

# LEON

## *Operator Manual*



## ***Land Scraper***

MODELS 1450 & 1700

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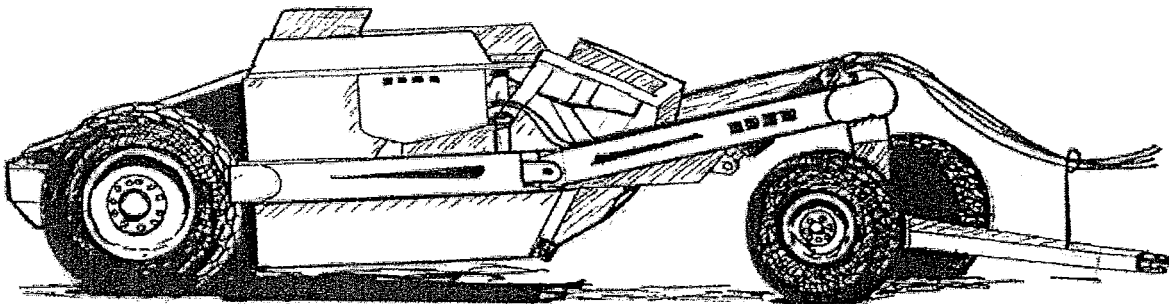
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# Introduction

*This manual provides recommended operation and service instructions for your LEON M1450 Land Scraper.*

*Your implement has been designed to give you years of satisfactory service. Safe, successful operation and long life depend on the proper precautions and the proper care given to your implement. Please read this manual carefully and follow the instructions provided to ensure long life of your implement. Correct operation and maintenance will save you time and expense. For additional information, see your dealer.*

*With proper operation, your implement will give maximum performance, low maintenance and long life. Please read the warranty page carefully, fill in the required information and return warranty card so your dealer can give you prompt, efficient service when you order parts.*



# Operations And Maintenance Instructions

*The LEON Land Scraper, upon delivery, had Gulf Duratran hydraulic oil in all cylinders. It is our understanding that such oil is compatible with all factory recommended gear and hydraulic oil. Before operating, the Land Scraper should be greased at all grease fitting points. After connecting the hydraulic hoses to the tractor, retract the lift cylinders and remove the transport lock pins. Take care to keep dirt out of the oil when connecting or disconnecting any oil line, as dirt contributes to the failure of hydraulic components.*

*Again, before your LEON Land Scraper is put into action ALL bolts, specifically wheel bolts, should be checked and tightened*

- 1. After eight (8) hours of work, all bolts should be checked and tightened if necessary.*
- 2. Every eight (8) hours all grease fittings should be lubricated (refer to page 28)*
- 3. After thirty (30) hours operation, all bolts should be rechecked and tightened if necessary. Check wheel bearings and adjust if necessary.*
- 4. After three hundred (300) work hours, clean and repack wheel bearings*

# Sequence Of Operation

To fill the bowl:

1. *Open the front gate (apron),*
2. *Lower the Land Scraper to desired cutting depth while moving forward,*
3. *When full, raise the Land Scraper and close the front gate to prevent spillage,*
4. *Transport to required dumping area.*

To empty the bucket:

1. *Lower the Land Scraper to give required spread depth,*
2. *Open the front gate,*
3. *When the front gate is fully open, the rear push gate will then engage and eject the load,*
4. *Spread depth is controlled by the height of the Land Scraper and tractor speed.*

# Operating Tips

For efficient Land Scraper operation:

1. *Plan work to load scraper downhill,*
2. *Eliminate excess turns,*
3. *Load scraper in direction of where load is to be dumped,*
4. *Do not spend unnecessary time in trying for heaping loads - you may sacrifice this gain in cubic yards by a longer time cycle,*
5. *Do not cut too deep - deep cuts increase the voids and reduce the pay load. Large chunks in the scraper make poor spreading material,*
6. *Maintain a downslope in the cut - do not cut horizontal layers off the top,*
7. *On side hill cuts keep the inside of the cut deeper than the outside,*
8. *Maintain a smooth hauling road,*
9. *Do not raise Land Scraper any higher than necessary when hauling - increasing Land Scraper height reduces the scraper's stability,*
10. *In constructing a fill, keep shoulders high and center low - this provides drainage toward center and prevents the scraper from sliding over the side of the fill.*

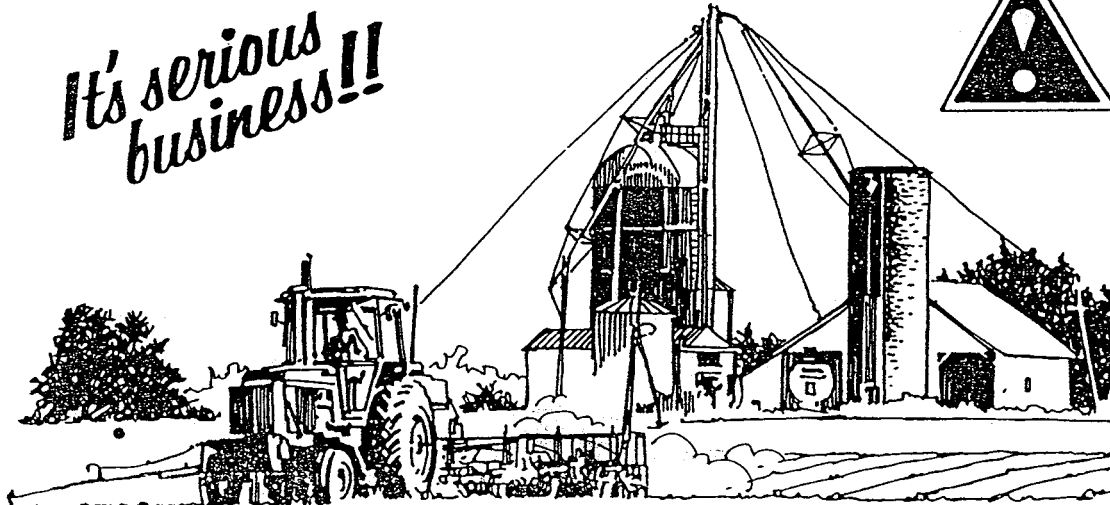


# LEON

## SAFETY PAGE

1. Keep all persons clear of this machine while in operation.
2. Do not ride or permit others to ride on this implement or carry children or other persons on the tractor while operating.
3. Set brakes before dismounting from tractor.
4. Operate with absolute caution when on slopes where there is a possibility that the tractor could drop in a hole or ditch, and overturn.
5. In transport, always raise your implement high enough to clear roadway or obstructions.
6. In snow or ice removal (or similar operations) do not hit mounds or ridges at high ground speeds.
7. Keep tractor in level position when making implement adjustments to prevent hazardous movement due to implement weight.
8. In storage, lower the power lift and set the implement on the ground.
9. Keep fingers away from pivot points.
10. Study your operator's manual and know your equipment. Ask your dealer to explain anything that you do not understand.

## SCRAPER



## **OPERATION AND MAINTENANCE**

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### **BEFORE OPERATING THE SCRAPER**

- Lubricate all wheel bearings, pins and rollers.
- Check and adjust tire pressure as listed below.
- Check wheel bolt torque as listed below.
- Hitch scraper to tractor and cycle operate the entire unit while empty. Stop tractor and make adjustments as required.
- Cycle all hydraulic functions several times to ensure proper operation of hydraulics. Ensure to raise the front gate fully before cycling the push gate. Adjust the settings on the sequence valve accordingly, so that the front gate opens completely prior to the push gate moving ahead. This is highly recommended during freezing conditions to ensure that the push off gate moves freely prior to loading. When all the cylinders are retracted, check the tractor oil level, adding to maintain normal levels.
- Approximate oil volumes required to charge the hydraulic system:
  - Model 600 / 650 21 liters
  - Model 900 / 1000 24 liters
  - Model 1200 / 1350 26 liters
  - Model 1450 / 1700 28 liters
  - Model 1800 / 2050 30 liters

### **WHEEL BOLT TORQUE      IMPORTANT!**

New Scrapers: Tighten all wheel bolts before using the units and check again after the first few loads. Tighten wheel bolts to:

Model 600 / 650	5/8 bolts	180 ft-lbs
	3/4 bolts	320 ft-lbs
Model 900 / 1000	5/8 bolts	180 ft-lbs
	3/4 bolts	320 ft-lbs
Model 1200 / 1350	5/8 bolts	180 ft-lbs
	3/4 bolts	320 ft-lbs
Model 1450 / 1700	5/8 bolts	180 ft-lbs
	3/4 bolts	320 ft-lbs
Model 1800 / 2050	5/8 bolts	180 ft-lbs
	3/4 bolts	320 ft-lbs

### **TRANSPORT SAFETY CHAIN / SAFETY LIGHTS**

Always use a transport safety chain and Safety Lights in use on roads as per Highway Traffic Regulations.

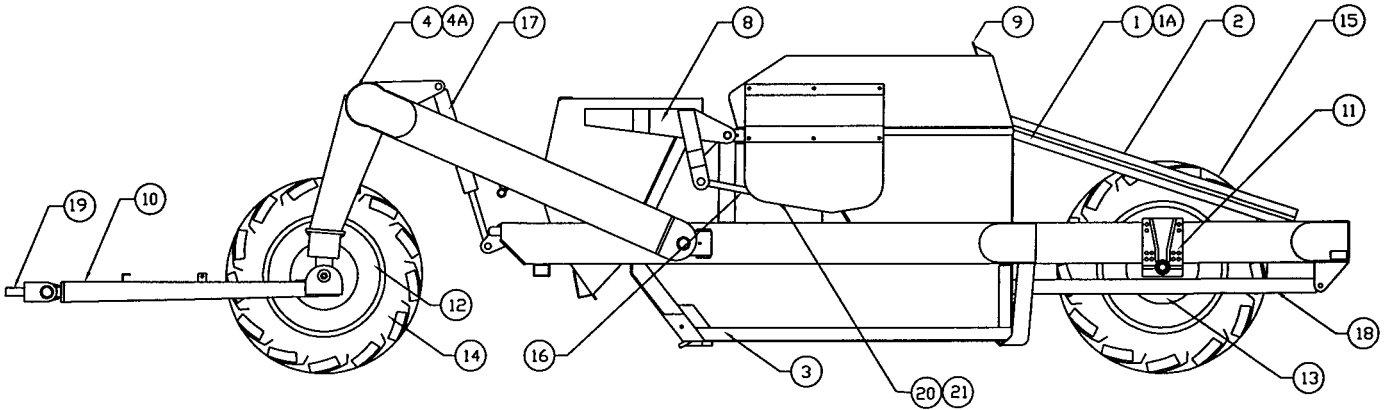
### **TIRE PRESSURE**

<b>Tire Size</b>	<b>PSI</b>
16.5L x 16.1 – 10 Ply Rib Implement	22
21.5L x 16.1 – 10 Ply Rib Implement	28
21.5L x 16.1 – 10 Ply AWT	22
18.4 x 26 – 10 Ply Rib Implement	26
23.1 x 26 – 10 Ply Rib Implement	26



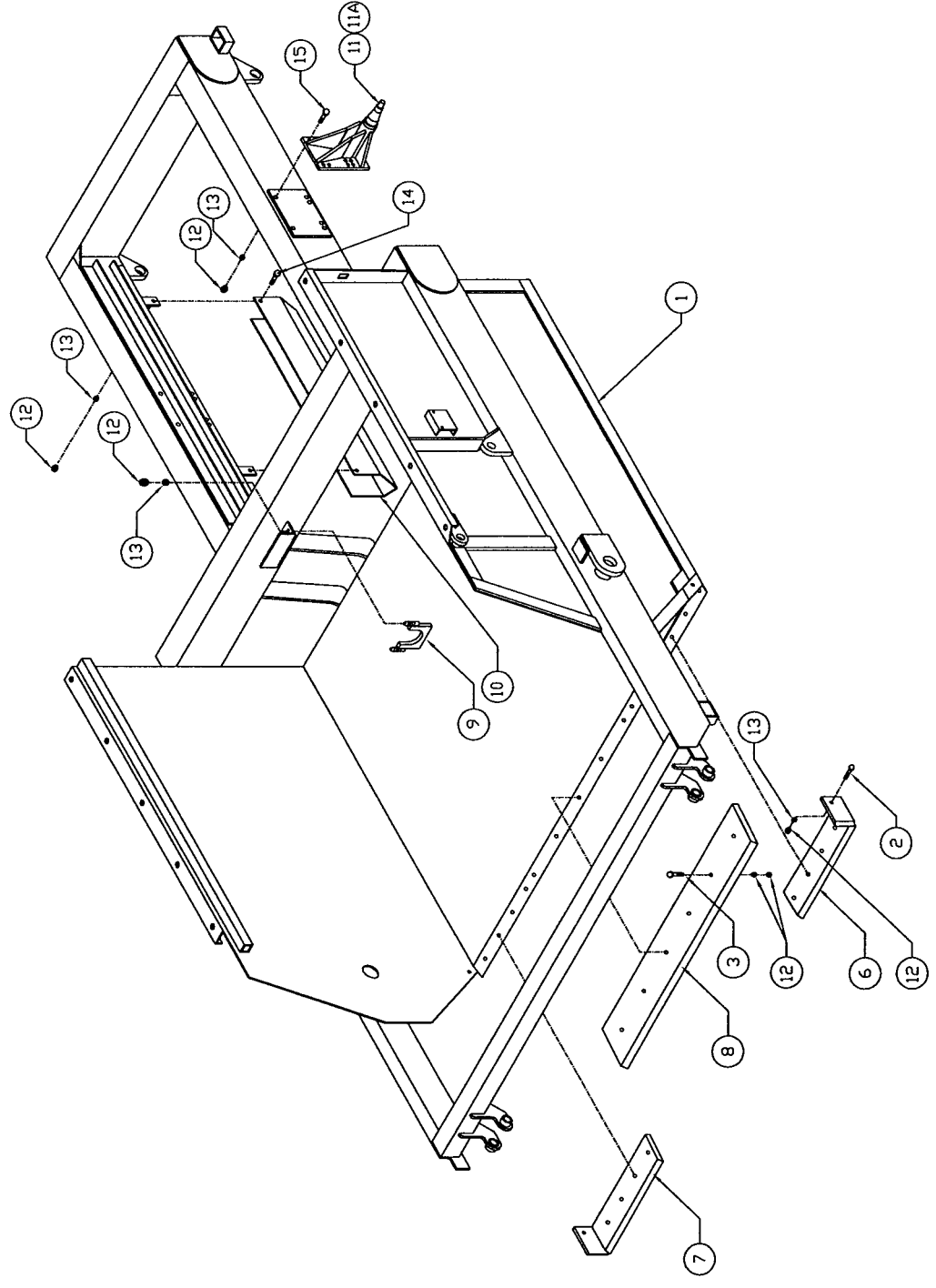


# 1450 SCRAPER ASSEMBLY



REF. NO.	PART #	QTY.	DESCRIPTION
1	1850795	1	REAR COVER BRACE - LEFT
1A	1850796	1	REAR COVER BRACE - RIGHT
2	1850652	1	REAR COVER
3	1850525	1	MAIN FRAME
4	1850850	1	FRONT FRAME (PRIOR TO JAN/2011)
4A	1851850	1	FRONT FRAME (JAN/2011)
7			
8	1850600	1	FRONT GATE
9	1850560	1	REAR GATE
10	1850501	1	HITCH POLE
11	1850731	2	REAR AXLE - 6 BOLT MOUNT
12	1135024	2	RIM, W16C x 16.1, 8 BOLT
13	1135018	2	RIM, W16 x 26, 10 BOLT
14	1135040	2	TIRE, 21.5 x 16.1 - 10 PLY
15	1135048	2	TIRE, 18.4 x 26 - 10 PLY
16	1125650	2	FRONT GATE CYLINDER, R2-30L2-12
16A	1850440	2	FRONT GATE CYLINDER, CW-3.00-12.00-1.50(ORB)
17	1125665	2	LIFT CYLINDER, R2-40-20.75
17A	1850450	2	LIFT CYLINDER, CW-4.00-20.75-2.00(ORB)
18	1125680	2	REAR PUSH CYLINDER, R2-30L-67
18A	1850460	2	REAR PUSH CYLINDER, CW-3.00-67.00-2.25(ORB)
19	1850706	1	HITCH TONQUE
20	1850645	1	SIDE COVER - LEFT
21	1850748	1	SIDE COVER - RIGHT

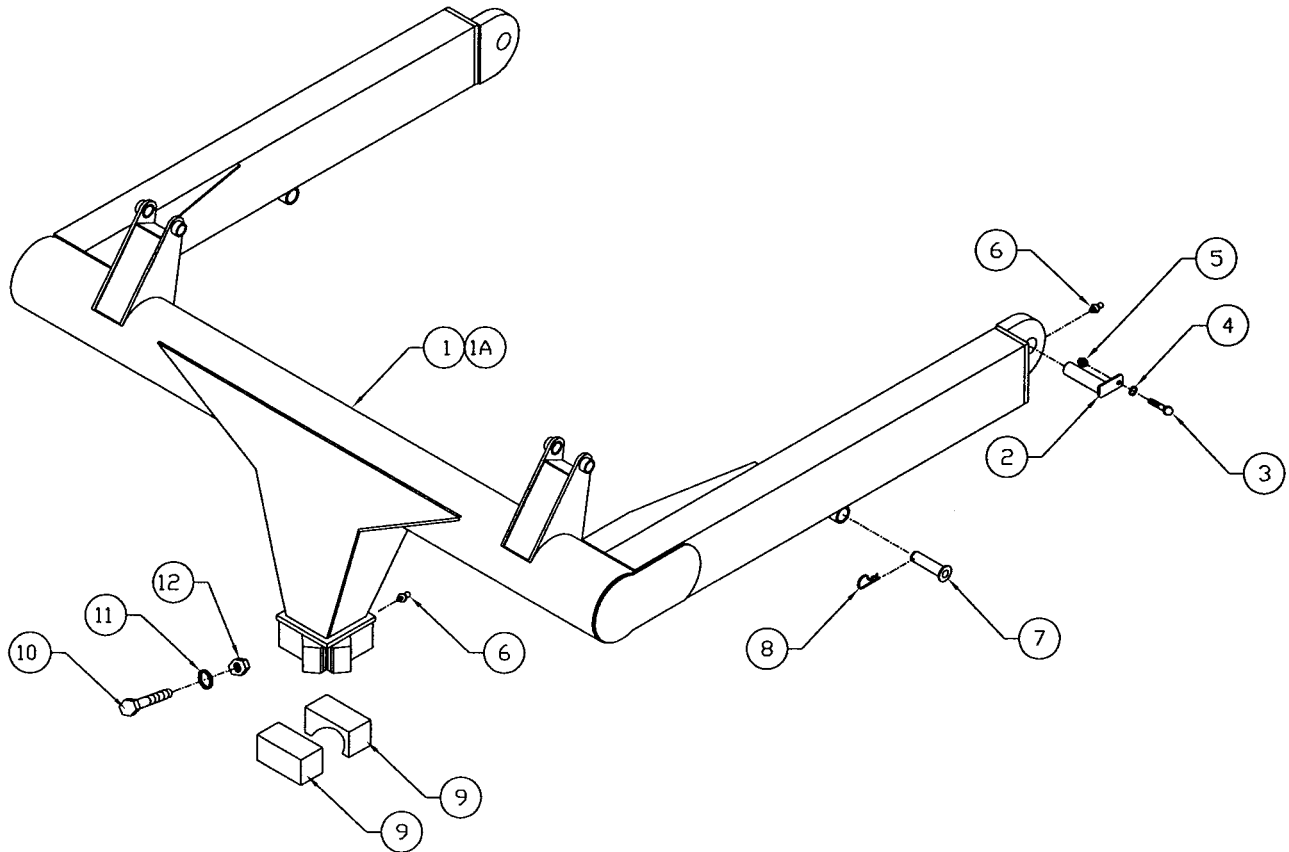
1450 MAIN FRAME



# 1450 MAIN FRAME

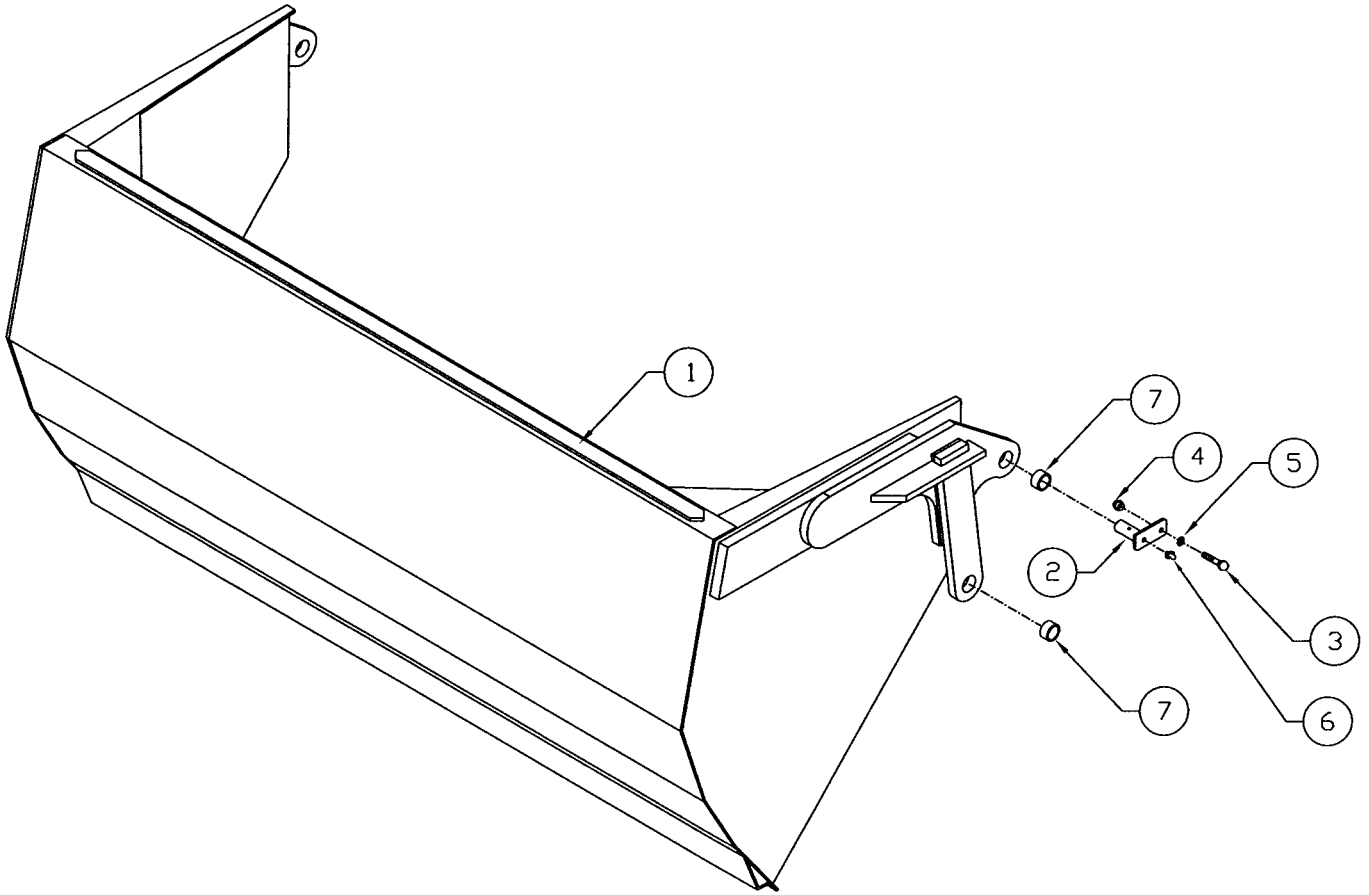
REF. NO.	PART #	QTY.	DESCRIPTION
1	1850525	1	MAIN FRAME
2	1102365	2	DOME HEAD BOLT, 3/4" UNC x 2" LG. -GRADE 8
3	1102364	14	DOME HEAD BOLT, 3/4" UNC x 3" LG. -GRADE 8
4			
5			
6	1162836	1	CORNER CUTTING EDGE, 3/4" x 7" x 23 7/8", LEFT HAND
7	1162835	1	CORNER CUTTING EDGE, 3/4" x 7" x 23 7/8", RIGHT HAND
8	1162837	1	CENTER CUTTING EDGE, 3/4" X 10" x 54"
9	1850647	2	PUSH CYLINDER CLAMP
10	1850646	2	PUSH CYLINDER GUARD
11	1850731	2	REAR AXLE - 6 BOLT MOUNT
11A	1850615	2	REAR AXLE - 4 BOLT MOUNT
12	1102545	50	HEX NUT, 3/4" UNC
13	1102596	22	LOCKWASHER, 3/4" DIA.
14	1102150	4	HEX HEAD BOLT, 3/4" UNC x 1 1/2" LG.
15	1102186	12	HEX HEAD BOLT, 3/4" UNC x 9" LG. -GRADE 8

# 1450 FRONT FRAME



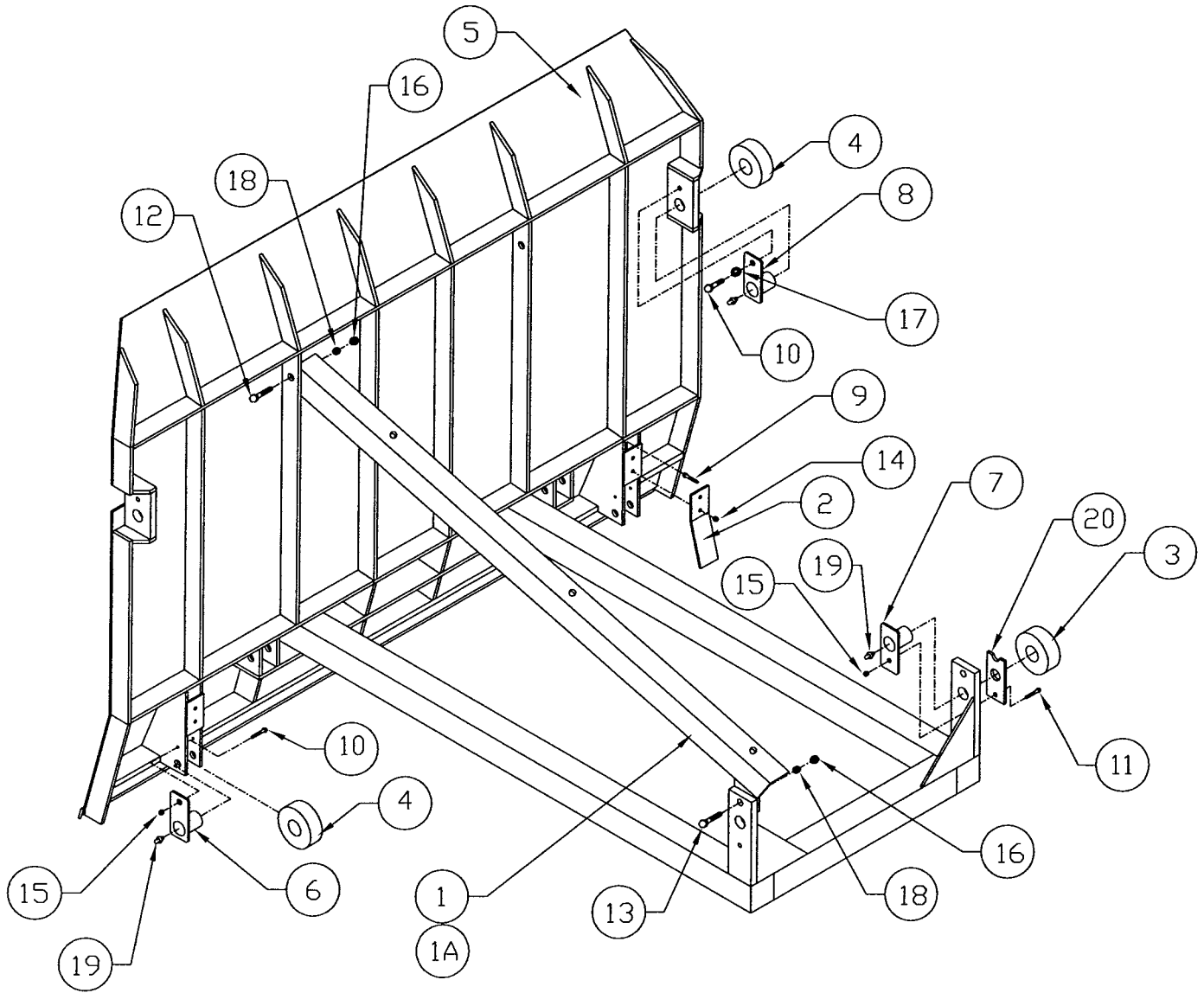
REF. NO.	PART #	QTY.	DESCRIPTION
1	1850850	1	FRONT FRAME (PRIOR TO JAN-2011)
1A	1851850	1	FRONT FRAME (JAN-2011)
2	1850659	2	MAIN PIVOT PIN
3	1102053	2	HEX HEAD BOLT, 1/2" UNC X 2" LG.
4	1102592	2	LOCKWASHER, 1/2" DIA.
5	1102535	2	HEX HEAD NUT, 1/2" UNC
6	1122797	3	GREASE NIPPLE, 1/8" NPT
7	1850174	2	TRANSPORT SAFETY PIN, $\phi$ 1 1/2" x 5 3/4" LG.
8	1102775	2	HAIR PIN, $\phi$ 1/4"
9	1144242	2	COUPLING SOCKET
10	1102204	4	HEX HEAD BOLT, 7/8" UNC X 7" LG.
11	1102598	4	LOCKWASHER, 7/8" DIA.
12	1102550	4	HEX HEAD NUT, 7/8" UNC

# 1450 FRONT GATE



REF. NO.	PART #	QTY.	DESCRIPTION
1	1850600	1	FRONT GATE
2	1850685	2	FRONT GATE PIVOT PIN
3	1102051	2	HEX HEAD BOLT, 1/2" UNC X 1 1/2" LG.
4	1102535	2	HEX NUT, 1/2" UNC
5	1102592	2	LOCKWASHER, 1/2" DIA.
6	1122797	2	GREASE NIPPLE, 1/8" NPT
7	1115548	4	BUSHING, 1 7/8" O.D. x 1 1/2" I.D. x 1" LG.

# 1450 REAR GATE

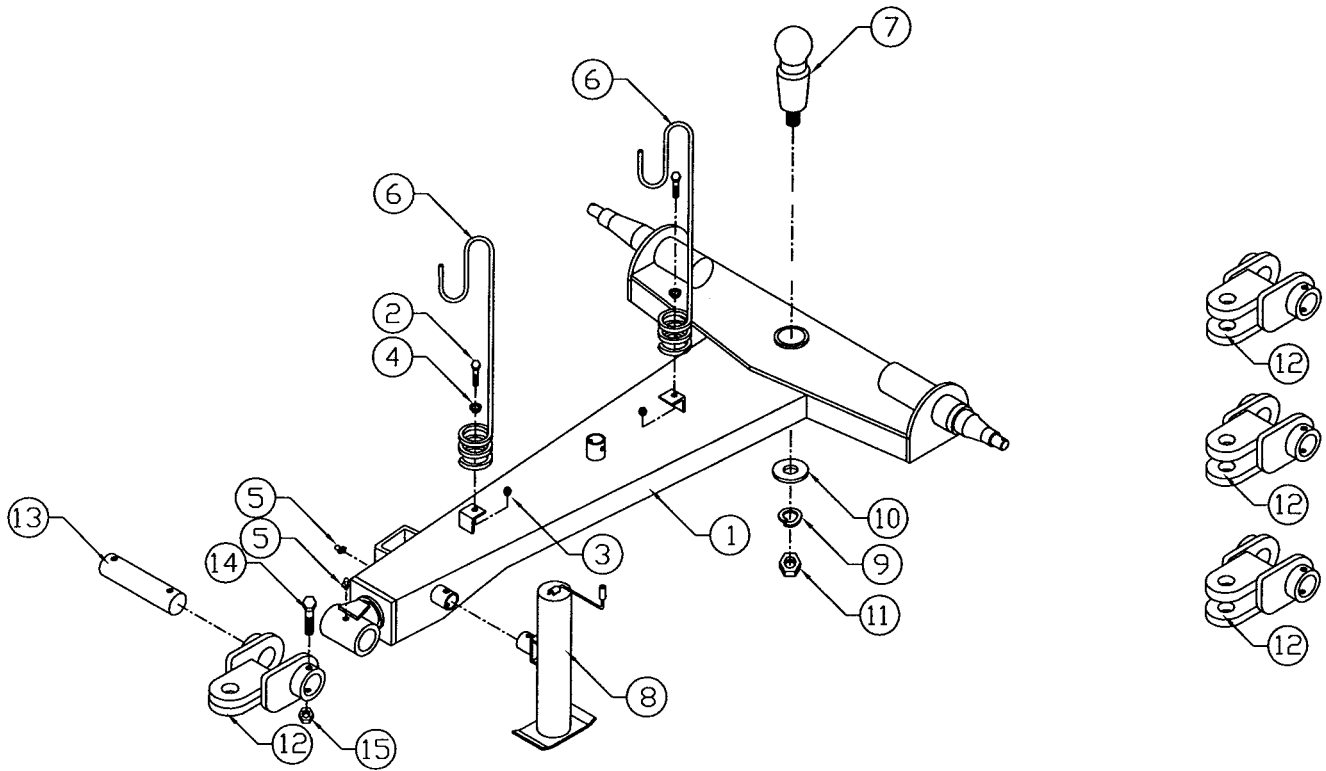


# 1450 REAR GATE

REF. NO.	PART #	QTY.	DESCRIPTION
1	1850795	1	REAR GATE BRACE-LEFT
1A	1850796	1	REAR GATE BRACE-RIGHT
2	1850623	2	REAR GATE ROLLER SCRAPER
3	1850690	2	GATE ROLLER, 4" DIA., CHAMFERED
4	1175572	4	GATE ROLLER, 4" DIA.
5	1850560	1	REAR PUSH GATE
6	1105667	2	ROLLER PIN, 1 1/2" DIA X 3 1/4" LG.
7	1850687	2	ROLLER PIN, 1 1/2" DIA X 3 3/8" LG.
8	1850171	2	ROLLER PIN, 1 1/2" DIA. x 3 1/8" LG.
9	1102001	4	HEX HD. BOLT 3/8" UNC x 1" LG.
10	1102050	4	HEX HD BOLT 1/2" UNC x 1 1/4" LG
11	1102055	2	HEX HD BOLT 1/2" UNC x 2 1/2" LG.
12	1102102	2	HEX HD BOLT 5/8" UNC x 2" LG.
13	1102103	2	HEX HD BOLT 5/8" UNC x 2 1/2" LG.
14	1102526	4	HEX LOCKNUT, 3/8" UNC
15	1102537	4	HEX LOCKNUT, 1/2" DIA.
16	1102540	4	HEX NUT, 5/8" UNC
17	1102592	2	LOCKWASHER, 1/2" DIA.
18	1102594	4	LOCKWASHER, 5/8" DIA.
19	1122797	6	GREASE NIPPLE, 1/8" NPT
20	1850669	2	SPACER BLOCK

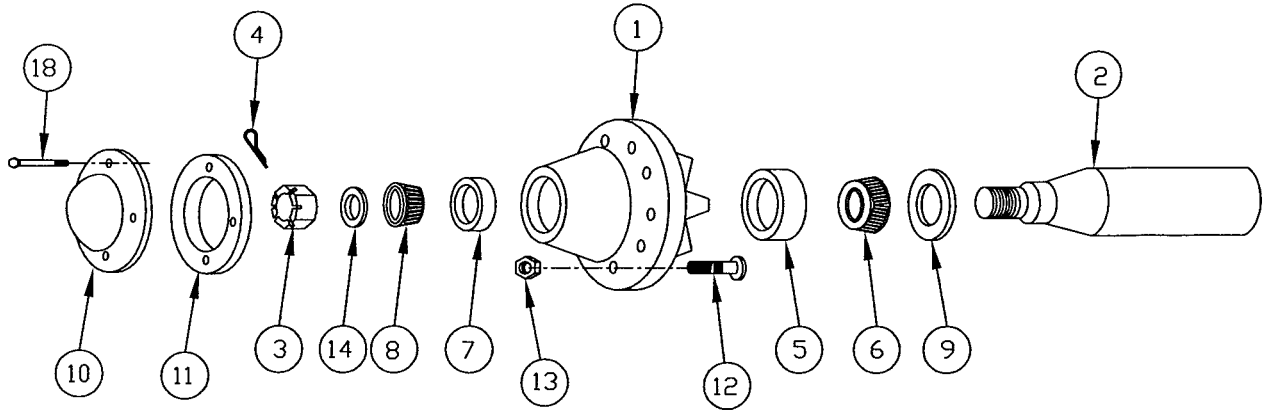


# 1450 HITCH POLE



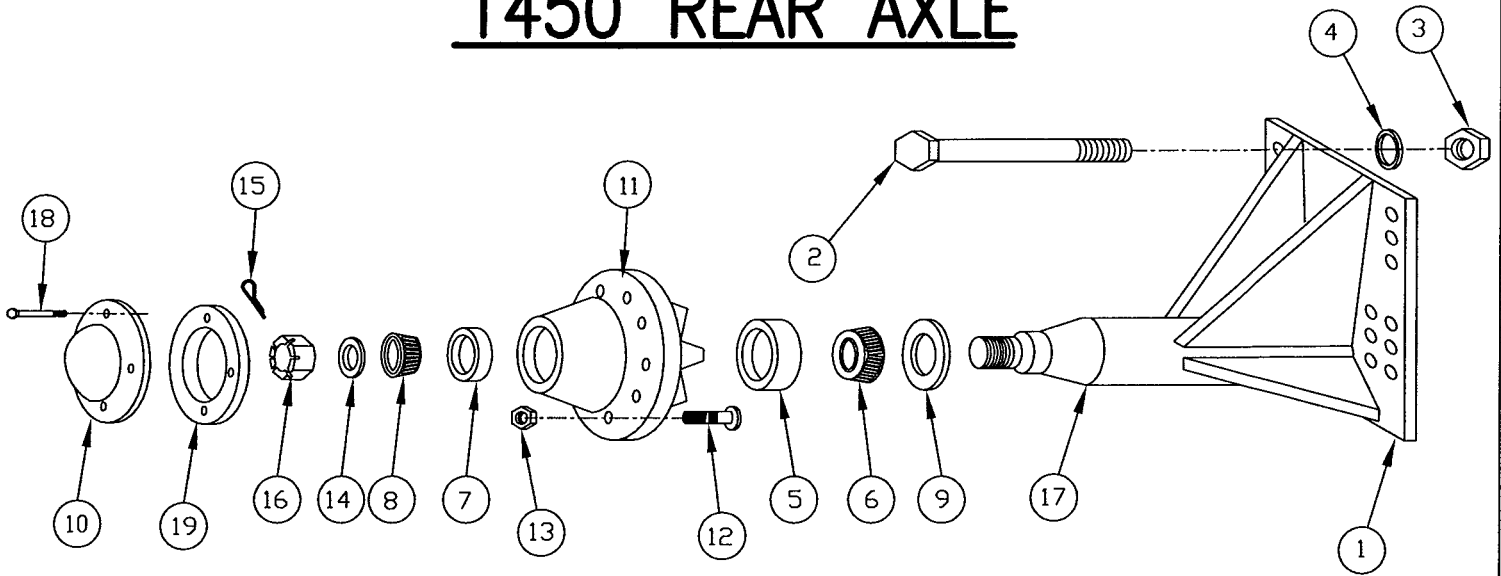
REF. NO.	PART #	QTY.	DESCRIPTION
1	1850501	1	HITCH POLE
2	1102051	2	HEX HEAD BOLT -1/2" UNC x 1 1/2" LG.
3	1102535	2	HEX NUT -1/2" UNC
4	1102592	2	LOCKWASHER -1/2"
5	1122798	2	GREASE NIPPLE, STRAIGHT LONG BASE, 1/8" NPT
6	1105556	2	HOSE HOLDER - SPRING TYPE
7	1850655	1	COUPLING BALL
8	1760396	1	HITCHJACK
9	1102606	1	LOCKWASHER -1 1/2"
10	1850668	1	FLATWASHER -3 7/8" O.D. X 1 9/16" I.D.
11	1105246	1	HEX NUT -1 1/2" UNF
12	1850706	1	HITCH TONQUE
12	1850820	1	HITCH CLEVIS - 2" PIN - 2" SPACE
12	1850825	1	HITCH CLEVIS - 2" PIN - 2 1/2" SPACE
12	1850830	1	HITCH CLEVIS - 2" PIN - 3" SPACE
13	1850704	1	TONQUE PIN
14	1102156	2	HEX HEAD BOLT -3/4" UNC x 4 1/2" LG.
15	1102551	2	HEX LOCK NUT -3/4" UNC

# 1450 FRONT AXLE



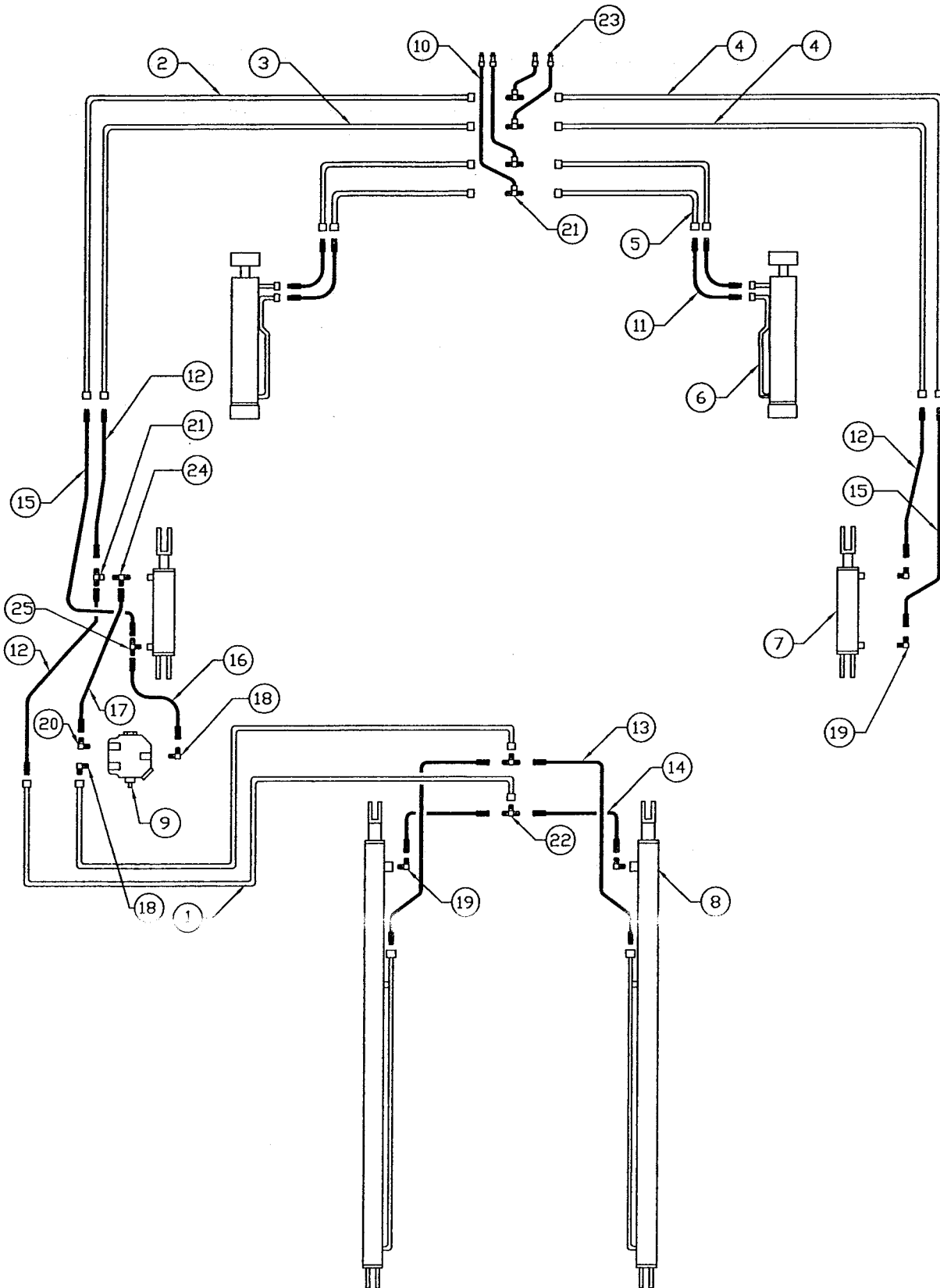
REF. NO.	PART #	QTY.	DESCRIPTION
1	1144009	1	HUB - 8-BOLT
2	1850619	1	SPINDLE - 3 1/2" DIA. X 17 3/8" LG
3	1135398	1	CASTELLATED HEX NUT, 1 1/4" - 12UNF
4	1102762	1	COTTER PIN
5	1135312	1	INNER CUP
6	1135311	1	INNER CONE
7	1135314	1	OUTER CUP
8	1135313	1	OUTER CONE
9	1135306	1	GREASE SEAL
10	1135329	1	DUST CAP
11	1135326	1	DUST CAP SEAL
12	1102664	8	WHEEL BOLT STUDS
13	1135505	8	WHEEL NUTS, 5/8" UNF HEX TAPERED
14	1135397	1	WASHER, 1 1/4" DIA.
15	1101949	4	HEX HEAD BOLT, 5/16" UNC x 3/4"
	1135040	1	TIRE, 21.5 x 16.1 -10 PLY AWT - RIB IMPLEMENT
	1135024	1	RIM, W18C X 16.1 -8 BOLT
	1135150	1	VALVE STEM
OPTIONAL	1135047	1	TIRE, 21.5 x 16.1 -12 PLY AWT -DIAMOND IMPLEMENT

# 1450 REAR AXLE



REF. NO.	PART #	QTY.	DESCRIPTION
1	1850731	1	REAR AXLE
2	1102186	6	HEX HEAD BOLT, 3/4" UNC x 9" LONG, GRADE 8
3	1102545	6	HEX HEAD NUT, 3/4" UNC
4	1102596	6	LOCKWASHER, 3/4" DIA.
5	1135316	1	INNER CUP
6	1135317	1	INNER CONE
7	1135318	1	OUTER CUP
8	1135319	1	OUTER CONE
9	1135320	1	GREASE SEAL
10	1135321	1	DUST CAP
11	1135518	1	HUB - 10-BOLT
12	1135323	10	WHEEL BOLT STUDS
13	1135324	10	WHEEL NUTS, 3/4" UNF HEX FLANGED, GRADE 8
14	1135397	1	WASHER, 1 1/4" DIA.
15	1102762	1	COTTER PIN
16	1135398	1	CASTELLATED HEX NUT, 1 1/4" - 12UNF
17	1850619	1	SPINDLES, 3 1/2" DIA. x 17 3/8" LG.
18	1135325	4	HEX HEAD BOLT, 5/16" UNC x 1/2" LG. (DUST CAP)
19	1135326	1	DUST CAP SEAL
	1135048	1	TIRE, 18.4 x 26, 10 PLY (NOT SHOWN)
	1135018	1	RIM, W16 x 26, 10 BOLT (NOT SHOWN)
	1135155	1	VALVE STEMS (NOT SHOWN)

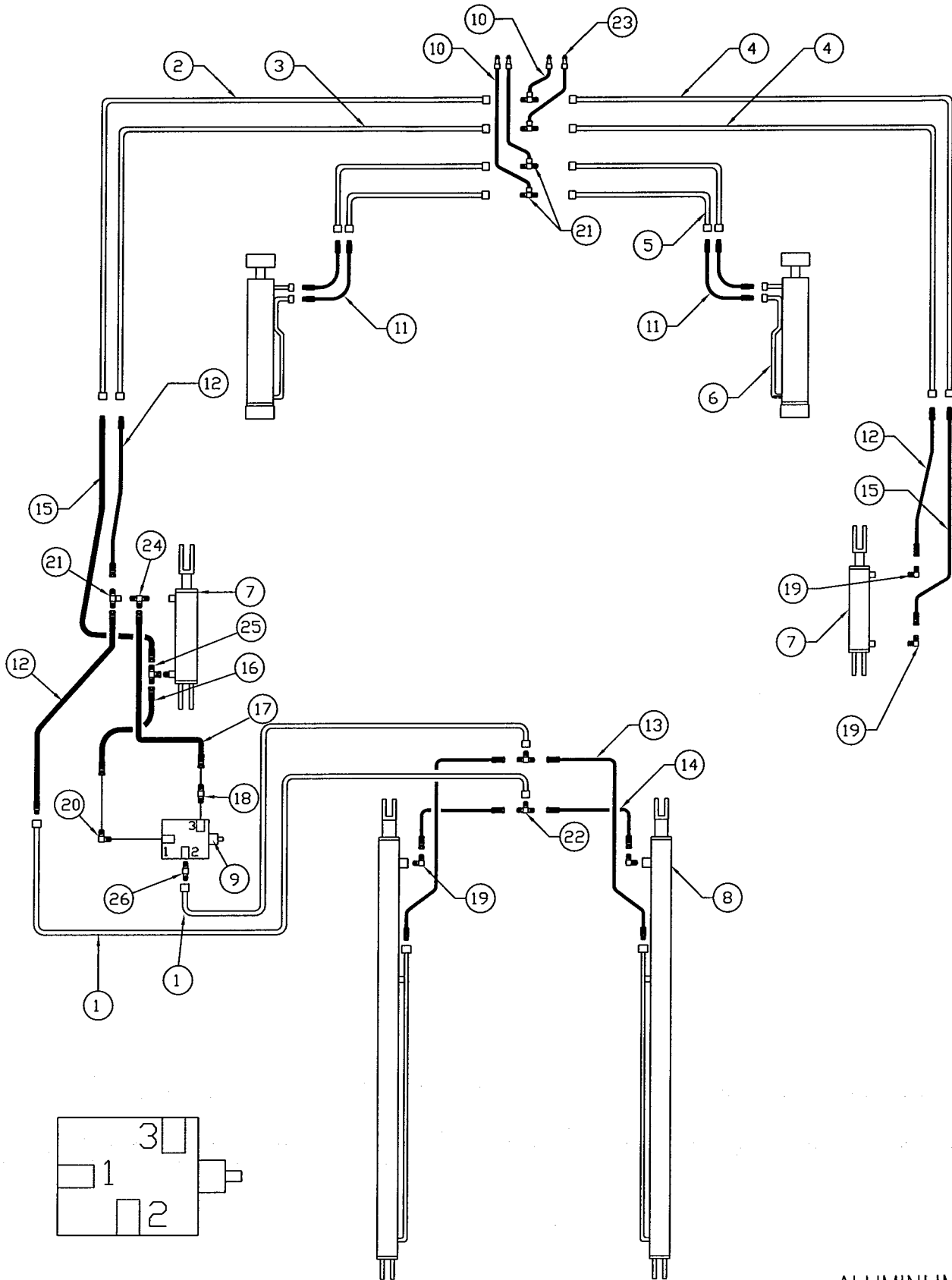
# 1450 HYDRAULIC ASSEMBLY



# 1450 HYDRAULIC ASSEMBLY

REF. NO.	PART #	QTY.	DESCRIPTION
1	1125700	2	HYDRAULIC TUBE, 1/2" DIA. X 101 15/16", 3/4"-16 JICF(2)
2	1125701	1	HYDRAULIC TUBE, 1/2" DIA. X 136 1/4", 3/4"-16 JICF(2)
3	1125702	1	HYDRAULIC TUBE, 1/2" DIA. X 132 1/4", 3/4"-16 JICF(2)
4	1125703	2	HYDRAULIC TUBE, 1/2" DIA. X 136 1/4", 3/4"-16 JICF(2)
5	1125704	4	HYDRAULIC TUBE, 1/2" DIA. X 43", 3/4"-16 JICF(2)
6	1125665	2	LIFT CYLINDER, R2-40-20.75
7	1125650	2	FRONT GATE CYLINDER, R2-30L2-12
8	1125680	2	REAR PUSH CYLINDER, R2-30L-67
9	1127070	1	SEQUENCE VALVE
10	1123426	4	HYDRAULIC HOSE, 1/2" x 168"LG., 1/2" NPTM X 3/4"-16 JICM
11	1123427	4	HYDRAULIC HOSE, 1/2" x 24"LG., 3/4"-16 JICM(2)
12	1123428	3	HYDRAULIC HOSE, 1/2" x 30"LG., 3/4"-16 JICM X 3/4"-16 JICF
13	1123434	2	HYDRAULIC HOSE, 1/2" x 48"LG., 3/4"-16 JICF x 3/4"-16 ORBM
14	1123435	2	HYDRAULIC HOSE, 1/2" x 40"LG., 3/4"-16 JICF(2)
15	1123430	2	HYDRAULIC HOSE, 1/2" x 44"LG., 3/4"-16 JICM x 3/4"-16 JICF
16	1123431	1	HYDRAULIC HOSE, 1/2" x 10" LG., 3/4"-16 JICF(2)
17	1123432	1	HYDRAULIC HOSE, 1/2" x 26"LG., 3/4"-16 JICF(2)
18	1124404	2	ELBOW, 3/4"-16 JICM x 1/2" NPTM
19	1123442	4	ELBOW, 3/4"-16 ORBM x 3/4"-16 JICM
20	1123441	1	ELBOW, 3/8" NPTM x 3/4"-16 JICM
21	1124401	5	TEE, 3/4"-16 JICM(2) x 3/4"-16 JICF
22	1122828	2	TEE, 3/4"-16 JICM(3)
23	1127011	4	MALE COUPLER TIPS, 1/2" NPTM
24	1123372	1	TEE, 3/4"-16 ORBM x 3/4"-16 JICM(2)
25	1124739	1	TEE, 3/4"-16 JICM(2) x 3/4"-16 ORBM

# 1450 HYDRAULIC ASSEMBLY



ALUMINUM HOUSING  
SEQUENCE VALVE

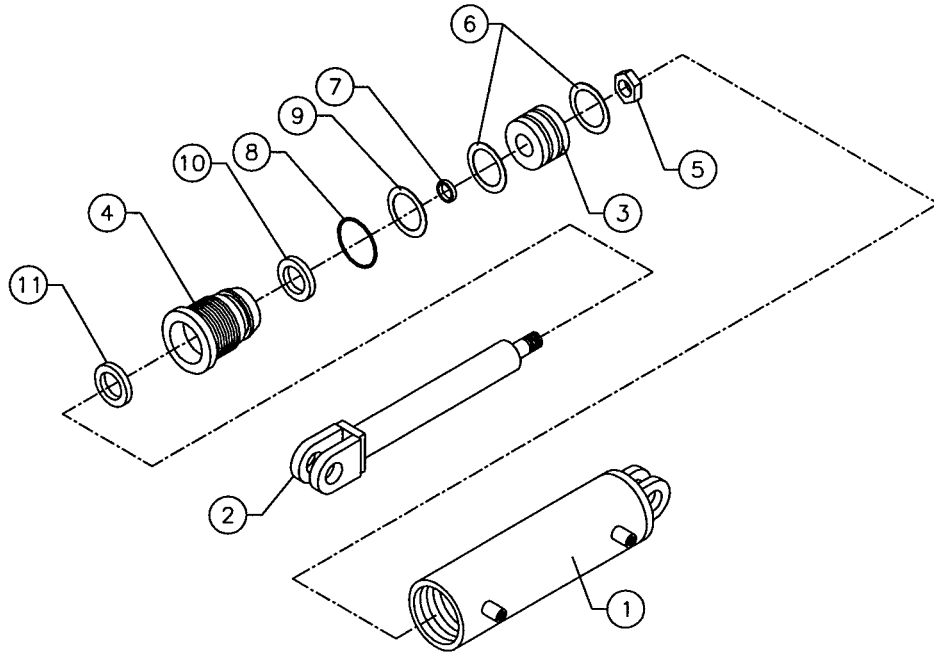
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REF. NO.	PART #	QTY.	DESCRIPTION
1	1125700	2	HYDRAULIC TUBE, 1/2" DIA. X 101 15/16", 3/4"-16 JICF(2)
2	1125701	1	HYDRAULIC TUBE, 1/2" DIA. X 136 1/4", 3/4"-16 JICF(2)
3	1125702	1	HYDRAULIC TUBE, 1/2" DIA. X 132 1/4", 3/4"-16 JICF(2)
4	1125703	2	HYDRAULIC TUBE, 1/2" DIA. X 136 1/4", 3/4"-16 JICF(2)
5	1125704	4	HYDRAULIC TUBE, 1/2" DIA. X 43", 3/4"-16 JICF(2)
6	1850450	2	LIFT CYLINDER
7	1850440	2	FRONT GATE CYLINDER
8	1850460	2	REAR PUSH CYLINDER
9	1127071	1	SEQUENCE VALVE (PARKER-ECJ) - ALUMINUM HOUSING
10	1123426	4	HYDRAULIC HOSE, 1/2" x 168"LG., 1/2" NPTM X 3/4"-16 JICM
11	1127537	4	HYDRAULIC HOSE, 1/2" x 24"LG., 3/4"-16 JICM X #8 ORBM
12	1123428	3	HYDRAULIC HOSE, 1/2" x 30"LG., 3/4"-16 JICM X 3/4"-16 JICF
13	1123434	2	HYDRAULIC HOSE, 1/2" x 48"LG., 3/4"-16 JICF X #8 ORBM
14	1123435	2	HYDRAULIC HOSE, 1/2" x 40"LG., 3/4"-16 JICF(2)
15	1123430	2	HYDRAULIC HOSE, 1/2" x 44"LG., 3/4"-16 JICM x 3/4"-16 JICF
16	1124530	1	HYDRAULIC HOSE, 1/2" x 16 1/2" LG., 3/4" JICFSW(2)
17	1124520	1	HYDRAULIC HOSE, 3/8" x 27" LG., 3/4" JICFSW(2)
18	1124363	1	CONNECTOR, 9/16" ORBM X 3/4" JICM
19	1123442	4	ELBOW, 3/4"-16 ORBM x 3/4"-16 JICM
20	1123210	1	SWIVEL ELBOW 90° - 3/4" ORBM X 3/4" JICM
21	1124401	5	TEE, 3/4"-16 JICM(2) x 3/4"-16 JICF
22	1122828	2	TEE, 3/4"-16 JICM(3)
23	1127011	4	MALE COUPLER TIPS, 1/2" NPTM
24	1123372	1	TEE, 3/4"-16 ORBM x 3/4"-16 JICM(2)
25	1124739	1	TEE, 3/4"-16 JICM(2) x 3/4"-16 ORBM
26	1123212	1	CONNECTOR, 3/4" ORBM X 3/4" JICM

ALUMINUM HOUSING  
SEQUENCE VALVE

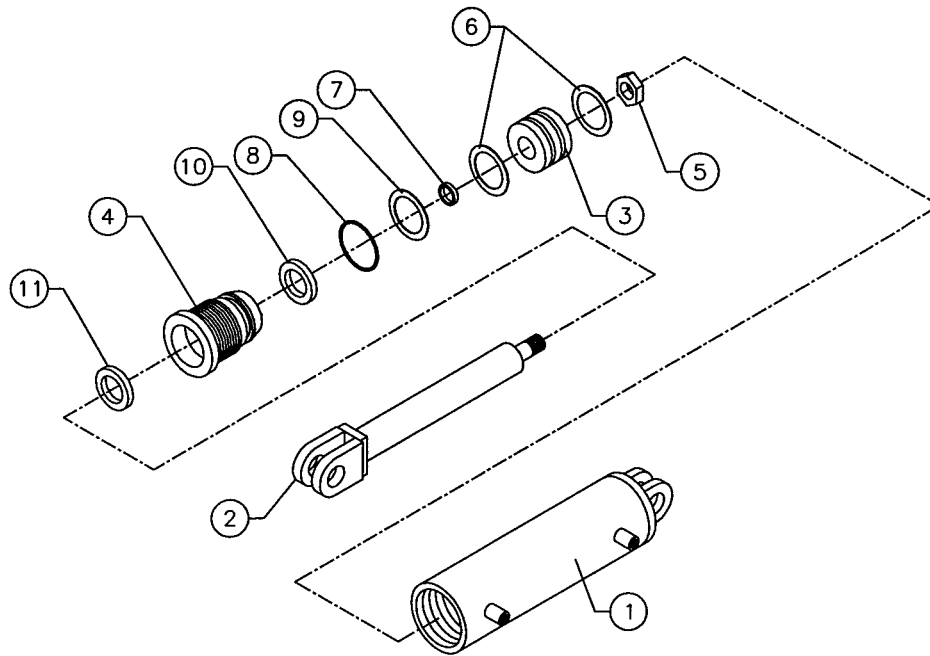


# 1450 FRONT GATE CYLINDER



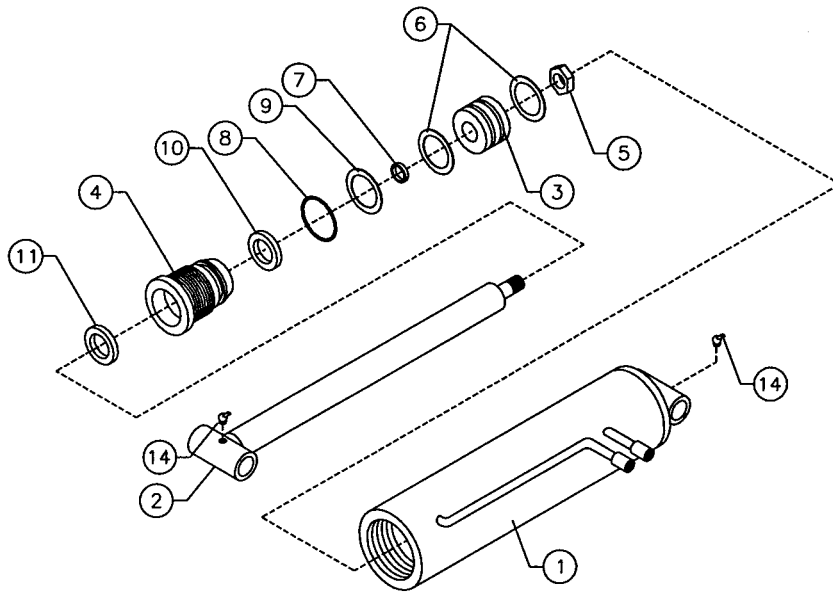
REF. NO.	PART #	QTY.	DESCRIPTION
	1125650	1	CYLINDER ASSEMBLY R2-30L2-12
1	1125651	1	CYLINDER BARREL
2	1125652	1	ROD
3	1125653	1	PISTON
4	1125654	1	GLAND
5	1125655	1	ROD NUT, 1" - 14 UNF, GRADE 8 LOCKNUT
6	1125656	2	PISTON SEAL (D)
7	1125657	1	PISTON SEAL (S)
8	1125658	1	GLAND STATIC SEAL
9	1125659	1	GLAND STATIC SEAL BACKUP
10	1125660	1	ROD SEAL
11	1125661	1	ROD WIPER
	1125662	1 SET	SEAL KIT (CONSISTS OF ITEMS: 6, 7, 8, 9, 10, 11)
	1850662	2	PIN, 1 1/2" DIA. x 2 1/2" LG.
	1850663	2	PIN, 1 1/2" DIA. x 2 1/2" LG., GREASE NIPPLE
	1122797	2	GREASE NIPPLE, 1/8" NPT

# 1450 FRONT GATE CYLINDER



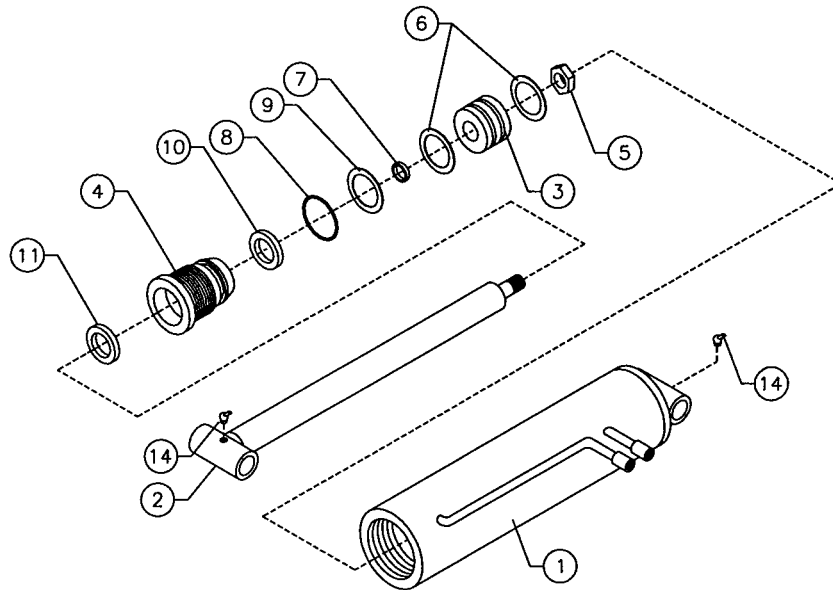
REF. NO.	PART #	QTY.	DESCRIPTION
	1850440	1	CYLINDER ASSEMBLY CW-3.00-12.00-1.50
1	1850441	1	CYLINDER BARREL
2	1850442	1	CYLINDER SHAFT
3	1125653	1	PISTON
4	1125654	1	GLAND
5	1125655	1	ROD NUT, 1" - 14 UNF, GRADE 8 LOCKNUT
6	1125656	2	PISTON SEAL (D)
7	1125657	1	PISTON SEAL (S)
8	1125658	1	GLAND STATIC SEAL
9	1125659	1	GLAND STATIC SEAL BACKUP
10	1125660	1	ROD SEAL
11	1125661	1	ROD WIPER
	1125662	1 SET	SEAL KIT (CONSISTS OF ITEMS: 6, 7, 8, 9, 10, 11)
	1850662	2	PIN, 1 1/2" DIA. x 2 1/2" LG.
	1850663	2	PIN, 1 1/2" DIA. x 2 1/2" LG., GREASE NIPPLE
	1122797	2	GREASE NIPPLE, 1/8" NPT

# 1450 LIFT CYLINDER



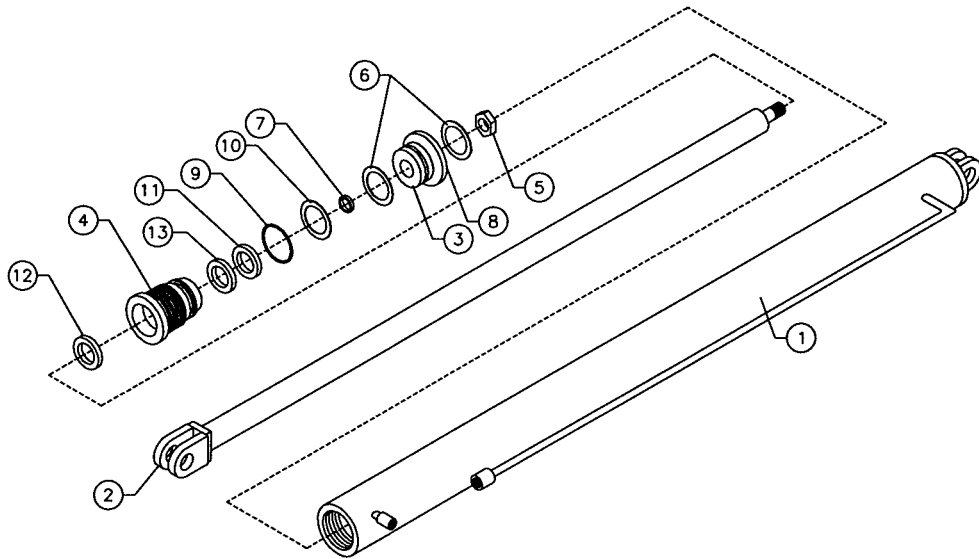
REF. NO.	PART #	QTY.	DESCRIPTION
	1125665	1	CYLINDER ASSEMBLY R2-40-20.75
1	1125666	1	CYLINDER BARREL
2	1125667	1	ROD
3	1125668	1	PISTON
4	1125669	1	GLAND
5	1125670	1	ROD NUT, 1" -14 UNF GRADE 8, LOCKNUT
6	1125672	2	PISTON SEAL (D)
7	1125657	1	PISTON SEAL (S)
8	1125673	1	GLAND STATIC SEAL
9	1125674	1	GLAND STATIC SEAL BACKUP
10	1125660	1	ROD SEAL
11	1125661	1	ROD WIPER
14	1122787	2	GREASE ZERKS, 1/4" - 28 UNF, STRAIGHT
	1125671	1 SET	SEAL KIT (CONSISTS OF ITEMS: 6, 7, 8, 9, 10, 11)
	1850661	2	PIN, 1 1/2" DIA. X 8 1/4" LG.

# 1450 LIFT CYLINDER



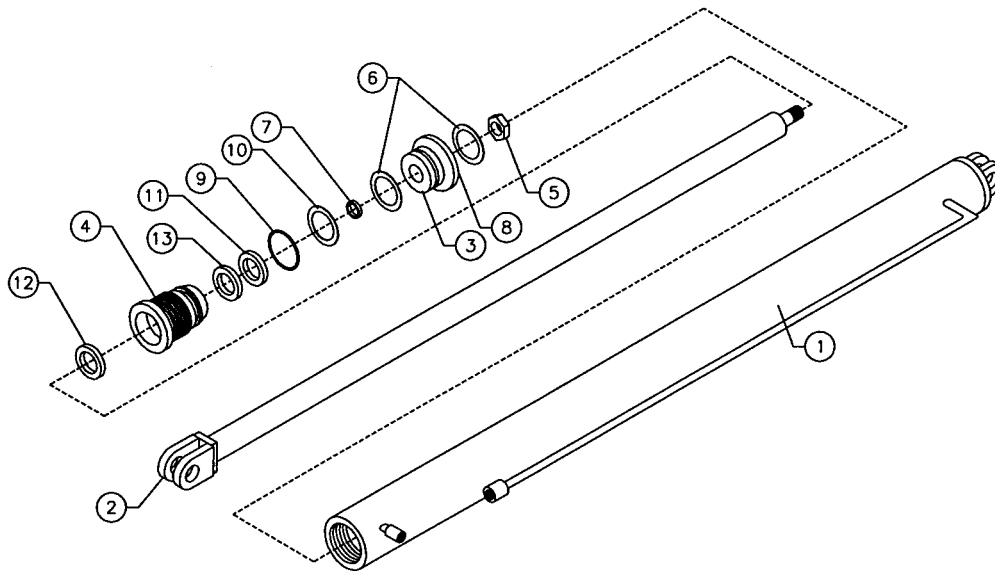
REF. NO.	PART #	QTY.	DESCRIPTION
	1850450	1	CYLINDER ASSEMBLY CW-4.00-20.75-2.00
1	1850451	1	CYLINDER BARREL
2	1850452	1	CYLINDER SHAFT
3	1125668	1	PISTON
4	1125669	1	GLAND
5	1125670	1	ROD NUT, 1" -14 UNF GRADE 8, LOCKNUT
6	1125672	2	PISTON SEAL (D)
7	1125657	1	PISTON SEAL (S)
8	1125673	1	GLAND STATIC SEAL
9	1125674	1	GLAND STATIC SEAL BACKUP
10	1125660	1	ROD SEAL
11	1125661	1	ROD WIPER
14	1122787	2	GREASE ZERKS, 1/4" - 28 UNF, STRAIGHT
	1125671	1 SET	SEAL KIT (CONSISTS OF ITEMS: 6, 7, 8, 9, 10, 11)
	1850661	2	PIN, 1 1/2" DIA. X 8 1/4" LG.

# 1450 REAR PUSH CYLINDER



REF. NO.	PART #	QTY.	DESCRIPTION
	1125680	1	CYLINDER ASSEMBLY R2-30L-67
1	1125681	1	CYLINDER BARREL
2	1125682	1	CYLINDER SHAFT
3	1125683	1	PISTON
4	1125684	1	GLAND
5	1125685	1	ROD NUT, 1 1/4" - 12 UNF, GRADE 8 LOCKNUT
6	1125656	2	PISTON SEAL (D)
7	1125687	1	PISTON SEAL (S)
8	1125688	1	WEAR RING
9	1125689	1	GLAND STATIC SEAL
10	1125690	1	GLAND STATIC SEAL BACKUP
11	1125691	1	ROD SEAL
12	1125692	1	ROD WIPER
13	1125693	1	WEAR RING
	1125686	1 SET	SEAL KIT (CONSISTS OF ITEMS: 6, 7, 8, 9, 10, 11,12, 13)
	1850667	1	GROOVE PIN, 1" DIA. x 2 1/2" U.L.
	1225628	1	GROOVE PIN, 1" DIA. x 3 5/8" U.L.
	1500115	4	PIN RETAINER

# 1450 REAR PUSH CYLINDER



REF. NO.	PART #	QTY.	DESCRIPTION
	1850460	1	CYLINDER ASSEMBLY CW-3.00-67.00-2.25
1	1850461	1	CYLINDER BARREL
2	1850462	1	CYLINDER SHAFT
3	1125683	1	PISTON
4	1125684	1	GLAND
5	1125685	1	ROD NUT, 1 1/4" - 12 UNF, GRADE 8 LOCKNUT
6	1125656	2	PISTON SEAL (D)
7	1125687	1	PISTON SEAL (S)
8	1125688	1	WEAR RING
9	1125689	1	GLAND STATIC SEAL
10	1125690	1	GLAND STATIC SEAL BACKUP
11	1125691	1	ROD SEAL
12	1125692	1	ROD WIPER
13	1125693	1	WEAR RING
	1125686	1 SET	SEAL KIT (CONSISTS OF ITEMS: 6, 7, 8, 9, 10, 11,12, 13)
	1850667	1	GROOVE PIN, 1" DIA. x 2 1/2" U.L.
	1225628	1	GROOVE PIN, 1" DIA. x 3 5/8" U.L.
	1500115	4	PIN RETAINER

# PILOT OPERATED SEQUENCE VALVE

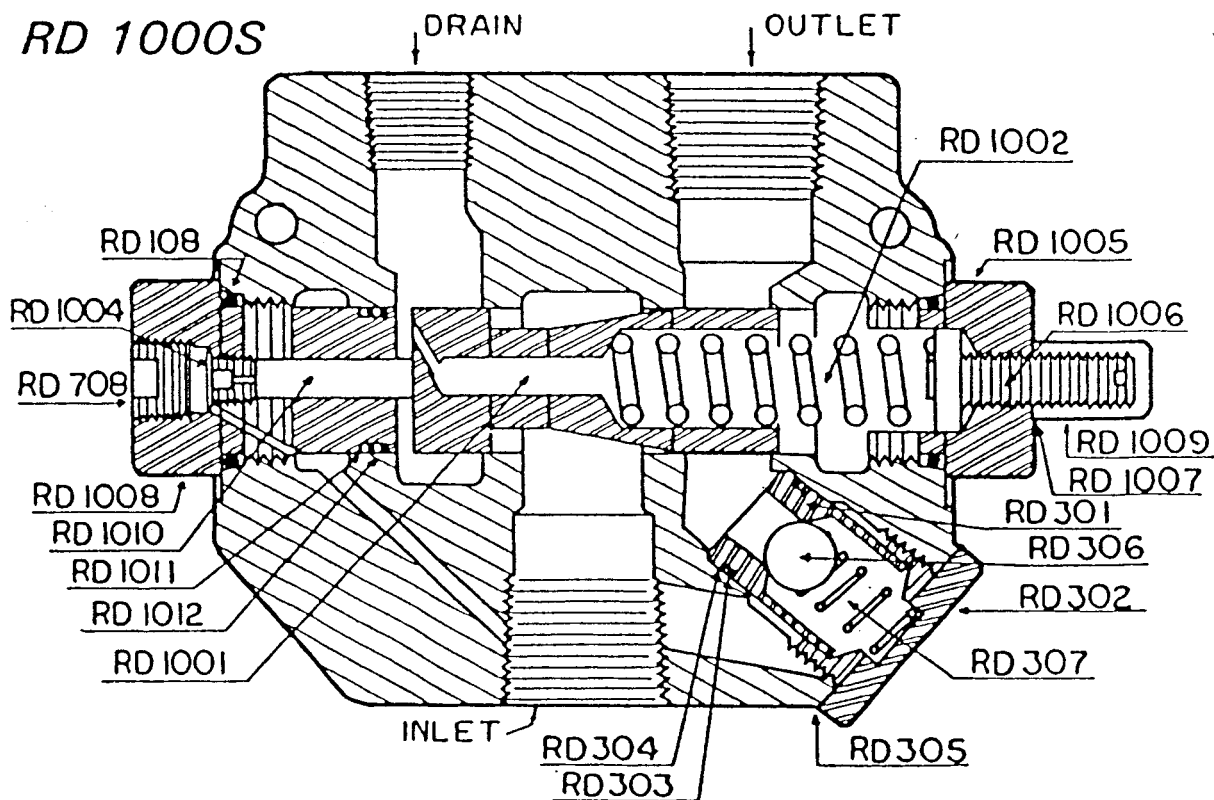
The model RD 1000S pilot-operated sequence valve is designed to prevent oil in a primary circuit from reaching a secondary circuit until the pressure in the primary circuit reaches a pre-set level. The sequence valve opens and oil is metered to the secondary circuit until the cylinder bottoms out and the system rises to full pressure. The operation is smooth and chatter free. The RD 1000S has an integral heat treated check valve for free return flow thru the valve.

**Weight 7 lbs.**

**Flow Capacity (0-30 GPM)**

**Maximum Pressure 3000 PSI**

**RD 1000S**



Internal pilot and external drain

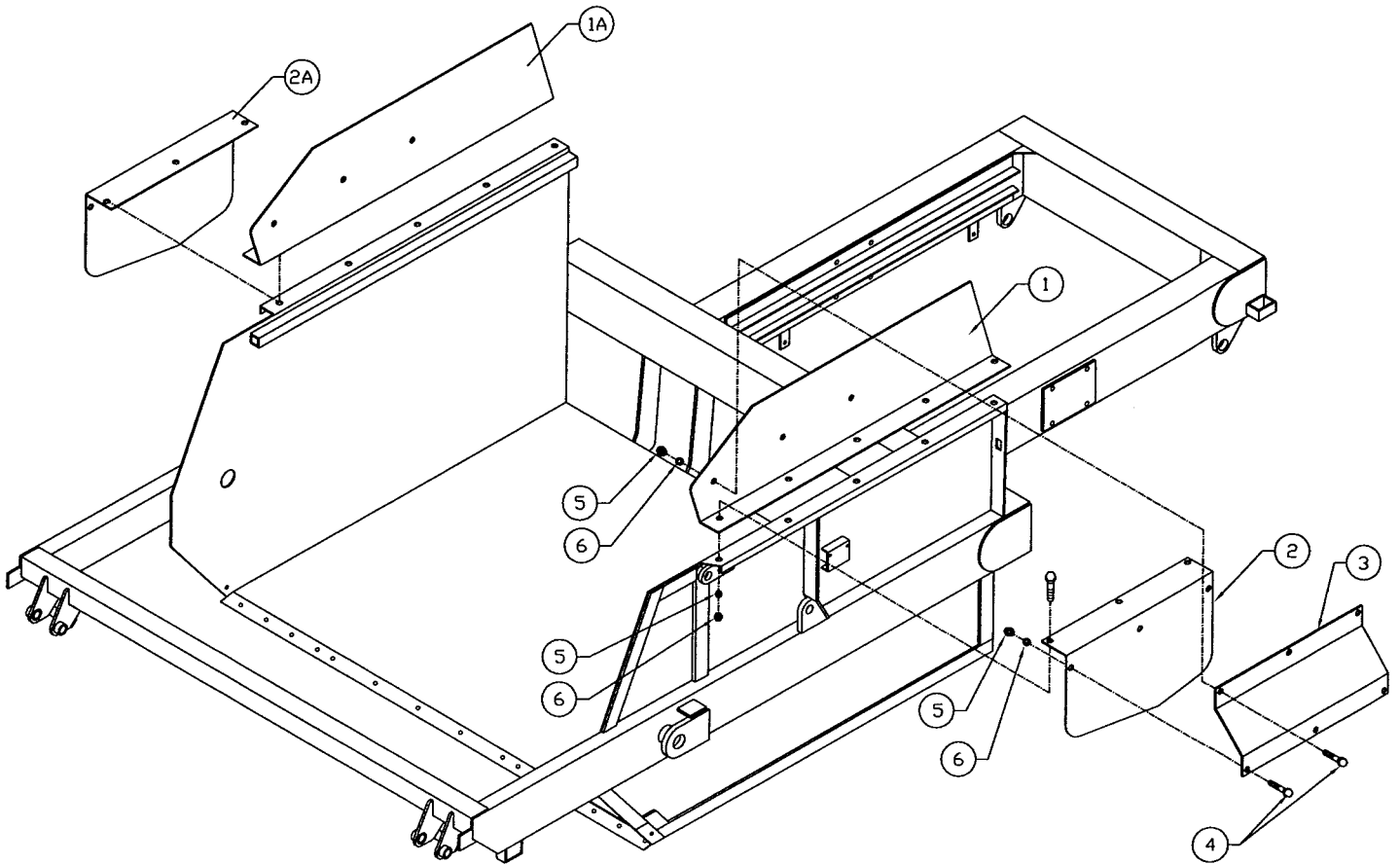
Manufactured by

**Douglass Hydraulics, Inc.**

311 E. Locust St., C.L., Omaha, Nebraska 68110, (712) 347-5262

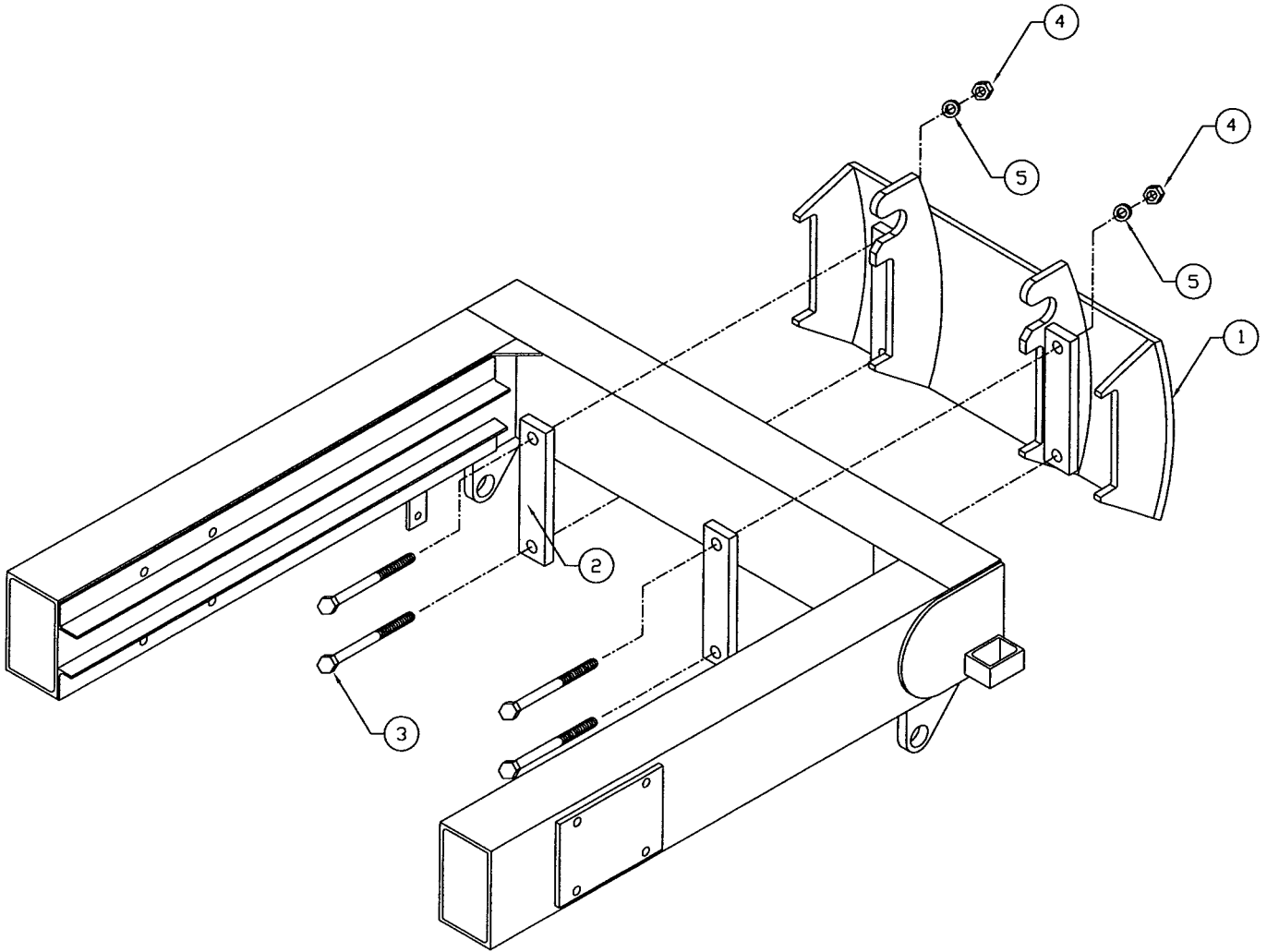


# 1450 OPTIONAL SIDE EXTENSION KIT



REF. NO.	PART #	QTY.	DESCRIPTION
1	1850644	1	SIDE EXTENSION-LEFT
1A	1850752	1	SIDE EXTENSION-RIGHT
2	1850645	1	SIDE COVER-LEFT
2A	1850748	1	SIDE COVER-RIGHT
3	1850650	2	BRACE
4	1102100	22	HEX HEAD BOLT, 5/8" UNC x 1 1/2" LG.
5	1102540	22	HEX NUT, 5/8" UNC
6	1102594	22	LOCKWASHER, 5/8" DIA

# 1450 OPTIONAL PUSH BUMPER KIT



REF. NO.	PART #	QTY.	DESCRIPTION
1	1850672	1	PUSH BUMPER
2	1850676	2	STRAPS
3	1102046	4	HEX HEAD BOLT, 1" UNC x 10" LG.
4	1102555	4	HEX NUT, 1" UNC
5	1102600	4	LOCKWASHER, 1" DIA.

# OPTIONAL THIRD LINE

KIT # - 1850700

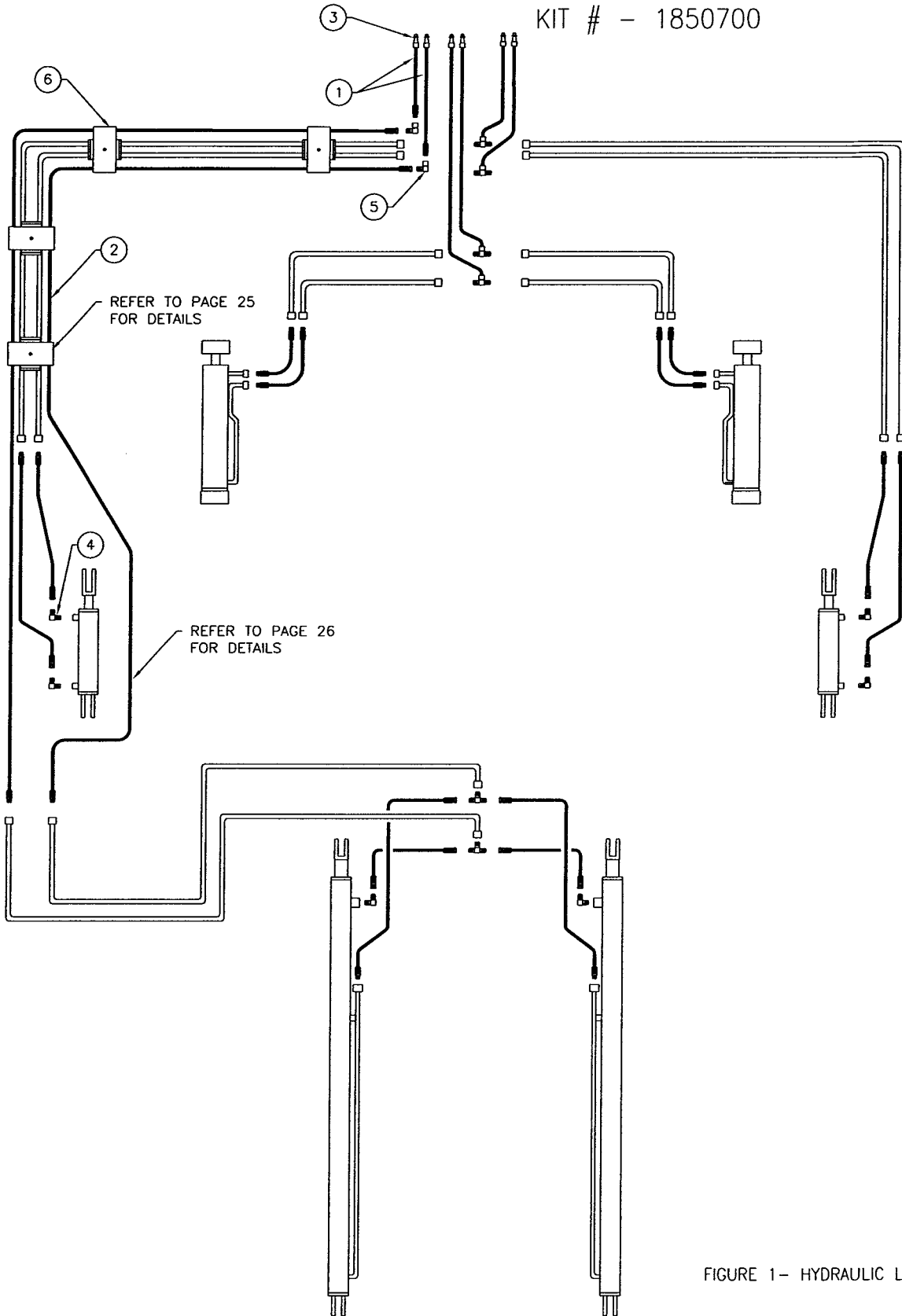


FIGURE 1- HYDRAULIC LAYOUT

# OPTIONAL THIRD LINE

KIT # - 1850700

REF. NO.	PART #	QTY.	DESCRIPTION
1	1123426	2	HYDRAULIC HOSE, 1/2" x 168"LG., 1/2" NPTM x 3/4" JICM
2	1125713	2	HYDRAULIC HOSE, 1/2" x 192"LG., 3/4" JICF x 7/8" JICM
3	1127011	2	MALE COUPLER TIPS, 1/2" NPTM
4	1123442	2	ELBOW, 90°, 3/4" ORBM x 3/4" JICM
5	1122791	2	ELBOW, 90°, 3/4" JICM x 3/4" JICF
6	1850691	1	SPACER PIPE, 3/8" STD BLACK PIPE, 1 1/2" LG.
7	1102027	1	HEX HEAD BOLT, 5/16" UNC X 3 1/2" LG.
8	1102608	1	FLATWASHER, 5/16" DIA
9	1102521	1	LOCKNUT, 5/16" UNC
10			

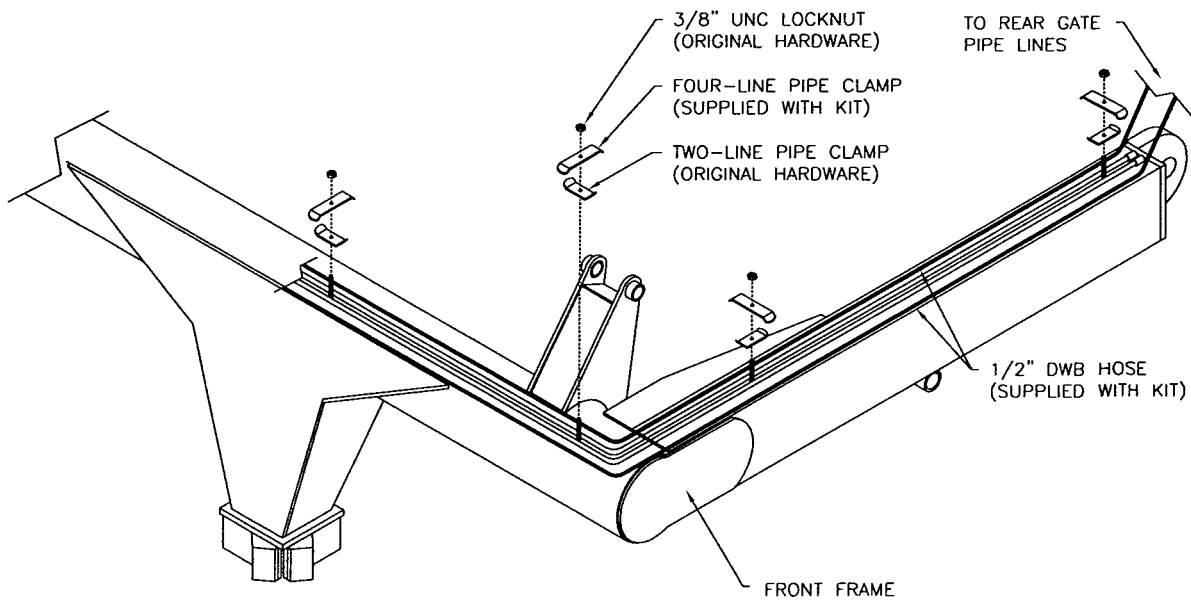


FIGURE 2- ATTACHMENT OF HOSES TO FRONT FRAME

# OPTIONAL THIRD LINE

KIT # - 1850700

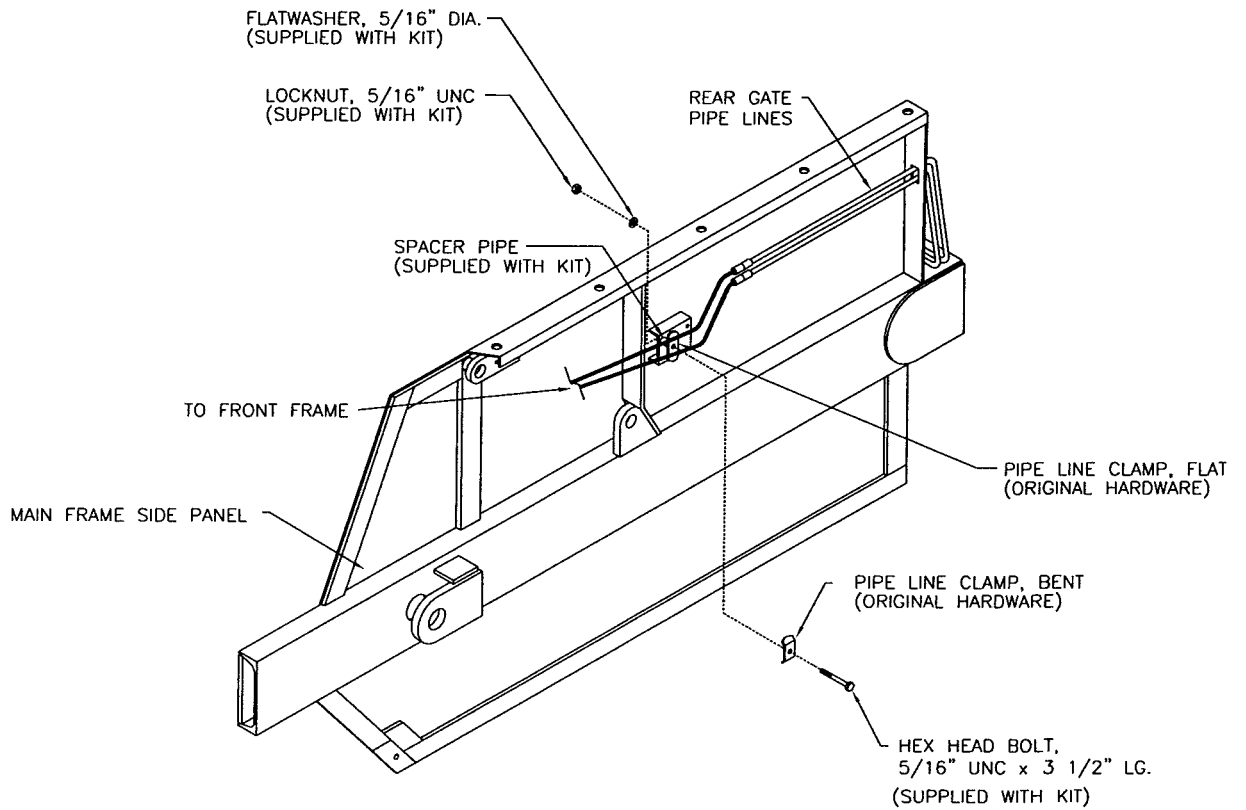
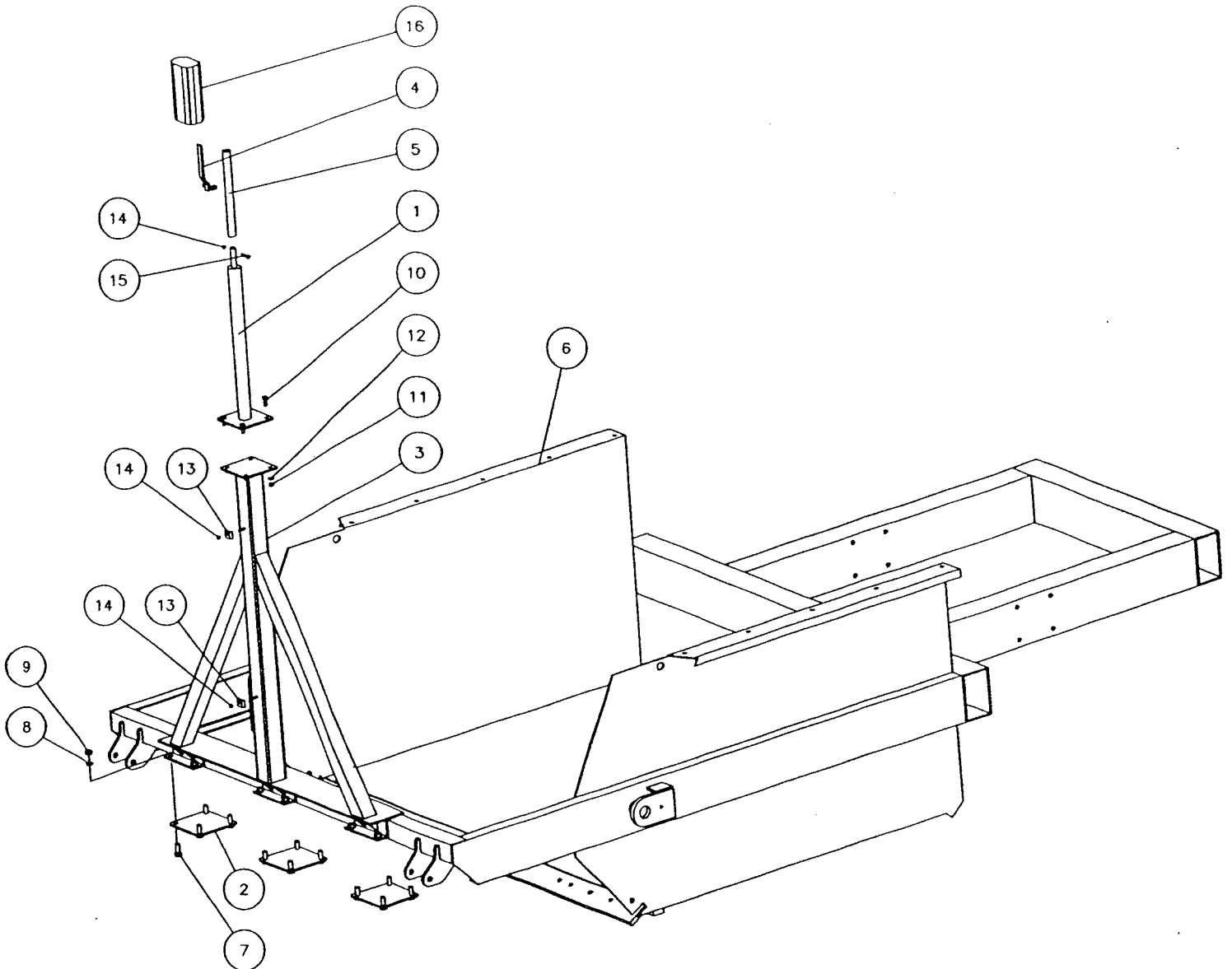


FIGURE 3- ATTACHMENT OF HOSES TO MAIN FRAME

# LASER MAST MOUNT KIT



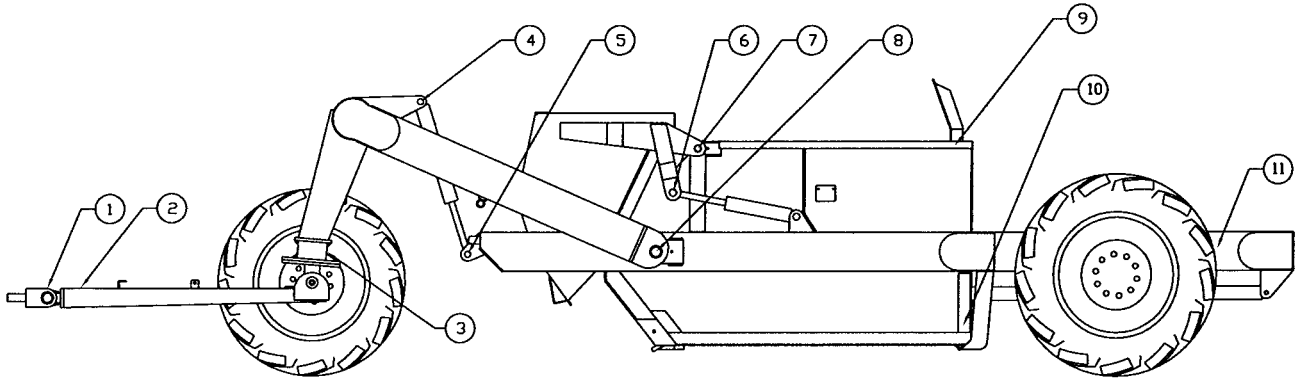
18	1127011	2	MALE COUPLER TIPS, 1/2" NPTM
17	1123152	2	HYD. HOSE, 3/8" DWB, 264" LG, 9/16" ORBM x 1/2" NPTM
16	NOT SUPPLIED	1	SENSOR
15	1102003	1	HEX HEAD BOLT, 3/8" UNC X 2" LG.
14	1102538	3	HEX. LOCKNUT, 3/8" UNC
13	17071130	2	TWO LINE CLAMP
12	1102592	4	LOCKWASHER, 1/2" DIA.
11	1102535	4	HEX. NUT, 1/2" UNC
10	1102051	4	HEX. HEAD BOLT, 1/2" UNC X 1 1/2" LG.
9	1102545	12	HEX. NUT, 3/4" UNC
8	1102598	12	LOCKWASHER, 3/4" DIA.
7	1102151	12	HEX. HEAD BOLT, 3/4" UNC X 2" LG.
6	1850525	1	MAIN FRAME
5	1850764	1	TOP PIPE
4	1850768	1	SENSOR GUIDE
3	1850753	1	LASERMASTWELD3D
2	1850757	3	FOUR HOLE PLATE
1	1125695	1	HYD. CYLINDER, R2-20L-24
REF. NO.	PART #	QTY	DESCRIPTION

Parts List





# DAILY GREASE LOCATIONS



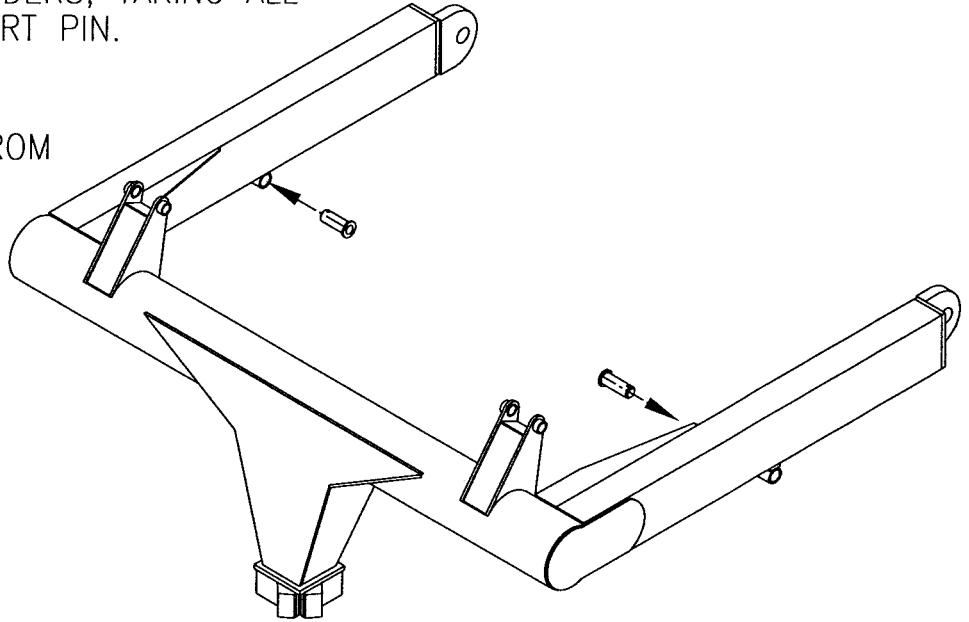
NOTES: 1. EVERY EIGHT HOURS ALL GREASE FITTINGS SHOULD BE LUBRICATED.

REF. NO.	QTY.	DESCRIPTION
1	1	FRONT HITCH PIVOT
2	1	FRONT HITCH SWIVEL
3	1	BALL PIVOT
4	2	LIFT CYLINDER BARREL CROSS TUBE
5	2	LIFT CYLINDER SHAFT CROSS TUBE
6	2	FRONT GATE ARM
7	2	FRONT GATE PIVOT
8	2	FRONT FRAME PIVOT
9	2	REAR GATE TOP ROLLER
10	2	REAR GATE BOTTOM ROLLER
11	2	REAR GATE BACK ROLLER

# 1450 TRANSPORT PIN

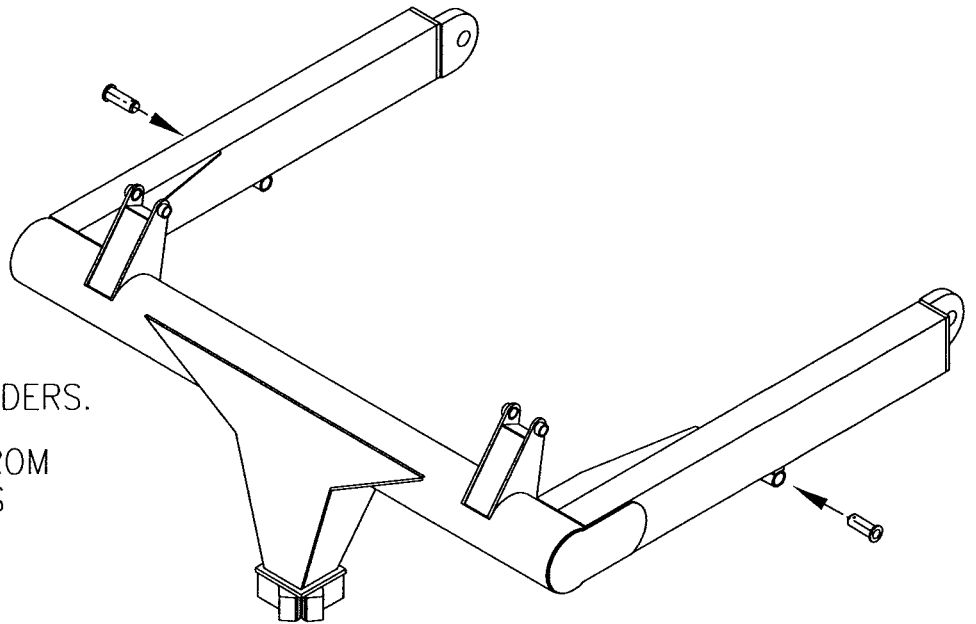
## PIN POSITION FOR WORK MODE

1. FULLY RETRACT LIFT CYLINDERS, TAKING ALL PRESSURE OFF THE TRANSPORT PIN.
2. REMOVE TRANSPORT PIN.
3. INSERT TRANSPORT PIN FROM INSIDE OF FRONT FRAME AS SHOWN TO THE RIGHT.
4. BEGIN WORK MODE.



## PIN POSITION FOR TRANSPORT MODE

1. REMOVE TRANSPORT PIN.
2. FULLY RETRACT LIFT CYLINDERS.
3. INSERT TRANSPORT PIN FROM OUTSIDE OF FRONT FRAME AS SHOWN TO THE RIGHT.
4. BEGIN TRANSPORT MODE.



# WARRANTY

## REGISTRATION (OWNER'S COPY)

Leon's Mfg. Company Inc. warrants all products manufactured by Leon's Mfg. Company Inc. for a period of one year from the date of purchase for private use, or a period of 90 days for commercial use.

Leon's Mfg. Company Inc. warrants tires for a period of 60 days for private use or a period of 30 days for commercial use.

This warranty provides that the equipment shall be free of defective materials and workmanship, or we will replace or repair at our factory any part that our inspection shows to be defective.

If any product or portion thereof is modified, changed or tampered with in any way, this warranty shall be deemed null and void.

All hydraulic cylinders, valves, hoses, tires, spindles and other purchased products, except as specifically included in the warranty above, are not manufactured by Leon's and are, therefore, covered by the warranties of the manufacturer of these products.

All parts shipped to the factory shall be shipped prepaid and will be returned F.O.B. Factory. Leon's Mfg. Company Inc. does not assume responsibility for shipping, labour or travel expenses.

Although Leon's products are designed to minimize tractor strain, Leon's Mfg. Company Inc. will assume no responsibility for damage to tractors or other equipment.

Leon's Mfg. Company Inc. reserves the right to make improvements and reserve the right to change the design, materials and specifications without notice or obligation.

**MODEL NO.** \_\_\_\_\_ **DATE OF PURCHASE** \_\_\_\_\_

**SERIAL NO.** \_\_\_\_\_ **DEALER** \_\_\_\_\_

**TOWN** \_\_\_\_\_ **PROV. / STATE** \_\_\_\_\_

**OWNER** \_\_\_\_\_ **ADDRESS** \_\_\_\_\_

**TOWN** \_\_\_\_\_ **PROV. / STATE** \_\_\_\_\_

What make and model of tractor will this product be used with? \_\_\_\_\_

Will this product be used: commercially? \_\_\_\_\_  
Privately? \_\_\_\_\_

Why did you buy **Leon**?  
Advertising \_\_\_\_\_  
Previous Owner \_\_\_\_\_  
Recommendation \_\_\_\_\_  
Special Features \_\_\_\_\_

Comments:

**NOTE:** This warranty is effective only if the warranty registration is filled in and mailed by the original purchaser within ten days after the date of delivery.

FEB-2012

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# WARRANTY

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MODEL NO. \_\_\_\_\_ DATE OF PURCHASE \_\_\_\_\_

SERIAL NO. \_\_\_\_\_ DEALER \_\_\_\_\_

TOWN \_\_\_\_\_ PROV. / STATE \_\_\_\_\_

OWNER \_\_\_\_\_ ADDRESS \_\_\_\_\_

TOWN \_\_\_\_\_ PROV. / STATE \_\_\_\_\_

What make and model of tractor will this product be used with? \_\_\_\_\_

Will this product be used: commercially? \_\_\_\_\_  
privately? \_\_\_\_\_

Why did you buy **Leon**? Advertising \_\_\_\_\_  
Previous Owner \_\_\_\_\_  
Recommendation \_\_\_\_\_  
Special Features \_\_\_\_\_

Comments:

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