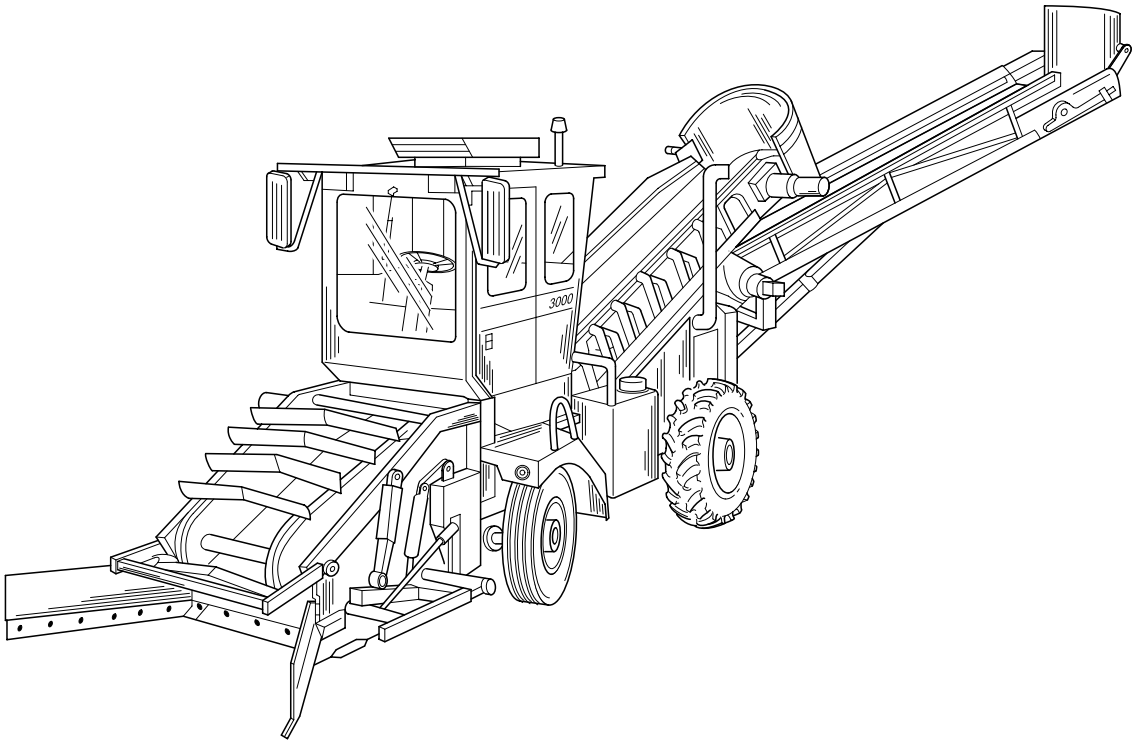
LeeBoy

OPERATIONS, SERVICE AND PARTS MANUAL



3000 FORCE FEED LOADER

Manual No. 981622

688 North Highway 16
Denver, North Carolina 28037
www.LeeBoy.com

LIMITED WARRANTY
POLICY AND PROCEDURES

EFFECTIVE FOR UNITS SHIPPED AFTER DECEMBER 1, 2001

WARRANTY

1. If a defect in material or workmanship is found and the authorized dealer is notified during the warranty period, LeeBoy will repair or replace any part or component of the unit or part that fails to conform to the warranty during the warranty period.
2. The warranty date will begin upon the completion of the warranty form by the initial customer and will expire after twelve (12) months. The Warranty Card should be filled out within (10) days of delivery of the unit.
3. Engines are warranted by their manufacturers and may have warranty coverage that differs from that of LeeBoy.
4. 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. Replacement parts have no separate warranty coverage.
5. LeeBoy has the right to repair any component or part before replacing it with a new part.
6. All warranty work will be completed during normal working hours only.

LIMITATIONS

LeeBoy has no obligation under this warranty 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 LeeBoy.

WARRANTIES OF OTHER ENGINE MANUFACTURERS

1. LeeBoy's warranty does not apply to engines bearing other manufacturer's trademarks, whether or not such engines are installed in LeeBoy units or sold separately.
2. The warranty responsibility on all engines rests with the respective engine manufacturer. LeeBoy may have support agreements with some engine manufacturers for warranty and parts support.

ITEMS NOT COVERED

LeeBoy is not responsible for the following:

1. Charges for travel time, mileage, or overtime.
2. Charges related to transporting the product to and from the place at which warranty work is performed.
3. Airfreight charges related to transporting repair parts to the place at which warranty work is performed.
4. All used units or used parts of any kind.
5. Repairs due to normal wear and tear, or brought about by abuse or lack of maintenance of the equipment, except for premature failures, tires, tubes, wiper blades, v-belts, filters, cables, bulbs, conveyor chains, polytrack pads, augers, auger wear plates, track rails, screed plates or end gates.
6. Attachments not manufactured or installed by LeeBoy.
7. Burners and boxes, cutting edges, scrapers, mats, grinders, and holders.
8. Liability for incidental or consequential damages of any type including, but not limited to lost profits or expenses of acquiring replacement equipment.
9. Miscellaneous charges.

OTHER WARRANTIES

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

USER'S REFERENCE GUIDE

DELIVERY DATE_____

UNIT SERIAL NUMBER_____

ENGINE TYPE_____

ENGINE NUMBER_____

DEALER'S NAME AND ADDRESS

_____

_____

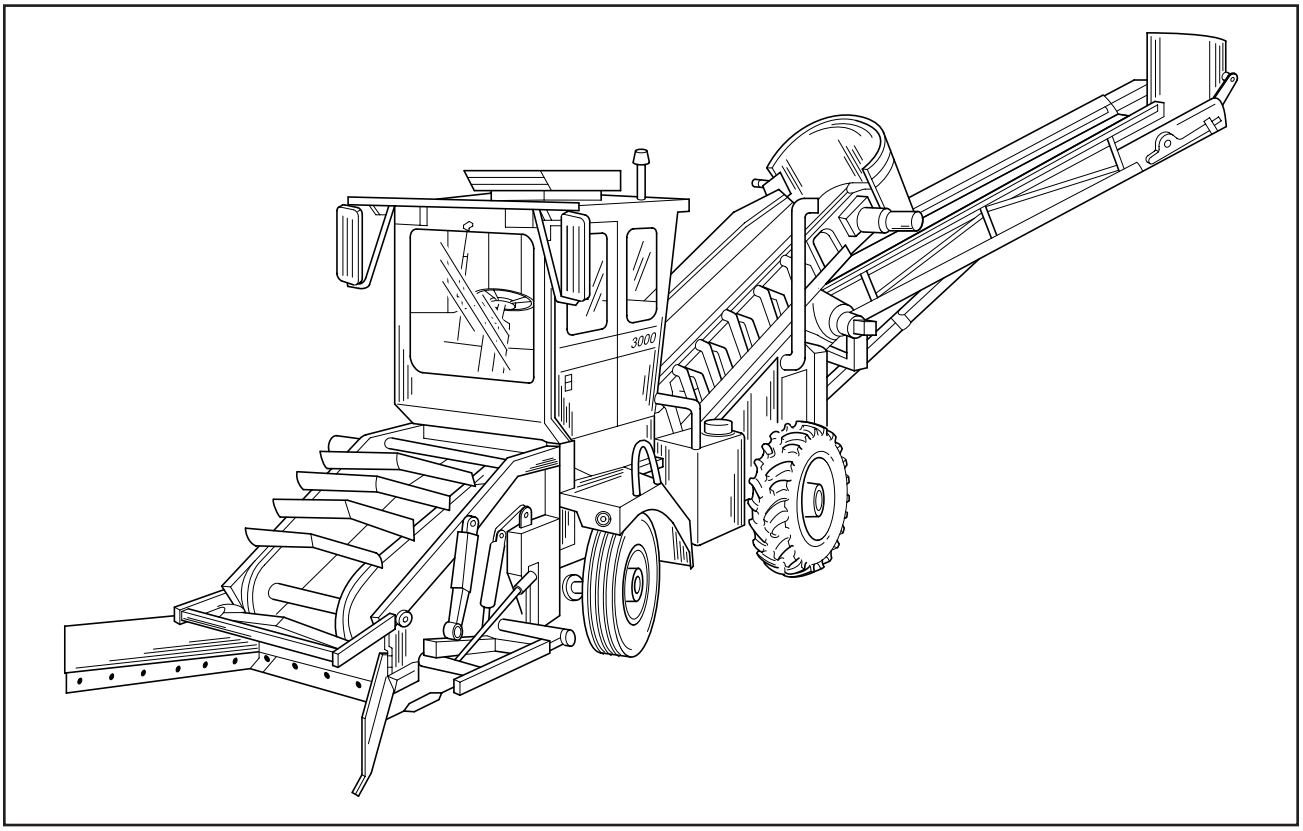
PHONE NUMBER_____

EQUIPMENT HOURS_____

SERVICE MANAGER _____

688 North Highway 16 • Denver, North Carolina 28037 • www.LeeBoy.com • (704) 483-9121

MODEL 3000 CONVEYOR LOADER
OPERATORS, MAINTENANCE AND PARTS MANUAL



OVERALL VIEW

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 Distributor for the latest available information.

Contents of this manual are based on information in effect at the time of publication and are subject to change without notice.

SIDE VIEW

IMPORTANT

SAFETY INSTRUCTIONS

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 this unit.

Safety is everyone's business and is one of your primary concerns. Knowing the guidelines covered in the following paragraphs and in Section 1 will help provide for your safety, for the safety of those around you, and for the paver's proper operation.

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

⚠ DANGER ⚠

YOU MUST FOLLOW ALL DANGER SAFETY NOTES. IF YOU DO NOT FOLLOW THE INSTRUCTIONS, YOUR MISTAKE MIGHT LIKELY RESULT IN VERY SERIOUS INJURY OR DEATH.

⚠ WARNING ⚠

WARNING safety notes must ALSO be followed. Your mistake might result in SERIOUS INJURY to yourself or others.

⚠ CAUTION ⚠

CAUTION safety notes are ALSO very important. They point out to you where your mistakes could cause PHYSICAL HARM to you or others, or damage to the machine.

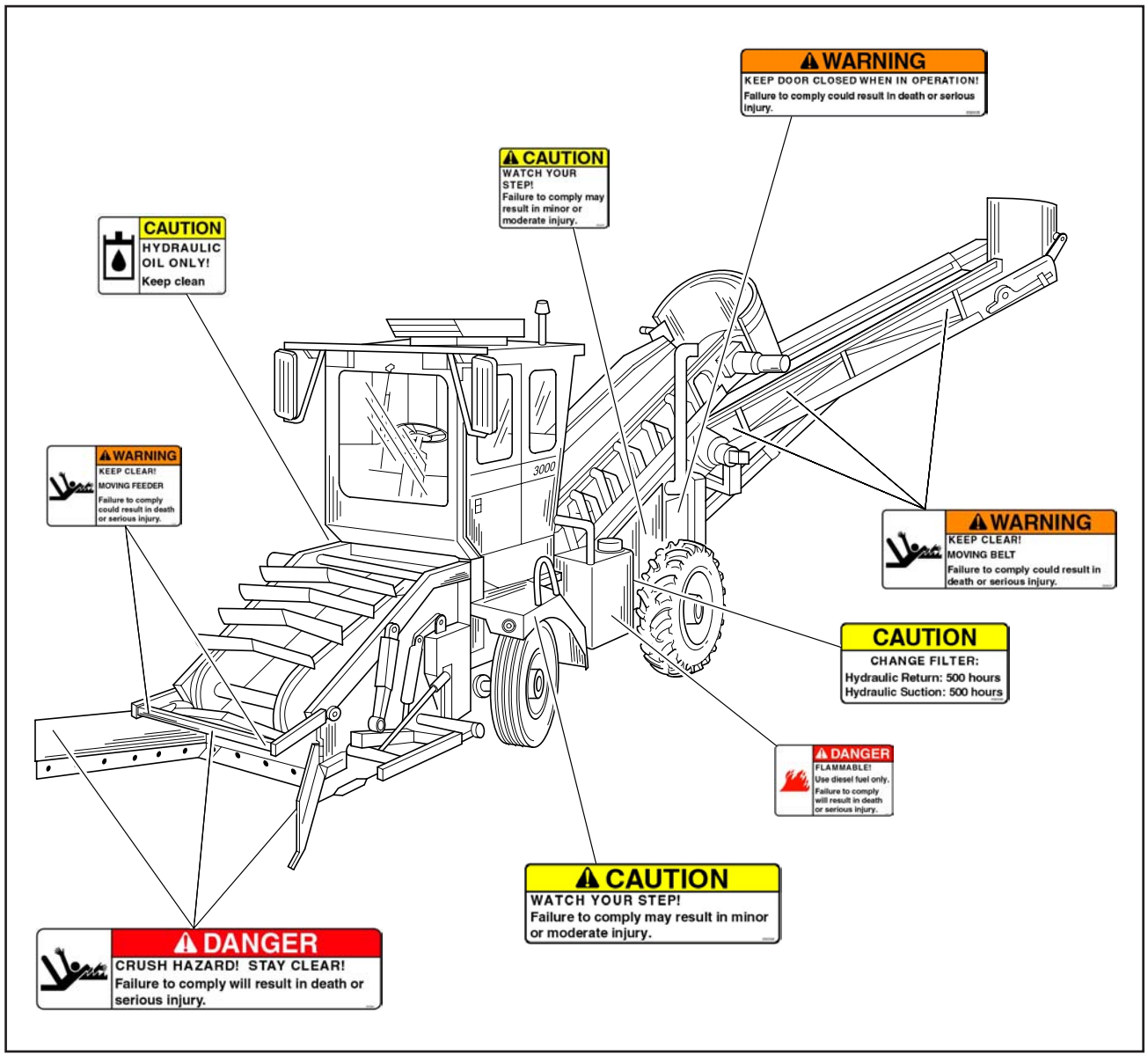
SAFETY PRECAUTIONS

If your paver has been repainted, it is extremely important that all the decals referring to cautions warnings and danger be replaced in their proper locations. The illustrations on this page will aid you in determining the proper locations however for additional help, you should refer to the parts listing in the parts section of this manual and note the description column.

Under this column a description on location is provided for each decal. If you still need more explicit instructions, contact your dealer.

NOTE

It is the responsibility of the owner and operator to make sure that all decals are readable and located on paver as designated by the manufacturer.



300 FORCE FEED LOADER DECALS and DECAL LOCATIONS

3000 FORCE FEED LOADER

Review the following Danger, Warnings and Cautions. These will be used throughout the manual where applicable.

DANGER: **Do not fill fuel tank or hydraulic tank while engine is running.**

DANGER: **Do not smoke when observing battery electrolyte level. The fumes can explode. Electrolyte is an acid which can burn if it contacts skin or eyes. If contact is made, flush area immediately with water.**

WARNING: **Do not weld on loader without first disconnecting battery cable.**

WARNING: **Decals provide valuable information and should be replaced if missing or worn.**

WARNING: **If hydraulic oil, or engine oil leaks are present, make necessary repair prior to putting conveyor loader into service.**

WARNING: **Do not use your hands or use objects in the process of finding hydraulic leaks. Hydraulic leaks can be seen visually.**

WARNING: **Do not leave conveyor loader running or with key available while unattended.**

WARNING: **Check cab to make sure no person is in it that could start the conveyor loader inadvertently or make control function changes while the conveyor loader is being repaired.**

WARNING: **Stand clear of conveyor loader while in operation. Be extra careful around front conveyor feeder and discharge conveyor.**

WARNING: **Do not use control handles as supports while entering or exiting from driver position.**

WARNING: **Before making any movements with conveyor loader or components, make sure all personnel are clear of area.**

WARNING: **Do not operate hydraulic levers or attempt to move conveyor loader unless seated in operator's position.**

WARNING: **Do not work on or make repairs to the conveyor loader unless thoroughly trained to do so.**

WARNING: **When servicing conveyor or loader make sure all untrained personnel are clear of the area.**

CAUTION: **Moldboard should be in full up position when operating conveyor loader to or from job site.**

CAUTION: **In case of hydraulic failure during operation, pressure drops below 250 PSI, brake will set, shut machine down, turn engine off.**

CAUTION: **The conveyor loader's hydraulic system requires clean, contaminant-free oil. Take care when working with the hydraulic system to insure its complete cleanliness (AW #68).**

CAUTION: **Do not operate the starter longer than 30 seconds. If the engine does not start allow the starter to cool 2-3 minutes.**

PRE-START INSPECTION

INSPECT machine. Have any malfunctioning, broken or missing parts corrected or replaced before using. Hydraulic hoses should be checked daily for wear and leaks. Replace if damaged.

CHECK that all the instruction and safety labels are in place and readable. These are as important as any other equipment on the machine.

READ and FOLLOW all instruction decals.

WEAR OSHA required safety equipment when running the conveyor loader.

NEVER fill the fuel tank with the engine running.

NEVER fill fuel tank near an open flame, or when smoking

OPERATING SAFETY

ALWAYS make sure no person or object is in your line of travel BEFORE starting.

Work SLOWLY in tight areas.

DO NOT run engine in a closed building for long periods of time.

AVOID steep hills if possible.

ALWAYS look BEFORE changing your direction of travel.

AVOID leaving engine running without operator present.

STOPPING SAFETY

ALWAYS park the conveyor loader on solid, level ground. If this is not possible, always park the conveyor loader at a right angle to the slope.

USE proper flags, barriers and warning devices especially when parking in areas of traffic.

MAINTENANCE SAFETY

NEVER work on the conveyor loader with the engine running.

NEVER fill the fuel tank with the engine 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.

⚠ DANGER ⚠

NEVER WORK UNDER CONVEYOR WITHOUT PLACING SAFETY PINS IN POSITION. SEE FIGURE 1.

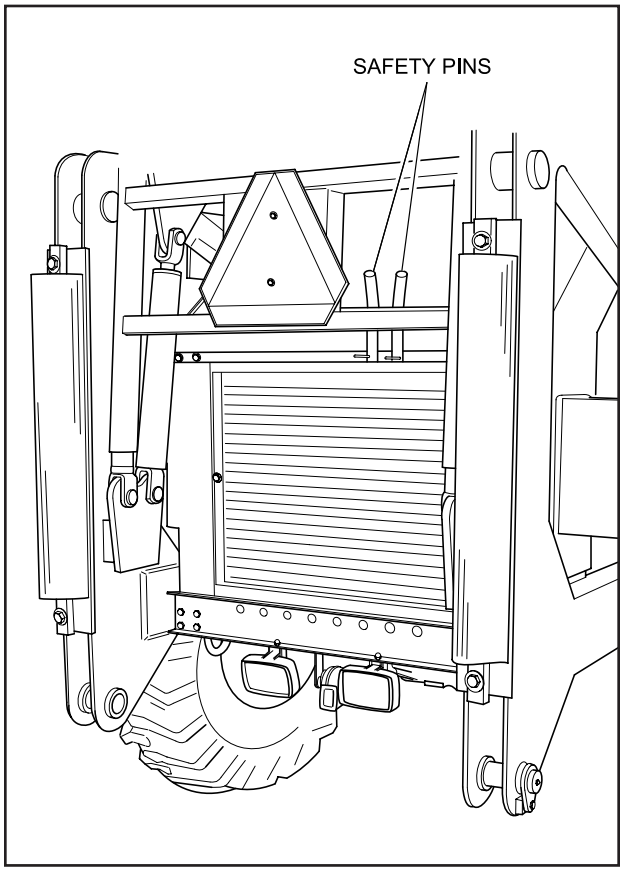


FIGURE 1. SAFETY PIN

Section 1
INTRODUCTION

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Section 1
INTRODUCTION

GENERAL INFORMATION

This manual contains Specification information, Controls and Operating Procedures, Maintenance and Repair Procedures and Parts Lists for the Model 3000 Force Feed Loader.

SPECIFICATIONS

Refer to Section 2 - SPECIFICATIONS in this manual for all major system specifications and for typical torque value tables.

CONTROLS AND OPERATING INSTRUCTIONS

Refer to Section 3 - OPERATION.

The operator of this equipment should READ, UNDERSTAND, and FOLLOW the operating instructions, Cautions, and Warnings provided in the front of this manual and in the OPERATION section.

WARNING: **Do not attempt to operate the Model 3000 Force Feed Loader unless fully trained in the machine operation, only authorized personnel should operate the Model 3000 Force Feed Loader. All instructions provided in this manual and on the machine operating and warning decals must be followed to prevent damage to the equipment and/or injury to operating personnel.**

MAINTENANCE PROCEDURES

Refer to Section 4 - MAINTENANCE in this manual for all maintenance and repair procedures. Maintenance information includes preventive Maintenance, Adjustment Procedures, and Replacement Procedures.

CAUTION: **All maintenance instructions provided in this manual should be followed to insure safety of the personnel performing the maintenance and to prevent damage to the machine.**

NAMEPLATE

The Nameplate (see Figure 1-1) contains the serial number and basic data used to identify the specific model on the conveyor loader.

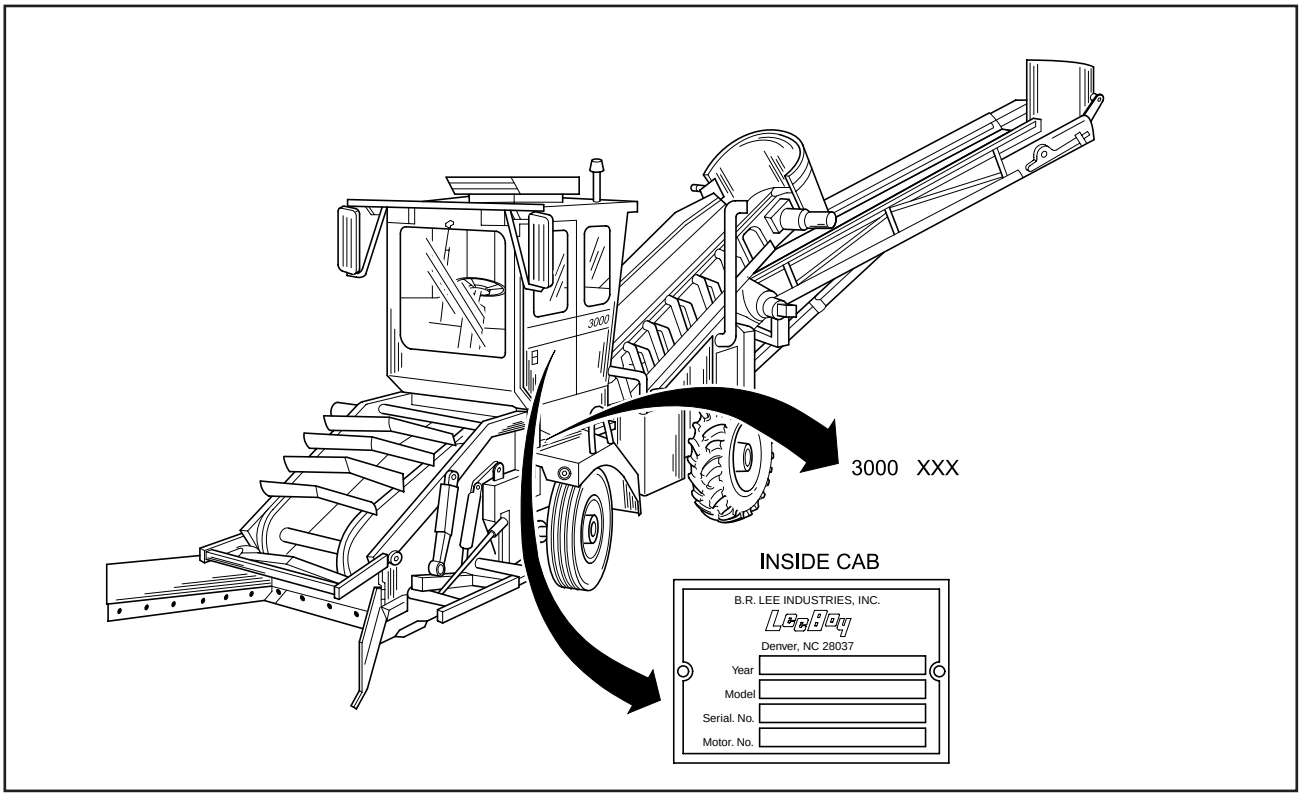

FIGURE 1-1. NAME PLATE

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SPECIFICATIONS

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Section 2
SPECIFICATIONS

GENERAL INFORMATION

The specifications provided in this section are applicable to the Model 3000 Force Feed Loader. Included in this section are machine weights, dimensions, performance and torque values for both metric and standard inch fasteners.

TABLE 2-1. ENGINE SPECIFICATIONS

ITEM	CHARACTERISTIC
ENGINE	
Model and Manufacturer	Cummins 4BT3.9P
Type	4 Cycle diesel
Number of Cylinders	Four
Bore & Stroke	4.02 in. [102 mm] x 4.72 in. [120 mm]
Displacement	239.3 cu. in. (3921 cu. cm.)
Engine Oil Type	10W-40
Firing Order	1, 3, 4, 2
Oil Capacity	12 Quarts [11.3 liter]
ENGINE COOLING SYSTEM	
Type	Radiator
Capacity	5.5 Gallons (20.8 liters)
ENGINE FUEL	
Type Used	Diesel Fuel
Fuel Capacity	52 gallons [197 liters]
FUEL FILTER	
Primary	P/N 160160
Secondary	P/N 160170
Fuel/Water Separator	P/N P521848
Oil Filter	
Screw on	P/N 160180

TABLE 2-2. ELECTRICAL SPECIFICATIONS

ITEM	CHARACTERISTIC
BATTERY	
Number Per Machine	Two maintenance free
Ampere Hour Rating	900 Amp
Voltage	12 Volts
ALTERNATOR	
Type and Voltage	12 Volt, negative ground
Output Amperage	105 Amps
Fan Belt Tension	Automatic belt tension mechanism keeps serpentine belt under tension at all times
STARTER	
Manufacturer	P/N 160310
Voltage and Type	12 Volt, negative ground

TABLE 2-3. DIMENSION SPECIFICATIONS [See Figure 2-1]

ITEM	SPECIFICATION
DIMENSIONS	
Overall Length	34′ (1036 cm)
Overall Height	
Minimum	10′ 5.5″ (320 cm)
Maximum	12′ 11″ (393 cm)
Overall Width (machine)	6′ 11″ (212 cm)
Overall Width (cab)	4′ 4.5″ (130 cm)
Weight	19,750 lbs (8958 kg)

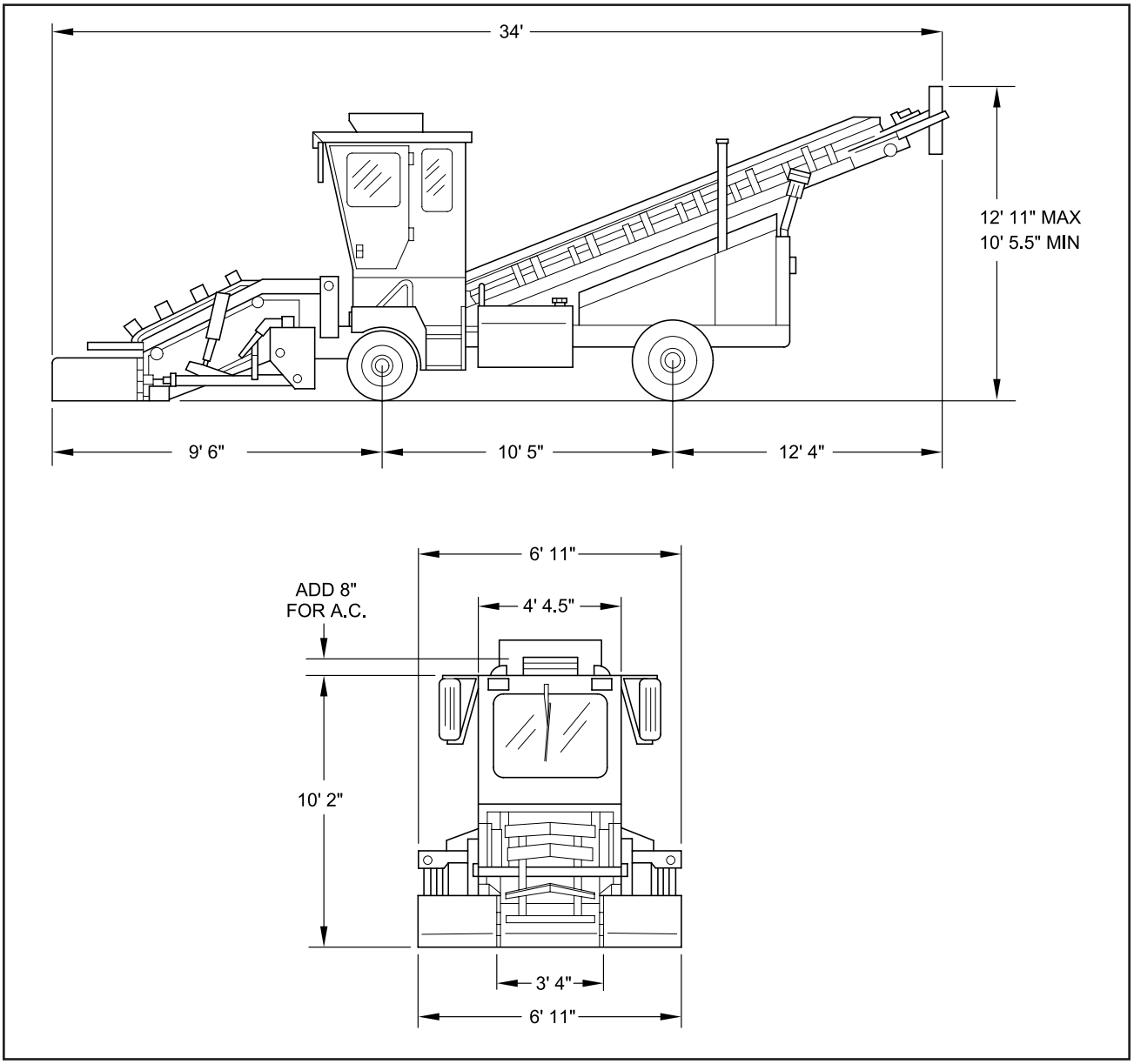

FIGURE 2-1. OUTLINE DIMENSIONAL DRAWING

TABLE 2-4. PERFORMANCE SPECIFICATIONS

ITEM	SPECIFICATION
SPEED	
Travel (Highway)	0-24 m/h (0-38.6.73 k/h)
Working	0-8 m/h (0-12.9 k/h)

TABLE 2-5. MISCELLANEOUS SPECIFICATIONS

ITEM	SPECIFICATION
Transmission	Hydrostatic w/heavy duty wheel hubs
Brakes	
Service Brake	Utilizes hydrostatic transmission (with 2-speed gear box)
Parking Brake	Multiple disc on rear end
Steering	Hydraulic power assisted
Tires	
Front	8.25 x 20 - 10 ply
Rear	14.9 x 24 - 6 ply
Feeder	
Raise and Lower	Hydraulically with variable speed control
Tapered moldboards	Toe and heel adjustable
Gathering width	7' (213 cm)
Conveyor	
Control	Variable speed
Belt width	30″ (76.2 cm)
Belt length	58′ 3″ (17.8 m)
Discharge	Hydraulically raised 10′ -11′ (3 - 3.4 m)
Cab	
Enclosure	Fully enclosed with safety glass
Seat	Padded with seal belt
Windshield wipers	Front and rear
Lights	Headlights, tail lights, turn indicators, work lights and instrument lights

TABLE 2-6. MACHINE SYSTEM CAPACITY SPECIFICATIONS

ITEM	SPECIFICATION
SYSTEM CAPACITIES	
Fuel	52 Gallons (75.7 liters)
Engine Lubrication Oil	12 quarts [11.35 liters] (with lubrication oil filter)
Cooling System	5.5 Gallons (20.8 liters)
Hydraulic Oil Reservoir	52 Gallons (75.7 liters)

TABLE 2-7. MACHINE HYDRAUIC PRESSURES

ITEM	SPECIFICATION
Brakes	1700 PSI (117 Bar)

TABLE 2-8. TYPES OF LUBRICANTS

ITEM	SPECIFICATION
Engine Oil	10W-40
Hydraulic Oil	AW #68
Torque Hub Grease	90 WT Gear Lub
Grease	Shell Avania EP Grease or Equivalent
Chain Lub	Chain Lub
Double Pump Drive	50 WT Oil

TABLE 2-9. TORQUE SPECIFICATIONS FOR STANDARD INCH FASTENERS

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.**

		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 NF	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

TABLE 2-10. TORQUE SPECIFICATIONS FOR METRIC FASTENERS

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.**

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

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Section 3
OPERATION

GENERAL INFORMATION

This section provides the Operating Instructions for the Model 3000 Force Feed Loader.

It is important to READ, UNDERSTAND,, and FOLLOW all “PRECAUTIONS, OPERATING INSTRUCTIONS, AND WARNINGS” written in this manual before starting or operating the machine.

DANGER: FAILURE TO OBSERVE THE "OPERATING PRECAUTIONS AND WARNING INSTRUCTIONS" PROVIDED IN THIS MANUAL CAN CAUSE SERIOUS INJURY OR DEATH. ONLY AUTHORIZED PERSONNEL, WHO ARE FULLY TRAINED IN THE MACHINE OPERATION, CAN OPERATE THE MODEL 3000 FORCE FEED LOADER.

This machine should be kept in good mechanical condition at all times.

WARNING: Do not operate a machine needing repair. 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. Minor damage can result in major system failures.

OPERATING CONTROLS, INDICATORS, AND GAUGES

Operating controls for the Model 3000 Force Feed Loader are shown in Figures 3-1 through 3-5 and listed in Table 3-1.

WARNING: Do not start or operate the Model 3000 Force Feed Loader before reading, understanding and following all information given in this section and shown on the machine. The operators must read and understand the function of all controls, indicators, and gauges before starting the engine. Serious injury or death can result if these procedures are not followed.

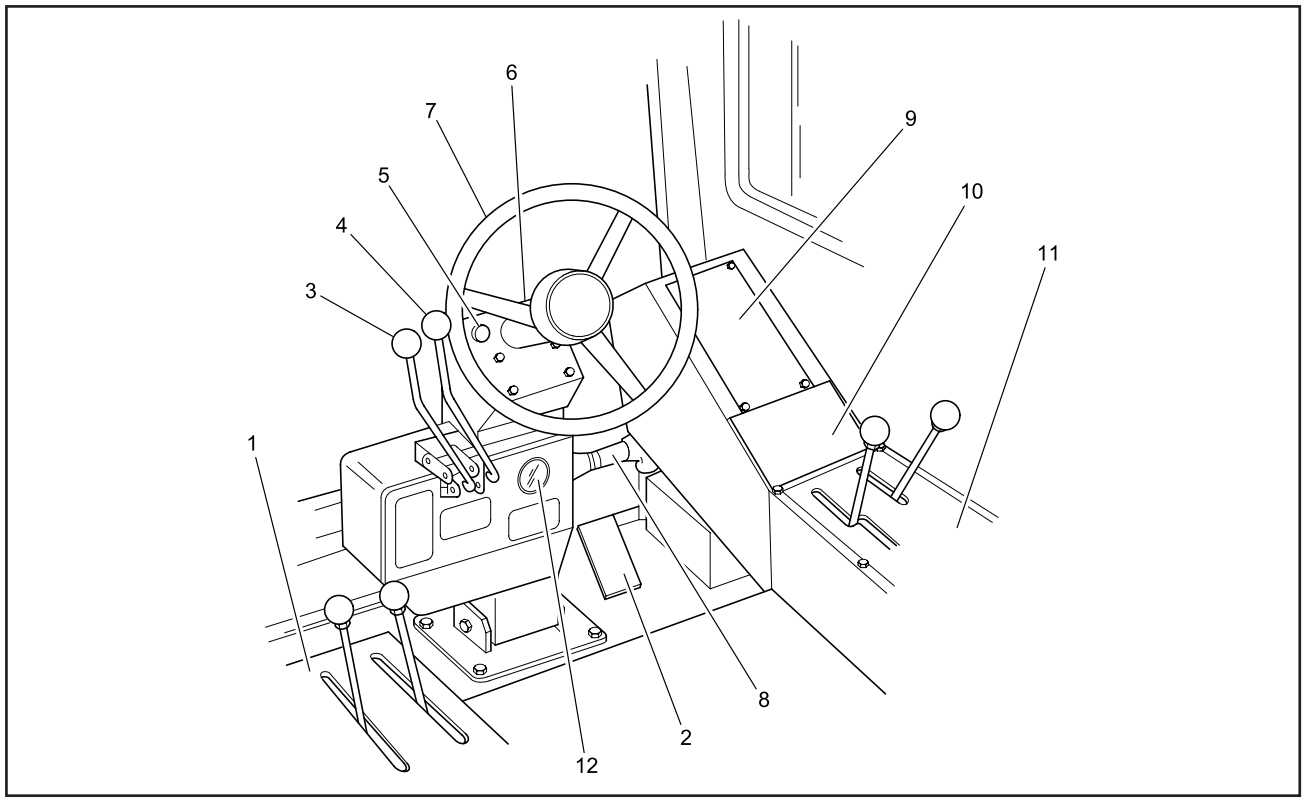

FIGURE 3-1. LOCATION OF CONTROLS

TABLE 3-1. OPERATING CONTROLS, INDICATORS, AND GAUGES

FIG. REF	ITEM NO.	CONTROL NAME	TYPE	FUNCTION
3-1	1	Conveyor Control Panel		Contains the conveyor control levers and battery disconnect switch (see Figure 3-3).
3-1	2	Brake Pedal		Applies operational brakes.
3-1	3	Moldboard Lift Control Lever	Lever	Adjusts position of moldboard. Pulling lever back causes mold-board to lift. Pushing lever forward places moldboard in float position.
3-1	4	Conveyor Lift Control Lever	Lever	Adjusts position of conveyor. Pulling lever back causes conveyor to lift. Pushing lever forward places conveyor in float position.
3-1	5	Emergency Flasher Switch	Push-pull	Pull out to start emergency flasher. Push in to turn off emergency flasher.
3-1	6	Right and Left Turn Indicator Switch	Three-position lever operated switch	Turns on the left or right directional flashers.
3-1	7	Steering Wheel		Steers machine.
3-1	8	Tilt Steering Lock Lever	Lever	Turn to lock or unlock.
3-1	9	Gauge Panel		Contains various gauges (see Figure 3-2).
3-1	10	Switch and Indicator Panel		Contains various switches and indicators (see Figure 3-4).
3-1	11	Travel Control Panel		Contains direction control, speed control, parking brake, motor lock, ether start, and gear shift (see Figure 3-5).
3-1	12	Hydraulic Oil Pressure Gauge	Gauge	Monitors the hydraulic oil pressure.

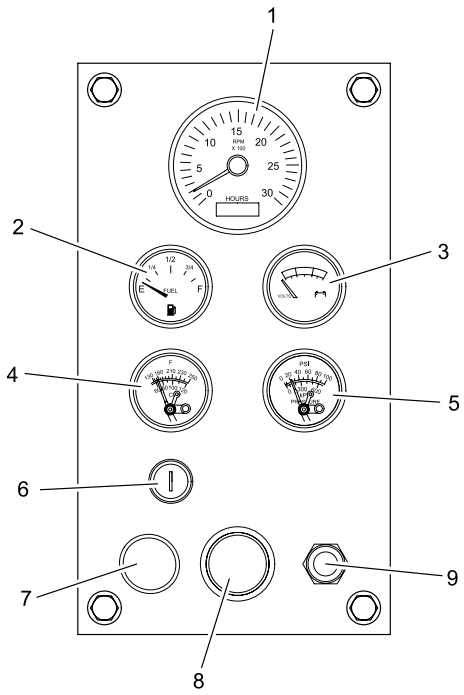

FIGURE 3-2. GAUGE PANEL

TABLE 3-2. GAUGE PANEL OPERATING CONTROLS, INDICATORS, AND GAUGES

FIG. REF	ITEM NO.	CONTROL NAME	TYPE	FUNCTION
3-2	1	Tachometer Gauge	Gauge	Indicates engine RPM.
3-2	2	Fuel Level Gauge	Gauge	Indicates amount of fuel remaining in fuel tank.
3-2	3	Voltmeter	Gauge	Indicates charge level of battery.
3-2	4	Temperature Gauge	Gauge	Indicates coolant temperature.
3-2	5	Pressure Gauge	Gauge	Indicates engine oil pressure.
3-2	6	Ignition Key Switch	Key operated rotary switch	Starts and stops the engine. Full clockwise is Start. Automatic return to center (Run) position when key is released. Full counterclockwise position is Off.
3-2	7	Warning Speaker	Speaker	Provides an audible warning when coolant temperature is too high or if engine oil pressure falls below required limit.
3-2	8	Warning Indicator	Red light	Provides a visual warning when coolant temperature is too high or if engine oil pressure falls below required limit.
3-2	9	Reset	Pushbutton	Resets for dash.

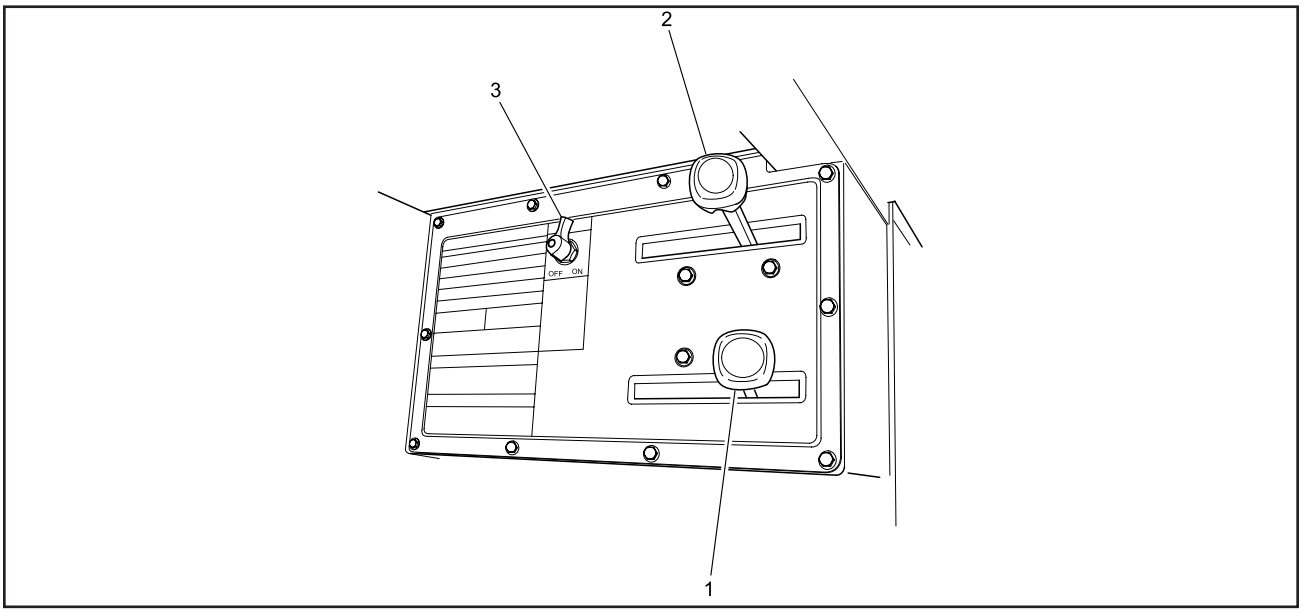

FIGURE 3-3. CONVEYOR CONTROL PANEL

TABLE 3-3. CONVEYOR CONTROL PANEL OPERATING CONTROLS, INDICATORS, AND GAUGES

FIG. REF	ITEM NO.	CONTROL NAME	TYPE	FUNCTION
3-3	1	Discharge CONVEYOR Lever	Lever	Pull backwards to set speed of belt. Push forward to reverse travel of belt.
3-3	2	FEEDER CHAIN Lever	Lever	Pull backwards to pick up material to put on belt. Push forward to reverse travel of chain.
3-3	3	Battery Disconnect Switch	Rotary switch	Disconnect the battery negative terminal from ground. Switch must be in ON position for machine operation.

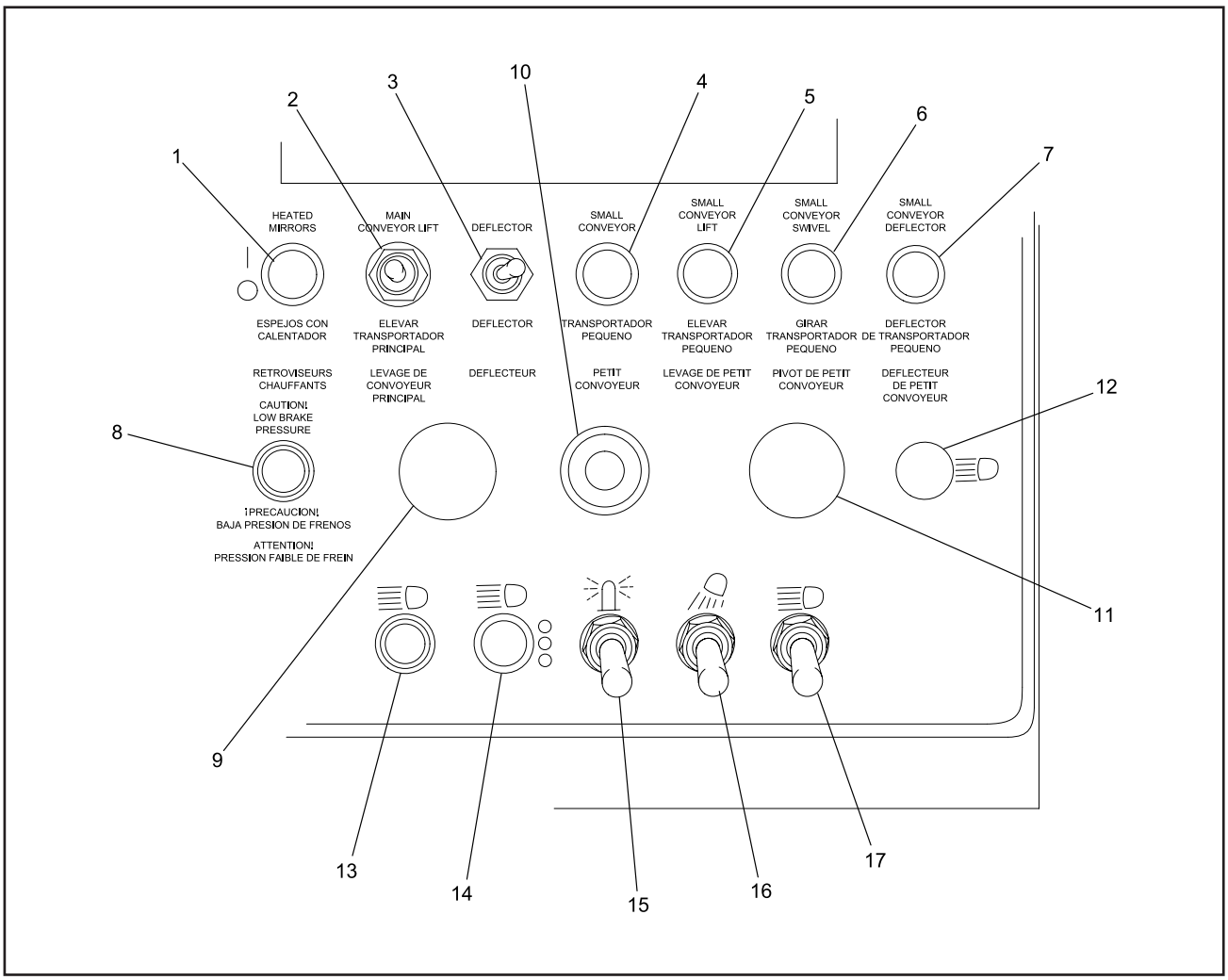

FIGURE 3-4. SWITCH AND INDICATOR PANEL

TABLE 3-4. SWITCH AND INDICATOR PANEL OPERATING CONTROLS, INDICATORS, AND GAUGES

FIG. REF	ITEM NO.	CONTROL NAME	TYPE	FUNCTION
3-4	1	HEATED MIRROR	Pushbutton	Turns on heat for mirrors.
3-4	2	CONVEYOR LIFT Switch	3-position toggle switch	Up position raises conveyor. Down position lowers conveyor. **NOTE:** Main conveyor must be raised at least 5 inches in order to rotate swivel conveyor.
3-4	3	DEFLECTOR Switch	3-position toggle switch	Controls positioning of the main deflector.
3-4	4	SMALL CONVEYOR Switch	Pushbutton	Turns small conveyor On or Off.
3-4	5	SMALL CONVEYOR LIFT Switch	Pushbutton	Lifts and lowers small conveyor.
3-4	6	SMALL CONVEYOR Switch	Pushbutton	Turns the swivel left or right.
3-4	7	SMALL CONVEYOR DEFLECTOR Switch	Pushbutton	Set the position of the small conveyor deflector.
3-4	8	CAUTION LOW BRAKE PRESSURE Indicator	Indicator light	Illuminates to indicate low brake pressure.
3-4	9	Front WIPER/WINDSHIELD Control	Rotary switch	Rotate control clockwise to turn on wipers. Press control for washer.
3-4	10	Horn switch	Pushbutton switch	Press switch to sound horn.
3-4	11	Rear WIPER/WINDSHIELD Control	Rotary switch	Rotate control clockwise to turn on wipers. Press control for washer.
3-4	12	Not Used		
3-4	13	Air Filter Warning Indicator	Indicator light	Illuminates when air filter needs cleaning.
3-4	14	Navigation Light Indicator	Indicator light	Illuminates when navigation lights are turned on.
3-4	15	Beacon Light Switch	Toggle	Turns beacon light On or Off.
3-4	16	Work Light Switch	Toggle	Turns work lights On or Off.
3-4	17	Headlight Switch	Toggle	Turn headlights On or Off.

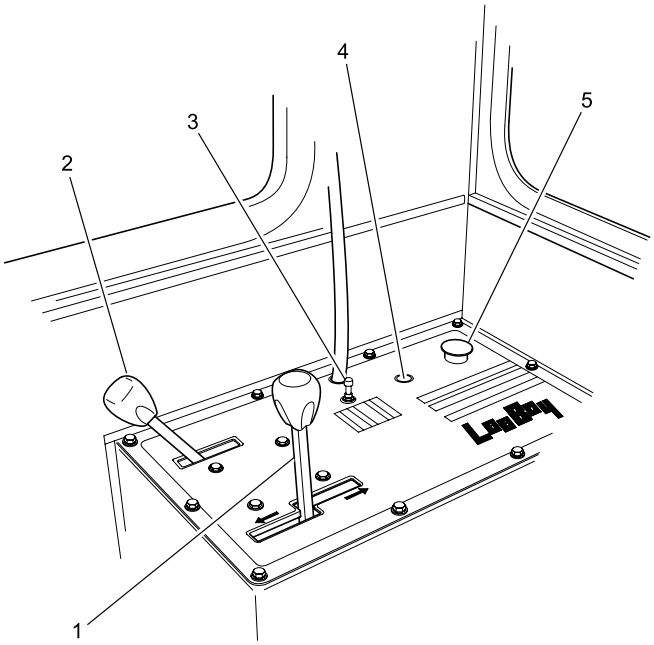

FIGURE 3-5. TRAVEL CONTROL PANEL

TABLE 3-5. TRAVEL CONTROL PANEL OPERATING CONTROLS, INDICATORS, AND GAUGES

FIG. REF	ITEM NO.	CONTROL NAME	TYPE	FUNCTION
3-5	1	Directional Lever	Lever	Sets the direction of travel. Center position is Neutral. Move forward to travel forward. Pull backward to travel in reverse. The speed increases as the lever is moved further forward or backward.
3-5	2	Throttle Lever	Lever	Control engine RPM. Move forward (turtle) to reduce RPM. Pull backwards (rabbit) to increase RPM.
3-5	3	Gear Shift Switch	2-position toggle switch	Place in forward position for low gear. Place in back position for high gear. **WARNING: Do not shift while machine is in motion.**
3-5	4	QUICK START Switch	Pushbutton	Injects ether into engine for cold weather starting.
3-5	5	Parking Brake Switch	Push-pull/turn	Press down to engage parking brake. Turn and pull up to release parking brake.

OPERATION

SAFETY

Operating Safety

Always make sure no person or object is in the line of travel before starting.

Work slowly in tight areas.

Do not run engine in a closed building for long periods of time.

Avoid steep hills if possible.

Always look before changing the direction of travel.

Avoid leaving engine running without operator present.

Keep hands, feet and clothing away from power driven parts.

Clothing worn by the operator should be relatively tight and belted. Do not wear loose jackets, shirts, sleeves or other items of clothing because of the danger of catching them in moving parts.

Before starting the engine, always check the service brakes and the parking brake to ensure proper working condition of both brakes.

Do not use the steering wheel as a handhold when getting in or out of vehicle.

Keep hands, floors and controls free from water, grease and mud to ensure non-slip control.

Never attempt to start or operate the loader except from the operator's platform.

Always keep the loader in gear when going down steep hills.

Always stand on the opposite side of the wheel away from the locking ring.

When transporting or driving on a road or highway at night or during the day, use accessory lights and devices for adequate warning to the operators of other vehicles. In this regard, check local government regulations.

Do not oil, grease or adjust any part of the loader while it is in motion.

Check for faulty wiring or loose connections.

Keep a firm grip on steering wheel at all times when speed is increased.

Do no allow anyone near the loader while the driver is in the seat with the engine running.

Reduce speed before turning or applying brakes. Drive at speeds slow enough to ensure your safety, especially over rough ground.

Do not operate the loader too fast on hillsides or curves.

Be sure the path ahead is clear to avoid collision with other machines.

Watch for overhead wires. Never touch wires with any part of loader.

Do not use loader as battering ram.

Keep the working area as level as possible.

Never allow anyone to work under a raised conveyor or other attachment.

Always lower conveyor and moldboard when machine is not in use.

Be sure that bystanders are clear of the loader before lowering or moving conveyor and other attachment.

Park loader on level ground or across the slope.

Stopping Safety

Always park the loader on solid, level ground in low range. If this is not possible, always park the loader at a right angle to the slope.

Use proper flags, barriers and warning devices, especially when parking in areas of traffic.

Maintenance Safety

Never work on the loader with the engine running.

Never refuel when the engine is running. Do not smoke while filling the fuel tank or servicing the system.

Do not change the engine governor settings.

Always replace damaged or lost decals.

Disconnect battery by using the DISCONNECT switch 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.

Work slowly in tight areas.

Do not run engine in a closed building for long periods of time.

Add coolant to the radiator only when the machine is stopped or idling slowly. To avoid being scalded when the pressure-type filler cap is being removed, turn the cap slightly to relieve pressure before removing the cap.

Be sure all tire rim parts are correctly assembled and interlocked, before inflating tires. Use an inflation gauge, safety cables or some other safety device during inflation.

Do not leave the engine running while making adjustments or repairs unless specifically recommended.

Never allow anyone to work under a raised conveyor or other attachments.

WARNING: Never work under conveyor without placing safety pins in position (Figure 3-6). One pin must be inserted into each lift cylinder. When removing pins be sure to place the pins back in the stored position above the cylinders.

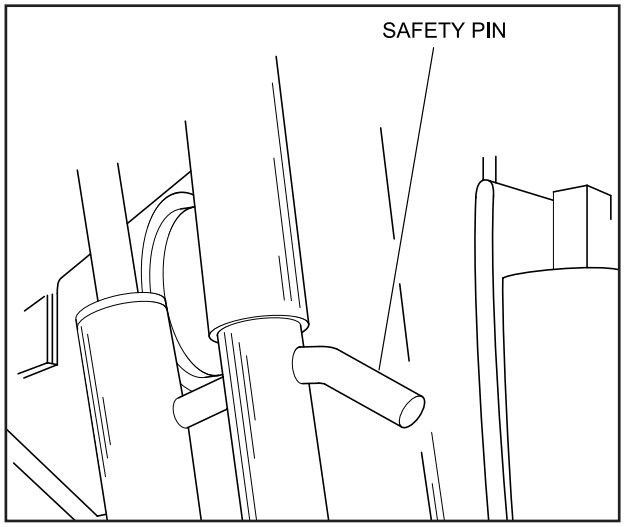

FIGURE 3-6. SAFETY PINS

INTRODUCTION

Daily inspection and servicing at required intervals is necessary for the safe operation and maximum service life of the LeeBoy Model 3000 Force Feed Loader and its components.

WARNING: Do not smoke when performing inspections or servicing unit. Flammable liquids are present.

INSPECTION BEFORE INITIAL START-UP

The following inspection by the operator is essential. This inspection should be performed on a daily basis. Procedures for performing the inspections are described in the MAINTENANCE Section of this manual.

Visually inspect the unit for familiarization and to check its general condition. Continue with a check of special systems and components.

OPERATOR INSPECTION LIST

INSPECTED ITEM	PROCEDURE
Hydraulic Tank	Check the tank on the right side of cab for oil level and for any leaks. Use AW #68 fluid.
Fuel Tank	Check for adequate fuel supply. Tank is located on left side of the cab.
Double Pump Drive	Check the oil level at the plug. Oil should flow out at proper level. (50 Wt oil)
Engine Crankcase	Check oil level with dipstick.
Radiator	Check the coolant level.
Battery	Make sure that all cables are tight and clean. Check for corrosion on the battery terminals.
Air Cleaner	Check the air filter element and hose connections. Air cleaner has both a primary and secondary filter
Planetary	Check oil level. (Drain and replace after the first 50 hours.
Tire Pressure	Check for proper inflation. (85 lbs. rear and 36 lbs. front.)
Drain Plugs	Make sure plugs are in and tight.
Engine Belt	Check for proper ten-sion of belt.
Grease Fittings	Make sure the fittings are greased and in good working order.
Lug Nuts-	Make sure lug nuts are tight and torqued to the correct value.
Front Axle	Pin, and cotter key and all bolts.

DAILY INSPECTION

Daily check the following items to maintain the life and reduce the maintenance cost of your Lee Boy 3000 Force Feed Loader.

WARNING: Do not service loader unless qualified

DAILY INSPECTION

ITEM	PROCEDURE
Hydraulic Oil Level	The hydraulic oil is checked by observing the gauge attached to the side of thehydraulic tank.
Feeder Bushings (Require daily lubrication)	Refer to the Feeder Assembly Adjustment Procedure in the MAINTENANCE Section.
Fuel Supply	The fuel supply can be checked on the fuel gauge on the gauge panel.
Fuel Filter	There are two twist-on fuel filters located on the left side of the engine. These are the primary and secondary fuel filters. Remove the filters by unscrewing.
Engine Oil Level	The engine oil level is measured on the right side of the engine. Open the access door to access the dipstick. Pull out the dipstick and make sure the oil is clean and falls between the two marks on the dipstick.
Coolant Level	Refer to the Radiator Check procedure in the MAINTENANCE Section. WARNING: Never remove radiator cap when hot. Serious burns can result from the hot liquid.
Air Cleaner Indicator	The air cleaner indicator is located on top of the air cleaner. When this indicator is "red", the air filters need to be replaced. Refer to the Air Filter Check procedure in the MAINTENANCE Section. The indicator can be reset by pressing the button on top of the indicator.
Engine Belt Tension	The engine belt must be checked for wear and proper tension. Refer to the Engine Drive Belt Removal and Installation Procedure in the MAINTENANCE Section for checking and replacing the belt.
Tire Pressure (85 Lbs. rear, 36 Lbs. front)	Refer to the Tire Pressure Check Procedure in the MAINTENANCE Section.
Conveyor Belt (For wear and proper alignment)	The conveyor belt must be centered. Check belt for proper centering. Refer to the Conveyor Belt Centering Procedure in MAINTENANCE Section for adjustment.

OPERATING PROCEDURES

START-UP PROCEDURE

NOTE: Refer to Table 3-1 for additional control information.

NOTE: The engine will not start unless the CONVEYOR, FEEDER CHAIN, and Forward/Reverse Direction Control levers are all in the Neutral position (see Figures 3-7 and 3-8).

1. Check that CONVEYOR lever and FEEDER CHAIN lever are in the Neutral (N) position.
2. Check that EMERGENCY/STOP brake switch is engaged (pushed down).
3. Check that Forward/Reverse Direction control lever is in Neutral (N) position.
4. Set Throttle lever about one-third the way toward the rabbit.
5. Set the Gear Shift switch to the "Low" position.
6. Set the CONVEYOR LIFT and DEFLECTOR switches to the "Center" position.

WARNING: If engine does not start, do not keep Ignition key in Start position for more than 30 seconds. Release key and wait at least 2 minutes before trying to starting again.

7. Turn the "Ignition" key switch clockwise to the start position.
8. When engine starts adjust throttle for a reading of 1500 RPM as shown on the RPM gauge. (Be careful not to over rev engine when warming up.)

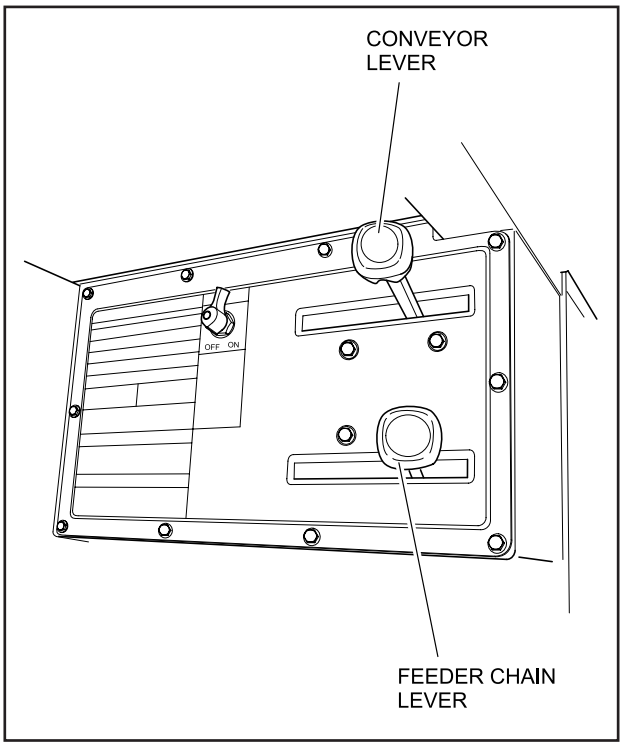

FIGURE 3-7. CONVEYOR CONTROL PANEL

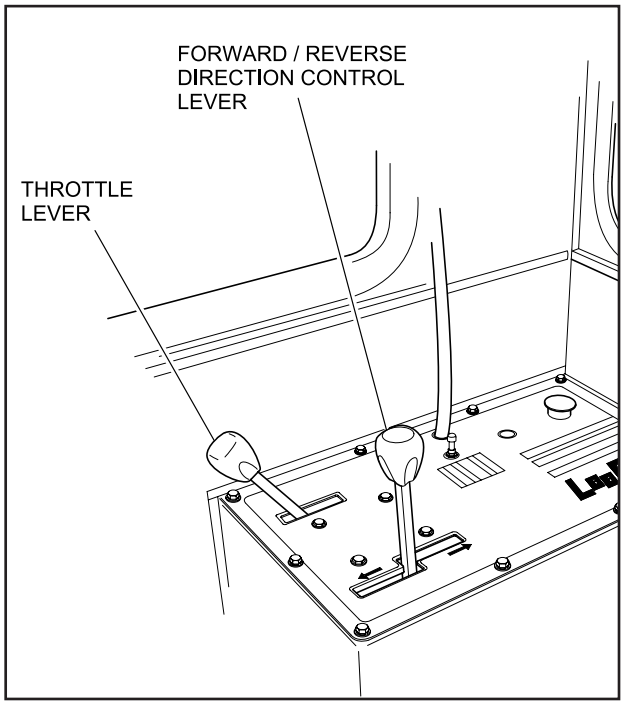

FIGURE 3-8. TRAVEL CONTROL PANEL

BRAKING

Braking is accomplished by pushing the Forward/Reverse (Directional) lever back to Neutral to slow down travel speed. Pushing the brake foot pedal down and using the disc brake pads also assist with the braking.

In emergency situations the fail-safe brake can be applied by pushing down on the EMERGENCY/STOP (parking brake) (See Figure 3-9).

PARKING BRAKE

The LeeBoy 3000 Force Feed Loader is equipped with an EMERGENCY/STOP parking brake located to the right of the operator below the High/Low Gear Shift switch. This pushbutton brake should only be used for emergency stopping or after being stopped for parking. This pushbutton, when engaged, will hold the vehicle from moving. To engage the brake, press down on the button. To release the brake, turn the button clockwise and pull the pushbutton up.

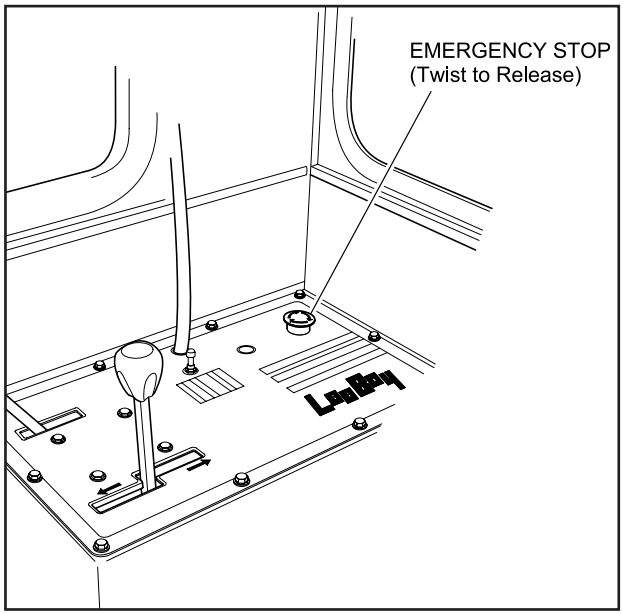

FIGURE 3-9. EMERGENCY/STOP PARKING BRAKE

SELECTING HIGH OR LOW SPEED.

WARNING: When using the High/Low toggle switch to change from low to high speed, or high to low speed, the vehicle must be stopped and the Direction Control lever set to the Neutral position.

The High/Low Gear Shift toggle switch (see Figure 3-10), is located below the Throttle on the right side of the operator. This switch selects the rear end speed. To shift the rear end speed ratio proceed as follows:

1. Check that Throttle is set to idle speed (turtle).
2. Set Forward/Reverse Direction Control Lever to the Neutral position.
3. Make sure the vehicle is stopped by using the foot brake pedal or by pressing the EMERGENCY/STOP button located below the High/Low Gear Shift switch.
4. Select the rear end speed ratio by placing the High/Low Gear Shift toggle switch in the desired position. Operator may need to jog to align gears.

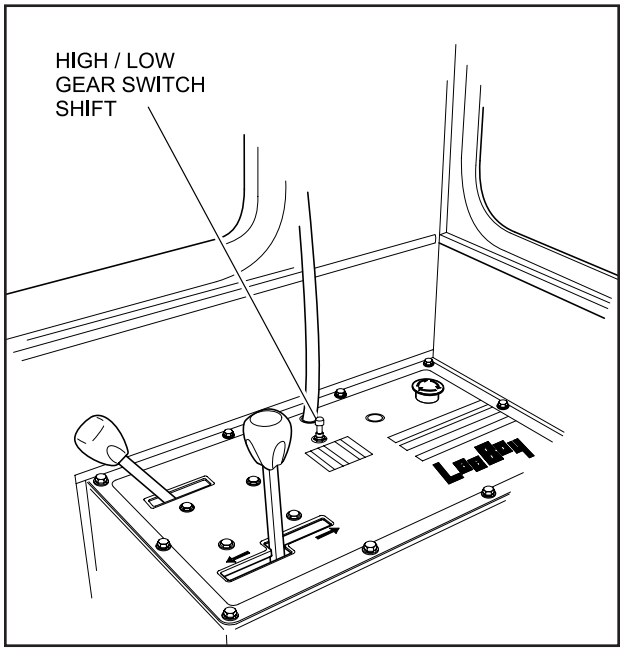

FIGURE 3-10. HIGH/LOW GEAR SHIFT TOGGLE SWITCH

FORWARD AND REVERSE

The LeeBoy 3000 Force Feed Conveyor Loader is equipped with a Forward/Reverse variable speed hydraulic motor with a two-speed rear end. The Forward/Reverse Directional Control lever (see Figure 3-8), located to the right of the operator, controls the speed of the hydraulic pump. This pump will control the speed of travel either in forward or reverse. A toggle switch located below the throttle lever selects either high or low speed in the two-speed rear end. Braking is accomplished by returning the Forward/Reverse Directional

Control lever to Neutral (center position). As the lever is moved toward Neutral the speed of travel will slow allowing the operator to choose the speed desired. In case of an emergency, the foot brake maybe also be used to slow the machine.

WARNING: When using the HIGH/LOW Gear Shift toggle switch to change from low to high speed, or high to low speed, the vehicle must be stopped and the Forward/Reverse Direction Control lever set to the Neutral position.

INCREASING TRAVEL SPEED

The travel speed is determined by the setting of the Throttle lever and the position of the HIGH/LOW Gear Shift switch. The Gear Shift switch is usually set to the High-speed position for transporting the machine a long distance.

FEEDER CHAIN

The feeder chain picks up the material and dumps it on the discharge conveyor belt. The FEEDER CHAIN lever (see Figure 3-7), on the left side of operator's station determines the speed of the feeder chain. Pushing the lever back to neutral slows and stops the feeder chain. Pushing it forward runs it in reverse.

DISCHARGE CONVEYOR BELT

WARNING: Never use hands to free a clogged belt. Keep clothing and hands away from moving belt.

The Discharge CONVEYOR lever (see Figure 3-7) is the outside lever to the left of the operator. When the lever is pulled backward, the belt will move to discharge material to the swivel or truck. The belt speed is controlled by how far the lever is advanced from Neutral and the engine RPM. By moving the lever forward, the belt will run in reverse to free up a clogged belt.

CONVEYOR LIFTING AND LOWERING

WARNING: If the conveyor is being raised to perform work under the conveyor, be sure to insert the safety pins (see Figure 3-6), into the cylinders. Conveyor should be in the down position for transporting.

Lifting and lowering the discharge conveyor is done by the CONVEYOR LIFT switch on the console to the right of the operator's station. This is a three-position toggle switch with the center position Off. When the switch is set to the Up position, the conveyor is raised. When the switch is set to the Down position, the conveyor is lowered.

The conveyor must be raised to allow a truck to be positioned under the conveyor. Lower the conveyor when traveling.

SWIVEL CONVEYOR

WARNING: Main conveyor must be raised before moving swivel.

To turn the swivel conveyor on, there is a toggle switch on the console to the right of the operator's console. Raising and lowering the swivel is done by a pushbutton switch also located to the right of the operator. To move the swivel from side to side use the pushbutton switch located on the console at the operator's right.

STOPPING THE ENGINE

1. Throttle back to idle by moving the throttle lever to the minimum RPM (turtle) position.
2. Move the Forward/Reverse Directional lever to the Neutral position.
3. Stop machine motion by pressing on the Brake pedal.
4. Press down on the EMERGENCY/STOP pushbutton switch to engage the parking brake.
5. Turn Ignition key on instrument panel counter-clockwise (CCW) to the OFF position and remove key.

MOLDBOARD

The moldboard float lever is located at the left side or the operator's station next to the steering wheel (see Figure 3-11).

NOTE: Both the left and right moldboards must be flat on the surface for proper operation.

When the moldboard lift and moldboard tilt levers are in an upward position lower moldboard tilt until the pointers on moldboard are lined up (see Figure 3-12). Now float moldboard until moldboard touches ground. The moldboards should be flat at

this time. If the moldboards do not sit flat they must be adjusted as described in the MAINTENANCE Section.

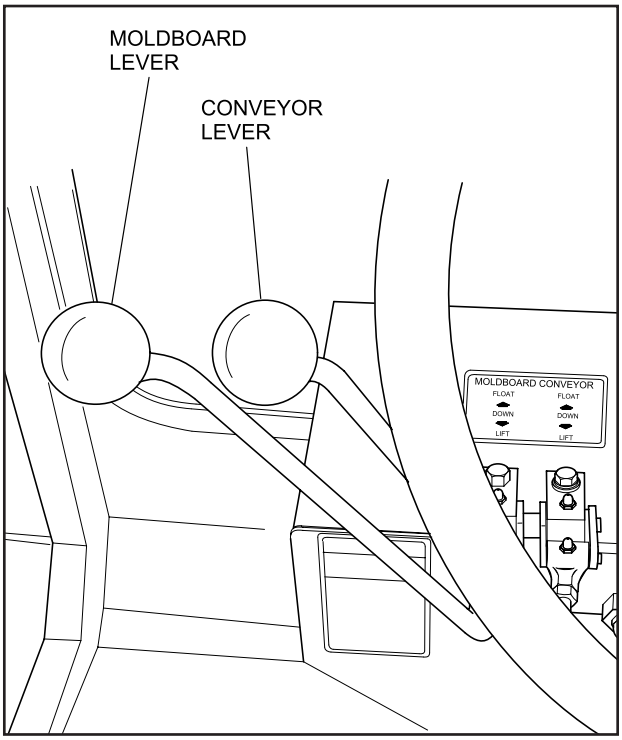

FIGURE 3-11. MOLDBOARD LEVERS

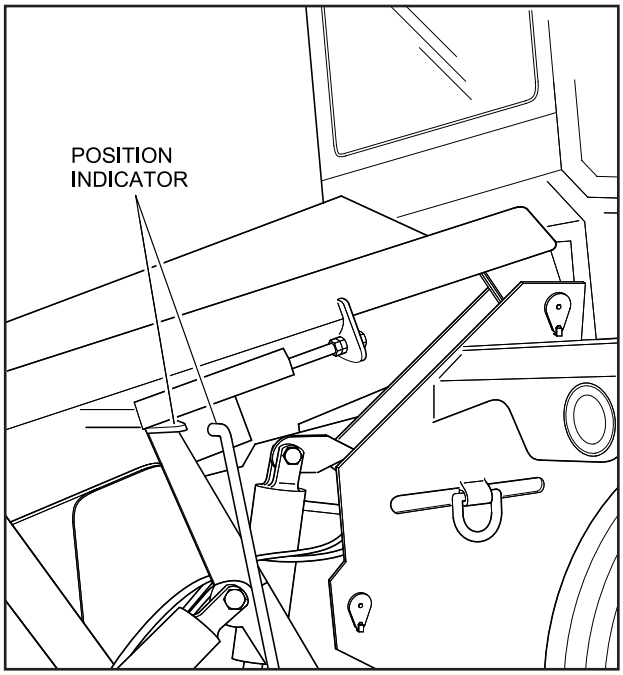

FIGURE 3-12. MOLDBOARD POSITION INDICATORS

TRANSPORTING

When transporting the loader on a trailer, the vehicle should be large enough to safely handle the size and weight of the loader in all driving situations.

1. Park the loader on a level surface with the EMERGENCY/STOP parking brake engaged (pressed down) and block the wheels in both directions so the loader will not roll.
2. Load the loader onto the trailer and block the wheels in both directions. Use enough chains to secure the loader to make sure that it will not move while transporting. Use the factory tie downs (See Ffigure 3-13).

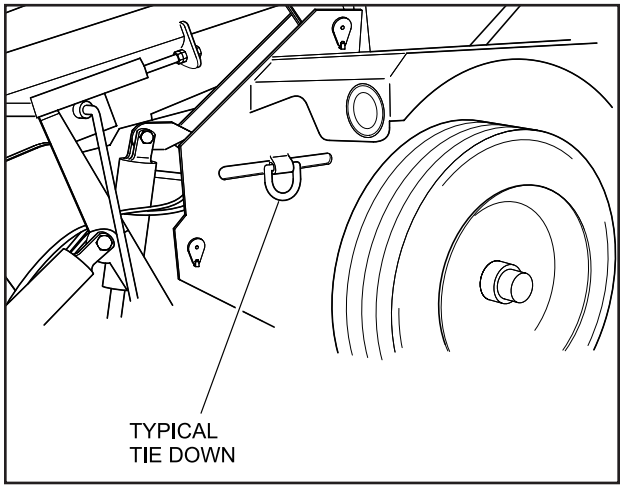

FIGURE 3-13. TYPICAL D RING FOR TIE DOWN

TOWING THE LOADER

Prepare the machine for towing as follows:

WARNING: Wheels must be blocked to prevent machine from moving while preparing machine for towing.

WARNING: The following procedure can only be used for new machines.

1. Block wheels to prevent machine from moving.
2. Using a small pry bar, manually pull shifting lever at front of rear end all the way out.
3. Now push lever all the way in.
4. Find center position to disengage gears for towing.
5. On the sides of the rear end, locate the screw with a square head (see Figure 3-14).
6. Using a caliper, measure the exact extension of the screw and record measurement.
7. Turn the screw all the way in to release the brakes for towing the machine.

To return the machine from the towing condition to normal operation proceed as follows:

1. Push shifting bar at front of rear end all the way in.
2. Adjust square head screw to the exact position measured in step 5 above.

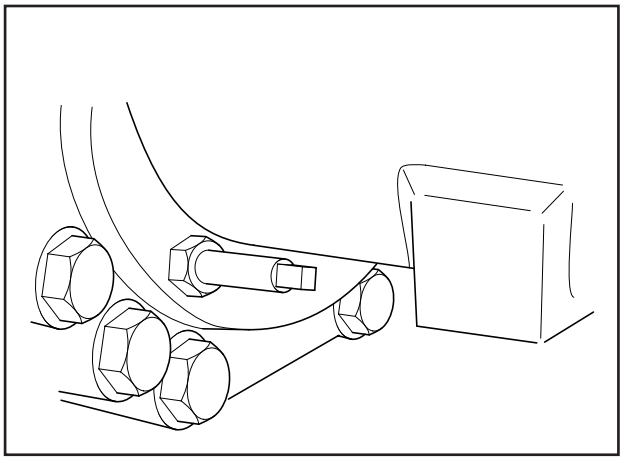

FIGURE 3-14. BRAKE RELEASE SCREW

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Section 4
MAINTENANCE

GENERAL INFORMATION

This section gives the necessary procedures for routine and general maintenance on the Model 3000 Force Feed Loader.

Follow all the Maintenance Schedules and Maintenance Procedures to maintain the machine in top operating order.

ROUTINE MAINTENANCE

GENERAL INFORMATION

MAINTENANCE must be a planned program that includes periodic machine inspection and lubrication procedures.

The MAINTENANCE program must be done, based on the machine's "Operating Hours", recorded on the hourmeter, or based on the "Periodic Schedule", which is done at time intervals of weekly, monthly or yearly.

The MAINTENANCE program is divided into two subsections: The Maintenance Schedule and the Maintenance Procedures.

MAINTENANCE SCHEDULE

General Information

The Maintenance Schedule lists the recommended time intervals between machine maintenance inspections and lubrication procedures. Table 4-1 gives inspection and lubrication information for the Model 3000 Force Feed Loader.

The "Hour" and "Periodic" time periods list most service intervals. The maintenance schedule begins with ten hours, or daily, maintenance intervals and continues through the 1,000 hours, or annual, maintenance schedule intervals.

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

Preventive maintenance on the Model 3000 Force Feed Loader will provide years of trouble-free operation. Adjustment can be performed in the field with ordinary hand tools. Engine preventative maintenance, other than oil, air and fuel filter changes is not covered in this section. Refer to engine operator's manual for engine service information.

IMPORTANT NOTICE!

The changing of oil and cleaning of the loader 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.

CAUTION: **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 10, 100, 250, and 1000 hours, always include previous routine maintenance hours to the higher hourly schedule.**

10 Hour or Daily Routine Maintenance

1. Check Engine Oil. Refer to Engine Check Procedures in this section.
2. Check Coolant Level. Refer to Radiator Check Procedures in this section.
3. Check Air Filter Gauge. Refer to Air Filter Check Procedures in this section.
4. Check Hydraulic Oil Level. Refer to Hydraulic Oil Check Procedures in this section.
5. Check Conveyor Belt Alignment. Refer to Conveyor Belt Check Procedures in this section.
6. Check Battery Cables for Wear. Visually check cables and cable connections to battery. Also check battery terminal for corrosion.
7. Check Drive Cables for Wear.
8. Check Hydraulic Hoses for Leaks. Visually check all hose connections.

50 Hour Routine Maintenance

1. Grease All Fittings Except Bearings. Refer to Lubrication Procedure in this section.

100 Hour or Monthly Routine Maintenance

1. Check all Battery Connections and remove any corrosion that is present.
2. Check Air Cleaner. 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. Also,

perform any other engine preventative maintenance as described in the engine operator's manual.

3. Check all Decals and Nameplates. Replace if any are missing or damaged.
4. Check Headlamps for secure mounting and in good working order.
5. Check Filler Cap, breather caps and grease fittings. Repair or replace if necessary.
6. Check for loose, missing, damaged, or corroded parts. Repair or replace as necessary.
7. Change Engine Oil. To assure complete removal of contaminants in the oil, perform the oil change while engine is warm. 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 each oil change (15W-40 Motor Oil).
8. Perform any other engine preventative maintenance as described in the engine operator's manual.
9. Check Pump Drive Gear Oil Level. Refer to Pump Drive Check Procedures in this section.
10. Check Differential Fluid Level. Refer to Differential Fluid Check Procedures in this section.
11. Check Two-Speed Transmission Oil Level. Refer to Two-Speed Transmission Check Procedures in this section.
12. Check Planetary Hub Fluid Level. Refer to Planetary Hub Check Procedures in this section.
13. Check Tire Pressure. 85 PSI front, 36 PSI rear.

250 Hour or Quarterly Routine Maintenance

1. Perform the 250-hour preventative maintenance as described in the engine operator's manual.
2. Replace Fuel Filters.
3. Replace Hydraulic Oil Filter.

500 Hour or Semi-Annual Routine Maintenance

1. Perform the 500 hour preventative maintenance as described in the engine operator's manual.

1000 Hour or Annual Routine Maintenance

1. Drain and Flush the Hydraulic Tank. A drain plug is located on the bottom of the tank for this purpose. The recommended hydraulic oil is AW #68.
2. Perform the 1,000-hour preventative maintenance as described in the engine operator's manual.
3. Anytime the loader has been repainted or the decals have been removed, damaged or can't be read, a new set of decals should be ordered and reinstalled for safe operation.

MAINTENANCE CHECK PROCEDURES

ENGINE OIL

To check the engine oil proceed as follows:

1. Lift engine cover located on the right side rear of machine to access the oil dipstick.

NOTE: Engine oil should be warm when checked

2. To check the engine oil, pull dipstick out of the engine and check that oil level is near the full mark on the dipstick (see Figure 4-1). If oil level is low add engine oil.
3. To add oil remove the fill cap located next to the dipstick. Twist to remove cap and twist to install (use 15W40 Motor oil).

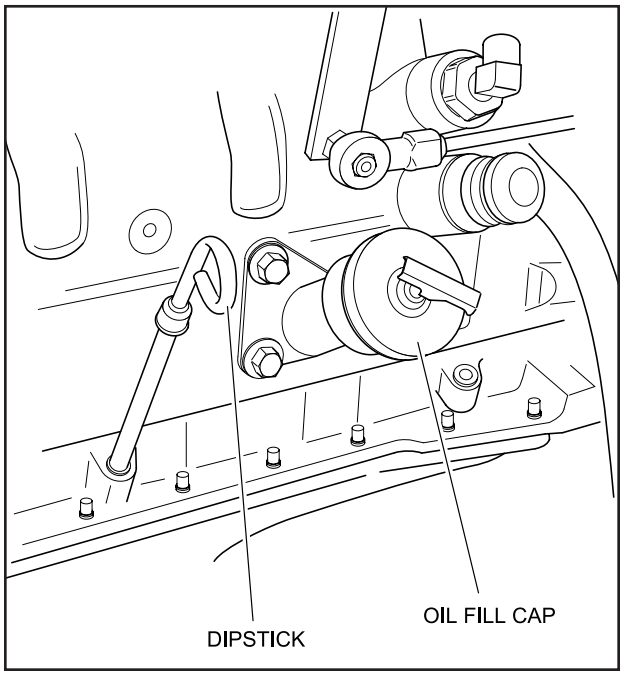

FIGURE 4-1. ENGINE OIL DIPSTICK AND FILL CAP

RADIATOR CHECK

The radiator fill cap is located behind a small access door marked RADIATOR. To check the radiator or add coolant proceed as follows:

1. Open the access door to access the radiator cap (see Figure 4-2).

WARNING: Do not remove the radiator cap while the engine is still hot. The radiator is under pressure and the hot water can cause serious injury to all persons around.

2. Remove the cap to check and fill radiator. Remove the cap only when the unit is cool. Coolant level should be visible when looking into radiator cap opening.
3. If coolant level is low, add coolant. Do not overfill.

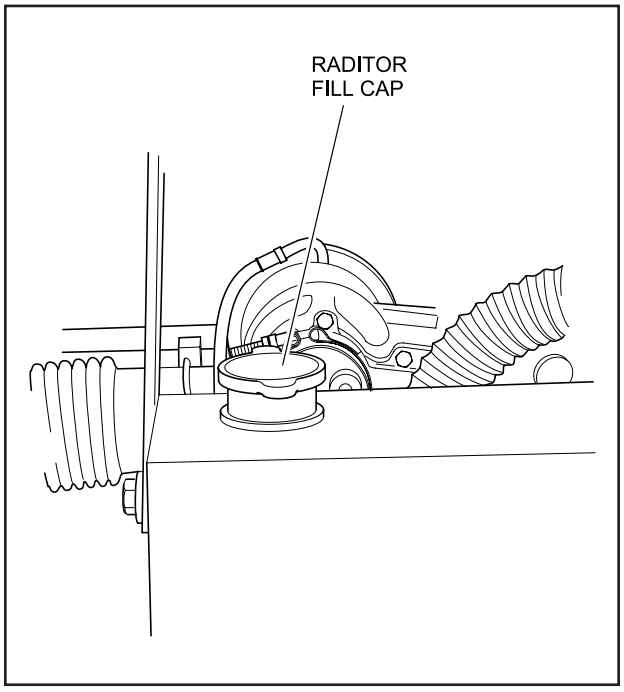

FIGURE 4-2. ENGINE RADIATOR FILL CAP

HYDRAULIC OIL LEVEL

The hydraulic oil tank level indicator is located on the hydraulic oil tank at the right of machine. Keep the proper level AW #68 fluid. Check oil level every morning with machine cold and fill as necessary. Machine holds 52 gallons (see Figure 4-3).

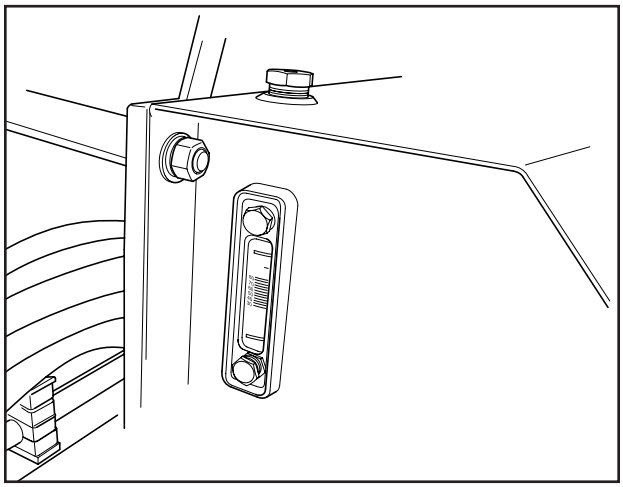

FIGURE 4-3. HYDRAULIC OIL LEVEL INDICATOR

AIR FILTER CHECK

The air filter indicator is located on the intake of the air filter (see Figure 4-4). As the air filter becomes more clogged, the air pressure increases causing the red flag in the indicator to become visible. When this occurs the air filter must be cleaned or replaced as follows:

1. Remove the wing nut (see Figure 4-4), securing the cover on the filter housing then remove the cover.
2. Remove the nut securing the outer filter and remove the outer filter.
3. Remove the nut securing the inner filter and remove the filter.
4. Replace the inner filter and secure with the nut.
5. Replace outer filter and secure with the nut.
6. Install cover and secure with the nut.
7. Reset the filter indicator by pressing down on the button on top of the indicator.

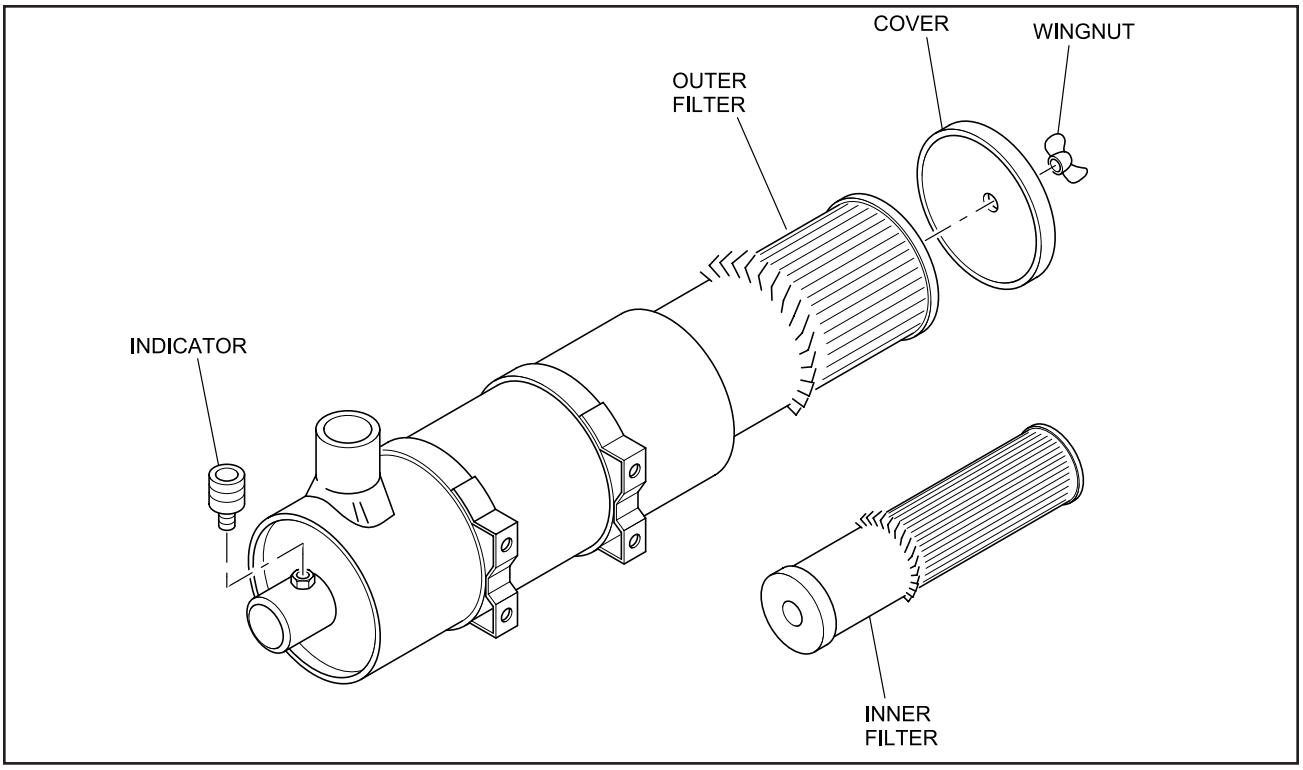

FIGURE 4-4. ENGINE AIR FILTER

ENGINE MAINTENANCE

GENERAL INFORMATION

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

For additional, very specific, engine maintenance information, see the current "OPERATION AND

MAINTENANCE MANUAL" -Cummins 4BT3.9P Series engine.

ENGINE LUBRICATION OIL

Checking the 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 (see Figure 4-5).

To accurately check the engine lubrication oil level, put the machine in a "level" position and stop the engine. Clean the area around the engine lubrication oil dipstick before removing the dipstick from the engine. 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.

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

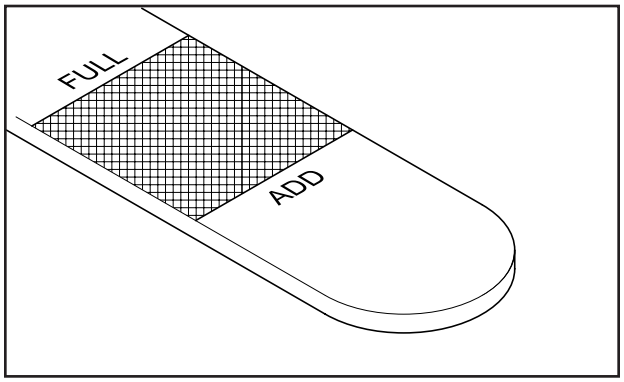

FIGURE 4-5. DIPSTICK

Changing the Engine Lubrication Oil

The engine lubrication oil must be changed according to the interval given in the current Cummins Diesel engine "OPERATION AND MAINTENANCE MANUAL".

NOTE: The color of the engine lubrication oil cannot be used as an indication of the need for an 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.

CAUTION: 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 "warm", proceed as follows:

1. Clean the area around the engine lubrication oil drain plug located on the engine oil pan.
2. Place a container, having a capacity of 15 quarts (20 liters), sufficient to hold the drained oil, directly under the engine lubrication oil drain plug.
3. Carefully remove the engine lubrication oil drain plug.
4. Drain all of the engine lubrication oil into the container.

NOTE: For steel pans, torque the drain plug to 59 ft-lb (80 N.m). For aluminum pans, torque the drain plug 44 ft-lb (60 N.m).

CAUTION: Do not overtighten the drain plug.

5. Clean, install and carefully tighten the lubrication oil drain plug to the correct torque.
6. Be sure that a new oil filter has been installed.
7. Fill the engine to the correct oil level, 12 quarts (10.3 liters), with the correct engine lubrication oil, 10W-40.
8. Install the engine lubrication oil dipstick.

CAUTION: Do not start the engine before changing the engine lubrication oil filter. Follow the procedures given in this section and in the current Cummins engine manual.

Changing The 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.

CAUTION: 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 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.

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 gauge panel FUEL gauge and indicates the amount of fuel in the tank. Fill the fuel tank "FULL". Also fill the tank, to "FULL", before the machine is stored for the night to reduce the accumulation of moisture in the tank, from condensation.

WARNING: **The operator must be off of the machine 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.**

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 Cummins engine manual. Replace the fuel filter using the following "general" procedure and very specific information given in the current engine manual.

WARNING: **Diesel fuel is very flammable. Use extra caution.**

Do not change the fuel filter with the machine 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.
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 counterclockwise 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. Put clean fuel on the element rubber gasket.
6. Install the "new" fuel filter element onto the filter head. Carefully tighten the element by hand only.

CAUTION: **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.**

7. 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.**

HYDRAULIC SYSTEM

GENERAL INFORMATION

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

CHECKING THE HYDRAULIC OIL LEVEL AND ADDING HYDRAULIC OIL TO THE HYDRAULIC OIL RESERVOIR

Check the hydraulic reservoir oil level daily by observing the indicator glass located on the end of the hydraulic tank (see Figure 4-6). Check the oil level when the hydraulic oil is at "normal" operating temperature only.

WARNING: **Do not loosen, or remove, the hydraulic oil reservoir filler cap when the hydraulic oil is hot. Always loosen the filler cap slowly to relieve any pressure in the hydraulic oil reservoir.**

Only loosen the filler cap when the oil is at a warm temperature.

If the hydraulic oil level is low on the indicator, the correct filtered hydraulic oil (AW #68) must be added to the hydraulic oil reservoir.

CAUTION: **Do not over fill the hydraulic oil reservoir.**

Do not use unfiltered hydraulic oil. The new hydraulic oil must be filtered before it enters the hydraulic oil reservoir. Keep the oil level of the hydraulic oil reservoir at the correct level. 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 The 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.

CAUTION: **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 (see Figure 4-6).

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 (2). 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.**

2. Carefully remove the drain plug from the hydraulic tank. Use a drain collection device of sufficient capacity, 52 gallons (75.7 liters), to collect the hydraulic oil. Allow all of the hydraulic oil to drain from the reservoir and into the container.

CAUTION: **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 (see Figure 4-6), and tighten securely.
4. Carefully remove the cloth from the hydraulic oil reservoir fill tube opening.
5. Fill the hydraulic oil reservoir with the correct, filtered hydraulic oil (AW #68).

CAUTION: **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 reservoir filler cap and tighten securely.
8. Start the engine using the correct procedures given in Section 3 - OPERATION of this manual. 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.**

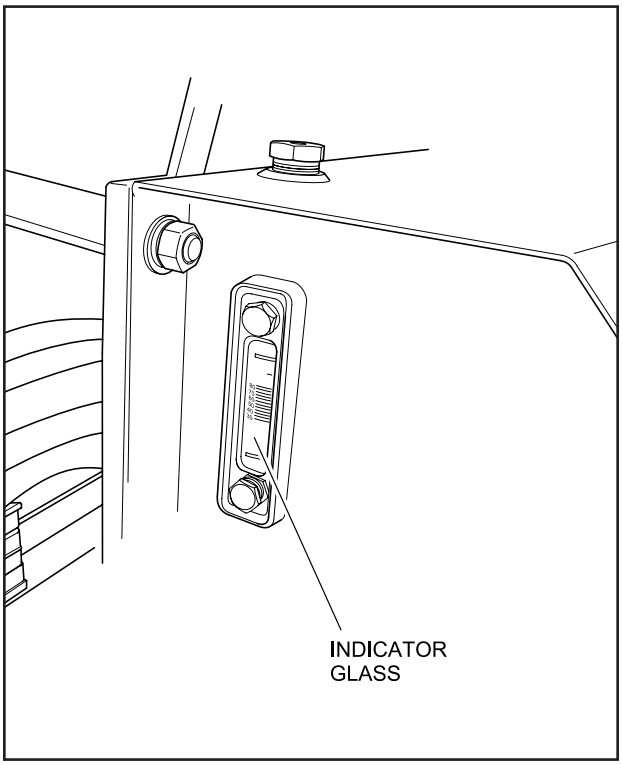

FIGURE 4-6. HYDRAULIC OIL TANK

CHANGING THE HYDRAULIC OIL STRAINER

The oil strainer is mounted in the oil filler opening under the filler cap.

WARNING: **Do not remove the hydraulic oil 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 (see Figure 4-6).
2. Remove the three 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 three screws.
5. Fill the hydraulic oil reservoir with the correct, filtered hydraulic oil.

CAUTION: **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 reservoir filler cap onto the reservoir filler neck and tighten securely.

TIRE PRESSURE

The tires should be maintained at the proper tire pressure. This should be done once a month. If a tire appears to be low when performing the daily check of the machine, measure the pressure to be sure of proper inflation. The tire pressure should be maintained at 85 PSI front and 36 PSI rear.

BATTERY SERVICING

WARNING: **Batteries contain sulfuric acid and normally produce explosive gases that can cause serious injury. Therefore, do not allow flames or sparks to come near the battery. When charging or working near a battery, always shield your face and protect your eyes. In case of acid contact with skin or eyes, flush immediately with water for a minimum of 15 minutes and get prompt medical attention. If acid is swallowed, call a physician immediately.**

The loader electrical system is a 12-volt negative ground system (see Figure 4-7). Keep sparks and flames away from the battery as electrolyte gas is highly flammable.

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

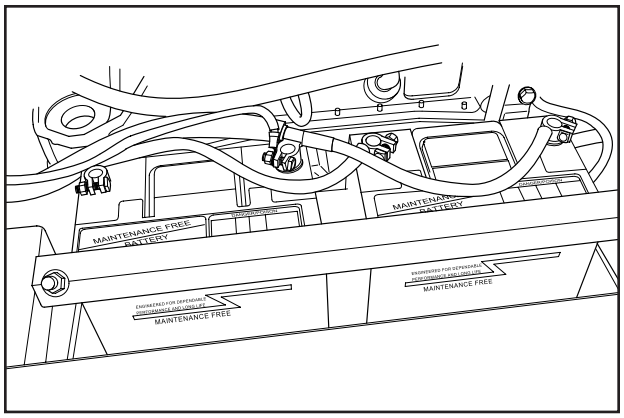

FIGURE 4-7. BATTERY

CAUTION: **When servicing the electrical system or welding on the machine, always turn the Master Disconnect switch to the OFF position to disconnect the ground strap from the battery to prevent damage to the machine electrical system. The Master Disconnect switch is located on the conveyor control panel on the left of the operator.**

Before connecting the battery, be sure the Disconnect switch is turned off. 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, which will quickly burn and pit terminals and posts.

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 buildup 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.

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

WARNING: **When using a booster battery, do not attach the negative (-) cable from the booster battery to the negative (-) post of the dead battery. A spark could occur and cause an explosion of gases normally present around the battery.**

When connecting a booster battery, if necessary for cold weather starting, 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 machine 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.
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 (+).

MACHINE LUBRICATION

Proper lubrication is necessary to maintain the machine at top efficiency. Refer to the lubrication information in Table 4-1 Lubrication Chart. All lubrication points are shown in Figure 4-8.

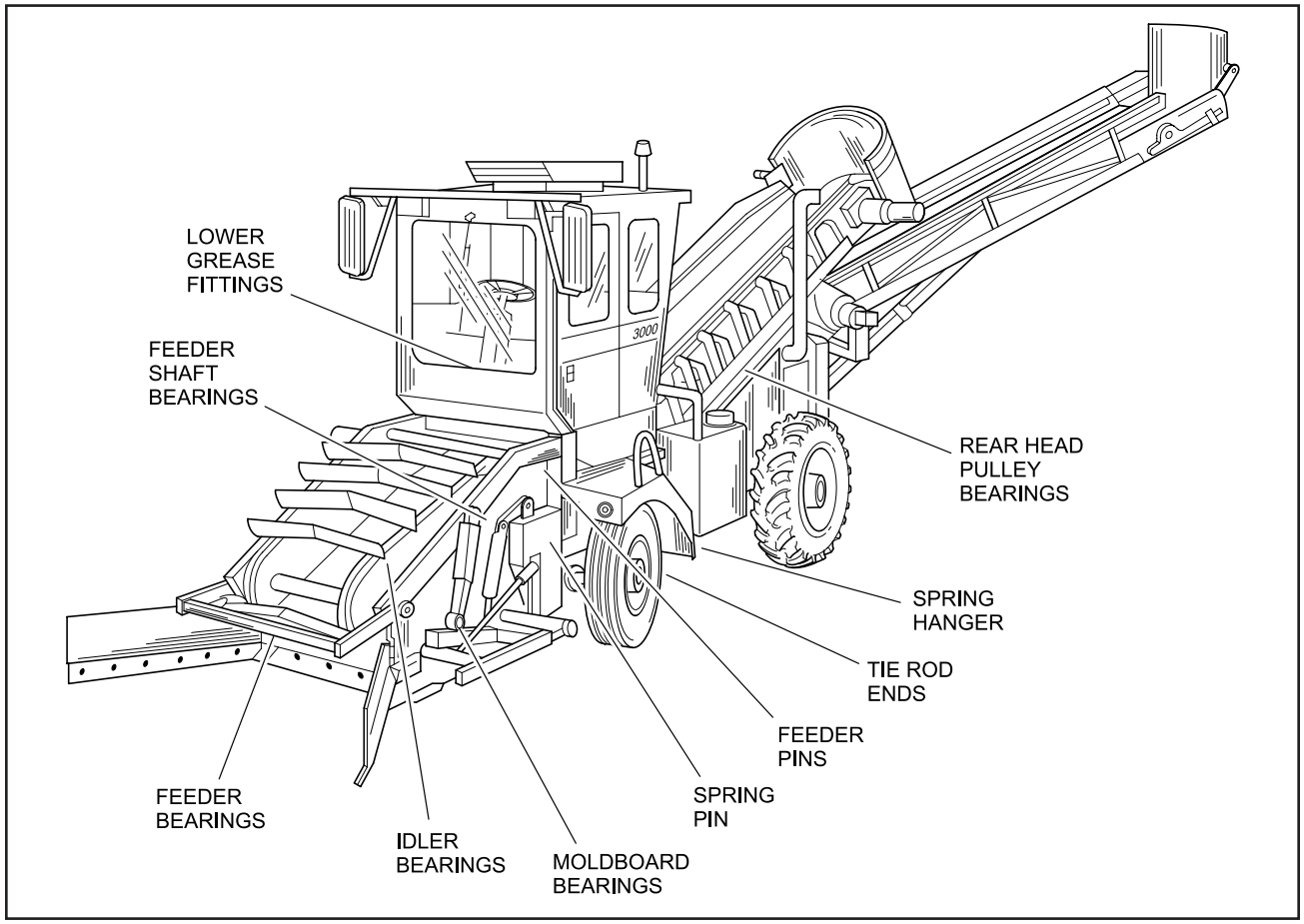

FIGURE 4-8. LUBRICATION POINTS

TABLE 4-1. LUBRICATION CHART

ITEM	TYPE OF LUBRICANT	INTERVAL
Hydraulic System	AW #68 Oil	Check Daily
Engine Oil	10W-40	Check Daily
Lower Grease Fittings	Shell Avania EP Grease 2	50 hrs
Feeder Shaft Bearings	Shell Avania EP Grease	50 hrs
Rear End (three places)	Shell Avania EP Grease	50 hrs
Feeder Bearings	Shell Avania EP Grease	50 hrs
Idler Bearings	Shell Avania EP Grease	50 hrs
Moldboard Supports	Shell Avania EP Grease	50 hrs
Spring Pin	Shell Avania EP Grease	50 hrs
Feeder Pins	Shell Avania EP Grease	50 hrs
Tie Rod Ends	Shell Avania EP Grease	50 hrs
Spring Hanger	Shell Avania EP Grease	50 hrs
Rear Head Pulley Bearings	Shell Avania EP Grease	50 hrs

MAINTENANCE ADJUSTMENTS

CONVEYOR BELT CENTERING

All part item numbers in the following procedure refer to the parts list for the HEAD PULLEY ASSEMBLY and the associated drawing in the parts manual.

The conveyor belt must be kept centered at all times. This should be checked visually daily. If the belt appears not to be centered proceed as follow:

NOTE: This adjustment is made with the conveyor raised and the belt running. The distance must be the same on both sides of the belt.

WARNING: Be sure safety pins have been inserted to prevent conveyor from falling.

1. Measure the distance from both sides of the belt to the frame (see Figure 4-9).
2 Determine which side has the belt closest to the frame. The adjustment will be made on that side of the belt. If the closest is the drive side proceed with step 2. If the closest is the bearing side, proceed with step 8.
3. Loosen cap screw (24) on both the top and bottom of the drive assembly.
4. Loosen the jam nut (7) and adjust position of drive by adjusting screw (12).
5 Allow conveyor to run several minutes and recheck measurements.

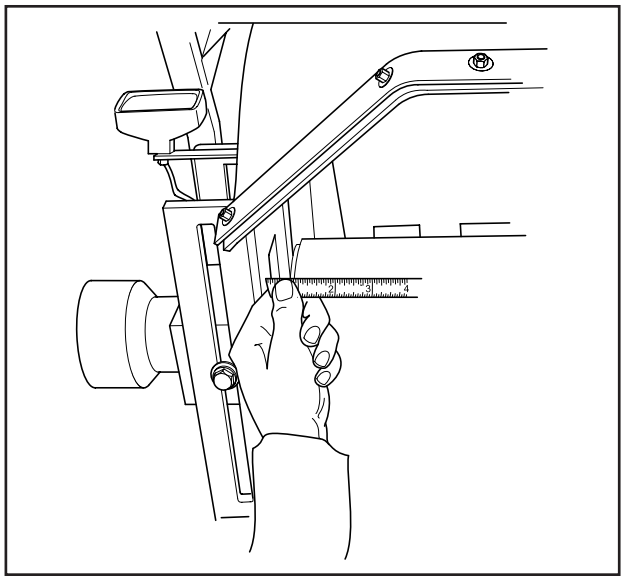

FIGURE 4-9. CENTERING MEASUREMENT

6. If belt is not centered repeat step 3 and 4. If belt appears to have moved more off center, adjust in the opposite direction.
7. If belt is now centered, tighten jam nut (7) and top and bottom cap screws (24).
8. Loosen bearing support cap screws (5) so bearing position can be changed.
9. Loosen lock nut (7) and adjust bolt (6) as necessary.
10. If belt is not centered repeat step 8 and 9. If belt appears to have moved more off center, adjust in the opposite direction.
11. If belt is now centered, tighten jam nut (7) and top and bottom cap screws (5).

CHAINS

All part item numbers in the following procedure refer to the parts list for the CONVEYOR PADDLE ASSEMBLY and the associated drawing in the parts manual.

The two chains for the conveyor paddle assembly must be adjusted to provide 1" of play. Perform this adjustment as follows:

1. Check the amount of play in the chains by pulling up on the center of the chain and check for approximately 1" of play. If the play is correct no adjustment is required. If the chain has too much slack proceed with step 2.
2. Loosen the nuts securing bracket (24) and bearing (13).
3. Loosen the jam nut of screw (7).
4. Adjust screw (7) so that the distance between the jam nut and the bracket (24) is approximately 4 inches (see Figure 4-10).
5. Tighten the jam nut on screw (7) to prevent a position change.
6. On the drive side, loosen the screws securing the top and bottom of the torque hub mount (4).
7. Loosen the jam nut on the adjusting screw (7) for the drive side.
8. Adjust screw (7) so that the distance between the jam nut and the torque hub mount (4) is approximately 4 inches (see Figure 4-11).
9. Tighten the jam nut on screw (7) to prevent a position change.
10. Recheck the chain for approximately 1" of slack. If necessary repeat the procedure.

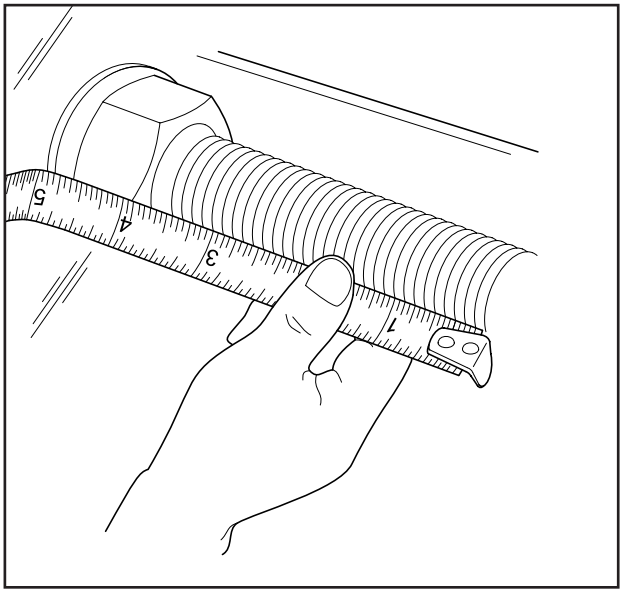

FIGURE 4-10. CHAIN ADJUSTMENT

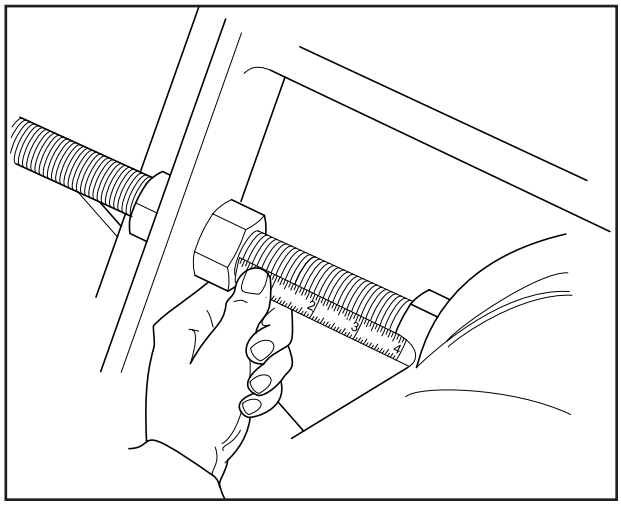

FIGURE 4-11. CHAIN ADJUSTMENT DRIVE SIDE

MOLDBOARDS

The moldboard float lever is located under the steering column at the left side of the operator's station. When moldboard lift and moldboard tilt are in an upward position, first lower moldboard tilt until the pointers in moldboard are lined up. Now float moldboard until moldboard touches ground. The moldboard should be flat at this time. If it is not flat, set it flat at this time and adjust the pointer. For best performance take the moldboard lift out of float and place the moldboard tilt in float. The moldboard lift can also be run with the moldboard in float. The traditional way is to not float but to raise and lower as needed.

FEEDER ASSEMBLY ADJUSTMENT

The feeder needs to be adjusted so that the weight of the feeder assembly is not resting on the moldboard (see Figure 4-12). The feeder should also be adjusted so that the roller (see Figure 4-13) is not touching the moldboard. Perform adjustments as follows:

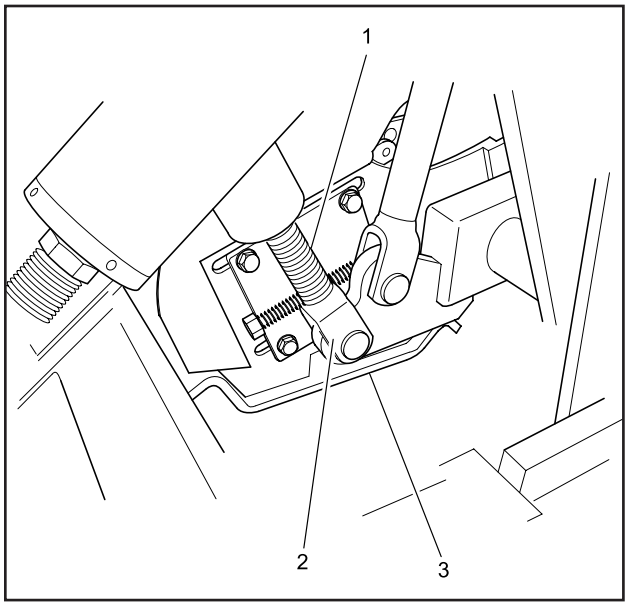

FIGURE 4-12. FEEDER ASSEMBLY ADJUSTMENT

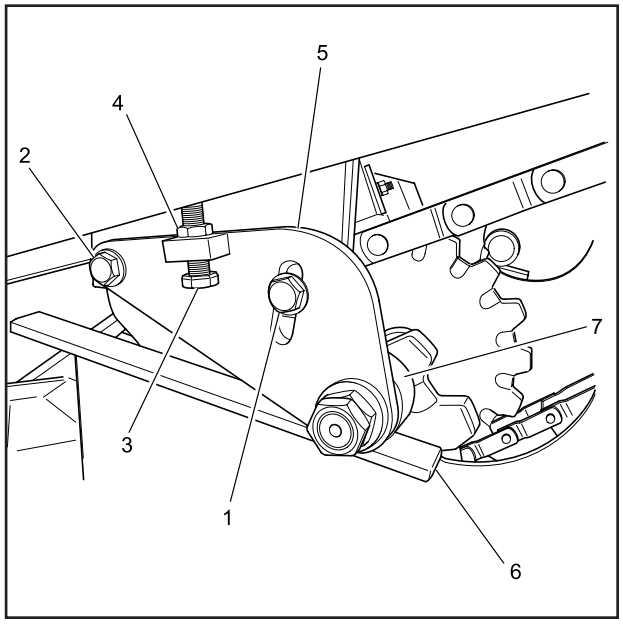

FIGURE 4-13. ROLLER ASSEMBLY ADJUSTMENT

1. Lower moldboards and feeder assembly.
2. Refer to Figure 4-12 and adjust nut (1) to remove the weight at the roller (2), from the moldboard (3).
3. Refer to Figure 4-13, and loosen bolts (1) and (2).
4. Loosen the jam nut (4).
5. Using a pry bar, raise roller end of bracket (5) so that roller (7) is about 1/2 inch clear of rail (6).
6. Tighten bolt (1) securely to attach bracket (5) in place.
7. Adjust bolt (3) to just touch frame.
8. Tighten jam nut (4) securely to fasten bolt (3) in position.
9. Tighten bolt (2) securely.

THROTTLE CABLE

All part item numbers in the following procedure refer to the parts list for the ENGINE COMPONENTS and the associated drawing in the parts manual.

The throttle cable normally will not require adjustment. If the engine RPM cannot be reduced to the idle RPM with the throttle at idle (turtle), the cable needs adjustment. The adjustment is made at the engine end of the throttle cable. Proceed as follows:

WARNING: Extreme care should be observed when performing this adjustment with the engine running.

1. Start machine and allow the machine to warm up until the engine is at normal operating temperature.
2. Set the Throttle to the idle (turtle) position and observe engine RPM on gauge. If engine idle is too high or low proceed with step 3 to adjust throttle linkage.
3. Turn engine Ignition switch to OFF to shut off the engine.
4. Open the engine access door to gain access to the throttle linkage.
5. Disconnect rod end (10) from the engine by removing the clevis pin.
6. Adjust the throttle rod end several turns.
7. Reconnect the throttle linkage to the engine
8. Restart engine and check RPM again.
9. Repeat steps 3 through 8, as necessary, to obtain the desired RPM.
10. Turn engine ignition switch to OFF to shut down the engine.
11. Tighten the jam nuts on the cable (6).
12. Reconnect the rod end to the throttle and tighten the jam nut against the rod end (10).
13. Close the engine access door.

LEVER LINKAGES

All lever linkages can be adjusted by loosening the jam nut on the rod end, then adjusting position of rod end. Be sure after making adjustments that the jam nuts are tightened against the rod ends.

REMOVAL AND INSTALLATION

SIDE MOLDBOARD CUTTING EDGE

All part item numbers in the following procedure refer to the parts list for the MOLDBOARD II and the associated drawing in the parts manual.

The side moldboard cutting edge needs to be replaced when worn. Replace the cutting edge as follows:

1. Raise the moldboards off the ground.

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine. Moldboard must be blocked up for safety.

WARNING: Never work under machine without blocking up moldboard.

2. Turn off engine and block the wheels to prevent movement and block up moldboard while working on the machine.
3. Clean the area around the cutting edge (5).
4. Remove the four plow bolts (12), washers (13) and nuts (14) securing the cutting edge (5) and remove the cutting edge.
5. Attach a new cutting edge (5) with the four plow bolts (12), washers (13) and nuts (14).
6. Torque nuts (14) to 210 ft-lb (285 N.m).
7. Lower moldboard and check to be sure moldboard is flat on the surface.

SIDE MOLDBOARD WEARPLATE

All part item numbers in the following procedure refer to the parts list for the MOLDBOARD II and the associated drawing in the parts manual.

The side moldboard wearplates need to be replaced when worn. Replace the wearplates as follows:

1. Raise the moldboards off the ground.

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

WARNING: Never work under machine without blocking up moldboard.

2. Turn off engine and block the wheels to prevent movement and block up moldboard while working on the machine.
3. Clean the area around the wearplate (4).
4. Remove the two plow bolts (12), washers (13) and nuts (14) securing the wearplate (4) and remove the wearplate.
5. Attach a new wearplate (4) with the two plow bolts (12), washers (13) and nuts (14).
6. Torque nuts (14) to 210 ft-lb (285 N.m).
7. Lower moldboard and check to be sure moldboard is flat on the surface.

SCOOP CUTTING EDGE

All part item numbers in the following procedure refer to the parts list for the MOLDBOARD II and the associated drawing in the parts manual.

The scoop cutting edge needs to be replaced when worn. Replace the cutting edge as follows:

1. Raise the scoop off the ground.

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

2. Turn off engine and block the wheels to prevent movement while working on the machine.
3. Clean the area around the cutting edge (6).
4. Remove the eight plow bolts (12), washers (13) and nuts (14) securing the cutting edge (6) and remove the cutting edge.
5. Attach a new cutting edge (6) with the eight plow bolts (12), washers (13) and nuts (14).
6. Torque nuts (14) to 210 ft-lb (285 N.m).
7. Lower scoop and check to be sure scoop is flat on the surface.

ALL PURPOSE MOLDBOARD CUTTING EDGE

WARNING: Never work under machine without blocking up moldboard.

All part item numbers in the following procedure refer to the parts list for the MULTIPURPOSE MOLDBOARD and the associated drawing in the parts manual.

The all purpose moldboard cutting edge needs to be replaced when worn. Replace the cutting edge as follows:

1. Raise the moldboard the ground.

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

2. Turn off engine and block the wheels to prevent movement while working on the machine.
3. Clean the area around the cutting edge (2).
4. Remove the eight plow bolts (3) and washers (4) securing the cutting edge (2) to the multipurpose moldboard (1) and remove the cutting edge (2).
5. Attach a new cutting edge (2) with the eight plow bolts (3) and washers (4).
6. Torque plow bolts (3) to 105 ft-lb (145 N.m).
7. Lower moldboard and check to be sure moldboard is flat on the surface.

CONVEYOR PADDLE BLADE

All part item numbers in the following procedure refer to the parts list for the CONVEYOR PADDLE ASSEMBLY and the associated drawing in the parts manual.

The paddle blade needs to be replaced when damaged. Replace the paddle blade as follows:

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

1. Turn off engine and block the wheels to prevent movement while working on the machine.
2. Clean the area around the paddle blade (6).

3. Remove the four plow bolts and nuts securing the paddle blade (6) to the chain assembly(5) and remove the paddle blade (6).
4. Attach a new paddle blade (6) with the four plow bolts and nuts.
5. Torque plow bolts to 150 ft-lb (205 N.m).

ENGINE DRIVE BELT

The engine drive belt should be replaced whenever the belt appears frayed or cracked. This belt drives the alternator as well as the cooling fan. Tension on the belt is maintained by a spring-loaded tensioner. To replace the belt proceed as follows:

Removal

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

1. Turn off engine and block the wheels to prevent movement while working on the machine.

NOTE: The spring-loaded belt tensioner must be pivoted away from the drive belt. Pivoting in the wrong direction can damage the tensionser.

2. Using a 3/8-inch square drive, lift the tensioner to relieve pressure on the belt and remove the belt.

Installation

1. Using a 3/8-inch square drive, lift the tensioner and hold.
2. Install the drive belt as shown in Figure 4-14.
3. Release the tensioner being sure the tensioner is properly pressing against the belt.

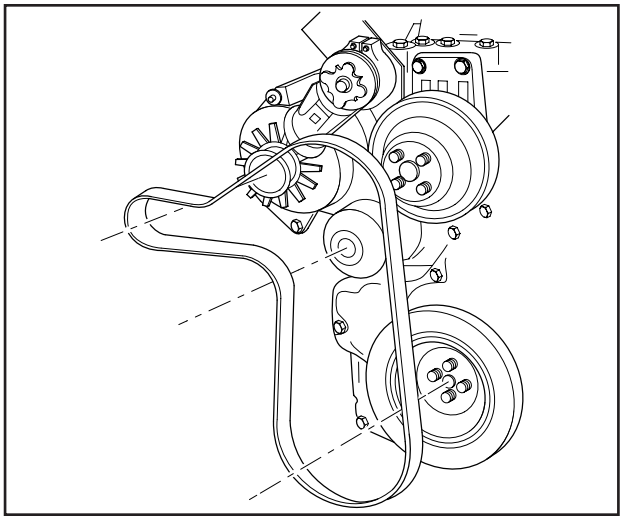

FIGURE 4-14. DRIVE BELT

CHARGE FILTER

There are two charge filters, one located on each side of the machine. These filters should be changed every 1,000 hours when the hydraulic fluid is changed.

HYDRAULIC CYLINDER REPLACEMENT

Scoop Tilt Cylinder

All part item numbers in the following procedure refer to the parts list for the MOLDBOARD II and the associated drawing in the parts manual.

WARNING: Before breaking any circuit connection, make certain that power is off and the system pressure has been released. Lower all vertical cylinders, discharge any accumulators, and block any load whose movement could generate pressure.

Removal

NOTE: Plug and cap all lines and ports when disconnected to prevent entry of dirt into the system.

1. Place a container under the cylinder to catch any hydraulic oil when the lines are disconnected.
2. Disconnect and label the two hoses connected to cylinder fittings.
3. Remove the two clevis pins (24) and cotter pins, securing cylinder (21).
4. Remove cylinder from machine.

Installation

1. Install the two clevis pins (24) and cotter pins to secure the cylinder (21).
2. Connect the two hydraulic hoses.
3. Add hydraulic oil, if necessary.
4. Start the engine and operate the cylinder to check for leaks and for proper operation.
5. Stop the engine.

Moldboard Lift Cylinder

All part item numbers in the following procedure refer to the parts list for the MOLDBOARD II and the associated drawing in the parts manual.

WARNING: **Before breaking any circuit connection, make certain that power is off and the system pressure has been released. Lower all vertical cylinders, discharge any accumulators, and block any load whose movement could generate pressure.**

Removal

NOTE: **Plug and cap all lines and ports when disconnected to prevent entry of dirt into the system.**

1. Place a container under the cylinder to catch any hydraulic oil when the lines are disconnected.
2. Disconnect and label the two hoses connected to cylinder fittings.
3. Remove the two clevis pins and cotter pins, securing cylinder (23).
4. Remove cylinder from machine.

Installation

1. Install the two clevis pins and cotter pins to secure the cylinder (23).
2. Connect the two hydraulic hoses.
3. Add hydraulic oil, if necessary.
4. Start the engine and operate the cylinder to check for leaks and for proper operation.
5. Stop the engine.

Steering Hydraulic Cylinder

All part item numbers in the following procedure refer to the parts list for the FRONT AXLE ASSEMBLY and the associated drawing in the parts manual.

WARNING: **Before breaking any circuit connection, make certain that power is off and the system pressure has been released. Lower all vertical cylinders, discharge any accumulators, and block any load whose movement could generate pressure.**

Removal

NOTE: **Plug and cap all lines and ports when disconnected to prevent entry of dirt into the system.**

1. Place a container under the cylinder (5) to catch any hydraulic oil when the lines are disconnected.
2. Disconnect and label the two hoses connected to cylinder fittings.
3. Remove the two nuts and washers securing the two tie rod ends (8) to the front axle and the spindle.
4. Remove cylinder from machine.
5. Remove tie rod ends (8) from cylinder (5).

Installation

1. Install tie rod ends (8) and jam nuts to cylinder (5).
2. Attach the two tie rod ends (8) to the front axle and the spindle by adjusting tie rod ends and securing tie rod end positions with the jam nuts.
3. Connect the two hydraulic hoses.
4. Add hydraulic oil, if necessary.
5. Start the engine and operate the cylinder to check for leaks and for proper operation.
6. Stop the engine.

Conveyor Lift Cylinder

All part item numbers in the following procedure refer to the parts list for the CONVEYOR ASSEMBLY and the associated drawing in the parts manual.

WARNING: **Before breaking any circuit connection, make certain that power is off and the system pressure has been released. Lower all vertical cylinders, discharge any accumulators, and block any load whose movement could generate pressure.**

Removal

NOTE: **Plug and cap all lines and ports when disconnected to prevent entry of dirt into the system.**

1. Place a container under the cylinders (5) to catch any hydraulic oil when the lines are disconnected.
2. Disconnect and label the two hoses connected to cylinder fittings.

3. Remove the two clevis pins (14) and clip pins (15) attaching the cylinder (5) to the frame and the conveyor.
4. Remove cylinder from machine.

Installation

1. Install the two clevis pins (14) and clip pins (15) to secure the cylinder.
2. Connect the two hydraulic hoses.
3. Add hydraulic oil, if necessary.
4. Start the engine and operate the cylinder to check for leaks and for proper operation.
5. Stop the engine.

Discharge Baffle Hydraulic Cylinder

All part item numbers in the following procedure refer to the parts list for the HEAD PULLEY ASSEMBLY and the associated drawing in the parts manual.

WARNING: Before breaking any circuit connection, make certain that power is off and the system pressure has been released. Lower all vertical cylinders, discharge any accumulators, and block any load whose movement could generate pressure.

Removal

NOTE: Plug and cap all lines and ports when disconnected to prevent entry of dirt into the system.

1. Place a container under the cylinders (1) to catch any hydraulic oil when the lines are disconnected.
2. Disconnect and label the two hoses connected to cylinder fittings.
3. Remove the clevis pins (2) and clip pin attaching the cylinder base.
4. Remove the clevis pins (3) and clip pin attaching the cylinder rod.
5. Remove cylinder from machine.

Installation

1. Install the clevis pins (2) and clip pin attaching the cylinder base.
2. Install the clevis pins (3) and clip pin attaching the cylinder rod.
3. Connect the two hydraulic hoses.
4. Add hydraulic oil, if necessary.
5. Start the engine and operate the cylinder to check for leaks and for proper operation.
6. Stop the engine.

FRONT TIRE REPLACEMENT

All part item numbers in the following procedure refer to the parts list for the FRONT AXLE ASSEMBLY and the associated drawing in the parts manual.

WARNING: The rim and tire assemblies for the front wheels are very heavy and must be supported when lug nuts are removed.

Removal

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

1. Turn off engine and block the wheels to prevent movement while working on the machine.
2. Release any air that remains in the tire.
3. Use a jack or hoist to lift the side of the machine so that the wheel assembly (31) to be removed just clears the floor.
4. Place supports under the machine to keep tire clear of the floor.
5. Attach a sling or other support to the tire.
6. Remove the eight lug nuts from the wheel and carefully remove the wheel from the machine.
7. Using standard tire removal tools, remove the tire from the wheel.

Installation

1. Install a new tire on the wheel.
2. Inflate the tire to 85 PSI.
3. Using a sling or other support for the wheel assembly (31), align the mounting holes with the studs on the hub (23).
4. Install the eight lug nuts on the studs to hand tightness.
5. Torque the lug nuts in a diagonal pattern to 300 ft-lb (407 N.m).
6. Lower the tire to the ground.
7. Remove jack or supports from machine.

REAR TIRE REPLACEMENT

All part item numbers in the following procedure refer to the parts list for the REAR END ASSEMBLY and the associated drawing in the parts manual.

WARNING: The rim and tire assemblies for the rear wheels are very heavy and must be supported when lug nuts are removed.

Removal

WARNING: Engine must be turned off and the wheels blocked to prevent motion when servicing the machine.

1. Turn off engine and block the wheels to prevent movement while working on the machine.
2. Release any air that remains in the tire.
3. Use a jack or hoist to lift the side of the machine so that the wheel assembly (16 and 17) to be removed just clears the floor.
4. Place supports under the machine to keep tire clear of the floor.
5. Attach a sling or other support to the tire.
6. Remove the twelve lug nuts from the wheel and carefully remove the wheel from the machine.
7. Using standard tire removal tools, remove the tire from the wheel.

Installation

1. Install a new tire (17) on the wheel (16).
2. Inflate the tire to 36 PSI.
3. Using a sling or other support for the wheel assembly (16 and 17), align the mounting holes with the hub studs on the rear axle (1).
4. Install the twelve lug nuts on the studs to hand tightness.
5. Torque the lug nuts in a diagonal pattern to 500 ft-lb (678 N.m).
6. Lower the tire to the ground.
7. Remove jack or supports from machine.

CONVEYOR HEAD PULLEY BEARING

All part item numbers in the following procedure refer to the parts list for the HEAD PULLEY ASSEMBLY and the associated drawing in the parts manual.

WARNING: This procedure should only be performed with the equipment not operating.

Removal

1. Check that machine is turned off and key is removed from the ignition.
2. Remove the two caps screws (5) and the associated hardware.
3. Slide the bearing (4) off the shaft (15) and remove bearing from machine.

Installation

1. Clean mounting surface.
2. Slide new bearing (4) onto shaft (15).
3. Install front cap screw (5) through bearing mount and hole in frame.
4. Attach nut and washers to cap screw (5) but do not tighten at this time.
5. Install rear cap screw through a washer, then through adjusting bolt (6) and the mounting hole in the frame.
6. Attach nut and washers to cap screw (5).
7. Torque both nuts to 375 ft-lb (508 N.m).
8. Lubricate bearing.

MUFFLER

All part item numbers in the following procedure refer to the parts list for the MUFFLER ASSEMBLY and the associated drawing in the parts manual.

WARNING: This procedure should only be performed with the equipment not operating and cooled down. When the machine has been running the muffler will be very hot.

The muffler is mounted to a plate with clamps (9) and has a heat shield (5) on the outside. To replace the muffler proceed as follows:

Removal

1. Be sure engine is off and has had sufficient time for the muffler assembly to cool down.

2. Loosen clamp (1) and disconnect exhaust flex pipe (2).
3. Loosen clamp (6) and remove exhaust stack (7) with rain cap (8).
4. Remove cap screws (14), washer (10), spacer tube (4), washer (10) and nut (13).
5. Slide muffler (3) out of plate with clamps (9).

Installation

1. Slide muffler (3) into plate with clamps (9).
2. Position muffler so that outlet is at right pointing up and input is at left pointing down.
3. Slide elbow with flex tube (2) on muffler inlet and secure with clamp (1).
4. Attach muffler (3) and heat shield (5) using cap screws (14) and washers (10) on outside of heatshield and spacers (4) between heat shield and clamp (9).
5. Secure muffler in clamp using washers (10) and nuts (13).
6. Torque nuts (13) to 31 ft-lb (42 N•m).
7. Attach exhaust stack pipe (7) to muffler with clamp (6).
8. Install rain cap (8) on top of exhaust stack pipe (7).

RADIATOR HOSES AND RADIATOR

All part item numbers in the following procedure refer to the parts list for the GRILLE AND RADIATOR ASSEMBLY and the associated drawing in the parts manual.

WARNING: This procedure should only be performed with the equipment not operating.

1. Turn off ignition, remove key, and allow the engine to cool down before proceeding.

WARNING: Do not remove the radiator cap while the engine is still hot. The radiator is under pressure and the hot water can cause serious injury to all persons around.

2. After machine has cooled down, remove the radiator cap (5).
3. Drain radiator into a suitable container large enough to hold the radiator contents, 5.5 Gal (20.8 Liters).
4. To remove upper hose (4), loosen the two hose clamps and disconnect the hose. If clamps are not damaged, retain for installation.
5. To remove lower hose (3), loosen the two hose clamps (10) and disconnect the hose. If clamps are not damaged, retain for installation.
6. Remove radiator cap (5).
7. Remove overflow hose (6) by removing clamp (11).
8. Remove the hardware attaching the radiator (13) to grille and radiator support (9).
9. Remove radiator.

CONVEYOR BELT

All part item numbers in the following procedure refer to the parts list for the TAIL PULLEY GROUP and the associated drawing in the parts manual.

CAUTION: The conveyor belt weights approximately 400 lbs. Belt replacement will require more than one person.

When installing a new belt, the old belt should be used to pull the new belt onto the machine. For belt replacement proceed as follow:

1. Run the existing belt (1) so that the belt joint is on the top surface near the head pulley group.
2. Remove belt lacing pin (2) to disengage the belt ends.
3. Attach one end of the new belt to the top of the old belt and attach the belts together with the lacing pin (2).
4. Slowly run the belt (1) so that the new belt is pulled around the pulleys back to the tail pulley group. At the same time pull the old belt away.
5. Stop the machine when the end of the new belt is on top of the tail pulley group.
6. Remove lacing pin (2) and move old belt clear of the area.
7. Secure the two ends of the new belt together with lacing pin (2).
8. Check that new belt is properly adjusted and stays centered. If belt requires adjustment, refer to the adjustment procedure in this section.

ELECTRICAL AND HYDRAULIC SCHEMATICS

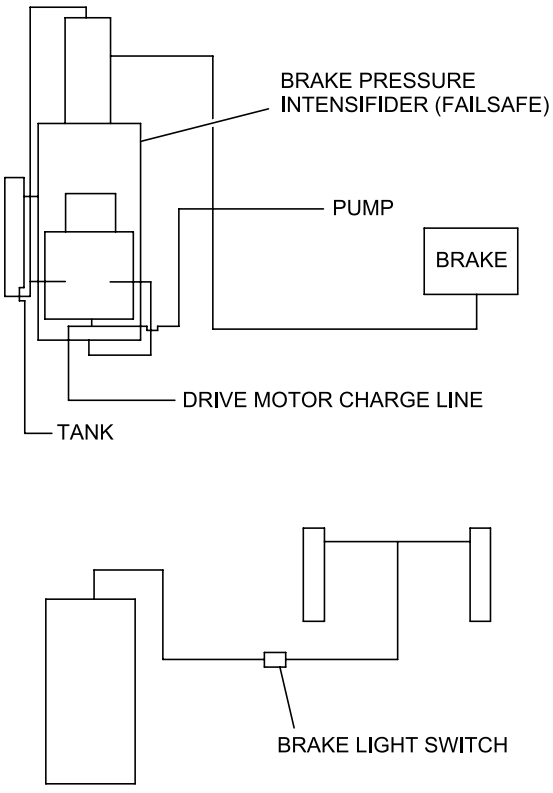

Figure 4-15. Brake Pressure Switch Diagram

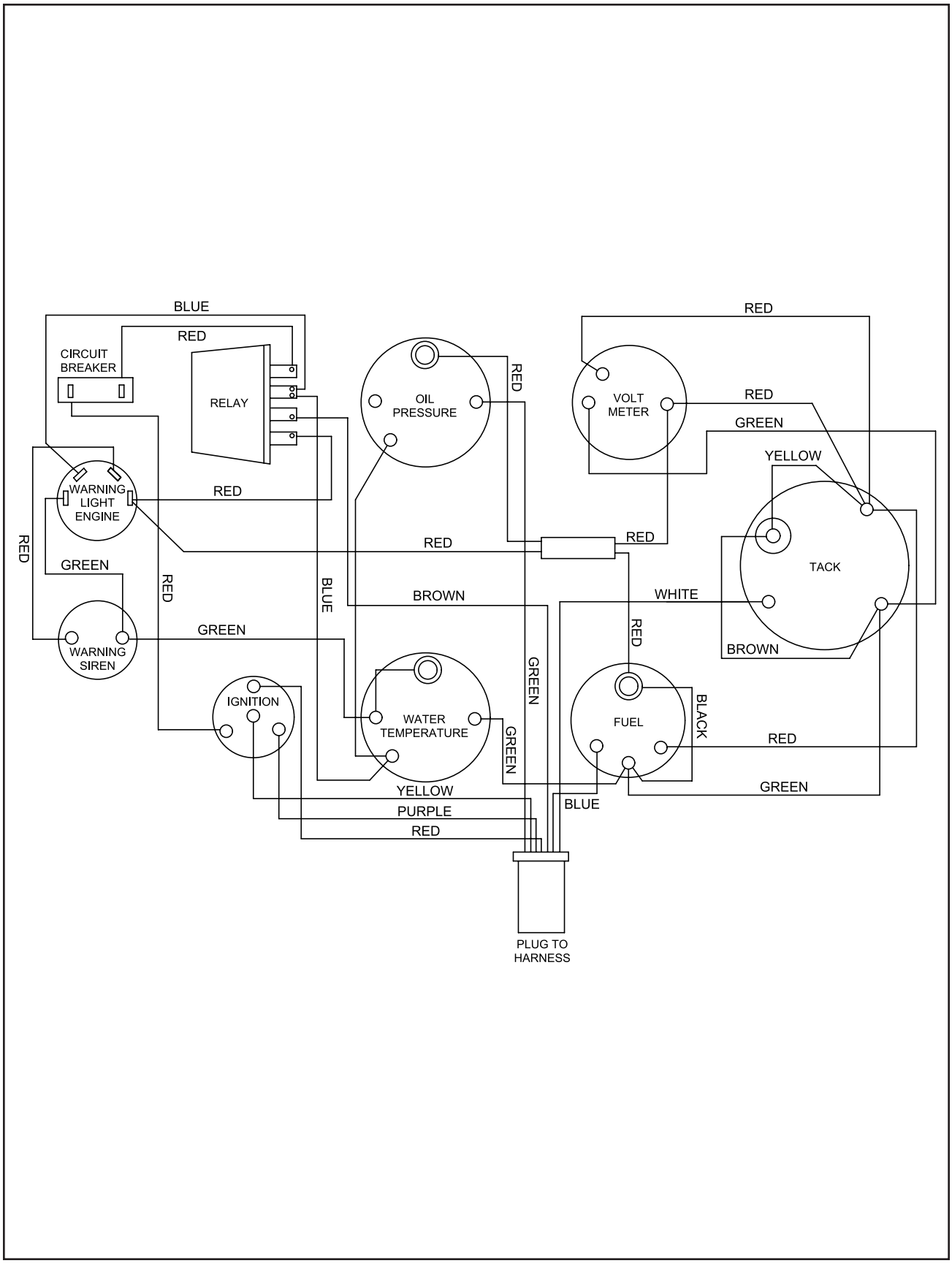

Figure 4-16. Instrument Panel Wiring Diagram

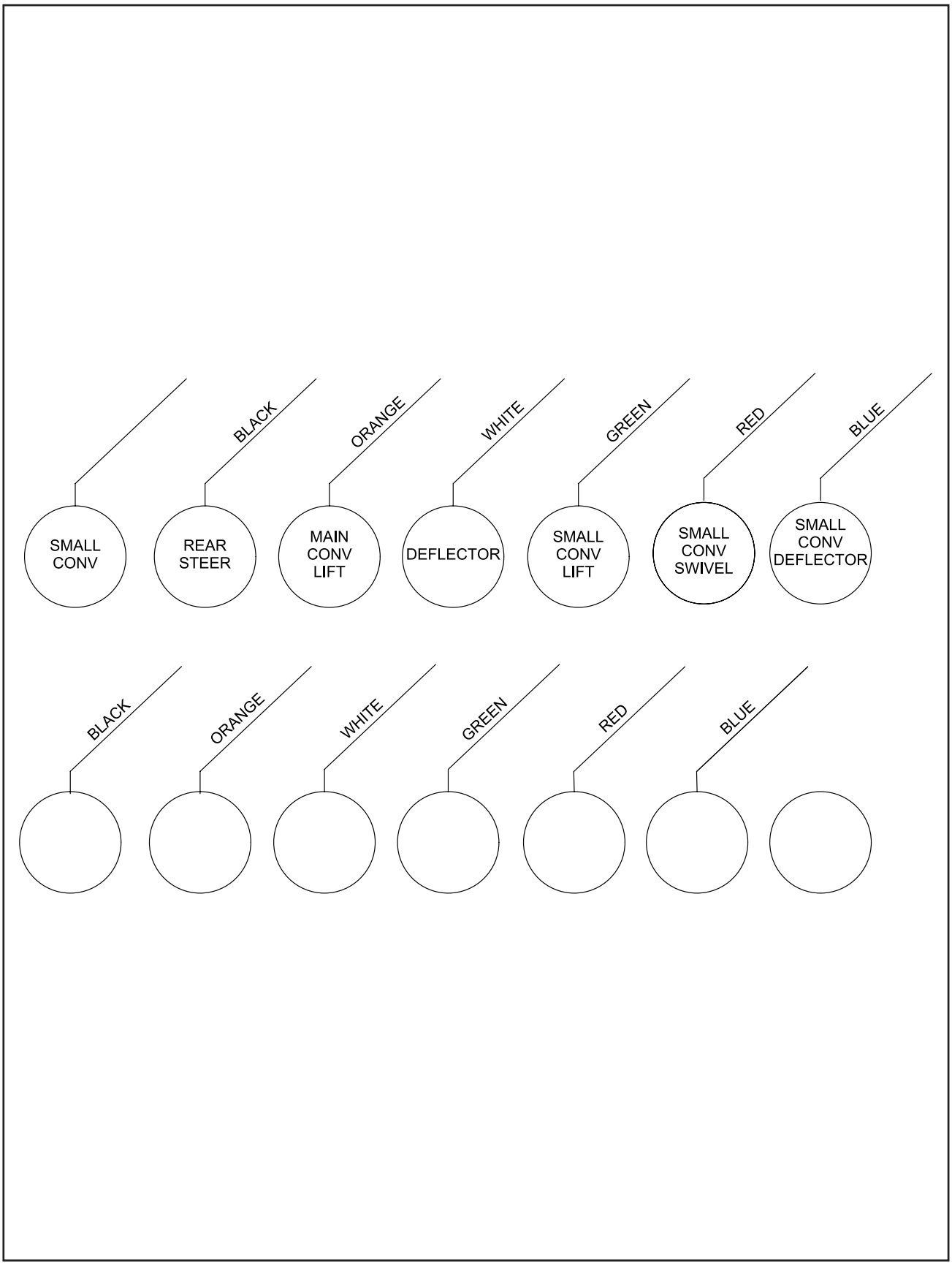

Figure 4-17. Solenoid Valve Wiring Diagram

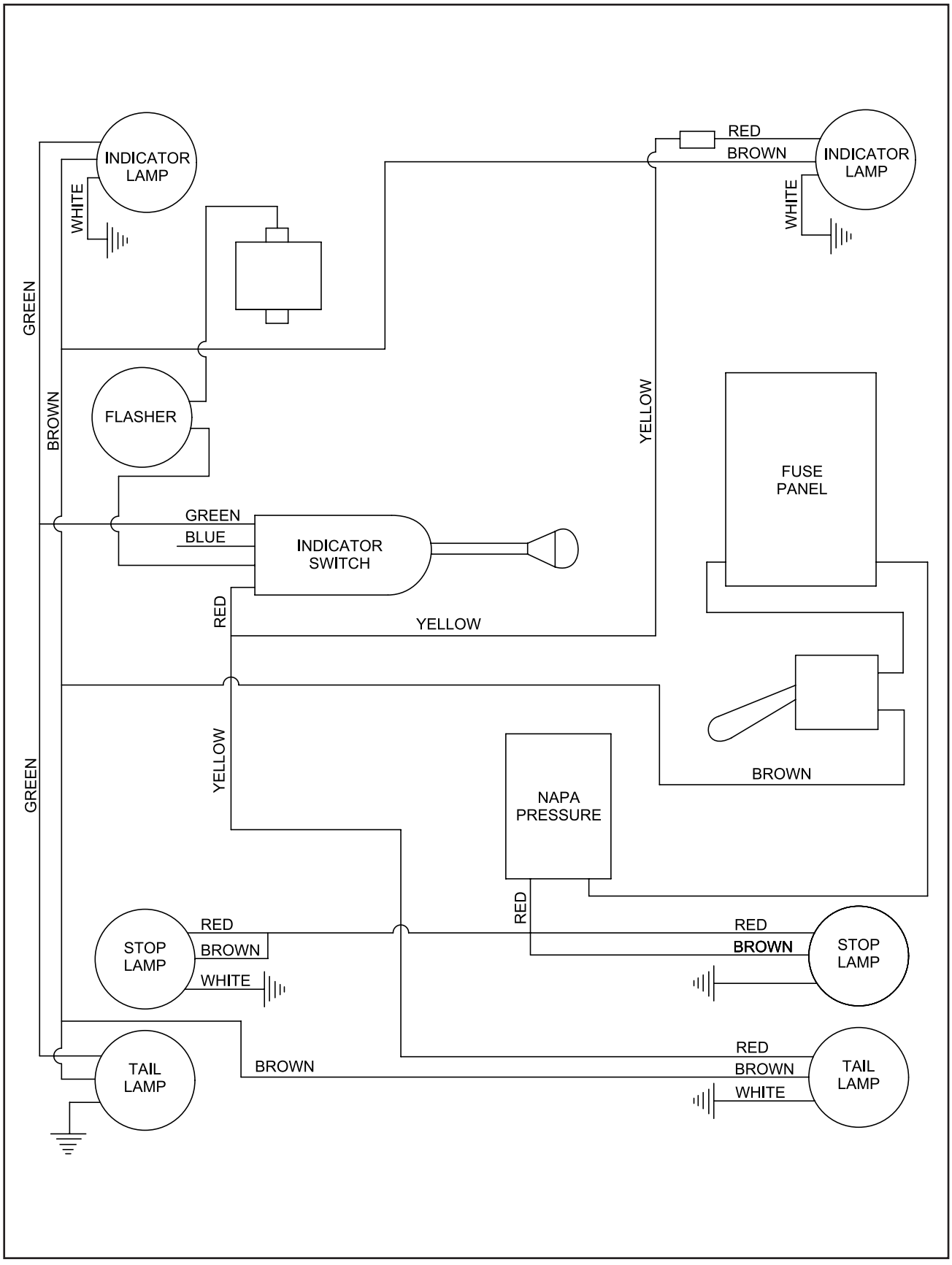

Figure 4-18. Turn Signal Wiring Diagram

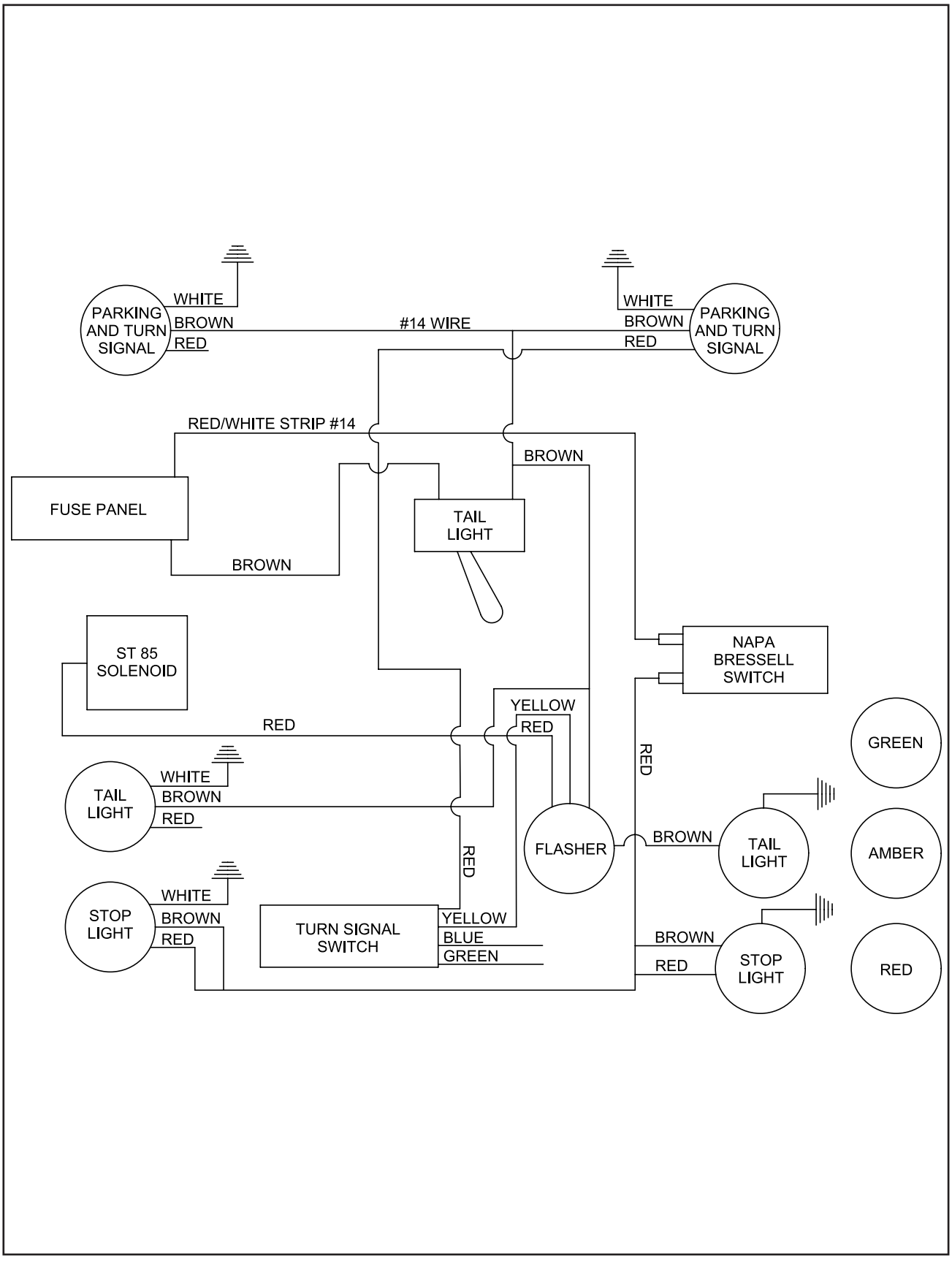

Figure 4-19. Navigation Lights Wiring Diagram

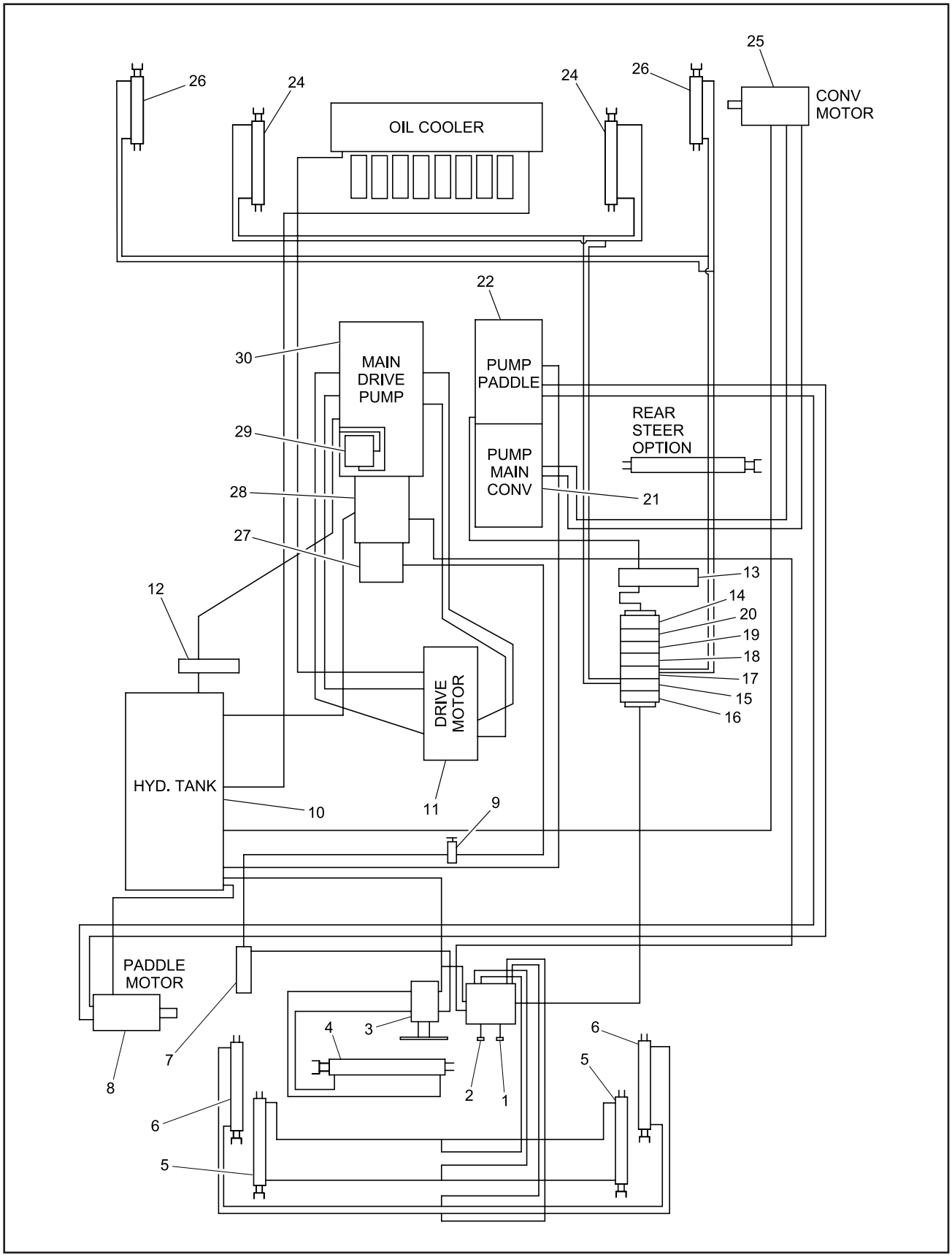

Figure 4-19. Hydraulic Diagram

Table 4-2. Hydraulic Diagram Parts Identification

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	852020	Valve, Moldboard Lift	2
2	852020	Valve, Moldboard Tilt	2
3	30050	Motor, Steering	1
4	110220	Cylinder, Front Steer	1
5	750636	Cylinder, Moldboard Tilt	2
6	328370	Cylinder, Moldboard Lift	2
7	750634	Booster, Power Brakes	1
8	710100	Motor, Paddle	1
9	750603	Valve, Relief (1200 lbs.)	1
10	750597	Tank, Hydraulic	1
11	750584	Motor, Drive	1
12	160060	Filter, Suction	1
13	290010	Filter, Charge	1
14	120570	Intensifier	1
15	750601-2	Valve, Rear Steer	1
16	750601-2	Valve, Main Conveyor Lift	1
17	750601-2	Valve, Main Conveyor Deflector	1
18	750601-2	Valve, Swivel Conveyor Swivel	1
19	750601-2	Valve, Swivel Conveyor Lift	1
20	750601-2	Valve, Swivel Conveyor Deflector	1
21	750584	Pump, Main Conveyor	1
22	750584	Pump, Paddle	1
23	750567	Cylinders, Rear Steer	2
24	750610	Cylinder, Main Conveyor Lift	2
25	750310	Motor, Main Conveyor	1
26	811374	Main Conveyor Deflector Cylinder	1
27	750586	Pump, Supplies Small All Valves	1
28	750586	Pump, Supplies Small Conveyor/Charge	
29	900140	Valve, Destrokes Drive Pump	1
30	162800	Pump, Main Drive	1
31	750586	Pump, Brake Booster and Steer	1
32	750636	Bulkhead, Swivel Conveyor Motor	2
33	750637	Bulkhead, Swivel Conveyor Swivel	2
34	750637	Bulkhead, Swivel Conveyor Lift	2
35	750637	Bulkhead, Swivel Conveyor Deflector	2

TROUBLESHOOTING

GENERAL

The Troubleshooting Chart is based on identifying a symptom, identifying the probable causes, and identifying the remedy for the indicated symptom.

The causes listed are the most probable. If these causes do not locate the problem a more detailed analysis is required.

TROUBLESHOOTNG CHART

SYMPTOM	CAUSE	REMEDY
Engine won't turn over	Battery low	Check batteries
	Ignition switch defective	Check ignition switch
	Controls not in Neutral	Check safety neutral switches
	Engine ground corroded	Check engine ground wire
		See engine manual
Engine won't start- "Engine turns over"	Low fuel level	Check fuel in tank
	Contaminated fuel	Drain fuel tank and refill
	Fuel flow cutoff	Check fuel cutoff
		Check power to fuel cutoff
		See engine manual
Loader won't move	Hydraulic fluid level low	Check hydraulic oil level
	Drive cable not properly attached	Check to see if drive cables are attached properly
	Parking brake not released	Release parking brake
	Drive motor defective	Check drive motor
	Hydraulic pump pressure too low	Check hydraulic pump pressure
	Pump destroke valve defective	Check pump destroke valve
Hydraulic control valve doesn't function	Hydraulic oil level too low	Check hydraulic oil level
	Relief valve stuck	Check relief valve to see if stuck open
	Suction filter clogged	Check hydraulic suction filter

TROUBLESHOOTNG CHART (Continued)

SYMPTOM	CAUSE	REMEDY
No parking brakes	Parking brake switch defective	Check parking brake switch
	Parking brake in wrong position	Check parking brake switch for proper position
	Brake circuit not complete	Check wire connections
	Solenoid valve defective	Check solenoid valve
	Improper pad adjustment	Check pad adjustment (0.012) with engine running
Feeder won't turn	Control cable defective or improperly adjusted	Check control cable to make sure ends are connected
	Hydraulic fluid level low	Check hydraulic fluid level
	Hydraulic filter clogged	Check hydraulic fluid filter
	Obstruction blocking chains	Visually inspect blades and chains for obstructions
	Hydraulic Pressure Low At Motor	Check pressure at motor
Conveyor belt won't run	Control cable defective or improperly adjusted	Check control cable to make sure ends are connected
	Hydraulic fluid level low	Check hydraulic fluid level
	Hydraulic filter clogged	Check hydraulic fluid filter
No foot pedal brakes	Insufficient pressure in brake system	Check pressure at caliper (1700 PSI)
	Pressure switch defective	Check charge valve

LIST OF ILLUSTRATIONS
3000 FORCE FEED LOADER

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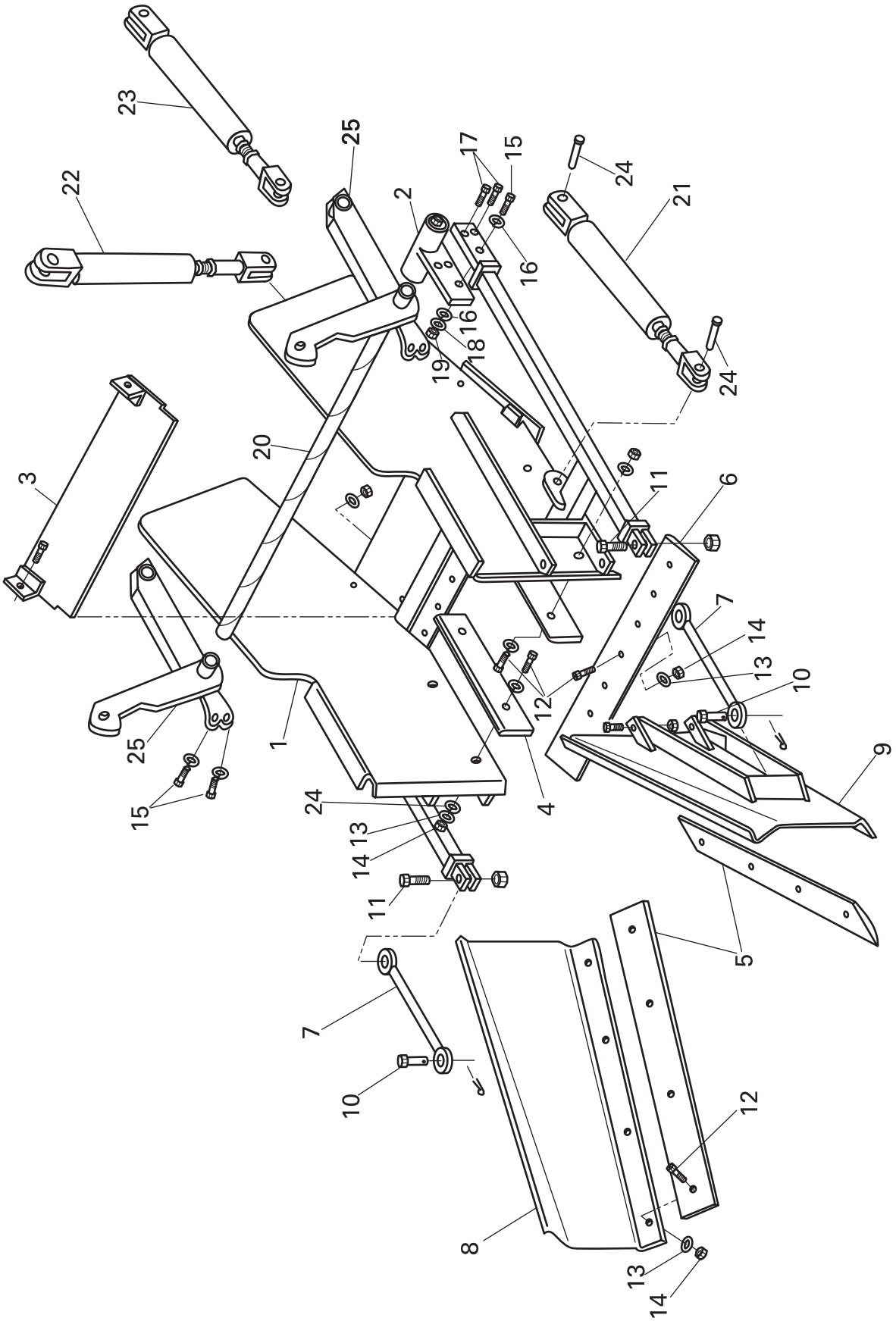
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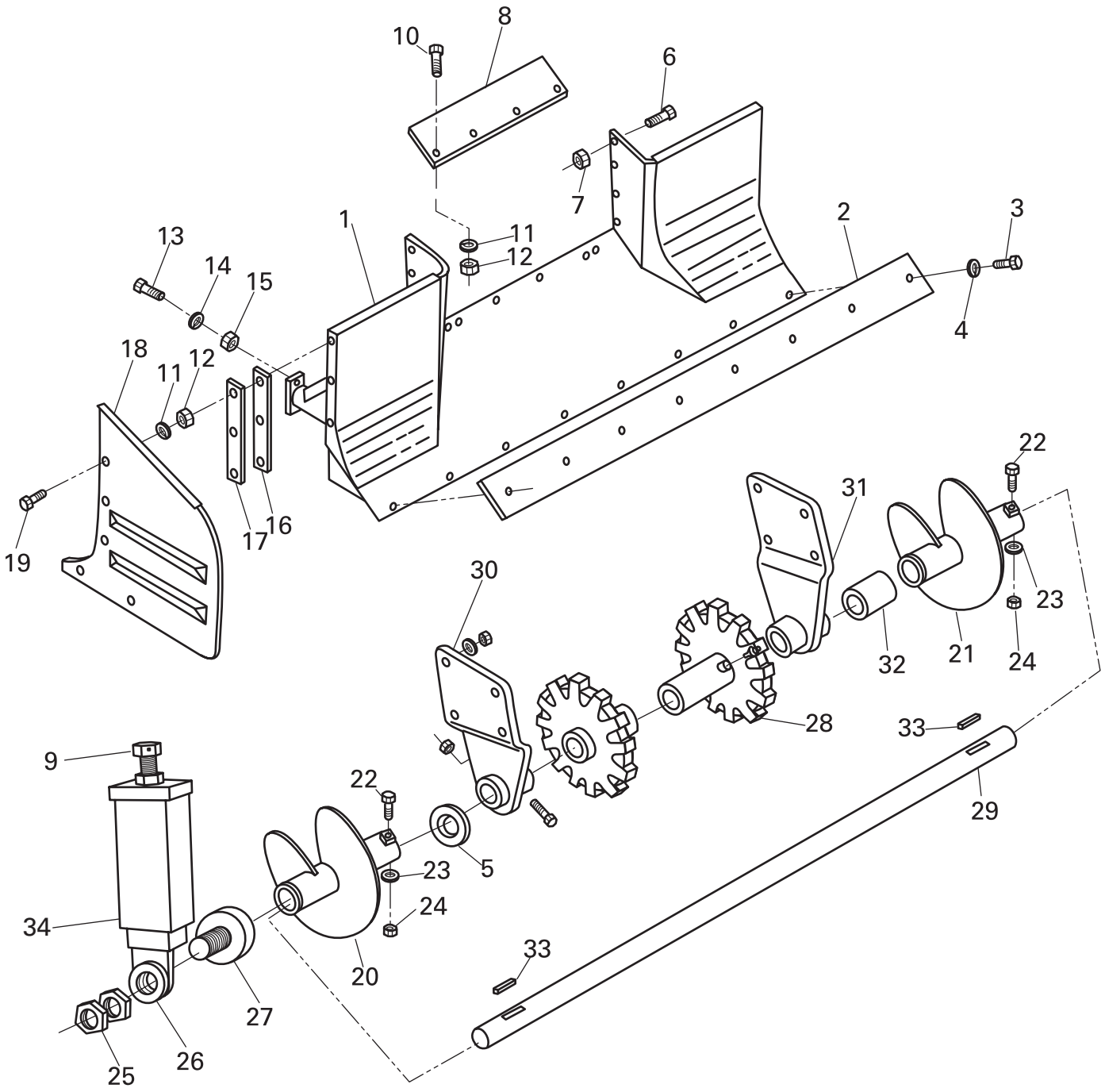
MOLDBOARD II

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	750505	MOLDBOARD ASSEMBLY	1
2	700131	PIVOT, MOLDBOARD	2
3	750506	PLATE, TRANSITION (USED ON OLDER MACHINES)	1
*4	750507	WEAR PLATE, 3000 FEEDER LOWER FRAME SQUARE HOLE	2
*5	750508	CUTTING EDGE, 2800 / 3000 SIDE MOLDBOARD	2
*6	750509	CUTTING EDGE, SCOOP (2800)	1
7	750510	STABILIZER BAR	2
8	750511	WING, 3000 RH MOLDBOARD	1
9	750512	WING, 3000 LH MOLDBOARD	1
10	855192	SCOOP HOLDER ROD PIN	A/R
11	102-917-1A	CAP SCREW, 1"-8 X 4 HEX	A/R
12	130220	PLOW BOLT, 5/8"-11 x 2	A/R
13	118-7	WASHER, 5/8" LOCK	A/R
14	116-7	NUT, 5/8"-11 HEX	A/R
15	102-713-1A	CAP SCREW, 3/4"-10 X 3 HEX	A/R
16	119-8	WASHER, 3/4" SAE FLAT	A/R
17	102-715-1A	CAP SCREW, 3/4"-10 X 3-1/2 HEX	A/R
18	118-8	WASHER, 3/4" LOCK	A/R
19	116-8	NUT, 3/4"-10 HEX	A/R
20	854958	SHAFT, MOLDBOARD ATTACHMENT	1
21	750636	SCOOP TILT CYLINDER	2
22	750635	FEEDER SUPPORT ASSEMBLY	2
23	328370	CYLINDER, MOLDBOARD LIFT	2
24	870305	PIN, HYD. CYL. CLEVIS	4
25	981438L	CONVEYOR LIFT PIVOT & FEEDER LIFT STABILIZER	
25	981438R	CONVEYOR LIFT PIVOT & FEEDER LIFT STABILIZER	
*	750508A	CUTTING EDGE (W / CARBIDE), 3000 MOLDBOARD	
*	750507A	WEAR PLATE FOR 3000 FEEDER (W/CARBIDE)	
*	750509A	CUTTING EDGE, FOR SCOOP (W/CARBIDE)	

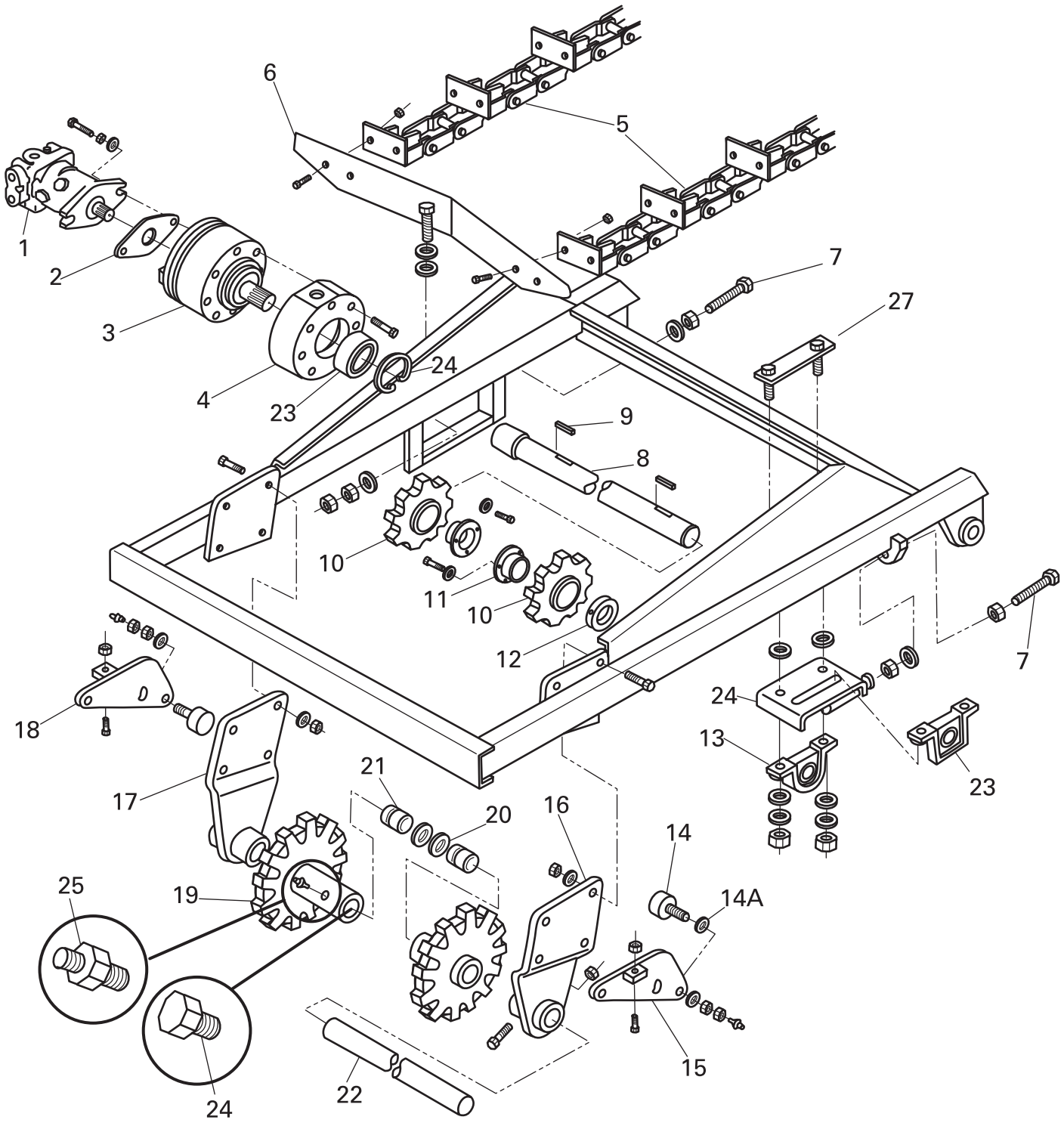
MULTIPURPOSE MOLD BOARD



MULTIPURPOSE MOLD BOARD

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	W522844	MOLDBOARD 8' ALL PURPOSE	1
2	P523295	CUTTING EDGE, ALL PURPOSE MOLDBOARD	1
3	109-408-3	PLOWBOLT, 1/2"-13 UNC x 2"	8
4	118-5	WASHER, 1/2" LOCK	
5	116-5	NUT, 1/2" X 13 HEX	
6	102-406-1A	CAP SCREW, 1/2"-13 X 1-1/4 HEX	4
7	116-5	NUT, 1/2"-13 HEX	4
8	M522850	RUBBER SEAL, THROAT CENTER	A/R
9	855504	MULTIPURPOSE ADJUSTMENT ROD	
10	110-312-2	CAP SCREW, 3/8"-16 X 1" FLAT SOCKET HEAD	4
11	118-3	WASHER, 3/8" LOCK	4
12	116-3	NUT, 3/8"-16 HEX	4
13	102-609-1A	CAP SCREW, 5/8"-11 X 2 HEX	4
14	118-7	WASHER, 5/8" LOCK	4
15	116-7	NUT, 5/8"-11 HEX	4
16	S46515	SHIM	A/R
17	S46515	SHIM	A/R
18	W525260	THROAT WING ASSEMBLY, R.H. SIDE	1
18A	W525259	THROAT WING ASSEMBLY, L.H. SIDE	1
19	100-406-1A	CAP SCREW, 1/2" -13 X 1 1/4"	8
20	W522854	AUGER (SNOW) R/H	1
21	W522855	AUGER (SNOW) L/H	1
22	102-931-1A	CAP SCREW, 1"-13 x 8"L	2
23	118-10	WASHER, 1" LOCK	2
24	116-10	NUT, 1"-8 HEX	2
25	115-12-1	NUT, 1 1/4" -13 HEX JAM	2
26	854953	PADDLE ROLLER SPACER/3000	2
27	811316	CAM FOLLOWER, 3-1/4"	2
28	710213A	SPROCKET, 3000 FEEDER CHAIN LOWER (PADDLE)	2
29	710221A	SHAFT, 3000 FEEDER LOWER	1
30	750553	PADDLE SHAFT ARM, R/F SIDE	1
31	750551	PADDLE SHAFT ARM, L/F SIDE	1
32	M19805	BUSHING, LOWER FEEDER SHAFT	2
33	854942	KEY STOCK, PADDLE	2
34	750654	MULTIPURPOSE FEEDER ADJUSTER	

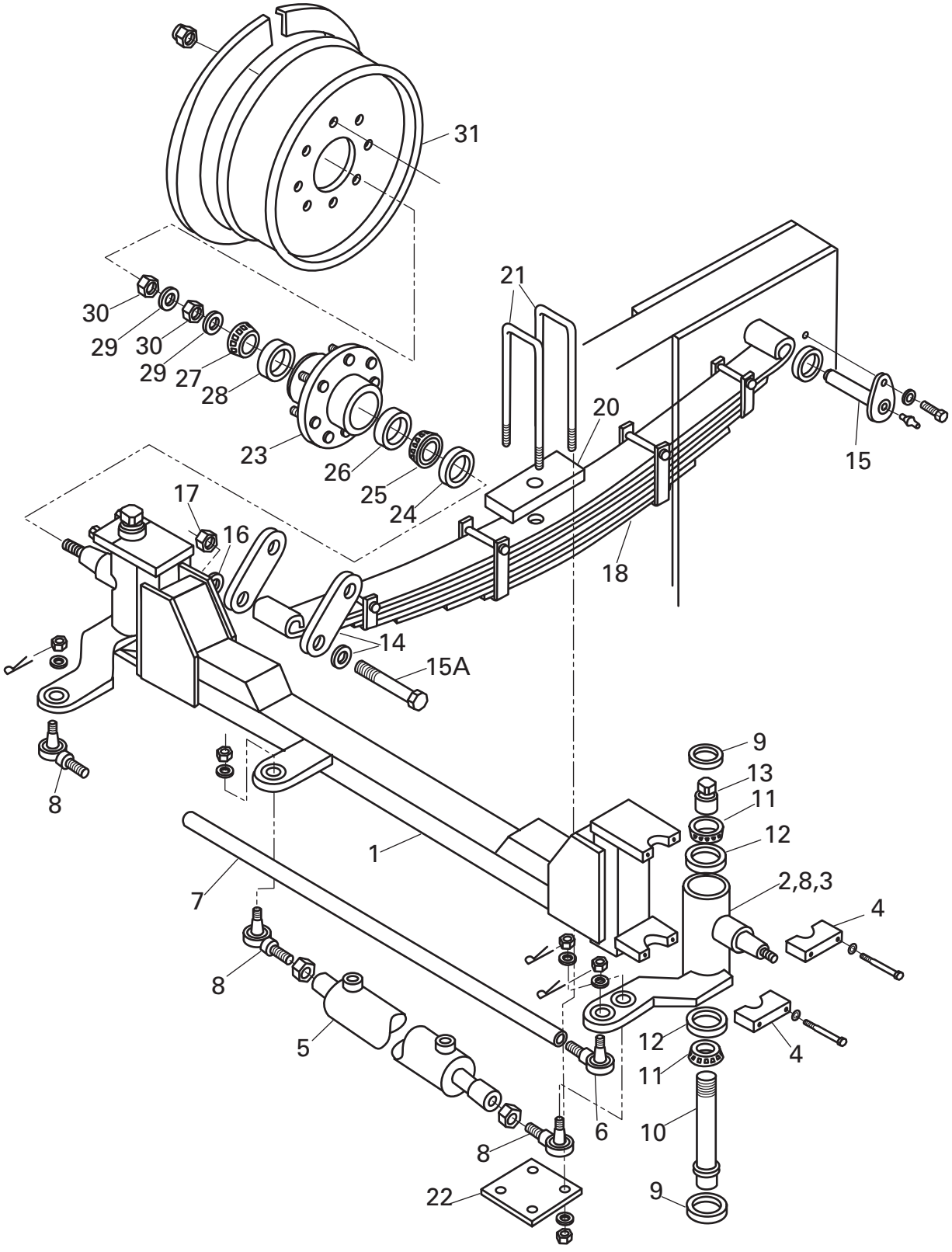
CONVEYOR PADDLE ASSEMBLY



CONVEYOR PADDLE ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	710100	HYD. MOTOR, FEEDER DRIVE	1
2	700480	GASKET, S.A.E. "B" 2 BOLT	1
3	710090-28	TORQUE HUB, FEEDER DRIVE	1
4	750548	MOUNT, TORQUE HUB	1
5	A710230	CHAIN ASSY., FEEDER	A/R
	710230L	CHAIN ASSY., FEEDER L.H.(PADDLE)	A/R
	710230R	CHAIN ASSY., FEEDER R.H. (PADDLE)	A/R
5A	710230-1	LINK & PIN ASSY., FEEDER CHAIN (2800/3000)	A/R
6	710240	BLADE PADDLE, 2800 / 3000 FEEDER	A/R
7	750549	ROD, PADDLE CHAIN ADJUSTER	1
8	710171A	SHAFT, 3000 FEEDER UPPER DRIVE	1
9	710171-2	KEYWAY, PADDLE CONVEYOR	1
10	710182	SPROCKET, 3000 FEEDER CHAIN UPPER (9TOOTH) PADDLE DRIVE	2
11	710150-28	TAPER LOCK BUSHING, 2 1/2"	2
12	120120	LOCKING COLLAR, 2-1/2" I.D.	2
13	710160-28R	BEARING, CONVEYOR HEAD PULLEY R.H. (2800)	1
14	811316	CAM FOLLOWER, 3-1/4"	2
14A	854953	SPACER	
15	750550	BRACKET, L/F SIDE	1
16	750551	BRACKET, L/F SIDE	1
17	750553	BRACKET, R/F SIDE	1
18	750552	BRACKET, R/F SIDE	1
19	710213A	SPROCKET, 3000 FEEDER CHAIN LOWER (PADDLE)	2
20	210240	SEAL	2
21	710183	BUSHING, LOWER FEEDER SHAFT (BRONZE)	2
22	710221A	SHAFT, 3000 FEEDER LOWER	1
23	854955A	PADDLE, SHAFT STOP	
24		GREASE RELIEF	
25	140610	GREASE FITTING, 1/4” X 28 SCREW IN	
26			
27	854946A	PADDLE BEARING PLATE	

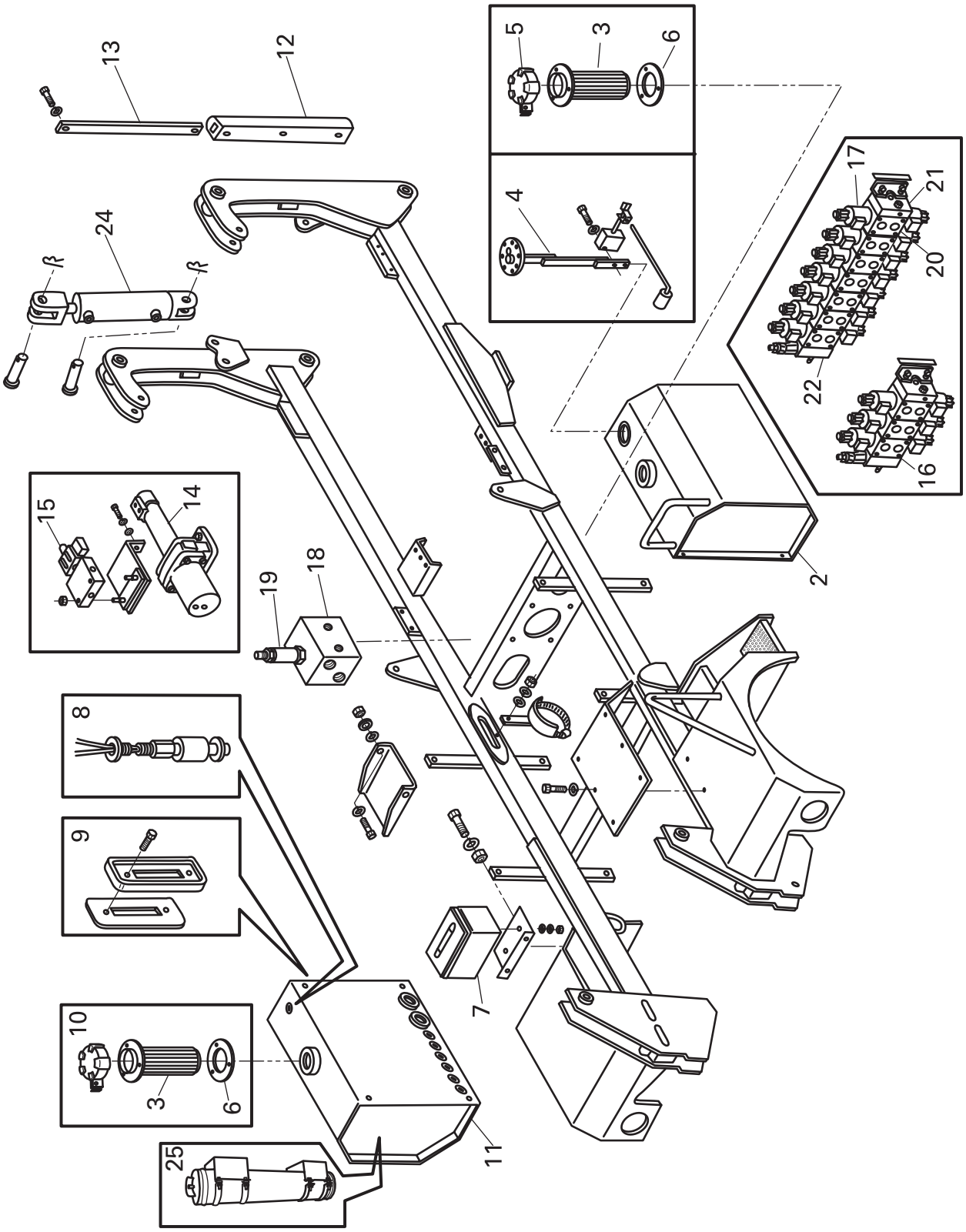
FRONT AXLE ASSEMBLY



FRONT AXLE ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	730013	FRONT AXLE,(SPLINES NOT INCLUDED)	1
2	730021	SPINDLE, W/ HOUSING R/H (3000 LOADER)	1
3	730031	SPINDLE, W/ HOUSING L/H (3000 LOADER)	1
4	110051	CLAMP HALF, FRONT SPINDLE ASSY.	4
5	110220	HYD. CYL., 685 STEERING	1
6	110200	TIE ROD END, L.H.	1
7	730071	TIE ROD, 2800/3000 STEERING	1
8	110210	TIE ROD END, R.H.	1
9	210240	SEAL	4
10	110061	KING PIN, 685/2800/300 FRONT END SPINDLE	2
11	210180	BEARING CONE	4
12	210190	BEARING CUP	4
13	110101	NUT, 635 ARTICULATION SHAFT	2
14	730050	SHACKLE	4
15	750655	PIN, SPRING HOLDER	2
15A	730060	CAP SCREW, 1" x 4 1/2"BOLT WITH GREASE FITTING	
16			
17	730080	NUT	4
18	730090	LEAF SPRING (ASSY.), 3000 LOADER FRONT END	2
19			
20	730111	BAR, 3000 FRONT AXLE SPRING TIE PLATE (3/4" X 2-1/2" W/1 HOLE & 2 SLOTS)	2
21	730120	"U" BOLT, LEAF SPRING (2800/3000 LOADER)	2
22	730130	PLATE, SPRING RETAINER	4
23	110240	HUB, 685 / 3000 FRONT WHEEL	2
24	110270	SEAL, 685 / 3000 FRONT WHEEL HUB	2
25	110260	BEARING CONE, 685 FRONT WHEEL HUB (INNER)	2
26	110250	BEARING CUP, 685 FRONT WHEEL HUB (INNER)	2
27	610210	BEARING, CONE	2
28	610200	BEARING CUP	2
29	110320	LOCKWASHER, FRONT SPINDLE	2
30	730210	NUT,	2
31	730220A	WHEEL, 3000 FRONT (1 PC. DROP CENTER)	2

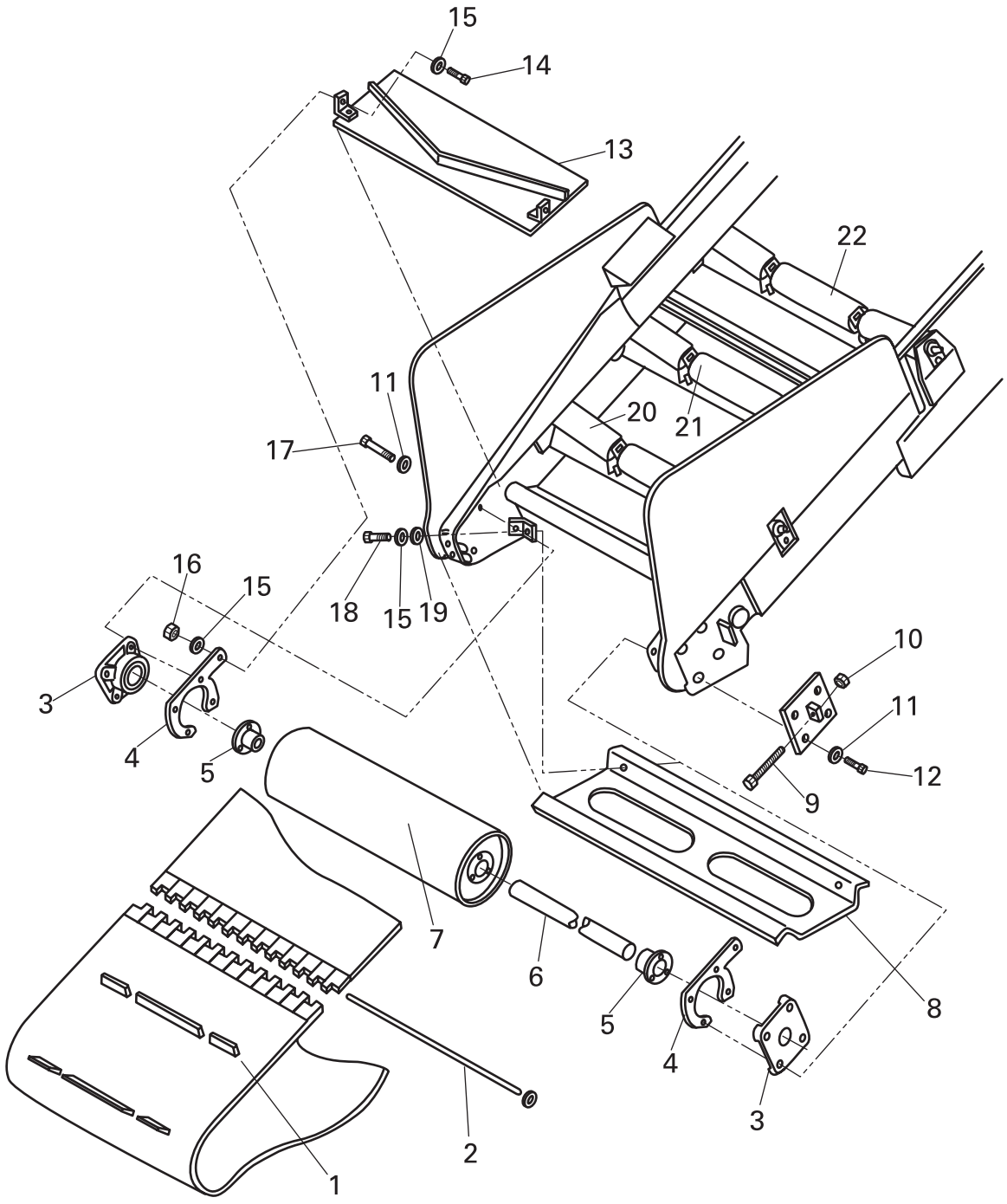
MAIN FRAME



MAIN FRAME

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	981428	MAIN FRAME	1
2	750595	TANK, 3000 FUEL	1
3	140030FN	FILLER NECK, HYD. OIL / FUEL CAP	1
4	140040	SENDING UNIT, FUEL LEVEL	1
5	140030FL	FUEL TANK CAP, LOCKABLE	1
6	140030GK	STRAINER & GASKET KIT, HYD./ FUEL FILLER	1
7	851169	TOOL BOX	1
8	750596	SWITCH, LOW HYD. OIL	1
9	500070	GAUGE, HYD. OIL LEVEL & TEMP.	1
10	140030HL	CAP, HYD. OIL TANK (LOCKABLE)	1
11	750597	TANK, 3000 HYD. OIL	1
12	720200	BUMPER, "D" RUBBER (2800 / 3000)	2
13	750656	MOUNT FOR BUMPER 'D'RUBBER	2
14	120570	PRESS. INTENSIFIER, FAIL SAFE BRAKE (685)	1
15	750598	SOLNOID VALVE, (SAME AS 635B/PAVER)	1
16	750600	VALVE SEC. ASSY 3-SECTION	1
17	750601	VALVE ASSY., 5 SECTION (3000)	1
18	750602	MANIFOLD W / RELIEF, 3000 BRAKE & DRAIN	1
19	750603	CARTRIDGE, RELIEF VALVE (3000 P..S.I.)	1
20	750600-1	CARTRIDGE, RELIEF VALVE (3000 P..S.I.)	1
21	750600-2	VALVE SECTION	A/R
22	750600-3	INLET COVER W/RELIEF, 3000 ELECTRONIC VALVE	1
23	750600-4	OUTLET COVER	1
24	750610	CONVEYOR LIFT CYLINDER	2
25	855064	ACCUMULATOR	1

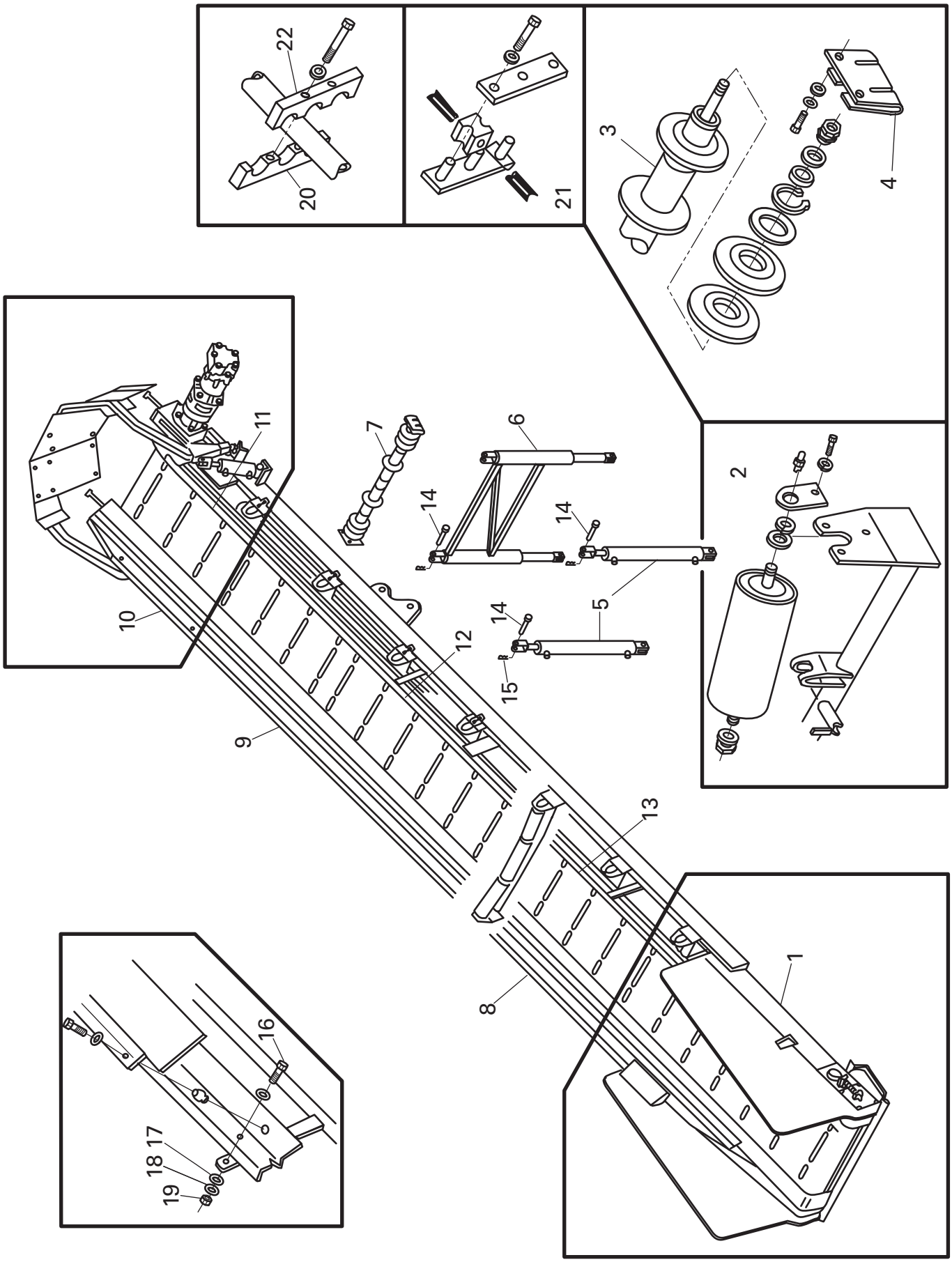
TAIL PULLEY GROUP



TAIL PULLEY GROUP

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	P202014	CONVEYOR BELT W / CLEATS, 28' FRAME	1
2	750080	PIN, CONVEYOR BELT LACING (30") W/O METAL TIPS, FOR 3000 LOADER ONLY	A/R
3	750040	BEARING, 2800 / 3000 CONVEYOR TAIL PULLEY	2
4	750052	BRACKET, TAIL PULLEY BEARING ADJUSTMENT	2
5	750050	BUSHING, 2800 / 3000 CONVEYOR TAIL PULLEY	2
6	750032	SHAFT, 3000 MAIN CONVEYOR TAIL PULLEY	1
7	750060	TAIL PULLEY (SWIVEL), 2800 / 3000 MAIN CONVEYOR 10.50 X 32"	1
8	750061	BURN OUT GUARD, 3000 TAIL PULLEY	1
9	W520862	BOLT, CONVEYOR ADJUSTING	2
10	116-8	NUT, 3/4"-10 HEX	2
11	118-7	WASHER, 5/8" LOCK	8
12	102-611-1A	CAP SCREW, 5/8"-11 X 2-1/2 HEX	4
13	750062	SCRAPER, 3000 TAIL PULLEY	1
14	102-207-1A	CAP SCREW, 3/8"-16 X 1-1/2 HEX	2
15	119-3	WASHER, 3/8" SAE FLAT	4
16	143-3	LOCK NUT, 3/8"-16 HEX	2
17	102-609-1A	CAP SCREW, 5/8"-11 X 2 HEX	4
18	102-206-1A	CAP SCREW, 3/8"-16 X 1-1/4 HEX	4
19	118-3	WASHER, 3/8" LOCK	4
20	750132	ROLLER ASSY(10 degree), CONVEYOR TROUGHING	1
21	750131	ROLLER ASSY (30 degree), CONVEYOR TROUGHING	2
22	750130	ROLLER ASSY.(15 degree), CONVEYOR TROUGHING	7

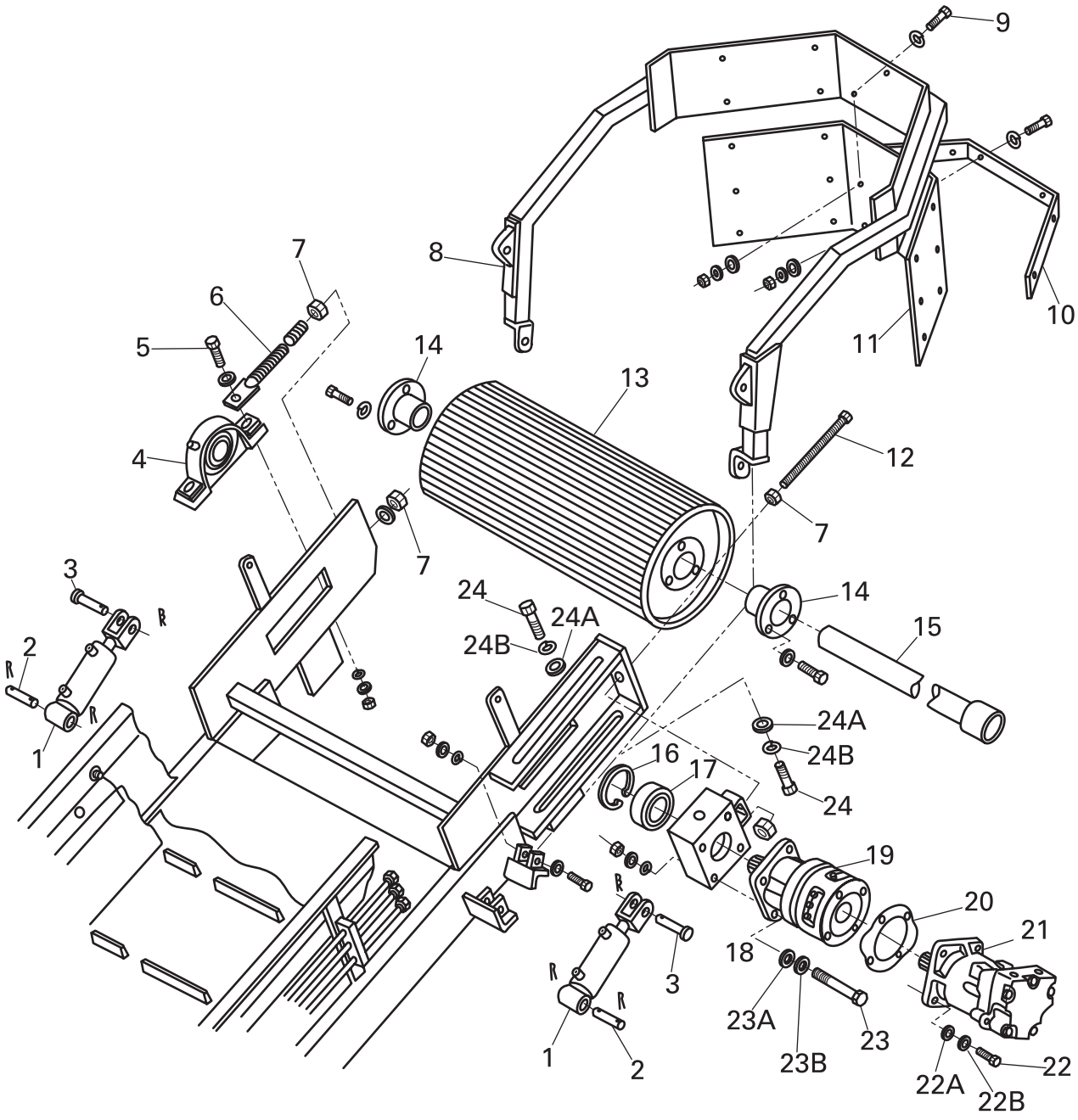
CONVEYOR ASSEMBLY



CONVEYOR ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	981386	COMPLETE ASSEMBLY	1
2	750140	ROLLER, 2800 / 3000 TROUGHING IDLER	A/R
3	750090	ROLLER ASSY., CONVEYOR RETURN IDLER	A/R
4	754741	J. BRACKET MAIN CONVEYOR	2
5	750610	CONVEYOR LIFT CYLINDER	2
6	981438	CONVEYOR STABILIZER	1
7	750090	ROLLER ASSY., CONVEYOR RETURN IDLER	3
8	854795	SIDE PLATE, FRONT RIGHT	1
9	854799	SIDE PLATE, CENTER RIGHT	1
10	854797	SIDE PLATE, BACK RIGHT SIDE	1
11	854801	SIDE PLATE, BACK LEFT SIDE	1
12	854798	SIDE PLATE, CENTER LEFT SIDE	1
13	854796	SIDE PLATE, FRONT LEFT SIDE	1
14	870305	PIN, HYD. CYL. CLEVIS	4
15	870307	CLIP, HYD CYL. PIN *	4
16	102-405-1A	CAP SCREW, 1/2"-13 X 1 HEX	A/R
17		WASHER, FLAT 1/2"	A/R
18		WASHER, LOCK 1/2"	A/R
19	116-5	NUT, 1/2"	A/R
20	854748	HOSE CLAMP/3 HOLE	2
21		HOSE CLAMP/2 HOLE	2
22	854741	PLATE	2
23	750241	FLASHING SET(2pc), MAIN CONVEYOR BELT (2800) (NOT SHOWN)	A/R

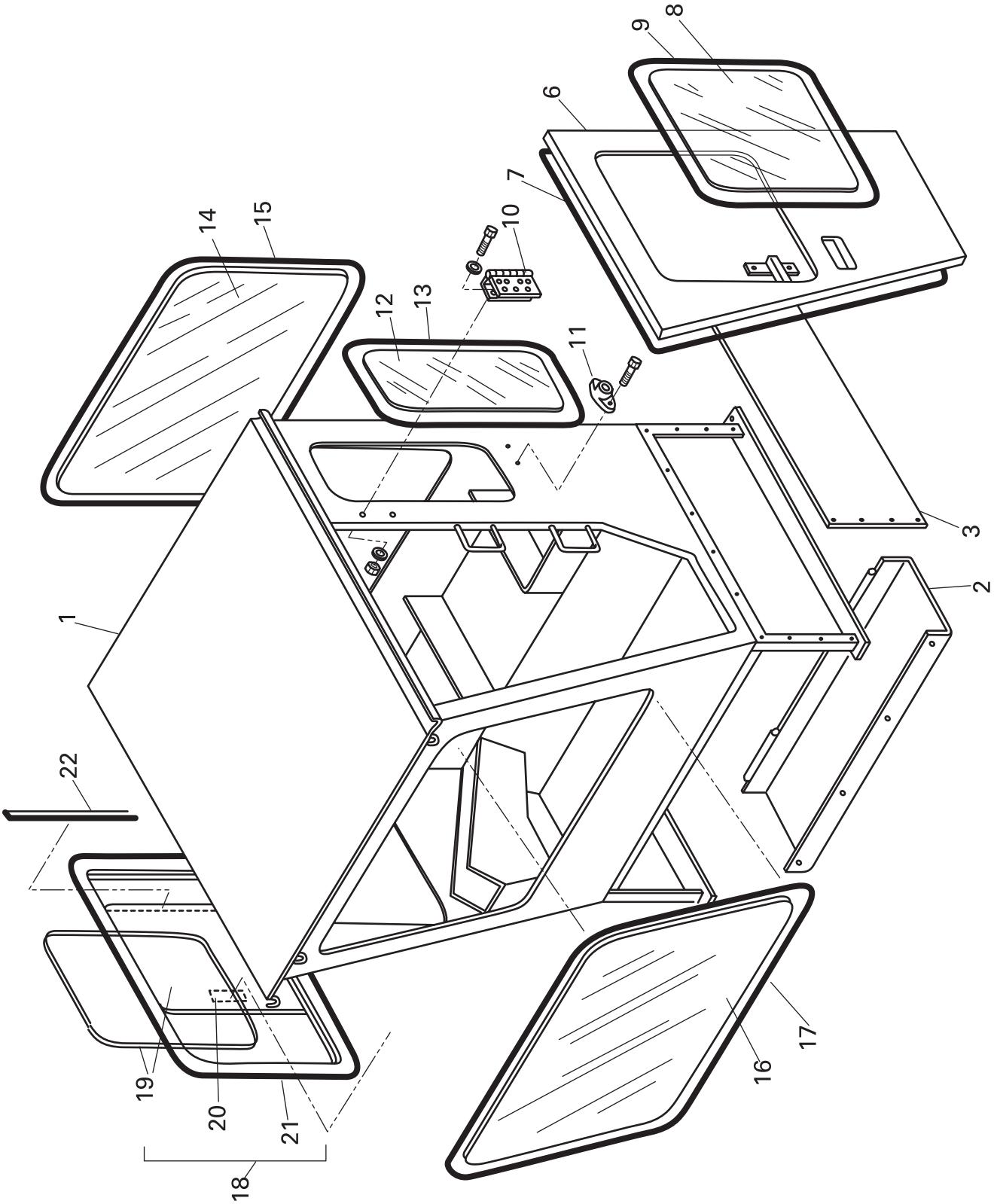
HEAD PULLEY ASSEMBLY



HEAD PULLEY ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	P521124	HYD.CLY.,DISCHARGE BAFFLE	2
2	W521129	PIN, DISCHARGE BAFFLE HYD. CYL. BASE	2
3	W521128	PIN, DISCHARGE BAFFLE HYD. CYL. ROD	2
4	710160-28R	BEARING, CONVEYOR HEAD PULLEY R.H. (2800)	1
5	102-716-1A	CAP SCREW, 3/4"-10 X 3-3/4" HEX HEAD	2
6	750321	ADJ. BOLT, MAIN CONVEYOR BELT R.H.	2
7	116-8	NUT, 3/4"-10 HEX	4
8	750653	FRAME, DISCHARGE BAFFLE	1
9	P521452	ELEVATOR BOLT, 1/4"-20 X 1"	12
10	S521763	STRIP, FLASHING RETAINER	1
11	M521454	RUBBER SKIRT, DISCHARGE BAFFLE	1
12	750322	PULLEY, CONVEYOR HEAD	1
13	853350	HEAD PULLEY, 2800 / 3000 MAIN CONVEYOR	1
14	750051	BUSHING, 2800 / 3000 CONVEYOR HEAD PULLEY	2
15	750271	SHAFT, 2800 / 3000 CONVEYOR HEAD PULLEY	1
16	750323	SNAP RING, CONVEYOR L.H. BEARING RETAINER	1
17	520100	BEARING, 400 STUB AXLE (3")	1
18	750638	BLOCK, BEARING SUPPORT	1
19	750300	TORQUE HUB, 2800 / 3000 CONVEYOR DRIVE	1
20	P77494	GASKET, S.A.E. "C" 4 HOLE	1
21	750310	HYD. MOTOR, MAIN CONVEYOR DRIVE	1
22	102-411-1A	CAP SCREW, 1/2"-13 X 2-1/2" HEX HEAD	4
22A	119-5	WASHER, 1/2" S.A.E. FLAT	4
22B	118-5	WASHER, 1/2" LOCK	4
23	102-609-1A	CAP SCREW, 5/8"-11 X 2" HEX HEAD	4
23A	119-7	WASHER, 5/8" S.A.E. FLAT	4
23B	118-7	WASHER, 5/8" LOCK	4
24	102-909-1A	CAP SCREW, 1"-8 X 2" HEX HEAD	2
24A	119-10	WASHER, 1" S.A.E. FLAT	2
24B	118-10	WASHER, 1" LOCK	2

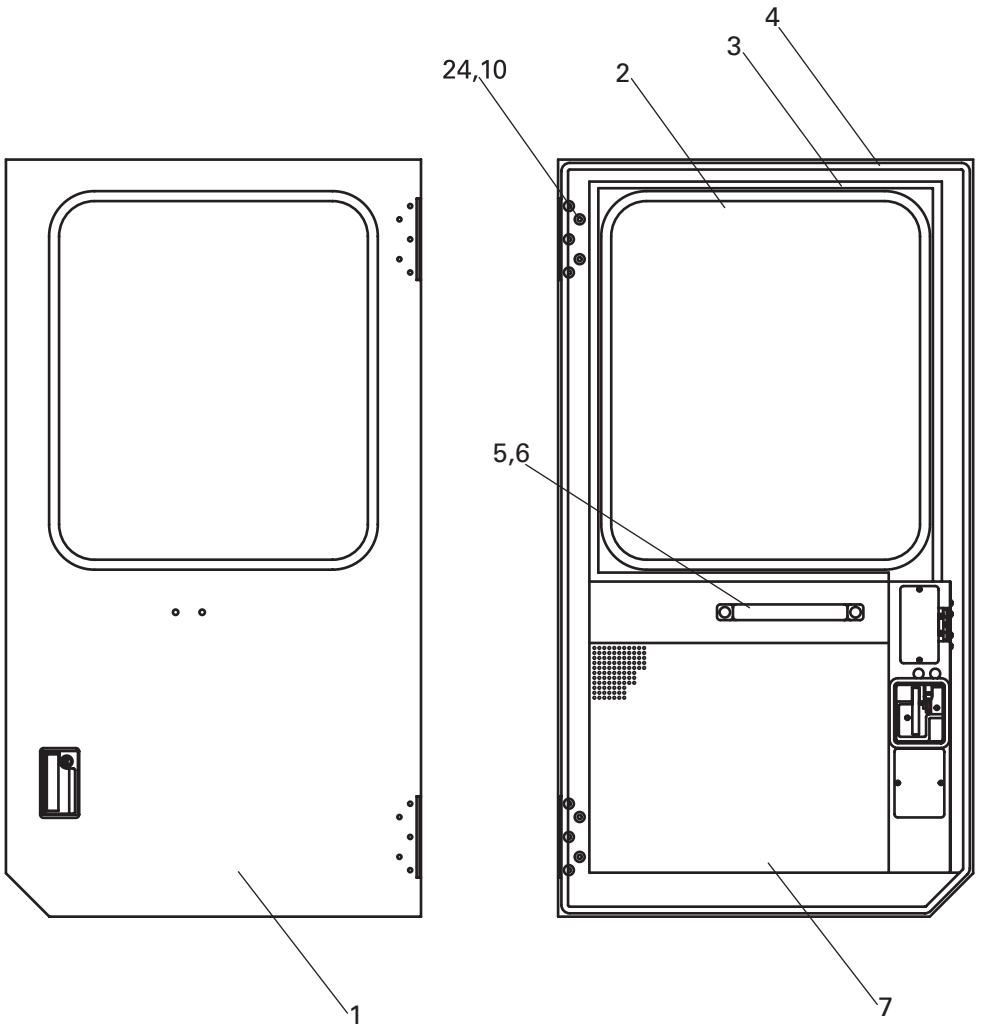
CAB ASSEMBLY



CAB ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	760010A	CAB, WELDMENT	1
2	760021	COVER, HOSES	1
3	760031	PANEL, SIDE	2
4			
5			
6	760062	DOOR	1
7	760070	SEAL, DOOR	1
8	760080	WINDOW, DOOR	1
9	760090	SEAL, WINDOW	1
10	760101	HINGE, 3000 LOADER CAB	2
11	P527323	SOCKET, DOOR STOP	1
12	760120	WINDOW, RIGHT SIDE	1
13	760090	SEAL, REAR SIDE WINDOW	1
14	760130	WINDOW, REAR	1
15	760090	SEAL, REAR WINDOW	1
16	760140	WINDOW, FRONT WINDOW	1
17	760090	SEAL, FRONT WINDOW	1
18	760150	WINDOW ASSEMBLY	A/R
19	760160	WINDOW, RIGHT SIDE	1
20	760090	SEAL, SIDE WINDOW	A/R
21	760170	FRAME, WINDOW	1
22	760180	SEAL, WINDOW SLIDE	1

CAB DOOR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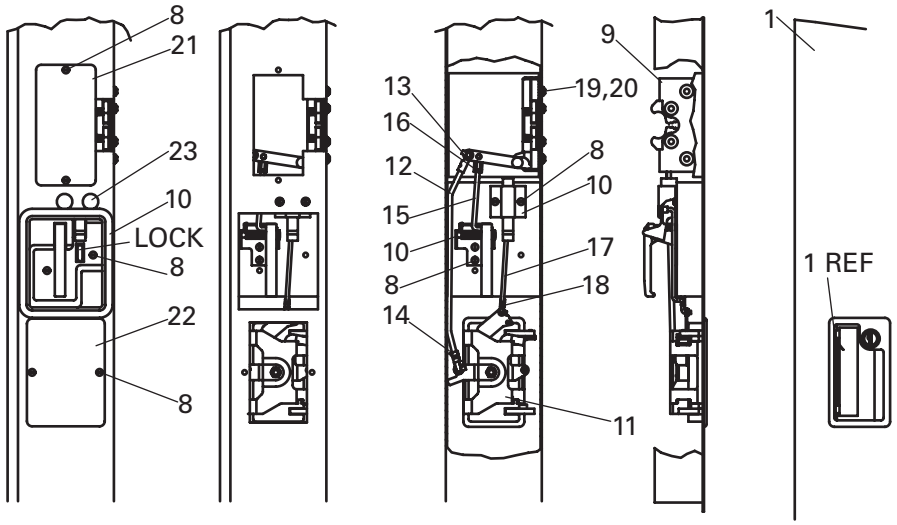
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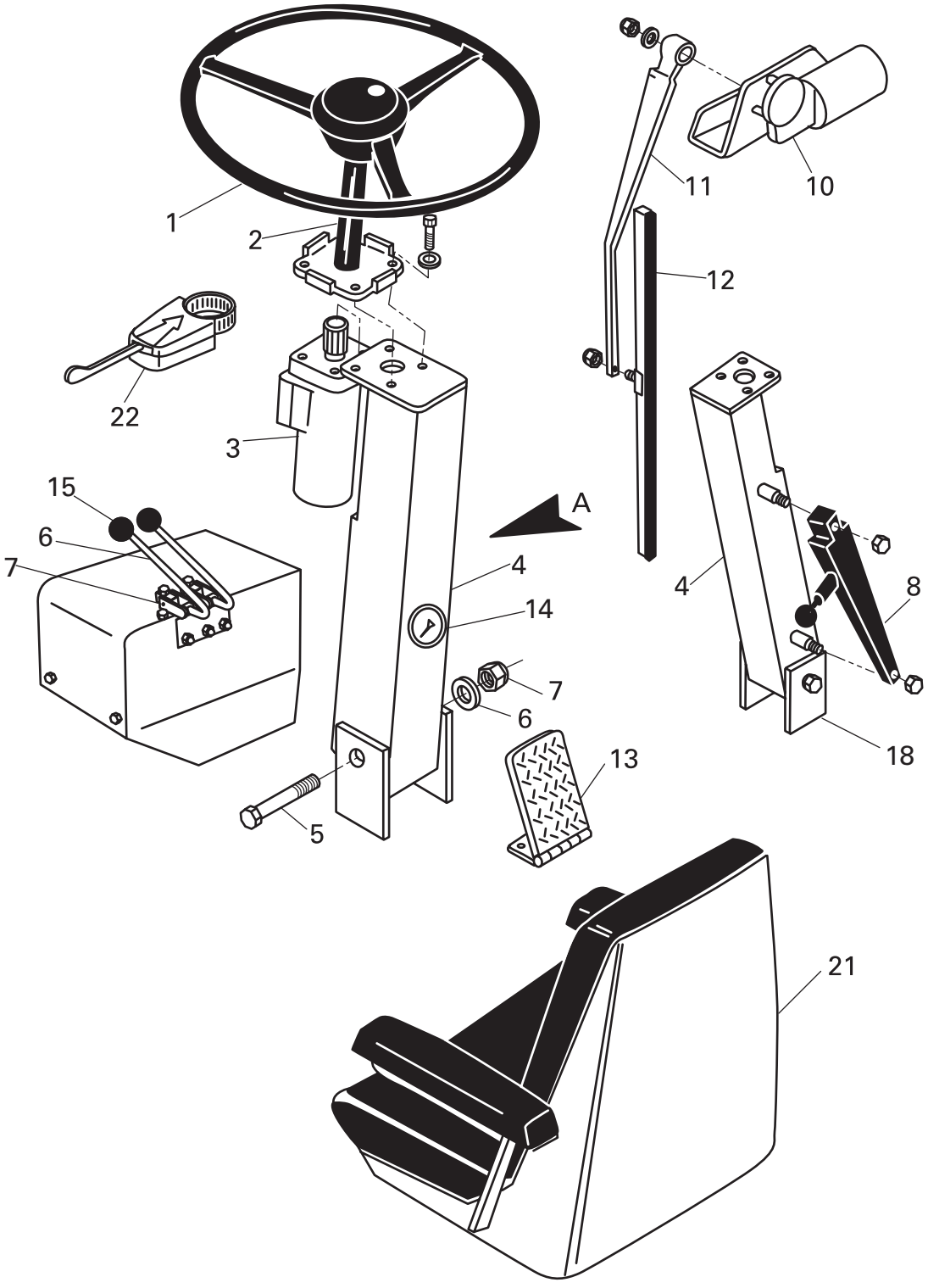
CAB DOOR

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	760062	DOOR WELDMENT	1
2	760080	GLASS - DOOR	1
3	760090	WINDSHIELD SEAL	9FT.
4	760070	EDGE TRIM	15 FT
5	982060	INTERIOR HANDLE	1
6	A510-B	1/4 -20 PHPHIL X 5/8"	2
7	982061	FOAM - DOOR	1
8		8-32 PHMS x 1/2	10
9	982062	LATCH - SMC MODIFIED - RH	1
10	982063	INT. HANDLE & BEZEL- RH	1
11	982064	O.S. PADDLE HANDLE - RH	1
12	982065	LATCH ROD, LH	1
13	982066	7/32 ROD CLIP - RH	1
14	982067	7/32 ROD CLIP - LH	1
15	982068	RH I/S TRIP ROD	1
16	982069	3/16 ROD CLIP - PLSTC - CNTR	1
17	982070	LOCK TRIP ROD - 5/32 DIA. - CNTR	1
18	982071	5/32 ROD CLIP - RH	1
19		1/4-20 BHSCS X 5/8	4
20		1/4 INT TOOTH LK WSHR	4
21	982072	COVER	1
22	982073	COVER	1
23	982075	3/8 DIA. HOLE PLUG - PLSTC	2
24	982076	PLUG, 3/4, BUTTON, NYLON, BLACK	10

STEERING WHEEL AND CAB COMPONENTS



STEERING WHEEL AND CAB COMPONENTS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	300030	STEERING WHEEL, 400, 635, 685 & 1200	1
2	300040	STEERING COLUMN, 6" (400, 685 & 1200)	1
3	300050	HYD. MOTOR, POWER STEERING (400 & 1200)	1
4	760492	SUPPORT, STEERING COLUMN	1
5	760500	BOLT, PIVOT STEERING COLUMN	1
6	760510	WASHER, FLAT	1
7	760520	NUT, LOCK HEX	1
7	852020	VALVE, TWO STATION GRESSEN VALVE	1
8	855258	TILT STEERING BAR	1
9			
10	151170	MOTOR, WIPER	1
11	151180	ARM, WIPER	1
12	151190	BLADE, WIPER	1
13	760580	PEDAL, FOOT	1
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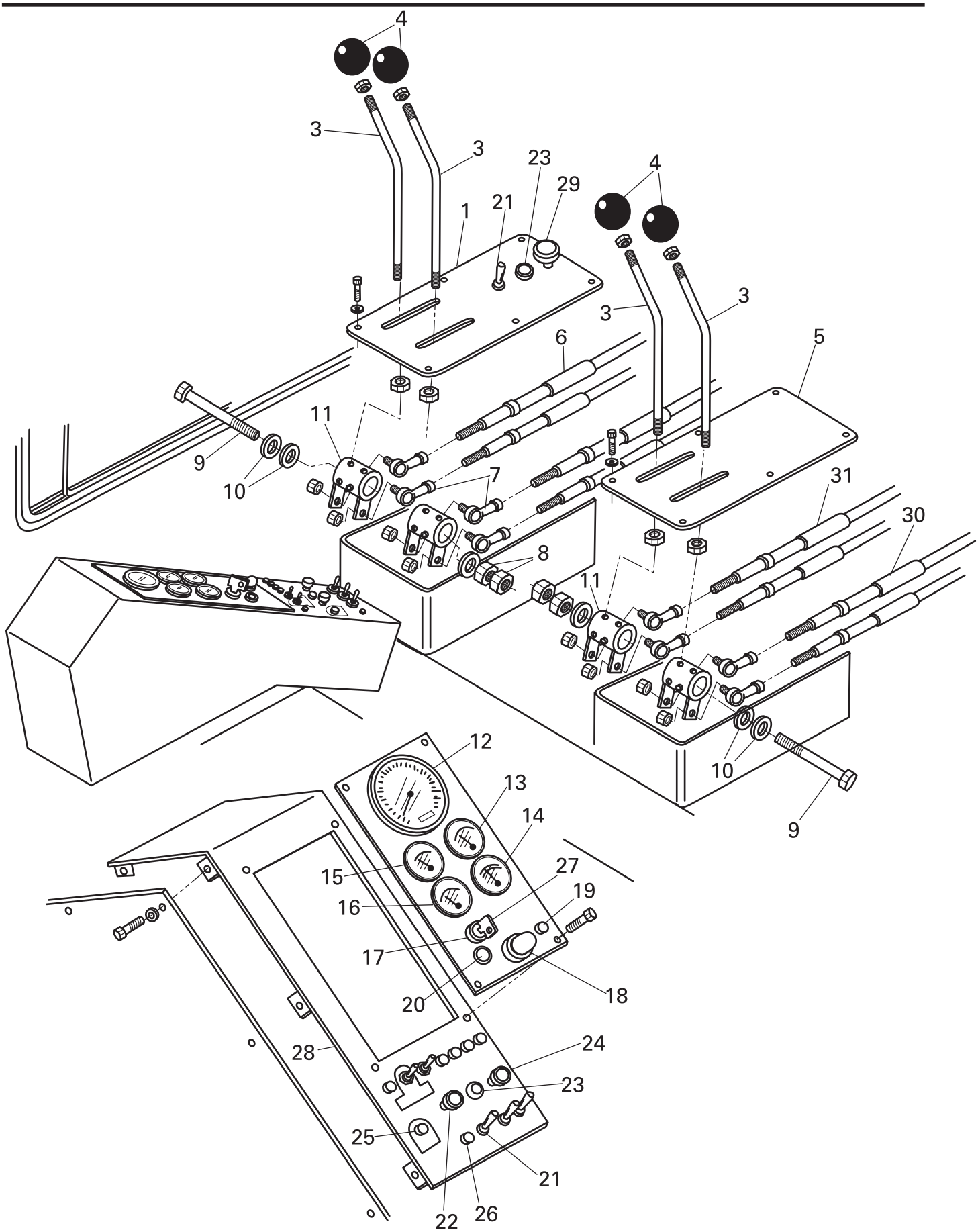
21	360010B	SEAT ASSY W / ARMREST, BLACK	1
22	140480	SWITCH WITH AN ARM TURN SIGNAL	1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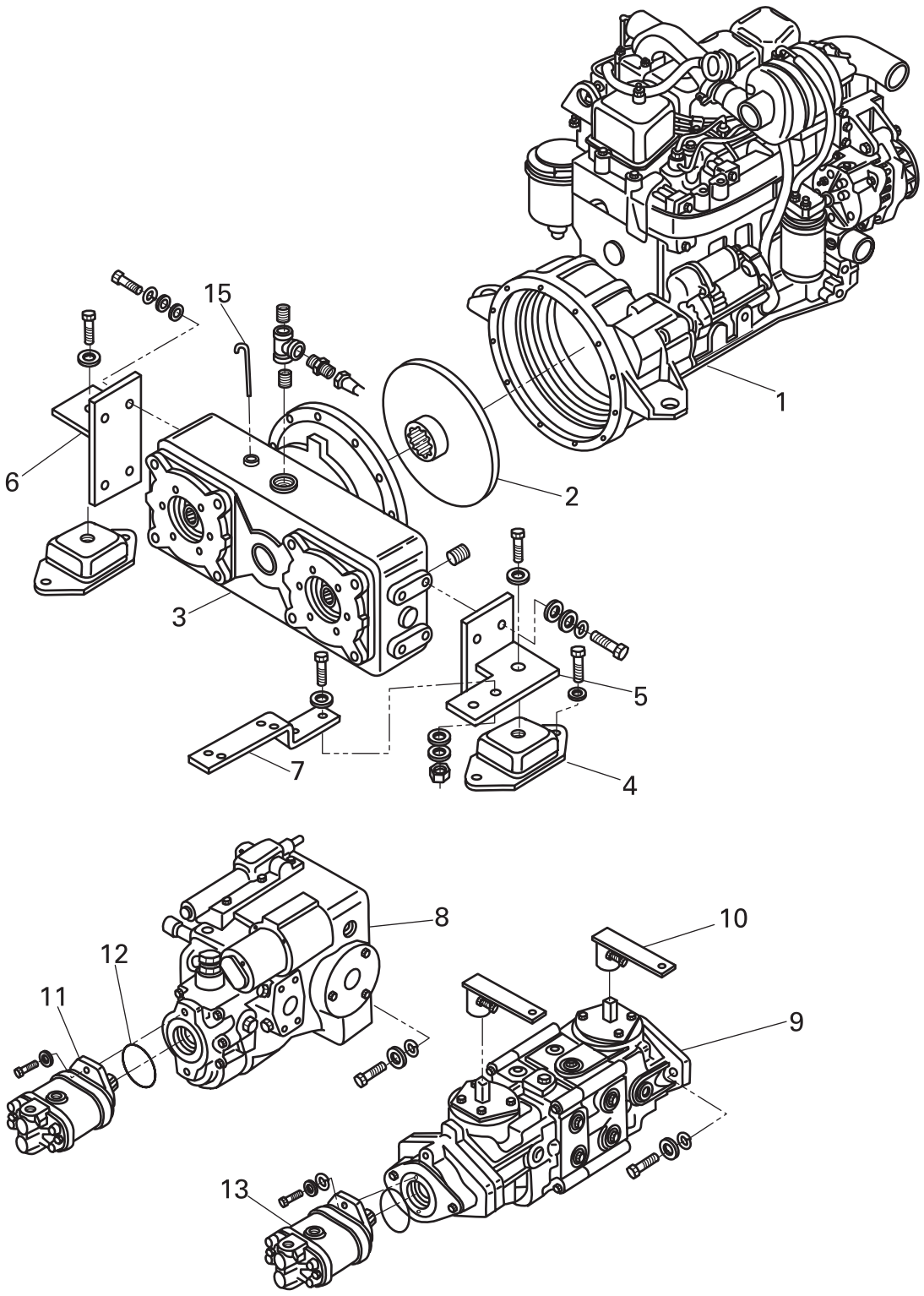
CONTROLS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	760201	PANEL, LEVER GUIDE RIGHT SIDE	1
2	920140	CABLE, R.H. DRIVE / VARIOUS CONTROLS	2
3	760221	LEVER	4
4	760230	KNOB, LEVER	4
5	760241	PANEL, LEVER GUIDE LEFT SIDE	1
6	760240	CABLE, THROTTLE	A/R
7	920090	SPHERICAL ROD END, 3/8" X 1/4" W / STUD	8
8	116-7-1	NUT, 5/8"-11 HEX JAM	2
9	920229	CAP SCREW, 5/8"-11 X 7-1/2" HEX HEAD	2
10	119-7	WASHER, 5/8" SAE FLAT	4
11	750644	PIVOT MOUNT, CABLE CONTROLS	4
12	140370	GAUGE, TACHOMETER / HOURMETER (685)	1
13	140390	GAUGE, VOLTMETER	1
14	140410	GAUGE, ENGINE OIL PRESS.	1
15	140380	GAUGE, FUEL LEVEL	1
16	140400	GAUGE, WATER TEMP.	1
17	140460	KEY SWITCH, IGNITION	1
18	140440	WARNING LIGHT	1
19	140430	CIRCUIT BREAKER, INSTRUMENT PANEL (685)	1
20	140450	WARNING BUZZER	1
21	500040	TOGGLE SWITCH, ON / OFF	A/R
22	760450	SWITCH, WIPER	2
23	760460	BUTTON, HORN	1
24	760450	SWITCH, WIPER	1
25	311160-R	INDICATOR LIGHT, RED	3
26	311160-R	INDICATOR LIGHT, RED	3
27	500010-1	KEY	A/R
28	760310	PANEL	A/R
29		BRAKE BUTTON	1
30	920130	CABLE, VARIABLE SPEED CONVEYOR	2
31	920140	CABLE, CONVEYOR CONTROL	2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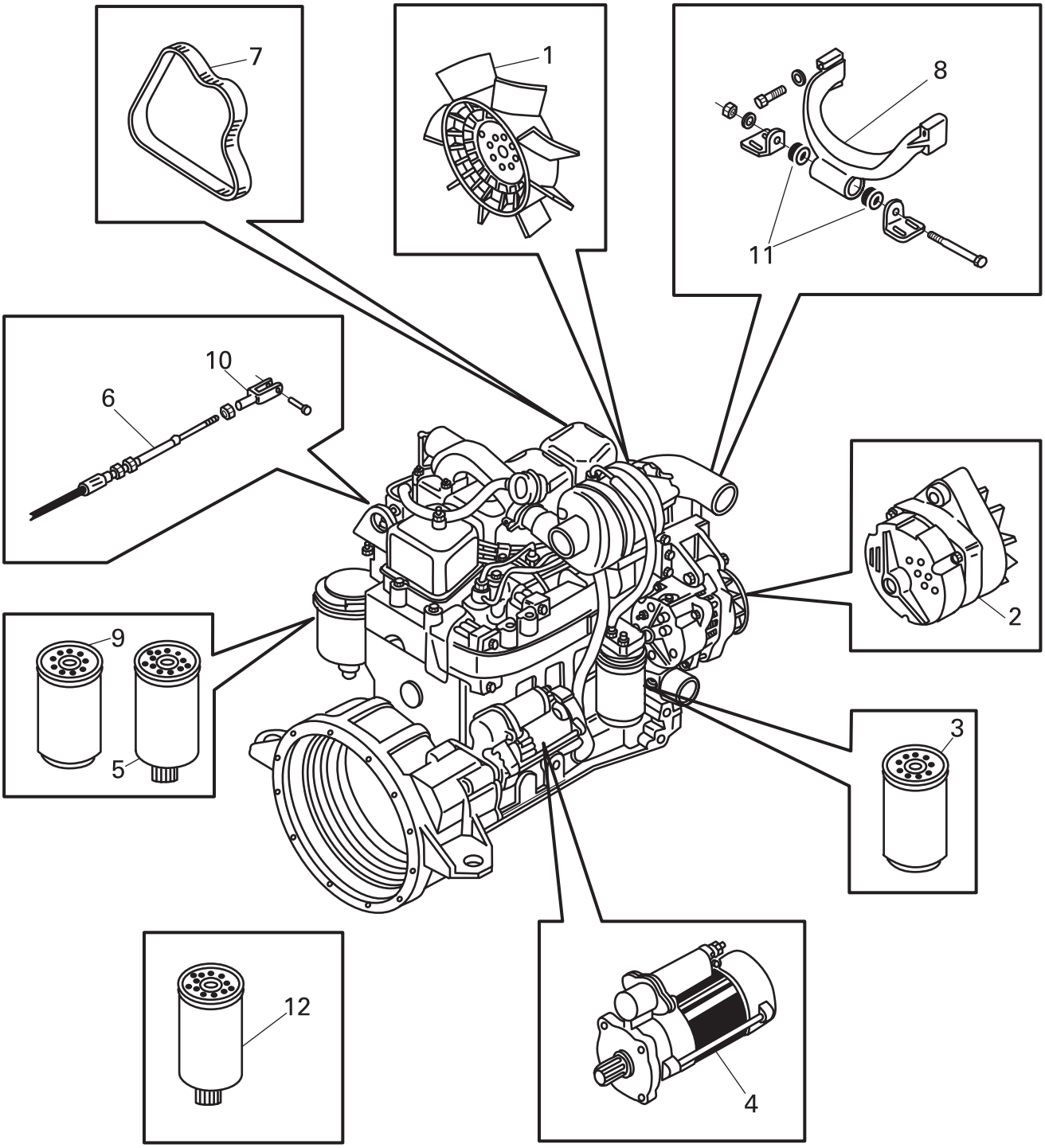
ENGINE AND PUMPS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	160001	ENGINE, CUMMINS	1
2	P86879B	COULPING, FLYWHEEL PUMP DRIVE	1
3	P76869A	DOUBLE PUMP DRIVE	1
4	320140	MOUNTING PAD, ENGINE	2
5	981778	BRACKET, L/H	1
6	750581	BRACKET, R/H	1
7	750582	BRACKET, PUMP CABLE HOLDER	1
8	162800	HYD. PUMP,V.V.FWD.&REV. (CHECK PUMP BRAND)	1
*9	P205232A	HYD. PUMP,V.V.FEEDER & CONVEYOR	1
10	750585	ARM, DRIVE	1
11	162802	HYD.PUMP, AUX.& POWER STEERING	1
12	P77675	GASKET, SAE “A” 2” BOLT	2
13	162803	HYD.PUMP, SINGLE 3000 W/SWIVEL ATTACHMENT	1
14	162804	CHARGE PUMP, PROPULSION (NOT SHOWN)	1

* 3000'S THRU SERIAL# 101-106 SAME PUMP AS 1000B EXCEPT L/H ROTATION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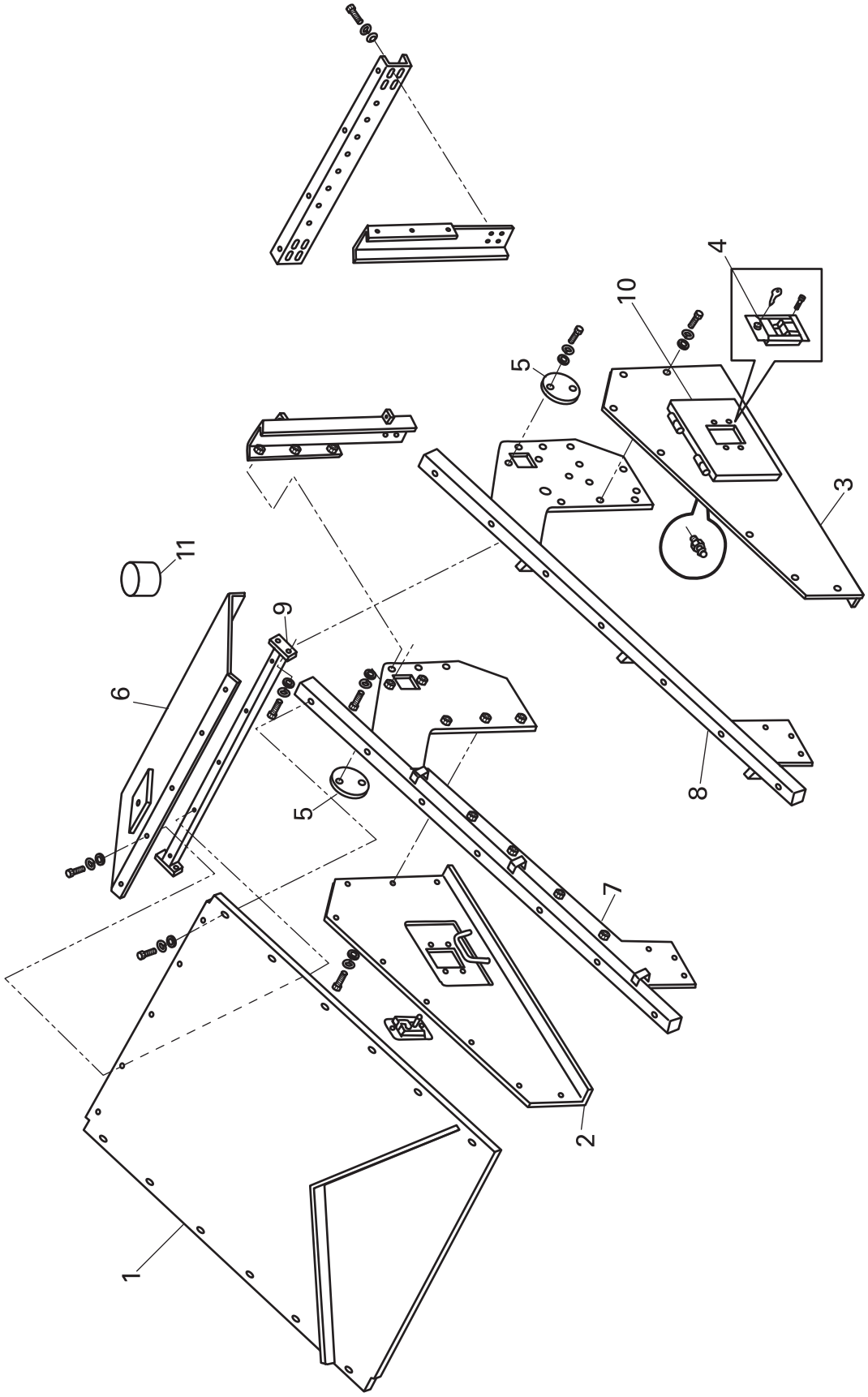
ENGINE COMPONENTS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	170050	FAN BLADE, 685 (CUMMINS)	1
2	160220	ALTERNATOR, 12V / 105 AMP (685)	1
3	160180	FILTER ELEMENT, ENGINE OIL (685 W / CUMMINS)	1
4	160310	STARTER, CUMMINS ENGINE	1
5	160160	FILTER ELEMENT, PRIMARY FUEL (685 W / CUMMINS)	1
6	160090	CABLE, THROTTLE / V.V. MOTOR (685)	1
7	160200	BELT, ALTERNATOR (685)	1
8	160270	MOUNT, ENGINE FRONT (685)	1
9	160170	FILTER ELEMENT, SECONDARY FUEL (685 W / CUMMINS)	1
10	920080	SPHERICAL ROD END, 1/4"	2
11	160280	SHIM, 685 ENGINE FRONT MOUNT	1
12	P521848	FILTER W/MOUNT, FUEL/ WATER SEPERATOR	1

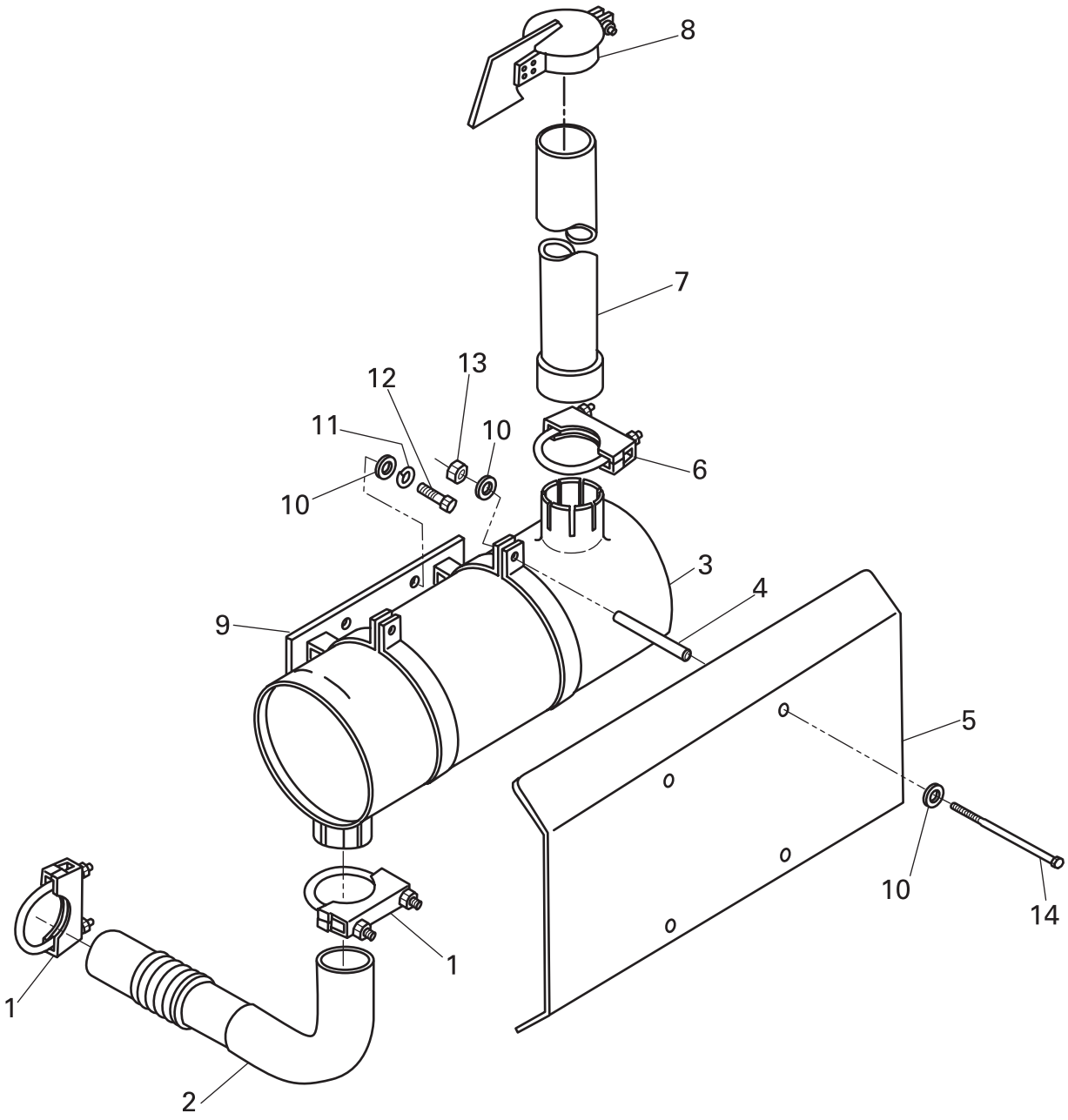
HOOD AND ENGINE ACCESS PANELS



HOOD AND ENGINE ACCESS PANELS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	750586	MOTOR HOOD	1
2	750587	COVER, R/H SIDE	1
3	750588	COVER, L/H SIDE	1
4	160450	LATCH, ENGINE ACCESS PANEL	1
5	750589	COVER	2
6	750590	COVER, BACK HOOD	1
7	750591R	MOUNT, R/H COVER	1
8	750591L	MOUNT, L/H COVER	1
9	171231	BRACE	1
10	750594	DOOR, ENGINE ACCESS COVER	2
11	852520	BACK UP ALARM (3000)	1

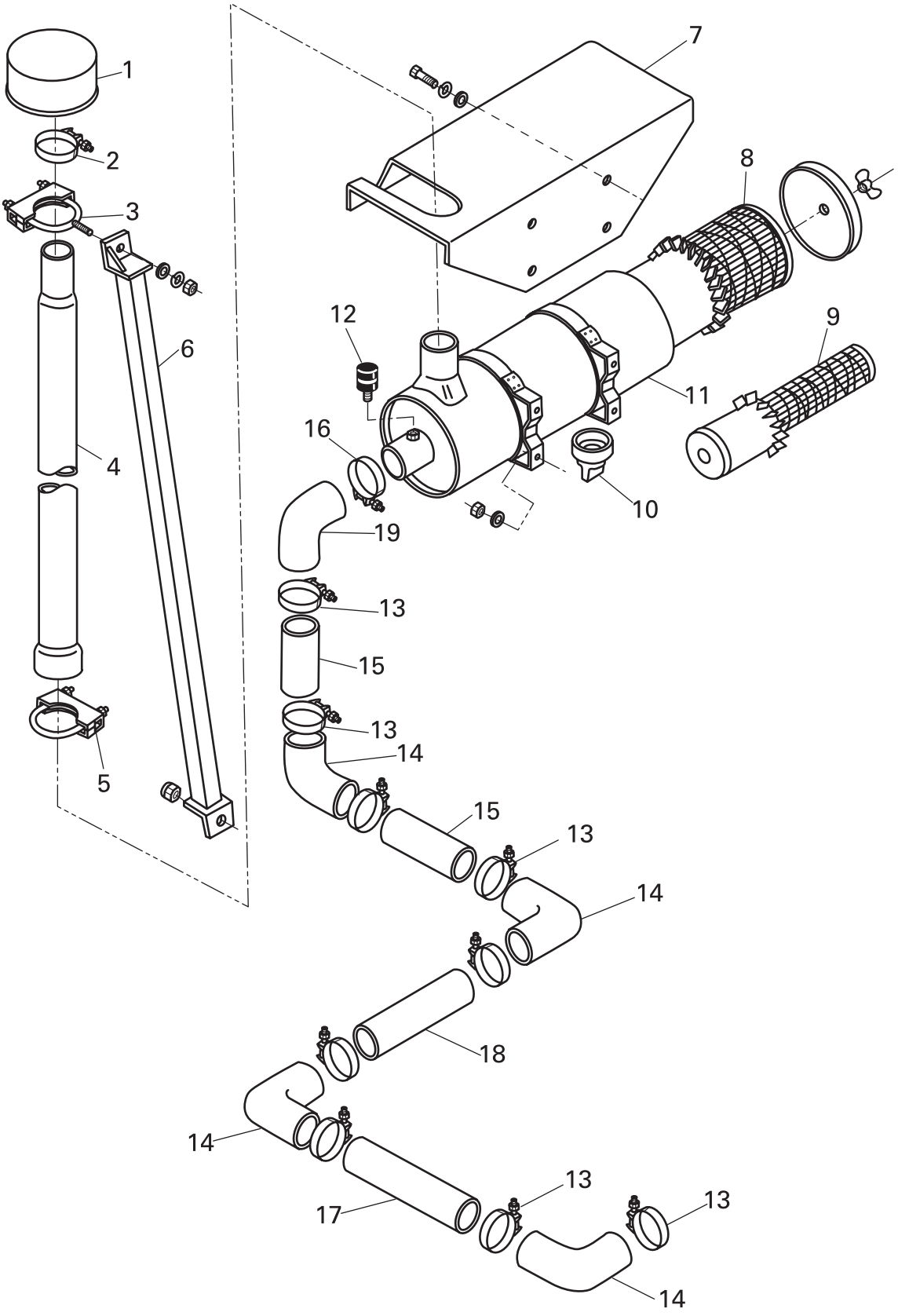
MUFFLER ASSEMBLY



MUFFLER ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	161250	CLAMP, 3" MUFFLER	2
2	750042	ELBOW W / FLEX PIPE, 3000 EXHAUST	1
3	750043	MUFFLER, 3000 EXHAUST	1
4	856999	SPACER TUBE, 3000 EXHAUST HEAT SHIELD	4
5	750045	PLATE, 3000 MUFFLER HEAT SHIELD	1
6	750046	CLAMP, 3-1/4" MUFFLER	1
7	750047	PIPE, 3000 EXHAUST STACK	1
8	750041	RAIN CAP, 3" EXHAUST PIPE	1
9	750048	PLATE W / CLAMPS, 3000 MUFFLER MOUNT	1
10	119-3	WASHER, 3/8" SAE FLAT	3
11	118-3	WASHER, 3/8" LOCK	2
12	102-205-1A	CAP SCREW, 3/8"-16 X 1 HEX	4
13	116-3	NUT, 3/8"-16 HEX	4
14	102-225-1A	CAP SCREW, 3/8"-16 x 6" HEX HEAD	4

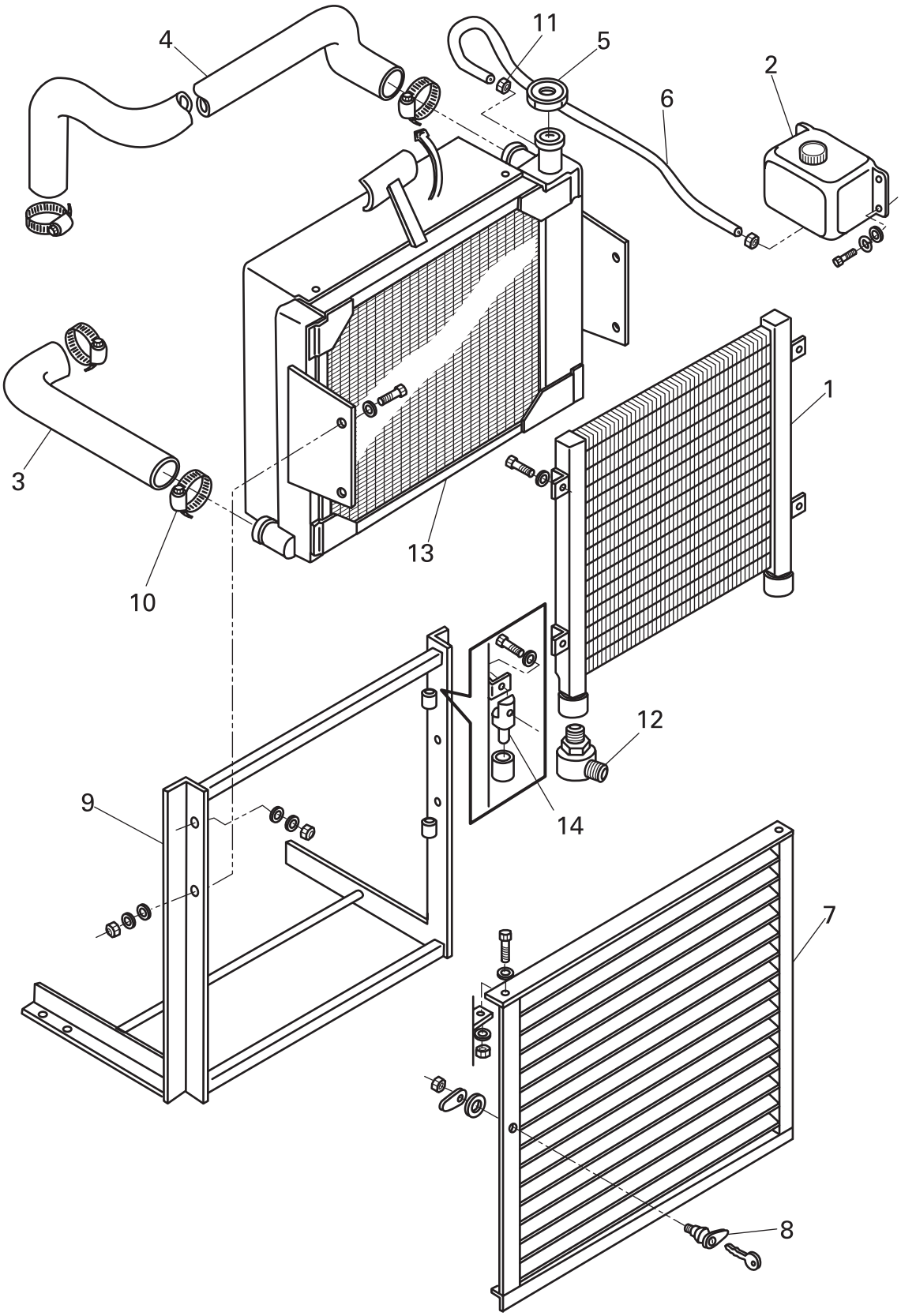
AIR CLEANER ASSEMBLY



AIR CLEANER ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	852060	TURBO PRE-CLEANER (3000)	1
2	171090	CLAMP, 3" T-BOLT	11
3	750645	CLAMP, PIPE	1
4	750592	PIPE, AIR CLEANER EXTENSION	1
5	750593	CLAMP, 4" MUFFLER	1
6	982127	SHAFT, MAIN CONVEYOR SUPPORT CROSSBRACE	1
7	857005	COVER, AIR CLEANER	1
8	171140	FILTER ELEMENT, PRIMARY AIR (685-140 UP & 2800)	1
9	171150	FILTER ELEMENT, SAFETY AIR (685 -140 UP & 2800)	1
10	171040	DUST EVACUATOR, AIR CLEANER	1
11	171130	AIR CLEANER ASSY., (685-140 UP & 2800)	1
12	171220	INDICATOR, AIR FILTER RESTRICTION	1
13	171090	CLAMP, 3" T-BOLT	5
14	171070	RUBBER ELBOW, AIR INTAKE (3")	4
15	855196	TUBE, 7"	1
16	171190	T-BOLT CLAMP, AIR INTAKE (3")	1
17	855197	TUBE, 19"	1
18	855195	TUBE, 11"	1
19	171170	RUBBER ELBOW, AIR INTAKE (3 1/2" X 3")	1

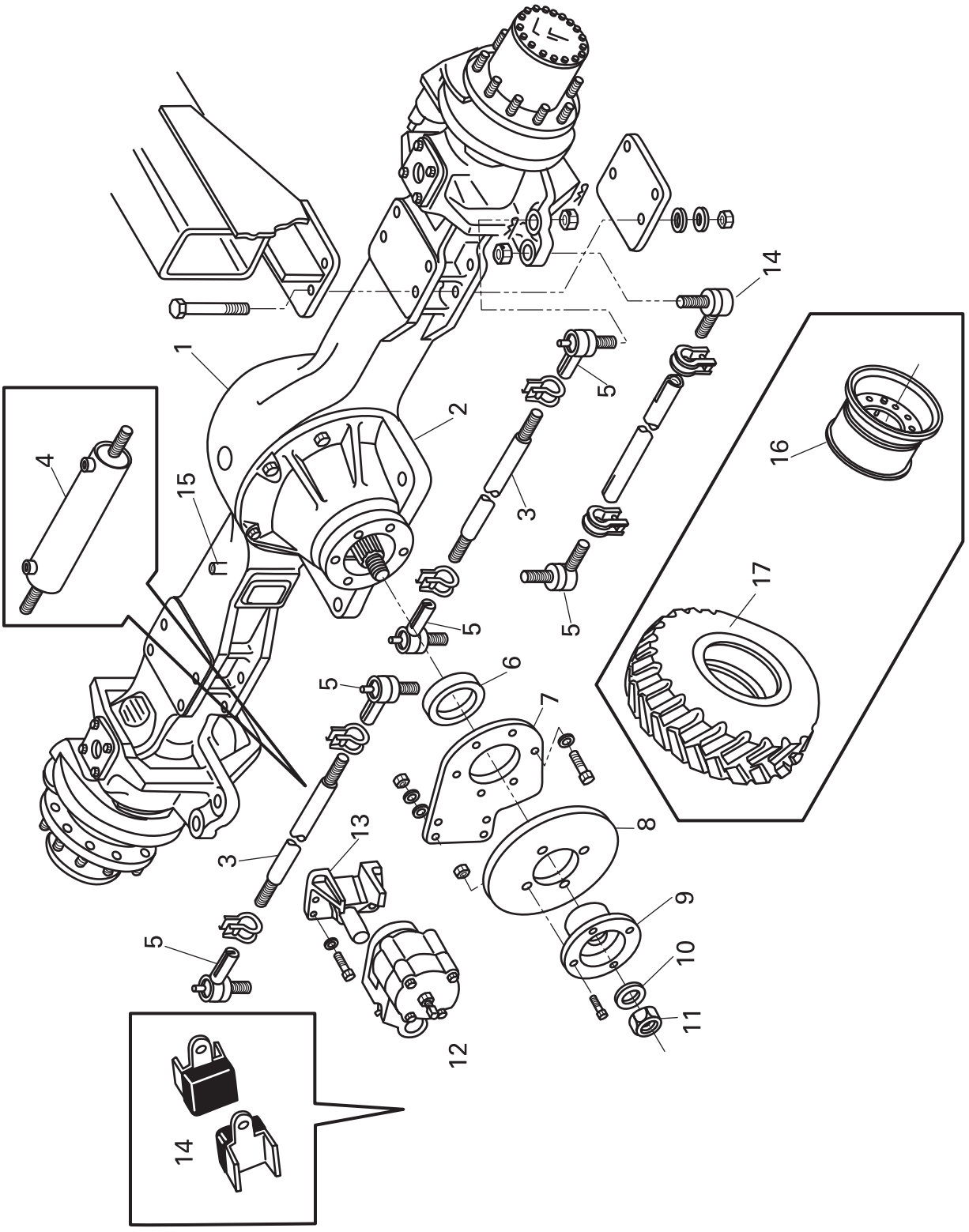
GRILLE AND RADIATOR ASSEMBLY



GRILLE AND RADIATOR ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	170160	COOLER, HYD. OIL (685-094 UP / 2800 / 3000) (NOT AVAILABLE)	1
2	170130	TANK, 635B / 685 / 3000 RADIATOR OVER FLOW	1
3	170100	HOSE, RADIATOR LOWER (685 / 2800 / 3000)	1
4	170150	HOSE, RADIATOR UPPER (685 / 2800 / 3000)	1
5	170120	RADIATOR CAP, 685 / 2800 / 3000	1
6	170140	HOSE OVERFLOW	1
7	750554	GRILL	1
8	160460	LATCH, RADIATOR ACCESS PANEL	1
9	770012A	SUPPORT, GRILLE & RADIATOR	1
10	170110	HOSE CLAMP, 2 1/2" (SIZE 36)	1
11	230160	CLAMP, 1/4" HOSE (SIZE 4)	1
12	750638	FITTING, HP SWIVEL (3000 LOADER)	1
13	170030	RADIATOR, 685/2800/3000 W / CUMMINS ENGINE (CHECK SERIAL #)	1
13A	980280	RADIATOR (NEW STYLE)	1
14	750639	HINGE, RADIATOR/OIL COOLER	1

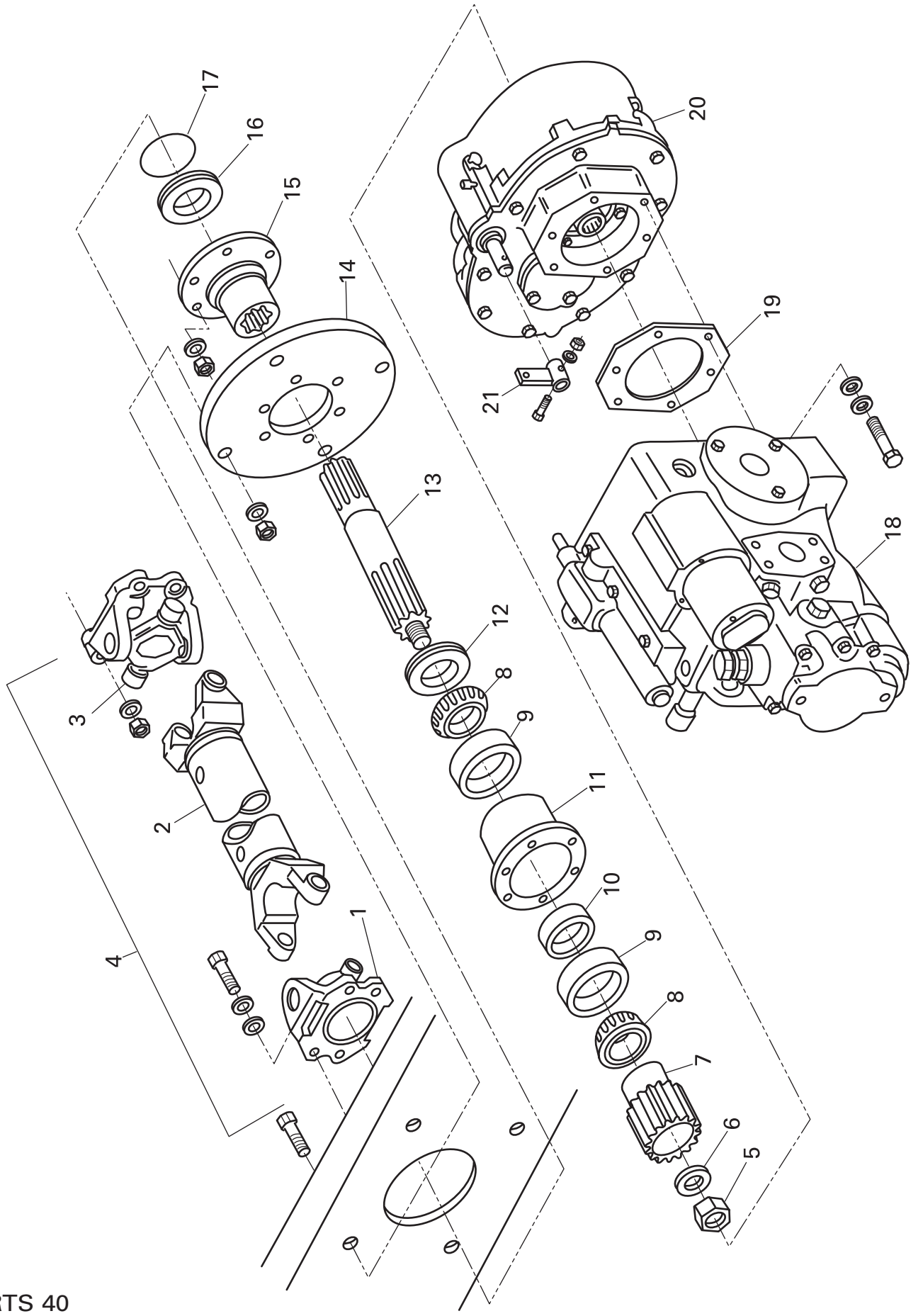
REAR END ASSEMBLY



REAR END ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	750556	AXLE ASSY., 3000 REAR STEERING - NOT AVAILABLE	1
2	750557	CARRIER ASSEMBLY	1
3	750558	ROD, 3000 REAR STEER HYD CYL DELETE	4
4	750567	HYD. CYLINDER., OPTIONAL REAR STEER	2
5	750560	TIE ROD END, R/H	A/R
6	711553	SEAL, INPUT SHAFT TWO SPEED BOX	1
7	750650	BRACKET, BRAKE MOUNT	1
8	750563	ROTOR, BRAKE DISC (3000)	2
9	750564	CAP, BEARING RETAINER	1
10	54557H	WASHER, FLAT	1
11	077HN103	LOCK NUT, PINION SHAFT	1
12	120480	BRAKE CALIPER, 685 FAIL-SAFE	1
13	750562	MOUNT, FAIL SAFE BRAKE CALIPER	1
14	120490	BRAKE PAD KIT, FAILSAFE	A/R
15	P15497	BREATHER ASSY	1
16	750568	WHEEL, 2800 / 3000 REAR (1 PC. DROP CENTER)	2
17	750565	TIRE, 3000 REAR	2

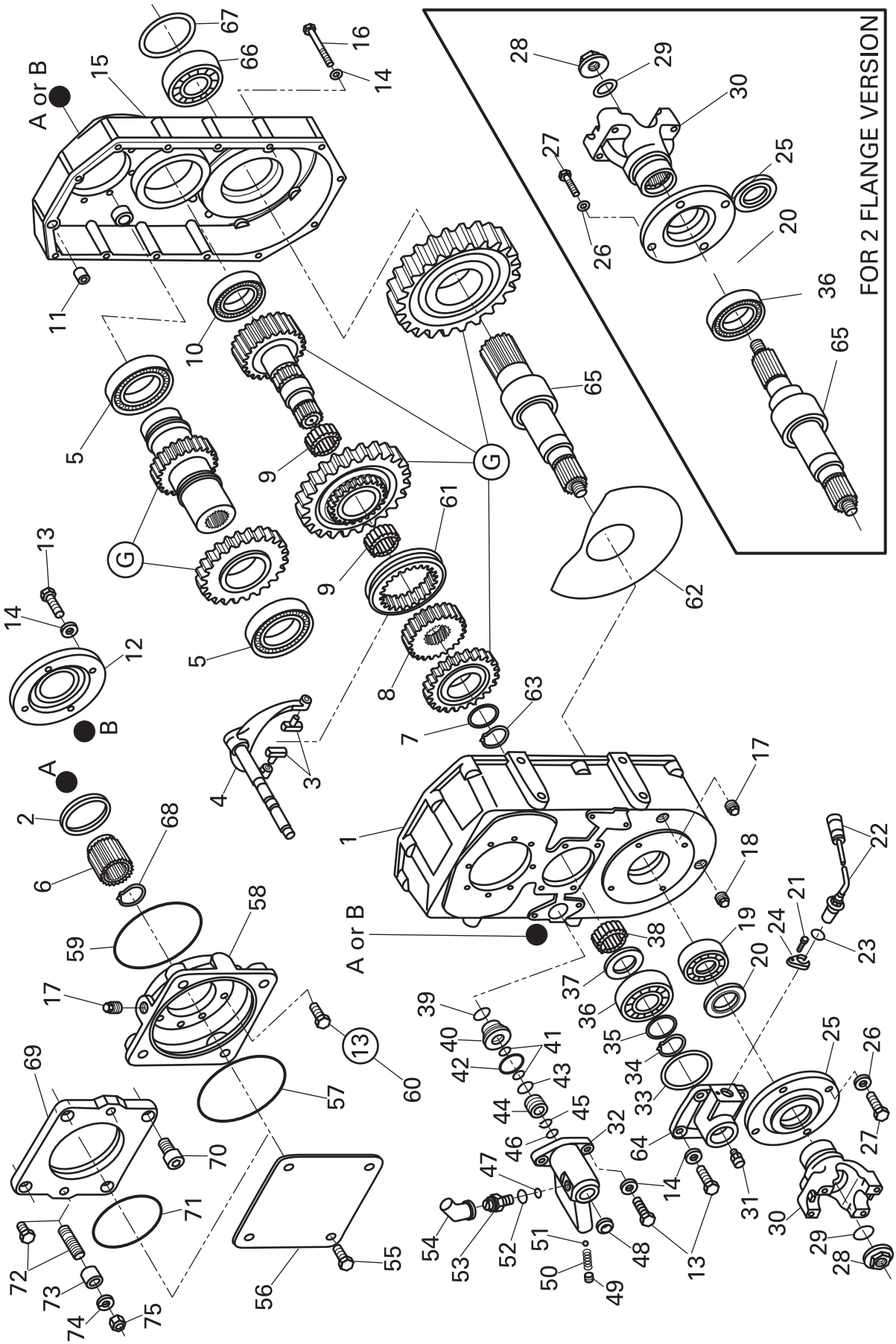
TWO SPEED DRIVE ASSEMBLY



TWO SPEED DRIVE ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	750570	FLANGE, DRIVE SHAFT U-JOINT	2
2	750571	DRIVE SHAFT ASSY., 3000 LOADER	1
3	750572	UNIVERSAL JOINT, DRIVESHAFT	2
4	750571A	DRIVE SHAFT, COMPLETE	1
5	077HN1035	SPACER	1
6	4557H	FLAT WASHER, COMPANION FLANGE	1
7	R30HS100	SPACER	1
8	917217R	BEARING CUP	2
9	306276C91	BEARING CONE, PINION SHAFT	1
10	R30HS100	SPACER	1
11	120655	CAP, 2 SPEED OUTPUT SHAFT BEARING RETAINER	1
12	454755C1	SEAL, PINION SHAFT (685)	1
13	750574	SHAFT, 2 SPEED OUTPUT (3000)	1
14	750575	PLATE, 2 SPEED BOX MOUNT (3000)	1
15	120652	COMPANION FLANGE, PINION / ROTOR	1
16	750576	DISC W / O-RING, COMPANION FLANGE BLOCK OFF	1
17	750577	O-RING	1
18	750578	HYD. PUMP, 2800/3000 PROPULSION, 2 SPEED, CHECK PUMP BRAND	1
19	P78063	GASKET, 4 / 6 HOLE S.A.E. "C"	1
20	120664	DROP BOX, LO- HI	1
21	750587	BRACKET	1

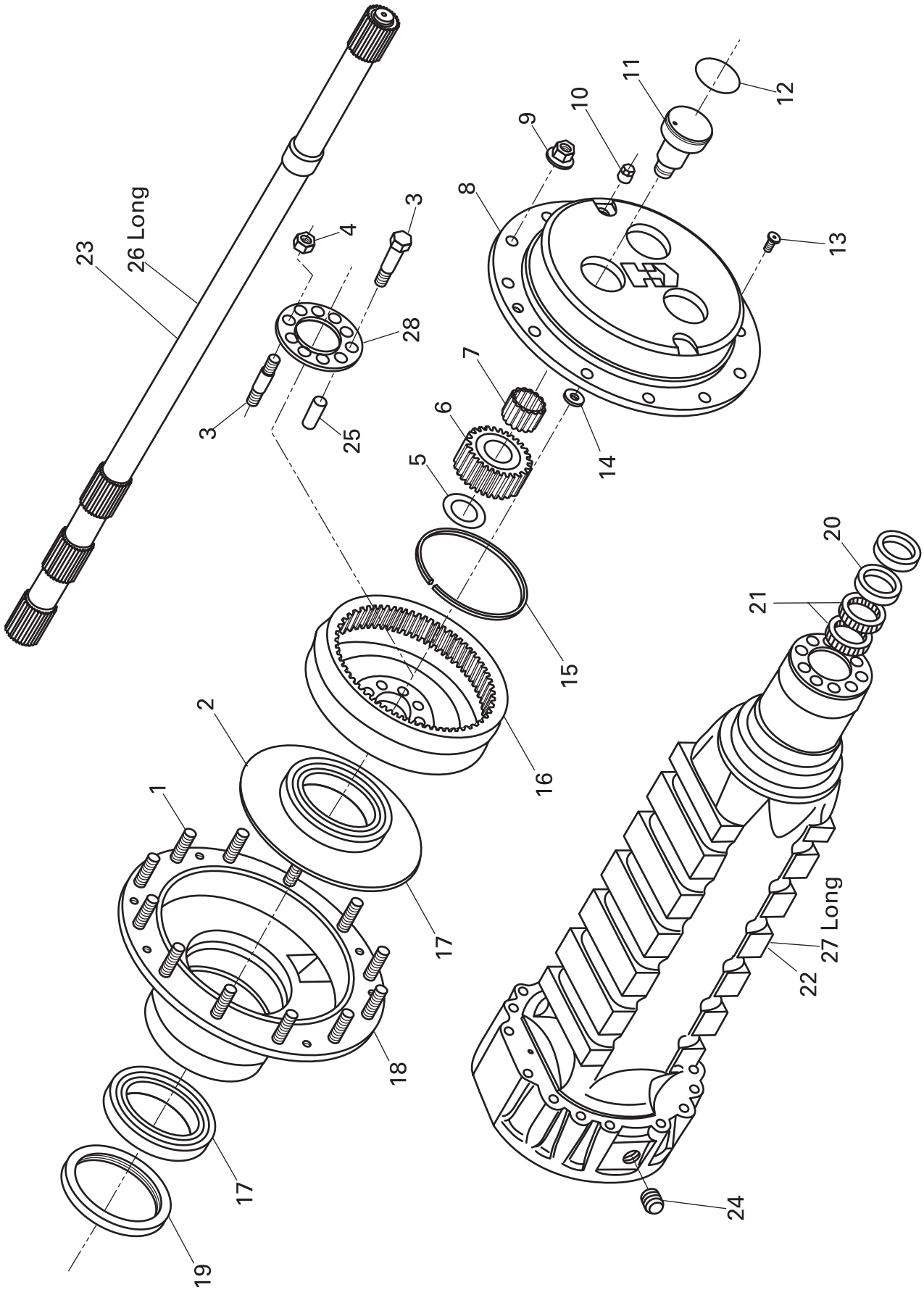
GEAR BOX



GEAR BOX

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	360.14.001.02	HOUSING	1
2	001.01.0622	SEAL	1
3	355.14.056.01	SLIDING PIN	2
4	360.14.701.03	BAR	1
5	005.01.0623	BALL BEARING	2
6	723.14.020.27	REDUCTION BUSHING	1
7	355.14.055.01	FRICTION WASHER	1
8	355.14.100.01	GUIDE - TUBE	1
9	005.13.2708	NEEDLE BEARING	2
10	005.06.2454	BEARING	1
11	722.14.039.01	REDUCTION BUSHING	2
12	360.14.005.01	COVER	1
13	016.01.0375	HEXAGON BOLT	2
14	011.01.0222	SPRING WASHER	2
15	360.14.002.07	COVER	1
16	016.03.1062	HEXAGON BOLT	14
17	808.01.017.01	PLUG	1
18	819.01.610.01	MAGNET PLUG	1
19	005.01.0118	BALL BEARING	1
20	001.03.3256	SEAL	1
25	722.14.006.01	COVER	1
26	011.01.0223	SPRING WASHER	4
27	016.01.0380	HEXAGON BOLT	4
28	746.04.008.01	NUT	1
29	001.05.0044	O- RING	1
30	714.02.013.01	FLANGE	1
31	702.01.003.01	VENT	1
32	360.14.019.02	CYLINDER	1
33	013.01.0311	SHIM	1
33A	013.01.0313	SHIM	1
34	002.01.0074	CIRCLIP	1
35	013.01.0650	SHIM	1
36	005.06.0643	ROLLER BEARING	1
37	360.14.016.01	FRICTION WASHER	1
38	005.13.1165	NEEDLE BEARING	1
39	001.05.1592	O- RING	1
40	355.14.140.02	REDUCTION BUSHING	1
41	001.05.0039	O- RING	2
42	001.05.0591	O- RING	1
43	001.05.1587	O- RING	1
44	355.14.139.01	PISTON	1
45	002.01.1047	CIRCLIP	1
46	001.05.0934	O- RING	1
47	001.05.1479	O- RING	1
48	011.14.3140	SEAL	1
49	016.08.1240	GRUB BOLT	1
50	542.03.020.01	SPRING	1
51	012.01.0249	DETEND BALL	1
52	011.07.1478	SEAL WASHER	1
53	932.03.600.01	SECURITY SWITCH	1
54	932.03.020.01	BOOT	1
57	001.05.1436	O- RING	1
58	360.14.007.02	COVER	1
59	001.05.1422	O- RING	1
60	016.01.0375	HEXAGON BOLT	8
61	355.14.101.02	CHANGE SELECTOR	1
62	360.14.015.01	COVERPLATE	1
63	002.01.0076	CIRCLIP	1
64	360.14.003.02	COVER	1
65	360.14.014.04	OUTPUT SHAFT	1
68	002.02.0080	CIRCLIP	1
69	360.14.034.01	FLANGE	1
70	016.04.3686	CYLINDER BOLT	4
71	001.05.3661	O- RING	1
72	017.01.2828	STUD	2
73	725.14.020.01	SPACER	2
74	011.01.0225	SPRING WASHER	2
75	006.03.1196	NUT	2

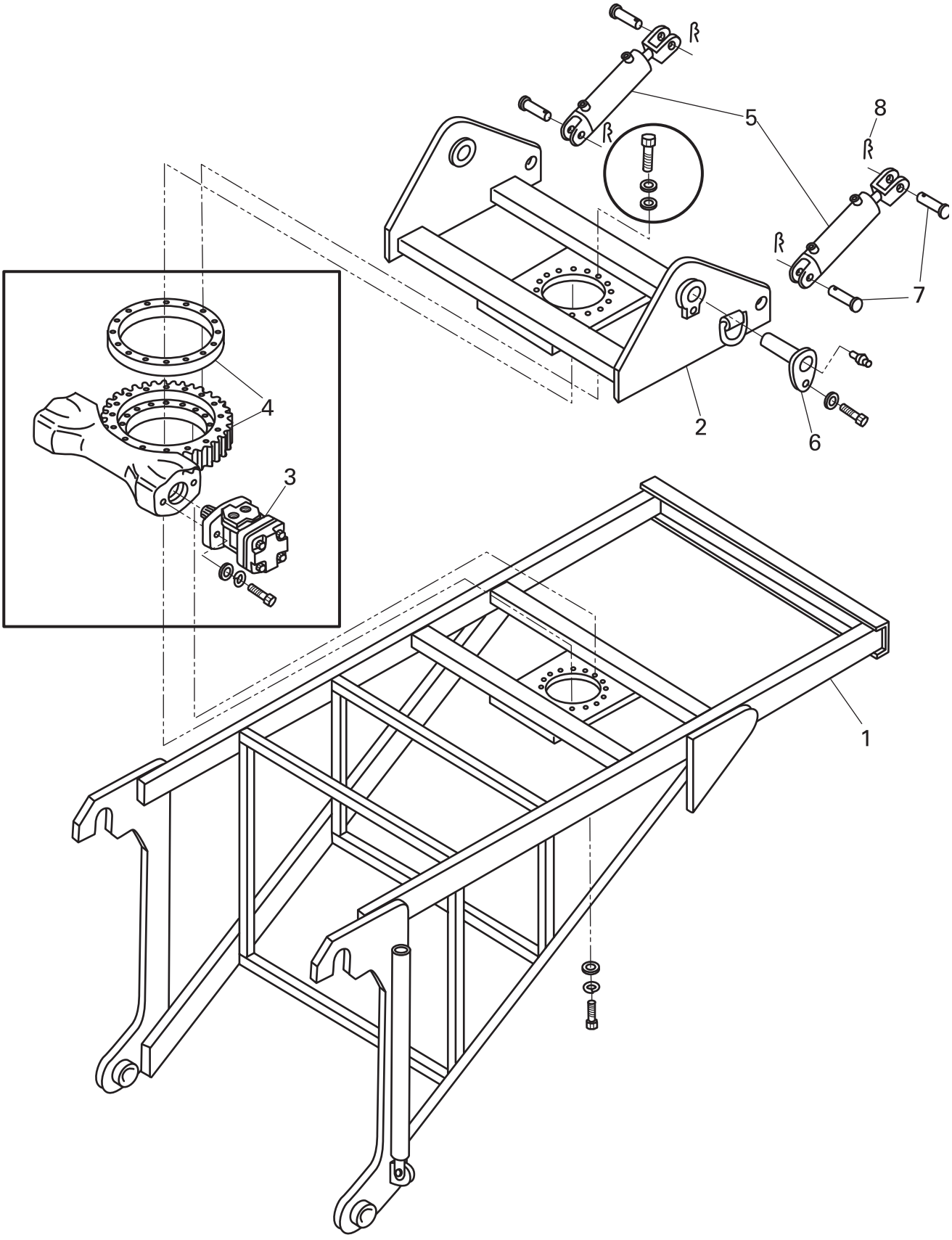
HUB REDUCTION



HUB REDUCTION

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	932.06.074.01	WHEEL STUD	24
2	001.05.1424	O-RING	2
3	277.06.013.01	BOLT	20
4		OPTIONAL	
5	176.06.009.02	FRICTION WASHER	6
6	176.06.066.01	PLANET GEAR	6
7	005.13.1428	NEEDLE BEARING	6
8	176.06.061.03	PLANET GEAR CARRIER	2
9	006.11.1413	NUT	24
10	819.01.610.01	MAGNET PLUG	2
11	176.06.064.01	PIN	6
12	001.05.1618	O-RING	6
13	016.06.442	COUNTER SUNK BOLT	4
14	171.06.010.02	FRICTION WASHER	2
15	002.05.3037	CIRCLIP	2
16	176.06.063.06	RING GEAR	2
17	005.10.1427	TAPER ROLLER BEARING	4
18	176.06.062.01	WHEEL HUB	2
19	001.25.1544	SEAL	2
20	176.06.013.01	CENTERING RING	2
21	001.01.0668	SEAL	2
22	176.06.077.02	AXLE CASE	2
23	176.06.052.05	HALF SHAFT	2
24			
25	112.06.022.01	REDUCTION BUSHING (OPTIONAL)	20
26		OPTIONAL	
27		OPTIONAL	
28	176.06.074.01	LOCKING PLATE (OPTIONAL)	2

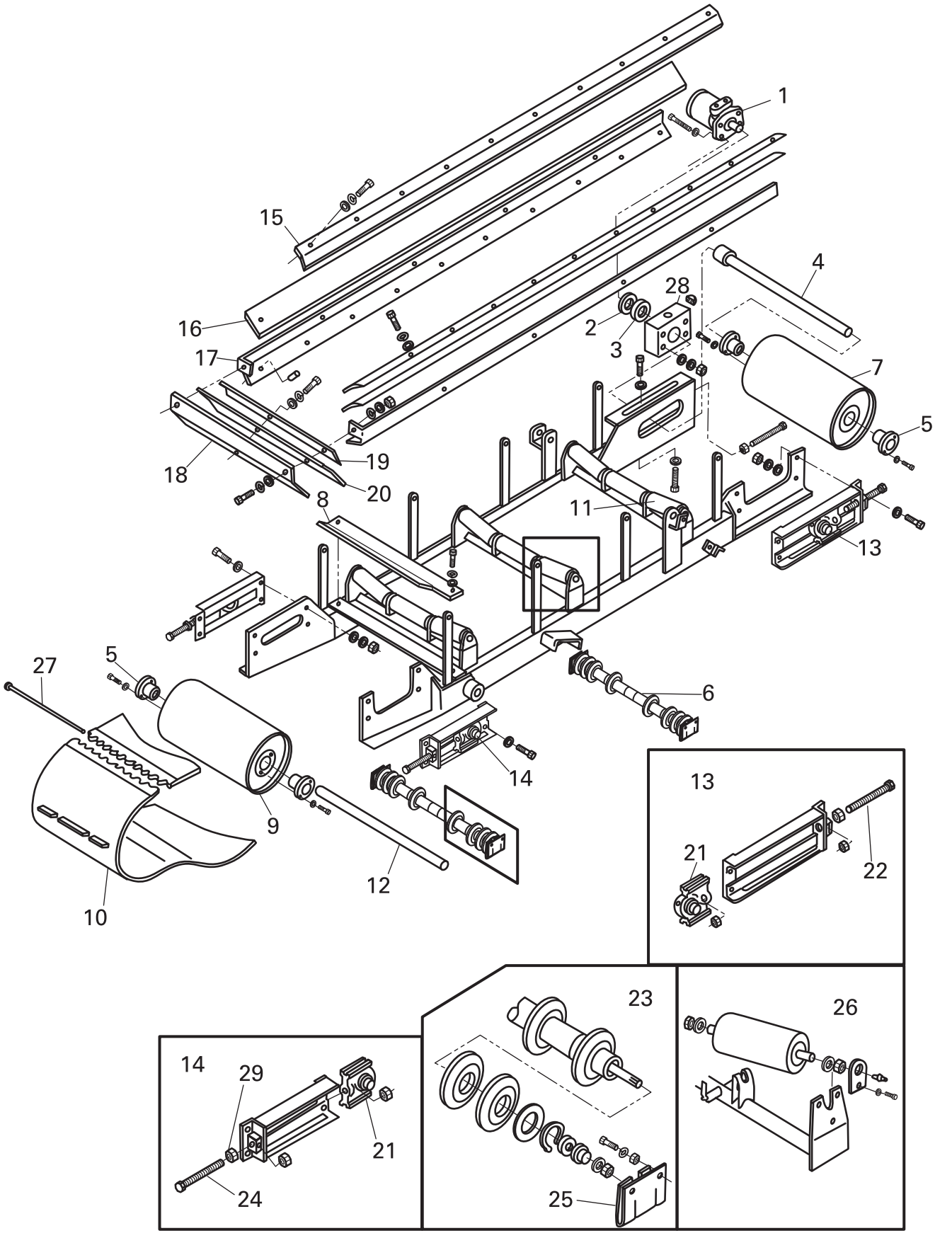
SWIVEL MOUNT ASSEMBLY



SWIVEL MOUNT ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	750604	SWIVEL MOUNT,MAIN FRAME	1
2	750606	SWIVEL YOKE	1
3	750607	MOTOR, SWIVEL TURN	1
4	750608	SWIVEL GEAR ASSEMBLY	1
5	811374	CYLINDER	2
6	750652	PIN	2
7	240030	PIN	
8	870307	CLIP, HYDRAULIC CYLINDER PIN	4

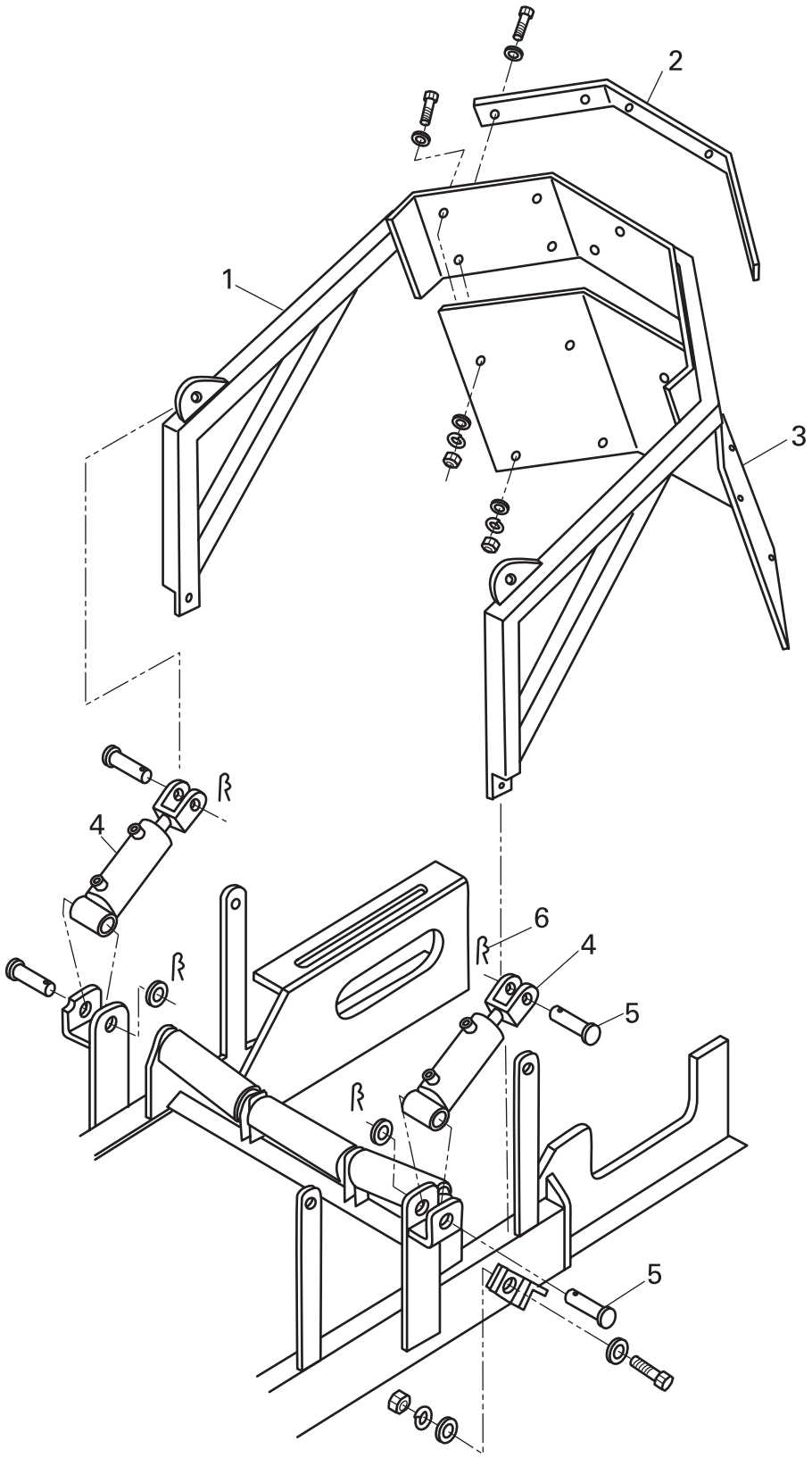
REAR SWIVEL ASSEMBLY



REAR SWIVEL ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	810240	HYD. MOTOR, PAVER FWD. & REV. DRIVE	1
2	750609	SPACER	1
3	750611	BEARING	1
4	750612	SHAFT, SWIVEL CONVEYOR DRIVE (3000)	1
5	750615	BUSHING, SWIVEL CONVEYOR PULLEY	1
6	750090	ROLLER ASSY., CONVEYOR RETURN IDLER	A/R
7	750060	TAIL PULLEY (SWIVEL), 2800 / 3000 MAIN CONVEYOR 10.50 X 32"	1
8	750631	OLD SWIVEL SCRAPER	1
9	750060	TAIL PULLEY (SWIVEL), 2800 / 3000 MAIN CONVEYOR 10.50 X 32"	1
10	750072	CONVEYOR BELT, 2800 8' SWIVEL	1
11	750130	ROLLER ASSY.(15 degree), CONVEYOR TROUGHING	
12	750620	SHAFT, 3000 TAIL PULLEY	1
13	750621	BRACKET, SWIVEL CONVEYOR BELT REAR ADJ. 6"L	2
14	750622	BRACKET, SWIVEL CONVEYOR BELT FRONT ADJ. 4"L	2
15	750623	BRACKET, SIDE FLASHING	2
16	750624	FLASHING SET, SWIVEL CONVEYOR SIDE	2
17	750625	MOUNT, SIDE FLASHING	2
18	750626	MOUNT, FRONT FLASHING (O/S 3000)	2
19	750630	CLAMP, FRONT FLASHING (O/S 3000)	2
20	750628	FLASHING, FRONT	2
21	750627	BEARING, SWIVEL CONVEYOR PULLEY	A/R
22	750622-1	ADJUSTMENT BOLT, (6" LONG)	2
23	750090	ROLLER ASSY., CONVEYOR RETURN IDLER	A/R
24	750622-2	ADJUSTMENT BOLT, (4" LONG)	2
25	754741	J. BRACKET MAIN CONVEYOR	2
26	750140	ROLLER, 2800 / 3000 TROUGHING IDLER	A/R
27	750080	PIN, CONVEYOR BELT LACING (30") W/O METAL TIPS, FOR 3000 LOADER ONLY	1
28	750629	BLOCK, BEARING MOUNT REAR SHAFT	1
29	750640	NUT, ADJUSTING ROD	A/R

DEFLECTOR ASSEMBLY



DEFLECTOR ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	W521122	DISCHARGE BAFFLE	1
2	S521763	STRIP, FLASHING RETAINER	1
3	M521454	RUBBER SKIRT, DISCHARGE BAFFLE	1
4	P521124	HYD. DEFLECTOR CYL., 7-12 / 3000 DISCHARGE BAFFLE	2
5	870305	PIN, HYD. CYL. CLEVIS	4
6	870307	CLIP, HYD CYL. PIN	4

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6	A510-B	1/4 -20 PHPHIL X 5/8"	21
20		1/4 INT TOOTH LK WSHR	21
19		1/4-20 BHSCS X 5/8	21
16	982069	3/16 ROD CLIP - PLSTC - CNTR	21
23	982075	3/8 DIA. HOLE PLUG - PLSTC	21
18	982071	5/32 ROD CLIP - RH	21
14	982067	7/32 ROD CLIP - LH	21
13	982066	7/32 ROD CLIP - RH	21
8		8-32 PHMS x 1/2	21
25	855064	ACCUMULATOR	11
6	750321	ADJ. BOLT, MAIN CONVEYOR BELT R.H.	17
24	750622-2	ADJUSTMENT BOLT, (4" LONG)	49
22	750622-1	ADJUSTMENT BOLT, (6" LONG)	49
11	171130	AIR CLEANER ASSY., (685-140 UP & 2800)	35
2	160220	ALTERNATOR, 12V / 105 AMP (685)	29
10	750585	ARM, DRIVE	27
11	151180	ARM, WIPER	23
21	W522855	AUGER (SNOW) L/H	5
20	W522854	AUGER (SNOW) R/H	5
1	750556	AXLE ASSY., 3000 REAR STEERING - NOT AVAILABLE	39
22	176.06.077.02	AXLE CASE	45
11	852520	BACK UP ALARM (3000)	31
5	005.01.0623	BALL BEARING	43
19	005.01.0118	BALL BEARING	43
4	360.14.701.03	BAR	43
20	730111	BAR, 3000 FRONT AXLE SPRING TIE PLATE	9
10	005.06.2454	BEARING	43
3	750611	BEARING	49
11	210180	BEARING CONE	9
25	110260	BEARING CONE, 685 FRONT WHEEL HUB (INNER)	9
9	306276C91	BEARING CONE, PINION SHAFT	41
12	210190	BEARING CUP	9
28	610200	BEARING CUP	9
8	917217R	BEARING CUP	41
26	110250	BEARING CUP, 685 FRONT WHEEL HUB (INNER)	9
3	750040	BEARING, 2800 / 3000 CONVEYOR TAIL PULLEY	13
17	520100	BEARING, 400 STUB AXLE (3")	17
27	610210	BEARING, CONE	9
13	710160-28R	BEARING, CONVEYOR HEAD PULLEY R.H. (2800)	7
4	710160-28R	BEARING, CONVEYOR HEAD PULLEY R.H. (2800)	17
21	750627	BEARING, SWIVEL CONVEYOR PULLEY	49
7	160200	BELT, ALTERNATOR (685)	29
6	710240	BLADE PADDLE, 2800 / 3000 FEEDER	7
12	151190	BLADE, WIPER	23
28	750629	BLOCK, BEARING MOUNT REAR SHAFT	49
18	750638	BLOCK, BEARING SUPPORT	17
3	277.06.013.01	BOLT	45
9	W520862	BOLT, CONVEYOR ADJUSTING	13
5	760500	BOLT, PIVOT STEERING COLUMN	23
54	932.03.020.01	BOOT	43
9	171231	BRACE	31
21	750587	BRACKET	41
7	750650	BRACKET, BRAKE MOUNT	39
15	750550	BRACKET, L/F SIDE	7
16	750551	BRACKET, L/F SIDE	7
5	981778	BRACKET, L/H	27
7	750582	BRACKET, PUMP CABLE HOLDER	27
17	750553	BRACKET, R/F SIDE	7

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18	750552	BRACKET, R/F SIDE	7
6	750581	BRACKET, R/H	27
15	750623	BRACKET, SIDE FLASHING	49
14	750622	BRACKET, SWIVEL CONVEYOR BELT FRONT ADJ. 4"L	49
13	750621	BRACKET, SWIVEL CONVEYOR BELT REAR ADJ. 6"L	49
4	750052	BRACKET, TAIL PULLEY BEARING ADJUSTMENT	13
29		BRAKE BUTTON	25
12	120480	BRAKE CALIPER, 685 FAIL-SAFE	39
14	120490	BRAKE PAD KIT, FAILSAFE	39
15	P15497	BREATHER ASSY	39
12	720200	BUMPER, "D" RUBBER (2800 / 3000)	11
8	750061	BURN OUT GUARD, 3000 TAIL PULLEY	13
14	750051	BUSHING, 2800 / 3000 CONVEYOR HEAD PULLEY	17
5	750050	BUSHING, 2800 / 3000 CONVEYOR TAIL PULLEY	13
32	M19805	BUSHING, LOWER FEEDER SHAFT	5
21	710183	BUSHING, LOWER FEEDER SHAFT (BRONZE)	7
5	750615	BUSHING, SWIVEL CONVEYOR PULLEY	49
23	760460	BUTTON, HORN	25
1	760010A	CAB, WELDMENT	19
31	920140	CABLE, CONVEYOR CONTROL	25
2	920140	CABLE, R.H. DRIVE / VARIOUS CONTROLS	25
6	760240	CABLE, THROTTLE	25
6	160090	CABLE, THROTTLE / V.V. MOTOR (685)	29
30	920130	CABLE, VARIABLE SPEED CONVEYOR	25
27	811316	CAM FOLLOWER, 3-1/4"	5
14	811316	CAM FOLLOWER, 3-1/4"	7
24	102-909-1A	CAP SCREW, 1"-8 X 2" HEX HEAD	17
11	102-917-1A	CAP SCREW, 1"-8 X 4 HEX	3
16	102-405-1A	CAP SCREW, 1/2"-13 X 1 HEX	15
6	102-406-1A	CAP SCREW, 1/2"-13 X 1-1/4 HEX	5
22	102-411-1A	CAP SCREW, 1/2"-13 X 2-1/2" HEX HEAD	17
19	100-406-1A	CAP SCREW, 1/2" -13 X 1 1/4"	5
15A	730060	CAP SCREW, 1" x 4 1/2"bolt with grease fitting	9
22	102-931-1A	CAP SCREW, 1"-13 x 8"L	5
15	102-713-1A	CAP SCREW, 3/4"-10 X 3 HEX	3
17	102-715-1A	CAP SCREW, 3/4"-10 X 3-1/2 HEX	3
5	102-716-1A	CAP SCREW, 3/4"-10 X 3-3/4" HEX HEAD	17
12	102-205-1A	CAP SCREW, 3/8"-16 X 1 HEX	33
10	110-312-2	CAP SCREW, 3/8"-16 X 1" FLAT SOCKET HEAD	5
14	102-207-1A	CAP SCREW, 3/8"-16 X 1-1/2 HEX	13
18	102-206-1A	CAP SCREW, 3/8"-16 X 1-1/4 HEX	13
14	102-225-1A	CAP SCREW, 3/8"-16 x 6" HEX HEAD	33
13	102-609-1A	CAP SCREW, 5/8"-11 X 2 HEX	5
17	102-609-1A	CAP SCREW, 5/8"-11 X 2 HEX	13
23	102-609-1A	CAP SCREW, 5/8"-11 X 2" HEX HEAD	17
12	102-611-1A	CAP SCREW, 5/8"-11 X 2-1/2 HEX	13
9	920229	CAP SCREW, 5/8"-11 X 7-1/2" HEX HEAD	25
11	120655	CAP, 2 SPEED OUTPUT SHAFT BEARING RETAINER	41
9	750564	CAP, BEARING RETAINER	39
10	140030HL	CAP, HYD. OIL TANK (LOCKABLE)	11
2	750557	CARRIER ASSEMBLY	39
19	750603	CARTRIDGE, RELIEF VALVE (3000 P.S.I.)	11
20	750600-1	CARTRIDGE, RELIEF VALVE (3000 P.S.I.)	11
20	176.06.013.01	CENTERING RING	45
5	A710230	CHAIN ASSY., FEEDER	7
	710230L	CHAIN ASSY., FEEDER L.H.(PADDLE)	7
	710230R	CHAIN ASSY., FEEDER R.H. (PADDLE)	7
61	355.14.101.02	CHANGE SELECTOR	43

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34	002.01.0074	CIRCLIP	43
45	002.01.1047	CIRCLIP	43
63	002.01.0076	CIRCLIP	43
68	002.02.0080	CIRCLIP	43
15	002.05.3037	CIRCLIP	45
19	140430	CIRCUIT BREAKER, INSTRUMENT PANEL (685)	25
4	110051	CLAMP HALF, FRONT SPINDLE ASSY.	9
11	230160	CLAMP, 1/4" HOSE (SIZE 4)	37
1	161250	CLAMP, 3" MUFFLER	33
2	171090	CLAMP, 3" T-BOLT	35
13	171090	CLAMP, 3" T-BOLT	35
6	750046	CLAMP, 3-1/4" MUFFLER	33
5	750593	CLAMP, 4" MUFFLER	35
19	750630	CLAMP, FRONT FLASHING (O/S 3000)	49
3	750645	CLAMP, PIPE	35
6	870307	CLIP, HYD CYL. PIN	51
15	870307	CLIP, HYD CYL. PIN *	15
8	870307	CLIP, HYD CYLYLINDER PIN	47
15	120652	COMPANION FLANGE, PINION / ROTOR	41
1	981386	COMPLETE ASSEMBLY	15
1	P202014	CONVEYOR BELT W / CLEATS, 28' FRAME	13
10	750072	CONVEYOR BELT, 2800 8' SWIVEL	49
24	750610	CONVEYOR LIFT CYLINDER	11
5	750610	CONVEYOR LIFT CYLINDER	15
25	981438L	CONVEYOR LIFT PIVOT & FEEDER LIFT STABILIZER	3
25	981438R	CONVEYOR LIFT PIVOT & FEEDER LIFT STABILIZER	3
6	981438	CONVEYOR STABILIZER	15
1	170160	COOLER, HYD. OIL (685-094 UP / 2800 / 3000) (NOT AVAILABLE)	37
2	P86879B	COULPING, FLYWHEEL PUMP DRIVE	27
13	016.06.442	COUNTER SUNK BOLT	45
21	982072	COVER	21
22	982073	COVER	21
5	750589	COVER	31
12	360.14.005.01	COVER	43
15	360.14.002.07	COVER	43
25	722.14.006.01	COVER	43
58	360.14.007.02	COVER	43
64	360.14.003.02	COVER	43
7	857005	COVER, AIR CLEANER	35
6	750590	COVER, BACK HOOD	31
2	760021	COVER, HOSES	19
3	750588	COVER, L/H SIDE	31
2	750587	COVER, R/H SIDE	31
62	360.14.015.01	COVERPLATE	43
5	750508	CUTTING EDGE, 2800 / 3000 SIDE MOLDBOARD	3
2	P523295	CUTTING EDGE, ALL PURPOSE MOLDBOARD	5
6	750509	CUTTING EDGE, SCOOP (2800)	3
32	360.14.019.02	CYLINDER	43
5	811374	CYLINDER	47
70	016.04.3686	CYLINDER BOLT	43
23	328370	CYLINDER, MOLDBOARD LIFT	3
51	012.01.0249	DETEND BALL	43
16	750576	DISC W / O-RING, COMPANION FLANGE BLOCK OFF	41
1	W521122	DISCHARGE BAFFLE	51
6	760062	DOOR	19
1	760062	DOOR WELDMENT	21
10	750594	DOOR, ENGINE ACCESS COVER	31

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3	P76869A	DOUBLE PUMP DRIVE	27
2	750571	DRIVE SHAFT ASSY., 3000 LOADER	41
4	750571A	DRIVE SHAFT, COMPLETE	41
20	120664	DROP BOX, LO- HI	41
10	171040	DUST EVACUATOR, AIR CLEANER	35
4	760070	EDGE TRIM	21
2	750042	ELBOW W / FLEX PIPE, 3000 EXHAUST	33
9	P521452	ELEVATOR BOLT, 1/4"-20 X 1"	17
1	160001	ENGINE, CUMMINS	27
1	170050	FAN BLADE, 685 (CUMMINS)	29
22	750635	FEEDER SUPPORT ASSEMBLY	3
3	140030FN	FILLER NECK, HYD. OIL / FUEL CAP	11
3	160180	FILTER ELEMENT, ENGINE OIL (685 W / CUMMINS)	29
8	171140	FILTER ELEMENT, PRIMARY AIR (685-140 UP & 2800)	35
5	160160	FILTER ELEMENT, PRIMARY FUEL (685 W / CUMMINS)	29
9	171150	FILTER ELEMENT, SAFETY AIR (685 -140 UP & 2800)	35
9	160170	FILTER ELEMENT, SECONDARY FUEL (685 W / CUMMINS)	29
12	P521848	FILTER W/MOUNT, FUEL/ WATER SEPERATOR	29
12	750638	FITTING, HP SWIVEL (3000 LOADER)	37
30	714.02.013.01	FLANGE	43
69	360.14.034.01	FLANGE	43
1	750570	FLANGE, DRIVE SHAFT U-JOINT	41
23	750241	FLASHING SET(2pc), MAIN CONVEYOR BELT (2800) (NOT SHOWN)	15
16	750624	FLASHING SET, SWIVEL CONVEYOR SIDE	49
20	750628	FLASHING, FRONT	49
6	4557H	FLAT WASHER, COMPANION FLANGE	41
7	982061	FOAM - DOOR	21
8	750653	FRAME, DISCHARGE BAFFLE	17
21	760170	FRAME, WINDOW	19
7	355.14.055.01	FRICTION WASHER	43
37	360.14.016.01	FRICTION WASHER	43
5	176.06.009.02	FRICTION WASHER	45
14	171.06.010.02	FRICTION WASHER	45
1	730013	FRONT AXLE,(SPLINES NOT INCLUDED)	9
5	140030FL	FUEL TANK CAP, LOCKABLE	11
19	P78063	GASKET, 4 / 6 HOLE S.A.E. "C"	41
2	700480	GASKET, S.A.E. "B" 2 BOLT	7
20	P77494	GASKET, S.A.E. "C" 4 HOLE	17
12	P77675	GASKET, SAE “A” 2” BOLT	27
14	140410	GAUGE, ENGINE OIL PRESS.	25
15	140380	GAUGE, FUEL LEVEL	25
9	500070	GAUGE, HYD. OIL LEVEL & TEMP.	11
12	140370	GAUGE, TACHOMETER / HOURMETER (685)	25
13	140390	GAUGE, VOLTMETER	25
16	140400	GAUGE, WATER TEMP.	25
2	760080	GLASS - DOOR	21
25	140610	GREASE FITTING, 1/4” X 28 SCREW IN	7
24		GREASE RELIEF	7
7	750554	GRILL	37
49	016.08.1240	GRUB BOLT	43
8	355.14.100.01	GUIDE - TUBE	43
23	176.06.052.05	HALF SHAFT	45
13	853350	HEAD PULLEY, 2800 / 3000 MAIN CONVEYOR	17
13	016.01.0375	HEXAGON BOLT	43
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27	016.01.0380	HEXAGON BOLT	43
60	016.01.0375	HEXAGON BOLT	43
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10	170110	HOSE CLAMP, 2 1/2" (SIZE 36)	37
21		HOSE CLAMP/2 HOLE	15
20	854748	HOSE CLAMP/3 HOLE	15
6	170140	HOSE OVERFLOW	37
3	170100	HOSE, RADIATOR LOWER (685 / 2800 / 3000)	37
4	170150	HOSE, RADIATOR UPPER (685 / 2800 / 3000)	37
1	360.14.001.02	HOUSING	43
23	110240	HUB, 685 / 3000 FRONT WHEEL	9
5	110220	HYD. CYL., 685 STEERING	9
4	750567	HYD. CYLINDER., OPTIONAL REAR STEER	39
4	P521124	HYD. DEFLECTOR CYL., 7-12 / 3000 DISCHARGE BAFFLE	51
1	710100	HYD. MOTOR, FEEDER DRIVE	7
21	750310	HYD. MOTOR, MAIN CONVEYOR DRIVE	17
1	810240	HYD. MOTOR, PAVER FWD. & REV. DRIVE	49
3	300050	HYD. MOTOR, POWER STEERING (400 & 1200)	23
18	750578	HYD. PUMP, 2800/3000 PROPULSION, 2 SPEED, CHECK PUMP BRAND	41
9	P205232A	HYD. PUMP,V.V.FEEDER & CONVEYOR	27
8	162800	HYD. PUMP,V.V.FWD.&REV. (CHECK PUMP BRAND)	27
1	P521124	HYD.CLY.,DISCHARGE BAFFLE	17
11	162802	HYD.PUMP, AUX.& POWER STEERING	27
13	162803	HYD.PUMP, SINGLE 3000 W/SWIVEL ATTACHMENT	27
25	311160-R	INDICATOR LIGHT, RED	25
26	311160-R	INDICATOR LIGHT, RED	25
12	171220	INDICATOR, AIR FILTER RESTRICTION	35
22	750600-3	INLET COVER W/RELIEF, 3000 ELECTRONIC VALVE	11
10	982063	INT. HANDLE & BEZEL- RH	21
5	982060	INTERIOR HANDLE	21
4	754741	J. BRACKET MAIN CONVEYOR	15
25	754741	J. BRACKET MAIN CONVEYOR	49
27	500010-1	KEY	25
33	854942	KEY STOCK, PADDLE	5
17	140460	KEY SWITCH, IGNITION	25
9	710171-2	KEYWAY, PADDLE CONVEYOR	7
10	110061	KING PIN, 685/2800/300 FRONT END SPINDLE	9
4	760230	KNOB, LEVER	25
9	982062	LATCH - SMC MODIFIED - RH	21
12	982065	Latch Rod, LH	21
4	160450	LATCH, ENGINE ACCESS PANEL	31
8	160460	LATCH, RADIATOR ACCESS PANEL	37
18	730090	LEAF SPRING (ASSY.), 3000 LOADER FRONT END	9
3	760221	LEVER	25
5A	710230-1	LINK & PIN ASSY., FEEDER CHAIN (2800/3000)	7
16	143-3	LOCK NUT, 3/8"-16 HEX	13
11	077HN103	LOCK NUT, PINION SHAFT	39
17	982070	LOCK TRIP ROD - 5/32 DIA. - CNTR	21
12	120120	LOCKING COLLAR, 2-1/2" I.D.	7
28	176.06.074.01	LOCKING PLATE (OPTIONAL)	45
29	110320	LOCKWASHER, FRONT SPINDLE	9
18	819.01.610.01	MAGNET PLUG	43
10	819.01.610.01	MAGNET PLUG	45
1	981428	MAIN FRAME	11
18	750602	MANIFOLD W / RELIEF, 3000 BRAKE & DRAIN	11
1	W522844	MOLDBOARD 8' ALL PURPOSE	5
1	750505	MOLDBOARD ASSEMBLY	3
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10	151170	MOTOR, WIPER	23

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8	750591L	MOUNT, L/H COVER	31
7	750591R	MOUNT, R/H COVER	31
17	750625	MOUNT, SIDE FLASHING	49
4	750548	MOUNT,TORQUE HUB	7
4	320140	MOUNTING PAD, ENGINE	27
3	750043	MUFFLER, 3000 EXHAUST	33
9	855504	MULTIPURPOSE ADJUSTMENT ROD	5
34	750654	MULTIPURPOSE FEEDER ADJUSTER	5
9	005.13.2708	NEEDLE BEARING	43
38	005.13.1165	NEEDLE BEARING	43
7	005.13.1428	NEEDLE BEARING	45
28	746.04.008.01	NUT	43
75	006.03.1196	NUT	43
9	006.11.1413	NUT	45
17	730080	NUT	9
30	730210	NUT,	9
25	115-12-1	NUT, 1 1/4" -13 HEX JAM	5
24	116-10	NUT, 1"-8 HEX	5
19	116-5	NUT, 1/2"	15
7	116-5	NUT, 1/2"-13 HEX	5
5	116-5	NUT, 1/2" X 13 HEX	5
19	116-8	NUT, 3/4"-10 HEX	3
10	116-8	NUT, 3/4"-10 HEX	13
7	116-8	NUT, 3/4"-10 HEX	17
12	116-3	NUT, 3/8"-16 HEX	5
13	116-3	NUT, 3/8"-16 HEX	33
14	116-7	NUT, 5/8"-11 HEX	3
15	116-7	NUT, 5/8"-11 HEX	5
8	116-7-1	NUT, 5/8"-11 HEX JAM	25
13	110101	NUT, 635 ARTICULATION SHAFT	9
29	750640	NUT, ADJUSTING ROD	49
7	760520	NUT, LOCK HEX	23
29	001.05.0044	O- RING	43
39	001.05.1592	O- RING	43
41	001.05.0039	O- RING	43
42	001.05.0591	O- RING	43
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59	001.05.1422	O- RING	43
71	001.05.3661	O- RING	43
11	982064	O.S. PADDLE HANDLE - RH	21
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26		OPTIONAL	45
27		OPTIONAL	45
17	750577	O-RING	41
2	001.05.1424	O-RING	45
12	001.05.1618	O-RING	45
23	750600-4	OUTLET COVER	11
65	360.14.014.04	OUTPUT SHAFT	43
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30	750553	PADDLE SHAFT ARM, R/F SIDE	5
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5	760241	PANEL, LEVER GUIDE LEFT SIDE	25
1	760201	PANEL, LEVER GUIDE RIGHT SIDE	25
3	760031	PANEL, SIDE	19
13	760580	PEDAL, FOOT	23
11	176.06.064.01	PIN	45
6	750652	PIN	47
7	240030	PIN	47
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3	W521128	PIN, DISCHARGE BAFFLE HYD. CYL. ROD	17
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14	870305	PIN, HYD. CYL. CLEVIS	15
5	870305	PIN, HYD. CYL. CLEVIS	51
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