of track so that track is clear.
5. Place new track in front of machine with end of track with three (3) hinges at front idler.
6. Drive machine up on top of track until track is located at rear of track drive tires.
7. To pull track on, use a rod 4 ft. long x 11/16 in. diameter with a 2 in. (5 cm) leg on one end and a handle on the opposite end. Hook rod into outer hinge on track, pull on rod while machine drives forward.
8. Pull track until track laying on ground is at front of idler.
9. Hook rod at front of track and back machine up to where track will go together over top of front idler.
10. Place pin in and weld keepers on end of pin.
11. Screw manifold relief back in.

Replacing Drive Tires

1. Loosen track cylinder by unscrewing manifold relief.
2. Remove any pin from track by cutting end of pin at top of front idler.
3. Once pin has been trimmed on the end, drive pin out.
4. When pin is removed, back machine off of track so that track is clear.

⚠WARNING Crush Hazard! Machine may fall off jack and cause personal injury. Always use safety blocking in addition to jack when working under paver. Clear the area of untrained personnel.

5. Jack machine up approximately 2 ft. (61 cm) and drop cut-off cylinder down out of the way so that drive axle will come out.

NOTE: Rubber track guard will need to be removed to slide axle assembly out.

6. Remove 2 5/8 in. bolts holding pillow block bearing in place.
7. Place floor jack under tire assembly and pull outwards to pry off of torque hub splines.
8. Once axle assembly is out, remove bad drive tires.
   a. Remove bearing from end of axle.
   b. Remove three (3) 3/8 in. bolts from taper bushing.
   c. Take two of these bolts and place into the two threaded holes in bushing and push bushing apart from wheel.
   d. Once bushing comes apart, pry bushing off of axle. Tire will come off at this time. Use the same process on inner tire.
   e. Clean axle and find saw mark on axle for location of inner drive tire.

f. Place bushing on this mark and tighten assembly down tight.

g. Rotate around bolts so they pull up even.

h. Torque to 55 ft. lbs.

i. Place outer tire on axle with a 3/4 in. spacer between inner and outer tire. This will give clearance for track guide to run in.

j. Drive bushing in wheel tight and torque bolts.

k. Place spacer and bearing back on axle.

NOTE: Put wheel bearing grease in axle splines.

9. Jack axle assembly back up into machine and slide back onto splines. Put 2-5/8 in. bolts back to hold pillow block bearing on. Hook cut-off assembly back and install rubber guards back on.
10. Place track in front of machine with end of track with three (3) hinges at front idler.
11. Drive machine up on top of track until track is located at rear of track drive tires.
12. To pull track on, use a rod 4 ft. long x 11/16 in. diameter with a 2 in. (5 cm) leg on one end and a handle on the opposite end. Hook rod into outer hinge on track. Pull on rod while machine drives forward.
13. Pull track until track laying on ground is at front of idler.
14. Hook rod at front of track and back machine up to where track will go together over top of front idler.
15. Place pin in and weld keepers on end of pin.

NOTE: Welded tracks and master pin is welded to hinge on each side.

16. Hook hoses up to track tension manifold.

Replacing Front Idler

1. Loosen track cylinder **(Figure 7-1,20)**.
2. Remove any pin from track by cutting end of pin at top of front idler. Once pin has been trimmed on ends, rotate trimmed pin to bottom of front idler and drive pin out.
3. When pin is removed, back machine up until track clears front idler.
4. Jack front of machine up so that idler will roll out.
5. Replace idler or idler bearings back in place and fasten down.
6. Place track in front of machine with end of track with three (3) hinges at front idler.
7. Drive machine up on top of track until track is located at rear of track drive tires.
8. To pull track on, use a rod 4 ft. long x 11/16 in. diameter with a 2 in. (5 cm) leg on one end and a handle on the opposite end.
9. Hook rod into outer hinge on track. Pull on rod while machine drives forward.
10. Pull track until track laying on ground is at front of idler.
11. Hook rod at front of track and back machine up to where track will go together over top of front idler.
12. Place pin in and weld keepers on end of pin.

NOTE: Welded tracks and master pin are welded to hinge on each side.

13. Hook hoses up to track tension manifold.

Replacing Screed Extensions, Slides or Bushings

1. Run screed extension all the way out and remove cylinder pin (lower screed).
2. Remove 4-1/2 in. bolts in extension rods, holding extensions on.
3. Once bolts are removed, pull extension out of the way.
4. Pull 1 1/2 in. rods out of slide.
5. Loosen five (5) bolts holding top guide on. This will allow main slide to come out easily.
6. Clean area where slides go and lubricate before sliding slide back in.
7. Loosen guide and drive guide down tight against slide by using a blunt punch.
8. Stick punch through slots in 1/8 in. shield covering top of extensions.

NOTE: Older models did not have slots at top, so you will need to drill holes to place punch through over top of bolts.

9. Slide 1 1/2 in. rods back in and bolt extensions back on. Make sure extension is mounted flush with bottom of screed plate.
10. Hook cylinders back to extensions and put cylinder covers back on.
11. Run extension out fully and grease.

Extension Top Guide Adjustment

1. Close the left and right extensions to their fully retracted positions.
2. Loosen guide by loosening the five 1/2 in. bolts located inside of cylinder cover at top and in center of crown and drive guide down tight against slide by using a blunt punch.
3. Stick punch through slots in 1/8 in. shield covering top of extensions.
4. Run the extensions out fully and grease the slide track rails.

NOTE: The slide tracks should be greased daily to help prevent excessive wear.

Replacing Screed Extension Wear Plates

Removal

1. Run extension out fully.
2. Remove end gate by disconnecting tilt screw and loosen the 7/8 in. jam nut.
3. Remove nut. End gate will drop forward out of slot and slide off of stud.
4. Remove shoulder bolts out of lower adjustment screws on top of wear plate **(Figure 5-4,1)**.
5. Lower screed to ground and pull front pivot pin out **(Figure 5-5)**.
6. Lift screed and wear plate should be disconnected.

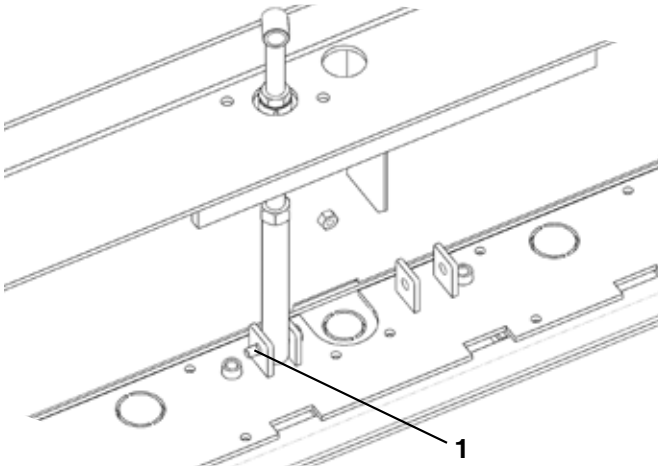


Figure 5-4. **Wear Plate Shoulder Bolts**

1 - Adjuster Screw Shoulder Bolt

Installation

1. Clean all areas where new wear plate will be attached.
2. Place new wear plate in position with floor jack or by lowering screed to floor and slide pivot pin in.
3. Attach adjustment screws to new wear plate.
4. Place end gate back on.
5. Adjust 7/8 in. nut so that end gate will move up and down freely, then lock in place with jam nut.
6. Connect tilt screw.

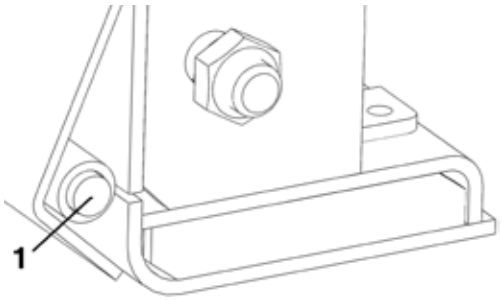


Figure 5-5. Pivot Pin

1 - Extension Wear Plate Pivot Pin

Replacing Screed Main Wear Plates

Removal

1. Remove walk boards.
2. Remove screed lids.

NOTE: Once walk boards are removed lids will slide out.

3. Remove the twenty-four (24) bolts **(Figure 5-6,1)** holding wear plate to screed frame.

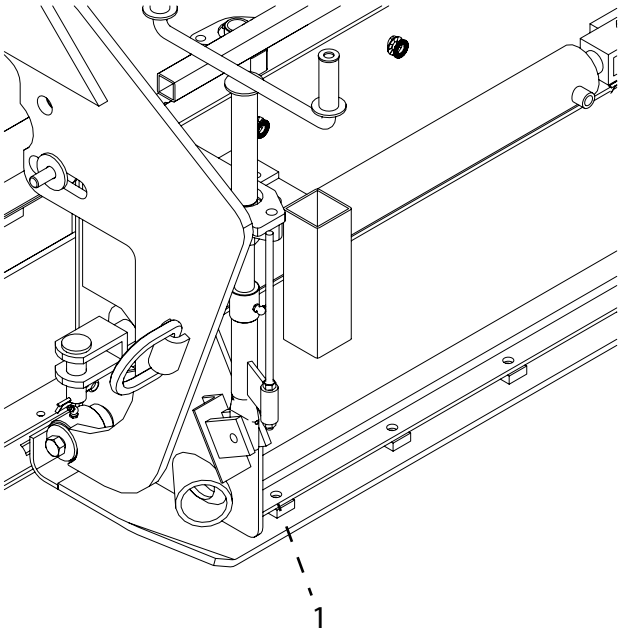


Figure 5-6. **Wear Plate Mounting Bolts**

1 - Bolt Location

4. Before raising screed off of wear plate, clamp center of crown gussets so that screed frame stays flat.
5. Raise screed off of wear plate.

Installation

1. Clean screed frame.
2. Set screed frame down on to new wear plate letting cylinders carry most of weight. This will allow wear plate to be moved to align with bolts.
3. Place six (6) bolts in front left side first, then right side.

NOTE: You may need to clamp or pry around or rotate crown in and out so that six (6) bolts in right side line up.

4. Once these bolts are in place, bolt rear of wear plate up to frame assembly.
5. Once bolts are started, lift screed and set on three 2" x 4" boards to hold flat. Place one board at each end and one in the center.
6. Level the screed with the flight screws until neutral position is felt.

NOTE: Neutral position is when the pressure on the flight screw is the same when screwing either clockwise (CW) or counterclockwise (CCW).

7. Let screed all the way down and torque bolts from center out, two on left side then two on right side to 50 ft. lbs. (67 N•m).
8. Install screed lids and walk boards.

Automatic Track Adjustment

NOTE: Failure to maintain adequate throttle setting may cause improper adjustment to track.

⚠CAUTION **When backing this paver with load, maintain at least a three-quarter throttle setting. Failure to do so may cause improper track tension, resulting in poor performance and damage.**

Hydraulic adjustment cylinders are automatic and provide even tension on track that prevents excessive wear to paver undercarriage.

Auger Drive Chain Adjustment

1. The auger chains should be just snug, not loose. To tighten chains, loosen bolts in slots provided for take up.
2. Adjust bracket.
3. Tighten adjustment bolts (refer to **Torque Specifications** in Section 2).

Torque Hub Lubrication

NOTE: See **"100-Hour or Monthly Routine Maintenance" on page 5-8**.

1. The torque hub is positioned so the center plug **(Figure 5-3,1)** is at the twelve o'clock position. Remove the plug either at the three or nine o'clock position **(Figure 5-3,2)**. If oil comes out, no oil is needed. Insert plug and tighten.
2. If oil does not come out, remove the plug at the 12 o'clock position and fill torque hub with specified gear oil (see **"Table 2-8. Lubricant Specifications" on page 2-7**) until oil starts to appear at the other hole.
3. Replace both plugs and repeat process on other torque hub.

Track Tension Pressure Relief

Pressure Check

NOTE: Relief pressure is set at 700 PSI at track tension manifold **(Figure 10-1,43)**.

NOTE: Relief pressure should go to 700 PSI. If pressure is not correct, adjust relief IN for more pressure. Maximum is 1500 PSI.

Track Tension Release

1. Locate manifold **(Figure 10-1,43)** under hopper to release track tension.

⚠CAUTION **Do not tamper with adjustment part of relief cartridge.**

2. Back relief cartridge out of the aluminum block about three turns or until tracks are loose.
3. Make sure cartridge is tightened before moving paver.

Battery Servicing

⚠WARNING **Burn Hazard! Batteries contain sulfuric acid.**

- **NEVER allow battery fluid to come in contact with clothing, skin or eyes. Severe burns could result.**
- **ALWAYS wear safety goggles and protective clothing when servicing the battery.**
- **If battery fluid contacts the eyes and/or skin, immediately flush the affected areas with a large amount of clean water and obtain prompt medical treatment.**

The paver electrical system is a 12-volt negative ground system. Keep sparks and flames away from the battery as electrolyte gas is highly flammable. The battery is located on the right side of the operator's platform behind the disconnect switch.

⚠WARNING **Fire Hazard! Keep sparks and flames away from the batteries, as electrolyte gas is highly flammable.**

NOTE: When replacing the battery, discard the old battery properly.

Before connecting the batteries, turn off the master switch, located underneath the main dash panel. Be certain that the terminals and battery posts are thoroughly cleaned and that the battery cable terminals are tight. Dirty or loose connections can create high electrical resistance and permit arcing.

NOTE: The electrical system is a negative ground system. Connect the positive (+) cable to the positive (+) post of the battery. Connect the ground cable to the negative (-) post of the battery. It is advisable to disconnect the negative (-) cable first and connect it last. Reversed polarity can damage the electrical system.

Keep the battery clean by washing it off whenever dirt builds up is excessive. If corrosion is present around terminal connections, remove them and wash with ammonia solution or a solution consisting of 1/4 lb. (0.11 kg) baking soda added to one quart of warm water. Make certain the vent caps are tight to prevent solution from entering the cells. After cleaning, pour clean water over the battery and surrounding area to wash the solution away. Check vent cap breather openings to make sure they are open.

⚠WARNING **Fire and Explosion Hazard! Be sure that the battery charger is in the OFF position before connecting it to the battery.**

Be sure to keep the battery fully charged during cold weather to keep it from freezing. Freezing weather has little effect on a fully charged battery.

When connecting a booster battery, connect one end of the first jumper cable to the positive (+) terminal of the dead battery and the other end to the positive (+) terminal of the booster battery. Connect one end of the second jumper cable to the negative (-) terminal of the booster battery and the other end to the frame of the paver with the dead battery.

The alternator supplies electrical current for charging the battery and ample electrical power to the electronic controls. The built-in regulator in the alternator controls the voltage output. If for any reason the wires must be disconnected from the alternator, mark them so that they can be reconnected properly. Use the following precautions to prevent damage to the alternator and/or regulator:

1. An alternator is never to be polarized. Never ground any alternator terminals or circuits.

⚠WARNING **Fire and Explosion Hazard! Always observe battery polarity when connecting a battery charger or jumper cables to the battery: negative (-) to negative (-), positive (+) to positive (+). Failure to do so could produce sparks.**

2. Always disconnect the battery before disconnecting or connecting the alternator. Never disconnect the alternator with it operating. Be certain the wiring is properly connected before connecting the battery.
3. Always connect a booster battery in the proper polarity: negative (-) to negative (-) and positive (+) to positive (+).

ENGINE MAINTENANCE

General Information

The following engine maintenance information will cover the engine general maintenance procedures most often required.

For additional, very specific, engine maintenance information, see the current engine manual.

Engine Lubrication Oil - Kubota

Checking Engine Lubrication Oil Level

The engine lubrication oil must be kept at a level above the “ADD” mark, but not above the “FULL” mark, on the engine lubrication oil dipstick.

To accurately check the engine lubrication oil level:

1. Park the LeeBoy Model 1000F Tilt Hopper Paver in a “level” position and stop the engine.
2. Clean the area around the engine lubrication oil dipstick before removing the dipstick from the engine.

⚠WARNING **Stop the engine before checking the engine lubrication oil level. With the engine running, hot oil can be thrown causing serious injury.**

3. Wait five minutes, after engine shutdown, before removing the dipstick from the engine and checking the oil level.

NOTE: The above procedure will help to remove the possibility of filling the engine with too much lubrication oil, by allowing the oil to return to the oil pan.

Changing Engine Lubrication Oil

The engine lubrication oil must be changed according to the interval given in the current Kubota Diesel engine operator’s manual.

NOTE: The color of the engine lubrication oil can not be used as an indication of the need for a engine lubrication oil change. The use of an engine lubrication oil “analysis service” is the only alternate reason for not following the required engine lubrication oil change schedule.

⚠WARNING **Do not change the engine lubrication oil when the engine and lubrication oil are hot. Change when warm only. Hot oil can cause serious injury.**

NOTICE **Do not change the engine lubrication oil with the engine “running”. Serious engine damage, or failure will occur. Clean the area around the engine lubrication oil dipstick and oil filler cap before removing the dipstick, or oil filler cap.**

With the engine “stopped”, and the engine lubrication oil is “warm”, proceed as follows:

1. Clean the area around the engine lubrication oil drain.
2. Place a container, having a capacity sufficient to hold the drained oil, directly under the engine lubrication oil drain plug.
3. Carefully remove the engine lubrication oil drain plug.
4. Clean, install and carefully tighten the lubrication oil drain plug.

NOTICE **Do not overtighten the drain plug.**

5. Fill the engine with 15.0 qts. (14.2 liters) of oil, using the correct engine lubrication oil (see **“Table 2-8. Lubricant Specifications” on page 2-7**).
6. Install the engine lubrication oil dipstick.

NOTICE **Do not start the engine before changing the engine lubrication oil filter. Follow the procedures given in this section and in the current Kubota engine manual.**

Changing Engine Lubrication Oil Filter

The engine lubrication oil filter must be changed when the engine lubrication oil is changed.

⚠WARNING Do not change the engine lubrication oil when the engine and lubrication oil are hot. Change when warm only. Hot oil can cause serious injury.

NOTICE Do not change the engine lubrication oil filter with the engine running. Serious engine damage, or failure, will occur.

With the engine "stopped" and filled with new engine lubrication oil, proceed as follows:

1. Wipe the area around the engine lubrication oil filter element and its mounting base, with a clean cloth.
2. Place a container under the filter element.
3. Use a filter removal wrench to loosen and remove the filter element by turning it in a counterclockwise (CCW) direction of rotation. Drain and discard the removed filter element.

NOTE: Be sure the used rubber gasket is removed and discarded with the filter element.

NOTE: Consider the environment when discarding used oil and do so according to safe and lawful practices.

4. Wipe the inside area of the lubrication oil filter head using a clean lint free cloth.
5. Put clean engine lubrication oil on the rubber gasket area of the new filter element. Fill the new filter element with correct, new, and clean oil.
6. Install the new filter element onto the filter head. Carefully tighten the filter element, by hand only.

NOTE: Tighten the filter element as directed on the filter element, by the filter manufacturer.

FUEL SYSTEM

Fuel Tank

The fuel level is indicated on the FUEL gauge located on the fuel cap and indicates the amount of fuel in the tank. Fill the fuel tank "FULL".

NOTE: Fill the tank to "FULL" before the paver is stored for the night to reduce the accumulation of moisture in the tank from condensation.

⚠WARNING The operator must be off of the paver while fuel is added. No smoking while filling the fuel tank. All fuels for internal combustion engines are flammable. Fill the fuel tank only in a designated area with good ventilation. Have a fire extinguisher available.

⚠WARNING Never fill the tank near an open flame, or near equipment that can create sparks. Never check fuel level or check for fuel leaks with an open flame.

Engine Fuel Filters

The fuel filter element must be replaced as directed in the current engine operator's manual. Replace the fuel filter using the following "general" procedure and specific information given in the current engine operator's manual.

⚠WARNING Diesel fuel is very flammable. Use extra caution.

Do not change the fuel filter with the paver running.

Do not change the fuel filter in an area near an open flame. Do not smoke while changing the fuel filter.

Do not spill fuel.

1. Stop the engine.
2. Put a container under the fuel filter, before removing the filter element.

NOTE: Consider the environment when discarding used oil and do so according to safe and lawful practices.

3. Wipe the area around the fuel filter element and the element mounting head, using a clean lint free cloth.
4. Use a filter removal wrench to loosen and remove the element, by turning the element in a clockwise direction. Drain and discard the removed element.
5. Wipe the inside area of the filter head with a clean "lint free" cloth. Fill the "new" fuel filter element completely full of the correct and clean fuel.
6. Put clean fuel on the element rubber gasket.
7. Install the "new" fuel filter element onto the filter head. Carefully tighten the element by hand only.

NOTICE Tighten the fuel strainer or the fuel filter element as directed on the filter element, by the filter manufacturer. Do not overtighten the fuel filter element onto the filter head.

8. Start the engine and check for ANY fuel leaks.

⚠WARNING Stop the engine immediately if any fuel leakage is noted. Do not start the engine until the leakage problem is corrected.

Engine Air Filter

The engine inlet air filter assembly uses a replaceable filter element.

NOTICE **The air filter element should be replaced one time for each 100 hours of paver operation, or monthly, for a paver which is operated under "normal" conditions, or more often for a paver that is operated under "very severe" conditions. Never operate the engine without an air cleaner element installed.**

Do not service the air cleaner element while the engine is "running".

Use the following procedures to service the air cleaner element:

1. Remove the two snap clamps and plate securing each air filter cover over the air filters at the top of the engine.
2. Remove the air filter covers.
3. Remove the air filter elements from the engine and discard.
4. Clean the inside of the air cleaner body with a clean cloth.

NOTICE **Severe engine damage can occur if engine is operated without air filter properly installed.**

5. Carefully install the new air filter elements into the intake at the top of the engine.
6. Install the covers over the filters.
7. Secure each cover with the two snap clamps and plate.
8. Start the engine using all the correct starting procedures (see **"Engine Start-Up" on page 4-4**).
9. Check that engine runs smoothly.

HYDRAULIC SYSTEM

General Information

The hydraulic motors and the hydraulic cylinders use the same hydraulic oil reservoir and hydraulic oil supply.

Checking Hydraulic Oil Level

Check the hydraulic reservoir oil level one time each day.

NOTE: Check the oil level when the hydraulic oil is at "normal" operating temperature only.

1. Park the LeeBoy Model 1000F Tilt Hopper Paver in a "level" position, stop the engine and allow hydraulic oil to cool, until it is at a warm temperature only.
2. Turn the hydraulic oil level petcock in **(Figure 5-7,2)** located below the hydraulic oil filler cap **(Figure 5-7,1)**.
3. If hydraulic oil comes out, no oil is needed. Turn the hydraulic oil level petcock out to shut off **(Figure 5-7,2)** and tighten securely.
4. If hydraulic oil does not come out, add specified hydraulic oil following procedures in **"Adding Hydraulic Oil To Hydraulic Oil Reservoir" on page 5-17.**

⚠WARNING **Do not loosen, or remove, the hydraulic oil reservoir filler cap when the hydraulic oil is HOT.**

Figure 5-7. Hydraulic Oil Filler Cap and Petcock

1 - *Hydraulic Oil Filler Cap*

2 - Hydraulic Oil Level Petcock

Adding Hydraulic Oil To Hydraulic Oil Reservoir

⚠WARNING **Do not remove the hydraulic filler cap from the reservoir when it is "HOT". Hot hydraulic oil can cause serious injury. Allow hydraulic oil to cool down to a warm temperature.**

1. Unscrew hydraulic oil filler cap **(Figure 5-7,1)**.

NOTICE **Do not over fill the hydraulic oil reservoir.**

2. Remove the hydraulic oil level plug **(Figure 5-7,2)** located below the hydraulic oil filler cap **(Figure 5-7,1)**.
3. Add new, filtered hydraulic oil **(see "Lubricant Specifications" on page 2-7)** until oil appears at the hydraulic oil level plug hole.
4. Insert the hydraulic oil level plug **(Figure 5-7,2)** and tighten securely.
5. Install the hydraulic oil filler cap **(Figure 5-7,1)** onto the reservoir filler neck and tighten securely.

NOTE: Keep the oil level of the hydraulic oil reservoir at the correct level.

NOTE: An air space is designed into the hydraulic oil reservoir and allows for oil expansion, at warm temperatures. The hydraulic oil reservoir will have a low pressure in it at system operating temperatures.

Changing Hydraulic Oil

Changing the hydraulic oil removes the accumulation of dirt, water and mechanical wear particles from the hydraulic oil reservoir and system. The chemical structure of the hydraulic oil also changes after continuous use in the system and new, clean, and filtered oil is a must to help insure further correct operation of the hydraulic system.

NOTICE **Hydraulic oil which has oxidized or which contains contamination, of any type, can shorten the expected service life of any, or all, of the components in the hydraulic system.**

Use the following procedures to change the hydraulic oil in the hydraulic oil tank.

1. Stop the engine. Allow the hydraulic oil to cool, until it is at a warm temperature only. Slowly loosen, and then remove, the hydraulic oil reservoir filler cap **(Figure 5-7,1)**. Put a CLEAN, lint free cloth over the reservoir fill tube opening and secure in place with tape.

⚠WARNING **Do not drain the hydraulic oil from the reservoir when it is HOT. Hot hydraulic oil can cause serious injury. Drain at a warm temperature only.**

NOTE: All reservoir tanks together plus hoses hold approximately 45 gallons.

2. Carefully remove the plugs from the hydraulic tanks. Use a drain collection device, of sufficient capacity to collect the hydraulic oil. Allow all of the hydraulic oil to drain from the reservoirs and into the container.

NOTICE **Do not fill the hydraulic oil reservoir with new hydraulic oil until the strainer has been serviced.**

3. Install the hydraulic oil reservoir drain plug and tighten securely.
4. Carefully remove the cloth from the hydraulic oil reservoir fill tube opening.
5. To be sure the bottom oil tank is properly filled, proceed as follows:
   a. Remove the strainer on the top tank.
   b. Fill the top hydraulic oil tank with the correct, filtered hydraulic oil until tank is full.
   c. Crank engine and let pump transfer oil from top tank to bottom tank.
   d. Monitor oil level in top tank. When oil level is below one-half full, shut off engine and refill top tank.
   e. Repeat this process until proper level is obtained.

NOTICE **Do not overfill the hydraulic oil reservoir with oil.**

NOTICE **Never let tank run dry. Pump damage will occur.**

6. Check the oil level in the hydraulic oil reservoir, again (see **"Checking Hydraulic Oil Level" on page 5-16)**. Add oil if needed.
7. Install the hydraulic oil filler cap **(Figure 5-7,1)** onto the reservoir filler neck and tighten securely.
8. Start the engine using the correct procedures (see **"Starting The Engine" on page 4-4**).
9. Check the hydraulic system for any leaks.

⚠WARNING **Do not use the hands on any hydraulic hose, fitting or system component to check the system for possible leaks. Serious injury can result from an oil leak under high pressure. Oil can be injected under the skin by high pressure. Protect the eyes by wearing safety glasses.**

⚠CAUTION Stop the engine immediately if any hydraulic leak is noted. Do not start the engine until any problem noted has been corrected.

Changing Hydraulic Oil Strainer

The oil strainer is mounted in the oil filler opening under the filler cap **(Figure 5-7,1)**.

⚠WARNING Do not remove the hydraulic filler cap from the reservoir when it is "HOT". Hot hydraulic oil can cause serious injury. Allow hydraulic oil to cool down to a warm temperature.

1. Remove the hydraulic oil filler cap **(Figure 5-7,1)**
2. Remove the six (6) screws securing the strainer, then remove the strainer and the gasket.
3. Install a new gasket, aligning the three holes in the gasket with the mounting holes on the reservoir.
4. Install the new strainer, aligning the holes in the strainer with the mounting holes of the gasket and secure the strainer with the six (6) screws.
5. Fill the hydraulic oil reservoir with the correct, filtered hydraulic oil **(see "Lubricant Specifications" on page 2-7)** until oil appears at the hydraulic oil level plug hole (refer to **Figure 5-7,2**).

NOTICE Do not overfill the hydraulic oil reservoir with oil.

6. Check the oil level in the hydraulic oil reservoir, again. Add oil if needed.
7. Install the hydraulic oil filler cap **(Figure 5-7,1)** onto the reservoir filler neck and tighten securely.

REMOVAL AND INSTALLATION PROCEDURES

Track Component Replacement

Rear Axle Assembly or Track

⚠WARNING Crush Hazard! Never work under hopper without making sure that it is being supported by safety prop and that all unauthorized personnel are clear of the area.

1. Raise hopper and insert safety prop **(Figure 5-8,1)**.

Figure 5-8. Safety Prop

1 - Safety Prop

2. Locate the track tension manifold. Turn the relief cartridge out of the aluminum block about three (3) turns or until the pressure releases.
3. The 1000F Tilt Hopper Paver does not have a master link on the track. Using a torch, cut off the end of one of the links at top of front idler and take the tracks apart.
4. Once the tracks are apart, jack up front of machine to allow track to fall down from behind front weight block.
5. Back up the machine until the track lays flat on the ground.
6. Jack paver up approx. 24" (61 cm) and place on jack stands.
7. Remove cut-off cylinder mounting bracket.
8. Place floor jack underneath tires using a small amount of pressure.
9. Remove the two 5/8" bolts and lock washers attaching pillar block bearing. Axle assembly will pry off of torque hub onto the ground.
10. Let jack down to same position as tires.

NOTE: Always place some axle grease into the splines on axle when installing.

11. To remove the tires from the shaft, remove the 8-5/8" x 1-3/4" bolts from the axle.
12. Remove the tire from the axle.
13. Repeat the same procedure for the tire on the opposite side.
14. Replace the tire onto the machine.
15. Loctite the 8-5/8" x 1-3/4" bolts and secure the tire to the axle.

16. Grease the end splines of the axle.
17. Set tires on jack and lift into position.
18. Loctite the two 5/8” bolts.
19. Install the two 5/8” bolts and lock washers and secure the pillar block bearing to the machine. Torque bolts to 180 ft.-lb.. (244 N.m).
20. Install the cut-off cylinder mounts.
21. Let machine down and install the previously removed pin into the tract. Weld the end of the pin.
22. Tighten the relief cartridge in the track tension manifold.

Idler

⚠WARNING Crush Hazard! Never work under hopper without making sure that it is being supported by safety prop and that all unauthorized personnel are clear of the area.

1. Raise hopper and insert safety prop **(Figure 5-8,1)**.
2. Locate the track tension manifold. Turn the relief cartridge out of the aluminum block about three (3) turns or until pressure releases.
3. The 1000F Tilt Hopper Paver does not have a master link on the track. Using a torch, cut off the end of one of the links at top of front idler and take the tracks apart.
4. Once the tracks are apart, jack up front of machine to allow track to fall down from behind front weight block.
5. Back up the machine until the track lays flat on the ground.
6. Jack paver up on the front weight block.
7. Reach in and pull out the hitch pin.
8. Slide the idler forward and out of the track assembly.
9. Replace the bracket and idler.
10. Install the idler back into the machine by sliding it into the track assembly and pushing it back until the holes line up between the idler and the frame.
11. Install the hitch pin.
12. Let jack down and install the previously removed pin into the track. Weld the end of the pin.
13. Tighten the relief cartridge in the track tension manifold.

Cylinder

⚠WARNING Crush Hazard! Never work under hopper without making sure that it is being supported by safety prop and that all unauthorized personnel are clear of the area.

1. Raise hopper and insert safety prop **(Figure 5-8,1)**.
2. Locate the track tension manifold. Turn the relief cartridge out of the aluminum block about three (3) turns, or until pressure releases.
3. The 1000F Tilt Hopper Paver does not have a master link on the track. Using a torch, cut off the end of one of the links at top of front idler and take the tracks apart.
4. Once the tracks are apart, jack up front of machine until track falls in front of front weight block.
5. Back up the machine until the track lays flat on the ground.
6. Jack machine up on the front weight block.
7. Pull out the hitch pin.
8. Slide the idler forward and out of the track assembly.
9. Unhook the hose to the cylinder and remove the cylinder.
10. Either repair or replace the cylinder.
11. Install the cylinder into the machine.
12. Attach the hose to the cylinder.
13. Install the idler back into the machine by sliding it into the track assembly and pushing it back until the holes line up between the idler and the frame.
14. Install the hitch pin.
15. Let jack down and install the previously removed pin into the track. Weld the end of the pin.
16. Tighten the relief cartridge in the track tension manifold.

Torque Hub Replacement

Removal

⚠WARNING Crush Hazard! Never work under hopper without making sure that it is being supported by safety prop and that all unauthorized personnel are clear of the area.

1. Raise hopper and insert safety prop **(Figure 5-8,1)**.
2. Jack paver up approximately 24 in. (61 cm) off ground and place on sturdy jack stands.

3. Remove the two allen bolts and lock washers attaching the hydraulic drive motor to the torque hub drive.

NOTE: Do not disconnect hoses from the hydraulic drive motor. Hoses are long enough to slide motor out and place out of way.

NOTE: Mark location of torque hub to frame before removing to assure that drive motor is reinstalled in same position.

4. Weld a brace to go from rear of frame across axle top against frame at another location. Put about a 1 in. weld at each location to hold axle in place.

NOTE: This prevents removing track and axle assembly.

⚠CAUTION **Falling Object Hazard! Before completely removing all bolts from torque hub, place jack or other method underneath to safely lower torque hub to ground.**

5. Remove twelve (12) 5/8 in. bolts holding torque hub to track undercarriage and pry out on to floor jack.

Installation

NOTE: Before installing torque hub back in, put wheel bearing grease on axle splines.

1. Install torque hub in proper position for drive motor to line up.
2. Place thread-locking adhesive on torque hub bolts and torque all bolts to specification (see **Table 2-10 and Table 2-11**).
3. Check O-ring on drive motor, replace if worn. Bolt drive motor to torque hub.
4. Place thread-locking adhesive on sprocket bolts and torque all bolts to specification (see **Table 2-10 and Table 2-11**).
5. Fill torque hub (see **"100-Hour or Monthly Routine Maintenance" on page 5-8**) with specified oil (see **"Table 2-8. Lubricant Specifications" on page 2-7)**.
6. Lower paver to ground.

NOTICE **Make sure hose connections are clean before removing and also before installing.**

7. Lower hopper and bolt hopper wings down.

⚠WARNING **Do not use the hands on any hydraulic hose, fitting or system component to check the system for possible leaks. Serious injury can result from an oil leak under high pressure. Oil can be injected under the skin by high pressure. Protect the eyes by wearing safety glasses.**

8. Start the engine using the correct procedures (see **"Starting The Engine" on page 4-4)**.
9. Check the hydraulic system for any leaks.

⚠CAUTION **Stop the engine immediately if any hydraulic leak is noted. Do not start the engine until any problem noted has been corrected.**

Auger And Inner Bearing Replacement

Removal

1. Run screed extension all the way out.

NOTE: Auger cover is in one (1) piece with a small tack to hold cover together while building.

2. Remove four nuts holding cover **(Figure 7-5,1)** on and pry cover apart.
3. Clean asphalt build up from around cover.

NOTE: Heating asphalt may be required.

4. Remove auger cover by laying on hopper under engine.
5. Rotate augers so that master link is centered at front.
6. Loosen auger chains by sliding auger motors **(Figure 7-5,3)** down from backside after loosening the two bolts securing mounting brackets **(Figure 7-5,5)**.
7. Remove auger endmounts **(Figure 7-5,14)** so that augers can be removed through opening in sides.
8. Remove augers **(Figure 7-5,10)** and lay augers on the ground in the same position as removed. This will help insure proper installation of the new augers.
9. Check inner auger bearing **(Figure 7-5,9)** and replace at this time if faulty.

Installation

NOTE: When installing the new augers be sure to align augers the same as the removed augers. It is very easy to install augers backwards.

1. Install new augers **(Figure 7-5,10)** making sure that wear plates are on correct side to auger material outward.
2. Tighten bearing setscrew to help hold auger shaft from moving outward.

3. Slide auger collar **(Figure 7-5,16)** on end of auger shaft and bolt endmount **(Figure 7-5,19)** back on. Torque mounting screws to 78 ft. lbs. (106 N•m)
4. Push collar **(Figure 7-5,16)** all the way in against endmount **(Figure 7-5,19)** and attach with setscrews (four setscrews, two on outside and two on inside).
5. Place auger chains back on and adjust auger motors **(Figure 7-5,3)** up to tighten chains. Use a pry bar under motor to pry up, then snug bottom motor mount bolts (make sure chains have approximately 1/4 in. of slack).
6. Make sure motor is level then tighten top and bottom bolts to a torque of 150 ft. lbs. (155 N•m). Do the same for the other side.
7. Lubricate chains.
8. Place auger cover **(Figure 7-5,1)** back in place making sure slot for auger shaft is sealed shut.
9. Place grating back on over auger.
10. Run augers and make sure everything is correct.

NOTE: Auger chains can be lubricated each day by spraying oil or chain lube in through slots where auger motor is adjusted.

Screed Extensions, Slides Or Bushing Replacement

Removal.

1. Run screed extension out completely.
2. Remove cylinder pin **(Figure 7-17,8)**.
3. Loosen five (5) bolts attaching top guide **(Figure 7-17,29)**. This will let main slide **(Figure 7-18,20)** come out easily. At this time main slide can be replaced.

Installation

1. Clean area where slides **(Figure 7-18,20)** are installed, and lubricate before reinstalling the slide.
2. Loosen guide **(Figure 7-18,29)** and drive guide down tight against slide by using allen set screws. .
3. Make sure extension is mounted flush with bottom of screed plate.
4. Hook cylinders **(Figure 7-17,3)** back to extensions using pin **(Figure 7-17,8)**.
5. Run extension out and grease the extension well before operating “in” and “out”.

Screed Wear Plate Replacement

Removal

1. Run screed extension all the way in.
2. Remove the walkboards **(Figure 7-17,11)**, and the screed lids **(Figure 7-17,8)**.
3. Remove the twenty-four (24) 3/8 in. bolts holding the wear plate **(Figure 7-17,9)** to the screed frame on each side.
4. Clamp the center portion of the screed frame so that when the screed frame is raised up off the worn wear plate the clamp will hold the frame in place.
5. Raise the screed up and remove the worn wear plate.
6. Clean all material buildup from the screed frame before bolting in the new wear plate.

Installation

1. Set the new wear plate down level on three (3) blocks, placing one block in the center and one at each end. Make certain the extensions are raised all the way up to prevent extensions from holding the screed frame off the wear plate **(Figure 7-17,9)**.
2. Lower the screed frame down on the new wear plate.

NOTE: Do not tighten the bolts in the next step until all the bolts are installed.

3. Install five bolts in one side at the front to hold the wear plate **(Figure 7-17,9)**.
4. Loosen the vibrator **(Figure 7-17,28)** on the slotted side and adjust the crown. This will move the screed frame in and out on the wear plate to help align the bolts on the opposite side.
5. Once the front bolts are installed install the rear bolts.
6. When all of the bolts have been started make sure the screed frame and the wear plate are flat.
7. Torque bolts to 55 ft. lbs. (74 N•m). Start inside and move outward by rotating from the left to the right side. This will keep the screed relaxed.
8. Place the screed lids, the walkboards back on the screed.

Extension Wear Plate Replacement

Removal

1. Run the extensions all the way out.
2. Remove the end gates by removing the tilt screw and 7/8 in. nut on each side. The end gate will tilt forward out of the holder and slide off the 7/8 in. bolt.
3. Disconnect the extension adjuster **(Figure 7-18,7,8,9,10)** from the wear plate **(Figure 7-18,2)**, by removing locknut, washer, and shoulder bolt **(Figure 7-18,12)**.
4. Remove the front extension hinge shield **(Figure 7-18,3)**.
5. Slide the hinge pin **(Figure 7-18,4)** out and the wear plate **(Figure 7-18,2)** will fall off.

Installation

1. Hold the new wear plate **(Figure 7-18,2)** in place and slide the hinge pin **(Figure 7-18,4)** in place.
2. Fasten the extension adjuster **(Figure 7-18,7,8,9,10)** back to the wear plate **(Figure 7-18,2)** with locknut, washer, and shoulder bolt **(Figure 7-18,12**.
3. Put the front hinge shield **(Figure 7-18,3)** back on.
4. Install end gate and tilt screw back on the paver.

Tandem Servo Pump Replacement

Removal

1. Label and disconnect the hoses to the tandem propulsion hydraulic pump, plugging the hoses and capping the fitting on the hydraulic pump.
2. Label and disconnect the hoses to the tandem auxiliary hydraulic pump, plugging the hoses and capping the fitting on the hydraulic pump.

NOTE: If Tandem Auxiliary Pump is not bad leave hoses attached and slide out of Main Pump.

⚠CAUTION **Pump assembly is very heavy and must be properly supported with a sling before loosening mounting bolts.**

3. Place a sling around the pump assembly to provide support.
4. Remove the two screws attaching pump assembly (16) to the pump plate cover.
5. Slide the pump assembly off of the splined shaft **(Figure 7-14,12)**.
6. Using the sling, lift pump assembly with auxiliary pump assembly out of paver and place on a flat surface.
7. Remove the two screws attaching the tandem auxiliary hydraulic pump to the tandem propulsion hydraulic pump.
8. Remove the O-ring **(Figure 7-14,9)** from between the pumps.

Installation

1. Place a small amount of hydraulic oil on the O-ring **(Figure 7-14,9)** and install O-ring between the pumps.
2. Carefully support auxiliary pump and align the mounting holes in the auxiliary pump with the mounting on pump.
3. Attach the pumps with the two mounting screws.
4. Torque the screws to 89 ft. lbs. (121 N•m).

⚠CAUTION **Pump assembly is very heavy and must be properly supported with a sling before loosening mounting bolts.**

5. Support the complete pump assembly with a sling and lift assembly into paver.
6. Carefully slide pump assembly onto splined shaft **(Figure 7-14,12)** and align mounting holes with the pump plate cover mounting holes (grease splines before installing).
7. Attach the pumps with the two mounting screws.
8. Torque the screws to 89 ft. lbs. (121 N•m).
9. Remove plugs and caps and connect hydraulic hoses to pumps are previously labeled.
10. Check hydraulic oil level in tank and add hydraulic oil if necessary.
11. Install the spray hose assembly on the top right side cover.
12. Start the paver.
13. Check to be sure there is no hydraulic oil leaks.

Single Speed Hydraulic Motor Replacement

Removal

1. Turn the paver off.
2. Check to be sure there is no hydraulic pressure.
3. Label and disconnect the hoses to the hydraulic motor **(Figure 7-1,30)**.
4. Plug the hoses and cap the fitting on the hydraulic motor.
5. Support hydraulic motor, then remove the four screws **(Figure 7-1,31)** and lockwashers attaching the hydraulic motor to the torque hub and carefully remove the motor from the torque hub.
6. Remove the gasket **(Figure 7-1,29)**.
7. Drain the hydraulic oil from the hydraulic motor. Discard or repair the hydraulic motor as appropriate.

Installation

1. Install new gasket **(Figure 7-1,29)** on torque hub.
2. Attach hydraulic motor to torque hub using four capscrews **(Figure 7-1,31)** and lockwashers.
3. Torque capscrews **(Figure 7-1,31)** to 120 ft. lbs. (163 N•m).
4. Remove plugs from hydraulic hoses and connect the hydraulic hoses in accordance with the labels.
5. Operate paver and check for leaks.

NOTE: When installing motor dry, crank and let run for approximately 10 minutes to work air out of system before engaging to move.

Safety Label Installation

Anytime the LeeBoy Model 1000F Paver has been repainted or the safety labels have been removed, damaged or can't be read, a new set of labels should be ordered and reinstalled for safe operation **(Figure 1-1 on page 1-6)**.

1. Be sure that the installation area is clean and dry. Use hot soapy water and dry the area thoroughly before installing decals.
2. Determine the exact position by taking measurements and test fitting before you remove the backing paper.
3. For safety labels with no top protection paper, determine the label location and remove the smallest portion of the split backing paper.
4. Align the label over the specified area and carefully press the small portion with the exposed adhesive backing into place.
5. Peel back the remaining paper and carefully smooth the remaining portion of the label in place.
6. Small air pockets can be pierced with a pin and smoothed out using the piece of label backing paper.
7. If the label has a protective top paper, use hot soapy water on the surface to which the label is being applied. Leave wet. After determining the location, remove the backing paper and soak the label in clean soapy water before application. This will help prevent air bubbles in the finished label.
8. Smooth the label into place with a sponge and check for air bubbles. Small air pockets may be pierced with a pin and smoothed out. When the label is completely smoothed out, carefully remove the top paper.

TROUBLESHOOTING CHARTS

The troubleshooting charts below identify the most common symptoms of failure. Use these charts to help identify the failed component and possible remedies.

If the problem persists, see your authorized LeeBoy Dealer (see ***Contact Information*** in Section 3).

Figure 5-9. Paver Troubleshooting

SYMPTOM	CAUSE	REMEDY
Engine does not start	Defective battery or low battery charge	Replace or charge battery as applicable
	Forward/reverse steering joystick not centered (neutral)	Center steering control and activate
	Insufficient fuel supply	Fill fuel tank
	Plug in switch box unplugged	Plug back in
	Starter or solenoid faulty	Replace or rebuild
	Neutral switch defective	Replace
Engine stops or turns over but will not start	Low fuel	Add fuel to fuel tank
Low Battery	Faulty alternator	Replace or rebuild
Machine will not move	Cables damaged	Check cables
	Travel pump defective	Replace pump or rebuild
	Front idler out of line	Readjust track
	Track tension pressure	Check pressure. NOTE: Relief pessure should be set to 700 PSI
Machine will not pull on one or both sides	Faulty hydraulic motor	Replace
	Pump pressure too low	Pump pressure should be 3000 PSI
	Faulty torque hub	Rebuild or replace
	Pump drive coupling faulty	Replace
	Defective pump	Replace

Table 5-15. Paver Troubleshooting (Cont.)

SYMPTOM	CAUSE	REMEDY
Hydraulic oil running out of breather cap	Hydraulic oil tank overfilled	Drain 5 to 6 in. (12.7 to 15 cm) from top of tank
	Air in bottom of tank	Bleed if you don't have vent hose
	Oil over heated	Slow paver down about 10% to 15%
Hydraulic pump cavitating or lost power	Low level in hydraulic tank	Fill
	Clogged filters	Replace
	Suction hose loose	Tighten
	Charge pump worn	Replace
Auger hanging up or will not turn	Chain too loose	Adjust
	Chain broke	Replace
	Faulty motor	Replace
	Asphalt set up around auger	Keep clean and oiled
Screed extensions binding	Asphalt set up around extension	Keep clean and oiled
Screed extension loose (work up and down)	Out of adjustment	Adjust hold downs on extensions
Screed leaving streak down center of pavement	No lead crown in screed	Crown leading edge of screed
	Screed worn out	Replace
	Extensions set too low	Adjust extension. Always start out in the morning with extensions all the way up, no down pressure
	Screed not heated properly	Set propane pressure at 15 PSI for about 5 to 8 minutes
Screed leaving ripples	Extension set too low	Readjust extensions
	Extensions work up and down	Adjust top guide
Flight screw locking up	Twisting screed too far	Give screed time to react
	Screw seized	Replace screw
Flight screw bearing damage	Twisting screed too far	Give screed time to react
	Loading and unloading	Check ramps for easy access

NOTES

Section 6
SCHEMATICS

NOTES

ELECTRICAL, HARNESS, ENGINE

P1 - PLUG #1 - DEUTSCH DT06-8S		
POSITION	16G WIRE COLOR	FUNCTION
1	PINK	ALTERNATOR FAIL
2	N/A	N/A
3	ORANGE	ALTERNATOR CHARGE
4	PURPLE	STARTER
5	BROWN	TEMPERATURE SWITCH
6	BLUE	OIL PRESSURE SWITCH
7	YELLOW	SHUTDOWN SOLENOID
8	N/A	N/A

P2 - PLUG #2 - DEUTSCH DTP06-4S		
POSITION	WIRE	FUNCTION
1	RED 10G	BATTERY POSITIVE 12V
2	YELLOW 10G	GLOW PLUGS
3	BLACK 14G	GROUND
4	N/A	N/A

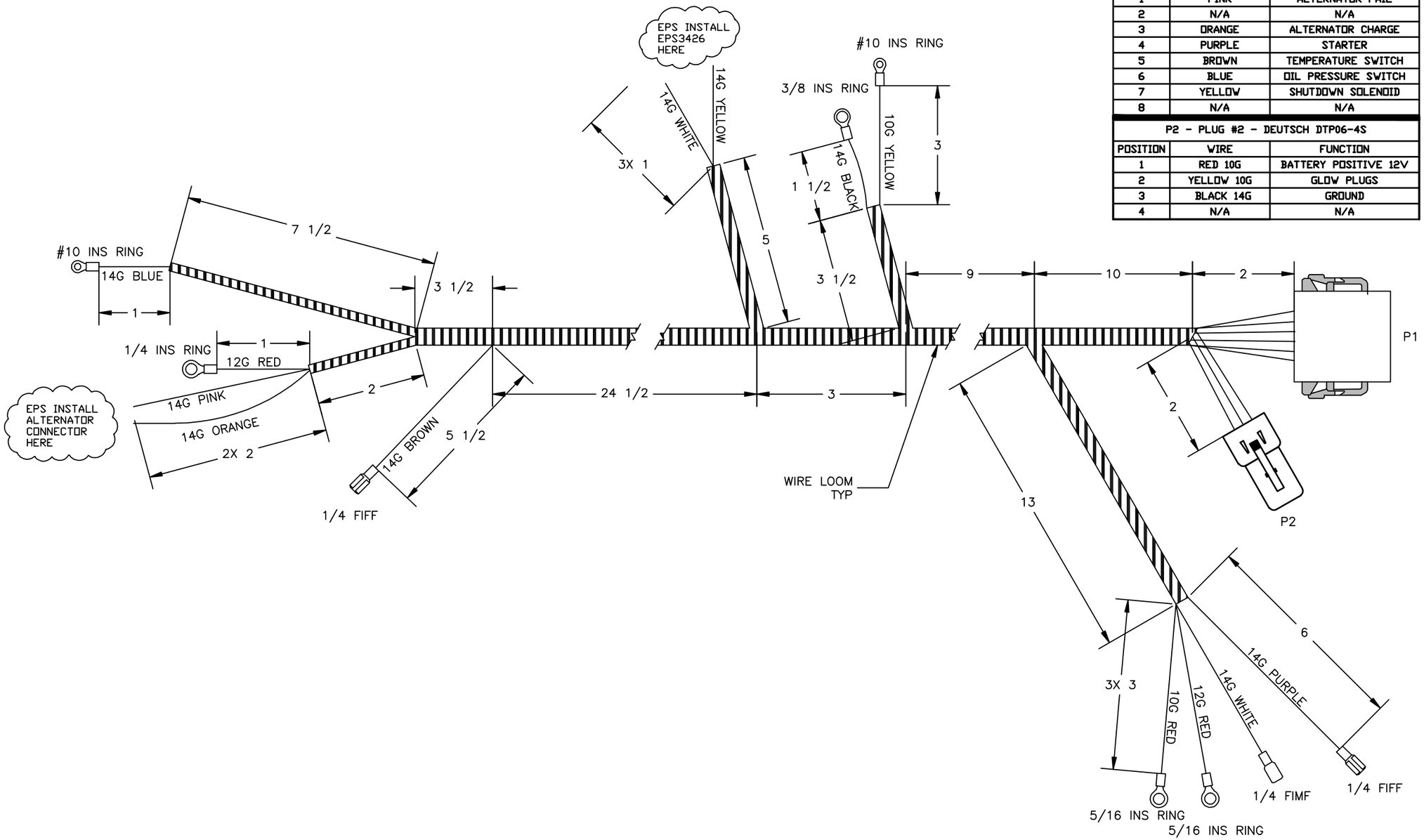


Figure 6-1. 1000867-47: Engine Harness

ELECTRICAL, HARNESS, CONTROL BOX

P1 - PLUG #1 - DEUTSCH DT04-8P		
POSITION	14G WIRE COLOR	FUNCTION
1	PINK	ALTERNATOR FAIL
2	N/A	N/A
3	ORANGE	ALTERNATOR CHARGE
4	PURPLE	STARTER
5	BROWN	TEMPERATURE SWITCH
6	BLUE	OIL PRESSURE SWITCH
7	YELLOW	SHUTDOWN SOLENOID
8	N/A	N/A

P2 - PLUG #2 - DEUTSCH DTP04-4P		
POSITION	WIRE	FUNCTION
1	RED 10G	BATTERY POSITIVE 12V
2	YELLOW 10G	GLOW PLUGS
3	BLACK 14G	GROUND
4	N/A	N/A

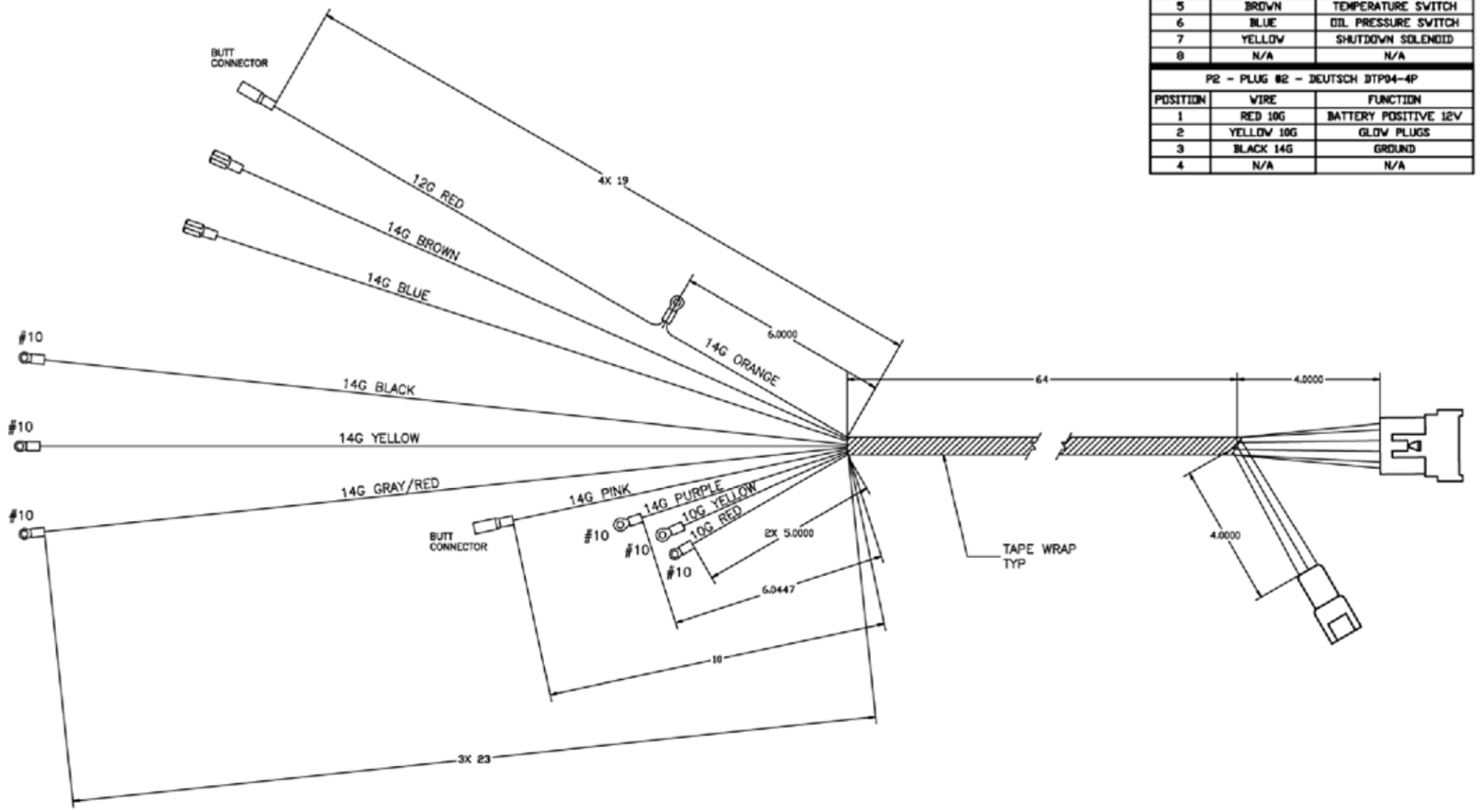


Figure 6-2 . 1008030-01: Control Box Harness

ELECTRICAL, SCHEMATIC, CONTROL BOX

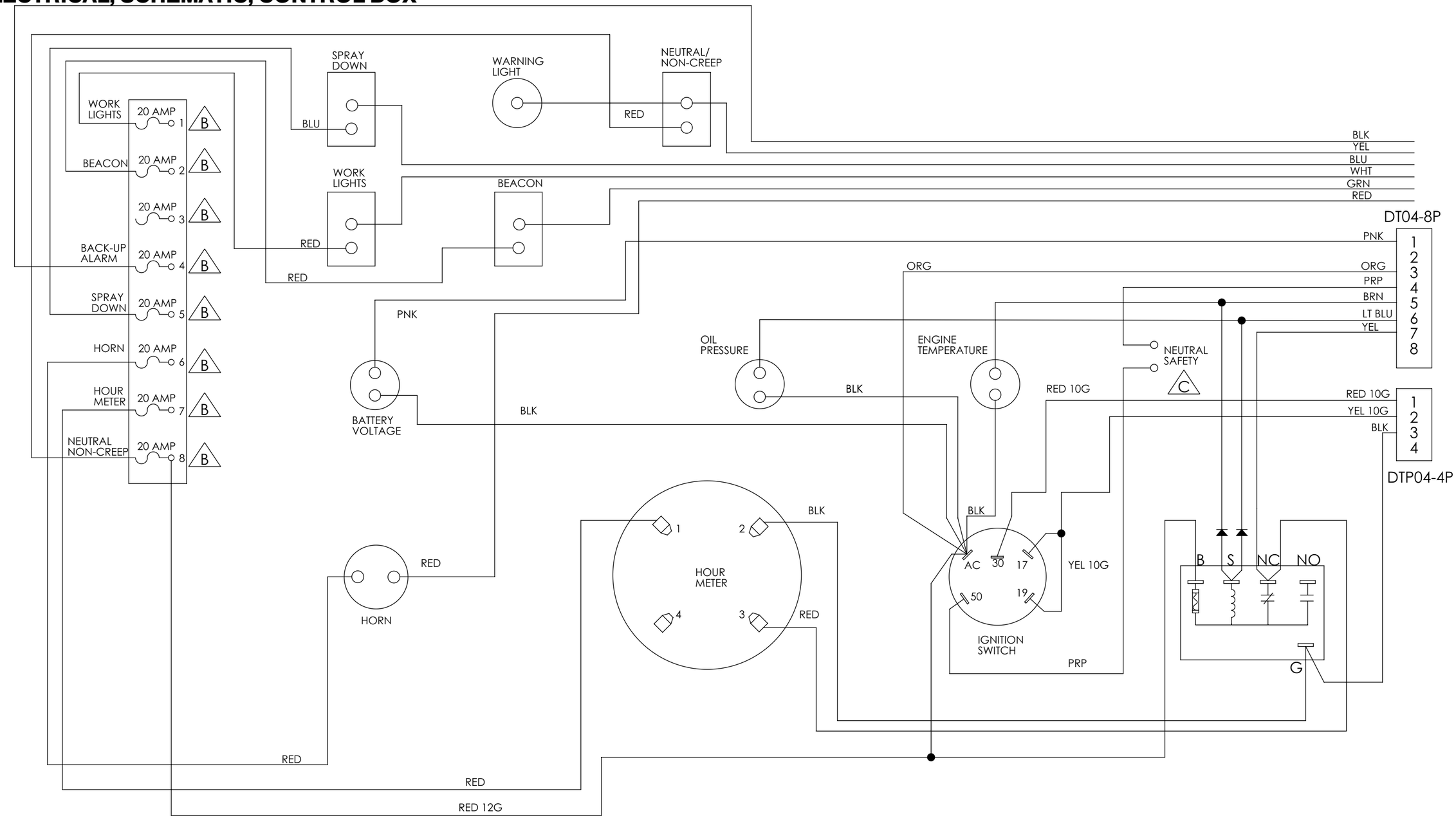


Figure 6-3 . 1008030: Control Box Schematic

HYDRAULIC, SCHEMATIC, MAIN (1 OF 2)

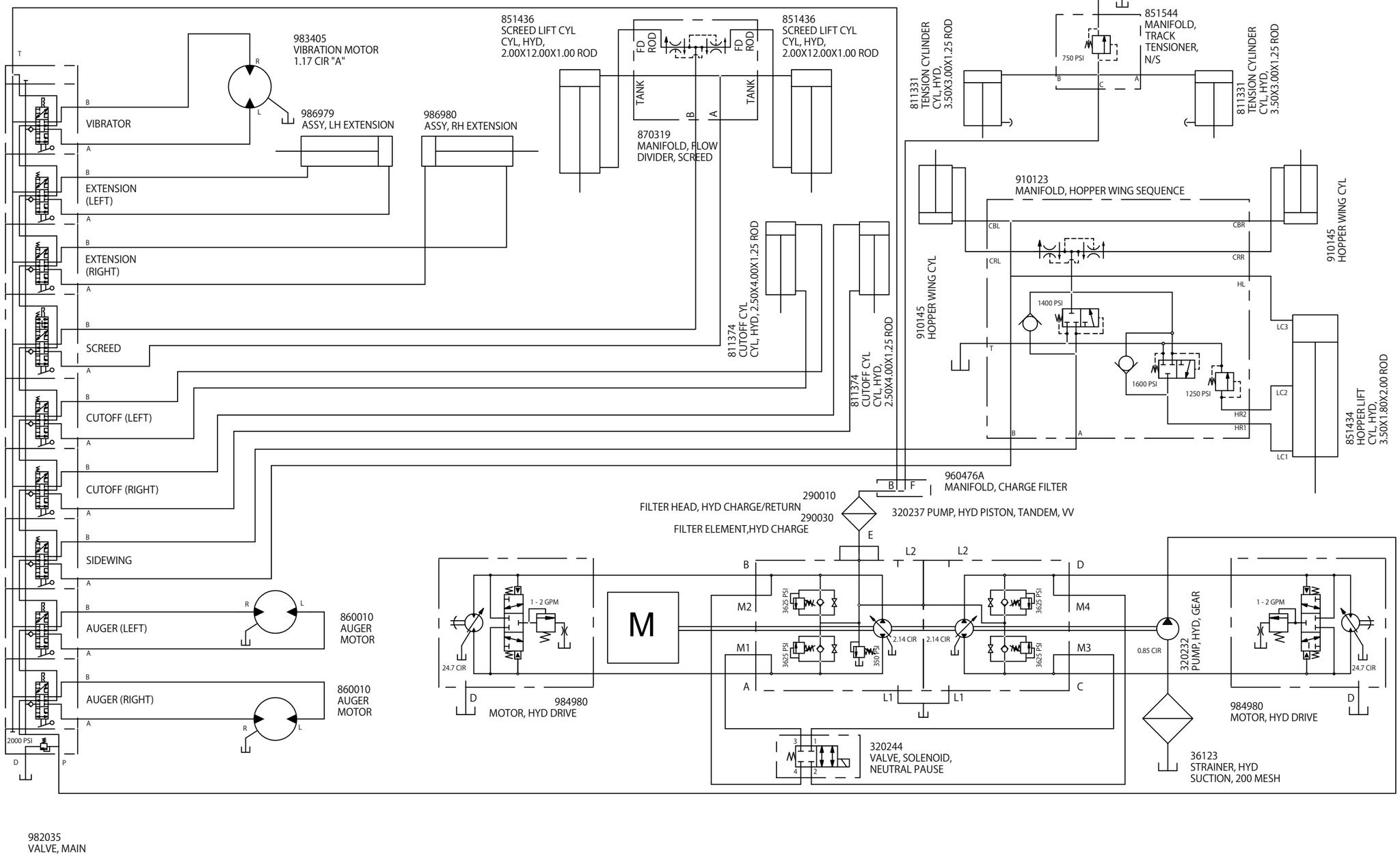


Figure 6-4 . 988610: Main Hydraulic Schematic

HYDRAULIC, SCHEMATIC, MAIN (2 OF 2)

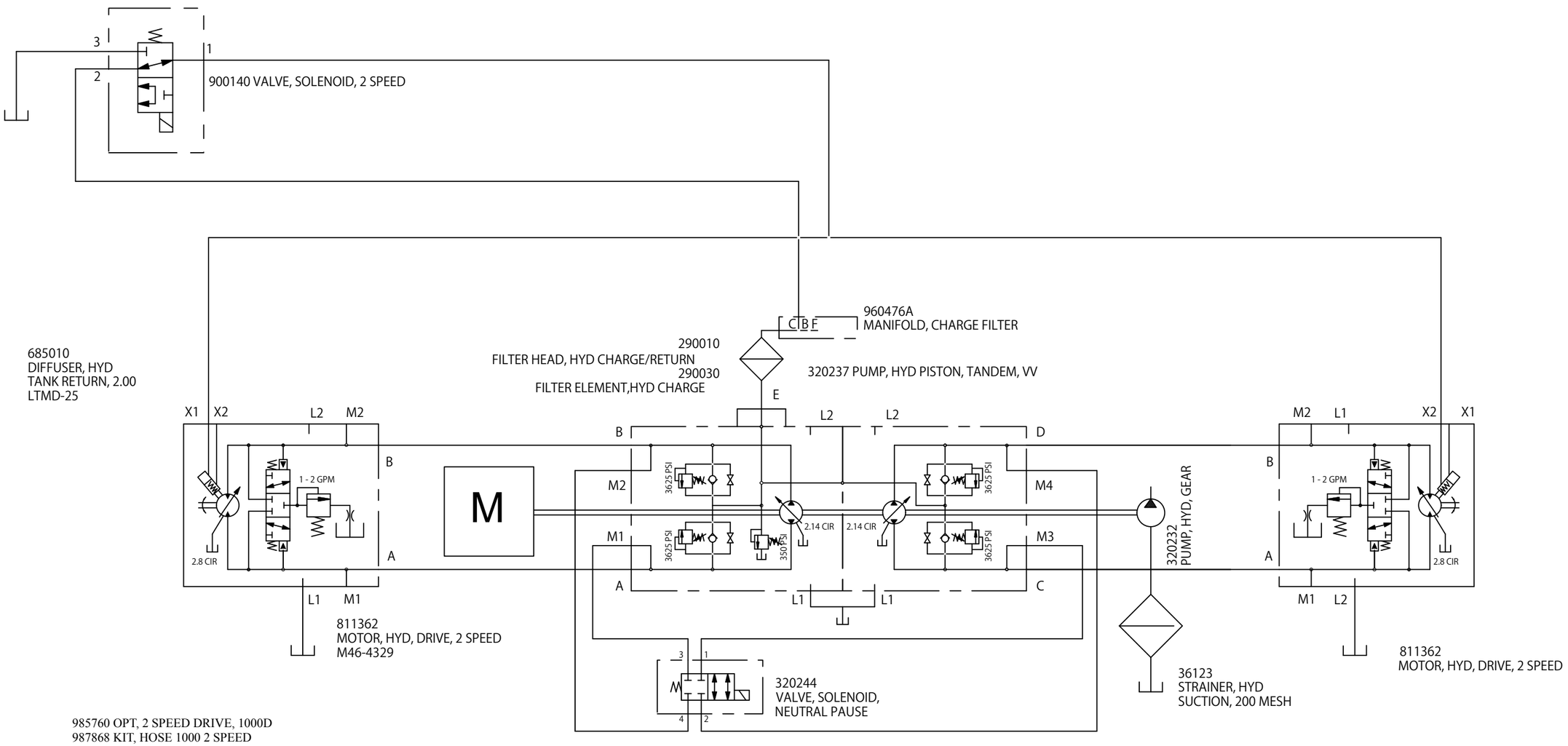


Figure 6-5 . 988610: Main Hydraulic Schematic

HYDRAULIC, SCHEMATIC, WING SEQUENCE

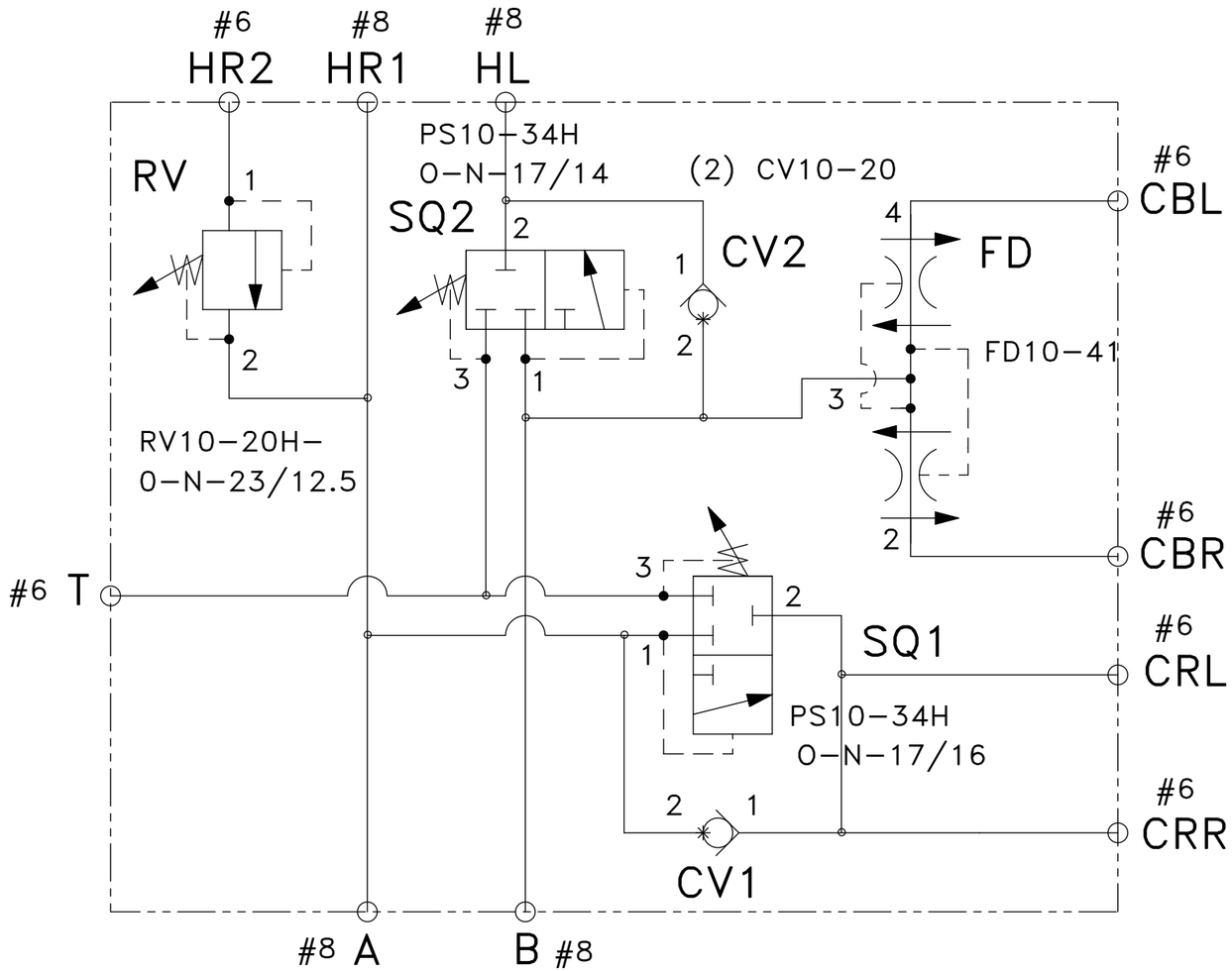


Figure 6-6 . 988610: Main Hydraulic Schematic

HYDRAULIC, LAYOUT (1 OF 4)

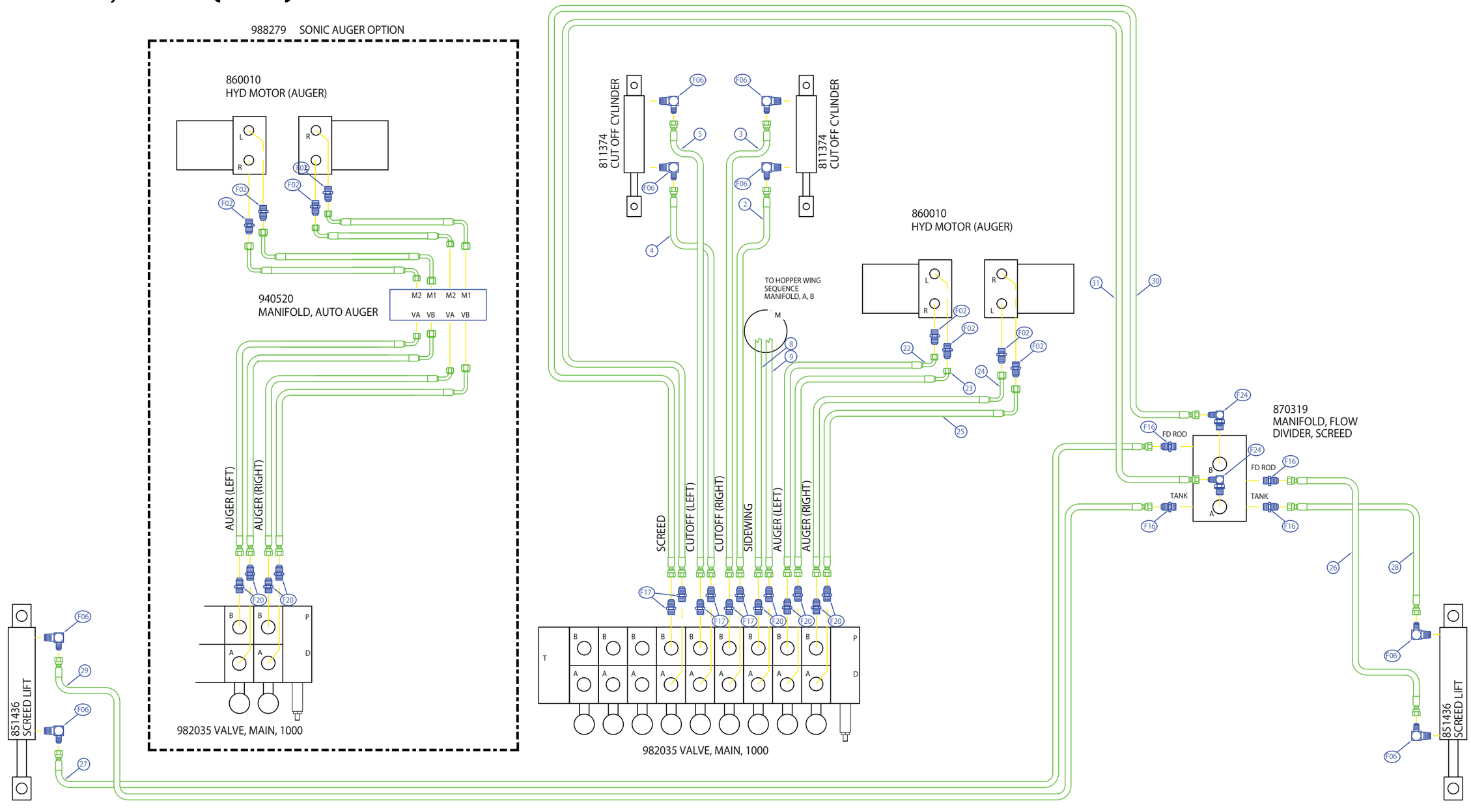


Figure 6-7 . 988609: Main Hydraulic Layout

HYDRAULIC, LAYOUT (2 OF 4)

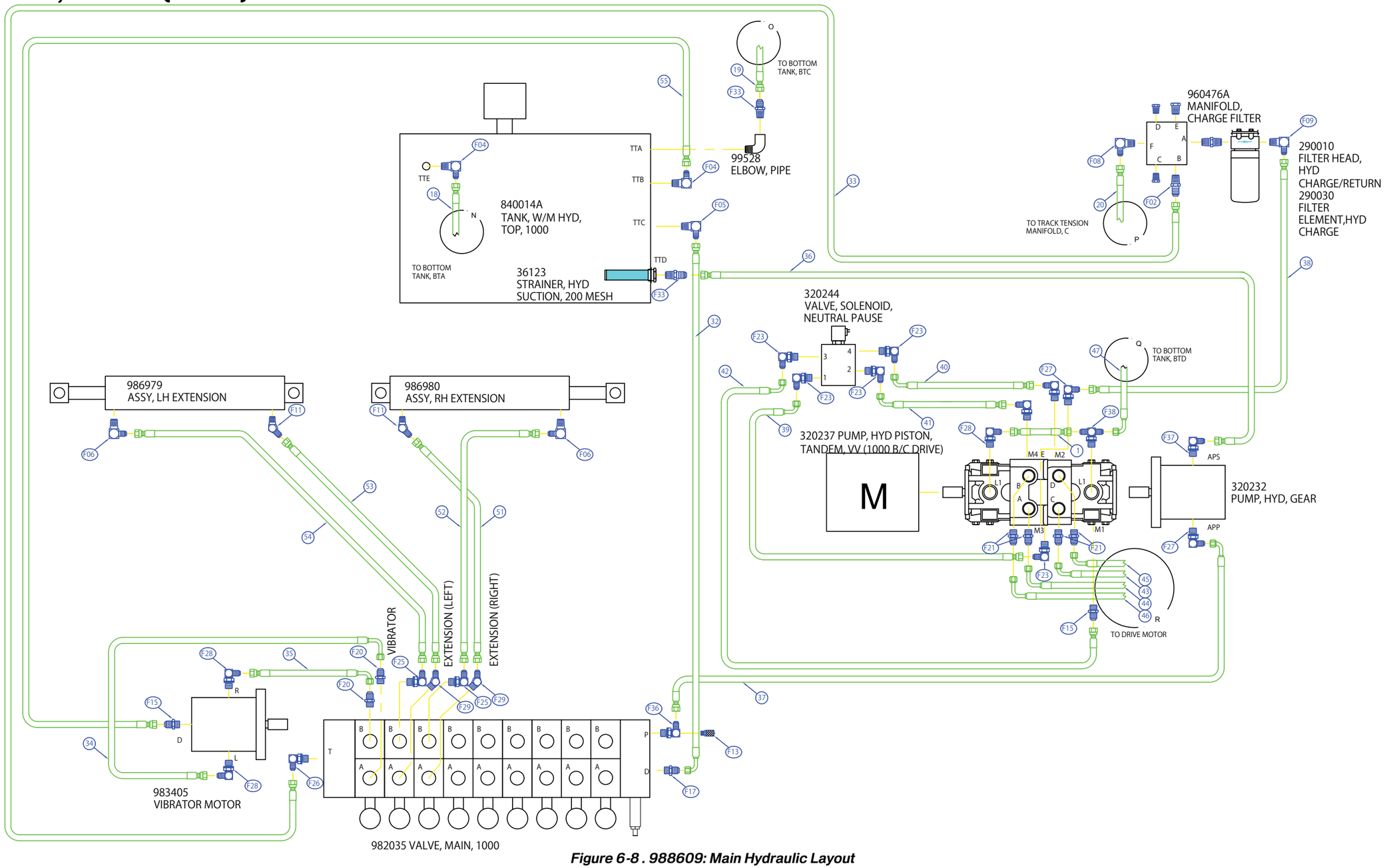


Figure 6-8 . 988609: Main Hydraulic Layout

HYDRAULIC, LAYOUT (3 OF 4)

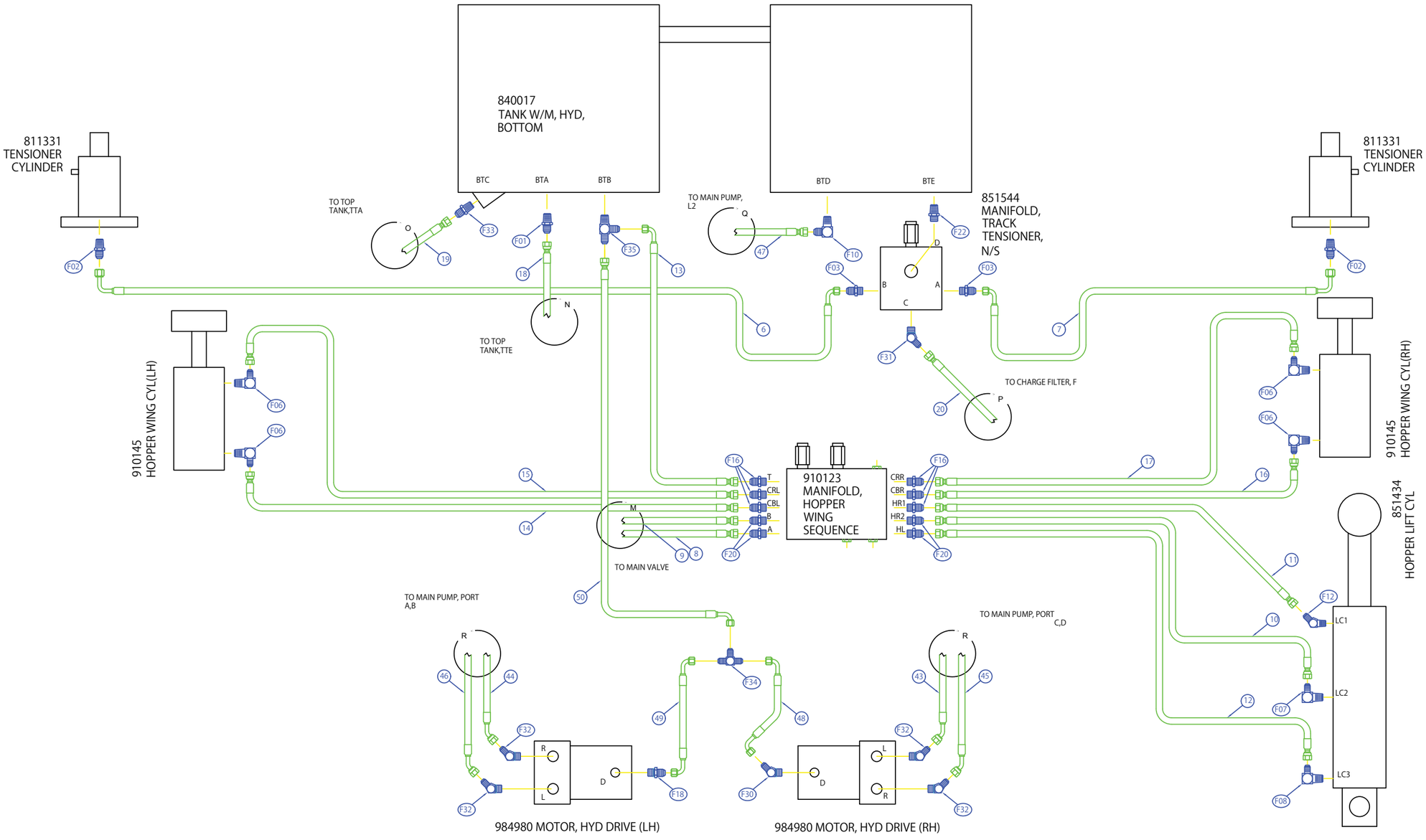


Figure 6-9 . 988609: Main Hydraulic Layout

HYDRAULIC, LAYOUT (4 OF 4)

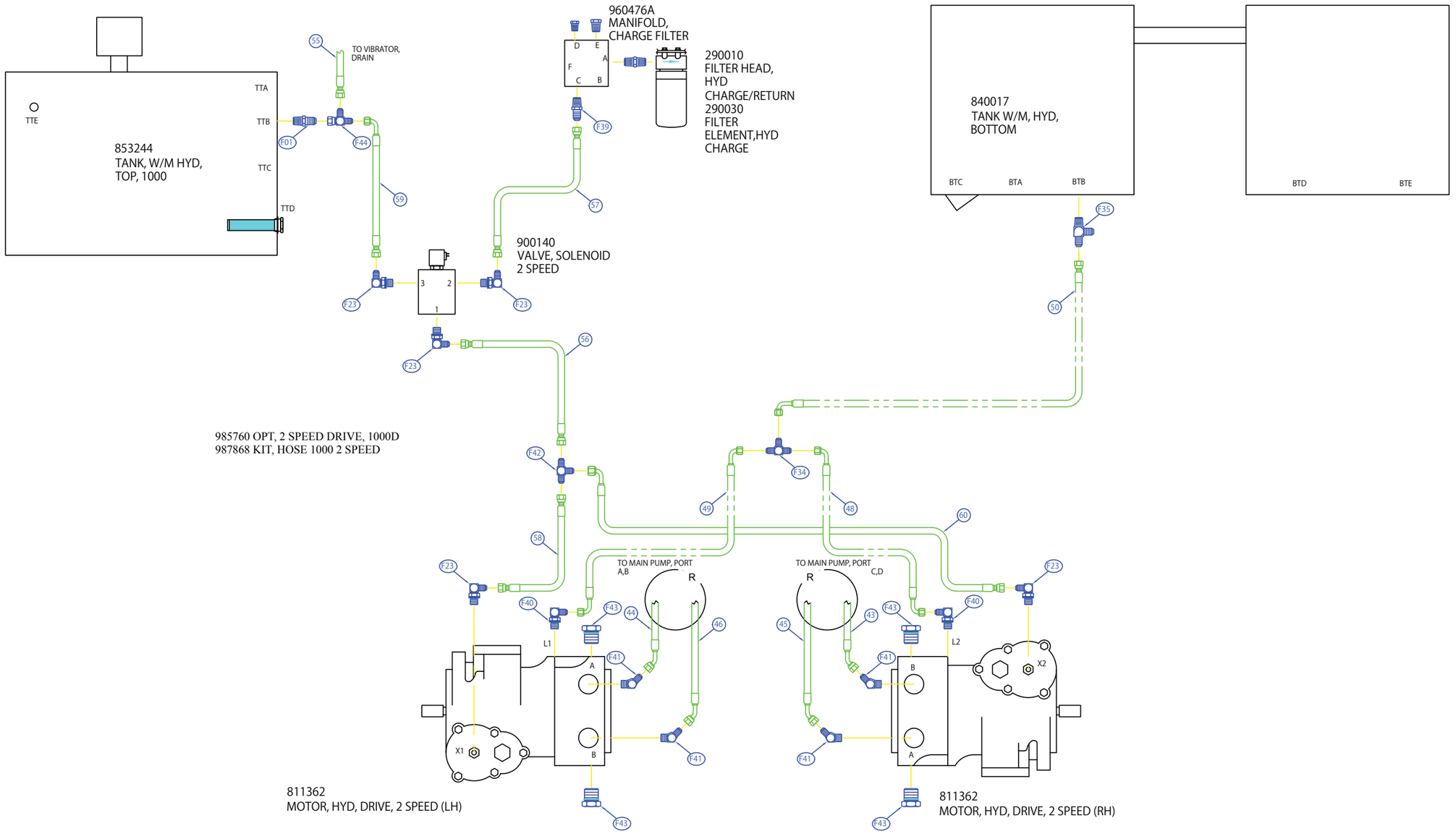


Figure 6-10 . 988609: Main Hydraulic Layout

Section 7
ILLUSTRATED PARTS LIST (IPL)

PAGE

QUICK REFERENCE GUIDE

Part Number	Description	Maint. Interval	Figure Ref.
982080-02	Kubota, Fuel Filter	250 Hours	***Figure 7-7***
986537-03	Kubota, Oil Filter	250 Hours	***Figure 7-7***
986537-31	Kubota, In-Line Filter	250 Hours	***Figure 7-7***
38385-01	Kubota, Air Primary Filter	250 Hours	***Figure 7-7***
38385-02	Kubota, Air Safety Filter	250 Hours	***Figure 7-7***
36123	Hydraulic, Filter - 2 Required	250 Hours	***Figure 7-6***
290030	Hydraulic, Charge Filter Return	250 Hours	-
984594-01	Hydraulic, Element	250 Hours	-
36342	Fuse, 20 Amp,Atc	-	***Figure 7-9***
1008030-01	Harness, Deutsch, Control Box, 1000 Kubota	-	-
1000867-47	Harness, Deutsch, Engine, Kv1505b Kubota	-	-
856495	Decal, Instr, 1000	-	***Figure 7-9***
986137-01	Kit, Decal 1000F	-	***Figure 7-19***
856552-01	Decal, Instr, 1000 2 Speed	-	-
988634	Decal, Manual Boxes	-	-
1005474	Decal, No Unattended	-	-
856554	Decal, Kit, Paver, Saf/Ops, Univer	-	-
986983	Decal, Model#, 1000F	-	-
859799	Decal, Caution, Sonic Augers, LH	-	-
859801	Decal, Caution, Sonic Augers, RH	-	-
986393	Kit, Decal, Side Wing, 1000	-	-
986392	Kit, Decal, Universal #1, Pavers	-	-

TRACK DRIVE ASSEMBLY

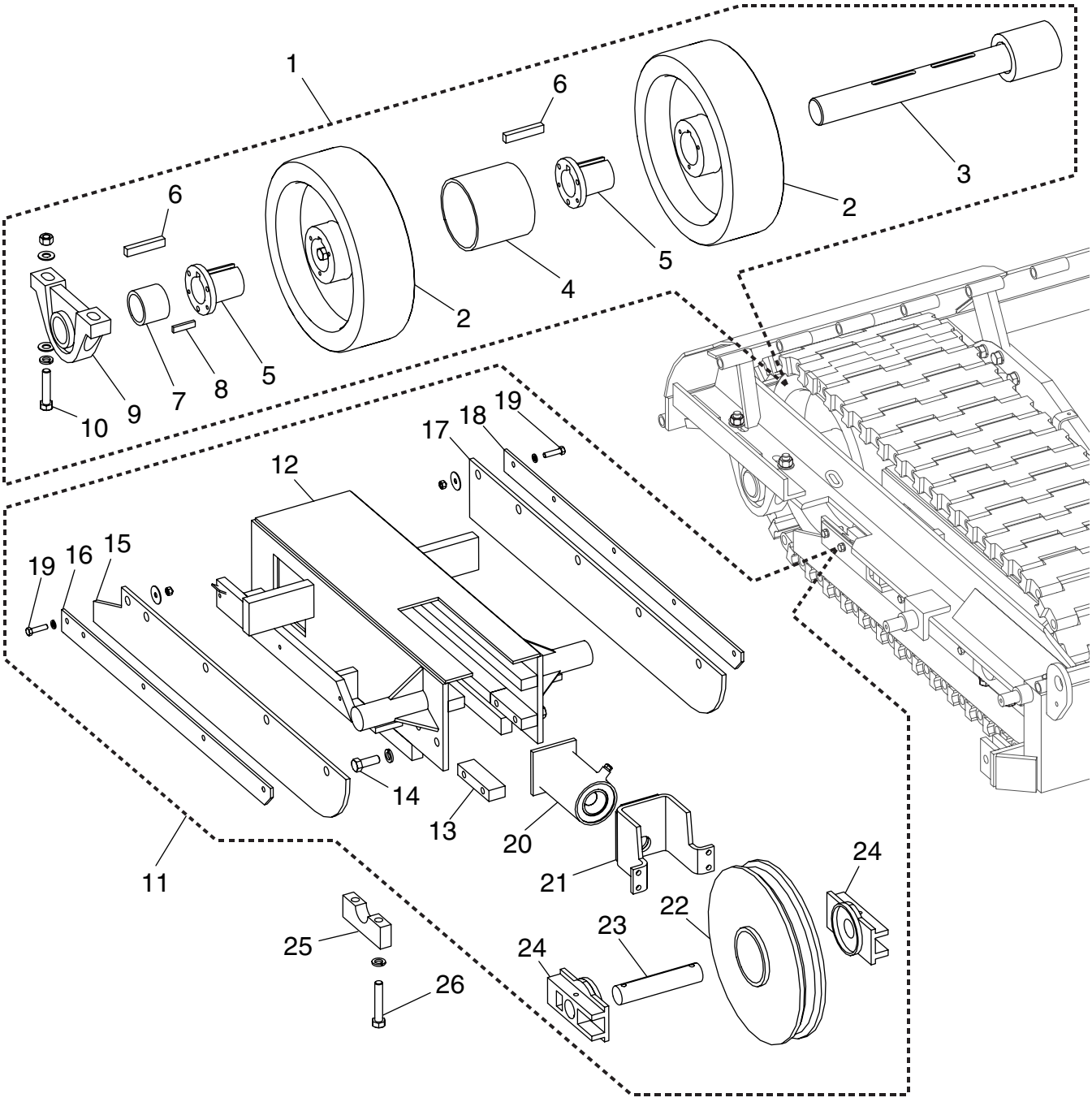


Figure 7-1

Track Drive Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	983674	Ref.	Group, Drive	
1	981076	2	Assy, Rear Torque Hub Tire	Items 2 - 10
2	810129	2	Molded Wheel & Tire (5 X 16)	
3	811150SRV	1	Axle, 1000 /, Final Drive W/Torque Hub	
>	852411	1	Bar, .375 X 1.00 X 1.50	
4	852831	1	Pipe, 6.00 X 5.25, Sch 40	
5	810160	2	Bushing, Taper Lock, 2.250	Comes w/Keystock
6	Ref.	2	Keystock, 0.5 X 0.7 X 3.5	
7	852833	1	Pipe, 2.50 X 2.25, Sch 40	
8	852185	1	Bar, .250 X .50 X 2.00	1/4 X 1/2 Fb X 2
9	810140	1	Bearing, Pillow Block, 2.250	
10	100-10-11-48-5	2	CSHH, 0.625-11 X 3 X 1.5 - Gr5	
>	302-10	2	Washer, Lock, 0.625	
>	300-10	4	Washer, Flat, 0.625	
>	200-10-11	2	Nut, Hex, 0.625-11	
11	981077R	1	RH Undercarriage Assy, 1000	Items 12 - 24
-	981077L	1	LH Undercarriage Assy, 1000	Items 12 - 24
12	856812	1	Frame, 1000 Undercarriage	Includes 13, 14
13	856798	2	Brace, Tapped, Undercarriage Frame	
14	101-10-11-28-5	4	CSHH, 0.625-11 X 1.75 X 1.5 - Gr5	
>	302-10	4	Washer, Lock, 0.625	
15	810021	1	Rubber, Track Guard, Inner	
16	852598	1	Clamp, Track Guard, Inner	
17	810020	1	Rubber, Track Guard, Outer	
18	810031	1	Clamp, Track Guard, Outer	
19	100-6-16-24-5F	10	CSHH, 0.375-16 X 1.5 X 1.5 - N	
>	302-6	10	Washer, Lock, 0.375	
>	300-6	10	Washer, Flat, 0.375	
>	200-6-16	10	Nut, Hex, 0.375-16	
20	811331	1	Cyl, Hyd, 3.50 X 3.00 X 1.25 Rod	
21	811333	1	Yoke,Track Idler, Front	
22	856832	1	Hub, Front Idler	
23	853193	1	Shaft, Undercarriage Idler	
24	853191	2	Slide, Undercarriage Idler	
25	852827	4	Clamp Half, W/Drilled Holes	
26	100-10-11-56-5	4	CSHH, 0.625-11 X 3.5 X 1.5 - Gr5	
>	302-10	4	Washer, Lock, 0.625	

TRACK DRIVE ASSEMBLY (CONT.)

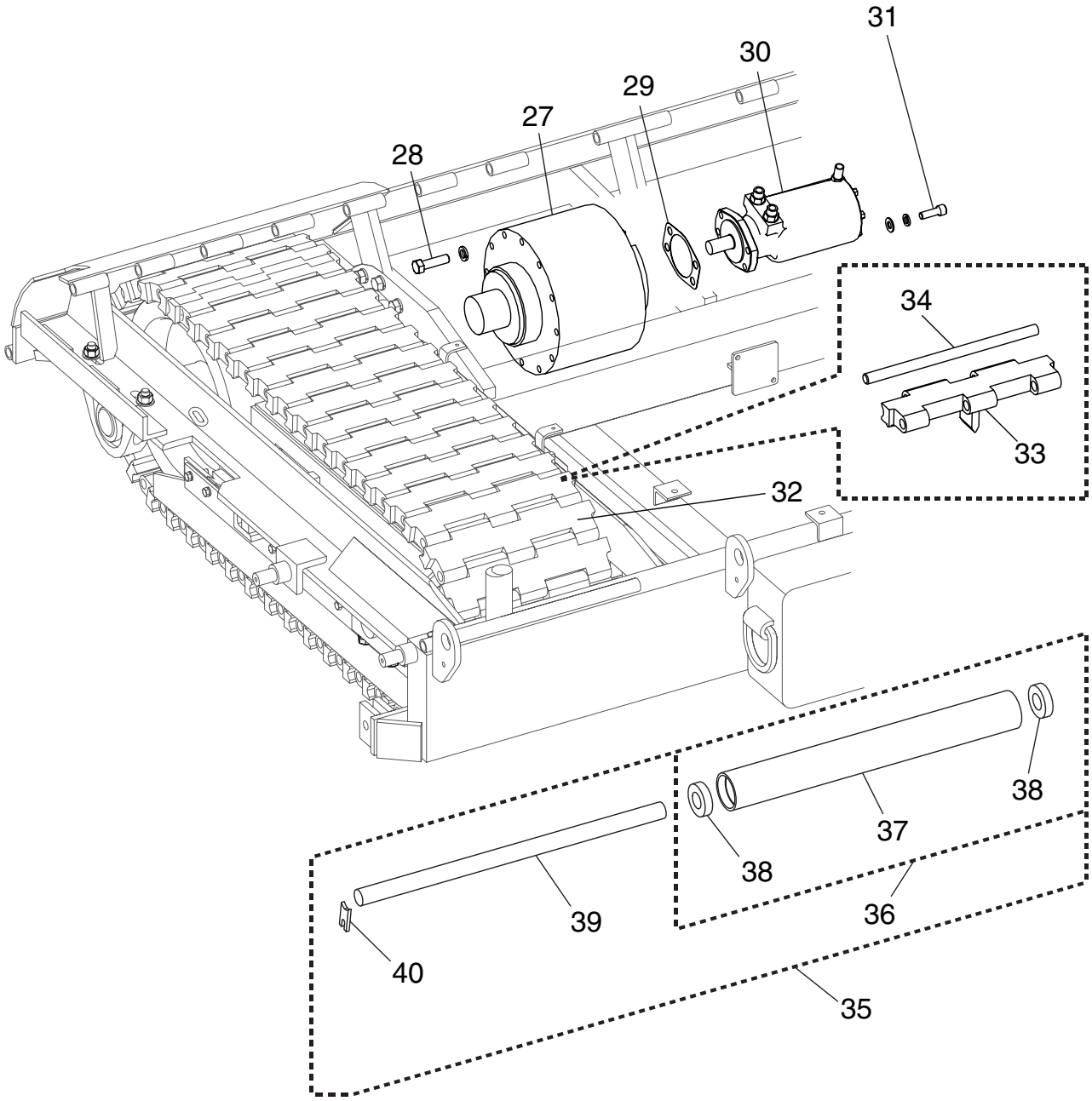


Figure 7-2

Track Drive Assembly Parts List (Cont.)

Item No.	Part Number	Qty.	Description	Remarks
27	981087	2	Torque Hub, Final Drive, 1000	
28	100-10-11-36-5	24	CSHH, 0.625-11 X 2.25 X 1.5 - Gr5	
>	302-10	24	Washer, Lock, 0.625	
29	810250	2	Gasket, S.A.E. "A", 4 Hole	
30	984980	2	Motor, Hyd, Drive, 1000 Drive	
31	100-8-13-24-5F	8	CSSH, 0.5-13 X 1.5 X 1.5 - N	
>	302-8	8	Washer, Lock, 0.5	
>	300-8	8	Washer, Flat, 0.5	
32	810015	2	Track, One Side, 1000	
33	810291CSRV	94	Link Pin, Casted Track Section	
34	810281C	94	Track Section, Casted	
35	981152	2	Push Roller, Tilt Hopper	Items 37 - 40
36	856923	1	Pipe, Push Bar Roller, 24.00 Lg	Items 37 - 38
37	856923-1	1	Pipe, Push, Roller, 24.00Lg	
38	810110	2	Bearing, Push Roller, 1.250	
39	856924	1	Shaft, Push Bar Roller	
40	852826	1	Lock Tab, Push Roller Shaft	
-	982093SRV	A/R	Opt, Electric Flight Screws	Option: Figure 7-19
-	852591	4	Plate, Push Roller Shaft Mount	Welded

HOPPER AND HOPPER SIDE WINGS COMPONENTS

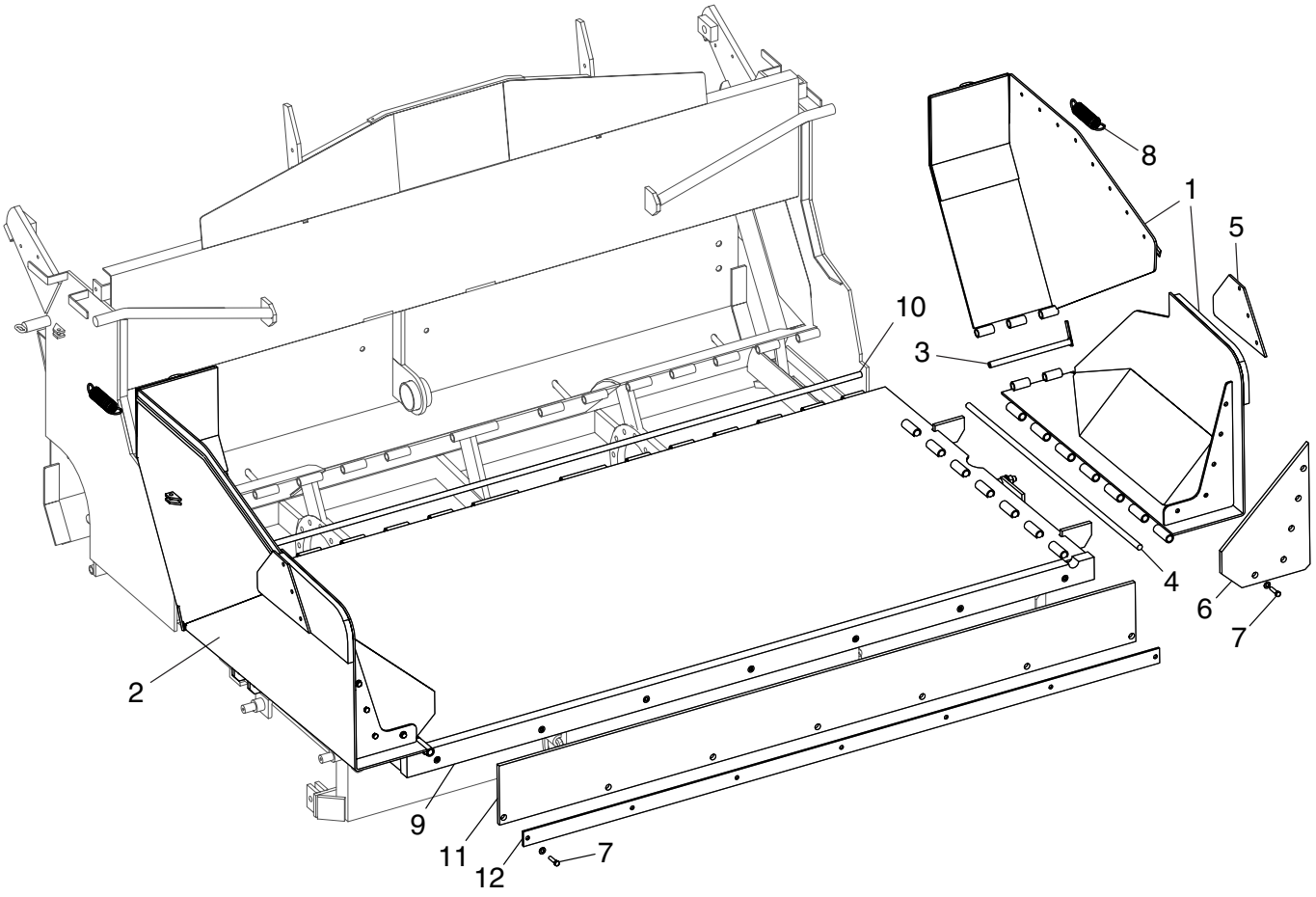


Figure 7-3

Hopper and Hopper Side Wings Components Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	983677	Ref.	Group, Hopper	
-	1000519	Ref.	Assy, Sidewings And Floor, 1000	Includes 1 - 4, 9
1	851614SRV	1	Sidewing, LH, (8' 1000) New Style	Includes 3 - 4
2	851615SRV	1	Sidewing, RH, (8' 1000) New Style	Includes 3 - 4
3	930031SRV	1	Pin, Sidewing Extension	
4	930006	1	Pin, Hopper Wing Hinge, 11/16" - 48" Crs	
5	852645SRV	2	Guide, Side Wing Slide	
6	851622A-1	2	Flashing (Hard), Hopper Corner	
7	100-6-16-24-5	17	CSHH, 0.375-16 X 1.5 X 1 - Gr5	
>	302-6	17	Washer, Lock, 0.375	
8	930029	2	Spring, Comp	
9	851612SRV	1	Floor, 1000 8' Hopper	
10	852617	1	Rnd, .688 X 94.00	
11	851622A	1	Flashing (Hard), Hopper Front	
12	851623SRV	1	Clamp, Hopper Flashing	

HYDRAULIC RESERVOIR AND HOPPER LIFT CYLINDER

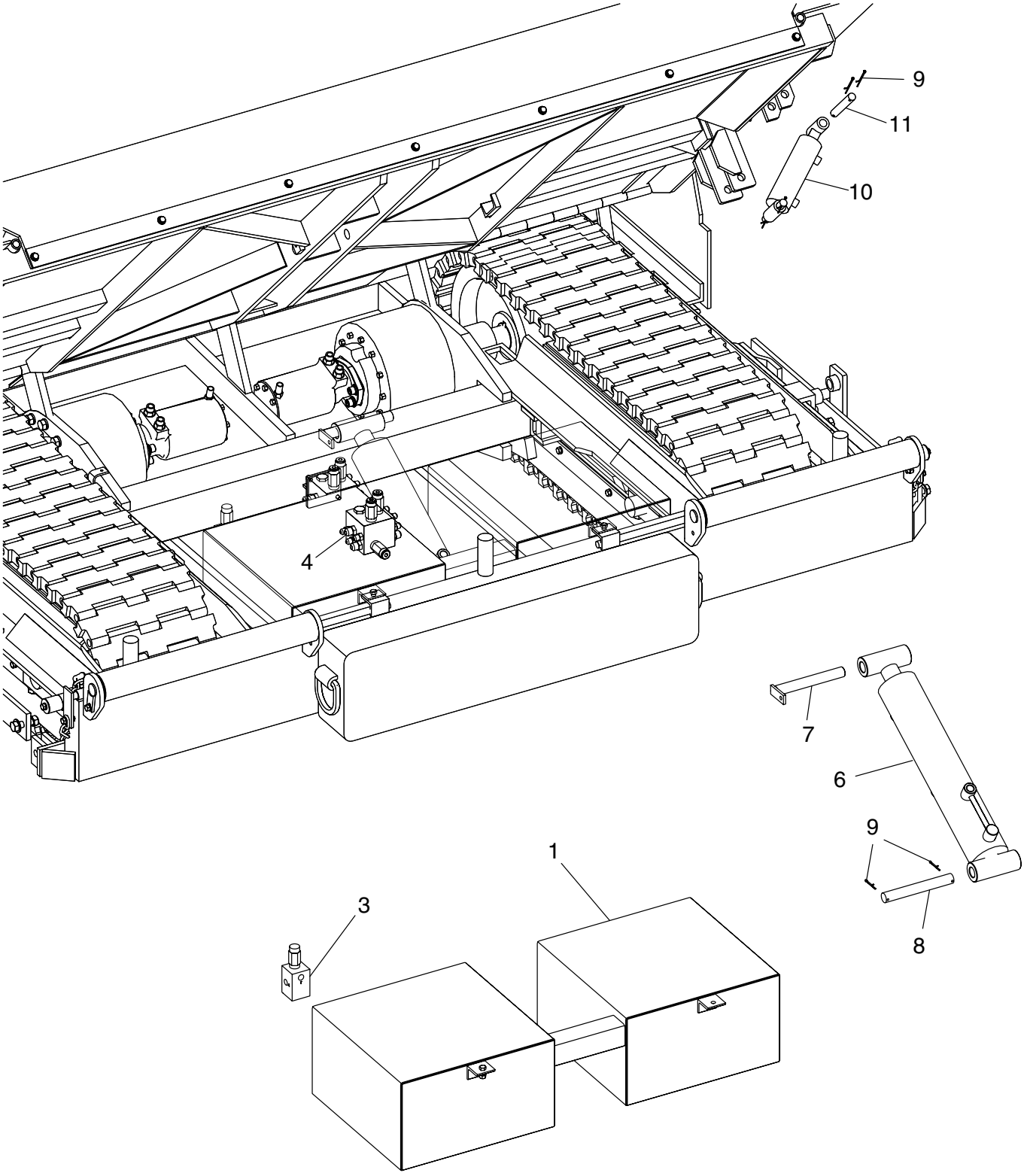


Figure 7-4

Hydraulic Reservoir and Hopper Lift Cylinder Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	840017	1	Tank Weldment, Hydraulic	
3	851544	1	Manifold, Track Tensioner, N/S	
4	910123	1	Manifold, Hopper Wing Sequence	
-	910123-01	1	Vlv, Hyd, Relief Cart	
-	910123-02	1	Vlv, Hyd, Flow Div, Cart	
-	910123-03	1	Vlv, Hyd, Sq2, Cart	
-	910123-04	1	Vlv, Hyd, Sq1, Cart	
6	851434	1	Cyl, Hyd, 3.50 X 18.00 X 2.00 Rod	
7	851619SRV	1	Pin, 1000 Hopper Lift Cyl Top	
8	851618	1	Pin, 1000 Hopper Lift Cyl	
9	80338	10	Pin, Cotter, .188X2.00	
10	910145	2	Cyl, Hyd, Hopper Wing	
-	910145-01	A/R	Seal Kit	
11	910146	4	Pin, Cylinder	

AUGER ASSEMBLY

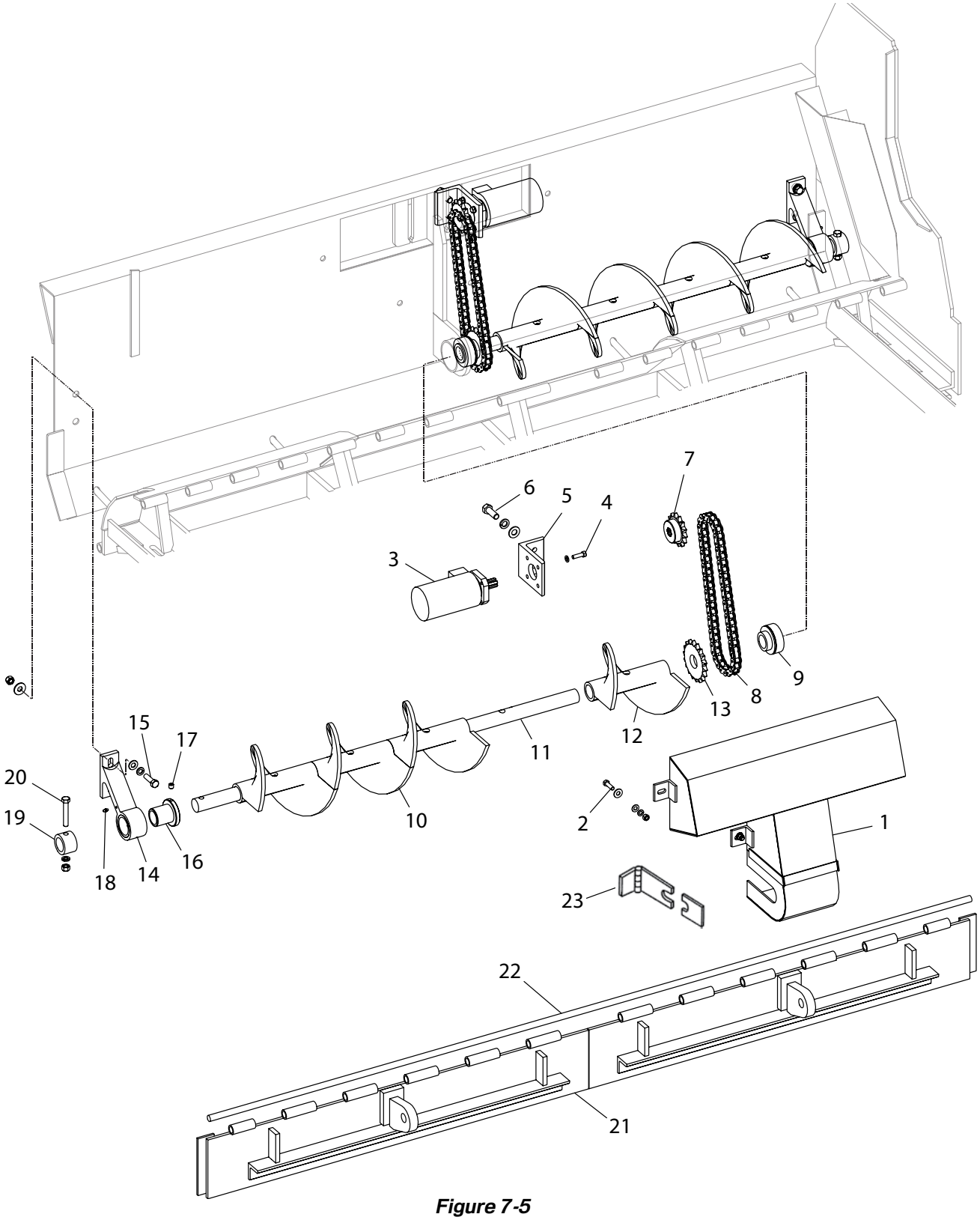


Figure 7-5

Auger Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	984910	Ref.	Group, Auger	
1	900616	1	Cover, Auger Chain Drive	
2	100-6-16-20-5	4	CSHH, 0.375-16 X 1.25 X 1 - Gr5	
>	300-6	8	Washer, Flat, 0.375	
>	302-6	4	Washer, Lock, 0.375	
>	200-6-16	4	Nut, Hex, 0.375-16	
3	987903	2	Motor, Hyd, 20.0 Cir Parker	
4	100-6-16-20-5	8	CSHH, 0.375-16 X 1.25 X 1 - Gr5	
>	302-6	8	Washer, Lock, 0.375	
5	860021	2	Mount, Auger Motor	
6	100-10-11-28-5	4	CSHH, 0.625-11 X 1.75 X 1.5 - Gr5	
>	302-10	4	Washer, Lock, 0.625	
>	300-10	4	Washer, Flat, 0.625	
7	860030	2	Sprocket, 60B14 X 1.00-6 Spline	
>	100-4-20-12-5	2	CSHH, 0.25-20 X 0.75 Gr5	
8	860090	2	Chain, Roller, 60H X 52 Pitch	
9	850130	2	Bearing, Insert, 1.50	
10	853770	1	Auger Assy, Casted (8' 1000 RH)	Include 11, 12, 13
-	853760	1	Auger Assy, Casted (8' 1000 LH)	
11	980691	1	Shaft, Auger	
12	860100C	4	Auger Section RH Casted	
-	860110C	4	Auger Section LH Casted	
13	860035	1	Sprocket, 60A18 X 1.50 Bore	
14	860051HDRSRV	1	Auger Mount, RH	Include 16 - 18
-	860051HDLSRV	1	Auger Mount, LH	Include 16 - 18
15	100-8-13-28-5	2	CSHH, 0.5-13 X 1.75 X 1.25 - Gr5	
>	301-8	2	Washer, Flat, 0.5	
>	302-8	2	Washer, Lock, 0.5	
>	200-8-13	2	Nut, Hex, 0.5-13	
16	851645	1	Collar, Auger Shaft End	Include 17
17	102-8-20-8	1	SSSH, 0.5-20 X 0.5 - HX - N	
18	Ref.	1	Grease Fitting	
19	851647	2	End Cap,Auger Shaft	
20	100-8-13-48-5	2	CSHH, 0.5-13 X 3 X 1.25 - Gr5	
>	301-8	2	Washer, Flat, 0.5	
>	302-8	2	Washer, Lock, 0.5	
21	810304SRV	1	Assy, Cutoff, 1000 8' Rt	Include 22
22	852617	1	Rnd, .688 X 94.00	
23	860043-1SRV	2	Kit, Auger Chain Cover Closing	

HYDRAULIC COMPONENTS AND ACCESSORIES LH SIDE

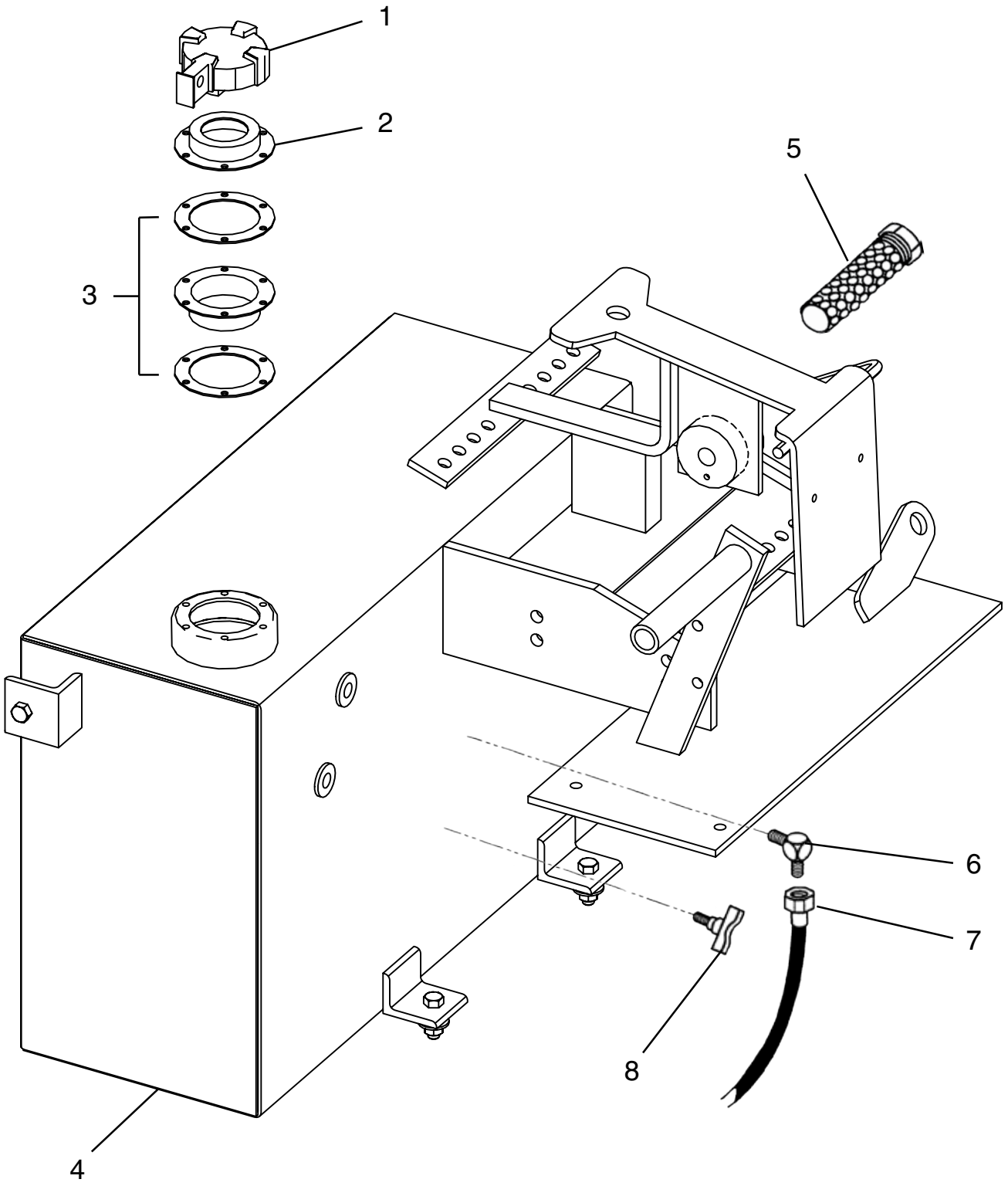


Figure 7-6

Hydraulic Components and Accessories LH Side Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	140030HL	1	Cap, Hyd Oil Tank (Lockable)	
2	140030FN	1	Filler Neck, Hyd Oil/Fuel Cap	
3	140030GK	1	Strainer & Gasket Kit	
4	840014A	1	Tank W/M, Hyd, Top, 1000	
5	36123	1	Strainer, Hyd Suction, 200 Mesh	
6	910129	1	Adapter, Hyd Hose	
7	910128	1	Hose, Vent	
6	910150	1	Valve, Drain Cock, .250 Npt	

VALVE CONTROL STATIONS LH SIDE AND COMPONENTS

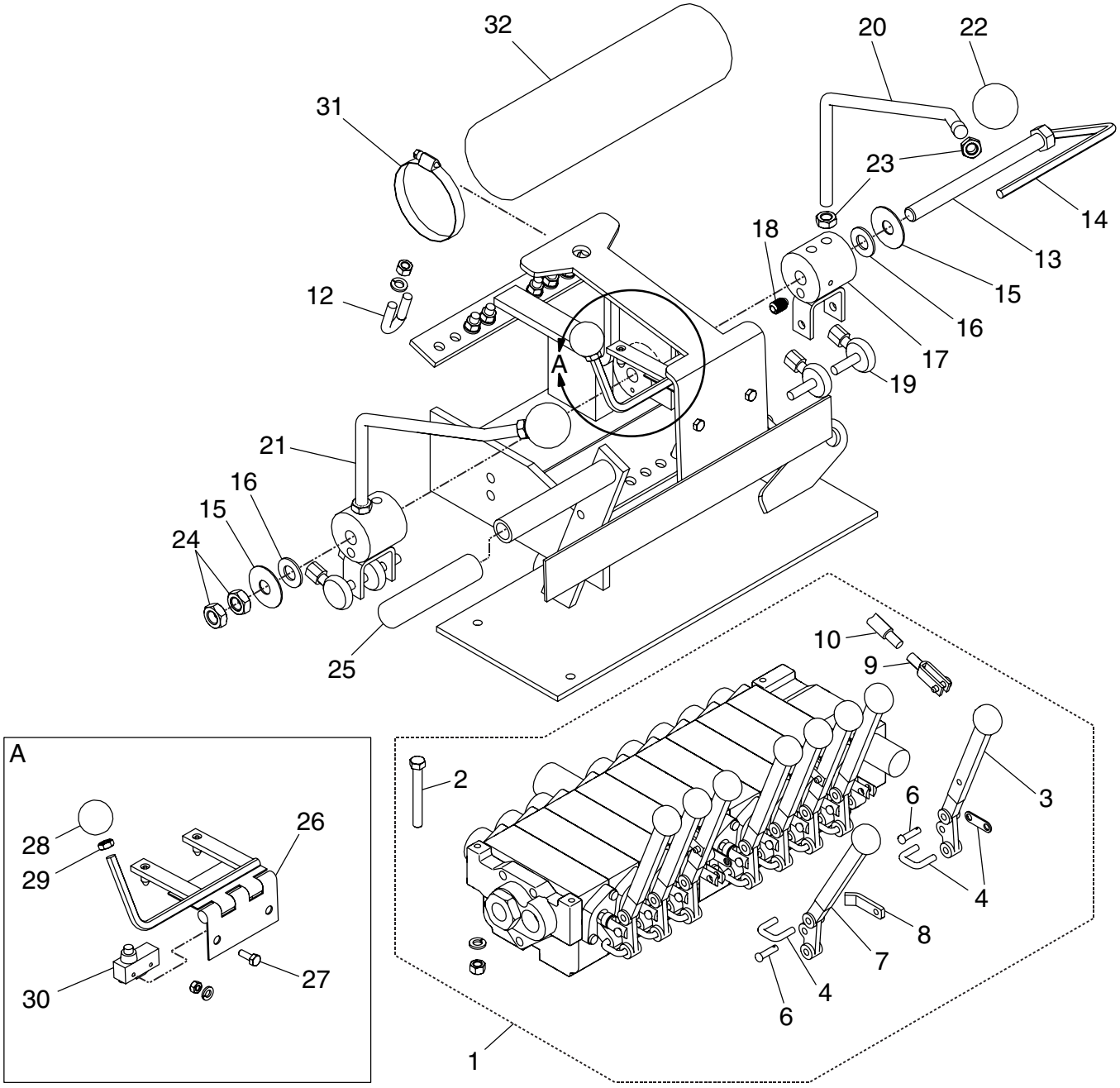


Figure 7-7

Valve Control Stations LH Side and Components Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	982035	1	Valve, Main, 1000	
2	100-6-16-24-5	3	CSHH, 0.375-16 X 3 X 1 - Gr5	
>	302-6	3	Washer, Lock, 0.375	
>	200-6-16	3	Nut, Hex, 0.375-16	
3	910060ASRV	3	Vertical W/ Weldment Handle	
4	901010	9	Link Assy, Valve Lever	Includes item 6
6	350080	9	Pin, Clevis, .250 X .875	
7	910060	6	Handle, Vertical, V-20 Valve	
8	852648	1	Tab, Auto Auger/Screed Valve	
9	350050	3	Clevis, .250-28	
10	920140	2	Cable, Push/Pull, 116" X 3" Stroke	RH DRIVE & VARIOUS CONTROLS
-	920120	1	Cable, Push/Pull, 104" X 3" Stroke	AUGER/PUMP/RH DRIVE
12	350060	7	U-Bolt, .375-16	
13	920229	1	Cshh, .625-11 X 7.50, Gr5	
14	852536	1	Rod, Drive Lever Stop	
15	490080	2	Washer, Belleville 5/8"	
16	300-10	2	Washer, Flat, 0.625	
17	920094SRV	1	Hub Assy, Fwd/Rev Pivot	Includes Item 18
18	920095	2	Ball Plunger, 1/2"-13	
19	920090	4	Ball Joint, .250, FM, W/.375 Stud	
20	920097R	1	Lever, Fwd/Rev, Left Side RH	
21	920097L	1	Lever, Fwd/Rev, Left Side LH	
22	920225	2	Knob, Round Ball, 1-7/8" X 1/2-13	
23	202-8-13	4	Nut, Hex, Jam, 0.5-13	
24	202-10-11	2	Nut, Hex, Jam, 0.625-11	
25	490010	1	Hand Grip, Drive Lever	
26	900029SRV	1	Bracket, Neutral Safety Switch	
27	100-4-20-12	2	CSHH, 0.25-20 X 0.75	
>	302-4	2	Washer, Lock, 0.25	
>	200-4-20	2	Nut, Hex, 0.25-20	
28	851156	1	Knob, Round Ball, 1.375 X .375-16	
29	202-6-16	1	Nut, Hex, Jam, .0375-16	
30	900020	1	Switch, Neutral Safety (N/S)	
31	700620	1	Clamp, Hose, # 52 (3-1/2")	
32	985234-02	1	Manual-Pak Tube, 12.00 X 3.00	

MAIN VALVE MANIFOLD DETAIL

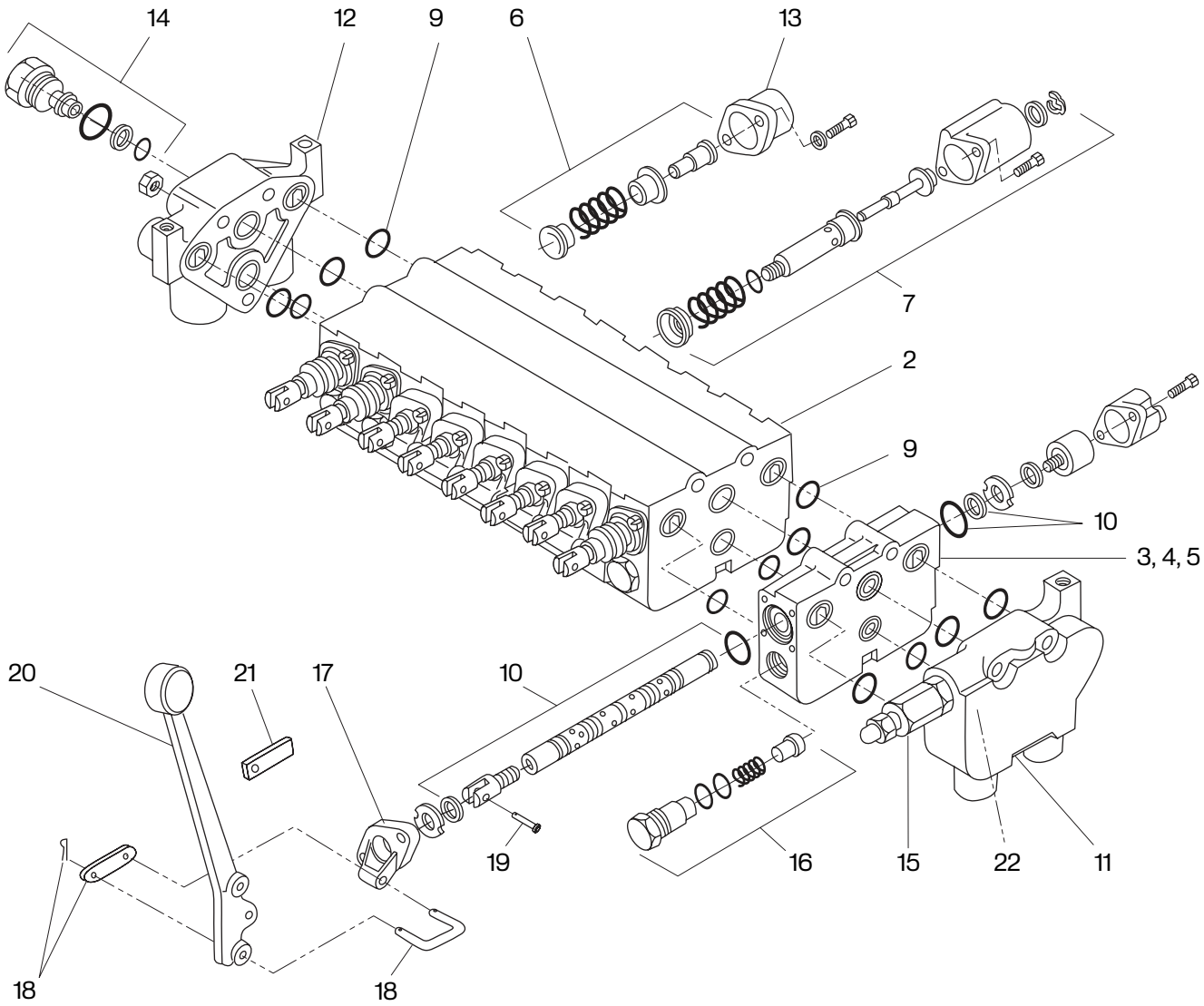


Figure 7-8

Main Main Valve Manifold Detail Parts List

Item No.	Part Number	Qty.	Description	Remarks
2	851161	1	Valve Assy, 9 Section, W/Float	
3	910054	6	Valve Section, Spring Return	
4	910052	2	Valve Section, Detented	
5	910054FLS	1	Valve Section, Float	
6	901014	6	Spring Center Kit	
7	141050	1	Float Positioner Kit	
8	901007	2	Detent Kit	
9	910062	10	Seal Kit, Valve Section	
10	910059	9	Seal Kit, Valve Spool	
-	910065	A/R	Seal Kit, Relief Valve	Not Shown
11	910055	1	Cover, Valve Inlet	
12	910056	1	Cover, Valve Outlet	
13	141040	9	Cap, Valve Spool Cover	
14	901002	1	Power Beyond Sleeve	
15	901009	1	Valve, Main Relief	
16	141020	9	Valve & Plug, Anticavitation	
17	910058	1	Bracket, Valve Lever Mount	
18	901010	9	Link Assy, Valve Lever	
19	350080	9	Pin, Clevis	
20	910060	9	Handle, Vertical	
21	852648	9	Tab, Auger Valve Reverse Lockout	
22	72371	1	Fitt, Test 04MP-02PD	

MAIN VALVE AND SPRAY DOWN

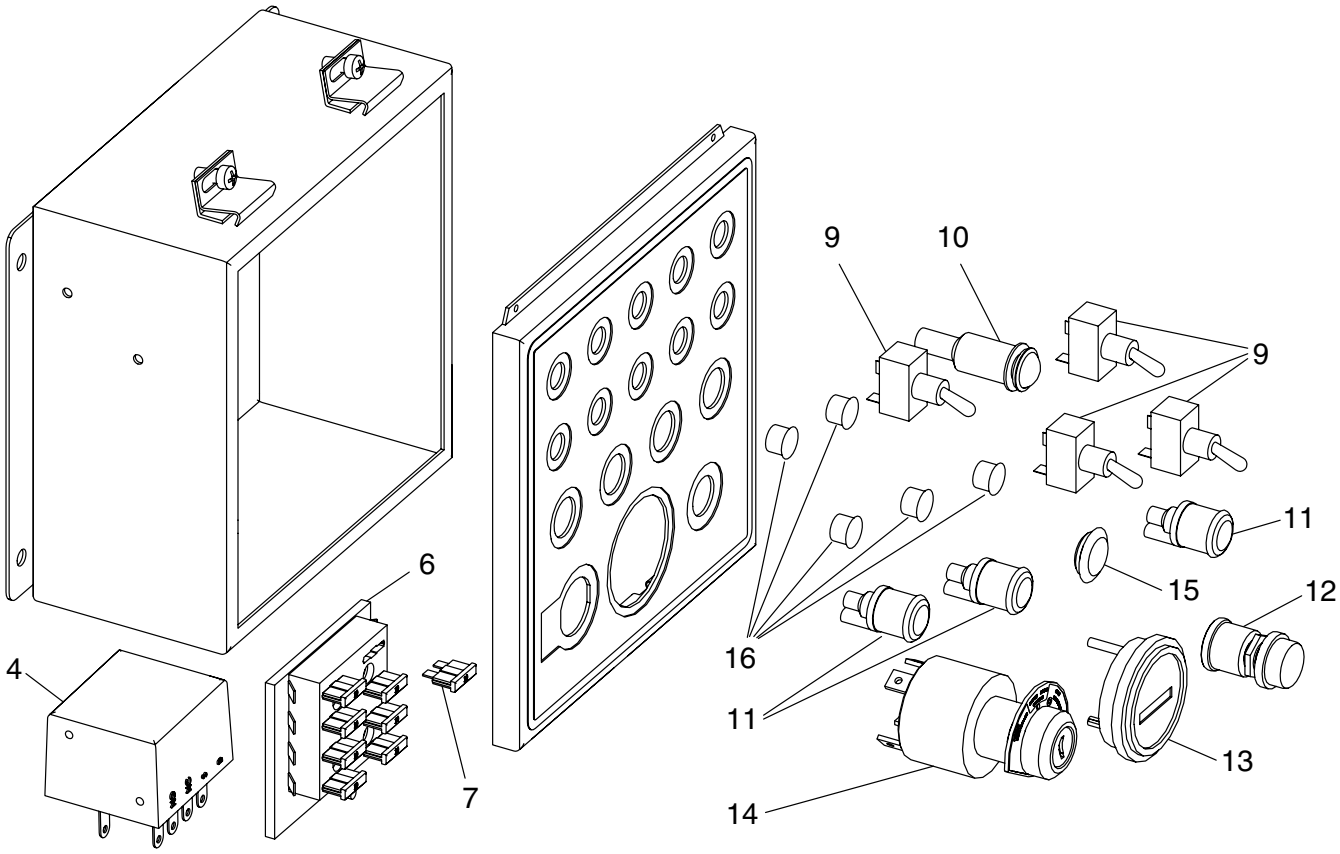


Figure 7-9

Main Valve and Spray Down Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	1008030	1	Panel, Controls 1000 Kubota	Complete Assembly
-	856552-01	1	Decal, Instr	
4	988021-10	1	Switch, Engine Shutdown Relay	
6	851438	1	Fuse Block, 8 Gang, Atc	Not include Fuse
7	36342	8	Fuse, 20 Amp, Atc	
9	500040	4	Switch, Toggle, Spst, 2-Pos	
10	900120	1	Indicator Light, Red, High Gear	
11	1001108-02	3	Light, Red, Indicator	
>	320360	A/R	Light Bulb, Eng Indicator Lamp	
12	982249	1	Switch, Push Button	
13	900130	1	Gauge, Hour Meter, Pavers	
14	39146-14	1	Switch, Ignition, W/Heat St	
>	982008-04	1	Key, Ignition, Kubota, 300B	
15	35136-6	1	Plug, Hole, .750, Flush Mt, Plstc	
16	35136-4	5	Plug, Hole, .500, Flush Mt, Plstc	

FUEL TANK ASSEMBLY

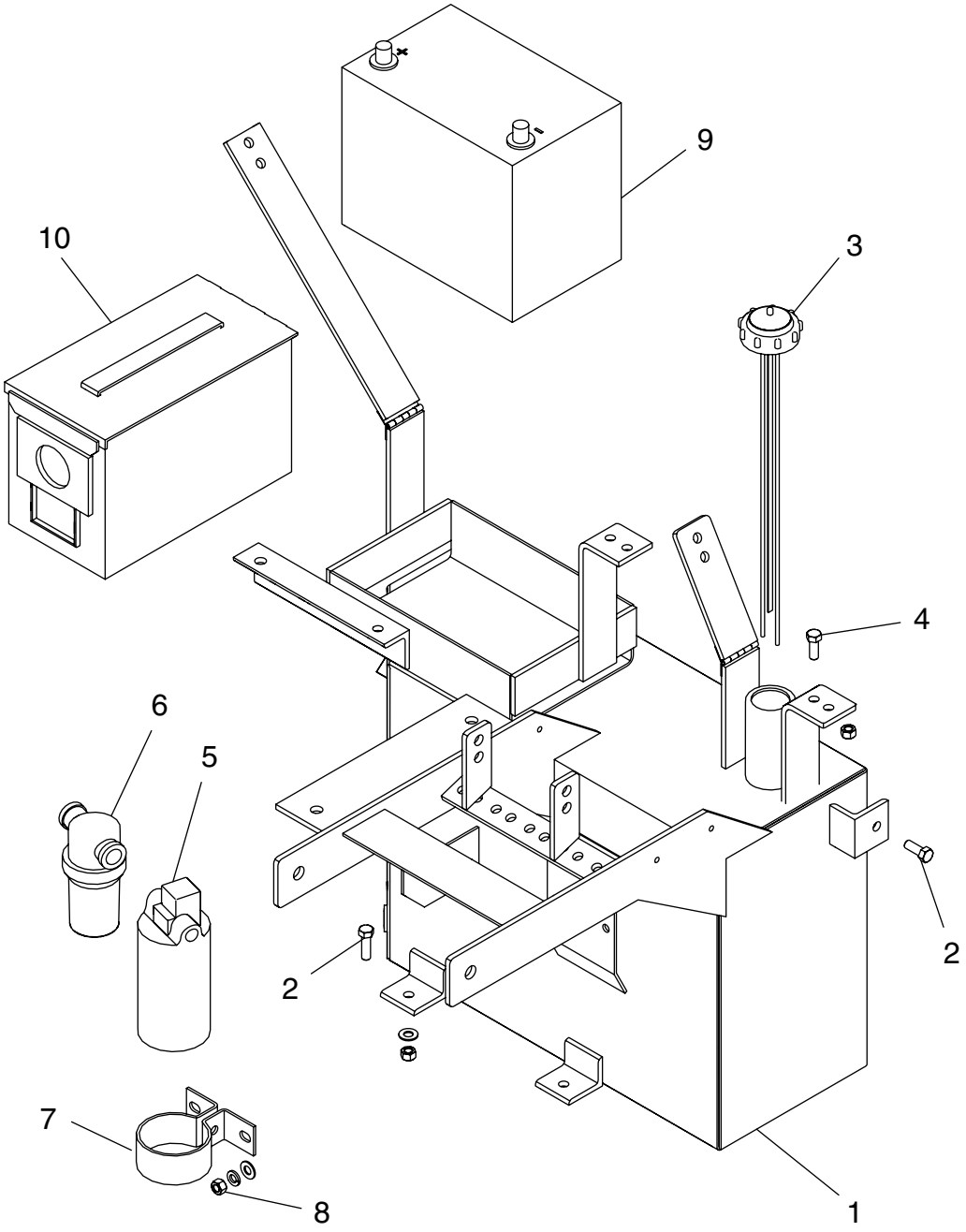


Figure 7-10

Fuel Tank Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	910009SRV	1	Tank W/M, Fuel, 13Gal	
2	100-6-16-8-5	4	CSHH, 0.375-16 X 1 Gr5	
>	302-6	4	Washer, Lock, 0.375	
>	200-6-16	4	Nut, Hex, 0.375-16	
3	910010	1	Cap, Fuel, W/Gauge, 16"/13 Gal	
4	100-6-16-8-5	2	CSHH, 0.375-16 X 1 Gr5	
>	200-6-16	2	Nut, Hex, 0.375-16	
5	1001542	1	Pump, Washdown-Flojet 12V	
6	36926	1	Strainer Assy	Nylon 1/2Pt 100 Mesh
7	480260	1	Bracket, Water/Fuel Pump Mount	
8	200-6-16	2	Nut, Hex, 0.375-16	
>	302-6	2	Washer, Lock, 0.375	
>	300-6	2	Washer, Flat, 0.375	
9	Ref.	1	Battery, 12 Volt, 835CCA, Group 24	Buy Local
10	1006950	1	Toolbox, W/Holes	

RH CONTROL ASSEMBLY

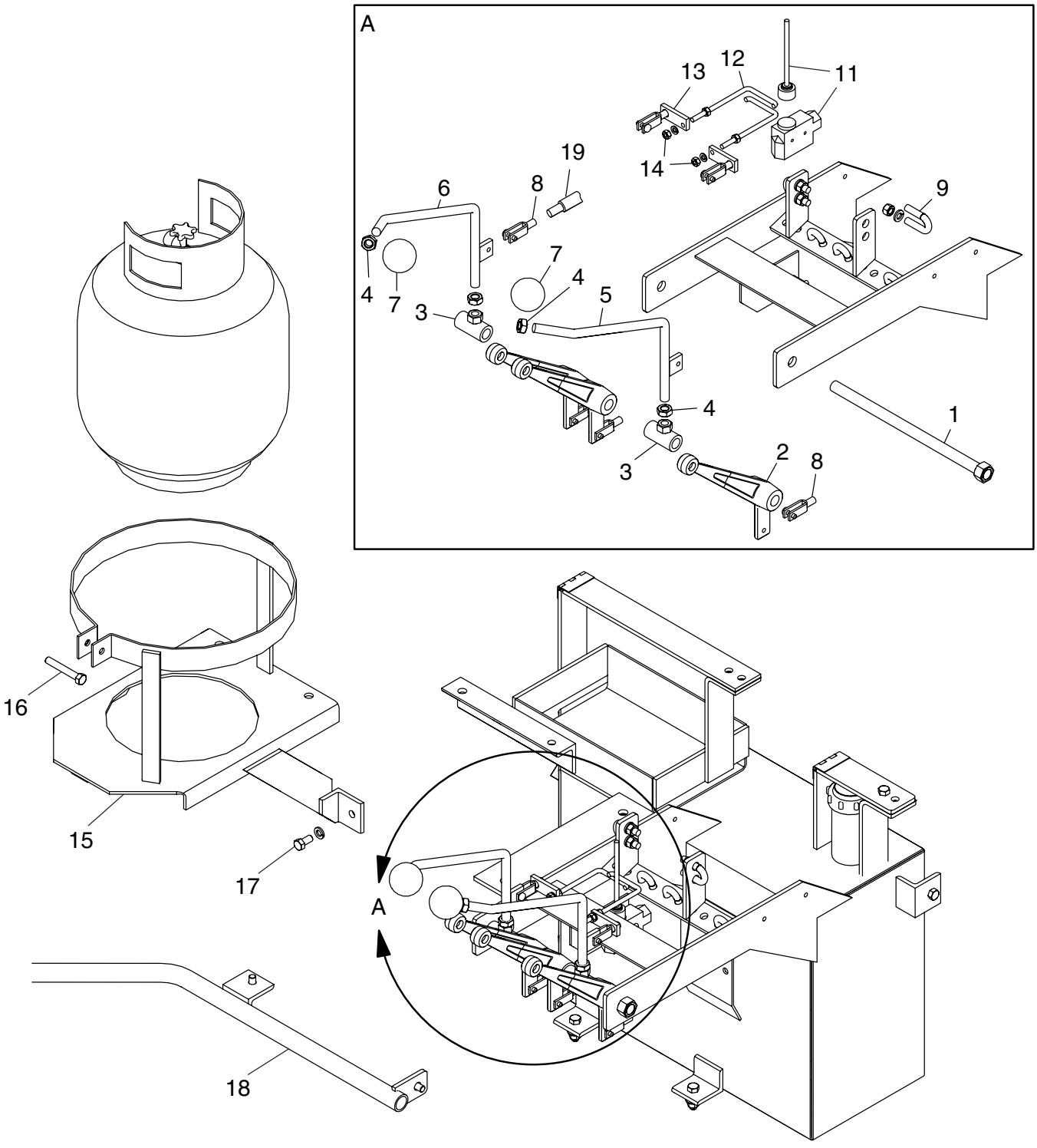


Figure 7-11

RH Control Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	987041	1	Assy, Rod	
2	920210	3	Casted Handle,RH Control	
3	853646SRV	2	Assy, RH Control Lever Mount	
-	852866SRV	1	Handle, RH Auxiliary Drive	Includes items 4, 5, 7
-	852867	1	Handle, LH Auxilary Drive	Includes items 4, 6, 7
4	202-8-16-5	2	Nut, Hex, Jam, 1/2-13, Gr5	
5	920230SRV	1	Lever, Right Side RH Fwd	
6	920228SRV	1	Lever, Right Side LH Fwd	
7	920225	1	Knob, Round Ball, 1-7/8" X 1/2-13	
8	350050	5	Clevis, .250-28	
9	350060	5	U-Bolt, .375-16	
11	33964	1	Switch, Backup Alarm, Neutral	
12	987028	2	Back Up Alarm Rod	
13	1007645	2	Assembly, Back Up Alarm Actuator	
14	302-4	2	Washer, Lock, 0.25	
>	200-4-20-5	2	Nut, Hex, 0.25-20, Gr5	
15	1006350	1	Assy, Gas Bottle	
16	100-6-16-32-5	1	CSHH, 0.375-16 X 2, Gr5	
>	200-6-16-5	1	Nut, Hex, 0.375-16, Gr5	
17	100-6-24-12-5F	3	CSHH, 0.375-24 X 0.75, Gr5 F	
>	302-6	3	Washer, Lock, 0.375	
18	1007646	1	Assembly, Hand Rail, 1000 Paver	
19	920124	2	Cable, Push/Pull, 88" X 3" Stroke	FWD/REV

PROPANE HEATER ASSEMBLY AND AUTOMATIC IGNITORS

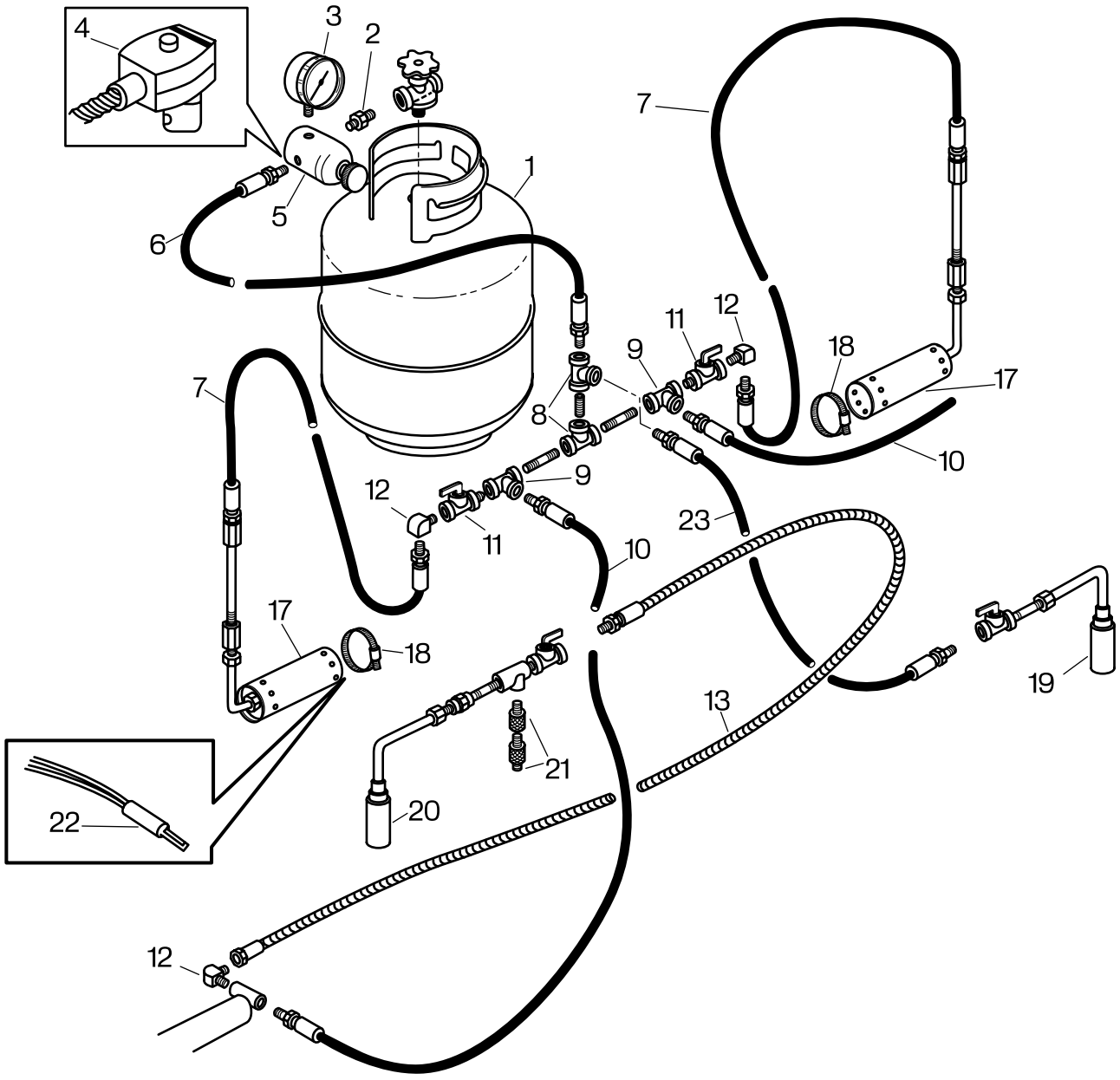


Figure 7-12

Propane Heater Assembly and Automatic Ignitors Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	230010	1	L.p.g. Tank, 20 Lbs	
2	230030	1	Adapter, P.o.l.	
3	230110	1	Gauge, L.p.g. Pressure	
4	230300	1	Solenoid Valve, 12 Volt L.p.g.	
5	982515	1	Regulator W/Gauge, L.p.g.	
6	230032	1	Hose, L.p.g. Regulator To Tee	
7	230034	2	Hose, Ignitor Burner	
9	230081	2	Tee, .250 Street	
10	230038	2	Hose, Screed Extension Burner	
11	1008544	5	Valve, Selector (Cutoff)	
12	230069	3	Adapter, Hose To Pipe (90 Deg)	
13	851225	2	Hose, Screed Extension Burner	
17	982504	2	Burner, Screed Extension	
18	230240	2	Hose Clamp, 2.125 (Size 28)	
19	1008652	A/R	Burner Nozzle, Ignitor	
20	1008654	2	Burner Nozzle, Screed Extension	
21	230084	2	Quick Disconnect Coupling	
22	230024	2	Ignitor, Ceramic, Hot Surface	
23	230034	1	Hose, Ignitor Burner	

ENGINE COMPONENTS

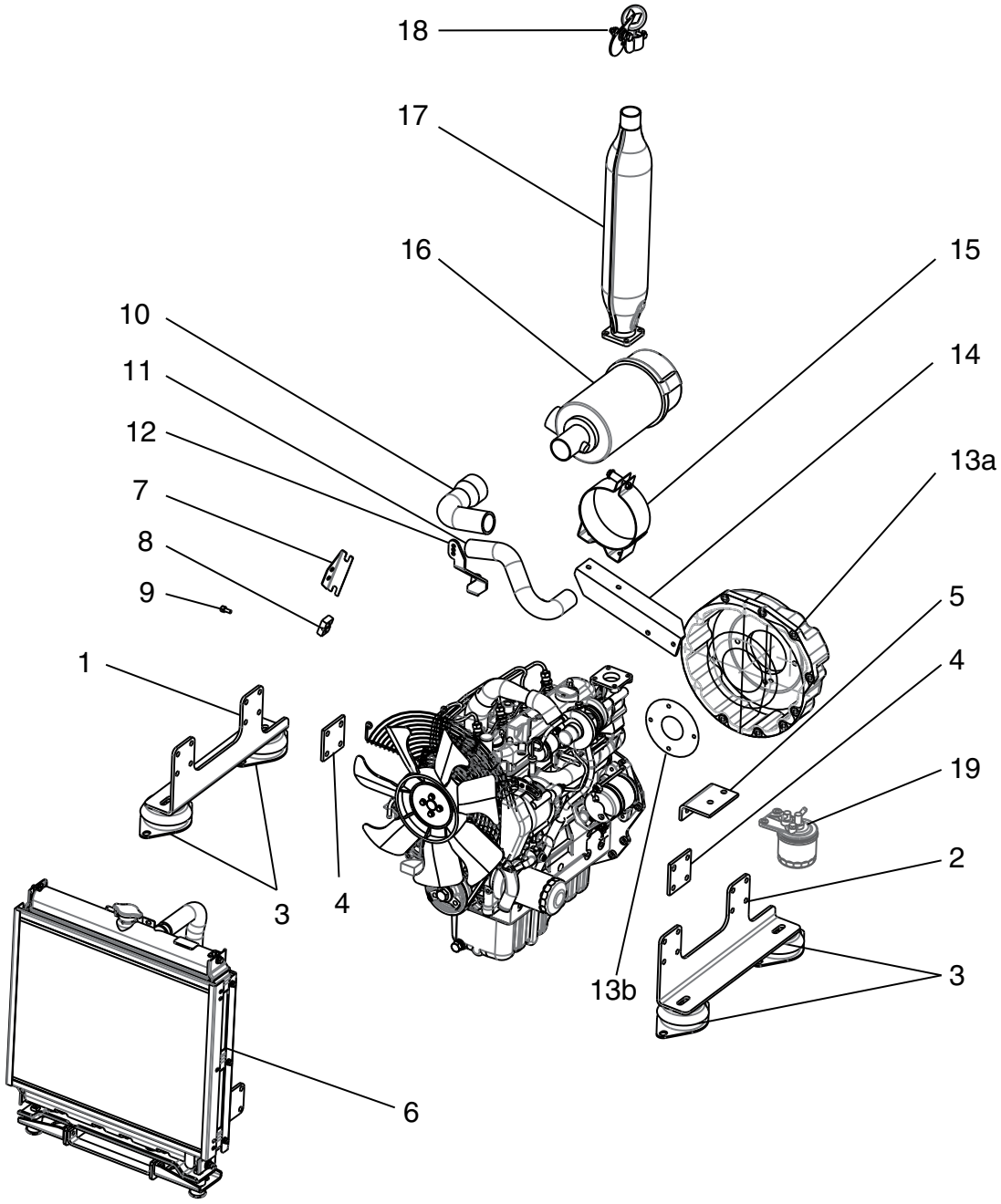


Figure 7-13

Engine Components Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	1000867-14	1	Left Mount Rail 1505	
2	1000867-13	1	Right Mount Rail 1505	
3	986775-14	4	Mount, Engine, Kubota 44Hp	
4	1000867-15	1	Series Spacer	
5	1000867-01	1	Mount, Fule Filter	
6	1007889	1	Assy, Radiator	
7	1000867-21	1	Brkt, Throttle Cable, Kub	
8	1000867-22	1	Brkt, Throttle Cable Clamp, Kub	
9	1000867-23	1	Pin, Throttle Cable Pivot, Kub	
10	1000867-18	1	Hose Intake Ac V1505t	
11	1000867-17	1	Breather Pipe Closed	
12	1000867-09	1	Radiator Support Upper	
13	1000867-28	Ref.	Pump Mount, V1505b Kubota	Includes 13a, 13b
13a	1000867-48	1	Pump Mount, Housing, V1505 Kubota	
13b	1000867-49	1	Pump Mount, Coupling, V1505 Kubota	
14	1000867-12	1	Air Cleaner Bracket	
15	986598-11	1	Clamp, A/C Mount, 5", Kubota	
16	1000867-27	1	Air Cleaner Assy, 1000F Paver	
-	32385-01	1	Filter, Air, Primary, Kub	
-	38385-02	1	Filter, Air, Secondary, Kub	
17	1000867-26	1	Muffler, V1505b Kubota	
>	1009241SRV	1	Assembly, Muffler Clamp, Kubota	
18	1000867-24	1	Rain Cap, Muffler, Kub	
19	1000867-29	1	Filter Head, Fuel Kit, Kub	
-	982080-02	1	Filter, Fuel, Kub	
-	986537-03	1	Filter, Oil, Kub	
-	986537-31	1	Filter, In-Line, Kub	
-	1000867-08	1	Harness, Engine V1505	
-	982080-32	1	Harness, Switch Panel	
-	988021-10	1	Switch, Engine Shutdown Relay	
-	1001108-02	1	Light, Red, Indicator, 1000 Kubota Control Panel	
-	39146-14	1	Switch, Ignition, W/Heat St	

ENGINE COMPONENTS (CONT.)

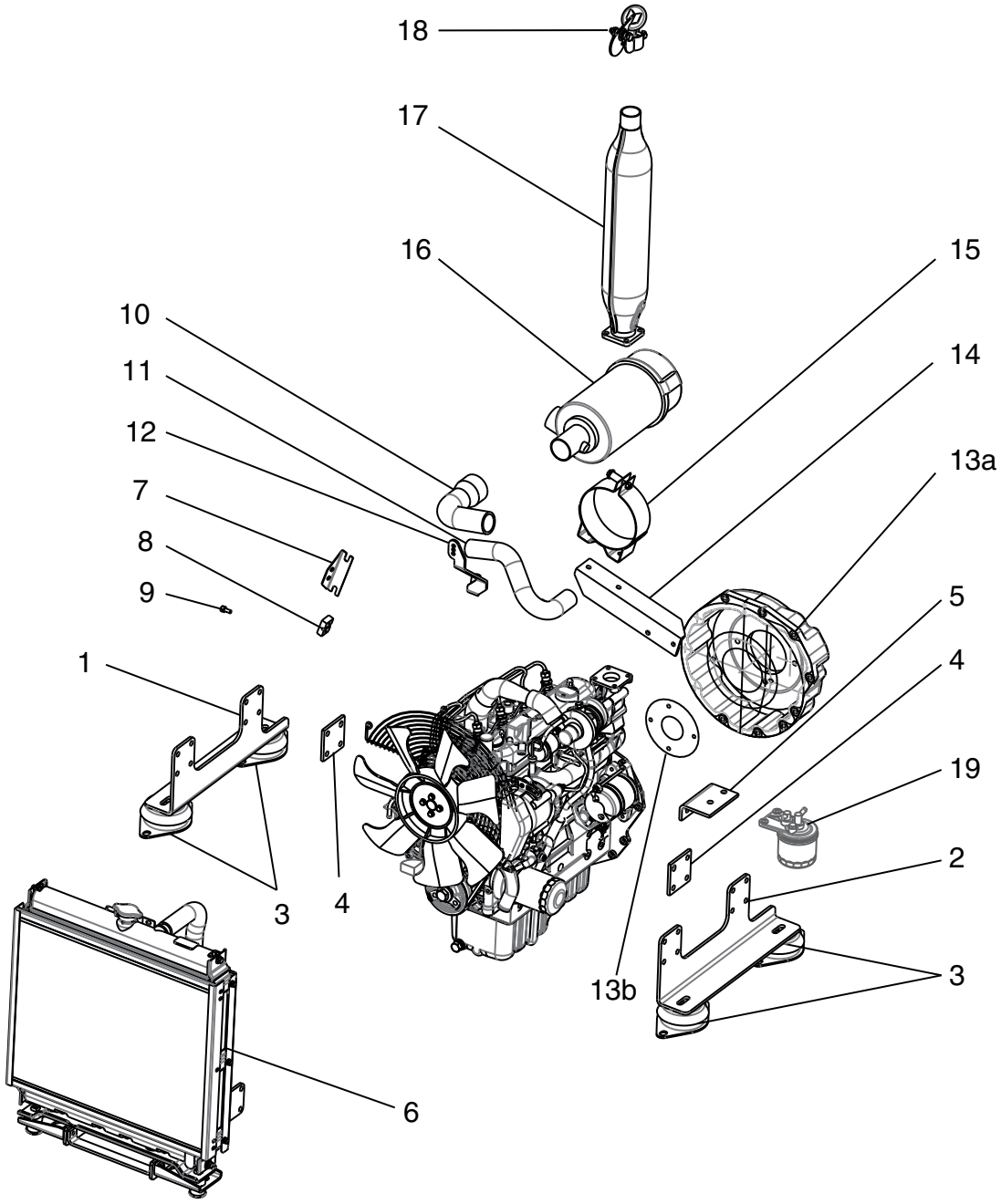


Figure 7-13

Engine Components (Cont.) Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	1000867-31	1	Isolator, Rad Mnt, Upper	
-	1000867-32	1	Cable,Throttle	
-	1000867-33	1	Dip Stick, Engine, V1505b Kub	
-	1000867-34	1	Dip Stick, Guide, Engine Kub	
-	38844-1	1	Filter, Fuel, Gas	
-	320237	1	Pump, Hyd, Piston, Tandem, V V	
-	986598-09	1	Belt, Alternator, Kubota Engine	
-	1000870SRV	1	Guard Assembly, Engine	
-	1000867-06	1	Cap,Radiator, V1505b Kub	
-	1000867-36	1	Belt Guard, V1505b Kub	
-	1001021-01	1	Fuel Pump, Kubota	Includes 1001021-02
-	1001021-02	1	Gasket, Fuel Pump, Kubota	
-	1000867-44	1	Exhaust Manifold, Kubota	
-	1000867-45	1	Kit, Flange, Turbo/Muffler	

PUMP COMPONENTS

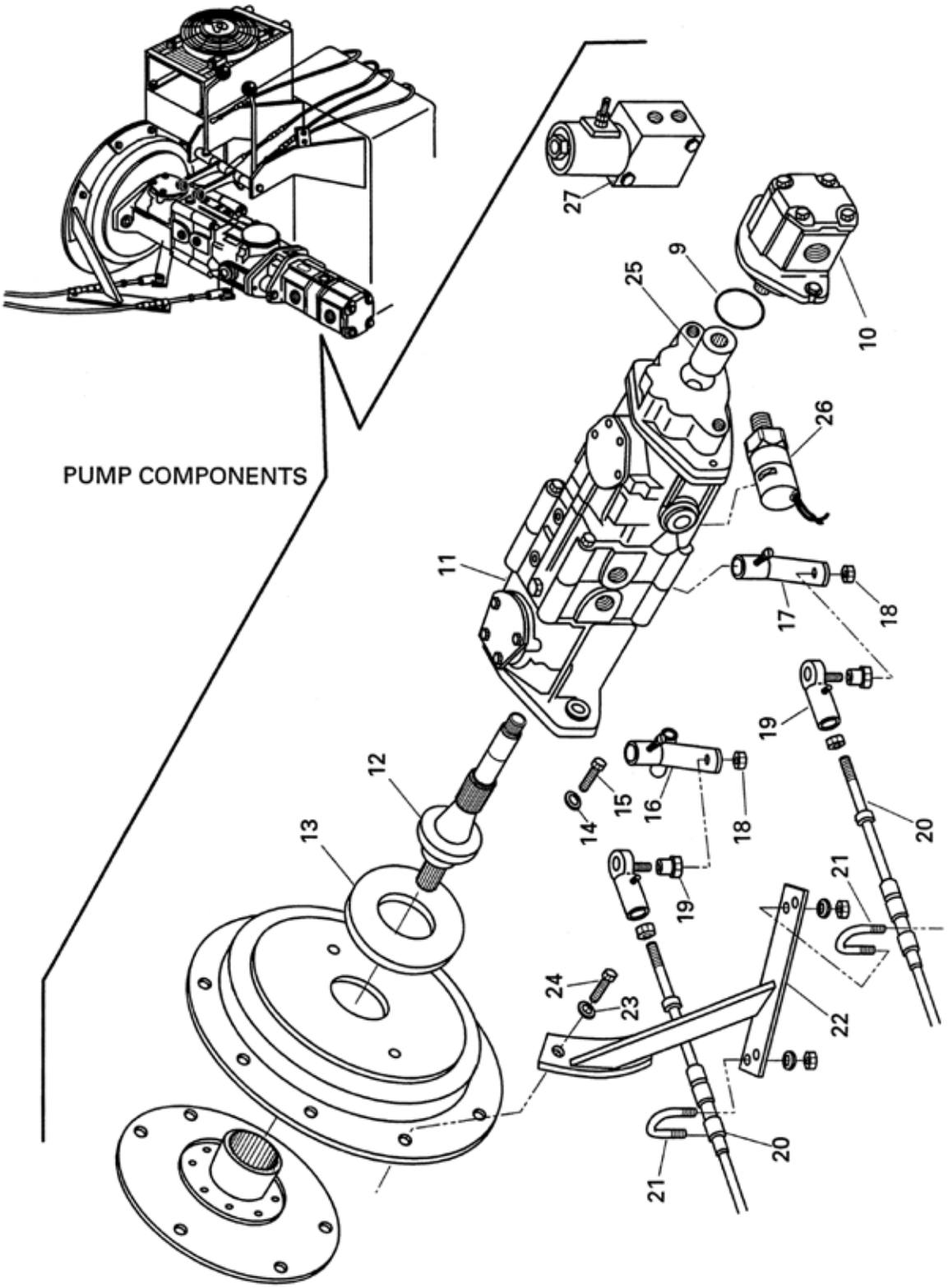


Figure 7-14

Pump Components Parts List

Item No.	Part Number	Qty.	Description	Remarks
9	36808	1	O-Ring, Piggyback To Main Pump	
10	320232	1	Pump, Auger And Cylinders, Single Piggyback	
11	320237	1	Pump, LH And RH Drive, Sundstrand	
12	851495A	1	Shaft, Seal Size 2.875 Outside	
12a	851495		Shaft, Seal Size 1.625 Outside	
13	851489	1	Seal, Front Sundstrand, 1.625 Outside	
13a	851489A		Seal, Front Sundstrand, 2.875 Outside	
14	204-8-13	2	Washer, Lock, .500-13	
15	811364	2	CSSH, .500-13 X 1.50, Gr5	
16	320245	1	Arm, Left Drive	
17	900025	1	Arm, Right Drive	
18	204-6-16	2	Nut, Lock, 0.375-16	
19	920090	2	Spherical Rod End, W/ Stud	
20	920120	2	Cable, RH Drive, Augers And Pump, 104 X 3.00	
21	350060	1	U-Bolt, .375	
22	920125SRV	1	Bracket, Pump Cables	
23	320142	2	Washer, Lock, M10	
24	320227	2	CSHH, M10-1.50 X 30mm	
25	851160-2	1	Drive Coupling, Tandem Pump	
26	851504	1	Backup Alarm, Pressure Switch	
27	320244	1	Solenoid, Neutral Pause	
-	320244K	A/R	Solenoid, Neutral Pause Kit	

VIBRATOR ASSEMBLY

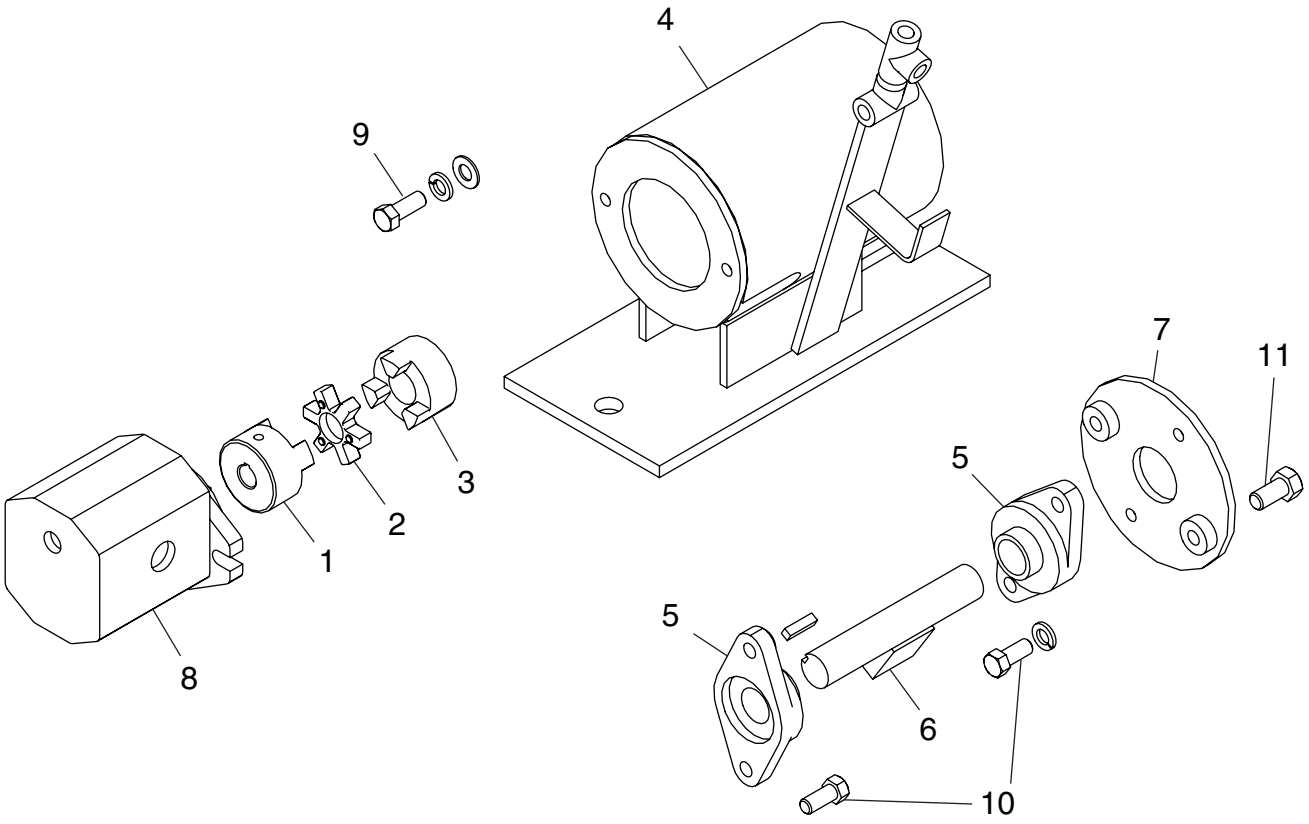


Figure 7-15

Vibrator Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	280030	1	Coupling Half, Tack Pump Motor	
2	280040	1	Insert, 3-Jaw Coupling	
3	880030	1	Cplg Half, 3 Jaw, 1”	
4	880042	1	Housing, Vibrator Eccentric	
5	250150	2	Bearing, Conveyor Pulley/ Vibrator Shaft	
6	880062	1	Shaft, Vibrator Eccentric	
7	880071	1	Plate, Vibrator Housing	
8	983405	1	Motor, Hyd, Gear, 1.17 Cir, "A"	
9	100-7-14-18-5F	2	CSHH, 0.4375-14 X 1.125, Gr5 F	
>	302-7	2	Washer, Lock, 0.4375	
>	300-7	2	Washer, Flat, 0.4375	
10	100-7-14-16-5F	4	CSHH, 0.4375-14 X 1, Gr5 F	
>	302-7	4	Washer, Lock, 0.4375	
11	100-8-13-16-5F	2	CSHH, 0.5-13 X 1, Gr5 F	

JOINTER ASSEMBLY

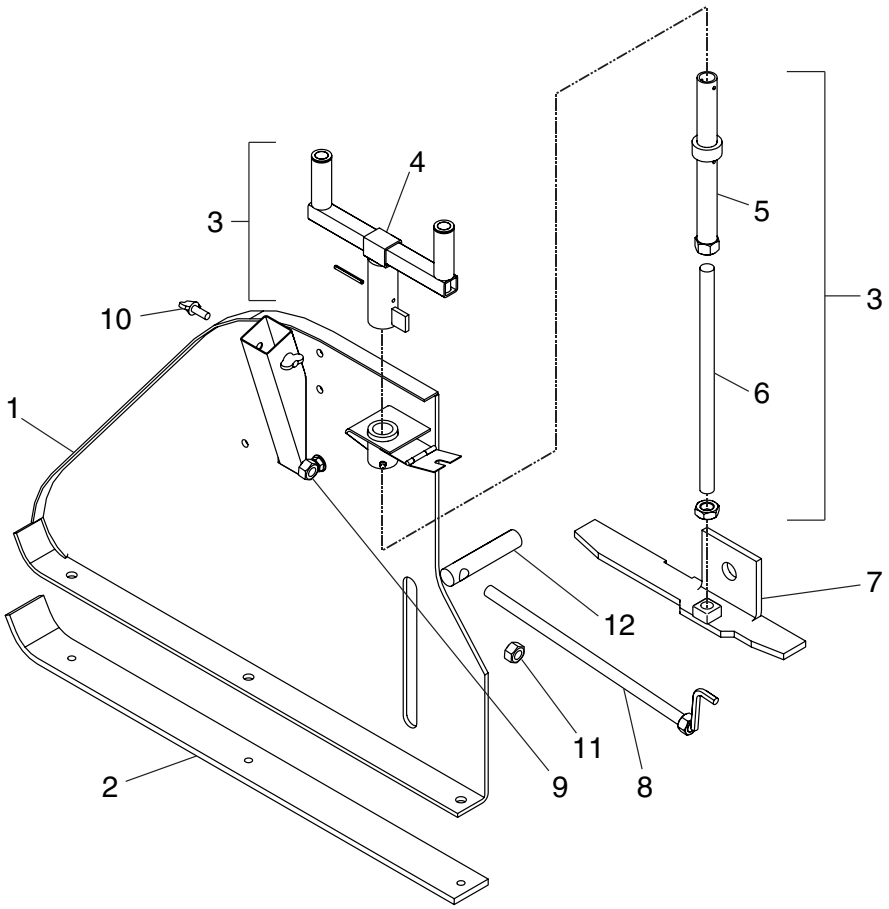


Figure 7-16

Jointer Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	851682SRV	1	Jointer Assy, LH	
-	851683SRV	1	Jointer Assy, RH	
2	982963SRV	2	Wear Plate, End Gate	
3	890092SRV	2	Depth Screw Assy, Screed	
4	890102	2	Assy, Handle W/Slide	
5	855728	2	Sub Assy, Depth Screw Handle	
6	890121SRV	2	Thd'd Rod, .75-10 X 12.00	
7	855262L	2	Bracket, LH Depth Screw Bottom	
>	855262R	1	Bracket, RH Depth Screw Bottom	
8	890081SRV	2	Tilt Screw, Jointer Assy	
9	890070	2	Nut & Bolt Assy, Tilt Screw	
10	920070	4	Thumb Screw, .375-16 X 1.00	
-	851595	2	Sonamat Wiring Harness (Not Shown)	
11	987396	4	Nut, Nylon Lock, 7/8-9 Unc-2B	
12	855579	2	Rnd, 1.000 X 4.50, CRS, Hole	

EXTENDIBLE SCREED ASSEMBLY (REAR SECTION)

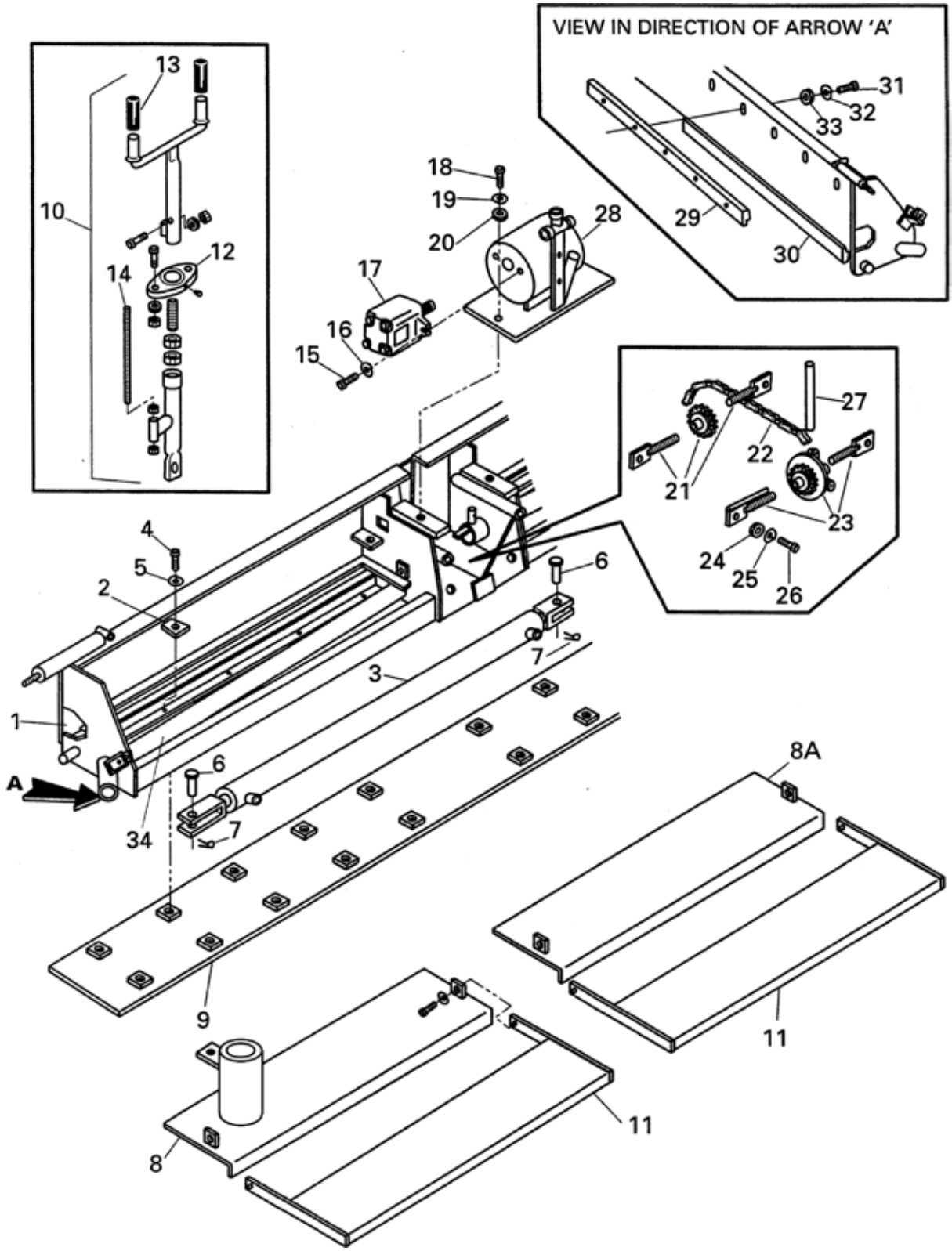


Figure 7-17

Extendible Screed Assembly (Rear Section) Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	981024SRV	1	Screed Assembly, Complete, BB	
1	851597SRV	1	Screed, Base, BB	
2	121-3	20	Washer, Beveled, .375 X 1.25	
3	870140	2	Hyd. Cylinder, Screed Extension	
3a	981860-01	A/R	Seal Kit, Cylinder	
4	100-6-24-16-5	20	Cshh, .375-24 X 1.00	
5	300-6	20	Washer, Flat, .375	
6	240030	2	Pin, Cylinder	
7	870307	2	Pin, Cotter	
8	855766LSRV	1	Lid, Screed Left Side	
8a	855766RSRV	1	Lid, Screed Right Side	
9	851598SRV	1	Wear Plate, Main Screed	
10	870042ASRV	2	Flight Screw	
11	851554SRV	2	Walk Board	
12	870030	2	Bearing, Flange	
13	870276	A/R	Grip, Handle	
14	851372SRV	2	Rod Gauge	
15	100-7-14-20-5	4	CSHH, .437-14 X 1.25, Gr5	
16	300-7	4	Washer, Flat, .438	
17	870220	1	Motor, Hydraulic Screed Vibrator	
18	100-10-11-20-5	2	CSHH, .625-11 X 1.25, Gr5	
19	302-10	2	Washer, Lock, .625	
20	300-10	1	Washer, Flat, .625	
21	870172	1	Turnbuckle, Crown And Valley, Front	
22	870190	1	Chain, Crown And Valley	
23	870182	1	Turnbuckle, Crown And Valley, Rear	
24	300-10	2	Washer, Flat, .625	
25	302-10	2	Washer, Lock, .625	
26	100-10-11-24-5	2	CSHH, .625-11 X 1.50	
27	851195SRV	1	Handle, Crank	
28	870232SRV	1	Vibrator, Screed Assembly	
29	855784	1	Guide, Extension Top	
30	855783	1	Guide, Extension Bottom	
31	100-8-13-32-5	5	CSHH, .500-13 X 2.00	
32	302-10	5	Washer, Lock, .625	
33	300-10	5	Washer, Flat, .625	
34	851197-1SRV	A/R	Pipe, Screed Burner, Main	

BB EXTENSION - SCREED ASSEMBLY

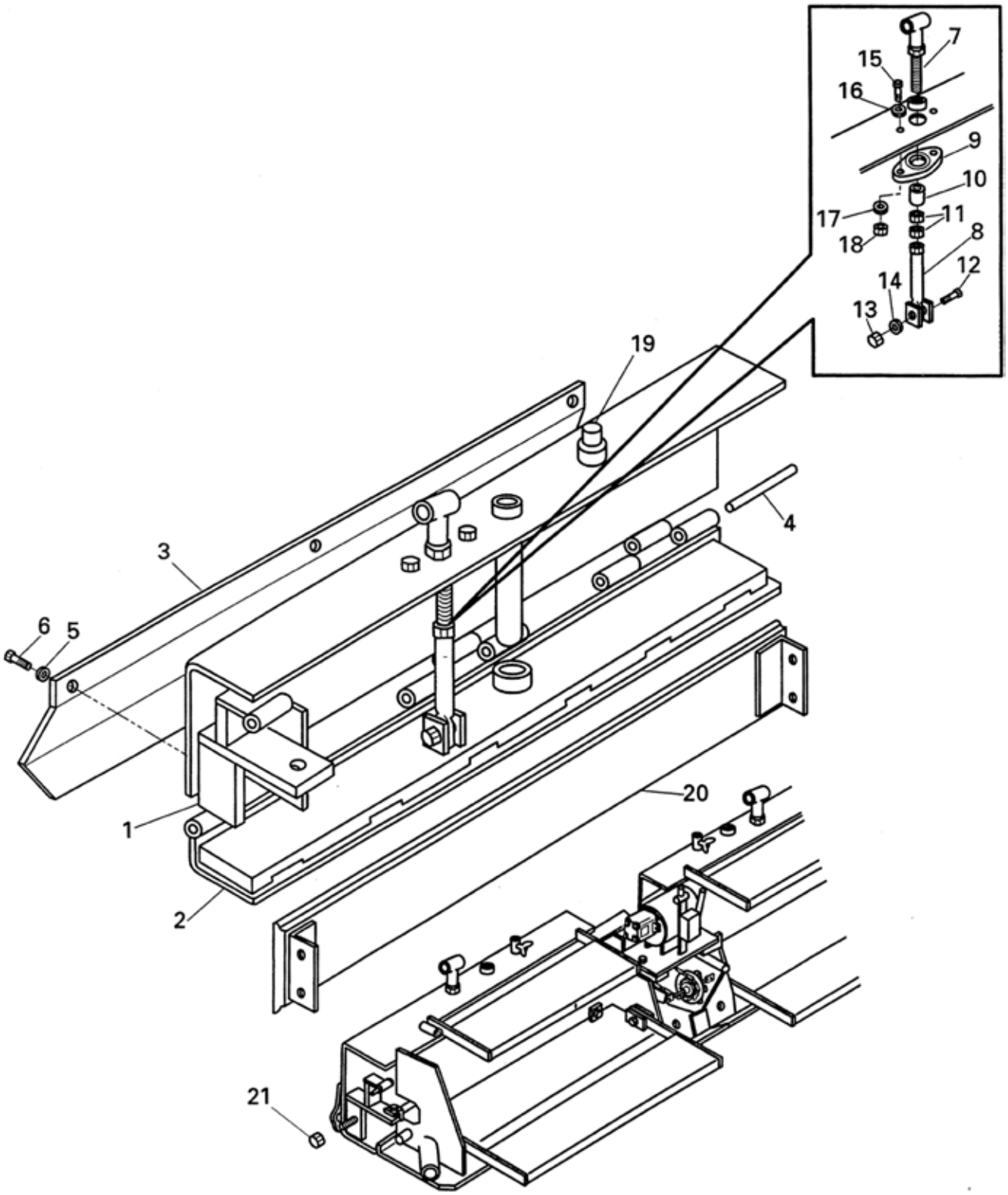


Figure 7-18

BB Extension - Screed Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	851600SRV	1	Extension, Screed, BB, LH	
1a	851601SRV	1	Extension, Screed, BB, RH	
2	851602SRV	2	Screed, Lower Extension	
3	851180LSRV	1	Guard, Extension, LH	
3a	851180RSRV	1	Guard, Extension, RH	
4	854447SRV	1	Rnd, .688 X 43.50 CRS	
5	302-6	3	Washer, Lock, .375	
6	100-6-16-16-5F	3	CSHH, 3/8-16 X 1, Gr5, Ft	
7	851603SRV	1	Pipe Nut, Screed Extension Screw, BB	
8	851603SRV	1	Pipe Nut, Screed Extension Screw, BB	
9	870030	1	Bearing, Screed Flight Screw	
10	854444	1	Bushing Flange Bearing 1.00 X .750	
11	202-12-10	2	Nut, Hex, .750-10	
12	870279	2	Bolt, Shoulder	
13	204-6-16	1	Nut, Lock, .375-16	
14	302-6	2	Washer, Lock, .375	
15	100-7-14-32-5F	2	CSHH, .437-14 X 2.00, Gr5	
16	300-7	2	Washer, Flat, .438	
17	302-7	2	Washer, Lock, .438	
18	200-7-14	2	Nut, Hex, .438-14	
19	851183	1	Coupling	
20	851552SRV	1	Slide, Extension	
21	987396	2	Nut, Nylon Lock, 7/8-9 Unc-2B	

BB SCREED ARM ASSEMBLY

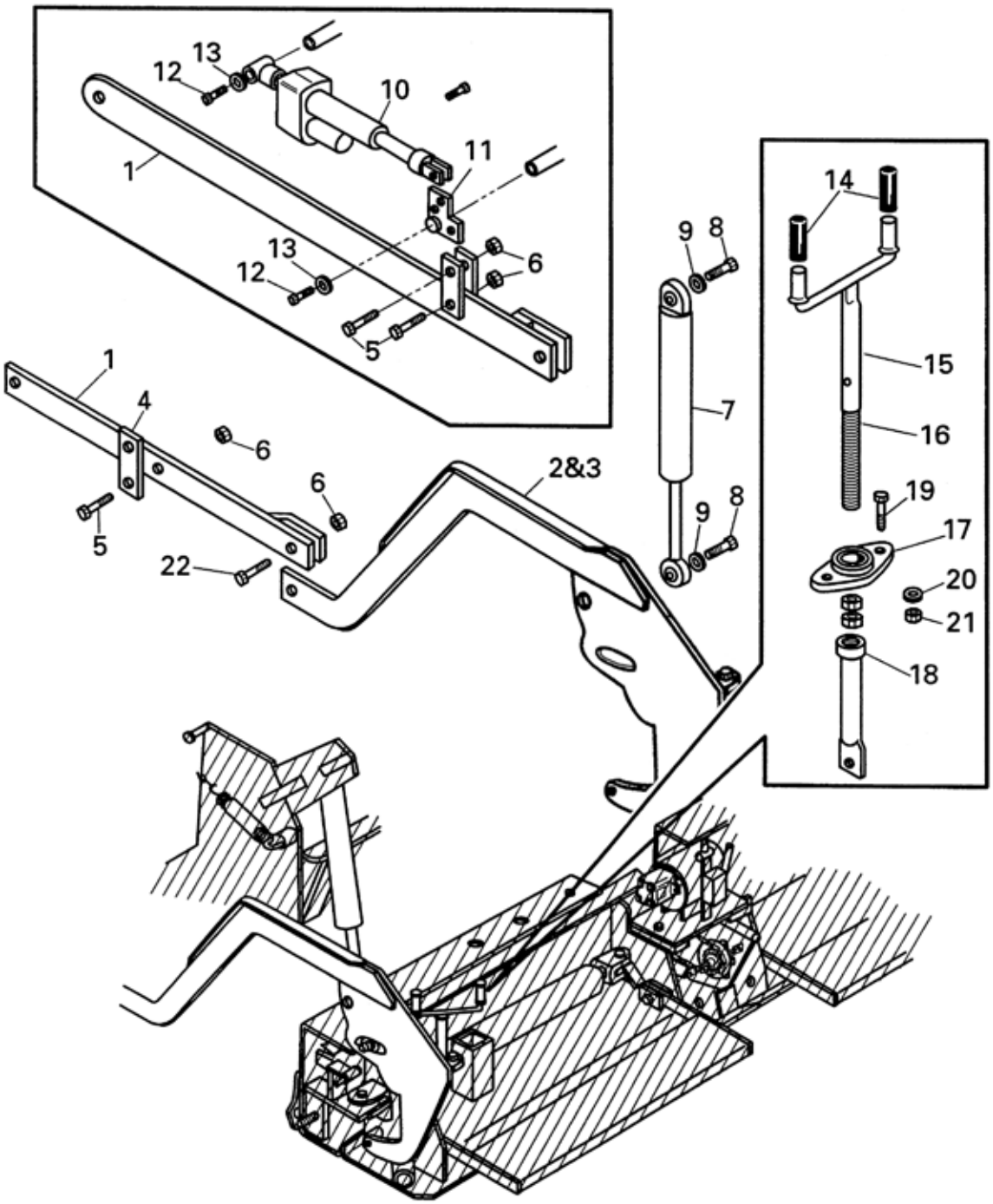


Figure 7-19

BB Screed Arm Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	852461SRV	1	Arm,Screed LH	
-	852459SRV	1	Arm, Screed RH	
2	851607SRV	1	Arm, Screed Rear (Left Side)	
3	851606SRV	1	Arm, Screed Rear (Right Side)	
4	851210	2	Ears, Pivot	
5	100-10-11-40-5	2	CSHH, 5/8-11 X 2.5, Gr5	
6	202-10-11	2	Nut, Lock 5/8"	
7	851436	2	Cylinder, Lift (2X12)	
7A	851484		Seal Kit, 2" Cylinder	
8	100-16-14-48-8	1	Cshh, 1.000-14 X 3.00, Gr8	
9	302-16	1	Washer, Lock 1"	
10	870302	1	Screw, Electric	
11	851209	1	Mount, Pivot	
12	851134	2	Bolt, 3/8"-16 X 3/4"	
13	119-3	2	Washer, Fender 3/8"	
14	870276	A/R	Hand Grip, Flight Screw / Depth Screw	
15	870042A	2	Flight Screw Assy. Screed	
16	870042A	2	Screw, Adjuster	
17	870030	2	Bearing, Screed Flight Screw	
18	870042A	2	Flight Screw Assy. Screed	
19	860048	2	Cap Screw, 7/16U X 2"	
20	300-7	2	Washer, Flat 7/16"	
21	200-8-13	2	Nut, Hex, 0.5"	
22	100-10-11-40-5	1	CSHH, 5/8-11 X 2.5, Gr5	
23	986137-01	1	Decal Kit	
Opt.	982093SRV	1	Opt, Electric Flight Screws	

ELECTRIC SCREW FOR GRADE CONTROL OPTION

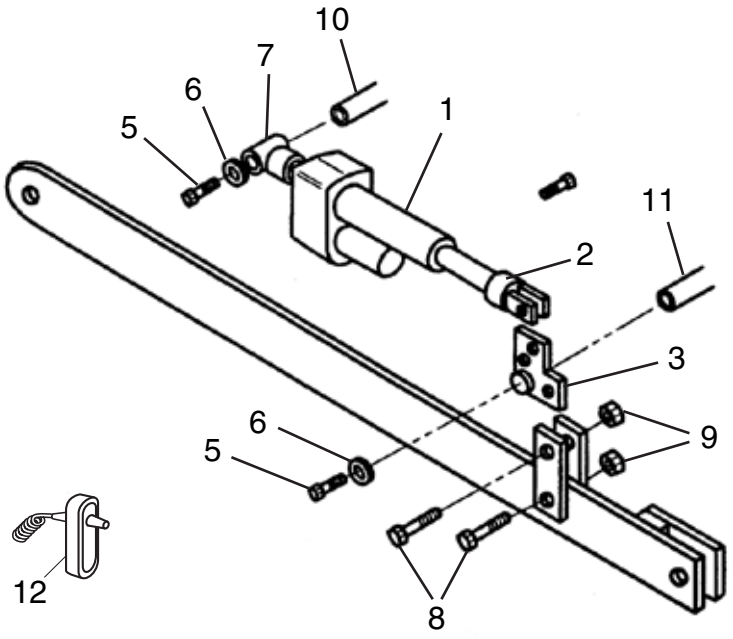


Figure 7-20

Electric Screw for Grade Control OptionBB Screed Arm Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	982093SRV	Ref.	Opt, Electric Flight Screws	Includes all
1	870302	2	Actuator, Linear, 4.00, 12V	
-	983510	2	Bushing, .625	
2	851211	2	Clevis, Electric Screw Rod End	
3	853858	2	Assy, Screed Rocker Arm	
5	100-6-16-16-5	4	Cshh, .375-16 X 1.00, Gr5	
6	302-6	4	Washer, Lock, .375	
7	851212	2	Clevis, Electric Screw Base End	
8	100-7-14-32-5	6	Cshh, .437-14 X 2.00, Gr5	
9	204-7-14	6	Nut, Lock, .437-14	
-	981511	8	Washer, Fender, .375	
10	852222	2	Mount, Electric Screw	
11	852221	2	Mount, Electric Screw	
-	855502	2	Bar, .250 X 2.00 X 2.00	1/4 X 2 Fb X 2
-	855422	2	Pipe, .750 X 6.00, Sch 40	
-	852512	1	Mount, Electric Screw Switch	
-	35174	4	Wire, 14Ga, Purple	
-	852234	2	Brkt, Sidewing Slide	
-	500040	1	Switch, Toggle, Spst, 2-Pos	
-	852516	1	Bar, Electric Screw Box	
-	851442	1	Seal, Switch, Nut, .469-32	
12	852900	1	Assy, Remotes, Electric Screws	

TOPCON / SONIC OPTION ASSEMBLY

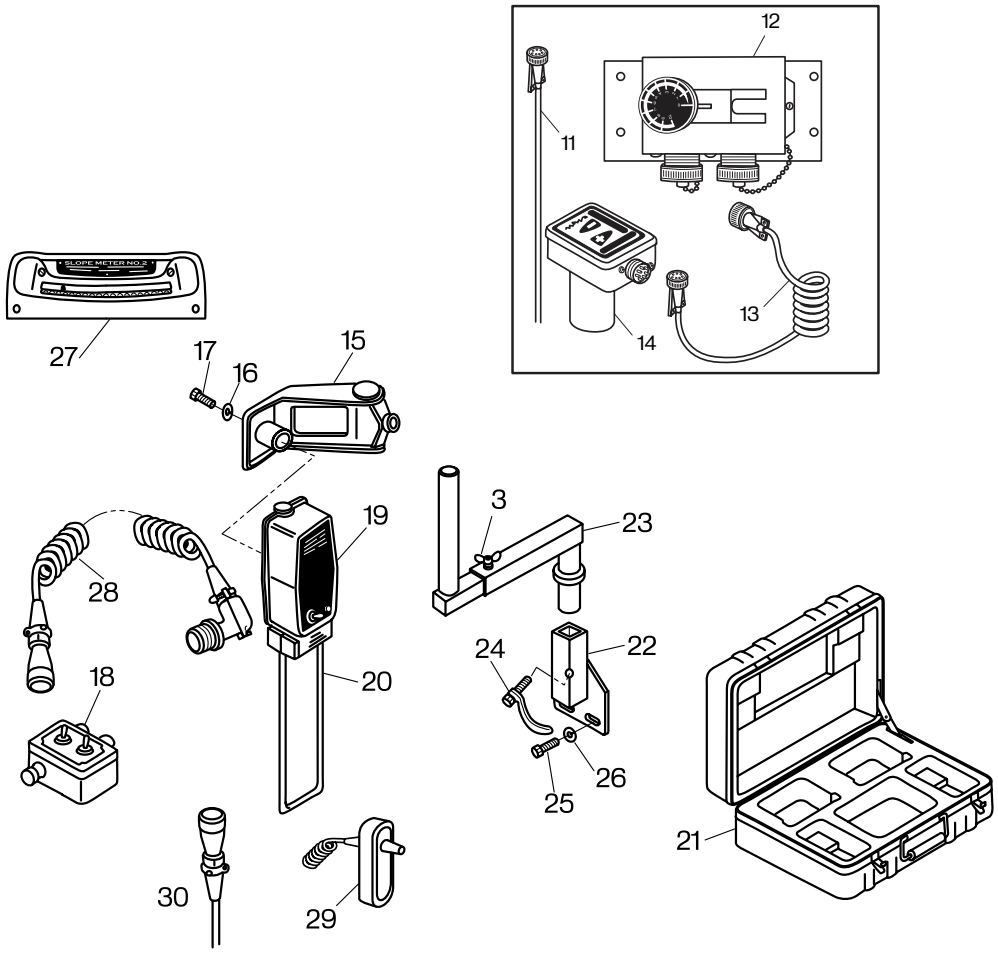
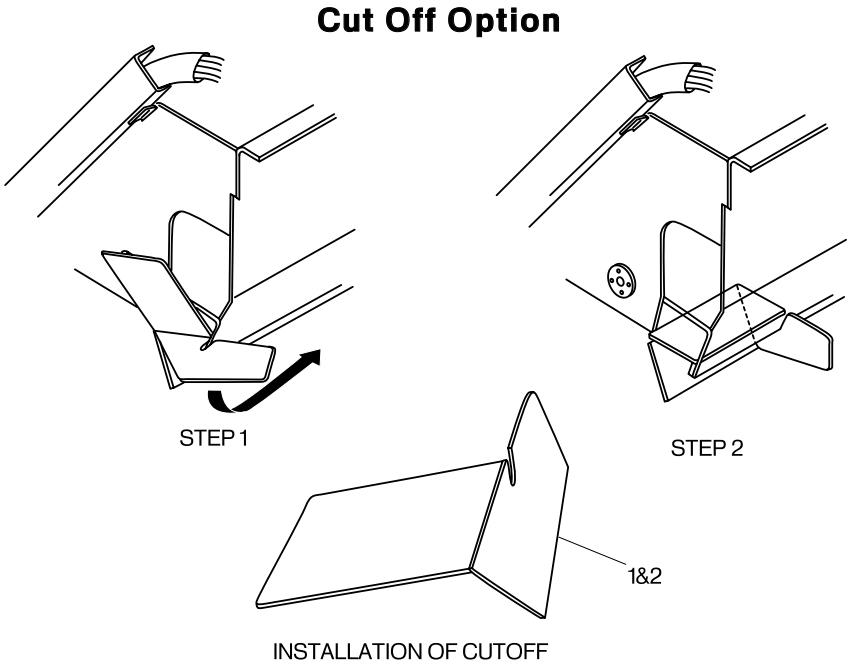


Figure 7-21

Topcon / Sonic Option Assembly Parts List

Item No.	Part Number	Qty.	Description	Remarks
-	988279	Ref.	Sonic Auger, Option	Includes next 4 items
-	987026	1	Auger Manifold Bracket	
-	9981000AA	1	Hose Kit, 1000 8', Auto Auger	
-	940520	1	Manifold, Auto Augers	
-	851696	1	Opt, Sonic Auger Kit	Includes item 11 - 14
11	982796	1	Cable, Power, Ultrasonic	
12	982795	1	Remote Pod, Ultra Sonic	
13	983050	1	Coil Cord, 6S/6S 1.5 To 7.5 Ft	
14	982794	1	Sensor, Ultra Sonic	
15	851578	1	Bracket, Sonic Tracker	
16	300-12	1	Washer, Flat, .625	
17	100-12-11-64-5	1	CSHH, .625-11 X 4.00 Gr5	
18	985866	1	Am Module And Cable Assy, W/Base Plate	
-	985866-01	1	Am Module Only	
-	984596	1	Assy, Cord Remote (Topcon)	
19	851579	1	Sonic Tracker	
20	851581	1	Wire Bail, Temperature	
21	851265	1	Case For Sonic Tracker	
22	851575SRV	2	Pivot Mount, Topcon/Spectra Physics	
23	9090-1125SRV	1	Bracket, Z Arm, Topcon	
24	300060	1	Handle, Bolt, .625-11	
25	100-12-11-4-5	1	CSHH, .625-11 X .250 Gr5	
26	300-8	1	Washer, Flat, .625	
27	851421	A/R	Slope Meter	
28	851574	A/R	Coiled Cord, Topcon Tracker/Slope	
-	851584SRV	1	Assy, 20 Ft. Kit	
-	851585SRV	1	Assy, 30 Ft. To 40 Ft. Kit	
29	986609	2	Coiled Cord, Remote Topcon	
-	987053SRV	1	Kit, Am Module With Remote	Includes Items 18, 29
30	985866-02	1	Cable, AM Module Only Not Shown	

MISC / OPTIONAL EQUIPMENT



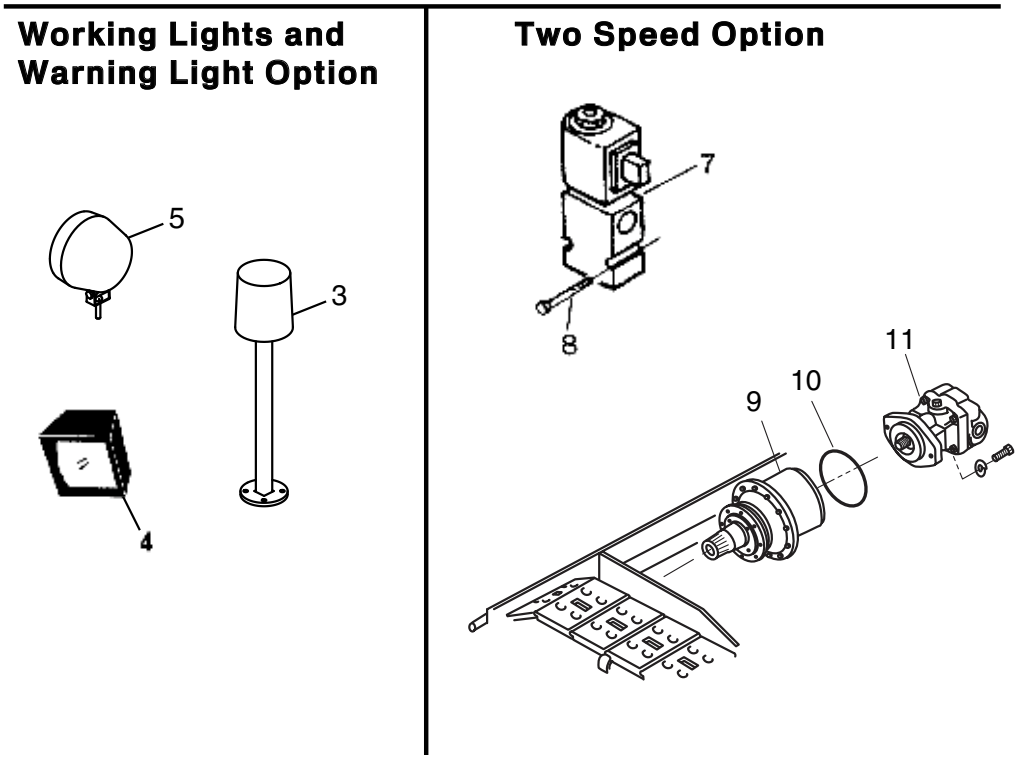


Figure 7-22

Misc / Optional Equipment Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	900739LSRV	1	12” Strike Off Plate, LH	
2	900739RSRV	1	12” Strike Off Plate, RH	
3	1006103	1	Warning Light Mount Group	
-	211748-02	A/R	Strobe Light, Amber	
4	160040A	A/R	Light, Halogen, Trap, 55 Watt	
5	1003862	A/R	Light, 4.5”, Tractor	
7	900140	1	Valve, Solenoid, 2 Speed	
8	100-4-20-32-5	1	Cshh, 0.25-20 X 2.0 Gr5	
9	811360	2	Torque Hub, Final Drive	
10	811366	2	O-Ring, Hyd Motor To Torque Hub	
11	811362	2	Motor, Hyd, Drive, 2 Speed	

SPRAYDOWN OPTION

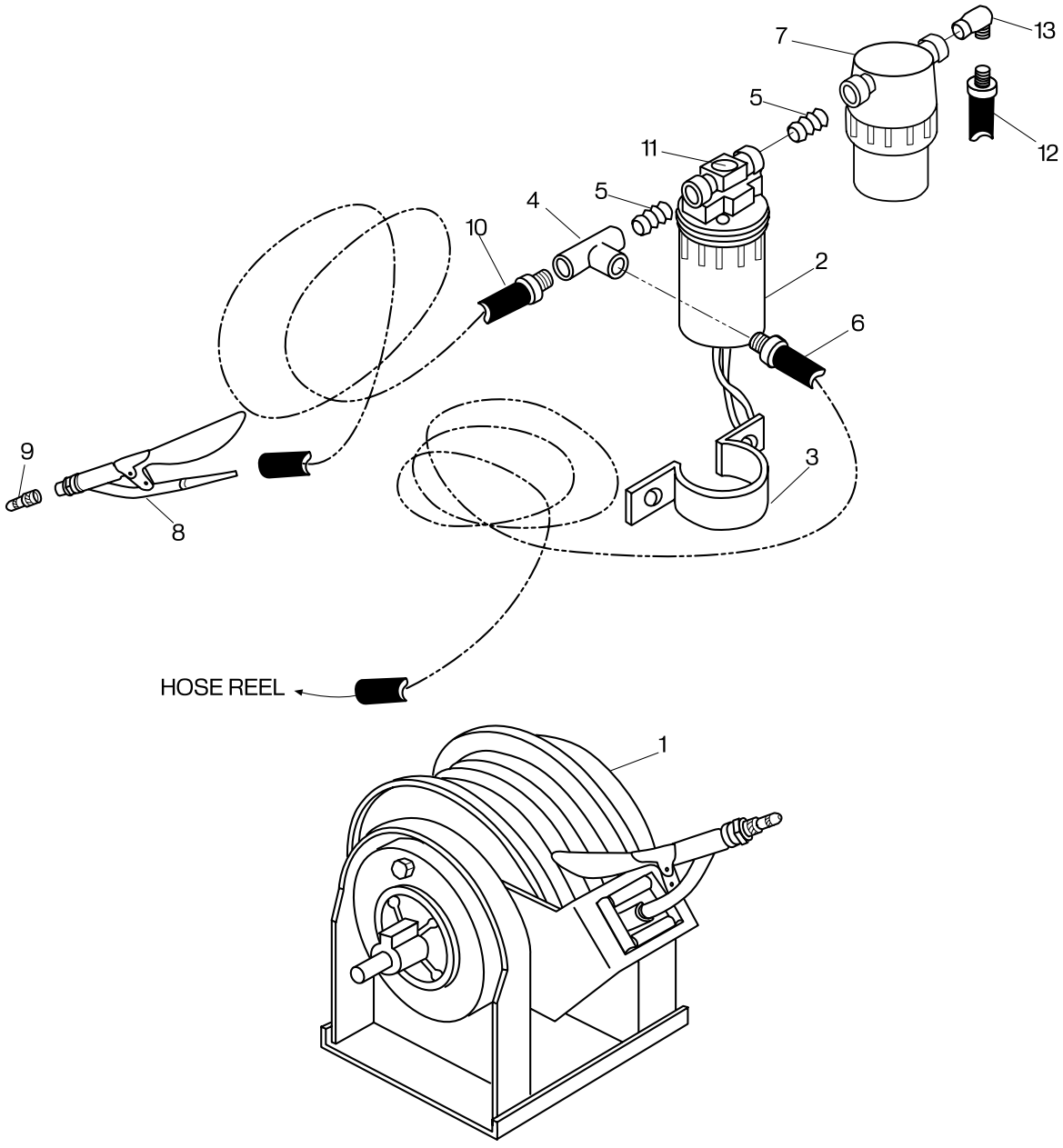


Figure 7-23

Spraydown Option Parts List

Item No.	Part Number	Qty.	Description	Remarks
1	920200	1	Reel, W/Hose, Spray Down	.312 Hose
2	1001542	1	Pump, Washdown-Flojet 12V	
3	480260	1	Bracket, Water/Fuel Pump Mount	
4	920222	1	Pipe, Tee, .375	
5	99638	1	Pipe, Nipple, .375 X close	
6	984338	1	Hose, Spraydown, 5’	4Lola-6Fjx-2MP-5
7	36926	1	Strainer Assy |	Nylon 1/2Pt 100 Mesh
8	920220	2	Handle & Nozzle, Fuel	
-	33277	2	Clamp,Hose,# 04	.22 - .62
9	901210A	A/R	Nozzle, Fuel Washdown	
10	984339	2	Hose, Spraydown, 15’	4Lola-6Fjx-2MP-15
11	851448	A/R	Switch, Press, Fuel Wash Down	
12	984339	1	Hose, Spraydown, 15’	4Lola-6Fjx-2MP-15
-	1001428SRV	A/R	Kit, Spraydown Pump W/ Filter	
13	34536	1	Fitt, 90 06Mj-08Mp, Elbow	

ALPHABETICAL PARTS INDEX

Description	Part Number	Figure Number	Item Number
12” Strike Off Plate, LH	900739LSRV	7-22	1
12” Strike Off Plate, RH	900739RSRV	7-22	2
Actuator, Linear, 4.00, 12V	870302	7-20	1
Adapter, Hose To Pipe (90 Deg)	230069	7-12	12
Adapter, Hyd Hose	910129	7-6	6
Adapter, P.o.l.	230030	7-12	2
Air Cleaner Assy, 1000F Paver	1000867-27	7-13	16
Air Cleaner Bracket	1000867-12	7-13	14
Am Module And Cable Assy, W/Base Plate	985866	7-21	18
Am Module Only	985866-01	7-21	-
Arm, Left Drive	320245	7-14	16
Arm, Right Drive	900025	7-14	17
Arm, Screed Rear (Left Side)	851607SRV	7-19	2
Arm, Screed Rear (Right Side)	851606SRV	7-19	3
Arm, Screed RH	852459SRV	7-19	-
Arm,Screed LH	852461SRV	7-19	1
Assembly, Back Up Alarm Actuator	1007645	7-11	13
Assembly, Hand Rail, 1000 Paver	1007646	7-11	18
Assembly, Muffler Clamp, Kubota	1009241SRV	7-13	>
Assy, 20 Ft. Kit	851584SRV	7-21	-
Assy, 30 Ft. To 40 Ft. Kit	851585SRV	7-21	-
Assy, Cord Remote (Topcon)	984596	7-21	-
Assy, Cutoff, 1000 8’ Rt	810304SRV	7-5	21
Assy, Gas Bottle	1006350	7-11	15
Assy, Handle W/Slide	890102	7-16	4
Assy, Radiator	1007889	7-13	6
Assy, Rear Torque Hub Tire	981076	7-1	1
Assy, RH Control Lever Mount	853646SRV	7-11	3
Assy, Rod	987041	7-11	1
Assy, Screed Rocker Arm	853858	7-20	3
Assy, Sidewings And Floor, 1000	1000519	7-3	-
Auger Assy, Casted (8’ 1000 LH)	853760	7-5	-
Auger Assy, Casted (8’ 1000 RH)	853770	7-5	10
Auger Manifold Bracket	987026	7-21	-
Auger Mount, LH	860051HDLSRV	7-5	-
Auger Mount, RH	860051HDRSRV	7-5	14
Auger Section LH Casted	860110C	7-5	-
Auger Section RH Casted	860100C	7-5	12

Description	Part Number	Figure Number	Item Number
Axle, 1000 /, Final Drive W/Torque Hub	811150SRV	7-1	3
Back Up Alarm Rod	987028	7-11	12
Backup Alarm, Pressure Switch	851504	7-14	26
Ball Joint, .250, FM, W/.375 Stud	920090	7-7	19
Ball Plunger, 1/2"-13	920095	7-7	18
Bar, .250 X .50 X 2.00	852185	7-1	8
Bar, .250 X 2.00 X 2.00	855502	7-20	-
Bar, .375 X 1.00 X 1.50	852411	7-1	>
Bar, Electric Screw Box	852516	7-20	-
Battery, 12 Volt, 835CCA, Group 24	Ref.	7-10	9
Bearing, Conveyor Pulley/ Vibrator Shaft	250150	7-15	5
Bearing, Flange	870030	7-17	12
Bearing, Insert, 1.50	850130	7-5	9
Bearing, Pillow Block, 2.250	810140	7-1	9
Bearing, Push Roller, 1.250	810110	7-2	38
Bearing, Screed Flight Screw	870030	7-18	9
Bearing, Screed Flight Screw	870030	7-19	17
Belt Guard, V1505b Kub	1000867-36	7-13	-
Belt, Alternator, Kubota Engine	986598-09	7-13	-
Bolt, 3/8"-16 X 3/4"	851134	7-19	12
Bolt, Shoulder	870279	7-18	12
Brace, Tapped, Undercarriage Frame	856798	7-1	13
Bracket, LH Depth Screw Bottom	855262L	7-16	7
Bracket, Neutral Safety Switch	900029SRV	7-7	26
Bracket, Pump Cables	920125SRV	7-14	22
Bracket, RH Depth Screw Bottom	855262R	7-16	>
Bracket, Sonic Tracker	851578	7-21	15
Bracket, Valve Lever Mount	910058	7-8	17
Bracket, Water/Fuel Pump Mount	480260	7-10	7
Bracket, Water/Fuel Pump Mount	480260	7-23	3
Bracket, Z Arm, Topcon	9090-1125SRV	7-21	23
Breather Pipe Closed	1000867-17	7-13	11
Brkt, Sidewing Slide	852234	7-20	-
Brkt, Throttle Cable Clamp, Kub	1000867-22	7-13	8
Brkt, Throttle Cable, Kub	1000867-21	7-13	7
Burner Nozzle, Ignitor	1008652	7-12	19
Burner Nozzle, Screed Extension	1008654	7-12	20
Burner, Screed Extension	982504	7-12	17
Bushing Flange Bearing 1.00 X .750	854444	7-18	10
Bushing, .625	983510	7-20	-

Description	Part Number	Figure Number	Item Number
Bushing, Taper Lock, 2.250	810160	7-1	5
Cable, AM Module Only Not Shown	985866-02	7-21	30
Cable, Power, Ultrasonic	982796	7-21	11
Cable, Push/Pull, 104" X 3" Stroke	920120	7-7	-
Cable, Push/Pull, 116" X 3" Stroke	920140	7-7	10
Cable, Push/Pull, 88" X 3" Stroke	920124	7-11	19
Cable, RH Drive, Augers And Pump, 104 X 3.00	920120	7-14	20
Cable,Throttle	1000867-32	7-13	-
Cap Screw, 7/16U X 2"	860048	7-19	19
Cap, Fuel, W/Gauge, 16"/13 Gal	910010	7-10	3
Cap, Hyd Oil Tank (Lockable)	140030HL	7-6	1
Cap, Valve Spool Cover	141040	7-8	13
Cap,Radiator, V1505b Kub	1000867-06	7-13	-
Case For Sonic Tracker	851265	7-21	21
Casted Handle,RH Control	920210	7-11	2
Chain, Crown And Valley	870190	7-17	22
Chain, Roller, 60H X 52 Pitch	860090	7-5	8
Clamp Half, W/Drilled Holes	852827	7-1	25
Clamp, A/C Mount, 5", Kubota	986598-11	7-13	15
Clamp, Hopper Flashing	851623SRV	7-3	12
Clamp, Hose, # 52 (3-1/2")	700620	7-7	31
Clamp, Track Guard, Inner	852598	7-1	16
Clamp, Track Guard, Outer	810031	7-1	18
Clamp,Hose,# 04	33277	7-23	-
Clevis, .250-28	350050	7-7	9
Clevis, .250-28	350050	7-11	8
Clevis, Electric Screw Base End	851212	7-20	7
Clevis, Electric Screw Rod End	851211	7-20	2
Coil Cord, 6S/6S 1.5 To 7.5 Ft	983050	7-21	13
Coiled Cord, Remote Topcon	986609	7-21	29
Coiled Cord, Topcon Tracker/Slope	851574	7-21	28
Collar, Auger Shaft End	851645	7-5	16
Coupling	851183	7-18	19
Coupling Half, Tack Pump Motor	280030	7-15	1
Cover, Auger Chain Drive	900616	7-5	1
Cover, Valve Inlet	910055	7-8	11
Cover, Valve Outlet	910056	7-8	12
Cplg Half, 3 Jaw, 1”	880030	7-15	3
Cshh, .375-16 X 1.00, Gr5	100-6-16-16-5	7-20	5
Cshh, .375-24 X 1.00	100-6-24-16-5	7-17	4

Description	Part Number	Figure Number	Item Number
CSHH, .437-14 X 1.25, Gr5	100-7-14-20-5	7-17	15
CSHH, .437-14 X 2.00, Gr5	100-7-14-32-5F	7-18	15
Cshh, .437-14 X 2.00, Gr5	100-7-14-32-5	7-20	8
CSHH, .500-13 X 2.00	100-8-13-32-5	7-17	31
CSHH, .625-11 X .250 Gr5	100-12-11-4-5	7-21	25
CSHH, .625-11 X 1.25, Gr5	100-10-11-20-5	7-17	18
CSHH, .625-11 X 1.50	100-10-11-24-5	7-17	26
CSHH, .625-11 X 4.00 Gr5	100-12-11-64-5	7-21	17
Cshh, .625-11 X 7.50, Gr5	920229	7-7	13
CSHH, 0.25-20 X 0.75	100-4-20-12	7-7	27
CSHH, 0.25-20 X 0.75 Gr5	100-4-20-12-5	7-5	>
Cshh, 0.25-20 X 2.0 Gr5	100-4-20-32-5	7-22	8
CSHH, 0.375-16 X 1 Gr5	100-6-16-8-5	7-10	2
CSHH, 0.375-16 X 1 Gr5	100-6-16-8-5	7-10	4
CSHH, 0.375-16 X 1.25 X 1 - Gr5	100-6-16-20-5	7-5	2
CSHH, 0.375-16 X 1.25 X 1 - Gr5	100-6-16-20-5	7-5	4
CSHH, 0.375-16 X 1.5 X 1 - Gr5	100-6-16-24-5	7-3	7
CSHH, 0.375-16 X 1.5 X 1.5 - N	100-6-16-24-5F	7-1	19
CSHH, 0.375-16 X 2, Gr5	100-6-16-32-5	7-11	16
CSHH, 0.375-16 X 3 X 1 - Gr5	100-6-16-24-5	7-7	2
CSHH, 0.375-24 X 0.75, Gr5 F	100-6-24-12-5F	7-11	17
CSHH, 0.4375-14 X 1, Gr5 F	100-7-14-16-5F	7-15	10
CSHH, 0.4375-14 X 1.125, Gr5 F	100-7-14-18-5F	7-15	9
CSHH, 0.5-13 X 1, Gr5 F	100-8-13-16-5F	7-15	11
CSHH, 0.5-13 X 1.75 X 1.25 - Gr5	100-8-13-28-5	7-5	15
CSHH, 0.5-13 X 3 X 1.25 - Gr5	100-8-13-48-5	7-5	20
CSHH, 0.625-11 X 1.75 X 1.5 - Gr5	101-10-11-28-5	7-1	14
CSHH, 0.625-11 X 1.75 X 1.5 - Gr5	100-10-11-28-5	7-5	6
CSHH, 0.625-11 X 2.25 X 1.5 - Gr5	100-10-11-36-5	7-2	28
CSHH, 0.625-11 X 3 X 1.5 - Gr5	100-10-11-48-5	7-1	10
CSHH, 0.625-11 X 3.5 X 1.5 - Gr5	100-10-11-56-5	7-1	26
Cshh, 1.000-14 X 3.00, Gr8	100-16-14-48-8	7-19	8
CSHH, 3/8-16 X 1, Gr5, Ft	100-6-16-16-5F	7-18	6
CSHH, 5/8-11 X 2.5, Gr5	100-10-11-40-5	7-19	5
CSHH, 5/8-11 X 2.5, Gr5	100-10-11-40-5	7-19	22
CSHH, M10-1.50 X 30mm	320227	7-14	24
CSSH, .500-13 X 1.50, Gr5	811364	7-14	15
CSSH, 0.5-13 X 1.5 X 1.5 - N	100-8-13-24-5F	7-2	31
Cyl, Hyd, 3.50 X 18.00 X 2.00 Rod	851434	7-4	6
Cyl, Hyd, 3.50 X 3.00 X 1.25 Rod	811331	7-1	20

Description	Part Number	Figure Number	Item Number
Cyl, Hyd, Hopper Wing	910145	7-4	10
Cylinder, Lift (2X12)	851436	7-19	7
Decal Kit	986137-01	7-19	23
Decal, Caution, Sonic Augers, LH	859799	QRG	-
Decal, Caution, Sonic Augers, RH	859801	QRG	-
Decal, Instr	856552-01	7-9	-
Decal, Instr, 1000 2 Speed	856552-01	QRG	-
Decal, Kit, Paver, Saf/Ops, Univer	856554	QRG	-
Decal, Manual Boxes	988634	QRG	-
Decal, Model#, 1000F	986983	QRG	-
Decal, No Unattended	1005474	QRG	-
Depth Screw Assy, Screed	890092SRV	7-16	3
Detent Kit	901007	7-8	8
Dip Stick, Engine, V1505b Kub	1000867-33	7-13	-
Dip Stick, Guide, Engine Kub	1000867-34	7-13	-
Drive Coupling, Tandem Pump	851160-2	7-14	25
Ears, Pivot	851210	7-19	4
End Cap,Auger Shaft	851647	7-5	19
Exhaust Manifold, Kubota	1000867-44	7-13	-
Extension, Screed, BB, LH	851600SRV	7-18	1
Extension, Screed, BB, RH	851601SRV	7-18	1a
Filler Neck, Hyd Oil/Fuel Cap	140030FN	7-6	2
Filter Head, Fuel Kit, Kub	1000867-29	7-13	19
Filter, Air, Primary, Kub	32385-01	7-13	-
Filter, Air, Secondary, Kub	38385-02	7-13	-
Filter, Fuel, Gas	38844-1	7-13	-
Filter, Fuel, Kub	982080-02	7-13	-
Filter, In-Line, Kub	986537-31	7-13	-
Filter, Oil, Kub	986537-03	7-13	-
Fitt, 90 06Mj-08Mp, Elbow	34536	7-23	13
Fitt, Test 04MP-02PD	72371	7-8	22
Flashing (Hard), Hopper Corner	851622A-1	7-3	6
Flashing (Hard), Hopper Front	851622A	7-3	11
Flight Screw	870042ASRV	7-17	10
Flight Screw Assy. Screed	870042A	7-19	15
Flight Screw Assy. Screed	870042A	7-19	18
Float Positioner Kit	141050	7-8	7
Floor, 1000 8' Hopper	851612SRV	7-3	9
Frame, 1000 Undercarriage	856812	7-1	12
Fuel Pump, Kubota	1001021-01	7-13	-

Description	Part Number	Figure Number	Item Number
Fuse Block, 8 Gang, Atc	851438	7-9	6
Fuse, 20 Amp, Atc	36342	7-9	7
Gasket, Fuel Pump, Kubota	1001021-02	7-13	-
Gasket, S.A.E. "A", 4 Hole	810250	7-2	29
Gauge, Hour Meter, Pavers	900130	7-9	13
Gauge, L.p.g. Pressure	230110	7-12	3
Grease Fitting	Ref.	7-5	18
Grip, Handle	870276	7-17	13
Group, Auger	984910	7-5	-
Group, Drive	983674	7-1	-
Group, Hopper	983677	7-3	-
Guard Assembly, Engine	1000870SRV	7-13	-
Guard, Extension, LH	851180LSRV	7-18	3
Guard, Extension, RH	851180RSRV	7-18	3a
Guide, Extension Bottom	855783	7-17	30
Guide, Extension Top	855784	7-17	29
Guide, Side Wing Slide	852645SRV	7-3	5
Hand Grip, Drive Lever	490010	7-7	25
Hand Grip, Flight Screw / Depth Screw	870276	7-19	14
Handle & Nozzle, Fuel	920220	7-23	8
Handle, Bolt, .625-11	300060	7-21	24
Handle, Crank	851195SRV	7-17	27
Handle, LH Auxilary Drive	852867	7-11	-
Handle, RH Auxiliary Drive	852866SRV	7-11	-
Handle, Vertical	910060	7-8	20
Handle, Vertical, V-20 Valve	910060	7-7	7
Harness, Deutsch, Control Box, 1000 Kubota	1008030-01	QRG	-
Harness, Deutsch, Engine, Kv1505b Kubota	1000867-47	QRG	-
Harness, Engine V1505	1000867-08	7-13	-
Harness, Switch Panel	982080-32	7-13	-
Hose Clamp, 2.125 (Size 28)	230240	7-12	18
Hose Intake Ac V1505t	1000867-18	7-13	10
Hose Kit, 1000 8', Auto Auger	9981000AA	7-21	-
Hose, Ignitor Burner	230034	7-12	7
Hose, Ignitor Burner	230034	7-12	23
Hose, L.p.g. Regulator To Tee	230032	7-12	6
Hose, Screed Extension Burner	230038	7-12	10
Hose, Screed Extension Burner	851225	7-12	13
Hose, Spraydown, 15'	984339	7-23	10
Hose, Spraydown, 15'	984339	7-23	12

Description	Part Number	Figure Number	Item Number
Hose, Spraydown, 5’	984338	7-23	6
Hose, Vent	910128	7-6	7
Housing, Vibrator Eccentric	880042	7-15	4
Hub Assy, Fwd/Rev Pivot	920094SRV	7-7	17
Hub, Front Idler	856832	7-1	22
Hyd. Cylinder, Screed Extension	870140	7-17	3
Hydraulic, Charge Filter Return	290030	QRG	-
Hydraulic, Element	984594-01	QRG	-
Ignitor, Ceramic, Hot Surface	230024	7-12	22
Indicator Light, Red, High Gear	900120	7-9	10
Insert, 3-Jaw Coupling	280040	7-15	2
Isolator, Rad Mnt, Upper	1000867-31	7-13	-
Jointer Assy, LH	851682SRV	7-16	1
Jointer Assy, RH	851683SRV	7-16	-
Key, Ignition, Kubota, 300B	982008-04	7-9	>
Keystock, 0.5 X 0.7 X 3.5	Ref.	7-1	6
Kit, Am Module With Remote	987053SRV	7-21	-
Kit, Auger Chain Cover Closing	860043-1SRV	7-5	23
Kit, Decal, Side Wing, 1000	986393	QRG	-
Kit, Decal, Universal #1, Pavers	986392	QRG	-
Kit, Flange, Turbo/Muffler	1000867-45	7-13	-
Kit, Spraydown Pump W/ Filter	1001428SRV	7-23	-
Knob, Round Ball, 1.375 X .375-16	851156	7-7	28
Knob, Round Ball, 1-7/8" X 1/2-13	920225	7-7	22
Knob, Round Ball, 1-7/8" X 1/2-13	920225	7-11	7
L.p.g. Tank, 20 Lbs	230010	7-12	1
Left Mount Rail 1505	1000867-14	7-13	1
Lever, Fwd/Rev, Left Side LH	920097L	7-7	21
Lever, Fwd/Rev, Left Side RH	920097R	7-7	20
Lever, Right Side LH Fwd	920228SRV	7-11	6
Lever, Right Side RH Fwd	920230SRV	7-11	5
LH Undercarriage Assy, 1000	981077L	7-1	-
Lid, Screed Left Side	855766LSRV	7-17	8
Lid, Screed Right Side	855766RSRV	7-17	8a
Light Bulb, Eng Indicator Lamp	320360	7-9	>
Light, 4.5”, Tractor	1003862	7-22	5
Light, Halogen, Trap, 55 Watt	160040A	7-22	4
Light, Red, Indicator	1001108-02	7-9	11
Light, Red, Indicator, 1000 Kubota Control Panel	1001108-02	7-13	-
Link Assy, Valve Lever	901010	7-7	4

Description	Part Number	Figure Number	Item Number
Link Assy, Valve Lever	901010	7-8	18
Link Pin, Casted Track Section	810291CSRV	7-2	33
Lock Tab, Push Roller Shaft	852826	7-2	40
Manifold, Auto Augers	940520	7-21	-
Manifold, Hopper Wing Sequence	910123	7-4	4
Manifold, Track Tensioner, N/S	851544	7-4	3
Manual-Pak Tube, 12.00 X 3.00	985234-02	7-7	32
Molded Wheel & Tire (5 X 16)	810129	7-1	2
Motor, Hyd, 20.0 Cir Parker	987903	7-5	3
Motor, Hyd, Drive, 1000 Drive	984980	7-2	30
Motor, Hyd, Drive, 2 Speed	811362	7-22	11
Motor, Hyd, Gear, 1.17 Cir, "A"	983405	7-15	8
Motor, Hydraulic Screed Vibrator	870220	7-17	17
Mount, Auger Motor	860021	7-5	5
Mount, Electric Screw	852222	7-20	10
Mount, Electric Screw	852221	7-20	11
Mount, Electric Screw Switch	852512	7-20	-
Mount, Engine, Kubota 44Hp	986775-14	7-13	3
Mount, Fule Filter	1000867-01	7-13	5
Mount, Pivot	851209	7-19	11
Muffler, V1505b Kubota	1000867-26	7-13	17
Nozzle, Fuel Washdown	901210A	7-23	9
Nut & Bolt Assy, Tilt Screw	890070	7-16	9
Nut, Hex, .438-14	200-7-14	7-18	18
Nut, Hex, .750-10	202-12-10	7-18	11
Nut, Hex, 0.25-20	200-4-20	7-7	>
Nut, Hex, 0.25-20, Gr5	200-4-20-5	7-11	>
Nut, Hex, 0.375-16	200-6-16	7-1	>
Nut, Hex, 0.375-16	200-6-16	7-5	>
Nut, Hex, 0.375-16	200-6-16	7-7	>
Nut, Hex, 0.375-16	200-6-16	7-10	>
Nut, Hex, 0.375-16	200-6-16	7-10	>
Nut, Hex, 0.375-16	200-6-16	7-10	8
Nut, Hex, 0.375-16, Gr5	200-6-16-5	7-11	>
Nut, Hex, 0.5"	200-8-13	7-19	21
Nut, Hex, 0.5-13	200-8-13	7-5	>
Nut, Hex, 0.625-11	200-10-11	7-1	>
Nut, Hex, Jam, .0375-16	202-6-16	7-7	29
Nut, Hex, Jam, 0.5-13	202-8-13	7-7	23
Nut, Hex, Jam, 0.625-11	202-10-11	7-7	24

Description	Part Number	Figure Number	Item Number
Nut, Hex, Jam, 1/2-13, Gr5	202-8-16-5	7-11	4
Nut, Lock 5/8"	202-10-11	7-19	6
Nut, Lock, .375-16	204-6-16	7-18	13
Nut, Lock, .437-14	204-7-14	7-20	9
Nut, Lock, 0.375-16	204-6-16	7-14	18
Nut, Nylon Lock, 7/8-9 Unc-2B	987396	7-18	21
Nut, Nylon Lock, 7/8-9 Unc-2B	987396	7-16	11
Opt, Electric Flight Screws	982093SRV	7-2	-
Opt, Electric Flight Screws	982093SRV	7-19	Opt.
Opt, Electric Flight Screws	982093SRV	7-20	-
Opt, Sonic Auger Kit	851696	7-21	-
O-Ring, Hyd Motor To Torque Hub	811366	7-22	10
O-Ring, Piggyback To Main Pump	36808	7-14	9
Panel, Controls 1000 Kubota	1008030	7-9	-
Pin, 1000 Hopper Lift Cyl	851618	7-4	8
Pin, 1000 Hopper Lift Cyl Top	851619SRV	7-4	7
Pin, Clevis	350080	7-8	19
Pin, Clevis, .250 X .875	350080	7-7	6
Pin, Cotter	870307	7-17	7
Pin, Cotter, .188X2.00	80338	7-4	9
Pin, Cylinder	910146	7-4	11
Pin, Cylinder	240030	7-17	6
Pin, Hopper Wing Hinge, 11/16" - 48" Crs	930006	7-3	4
Pin, Sidewing Extension	930031SRV	7-3	3
Pin, Throttle Cable Pivot, Kub	1000867-23	7-13	9
Pipe Nut, Screed Extension Screw, BB	851603SRV	7-18	7
Pipe Nut, Screed Extension Screw, BB	851603SRV	7-18	8
Pipe, .750 X 6.00, Sch 40	855422	7-20	-
Pipe, 2.50 X 2.25, Sch 40	852833	7-1	7
Pipe, 6.00 X 5.25, Sch 40	852831	7-1	4
Pipe, Nipple, .375 X close	99638	7-23	5
Pipe, Push Bar Roller, 24.00 Lg	856923	7-2	36
Pipe, Push, Roller, 24.00Lg	856923-1	7-2	37
Pipe, Screed Burner, Main	851197-1SRV	7-17	34
Pipe, Tee, .375	920222	7-23	4
Pivot Mount, Topcon/Spectra Physics	851575SRV	7-21	22
Plate, Push Roller Shaft Mount	852591	7-2	-
Plate, Vibrator Housing	880071	7-15	7
Plug, Hole, .500, Flush Mt, Plstc	35136-4	7-9	16
Plug, Hole, .750, Flush Mt, Plstc	35136-6	7-9	15

Description	Part Number	Figure Number	Item Number
Power Beyond Sleeve	901002	7-8	14
Pump Mount, Coupling, V1505 Kubota	1000867-49	7-13	13b
Pump Mount, Housing, V1505 Kubota	1000867-48	7-13	13a
Pump Mount, V1505b Kubota	1000867-28	7-13	13
Pump, Auger And Cylinders, Single Piggyback	320232	7-14	10
Pump, Hyd, Piston, Tandem, V V	320237	7-13	-
Pump, LH And RH Drive, Sundstrand	320237	7-14	11
Pump, Washdown-Flojet 12V	1001542	7-10	5
Pump, Washdown-Flojet 12V	1001542	7-23	2
Push Roller, Tilt Hopper	981152	7-2	35
Quick Disconnect Coupling	230084	7-12	21
Radiator Support Upper	1000867-09	7-13	12
Rain Cap, Muffler, Kub	1000867-24	7-13	18
Reel, W/Hose, Spray Down	920200	7-23	1
Regulator W/Gauge, L.p.g.	982515	7-12	5
Remote Pod, Ultra Sonic	982795	7-21	12
RH Undercarriage Assy, 1000	981077R	7-1	11
Right Mount Rail 1505	1000867-13	7-13	2
Rnd, .688 X 43.50 CRS	854447SRV	7-18	4
Rnd, .688 X 94.00	852617	7-3	10
Rnd, .688 X 94.00	852617	7-5	22
Rnd, 1.000 X 4.50, CRS, Hole	855579	7-16	12
Rod Gauge	851372SRV	7-17	14
Rod, Drive Lever Stop	852536	7-7	14
Rubber, Track Guard, Inner	810021	7-1	15
Rubber, Track Guard, Outer	810020	7-1	17
Screed Assembly, Complete, BB	981024SRV	7-17	-
Screed, Base, BB	851597SRV	7-17	1
Screed, Lower Extension	851602SRV	7-18	2
Screw, Adjuster	870042A	7-19	16
Screw, Electric	870302	7-19	10
Seal Kit	910145-01	7-4	-
Seal Kit, 2" Cylinder	851484	7-19	7A
Seal Kit, Cylinder	981860-01	7-17	3a
Seal Kit, Relief Valve	910065	7-8	-
Seal Kit, Valve Section	910062	7-8	9
Seal Kit, Valve Spool	910059	7-8	10
Seal, Front Sundstrand, 1.625 Outside	851489	7-14	13
Seal, Front Sundstrand, 2.875 Outside	851489A	7-14	13a
Seal, Switch, Nut, .469-32	851442	7-20	-

Description	Part Number	Figure Number	Item Number
Sensor, Ultra Sonic	982794	7-21	14
Series Spacer	1000867-15	7-13	4
Shaft, Auger	980691	7-5	11
Shaft, Push Bar Roller	856924	7-2	39
Shaft, Seal Size 1.625 Outside	851495	7-14	12a
Shaft, Seal Size 2.875 Outside	851495A	7-14	12
Shaft, Undercarriage Idler	853193	7-1	23
Shaft, Vibrator Eccentric	880062	7-15	6
Sidewing, LH, (8' 1000) New Style	851614SRV	7-3	1
Sidewing, RH, (8' 1000) New Style	851615SRV	7-3	2
Slide, Extension	851552SRV	7-18	20
Slide, Undercarriage Idler	853191	7-1	24
Slope Meter	851421	7-21	27
Solenoid Valve, 12 Volt L.p.g.	230300	7-12	4
Solenoid, Neutral Pause	320244	7-14	27
Solenoid, Neutral Pause Kit	320244K	7-14	-
Sonamat Wiring Harness (Not Shown)	851595	7-16	-
Sonic Auger, Option	988279	7-21	-
Sonic Tracker	851579	7-21	19
Spherical Rod End, W/ Stud	920090	7-14	19
Spring Center Kit	901014	7-8	6
Spring, Comp	930029	7-3	8
Sprocket, 60A18 X 1.50 Bore	860035	7-5	13
Sprocket, 60B14 X 1.00-6 Spline	860030	7-5	7
SSSH, 0.5-20 X 0.5 - HX - N	102-8-20-8	7-5	17
Strainer & Gasket Kit	140030GK	7-6	3
Strainer Assy	36926	7-10	6
Strainer Assy |	36926	7-23	7
Strainer, Hyd Suction, 200 Mesh	36123	7-6	5
Strobe Light, Amber	211748-02	7-22	-
Sub Assy, Depth Screw Handle	855728	7-16	5
Switch, Backup Alarm, Neutral	33964	7-11	11
Switch, Engine Shutdown Relay	988021-10	7-9	4
Switch, Engine Shutdown Relay	988021-10	7-13	-
Switch, Ignition, W/Heat St	39146-14	7-9	14
Switch, Ignition, W/Heat St	39146-14	7-13	-
Switch, Neutral Safety (N/S)	900020	7-7	30
Switch, Press, Fuel Wash Down	851448	7-23	11
Switch, Push Button	982249	7-9	12
Switch, Toggle, Spst, 2-Pos	500040	7-9	9

Description	Part Number	Figure Number	Item Number
Switch, Toggle, Spst, 2-Pos	500040	7-20	-
Tab, Auger Valve Reverse Lockout	852648	7-8	21
Tab, Auto Auger/Screed Valve	852648	7-7	8
Tank W/M, Fuel, 13Gal	910009SRV	7-10	1
Tank W/M, Hyd, Top, 1000	840014A	7-6	4
Tank Weldment, Hydraulic	840017	7-4	1
Tee, .250 Street	230081	7-12	9
Thd'd Rod, .75-10 X 12.00	890121SRV	7-16	6
Thumb Screw, .375-16 X 1.00	920070	7-16	10
Tilt Screw, Jointer Assy	890081SRV	7-16	8
Toolbox, W/Holes	1006950	7-10	10
Torque Hub, Final Drive	811360	7-22	9
Torque Hub, Final Drive, 1000	981087	7-2	27
Track Section, Casted	810281C	7-2	34
Track, One Side, 1000	810015	7-2	32
Turnbuckle, Crown And Valley, Front	870172	7-17	21
Turnbuckle, Crown And Valley, Rear	870182	7-17	23
U-Bolt, .375	350060	7-14	21
U-Bolt, .375-16	350060	7-7	12
U-Bolt, .375-16	350060	7-11	9
Valve & Plug, Anticavitation	141020	7-8	16
Valve Assy, 9 Section, W/Float	851161	7-8	2
Valve Section, Detented	910052	7-8	4
Valve Section, Float	910054FLS	7-8	5
Valve Section, Spring Return	910054	7-8	3
Valve, Drain Cock, .250 Npt	910150	7-6	6
Valve, Main Relief	901009	7-8	15
Valve, Main, 1000	982035	7-7	1
Valve, Selector (Cutoff)	1008544	7-12	11
Valve, Solenoid, 2 Speed	900140	7-22	7
Vertical W/ Weldment Handle	910060ASRV	7-7	3
Vibrator, Screed Assembly	870232SRV	7-17	28
Vlv, Hyd, Flow Div, Cart	910123-02	7-4	-
Vlv, Hyd, Relief Cart	910123-01	7-4	-
Vlv, Hyd, Sq1, Cart	910123-04	7-4	-
Vlv, Hyd, Sq2, Cart	910123-03	7-4	-
Walk Board	851554SRV	7-17	11
Warning Light Mount Group	1006103	7-22	3
Washer, Belleville 5/8"	490080	7-7	15
Washer, Beveled, .375 X 1.25	121-3	7-17	2

Description	Part Number	Figure Number	Item Number
Washer, Fender 3/8"	119-3	7-19	13
Washer, Fender, .375	981511	7-20	-
Washer, Flat 7/16"	300-7	7-19	20
Washer, Flat, .375	300-6	7-17	5
Washer, Flat, .438	300-7	7-17	16
Washer, Flat, .438	300-7	7-18	16
Washer, Flat, .625	300-10	7-17	20
Washer, Flat, .625	300-10	7-17	24
Washer, Flat, .625	300-10	7-17	33
Washer, Flat, .625	300-12	7-21	16
Washer, Flat, .625	300-8	7-21	26
Washer, Flat, 0.375	300-6	7-1	>
Washer, Flat, 0.375	300-6	7-5	>
Washer, Flat, 0.375	300-6	7-10	>
Washer, Flat, 0.4375	300-7	7-15	>
Washer, Flat, 0.5	300-8	7-2	>
Washer, Flat, 0.5	301-8	7-5	>
Washer, Flat, 0.5	301-8	7-5	>
Washer, Flat, 0.625	300-10	7-1	>
Washer, Flat, 0.625	300-10	7-5	>
Washer, Flat, 0.625	300-10	7-7	16
Washer, Lock 1"	302-16	7-19	9
Washer, Lock, .375	302-6	7-18	5
Washer, Lock, .375	302-6	7-18	14
Washer, Lock, .375	302-6	7-20	6
Washer, Lock, .438	302-7	7-18	17
Washer, Lock, .500-13	204-8-13	7-14	14
Washer, Lock, .625	302-10	7-17	19
Washer, Lock, .625	302-10	7-17	25
Washer, Lock, .625	302-10	7-17	32
Washer, Lock, 0.25	302-4	7-7	>
Washer, Lock, 0.25	302-4	7-11	14
Washer, Lock, 0.375	302-6	7-1	>
Washer, Lock, 0.375	302-6	7-3	>
Washer, Lock, 0.375	302-6	7-5	>
Washer, Lock, 0.375	302-6	7-5	>
Washer, Lock, 0.375	302-6	7-7	>
Washer, Lock, 0.375	302-6	7-10	>
Washer, Lock, 0.375	302-6	7-10	>
Washer, Lock, 0.375	302-6	7-11	>

Description	Part Number	Figure Number	Item Number
Washer, Lock, 0.4375	302-7	7-15	>
Washer, Lock, 0.4375	302-7	7-15	>
Washer, Lock, 0.5	302-8	7-2	>
Washer, Lock, 0.5	302-8	7-5	>
Washer, Lock, 0.5	302-8	7-5	>
Washer, Lock, 0.625	302-10	7-1	>
Washer, Lock, 0.625	302-10	7-1	>
Washer, Lock, 0.625	302-10	7-1	>
Washer, Lock, 0.625	302-10	7-2	>
Washer, Lock, 0.625	302-10	7-5	>
Washer, Lock, M10	320142	7-14	23
Wear Plate, End Gate	982963SRV	7-16	2
Wear Plate, Main Screed	851598SRV	7-17	9
Wire Bail, Temperature	851581	7-21	20
Wire, 14Ga, Purple	35174	7-20	-
Yoke,Track Idler, Front	811333	7-1	21

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