MADE IN THE USA

Dalton AG PRODUCTS

OPERATING & PARTS MANUAL

DALTON
5 TON & 6 TON SPREADER

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QUICK REFERENCE INDEX

PART NUMBERS AND DRAWINGS

5-TON & 6-TON SPREADERS

ASSEMBLY - Recommended Procedures

With a few exceptions, your new fertilizer spreader was delivered assembled. To facilitate loading and to prevent damage in transit, the PTO Drive Assembly and the spinner Guard may not be assembled. Some final assembly procedures are needed.

PTO DRIVE

To assemble to PTO Drive, refer to parts drawing.

SPINNER GUARD

1. Locate spinner guard. It is taped to the rear of the spreader frame. Associated mounting hardware will be attached to the guard.
2. Remove mounting hardware. Position spinner guard against rear member of spreader frame with tubular portion to the top.
3. Fasten guard with bolts and plates provided.

ADJUSTMENTS

The following adjustments were preset at the factory. However, it is a good idea to visually check these items before operating directions are given here so that you can make these adjustments if they are necessary.

PTO BELT TENSION

Refer to PTO Spinner Drive drawing.

1. Remove rear shield (22).
2. Loosen bolt securing idler pulley to rear drive plate (28).
3. Take out belt slack by applying upward pressure. While holding pressure, retighten idler bolt.

PTO BELT REPLACEMENT

Refer to Spinner Drive drawing.

1. Remove rear shield (22).
2. Loosen bolt secure idler pulley to rear drive plate (22)
3. Disassemble front and rear bearings on shaft (27) from frame and drive plate.
4. Move shaft to allow the belt to be removed.
5. Place a new belt around shaft.
6. Reassemble bearings to frame and plate.
7. Re-adjust pulley by using a straight edge ruler. Lay ruler across pulleys and adjust until they are aligned.
8. Assemble and tighten belt.
9. Reassemble rear shield.

SPINNER DRIVE BELT

Refer to Rear View of a 5 & 6 Ton Spreader.

Both the 5 & 6 Ton Spreaders are equipped with either a single or dual spinner. Both spinner arrangements use an idler pulley adjustment to maintain belt tension.
The rear view spreader drawing in this manual shows the basic set-up for the dual spinner. Look at the drawing and notice the location of the gearbox (631069) or (640071). Notice the slotted bracket to the immediate rear of this gearbox. For single spinner spreaders, the idler pulley is attached to the upper spinner bearing bracket.

Dual Spinner Belt Adjustment

1. Remove spinner belt shield (47).
2. Loosen idler pulley in slotted bracket behind gearbox.
3. Tighten belt by moving idler pulley to your right as you face the rear of the spreader.
4. While holding tension, re-tighten idler pulley.
5. Reassemble belt shield.

Single Spinner Belt Adjustment

1. Remove spinner belt shield (47).
2. Loosen idler pulley in slotted bracket behind gearbox.
3. Tighten belt by moving idler pulley to your right as you face the rear of the spreader.
4. While holding tension, re-tighten idler pulley.
5. Reassemble belt shield.

DRAG CHAIN ADJUSTMENT

Refer to Front and Rear View of 5 & 6 Ton Spreader page.

1. Locate adjusting screws at the front of the spreader trough.
2. Adjust drag chain by turning adjusting screws clockwise equal amounts until there is 2" to 3" droop in the center of the drag chain.
3. Link Removal: Links must be removed from the drag chain when no more adjustment can be accomplished with adjusting screws. The following steps outline link removal:

    a. Locate drag chain connecting pin. *This pin is threaded on one end and secured with a nut.*
    b. Move chain to where connecting pin is approximately midway beneath the spreader trough.
    c. Loosen chain by backing off adjusting screws.
    d. Remove connecting pin, thus breaking the chain.
    e. Remove chain link by cutting and removing next pin on chain.
    f. Reconnect chain using connecting pin and secure with nut.
    g. Adjust chain as described above.

    CAUTION: It is important that both sides of the chain be tightened equally. This can be accomplished by obtaining equal measurements from the front of base sides to front roller shaft on both sides of spreader trough.

CONVEYOR DRIVE SPEED CHANGING

Refer to part 641682 Decal Conveyor Drive - on left side of Spreader, and 641697 Decal Rate Blade Angle Chart - on rear of Spreader.

1. Loosen tightener handle (16).
2. Push tightener (19) to the top of the slot.
3. Move chain to set of sprockets desired.
4. Move tightener down until slack is removed from chain.
5. Re-tighten tightener bolt.

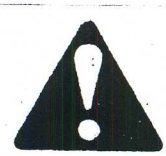
NOTE: The inside sprockets should be 24-tooth to 24-tooth. They will be used to produce high speed or direct drive. The outside sprockets should be 15-tooth to 30-tooth. They will be used to produce low speed or 24-tooth drive.

CAUTION: Do not overtighten chain. Apply enough pressure to take out excess slack. Over-tightening will decrease bearing life. If this adjustment does not remove sufficient slack, the roller chain may be shortened by removing links.

INITIAL OPERATION AND CHECK-OUT

After reviewing the preceding adjustments, check these points on the spreader. Make sure the gearbox is filled to the proper level. Physically check that all sprockets, drive chains, belts and other moving parts are free to operate.

Engage all moving parts on the empty spreader. Visually check all drives to insure that they are running properly.



CAUTION: BE ABSOLUTELY CERTAIN THAT YOU SPREADER IS COMPLETELY SHUT DOWN FOR INSPECTION. MAINTENANCE MEN HAVE A TENDENCY TO TOUCH ADJUSTING POINTS TO BE SURE THEY ARE SECURE. WHILE THIS SPREADER WAS DESIGNED "SAFE", IT IS ALWAYS POSSIBLE TO INADVERTENTLY GET HANDS OR CLOTHING TOO CLOSE TO MOVING PARTS. REPEAT: BE CERTAIN ALL POWER IS REMOVED FROM SPREADER WHILE PERFORMING INSPECTIONS OR MAINTENANCE.

SPREAD PATTERN ADJUSTMENTS

High analysis materials make it possible to apply more plant food with less bulk, but necessitates better spread pattern control. This requires adjusting the spreader in relation to application rates and densities of materials.

NOTE: REGARDLESS OF STATED OR PRINTED MATERIAL DENSITY, IT IS ALWAYS ADVISABLE TO PERSONALLY WEIGH MATERIAL. IT IS NOT UNCOMMON TO DISCOVER THAT THE ACTUAL BULK DENSITY OF A MATERIAL VARIES FROM ITS STATED DENSITY. VARIATIONS OF THIS KIND CAN AND WILL AFFECT SPREAD PATTERNS AND APPLICATION RATES.

DUAL SPINNERS

1. Spinner Speed: The recommended dual spinner speed is 700 RPM for average weight material. Spinner speed can be converted to PTO speed by sing the formula: Spinner speed -- (divided by) 1.36 = PTO speed. Example: For 700 RPM spinner speed: 700 ÷ 1.36 = 515 rpm PTO speed.

2. Spread Pattern Adjustments: Refer to 92144 Decal Rate - Blade Angle Chart, and 610370 Dual Spinner Assembly.

The spreader utilizes an adjustable spinner blade to produce an even spread pattern at different application rates. Different settings of the spinner blades will produce considerable differences in spread pattern. Therefore, adjustment of the spinner blade should be made for different spreader gate openings.

The Rate Chart has been cross-hatched in the 60-pound per cubic foot material column to aid in the setting of the spinner blades. Match the cross-hatching in these columns with the legend on the right side of the chart to determine the most appropriate blade setting to use for 60-pound per cubic foot material.

The recommended blade settings are specified for an average 60-pound per cubic foot material as noted on the chart. For lighter (less dense) materials, it may be necessary to move the spinner blades in the direction of spinner rotation. For heavier (more dense) materials, it may be necessary to move the spinner blades in the direction opposite of spinner rotation.

NOTE: The "O" position is located on the spinner disk with a small hole punched next to the outer spinner bolt hold.

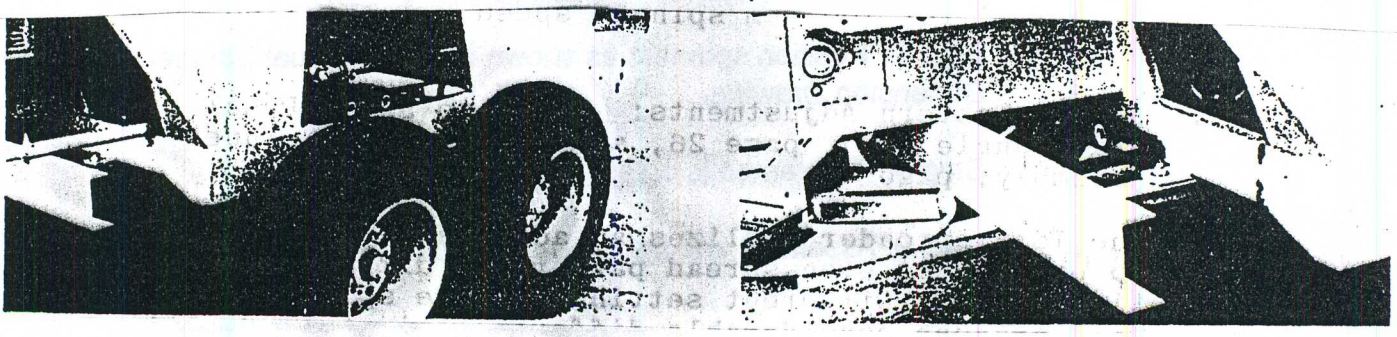
CAUTION: BLADES OPPOSITE ONE ANOTHER SHOULD BE AT THE SAME SETTING. IF BLADES OPPOSITE ONE ANOTHER ARE NOT AT THE SAME SETTING, THE SPINNERS MAY BECOME UNBALANCED.

3. Setting Dual Spinners to Factory Specifications:

Refer to Rear View of Spreader - 5 & 6 Ton Final Assembly, and 610370 Dual Spinner Assembly.

The spinner assembly will come assembled and ready for operation. However, if the settings should become altered due to replacement of spinners, bearings, etc., the following steps may be helpful in bringing your machine back to the proper setting.

Step 1: Level the spreader across both the length of the frame and across he width. (SEE PHOTO'S BELOW)



Step 2: Remove spinner belt and loosen the bolts in both the A-frame (4) and the spinner bearings.

Step 3: Using a level, position the A-frame so the spinners are vertical as you look at the spreader from the side. (SEE PHOTO B).

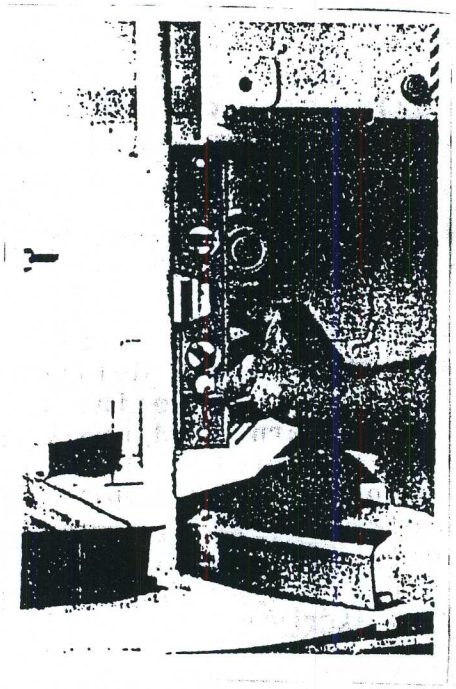


PHOTO "B"

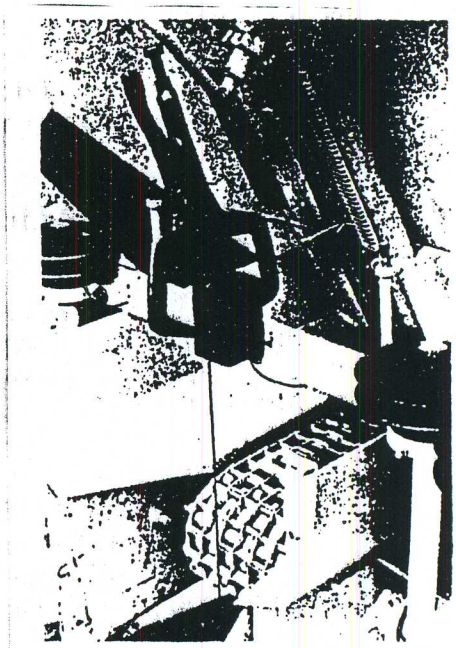


PHOTO "C & D"

Step 4: Tighten A-frame bolts.

Step 5: Set a block on the upper spinner angle so it will extend far enough to the rear to allow a plumb bob to be dropped past the conveyor chain, and high enough to allow measurement to the top of the spinner shafts. (SEE PHOTO "C").

Step 6: Attach a plumb bob to the block. Position it so it hangs across the center of the conveyor chain. (SEE PHOTO "D").

Step 7: Position spinners as shown in 610370 dual Spinner Assembly Dimension Drawing.

Step 8: Tighten bolts on spinner shaft bearings.

Step 9: Assemble and tighten spinner belt.

SINGLE SPINNER

1. Spinner Speed: The recommended single spinner speed is 750 RPM for an average weight material. Spinner speed can be converted to PTO speed by using the formula: Spinner Speed -- (divided by) 1.73 = PTO Speed. Example: For 750 RPM spinner speed: 750 -- 1.73 = 433 rpm PTO speed.

2. Spread Pattern Adjustment: Refer to 610371 Single Spinner Drawing.

   Front and rear deflectors are pre-set to center material on the spinner. Adjustment of the rear deflector (11) toward the spreader will cause more material to fall to the extreme right of the pattern. Adjustment away from the spreader will cause material to be heavier to the left of center. The front or inside deflector (14) may also affect right or left distribution, but may also be used to adjust distribution in the center of the spread pattern. Adjustments of these deflectors should be made in combination, and in VERY SMALL INCREMENTS.

BRAKES AND HYDRAULIC SYSTEM

Refer to 641029 and 641030, 13" Brake Cluster drawing and 91294 and 91295, 12" Brake Cluster drawing.

Brakes

Granular fertilizers and other corrosive materials are destructive to metal. To prolong the life of a braking system used under corrosive conditions, we recommend that the actuator be flushed periodically with high pressure water. Be sure to regrease bearings and oil all moving parts after the unit has dried. At the end of the season, when unit is to be stored, remove the brake drums and clean inside the brakes. Pack wheel bearings before drum is installed.

Wheel Cylinder Maintenance

In overhauling wheel cylinders, it is best to remove the cylinder from the brake assembly.

To remove the cylinder, unhook the brake shoe lever retracting spring and expand the shoe levers by hand. Disconnect hydraulic line, remove cylinder mounting bolts and lift cylinder from mount. If cylinder is connected with brake hose, loosen but do not twist hose connection. Lift cylinder free of mount, pulling hose through the mounting bracket then unscrew cylinder from hose end.

5 - Ton - The cylinder houses two opposing pistons which acuate opposed brake shoes. Pistons rubber cups and springs are held in the cylinder by retaining rings. The open ends of the cylinder are protected with rubber boots. Remove the adjusting screws and nuts, and take off the rubber boots. Pull out the piston guides. Use retaining ring pliers and remove retaining rings. Push out internal parts or apply low pressure compressed air to fluid inlet, blowing parts from cylinder. Frozen parts may be driven free with a wooden drift.

6 - Ton - The cylinder houses one piston. The open end of the cylinder is protected with a rubber boot. Remove the rubber boot. Push out internal parts or apply low pressure compressed air to fluid inlet, blowing parts from cylinder.

5 & 6 Ton - Clean parts well and keep them clean. There must be no trace of dirt, metal filings, sludge, or other deposits when the unit is ready for assembly. Use lint free cloth in cleaning. Internal parts must be cleaned in denatured alcohol or hydraulic brake fluid. Cylinder castings may be cleaned with your usual cleaning methods, but must be finish-cleaned with denatured alcohol or hydraulic fluid to remove all traces of solvent. Mineral base solvents deteriorate rubber.

5 Ton - To reassemble, lubricate parts and cylinder wall with clean brake fluid.

The following procedure will be helpful in reassembly.

1. Install one retaining ring. Make certain the ring is completely seated in its groove.
2. From the opposite end of the cylinder, push in one piston, rubber cup and spring.
3. To assemble the second rubber cup, turn it slightly so the flange will not bind in the retaining ring groove. A slight vacuum applied to the fluid inlet will prevent the spring from forcing out the cup.
4. Install the second piston and its retaining ring.
5. Insert piston guides and boots making certain they are seated into the boot grooves provided on cylinders.
6. Replace adjusting screws and nuts.

NOTE: ALWAYS USE NEW GASKETS ON HYDRAULIC FITTINGS. After cylinders are replaced, bleed system. See the next section for these instructions.

6 Ton - To reassemble, lubricate parts and cylinder wall with clean brake fluid. Push in spring, rubber cup and one piston. To assemble the rubber cup, turn it at a slight angle so the flange will not bind. A slight vacuum applied to the fluid inlet will prevent the spring from forcing out the cup. Install boot making certain it is seated into the boot grooves provided on cylinder.

c. Park spreader so the trough is on enough incline to allow water to run out rear of spreader.
d. Slip block beneath end of drag chain to allow water and excess fertilizer to drain from spreader.
e. Wash with water. Do not use detergents.
f. Air dry if possible.

3. Check the following:
   a. V-belts: adjust for proper tension if required.
   b. Bolts: tighten if loose
   c. Wheel bolts (after first hour of use -- weekly thereafter).
   d. Tires for proper tread and inflation.

TIRE SIZE	PLY RATING	MAXIMUM RATED LOAD LBS.	INFLATION PRESSURE LBS. PER SQ. INCH
11L-15 SL*	8	2540	32
12.5L-15 SL*	8	3010	32
12.5L-16.1 SL*	8	3130	32
16.5L-16.1 SL*	8	4440	24
	10	5250	32
21.5L-16.1 SL*	6	5210	16

*SL - SERVICE LIMITED - MAXIMUM SPEED 20 MPH.

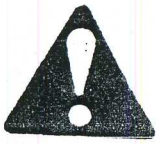
RECOMMENDED CONVEYOR DRIVE TIRE INFLATION – 12 LBS.

   e. Brake fluid for proper level.
   f. Gate jack and tongue jack for proper operation.
   g. Spinner blades -- replace as required.

4. Brakes - Check linings for wear, bleed, and adjust semi-annually.

5. At Season End
   a. Thoroughly clean as described above.
   b. Black iron spreaders: a light spray of fuel oil will be helpful in preventing corrosion.
   c. Clean and repaint rusted and corroded patches.
   d. Remove tarp. Leaving it on the spreader cause condensation which is damaging to both the tarp and the spreader.
   e. Remove roller chains and submerge in fuel oil or a mixture of diesel fuel and crankcase oil. DO NOT USE DIESEL FUEL ALONE. IT CONTAINS TOO MUCH WATER.

SAFETY SUGGESTIONS



1. Only responsible persons should operate your spreader.
2. Do not attempt to lubricate, clean, or adjust the machine while it is running.
3. Do not wear loose clothing around moving parts.
4. Agricultural chemicals can be dangerous. Always treat them with respect and care. Follow the manufacturer's suggestions for handling and use.
5. Do not ride on, nor attempt to climb on the machine when it is in motion.
6. Highway Towing:
   a. Raise tongue jack before moving.
   b. Be certain all drives are disengaged.
   c. DO NOT EXCEED 20 MPH. The tires are not designed for speeds above 20 mph.
7. Field Towing:
   a. Extend or retract tractor draw bar to the position where the hitch points is approximately 14 inches behind the PTO stub shaft.
   b. Do not turn too short or attempt to cross terraces, levees, or borrow ditches straight on. This can severely damage PTO shaft assembly. When necessary, cross levees, terraces and ditches at an angle.
   c. For turning, disengage conveyor drive and PTO.

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BOLT TORQUE

Important: Over tightening hardware can cause as much damage as when under tightening. Tightening hardware beyond the recommended range can reduce its shock load capacity.

The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual.
Torque is the force you apply to the wrench handle or the cheater bar, times the length of the handle or bar.
Use a torque wrench whenever possible.

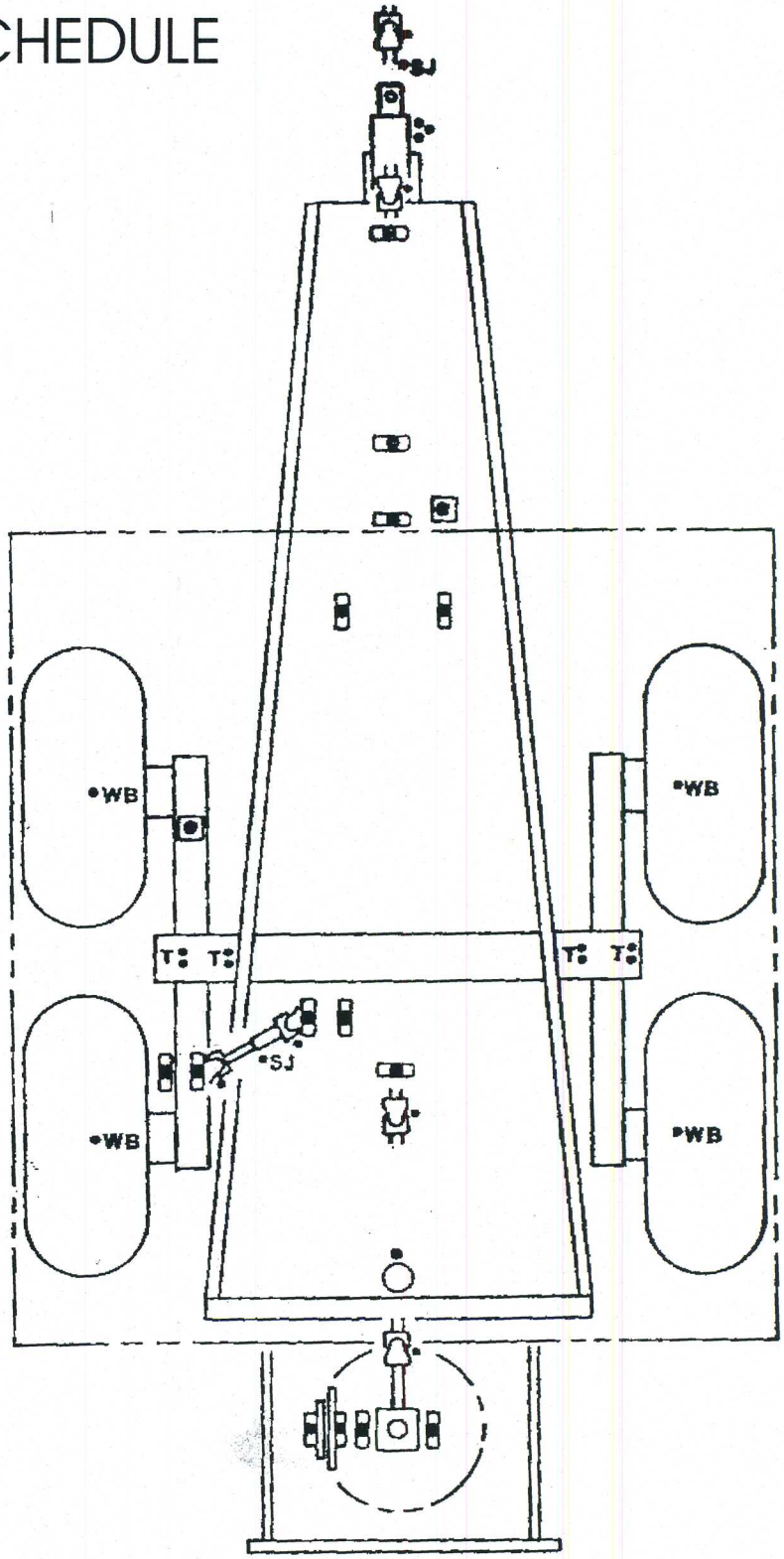
The following table shows torque in ft. lbs. for coarse thread hardware.

BOLT DIA. AND THREADS PER INCH	GRADE 2	GRADE 5 OR A-325	GRADE 8
1/4	6	10	14
5/16	12	20	30
3/8 –16	25	35	50
7/16 – 14	35	55	80
1/2 – 13	55	85	125
9/16 – 12	75	125	175
5/8 – 11	105	170	235
3/4 - 10	185	305	425
7/8 – 9	170	445	690
1-8	260	670	1030
1 1/8 – 7	365	900	1460
1 1/4 - 7	515	1275	2060
1 3/8 –6	675	1675	2700
1 1/2 - 6	900	2150	3500
1 3/4 – 5	1410	3500	5600

Lubricate all bearings and moving parts as assembled and make certain that they work freely.

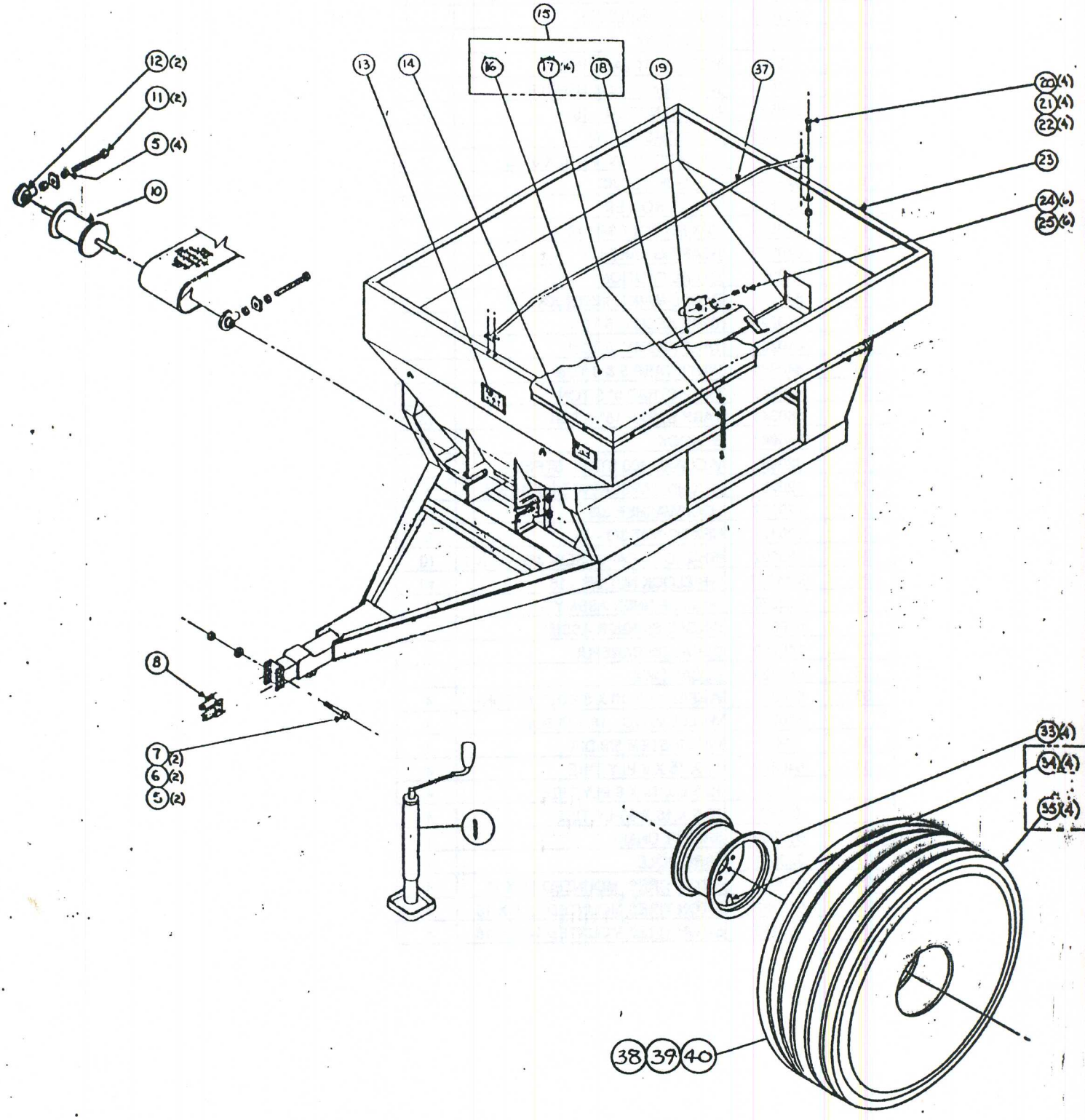
WARNING: Never work around the toolbar/implement while in a raised position without using safety lockups.

LUBRICATION SCHEDULE



LUBRICATION SCHEDULE

- UNIVERSAL JOINT (Every 15 Hrs.)
- BALL BEARING (Every 15 Hrs.)
- GATE JACK (OIL) (Weekly)
- •WB WHEEL BEARINGS (Twice A Year)
- PIVOT BUSHING (Every 10 Hrs.)
- ACTUATOR (Every 15 Hrs.)
- SPROCKET AND SPINNER HUB (Every 15 Hrs.)
- T TRUNION (Every 10 Hrs.)
- •SJ SLIP JOINT (Daily)
- GEAR BOX (Every 75 Hrs.)

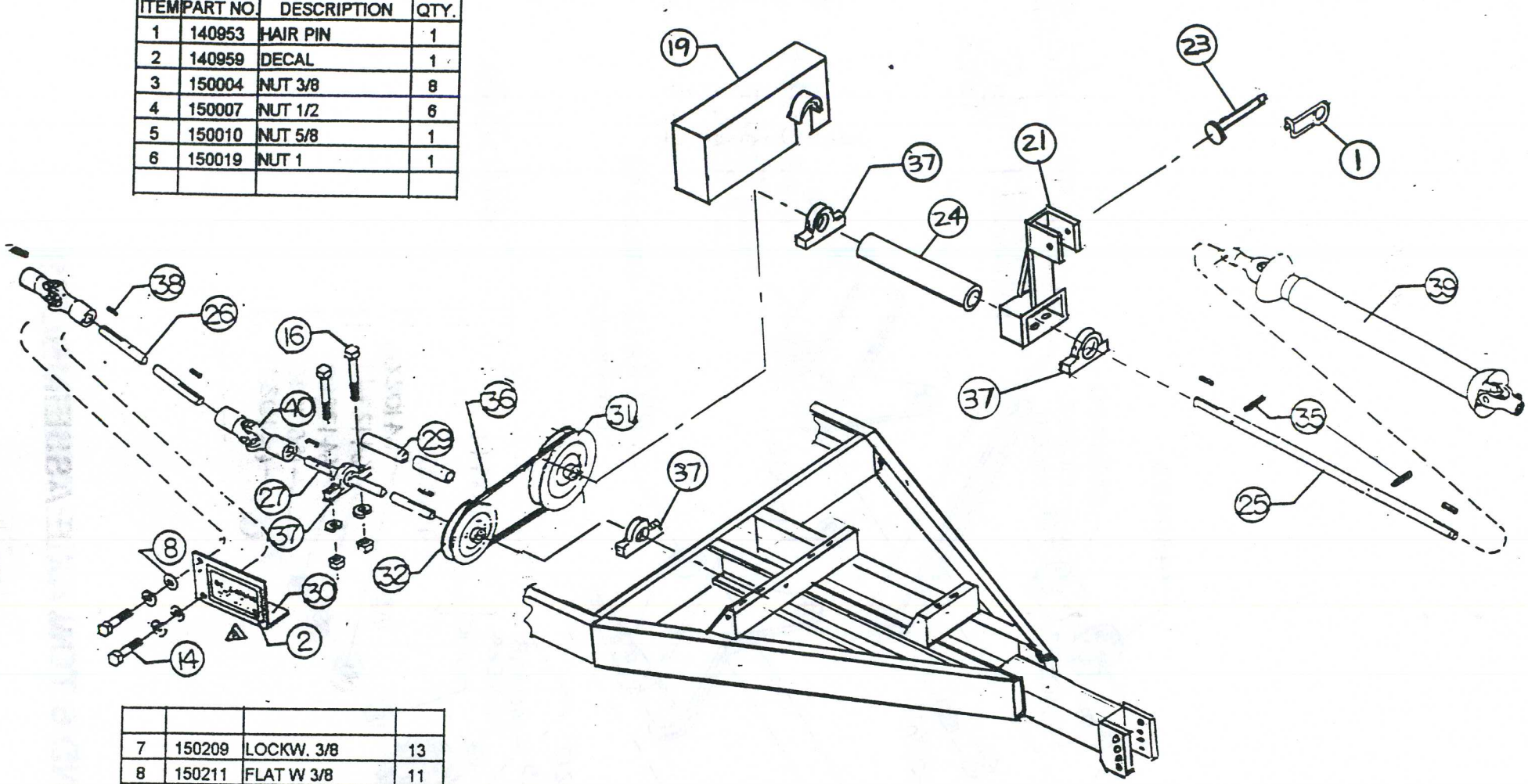


5 AND 6 TON FINAL ASSEMBLY

5 AND 6 TON FINAL ASSEMBLY PART NUMBERS AND DESCRIPTIONS

ITEM	PART NO.	DESCRIPTION	QTY.
1	641659	JACK (COMPLETE)	1
2	640702	SNAP RING	1
3	640771	REPAIR KIT JACK PIN	1
4	641699	REPAIR KIT JACK HANDLE	1
5	220086	HEX HD NUT 3/4 - 10	6
6	131016	LOCKWASHER 3/4	2
7	9429889	HH CAPSCREW 3/4-10 X 6 LG	2
8	621138	TONGUE CLEVIS	1
10	620542	FRONT ROLLER	1
11	640519	HEX HD BOLT 3/4 -10 X 7 LG	2
12	640079	BEARING TAKE-UP	2
13	140958	DECAL CAUTION	2
14	641415	DECAL MAINT. INSTRUCTION	1
15	610225	TARP ASSMY. 5 TON	1
	610259	TARP ASSMY. 6 TON	1
16	640986	VINYL TARP 5 & 6 TON	1
17	640042	TARP STRAP 9" 5 TON	16
	640044	TARP STRAP 15" 6 TON	16
18	640043	S" HOOK	32
19	620888	V-GUARD 400 STAIN. STEEL	1
20	120233	HEX HD CAPSCREW 3/8 X 16 X 1	4
21	120382	LOCKWASHER 3/8	12
22	120377	HEX HD NUT 3/8 - 16	8
24	155502	WHIZLOCK CAPSCREW 3/8 - 16 X 1	10
25	9411507	WHIZLOCK NUT 3/8 - 16	10
26	610370	DUAL SPINNER ASSMY.	1
	610371	SINGLE SPINNER ASSMY.	1
27	140959	DECAL BE CAREFUL	1
28	641324	DECAL SMV	1
33	610322	WHEEL 15 X 10 X 6 BOLT (5 TON)	4
	610235	WHEEL W11C - 16.1 (6 TON)	4
34	94497	VALVE STEM 5/8 DIA.	4
35	640461	11 X 15 X 8 PLY TIRE	4
	94492	12.5 L X 15 X 8 PLY TIRE	4
	94165	16.5 X 16 X 8 PLY TIRE	4
36	610500	SAFETY CHAIN	1
37	620531	TARP POLE	1
38	610091	5-TON TIRES MOUNTED 11 X 15	4
39	610325	5-TON TIRES MOUNTED 12.5 X 15	4
40	610436	6-TON TIRES MOUNTED 16.5 X 16	4

ITEM	PART NO.	DESCRIPTION	QTY.
1	140953	HAIR PIN	1
2	140959	DECAL	1
3	150004	NUT 3/8	8
4	150007	NUT 1/2	6
5	150010	NUT 5/8	1
6	150019	NUT 1	1



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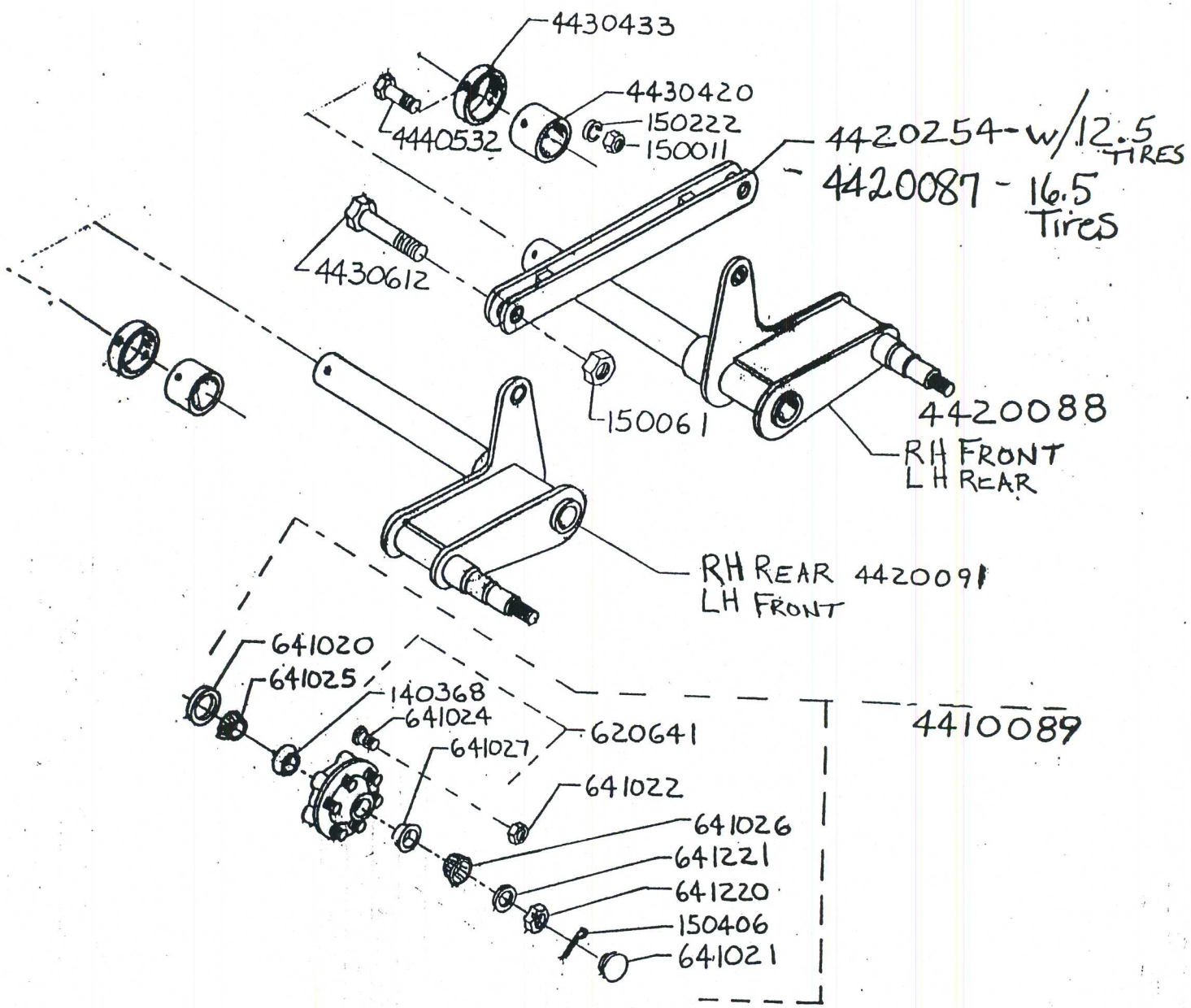
7	150209	LOCKW. 3/8	13
8	150211	FLAT W 3/8	11
9	150217	LOCKW 1/2	6
10	150219	FLAT W 1/2	6
11	150221	LOCK W 5/8	1
12	150223	FLAT W 5/8	3
13	151608	CPSCW 5/16 X 2	1
14	151803	CPSCW 3/8 X 1	5
15	151807	CPSCW 3/8 X H/2	6
16	151810	CPSCW 3/8 X H/4	2
17	152204	CPSCW 1/2 X 1-1/4	6
18	152413	CPSCW 5/8 X 3-3/4	1
19	4420255	PTO SHIELD	1
21	4420257	PTO HOLDER	1
23	4420256	PIN PTO NTG.	1
24	4431067	SHIELD FR.	1
25	4431066	SHAFT FR.	1

26	4430839	SHAFT REAR	1
27	635789	SHAFT SPIN.	1
29	635792	SHIELD SHAFT	1
30	635805	SHIELD G BOX	1
31	641794	PULLEY 5.25	1
32	641795	PULLEY 7.25	1
35	640038	ROLL PIN 5/16	2
36	640072	BELT 44	1
37	640511	BRG. PILLOWBL	4
38	641653	KEY 1/4X1/4X1-1/4	7
39	641666	PTO SHAFT	1
40	641667	UNIV. JOINT	2
41	641702	DECAL PTO	1

PTO SPINNER DRIVE

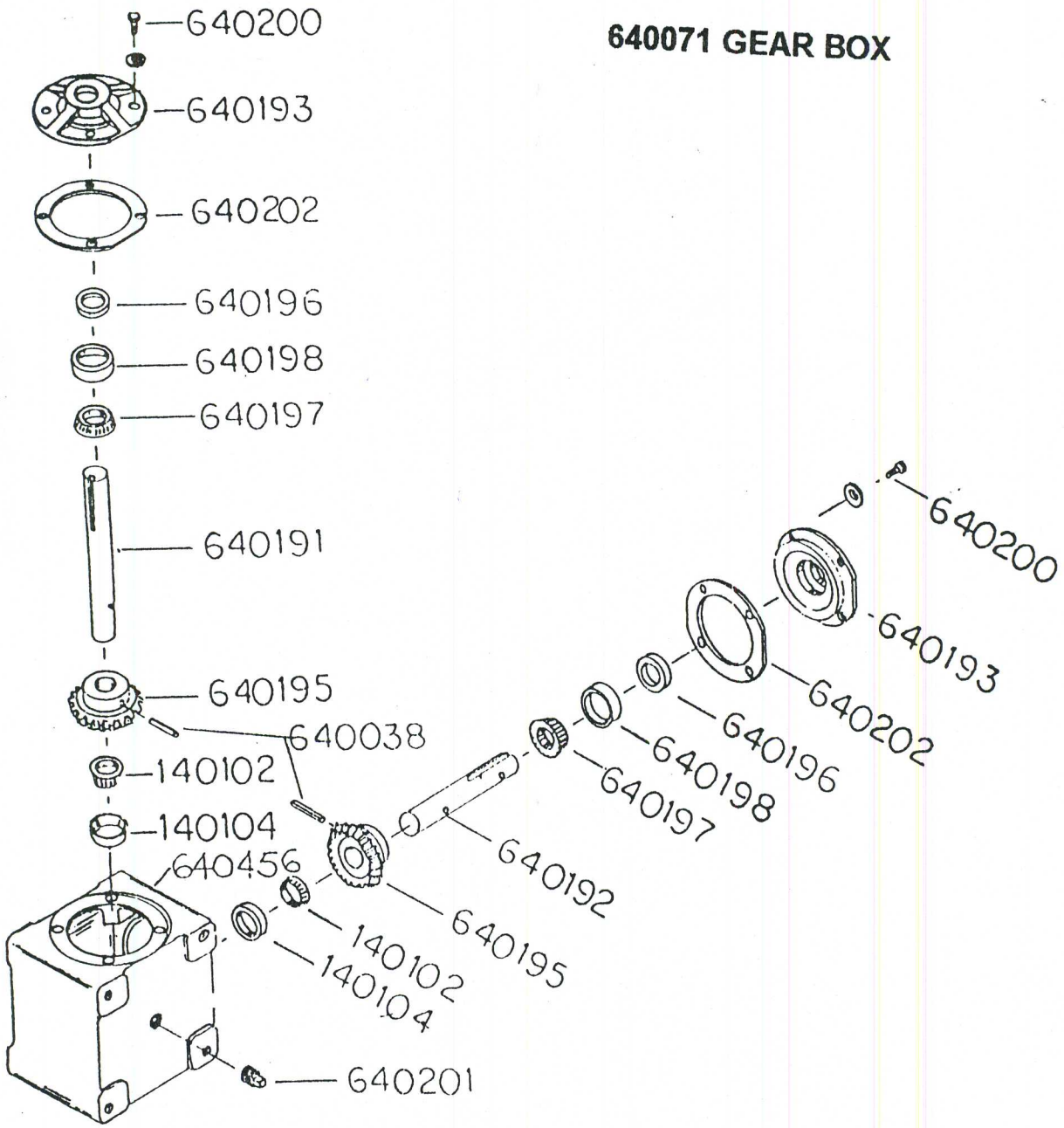
DUAL SPINNER



5 AND 6 TON AXLE ASSEMBLIES

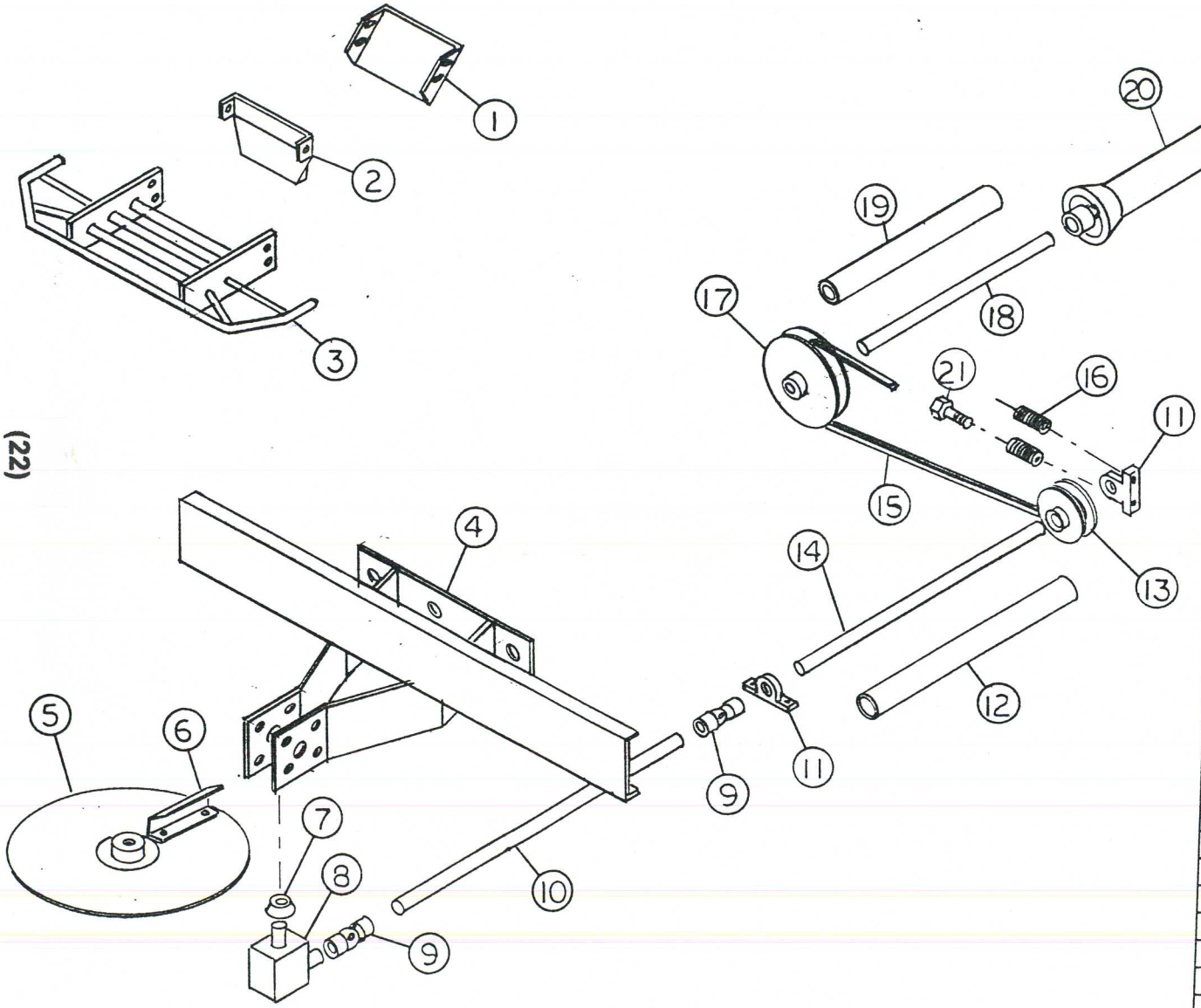
640071 GEARBOX

BEFORE JANUARY 1, 2000



640071 GEAR BOX

610371 SINGLE SPINNER



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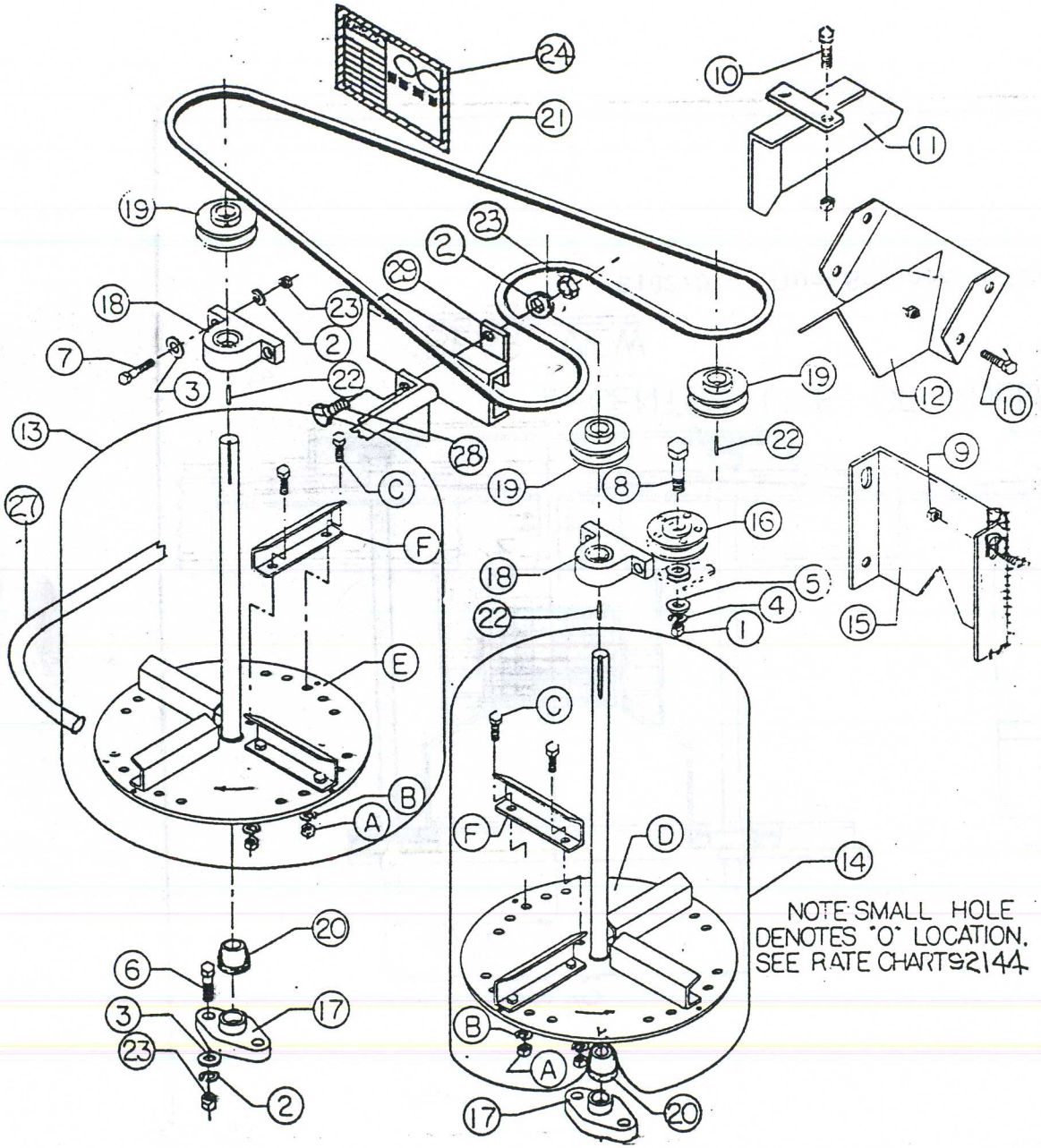
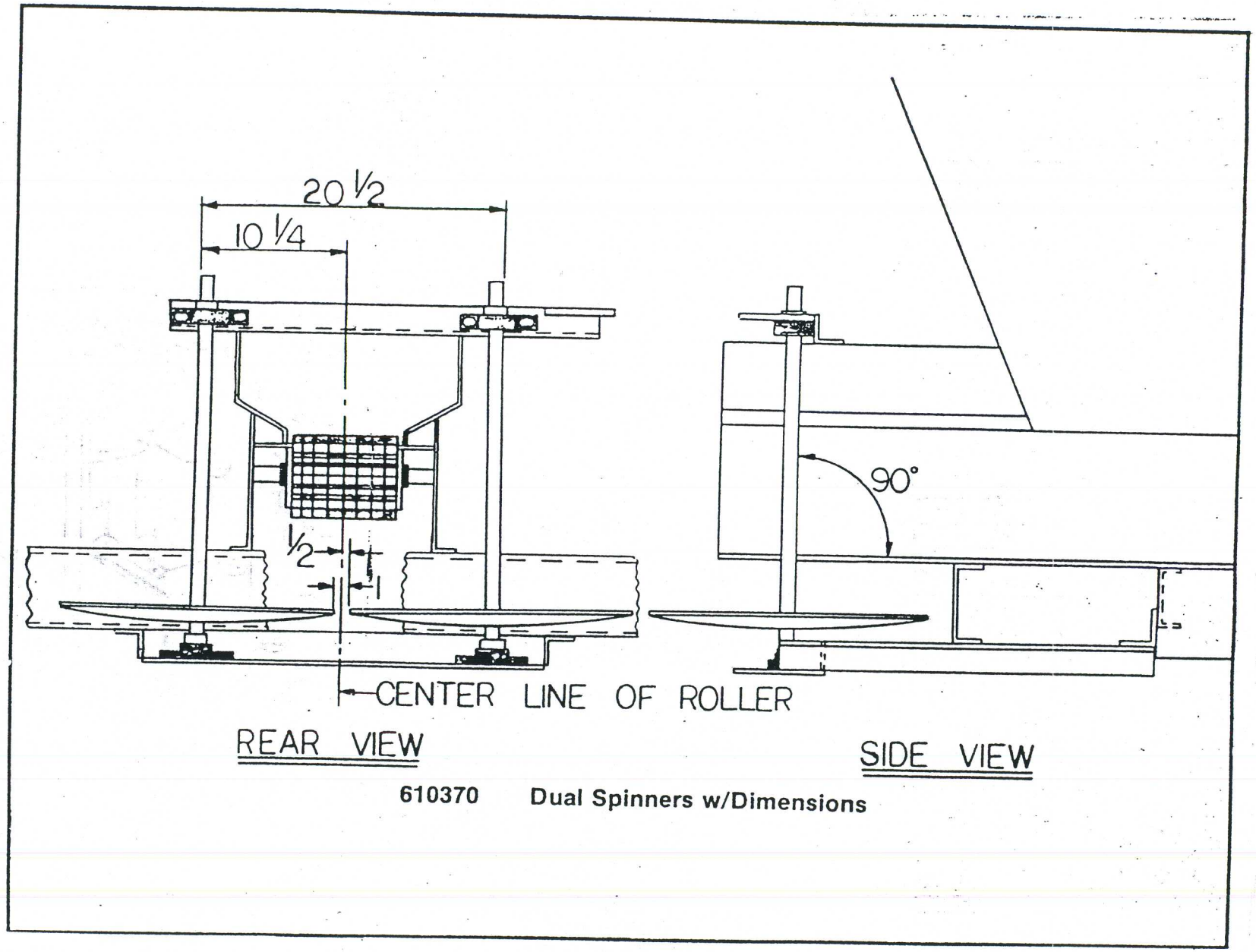
ITEM	PART NO.	DESCRIPTION	QTY.
1	631906	DEFLECTOR	1
2	620690 A	REAR DEFLECTOR	1
3	62800	BUMPER GUARD SGL SPR	1
4	621801	A-FRAME SGL SPR	1
5	621802	SPINNER SINGLE	1
6	635917	BLADE SPINNER	5
7	641296	DUST BOOT	1
8	640071-215	GEARBOX	1
9	641667	UNIVERSAL JOINT	2
10	631200	SHAFT, REAR SGL SPNR	1
11	640511	BEARING, PILLOW BLK	4
12	635792	SHIELD SHAFT	1
13	64179-5	PULLEY, 5.25	1
14	635789	SHAFT, SPINNER	1
15	640072	BELT 44	1
16	1001636	SPRING	2
17	641794	PULLEY, 7.25	1
18	4431065	SHAFT, FRONT	1
19	4431067	SHIELD, FRONT	1
20	641666	PTO SHAFT	1
21	151814	BOLT, 3/8 X 7	2

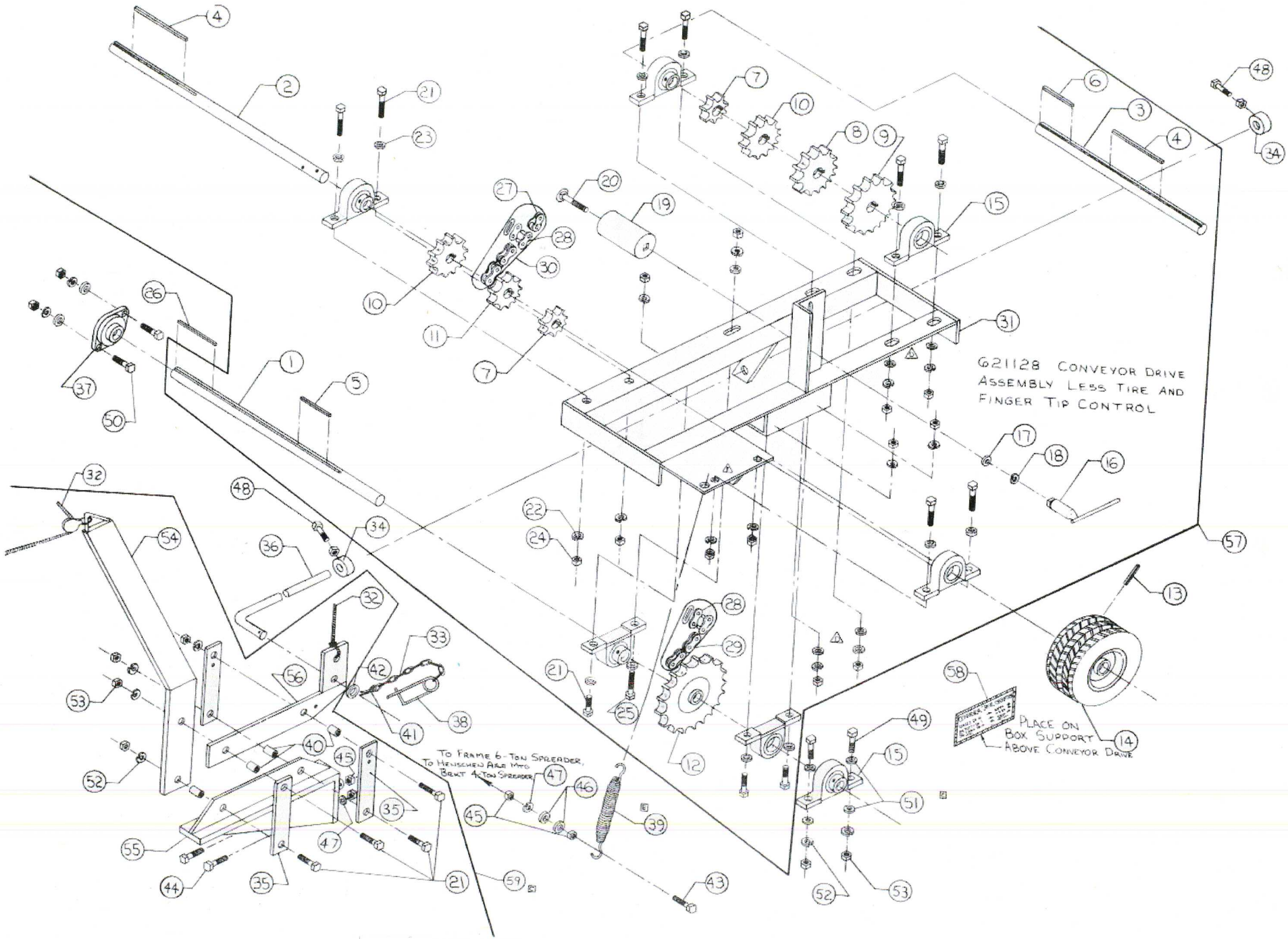


ITEM	PART NO.	DESCRIPTION	QTY.
1	124589	NUT 5/8	1
2	120382	LOCKWASHER 3/8	8
3	120394	FLAT WASHER 3/8	8
4	121574	LOCKWASHER 5/8	1
5	130999	FLATWASHER 5/8	3
6	120918	CAPSCREW 3/8 X 1-1/2	4
7	122168	CAPSCREW 3/8 X 1-3/4	4
8	TT152408	CAPSCREW 5/8 X 2-1/2	1
9	TT155000	NUT 3/8 WF	10
10	155502	CAPSCREW 3/8 X 1	10
11	621060	SHIELD DIVIDER	1
12	621161	DEFLECTOR V	1
13	621162	SPINNER L W/HD	1
14	621163	SPINNER R W/HD	1
A	150046	NUT 3/8 SS	16
B	TT155248	LOCKWASHER 3/8 SS	16
C	151834	CAPSCREW 3/8 X 3/4 SS	16
D	620536	RIGHT SPINNER	1
E	620537	LEFT SPINNER	1
F	635917	SPINNER BLADE	8
15	635920	DFL REAR	1
16	640032	IDLER SHEAVE	1
17	640034	BRG FLANGE	2
18	640511	BRG. FLANGE	2
19	640788	PULLEY 5"	3
20	641296	DUST BOOT	2
21	641327	BELT BB85	1
22	93461	KEY 1/4 X 1/4 X 1-1/4	3
23	120377	NUT 3/8	10
24	641697	DECAL RATE	1
25	127866	SETSCREW 5/16	3
26	126376	NUT 5/16	3
27	620905	BUMPER DUAL	1
28	122207	BOLT 3/8 X 3	4
29	631561	CLAMP PLATE	2

610370 DUAL SPINNER ASSEMBLY



610370 Dual Spinners w/Dimensions



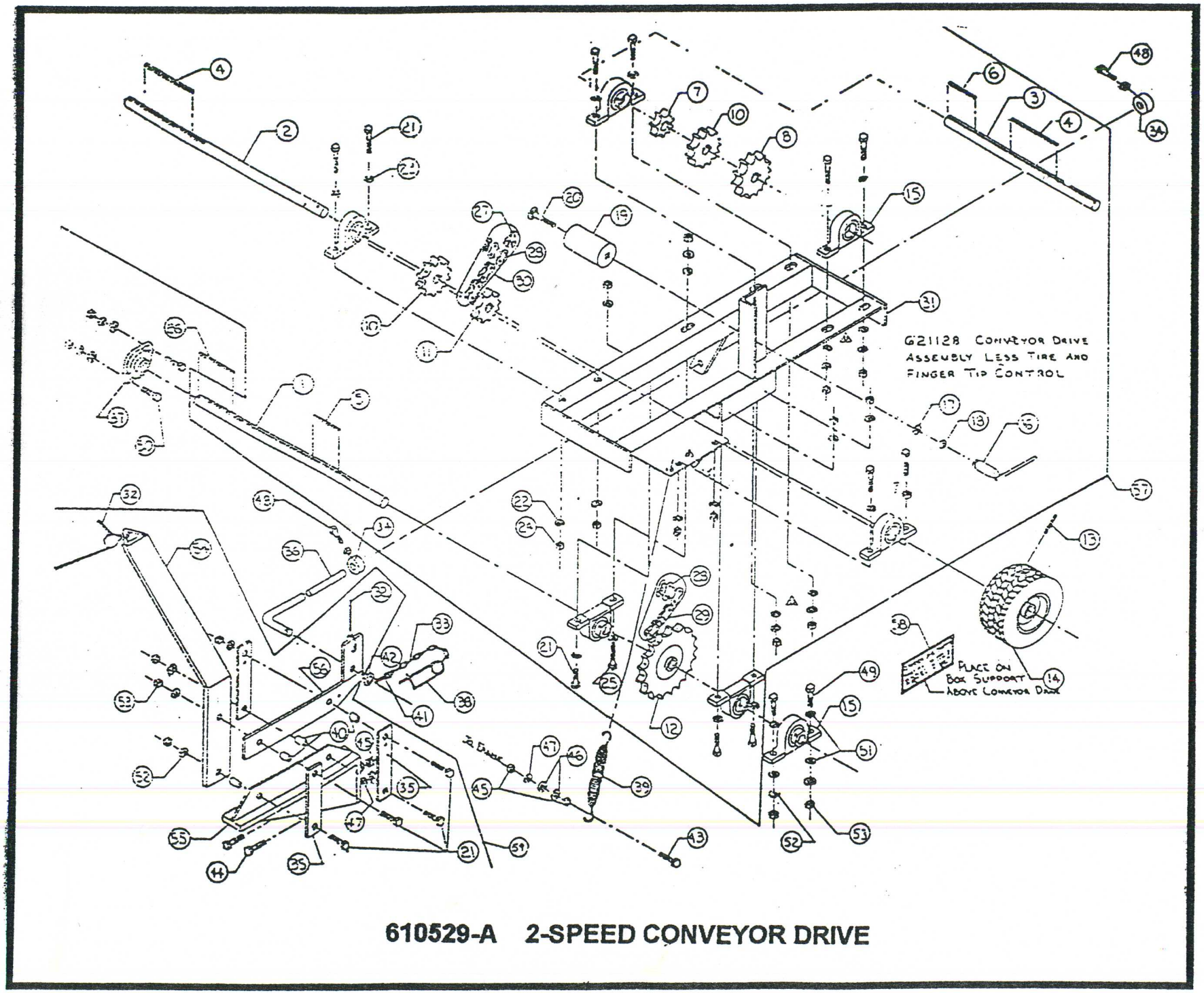
(59) 621160 FINGERTIP CONTROL ASSMY.

610529 **3-SPEED CONVEYOR DRIVE**

3 - SPEED CONVEYOR DRIVE

ITEM	PART NO.	DESCRIPTION	QTY.
1	635424	DRIVE SHAFT	1
2	635851	SHAFT, CONV. DRIVE	1
3	635422	COUNTER SHAFT	1
4	641680	KEY, 1/4 X 1/4 X 4-1/4	2
5	641652	KEY, 1/4 X 1/4 X 1-1/2	1
6	641653	KEY, 1/4 X 1/4 X 1-1/4	1
7	640012	SPROCKET, 12 T	2
8	641678	SPROCKET, 30 T	1
9	640011	SPROCKET, 36 T	1
10	640234	SPROCKET, 24 T	2
11	641677	SPROCKET, 15 T	1
12	640010	SPROCKET, 54 T	1
13	640038	ROLL PIN, 5/16 X 1-1/4	1
14	641676	TIRE/WHEEL, 13 X 5	1
15	640511	PILLOW BLOCK BRG.	7
16	621126	HANDLE TIGHTENER	1
17	150215	FLATWASHER, 7/16	1
18	150213	LOCKWASHER, 7/16	1
19	621125	TIGHTENER, CHAIN	1
20	152014	BOLT, 7/16 X 1-1/2 CARR.	1
21	151810	BOLT, 3/8 X 1-3/4	15
22	150209	LOCKWASHER, 3/8"	12
23	150211	FLATWASHER, 3/8	17
24	150004	NUT, 3/8" HEX	12
25	151833	BOLT, 3/8 X 4	1
26	641454	KEY, 1/4 X 1/4 X 2	1
27	640100	OFFSET LINK	1
28	640074	CONNECTING LINK	2
29	635853	ROLLER CHAIN, 68 P	1

ITEM	PART NO.	DESCRIPTION	QTY.
30	635852	ROLLER CHAIN,	1
31	621127	FRAME CONVEYOR DR.	1
32	130211	TRIP ROPE	2
33	630035	CHAIN, LOCK PIN	1
34	631298	COLLAR	2
35	635142	BRACKET	3
36	635670	CONTROL ROD	1
37	640034	BEARING FLANGE	1
38	641474	LOCK PIN	1
39	641698	SPRING 36 COIL	1
40	640040	BUSHING	4
41	150406	COTTER PIN, 1/8 X 2	1
42	150223	FLATWASHER, 1/8	1
43	152223	BOLT, 1/2 X 2	1
44	152204	BOLT, 1/2 X 1-1/4	2
45	150008	NUT, 1/2" NC PLTD.	4
46	150220	FLATWASHER, 1/2 PLTD	2
47	150218	LOCKWASHER, 1/2 PLTD	3
48	150617	SET SCREW, 3/8 X 1	2
49	151811	BOLT, 3/8 X 2 PLTD	2
50	151805	BOLT, 3/8 X 1-1/4	2
51	150212	FLATWASHER, 3/8 PLTD	6
52	150210	LOCKWASHER, 3/8 PLTD.	8
53	150005	NUT, 3/8" PLTD	10
54	620844	DISCHARGE LEVER	1
55	621102	MOUNT FINGER TIP CONT	1
56	620013	FINGER TIP CONTROL	1
57	300005	CONVEYOR DR. ASSMY. LESS TIRE & ETC.	1
58	641682	DECAL CONV. DRIVE	1
59	621160	FINGER TIP CONT.	1



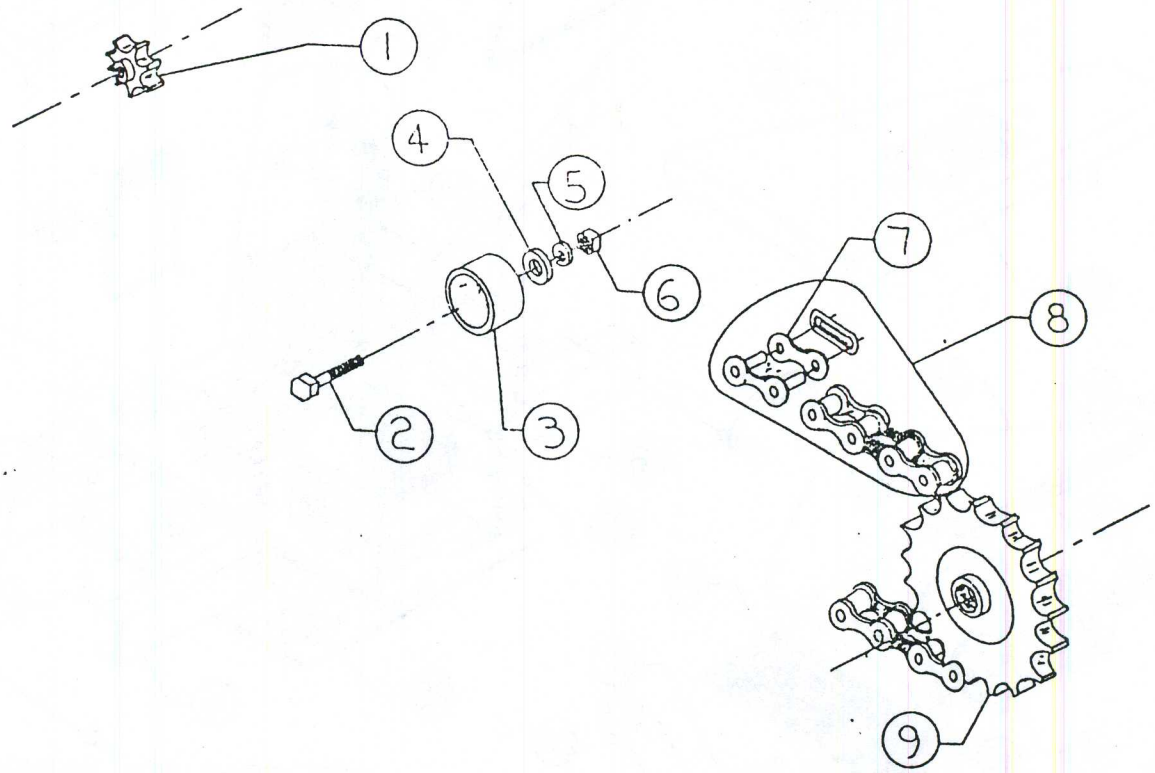
610529-A 2-SPEED CONVEYOR DRIVE

2-SPEED CONVEYOR DRIVE PART NUMBERS & DESCRIPTION

ITEM	PART NO.	DESCRIPTION	QTY.
1	635424	DRIVE SHAFT	1
2	635851	SHAFT,CONV. DRIVE	1
3	635422	COUNTER SHAFT	1
4	641680	KEY 1/4 X 1/4 X 4-1/4	2
5	641652	KEY 1/4 X 1/4 X 1-1/2	1
6	641653	KEY 1/4 X 1/4 X 1-1/4	1
7	640012	SPROCKET, 12 T	1
8	641678	SPROCKET, 30 T	1
10	640234	SPROCKET, 24 T	2
11	641677	SPROCKET, 15 T	1
12	640010	SPROCKET, 54 T	1
13	640038	ROLL PIN 5/16 X 1-3/4"	1
14	641675	TIRE 13 X 5 X 6	1
15	640511	BRG. PILLOW BLOCK	7
16	621126	HANDLE TIGHTNER	1
17	150212	FLATWASHER 3/8	1
18	150210	LOCKWASHER 3/8	1
19	621125	CHAIN TIGHTENER	1
20	151807	CAPSCREW 3/8X1/2	1
21	151810	CAPSCREW 3/8X1-3/4	15
22	150209	LOCKWASHER 3/8	12
23	150211	FLATWASHER 3/8	17
24	150004	NUT 3/8 HEX	12
25	151833	CAPSCREW 3/8 X 1-1/4	1
26	641654	KEY 1/4 X 1/4 X 2	1
27	640100	OFFSET LINK	1
28	640074	CONNECTING LINK	2
29	635853	CHAIN RLLR 50-68 P	1
30	635852	CHAIN RLLR 50-83 P	1

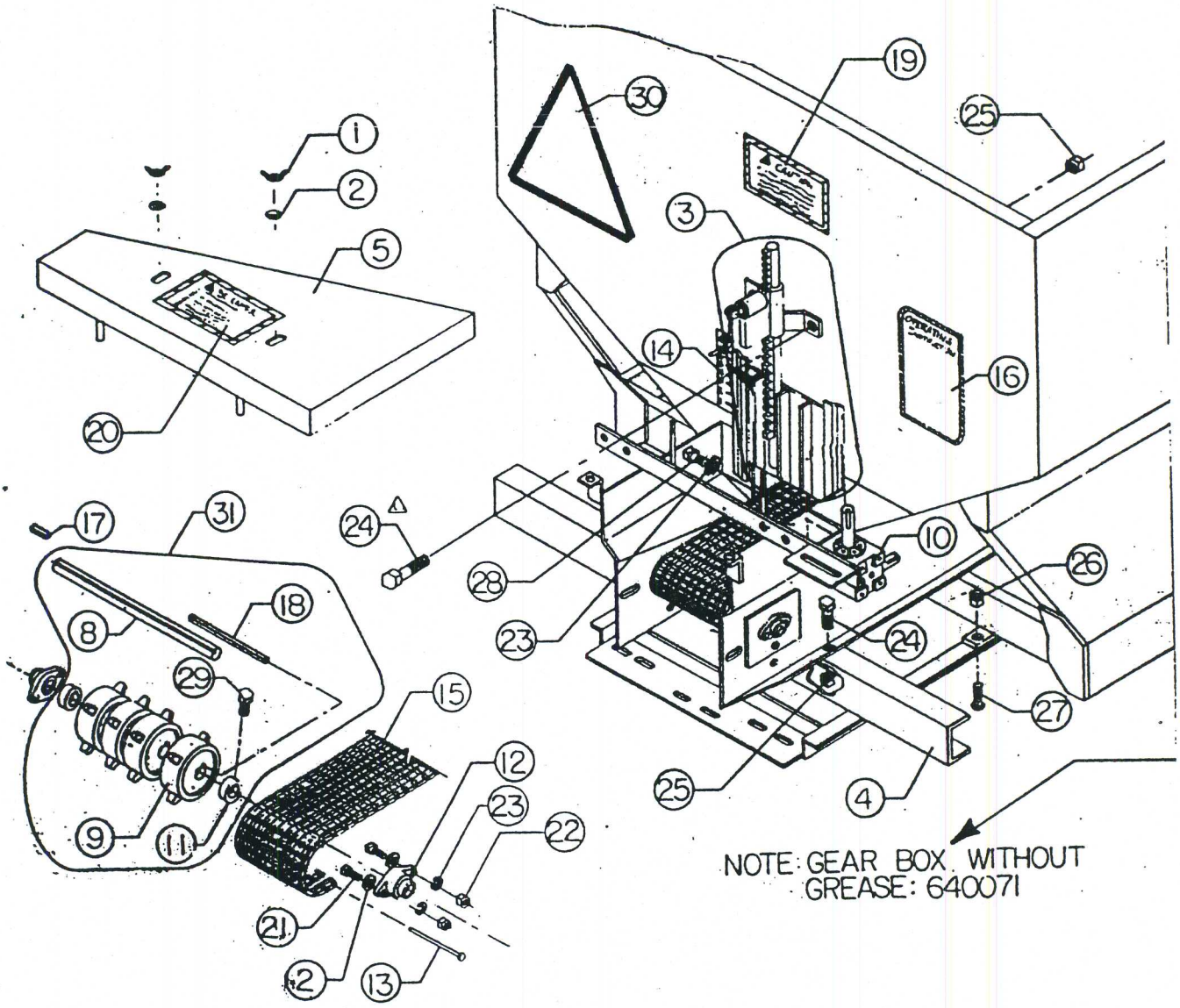
ITEM	PART NO.	DESCRIPTION	QTY.
31	621127	FRAME CONV. DRIVE	1
32	130211	TRIP ROPE	2
33	630035	CHAIN LOCK PIN	1
34	631295	COLLAR	2
35	635142	BRACKET	3
36	635670	CONTROL ROD	1
37	640034	BRG. FLANGE 1"	1
38	641474	LOCK PIN	1
39	641698	SPRING, 36 COIL	1
40	640040	BUSHING	4
41	130406	COTTER PIN	1
42	150223	FLATWASHER	1
43	152223	CAPSCREW 1/2 X 2	1
44	152204	CAPSCREW 1/2 X 1-1/4	2
45	150008	NUT 1/2 NC PLT	4
46	150220	FLATWASHER 1/2 PLTD	2
47	150218	LOCKWASHER 1/2	3
48	150617	SETSCREW 3/8 X 1	2
49	151811	CAPSCREW 3/8 X 2	2
50	151805	CAPSCREW 3/8 X 1-1/4"	2
51	150212	FLATWASHER 3/8 PLTD	6
52	150210	LOCKWASHER 3/8	8
53	150005	NUT 3/8	10
54	620844	DISCHARGE LEVER	1
55	621102	MNT FINGERTIP COVER	1
56	620013	FINGERTIP CONTROL	1
57	621128	CONV.DR ASMY L/TIRE	1
58	641682	DECAL CONV. DRIVE	1
59	621160	FINGERTIP CONT.	1

610531 S.S. ROLLER CHAIN DRIVE



ITEM	PART NO.	DESCRIPTION	QTY.
1	140061	SPROCKET, 18 T - 50	1
2	151805	CAPSCREW 3/8 X 1-1/4	1
3	621129	CHAIN TIGHTENER	1
4	150212	FLATWASHER 3/8 PLT	1
5	150210	LOCKWASHER 3/8 PLT	1
6	150005	NUT, 3/8 NC PLT	1
7	641318	CONN. LINK	1
8	635858	CHAIN R 170P SS	1
9	640011	SPROCKET, 36 T - 50	1

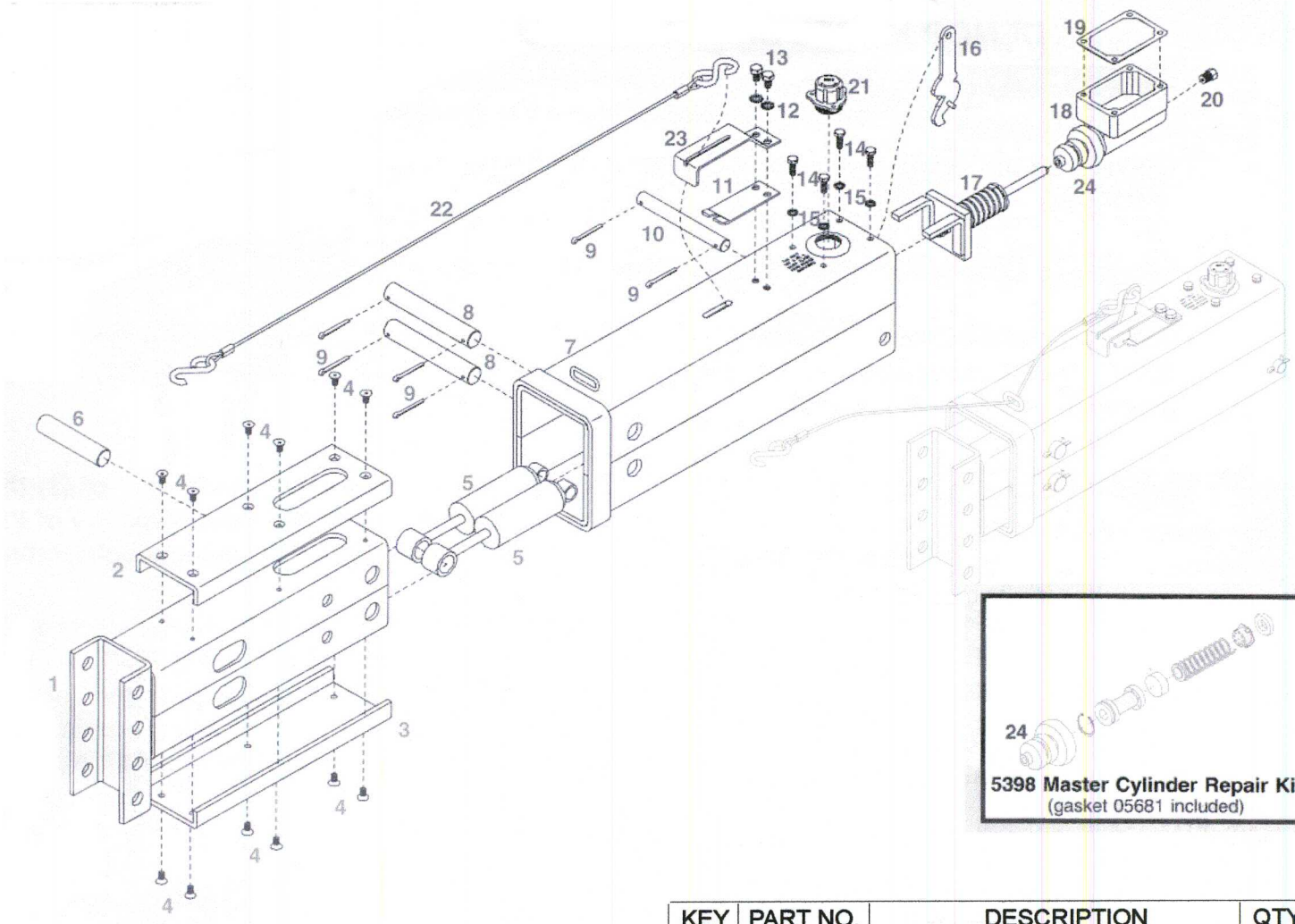
610508-B SPREADER REAR VIEW



ITEM	PART NO.	DESCRIPTION	QTY.
1	150044	WING NUT 3/8	2
2	150212	FLATWASHER 3/8	2
3	621175	DOOR	1
4	620538	A-FRAME ASSMY.	1
5	620764	REAR BELT COVER	1
8	630899	REAR SHAFT	1
9	630900	SPROCKET 7	4
10	631069	GEAR BOX	1
11	635693	SET COLLAR	2
12	640034	BRG. 1" FLANGE	2
13	640175	CONNECTOR PIN	1
14	640588	SET CHART	1
15	640979	APRON CHAIN	1
16	641413	DECAL OPERATIONS	1

17	641653	KEY 1/4X1/4X1-1/4	1
18	641655	KEY 1/4X1/4X6-12	1
19	140958	DECAL CAUTION	1
20	140959	DECAL BE CAREFUL	1
21	151807	CPSCW 3/8 X 1-1/2	4
22	150005	NUT 3/8	4
23	150210	LOCKWASHER 3/8	8
24	155502	CPSCW 3/8 X 1 WHIZ	4
25	155000	NUT 3/8 WHIZLOCK	4
26	155002	NUT 1/2 WHIZLOCK	2
27	152221	CAR. BOLT 1/2 X 1-1/2	2
28	151801	CPSCW 3/8 X 1	4
29	150613	SETSCREW 3/8 X 5/8	2
30	641324	DECAL SMV	1
31	620650	RR ROLLER	1

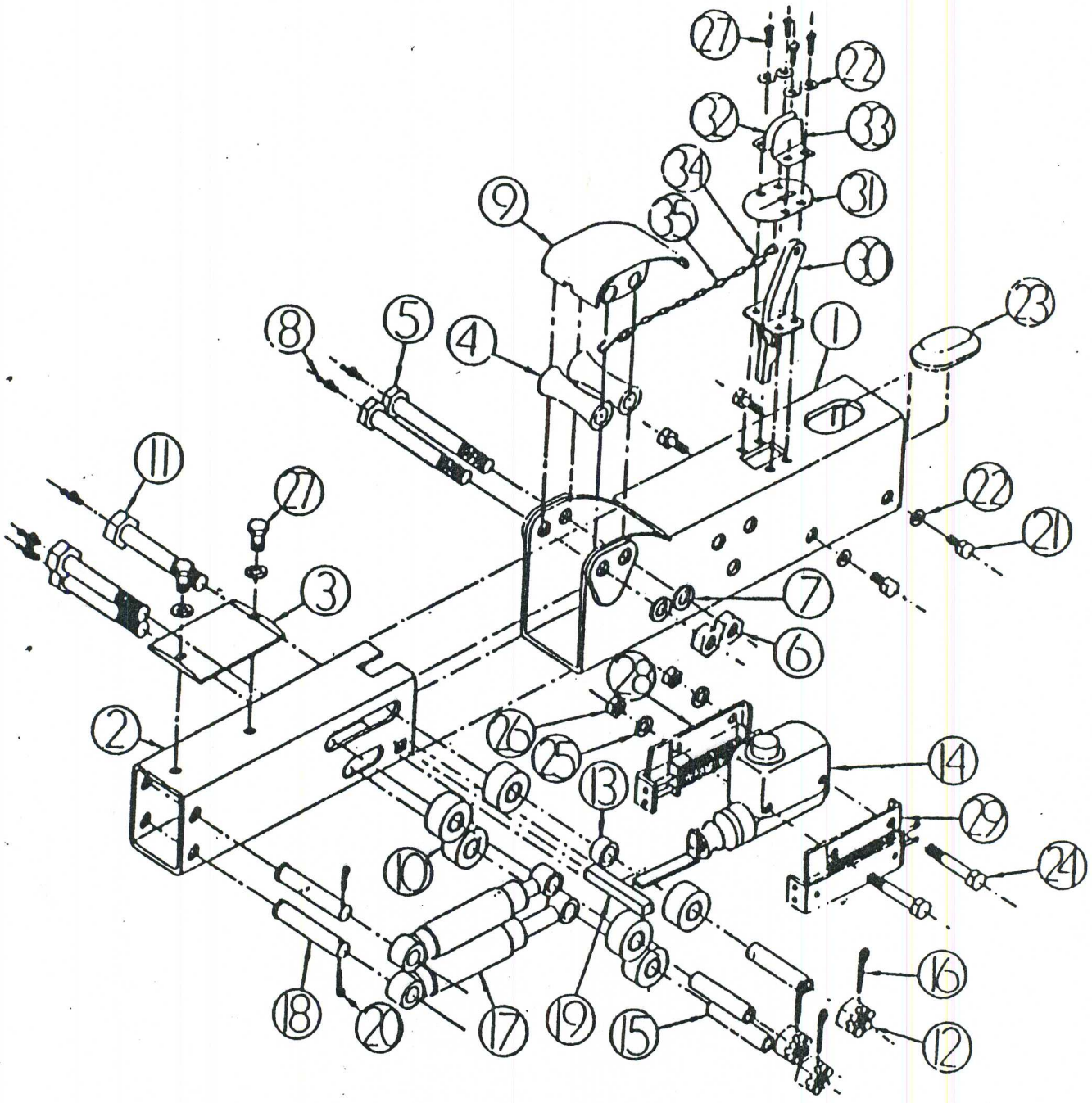
621811 - MODEL DA20 ACTUATOR
"AFTER JANUARY 1, 2001"



KEY	PART NO.	DESCRIPTION	QTY.
	621811	DA20-INCLUDES COMPLETE UNIT W/ADJ. CHANNEL	1
1	641824	INNER SLIDER TB. CHANNEL UP/DOWN(CHANNEL DOWN SHOWN)	1
	641825	INNER SLIDER TUBE CHANNEL CENTERED	1
2	641826	TOP WEAR PAD	1
3	641827	BOTTOM WEAR PAD	1
4		TORX CAPSCREW, FLATHEAD, 1/4" X 1/2"	12
5	641828	DAMPER SHOCK	2
6	641829	FRONT SHOCK PIN	1
7	641830	OUTER CASE	1
8	641831	CONNECTING PIN	2
9		COTTER PIN, 5/32" X 1-1/4"	6
10	641832	REAR SHOCK PIN	1
11	641833	EMERGENCY LEVER SPRING	1
12		5/16" EXTERNAL TOOTH LW	2

KEY	PART NO.	DESCRIPTION	QTY.
13		HEX HEAD BOLT, GR. 5 5/16"-18 UNC X 1/2"	2
14		HEX HEAD BOLT, GR. 5 1/4-20 UNC X 3/4"	4
15		LOCKWASHER, 1/4"	4
16	641834	EMERGENCY LEVER	1
17	641835	PUSH ROD ASSEMBLY	1
18	641836	MASTER CYLINDER WITH GASKET	1
19	641837	REPLACEMENT MASTER CYL. GASKET ONLY	1
20	641838	INVERTED FLARE FITTING, 1/8" PIPE - 3/16"	1
21	641839	MASTER CYL CAP W/DIAPHRAM & ORING	1
22	641840	3/32" CABLE W/HOOKS (BOTH ENDS)	1
23	641841	LEVER GUIDE	1
24	641842	MASTER CYL. PROTECTIVE BOOT	1
25	641843	MASTER CYL REPAIR KIT W/GASKET	1

MODEL 20 ACTUATOR



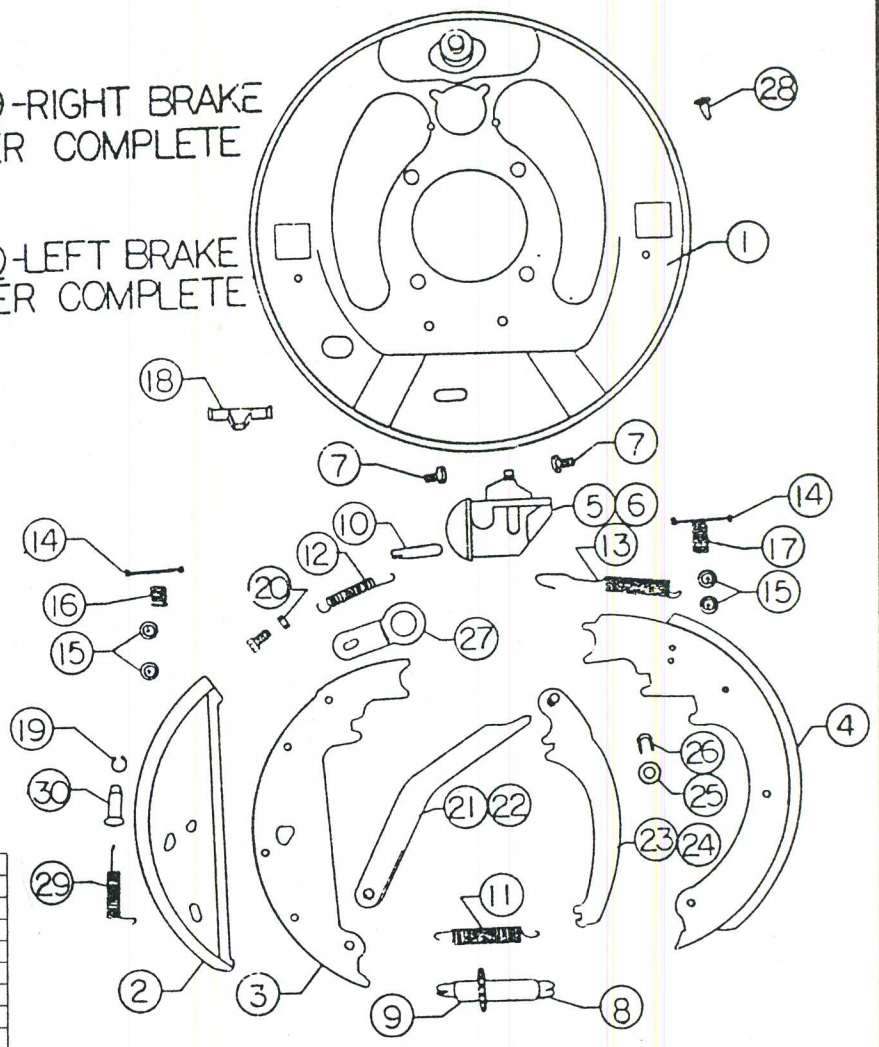
MODEL 20 ACTUATOR PARTS LIST

KEY NO.			DESCRIPTION	QTY.
1	10553		OUTER CASE ASSMY.	1
1	17349		OUTER CASE ASSMY.	1
2	15563	641058	INNER SLIDE ASSMY.	1
2	17350		INNER SLIDE ASSMY. W/2-5/169" DROP COUPLER	1
3	8284	641059	CENTERING RAIL	1
4	16019	641060	FRONT ROLLER	2
5	8288	641061	FRONT ROLLER BOLT, 5/8 X 4-3/8 X 1/2 NC	2
6	7985	150008	NUT - HEX, 1/2" NC	2
7	7937	150218	LOCKWASHER, 1/2" STD.	2
8	1449-01		GREASE FITTING	4
9	8289	641062	FRONT ROLLER COVER	1
10	8291	641063	REAR ROLLER ASSMY.	6
11	8294	641064	REAR ROLLER BOLT, 5/8" NF X 5	2
12	7971	641065	SLOTTED NUT, 5/8" NF	3
13	3328	641066	SPACER	1
14	23744	641205	MASTER CYLINDER ASSMY., 1-1/4" BORE	1
14	12503		FILLER CAP(INCLUDED IN 23744)	1
15	8297	641068	SPACER	3
16	7994	151963	COTTER PIN, 1/8" X 1-1/4"	3
17	7784	641069	DAMPER	2
18	8298		DAMPER BAR	2
19	8301	641071	PUSH ROD BLOCK	1
20	7997		COTTER PIN, 1/8 X 3/4	2
21	7948		BOLT, HEX 5/16 NC X 1/2	4
22	12489		LOCKWASHER, 5/196 EXTERNAL STAR	4
23	15070		CYLINDER COVER	1
24	8271		BOLT, HEX 3/8 NC X 3	2
25	12552		LOCKWASHER, 3/8" EXTERNAL STAR	2
26	7976		NUT, HEX 3/8 NC	2
27	7949		BOLT, HEX 5/16 NC X 5/8	6
28	8388	641073	CYLINDER BRACKET ASSMY - RIGHT	1
29	8389	641074	CYLINDER BRACKET ASSMY - LEFT	1
30	10541		BRAKE LEVER ASSMY	1
31	10552	641076	WEATHER SEAL	1
32	10527		BREAKAWAY LOCK - RIGHT	1
33	10526		BREAKAWAY LOCK - LEFT	1
34	10555		S-HOOK	2
35	7768		CHAIN	1
36	12976		INNER SLIDE ASSMY W/3" LUNETTE EYE	1
37	10582		INNER SLIDE ASSMY W/CHANNEL	1
38	18078		CLEVIS FOR 1" PIN	1
39	9093		BOLT, HEX 5/8 NC X 4-1/2	3
41	10405		LOCKNUT, HEX 5/8 NC	3
41	7938		LOCKWASHER, 5/16 STD.	6
42	12099		CONNECTOR, 1/64 ORIFICE	1
43	7745		GASKET	1
44	12788		INNER SLIDE ASSMY W/2-5/16" COUPLER	1
45	18820		ADJUSTABLE COUPLER, 2-5/16"	1
46	16137		ADJUSTABLE LUNETTE EYE, 3"	1
47	8295		REAR ROLLER BOLT, 5/8 NF X 5	1
48	40331		INNER SLIDE W/MANUAL PIN LOCK COUPLER(REFERENCE ONLY)	1
	10187		1-1/4" MASTER CYLINDER RPR KIT WAGNER FC - 3613	1
	18487		2-5/16" BALL COUPLER REPAIR KIT	1

641029 & 641030 13" BRAKE CLUSTER - - 6 TON

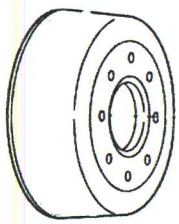
641029-RIGHT BRAKE CLUSTER COMPLETE

641030-LEFT BRAKE CLUSTER COMPLETE

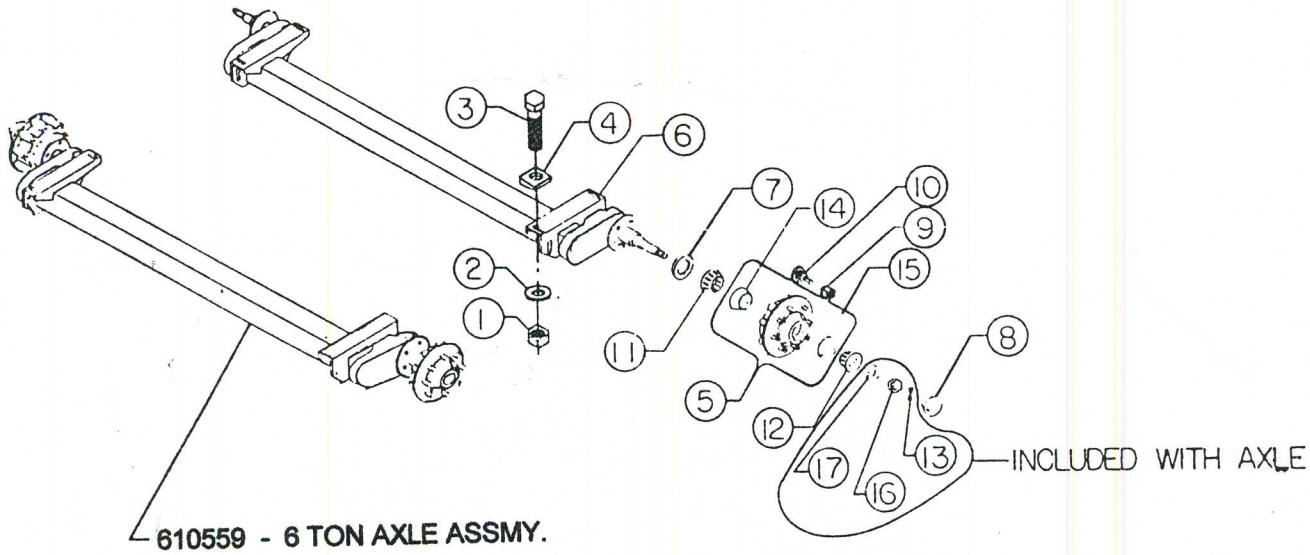


KEY	PART NO.	DESCRIPTION	QTY.
1	641588	BACK PLATE ASSMY.	1
2	641589	BRAKE SHOE ASSMY.	1
3	641590	F SHOE LEVER	1
4	641591	R SHOE ASSMY.	1
5	641592	WHEEL CYLINDER RT	1
6	641593	WHEEL CYLINDER LT	1
7	641594	SCREW X LOCKWASHER	2
8	641595	PIVOT NUT	1
9	641596	SOCKET ADJ. SCREW	1
10	641597	PUSH ROD	1
11	641598	SPRING ADJ SCREW (YEL)	1
12	641599	SPRING FRT LEVER (RED)	1
13	641600	SPRING RR SHOE (ORG)	1
14	641601	PIN - SHOE HOLDN	2
15	641602	CUP - SHOE HOLDN	4
16	641603	SPRING FRT HOLDN (YEL)	1
17	641604	SPRING RR HOLDN (BLK)	1
18	641605	COVER PLATE	1
19	641606	RETAINING RING	1
20	150019	NUT, 5/16 TOP LOCK	1
21	641608	TOGGLE LINK RT	1
22	641609	TOGGLE LINK LT	1
23	641610	PARKING LEVER RT	1
24	641611	PARKING LEVER LT	1
25	641612	SPRING WASHER	1
26	641613	RETAINER	1
27	641615	TRAVEL LINK	1
28	641619	PLUG PLASTIC	2
29	641098	SPRING FRT SHOE	1
30	641617	PIN FRT SHOE NO PARK	1

641028 - BRAKE DRUM



610559 6 TON AXLE ASSEMBLY

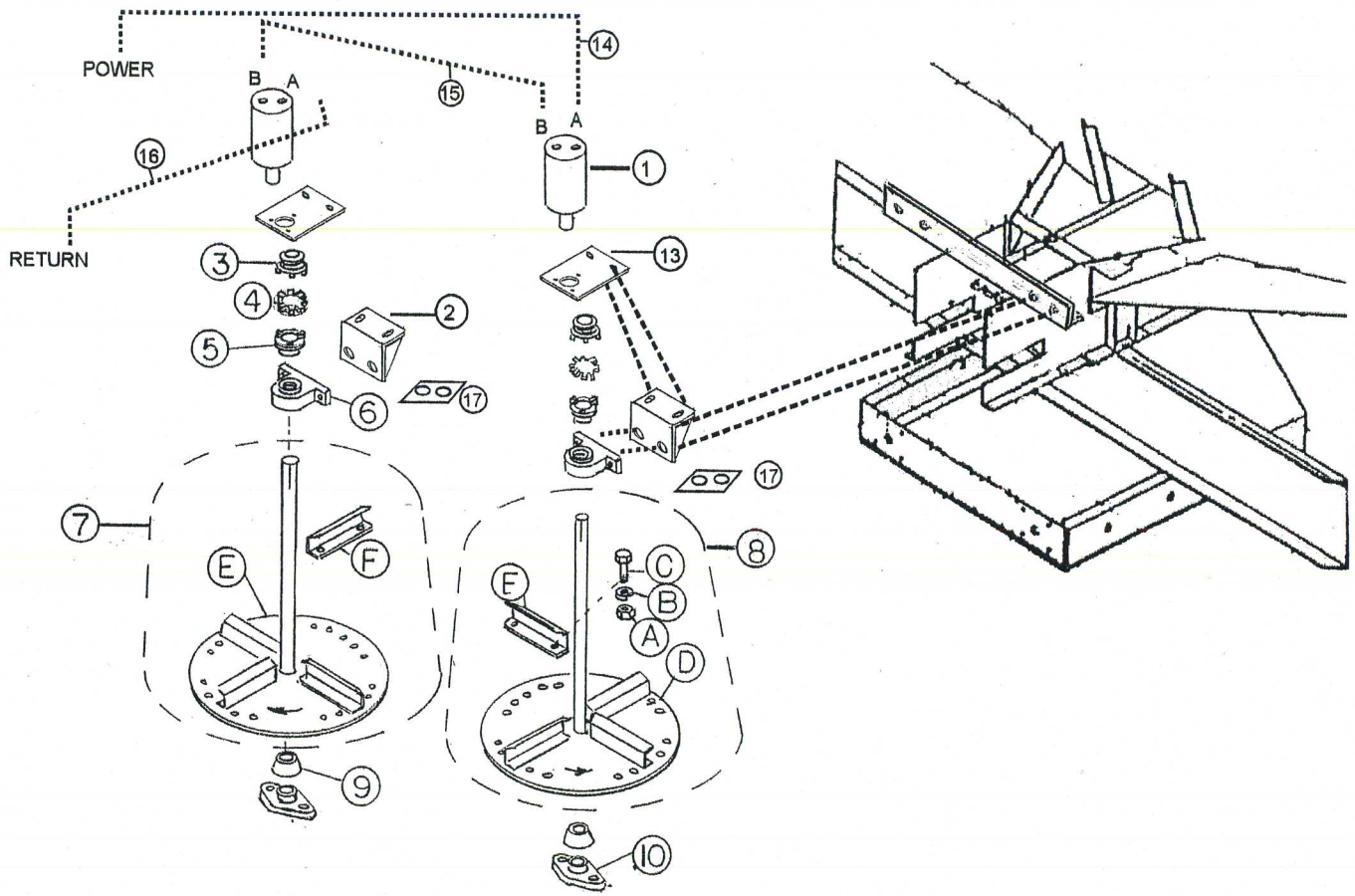


610559 - 6 TON AXLE ASSMY.

NO.	PART NO.	DESCRIPTION	QTY.
1	121358	NUT, 5/8" TOPLOCK	4
2	130999	FLATWASHER, 5/8"	4
3	152450	CAPSCREW, 5/8 X 1-3/4	4
4	157501	WASHER, 5/8" BEVEL	4
5	620641	8 BOLT HUB/CUPS	2
6	641819	HENCHEN AXLE	1
7	641019	GREASE SEAL	2
8	641020	HUB CAP	2

9	641022	WHEEL NUT	16
10	641024	HUB BOLT	16
11	641025	BEARING	2
12	641026	BEARING	2
13	150406	COTTER PIN, 1/8 X 2	2
14	140185	BEARING CUP	2
15	641027	RACE	2
16	140363	SPINDLE NUT, 1"	2
17	140364	SPINDLE WASHER	2

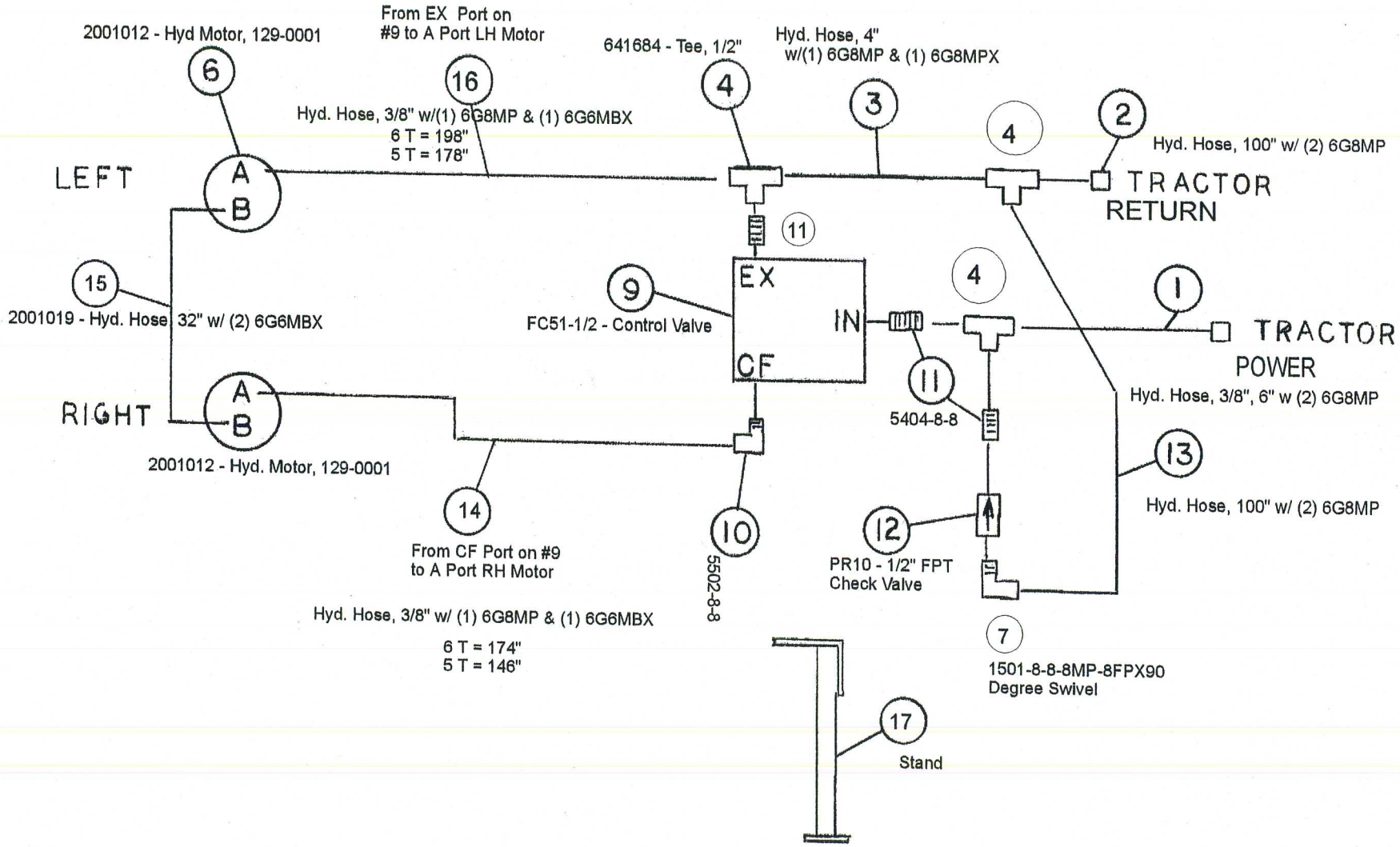
TOTE - TRACTOR DRIVEN REAR AREA AS OF JULY 2002



ITEM	P/N	DESCRIPTION	QTY.
1	2001012	ORBIT MOTOR	2
2	2001013	TOP BRACKET	2
3	1008462	COUPLER HUB, 5/8" ID	2
4	1008464	CHAIN COUPLER, #60	2
5	1008463	COUPLER HUB, 1" ID	2
6	640511	BRG. PILLOW BLOCK, 1"	2
7	621162	LH SPINNER W/BLADES	1
8	621163	RH SPINNER W/BLADES	1
9	641296	DUST BOOT	2
10	640034	BRG. FLANGE, 1"	2
13	2001017	TOP ADJ. PLATE HYD. MOTOR	2
14		HYD. HOSE, PRESSURE SIDE	1
15		HYD. HOSE, IN SERIES	1
16	2001020	HYD. HOSE, RETURN SIDE	1
17	2001014	SPACER, 3/16 X 2-1/4 X 6 SS	2
A	150046	NUT, 3/8" SS	8
B	150248	LOCKWASHER, 3/8" SS	8
C	151834	BOLT, 3/8 X 3/4" SS	8
D	620536	RH SPINNER LESS BLADES	1
E	620537	LH SPINNER LESS BLADES	1

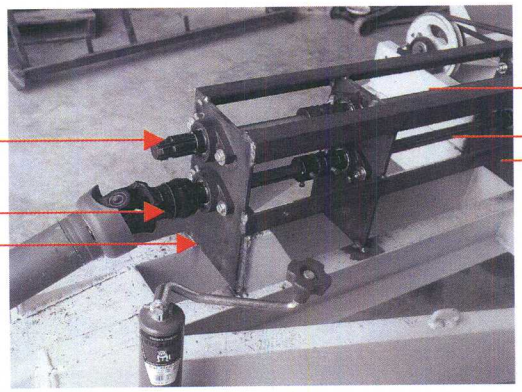
6/3/03

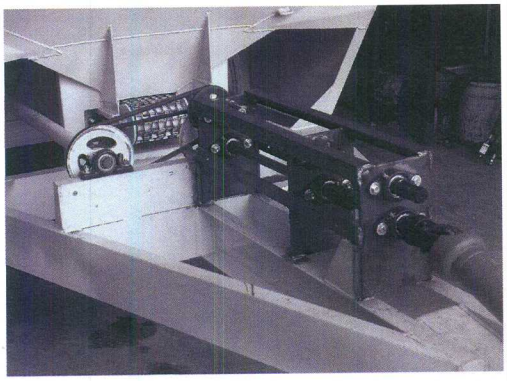
TOTE & MOBILITY - TRACTOR DRIVEN AREA AS OF JULY 2002

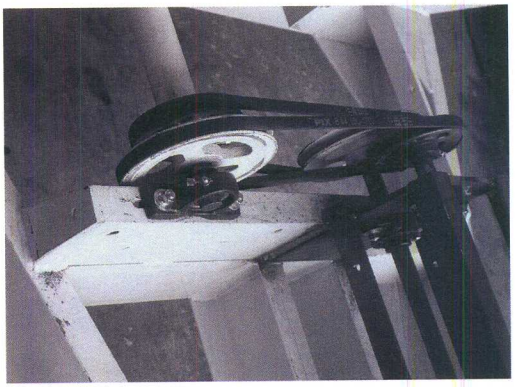


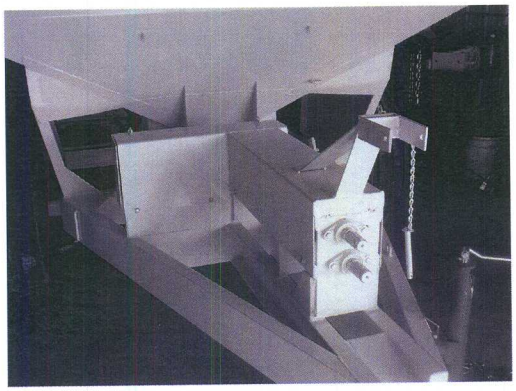
6/3/03

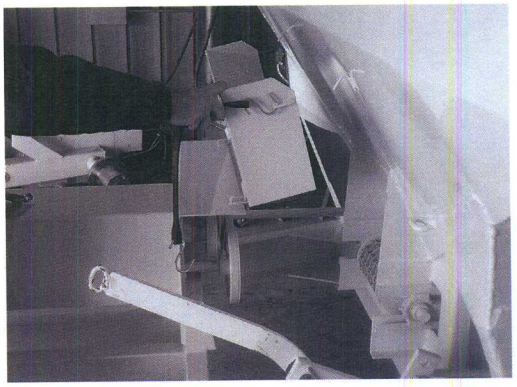
540/1000 RPM PTO – DALTON (TOTE) SPREADER





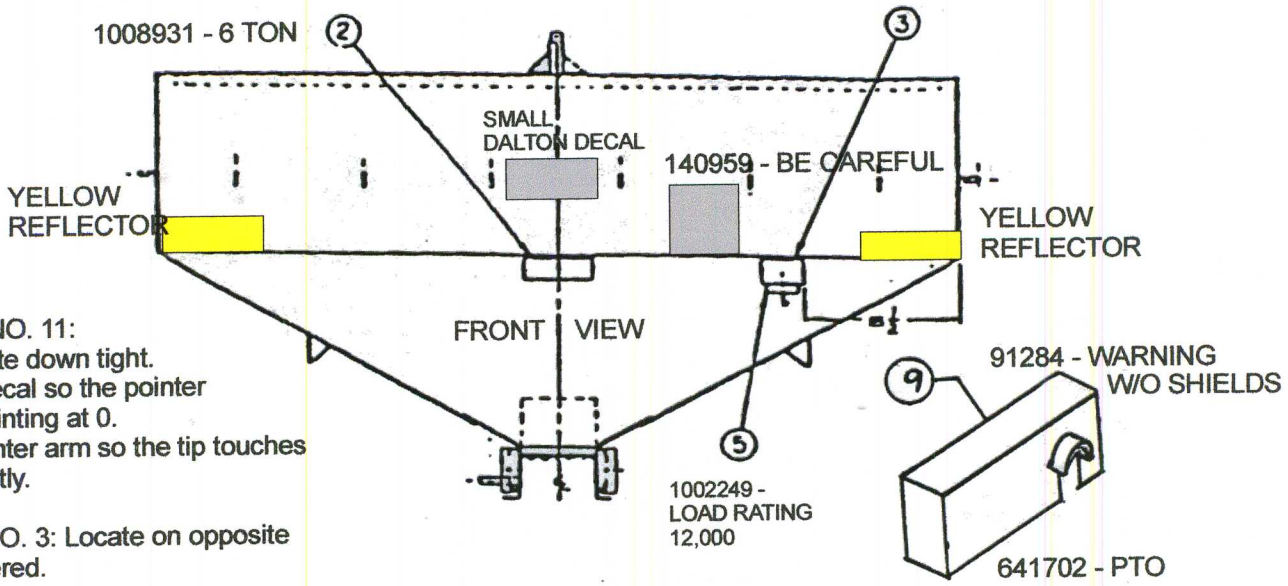






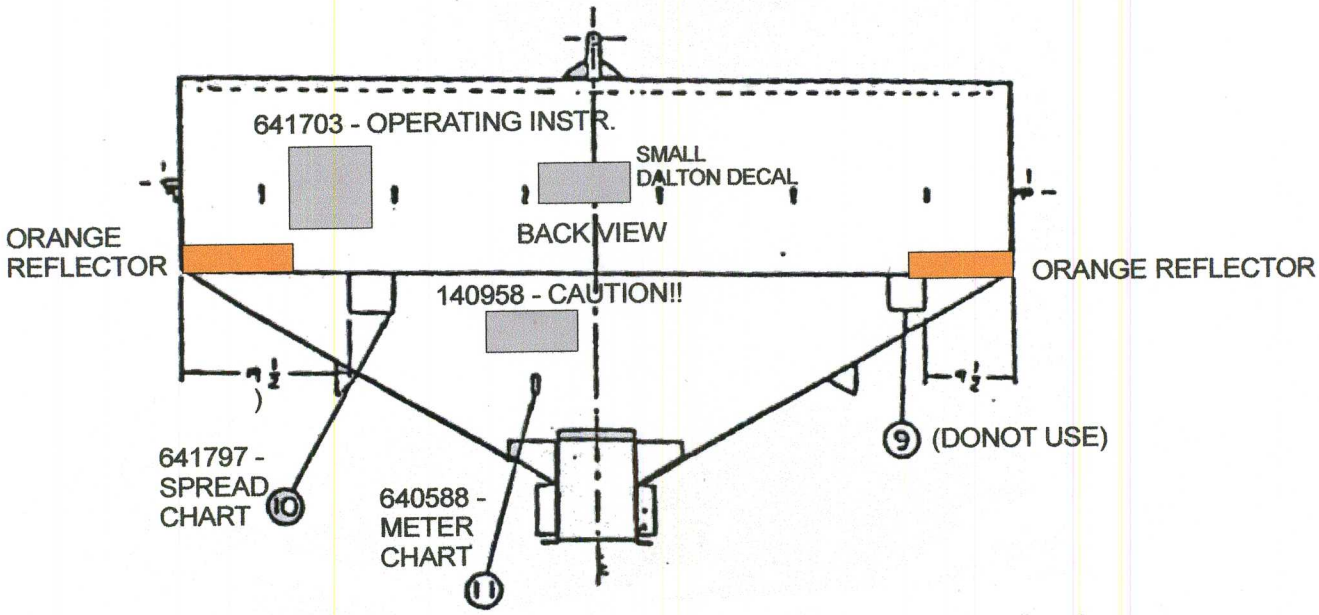
641794	Pulley, Cast 5.25”	2
641795	Pulley, Cast 8”	2
640072	Belt	1
1001755	Shaft, Double Bearing, 21 Spline	1
1001758	Shaft, Double Bearing, 6 Spline	1
640034	Bearing	4
2001133	540/1000 RPM PTO – 31” OA	1
2001134	Belt Cover Weldment	1
2001135	Shaft Connector Weldment	1
2001136	Upper Shaft	1
2001137	Lower Shaft	1

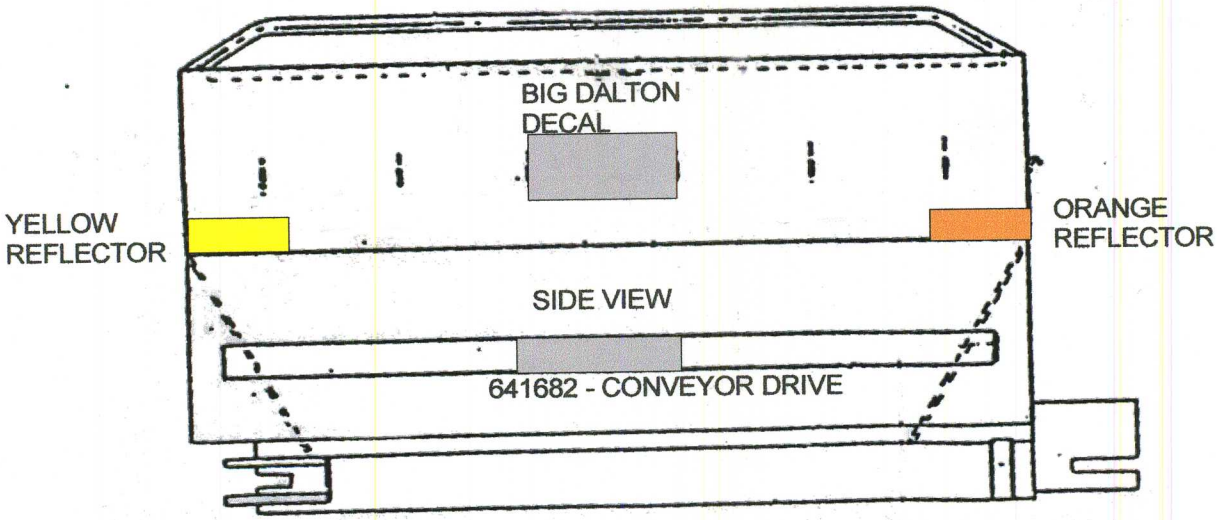
DECAL SET - DALTON AG



* NOTE for NO. 11:
1. Screw gate down tight.
2. Locate decal so the pointer arm is pointing at 0.
3. Bend pointer arm so the tip touches decal lightly.

*NOTE for NO. 3: Locate on opposite side centered.





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LIMITED WARRANTY

Cox Manufacturing Company dba Dalton Ag Products warrants all products, including all equipment and accessories, manufactured by CMC - Dalton Ag Products to be free from defects in material and workmanship if the product is operated and serviced according to the manufacturer's instruction manual. This warranty shall remain effective for twelve months from the date of delivery to the original purchaser.

CMC - Dalton Ag Products obligation under this warranty is limited to the repair of replacement of parts (not including labor) which have been returned to CMC - Dalton Ag Products factory freight prepaid, and after inspection, are deemed by CMC - Dalton Ag Products to be defective. In no event shall CMC - Dalton Ag Products be liable for special or consequential damages except as may be approved by CMC - Dalton Ag Products in advance in writing. This warranty shall not apply to components parts which are not manufactured by CMC - Dalton Ag Products. Neither shall this warranty apply to any parts or components which are expendable and are expected to wear out in normal service during the course of this warranty.

The provisions of this warranty shall not apply to any CMC - Dalton Ag Products product which has been subject to misuse, negligence, alteration or accident, or which shall have been repaired in any way so as, in the reasonable judgment of CMC - Dalton Ag Products to affect adversely its performance and reliability.

This warranty is expressly in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations for liability on the part of CMC - Dalton Ag Products and CMC - Dalton Ag Products neither assumes nor authorizes any other person to assume for it any other liability in connection with such products.

COMPANY POLICY

1. Specify catalog numbers, sizes and all other information necessary to properly fill the order.
2. Check merchandise immediately upon receipt. If received in bad condition or there is a shortage of bundles or boxes, do not fail to note this fact on the carrier promptly. Shortages must be reported within fifteen days.
3. Returned goods will not be accepted without our consent. All returned merchandise is subject to 10% restocking charge.
4. Goods returned for credit must be prepaid and accompanied by CMC - Dalton Ag bill of lading or letter of explanation giving order numbers, invoice number, date purchased and reason for returning merchandise. If error is made by CMC - Dalton Ag, we will accept merchandise freight collect if returned by lowest transportation cost. Goods must be returned within sixty days after purchase.
5. Our warranty does not cover the use of chemicals harmful to equipment of the operator. It does cover defective material or workmanship, and is limited to value of material only.
6. Cutting or welding on merchandise without our approval voids the warranty.
7. Special orders require deposits and are not subject to cancellation without our consent.