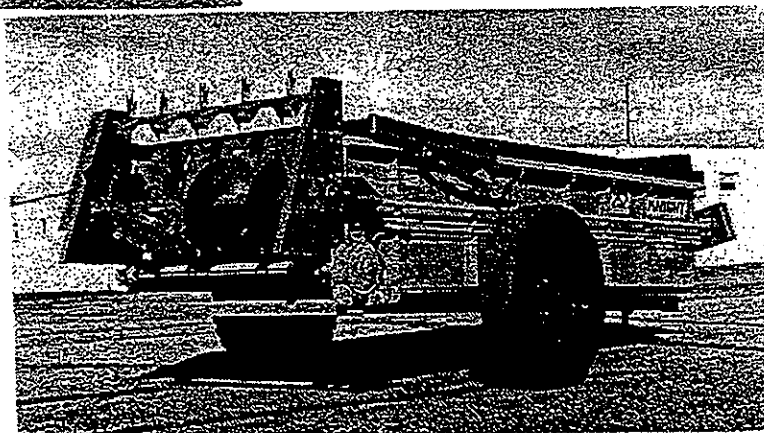
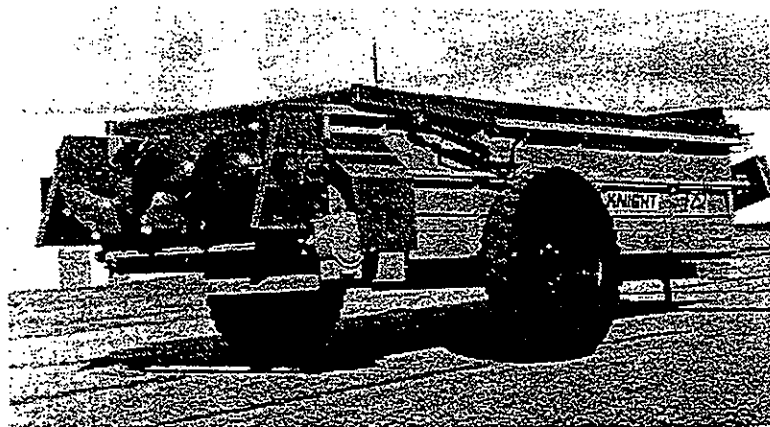


OPERATOR'S MANUAL

252

MANURE SPREADER



**ASSEMBLY - OPERATING
INSTRUCTIONS**

**PARTS
LIST**



KNIGHT

KNIGHT

MANUFACTURING CORP. • BRODHEAD, WISCONSIN 53520

5139 / 181



Information About Your Knight Model 252 Parts Manual

This manual has been designed to help you know your unit from the complete assembly to the individual parts breakdown. Please take time to read the points listed below, and also the instructions on the following pages.

Before you operate your unit, be sure you understand the instructions given for this machine. They are written for your safety, and to keep your unit running trouble-free for many years.

Serial Number Placement

When ordering parts, it is very helpful to give the serial number of your unit. The serial number is located on the front cross member on the upper left hand corner. Note the diagram on page 9 as to the location of this six-digit number.

Ordering System

This book uses a number indentation system to specify the breakdown of an assembly. Any part number indented to the right, indicates that it is part of the assembly, and is included with the assembly to the upper left. Example:

170-699	6-bolt hub complete less spindle
└─170-544	6-bolt hub
└─┬─170-546	Bearing race
└─┬─170-547	Bearing race
└─┬─170-548	Bearing cone
└─170-984	Bulldog jack

Under this system, all the parts except 170-984 are included with 170-699. If a 170-544 is ordered, 170-546 & 170-547 are included. If a 170-547 is ordered, 170-546 is not included. Be sure you know what parts you might or might not need. Remember to give your serial number.

The number column before the six-digit part number is the figure reference number. This number matches the part to its picture. Do not use this reference number for ordering parts.

Be sure to specify any hardware like bolts or keys that may be needed. The only time that any hardware is included with a part is when the word "included" is stated.

The "Q" column to the far right indicates the quantity of that part used.

If you do not have your manual when you order parts, remember these points:

Give the serial number of your unit.


Give the location of the part. Remember to stand in back of the unit looking towards the front to determine right hand (RH), or left hand (LH).

Be as descriptive as possible; when ordering sprockets, give the size of chain used, the number of teeth, the bore size, and the size of the keyway.

When ordering shafting, give the length, diameter, and the number and size of keyways.

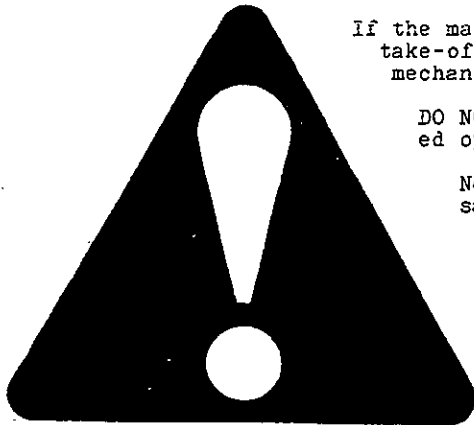
All hex head cap screws up to and including 7/16" diameter are grade 5 unless otherwise specified.



This safety alert symbol ..  .. used through-out this manual means -ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!. It stresses an attitude of "HEADS UP" for safety.

Remember: The carefull operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury or damage.

Please read the rules listed below for safe operation before you operate this equipment.



If the machine becomes clogged, disengage the power take-off, stop the tractor engine and allow all mechanisms to stop before cleaning the machine.

DO NOT allow personnel other than the qualified operator near the machine.

Never start machine until all guards and safety shields are secured in place.

DO NOT clean, adjust or lubricate the machine when it is in motion.

Before starting the tractor engine, be sure the PTO shields turn freely.

Loose or floppy clothing should not be worn by the operator.

Never put hands near rotating augers.

Operating Precautions and Instructions

- Be sure the beaters and beater drive are clear from any obstructions. Keep anyone away from behind the machine before operation.
- During cold weather, be sure the apron is not frozen to the floor.
- Be sure all shields are in place before operation.
- Operate your PTO only at the RPM it is designed for - 540 or 1000 RPM.
- The maximum extended operating length of a 52H PTO is 69" measured between the joints.
- Use common sense when operating.



WARNING: READ THE FOLLOWING BEFORE WELDING ON THIS UNIT.

- When welding on your unit, do not allow the current to flow thru the ball bearings or the roller chains. Ground directly to the item being welded.
- It is the responsibility of the people mounting the spreader on a truck to fabricate and install shields if the drive train or drive chains are exposed to accidental body or clothing contact.



Any operator of farm machinery must constantly remain aware of the possible danger areas that exist when a machine is in operation. Knight Mfg. Corp. attempts to protect the operator by shielding him from otherwise exposed moving parts. However, it may be impossible to shield some working areas of a machine due to the function being performed. Exercise caution and use common sense at all times during the operation of any machine.



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To assemble the Osc. Axle Assembly, first install the two bogies in the square axle with the $1\frac{1}{4}$ " diameter pins and locknuts.

The following instructions are the same for both the single axle and the oscillating axle:

Attach the tongue to the axle with four $5/8 \times 1\frac{3}{4}$ bolts and locknuts.

Mount the tires on the wheels, and install them on the hubs with the valve stem to the outside. Make sure all wheel studs are tight.

Bolt the axle to the pads on the spreader with four $3/4 \times 2\frac{1}{2}$ bolts and locknuts.

Bolt the tongue to the front cross member of the spreader with two $5/8$ U-bolts, spacer and locknuts. Tighten these bolts and then the rest of the bolts securing the undercarriage assembly.

To assemble Knight Model 252 Spreader with a single axle, attach axle to tongue with four $5/8 \times 1\frac{3}{4}$ bolts and locknuts. Do not tighten. Mount the tires to the wheels, and install them on the hubs with the valve stems to the outside. Make sure all wheel studs are tight. Attach the jack. Bolt the axle to the pads on the spreader with four $3/4$ U-bolts and locknuts. Do not tighten. Bolt the tongue to the front cross member on the spreader with two $5/8$ U-bolts, spacer and locknuts. Tighten these bolts to center the spreader to within $1/8$ inch. Then tighten these bolts and the rest of the bolts securing the undercarriage assembly.

To assemble the T-Bar apron, lock the plain links and slats together with the hook part of the link towards the front of the spreader. Use six plain links between each slat assembly except for the last two slats which require seven plain links.

Adjust the apron tension with the bolts on the front of the spreader. The springs should have no more than a $3/64$ " gap between the coils. Note the decal on the side of the unit under the outside tightener bolts.

Install the front counter shield by bolting it to the front counter assembly with the $\frac{1}{2} \times 1\frac{1}{2}$ bolts, lockwashers, and nuts.

If the spreader is received with the beater removed, bolt the gearcase to the RH beater panel with four $\frac{1}{2} \times 1$ bolts and lockwashers. (Do not tighten)

Attach the sprockets on the gearcase and transfer shaft for the chain coupler.

NOTE: Do not tighten the set screws.

Bolt the panel to the spreader with three $\frac{1}{2} \times 2$ bolts, lockwashers and nuts and tighten securely.

Grease the output shaft on the beater gearcase, and slide the beater on the shaft.

The beater bolts to the output shaft with a $5/16 \times 4$ bolt, lockwasher & nut.



Bolt the 1 3/8" flange bearing to the LH panel with four 1/2 x 1 1/2 bolts, lockwashers and nuts.

Loosen the bearing set screws, and attach the LH panel to the beater. Bolt the panel to the spreader with three 1/2 x 2 bolts, lockwashers and nuts. Tighten the panel mount bolts, the gearcase mount bolts, and the bearing set screws.

With the rear transfer shaft bearing loose, align the transfer shaft to the input shaft on the beater gearcase. Install the roller chain around the chain coupler sprockets, and tighten the set screws on the sprockets and the bearing assembly.

Install the front roller drive chain. Adjust the chain tension with the sliding wood block. The block should have enough tension on the chain to keep the chain from jumping. Avoid over-tightening.

Check all gearcases, and fill to plug level with Multi-vis. 85-W140 gear lube.

Install the front drive chain shield, the shield over the gearcase drive, and when the top beater is not used, install the eyebrow shield on the LH side.

Read all safety, operating, and lubricating instructions, and test run machine before use. Check to make sure all functions are operating properly.



252 Top Beater Assembly Instructions

Remove paint from the beater shafts and panel bearings.

Mount the two panels on the beater.

Mount this assembly to the main beater panel with 1/2 x 1 1/2 bolts, lockwashers & nuts. Mount the 60-B-18 sprocket on the main beater shaft and the 60-B-15 sprocket on the top beater shaft. Both sprockets are mounted with the hub facing to the inside.

Install the roller chain and wood tightener block. Adjust the chain tight enough to prevent it from jumping the sprockets. Avoid over-tightening.

Install the collar on the RH side, and tighten the set screws on the collar and both sprockets, and install the drive chain shield.

252 Lower Spinner Beater Assembly Instructions

Remove paint from the beater shafts and panel bearings.

Mount the lower spinner beater panels on the lower spinner beater.

Bolt the spinner beater assembly to the main panel with 7/16 x 1 1/2 bolts, lockwashers & nuts.

Mount the drive sprocket (60-B-18) on the main beater with the hub facing in.

Mount the driven sprocket (60-B-15) on the lower spinner beater with the hub facing out. Do not tighten the set screws. If the top beater is not used a spacer collar is needed.

Align the sprockets, tighten the set screws and install the roller drive chain.

Install the set collar on the RH side of the spinner beater and tighten the set screws.

Install the wood tightener block with the 5/8 x 4 bolt, fw, lw, and nut and adjust the tension. Do not over-tighten.

Install the drive shield.



252 Hydro-Fluid-Endgate Assembly Instructions

A 3/8" diameter drill will be needed for installing the wood rails.
Line up the pivot holes on the arms with the holes in the angle on the side stakes.
Insert the pivot bolt 101-133 through the pivot hole on the endgate arm and secure with 171-093 locknut NF. "Caution": torque pivot pin to 370 lbs." The torque of the 7/8 x 4 shoulder bolt should be 370 lbs.. This can be done by first oiling threads on the bolt and nut, then using a 3' wrench and applying 111# on the end of the wrench it will give the required torque.

Raise the endgate high enough so the mount holes for the cylinder will clear the side of the spreader and block in place.

Install the cylinders on the 1" mount pins in the side stakes of the spreader with the ports on the cylinder head facing down.

Pull out the rod end of the cylinder until the holes line up and install the pins with the head towards the inside and the hairpin clips to the outside.

Install the HYD-Tee Block assembly on the front of the spreader with 5/16 x 2 1/2 bolt, lockwasher and nut.

With a long hose and a short hose on each side of the spreader, connect the two short hoses in the top two ports of the HYD-Tee Block and the two long hoses in the bottom two ports of the HYD-Tee Block and thread the hoses back thru the holders to the cylinders.

Attach the hoses to the cylinders with the 3/8" 90 degree swivel connectors.

Place the wood rails 9" forward of the rear corner of the spreader side.

Drill three 3/8" diameter holes 1" in from the inside of the wood rail at 2", 70", and at 142" all measuring from the front of the wood rail. Install the 3/8 x 4 1/2 carriage bolts & nuts, but do not tighten.

Drill two 3/8" diameter holes 3" in from the inside of the wood rail at 30" and 110" all measuring from the front of the wood rail. Install the 3/8 x 4 1/2 carriage bolts & nuts and tighten all bolts.



OPERATING PRECAUTIONS

1. Be sure the beaters and beater drive are clear from any obstructions. Keep anyone away from behind the machine before operation.
2. During cold weather, be sure the apron is not frozen to the floor.
3. Be sure all shields are in place before operation.
4. Operate your PTO only at the RPM it is designed for -- 540 or 1000 RPM.
5. The maximum extended operating length of a 52H PTO is 69" measured between the joints.
6. Do not drop the spreader on the jackstand.
7. Do not turn too short, and use caution when crossing ditches, or damage may result to the PTO or drive section.
8. If your loads are higher than the main beater, it is recommended to install a top beater. This will prolong the life of the beaters, and improve the overall spreading action.
9. The lower spinner beater cannot be used if 15" tires are used.
10. When welding on the machine, do not let the current run thru the ball bearings. Ground directly to the item being welded.



ADJUSTMENTS

1. Adjust the hardwood tightener blocks periodically. Be careful not to adjust the carrier blocks too tight. They should be kept about 1/8" away from the chain. Their main purpose is to keep the chain from jumping.
2. Keep the apron chains tight according to the decal on the machine.
3. Periodically check all set screws and bolts and keep tight.
4. The shear pins for the transfer shaft shear sprocket are 3/8" x 1 grade 2.
5. The shear pins for the shear coupler assembly are 3/16" x 1 1/4 grade 2.
6. Keep pivot bolts on the HFG torqued to 370 ft/lbs.



LUBRICATION INSTRUCTIONS 252

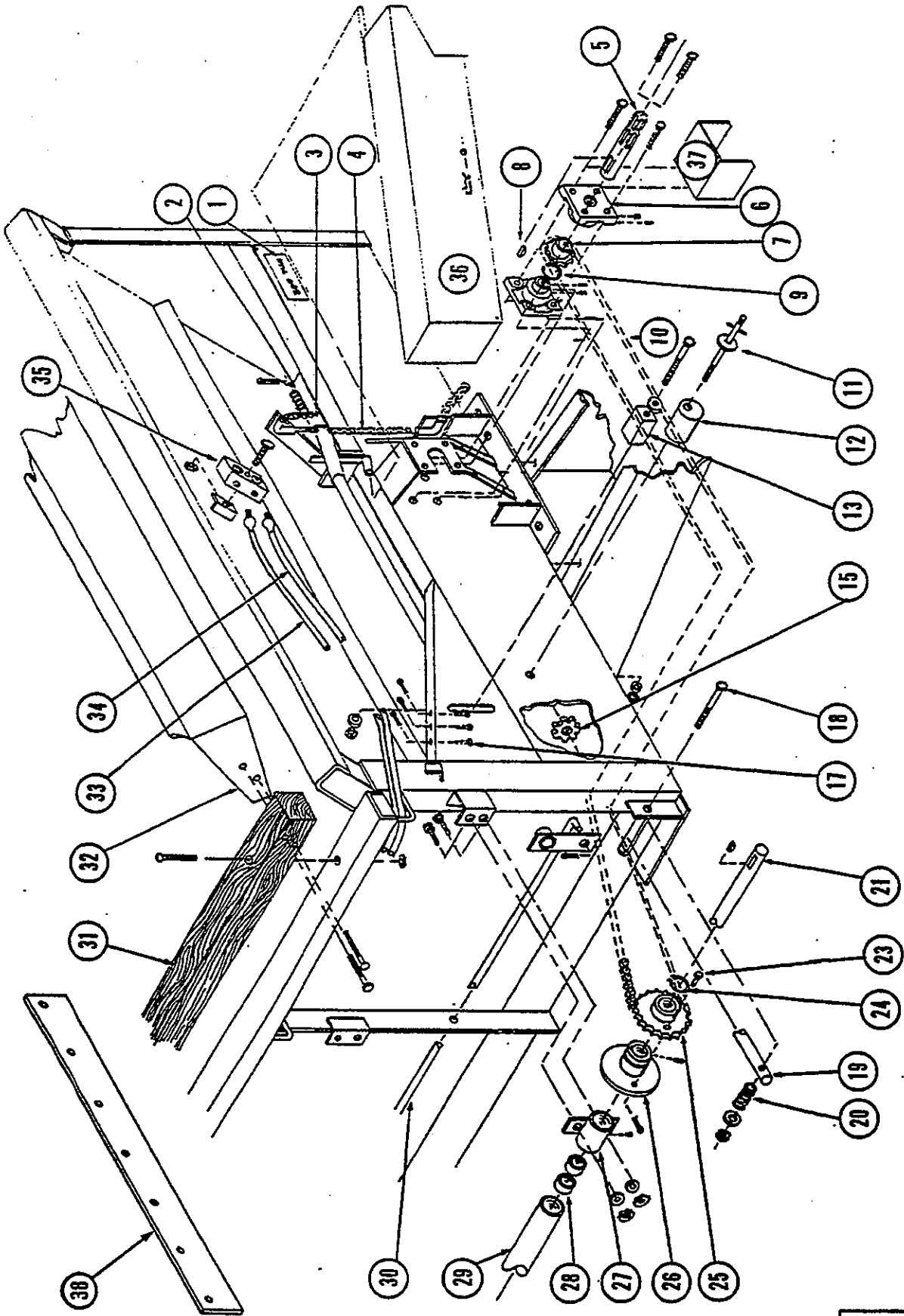
1. Oil all idler sprockets before each use.
2. Oil all roller chains before each use.
3. Keep Multi-vis. 85-W140 gearlube filled to plug level in all gearcases.
4. Grease these points daily or each 8 hours of use:
 - 3 zerks on the PTO shaft
 - 1 zerk on the transfer shaft shear sprocket
 - 4 transfer shaft bearings
 - 2 apron drive shaft bearings
 - 2 bearings on the lower spinner and upper beater mount panels
5. Grease these points after each 25 hours of use:

NOTE: Pump the grease in slowly until a slight bead forms around the seals.

 - 2 bearings on the front counter assembly
 - 1 main outboard beater bearing



FRONT DRIVE AREA ASSEMBLY



FRONT DRIVE AREA ASSEMBLY

252-TOW R012793

REF	PART NO	QTY	DESCRIPTION
1	171-226	1	Unit Serial Number
2	171-036	1	Front Shift Spring Mtg Hrd: 170-521 Ctrr Pin
3	170-947	4	S-Hook For Rope Attachment
4	171-045	2	2 Speed Shift Chain; #4 Machine Chain - 22 Links
	100-131	1	Front Counter Assembly
5	130-464	1	Shaft; Splined 1-3/8" x 8-1/2"
6	170-000	2	Bearing; 1-3/8" Mtg Hrd: 1/2" x 1-1/2" Bolt, LW & Nut (2) 1/2" x 1-3/4" Bolt, LW & Nut (2)
7	130-463	1	Sprocket; 60-B-18, 1-3/8" B, 3/8" KW
8	170-170	1	Key; Type "E" Woodruff, 3/8" x 1-1/4"
9	170-499	1	Snap Ring; 1-3/8" External, UASN 252-1494
10	170-178	1	Roller Chain; #60-1-117 P., W/C Link
11	100-858	1	Poly Block & Shield Mount Stud Assembly Mtg Hrd: 5/8" LW & Nut
12	170-200	1	Poly Block-Carrier
13	170-086	1	Wood Block-Tighteners Mtg Hrd: 5/8" x 4" Bolt, (2) FW, LW & Nut
15	130-484	2	Sprocket; Apron Idler
17	170-044	3	Shear Pins For Shear Sprocket
18	170-506	2	Bolt; Outside Apron Tightener 1/2" x 11" GR 5, Also Use A 7/16" Flat Washer & 1/2" LN (2 ea).
19	130-483	1	Shaft; Apron Idler 1-1/4" x 62-3/4"
20	170-166	2	Spring; 5/8" x 4-7/8"
21	132-432	1	Transfer Shaft; 1-1/4" x 162-3/16" L.
	171-040	1	Key; Type "128" Woodruff, 5/16" x 1-3/8"

FRONT DRIVE AREA ASSEMBLY (CONT.)

252-TOW R111892

REF	PART NO	QTY	DESCRIPTION
	171-042	1	Shear Sprocket Assy; 27 T. 5/16" KW 540 RPM
	171-044	1	Shear Sprocket Assy; 36 T. 5/16" KW 1000 RPM
23	170-044	1	Shear Pin; 3/8" x 1-1/16" Order 170-364 (3/32" x 3/4") Cotter Pin.
24	170-142	1	Snap Ring
25	170-818	1	Sprocket; 60-B-27, 540 RPM
	170-819	1	Sprocket; 60-B-36, 1000 RPM
26	171-043	1	Hub For Shear Sprocket Assy; 5/16" KW
27	100-347	1	Bearing; Front Transfer Shaft Mtg Hrd: 3/8" x 1" Bolt, LW & Nut (2 ea).
28	170-171	2	Bushing; 1-1/4" x 1-1/2" x 1-1/2"
29	130-599	1	Shield; Front Transfer Shaft, 1-1/4" x 31-1/4"
30	132-301	1	Clutch Rod; 1/2" x 145-3/4"
31	131-748	2	Wood Rail; 4" x 4" x 160-1/2" Cut To 150" For Use With The Hydro-Endgate Mtg Hrd: 3/8" x 4-1/2" Bolt & Nut (10 ea)
32	132-222	1	Front Endgate Extension (Splash Guard) Mtg Hrd: 3/8" x 4-1/2" Bolt & Nut (4 ea).
33	170-467	2	Hyd Hose; 1/4" x 154-1/2", 3/8" NPT Male Ends
34	171-129	2	Hyd Hose; 1/4" x 164-1/2", 3/8" NPT Male Ends
35	171-160	1	Hydro Fitting - Dbl. Tee; Mtg Hrd: 5/16" x 2-1/2" Bolt & FLN (1 ea).
36	101-197	1	Front Drive Shield; Mounts On 100-858 Shield Mount Stud Assy.
37	100-225	1	Front Counter Shield; 540 RPM Units Only. For Existing Units With (1000 RPM) 52 XH PTO's, The Replacement PTO's Must Have Steel Shields.
37	101-589		Front Counter Shield 1000 RPM Units Only
38	131-692	1	Belt Flap; 59-3/4" Attached To Front Wall Of Spreader Mtg Hrd: 1/4" x 3/4" Oven Head Bolt & Nut (10 ea.)

DECALS, SHIELDS & PAINT

252-TOW R120291

DECALS

PART NO	QTY	DESCRIPTION	
171-274	1	Complete Set of Decals for 252	
171-712	1	Notice to Retighten All Set Screws	Front End
170-490	1	PTO Warning	Front End
170-850	1	Caution; General Rules	Front End
170-154	2	"Knight"	RH & LH Side
170-155	2	Knight Head	RH & LH Side
171-261	2	"252"	RH & LH Side
170-849	2	Warning; Beware Of Power Driven Parts	RH & LH Side
170-868	2	Apron Tension Adjustment	RH & LH Side

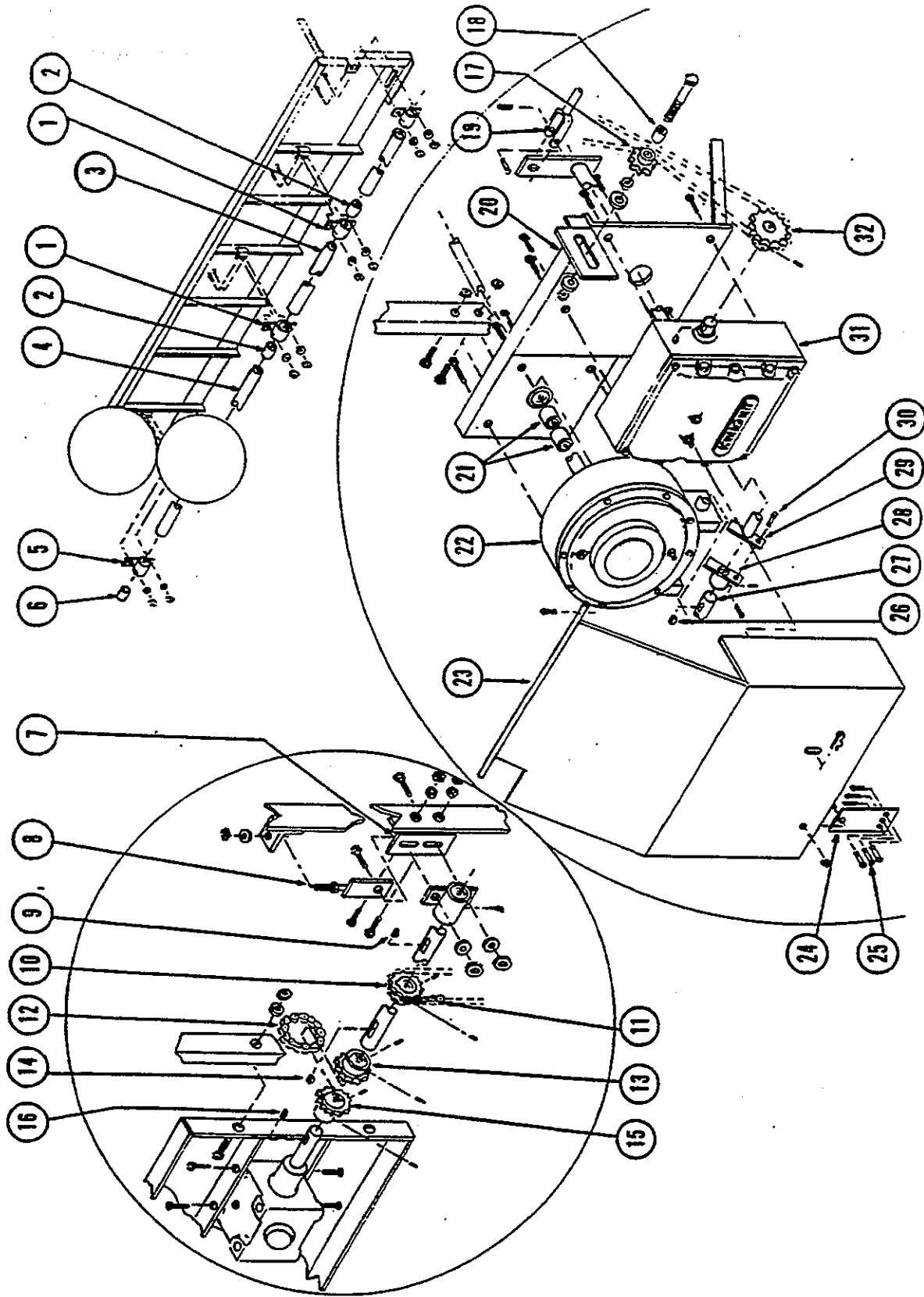
SHIELDS

PART NO	QTY	DESCRIPTION
100-225	1	Front Canopy Shield Mtg Hrd: Top Two Bolts On The Front Counter Assy.
101-197	1	Front Roller Drive Shield; Mtg Hrd: 100-858 Shield Mount Stud Assy.
130-599	1	Shield; Front Transfer Shaft, 1-1/4" x 31-1/4"
130-600	1	Shield; Center Transfer Shaft, 1-1/4" x 38-1/4"
130-985	1	Shield; Rear Transfer Shaft, 1-1/4" x 67-3/8"
132-220	1	Shear Coupler Belt Flap Shield; Mtg Hrd: 5/16" x 3/4" Bolt & Fln (1 ea).
101-590	1	Eyebrow Shield Mtg Hrd: 3/8" x 1" Bolt, LW & Nut (2 ea).
100-358	1	Upper Beater Shield Mtg Hrd: 1/2" FW, LW & Nut (2 ea).
130-529	1	Lower Spinner Beater Shield Mtg Hrd: 1/2" FW, LW & Nut (2 ea).
101-076	1	Rear RH Shield
101-239	1	Rear RH Shield; For Hydraulic Drive Units

PAINT

PART NO	DESCRIPTION
170-366	Yellow; 16 oz. Aerosol Can
170-812	Yellow; Quart
170-813	Yellow; Gallon
170-367	Red; 16 oz. Aerosol Can
170-814	Red; Quart
170-815	Red; Gallon

RH Side Parts

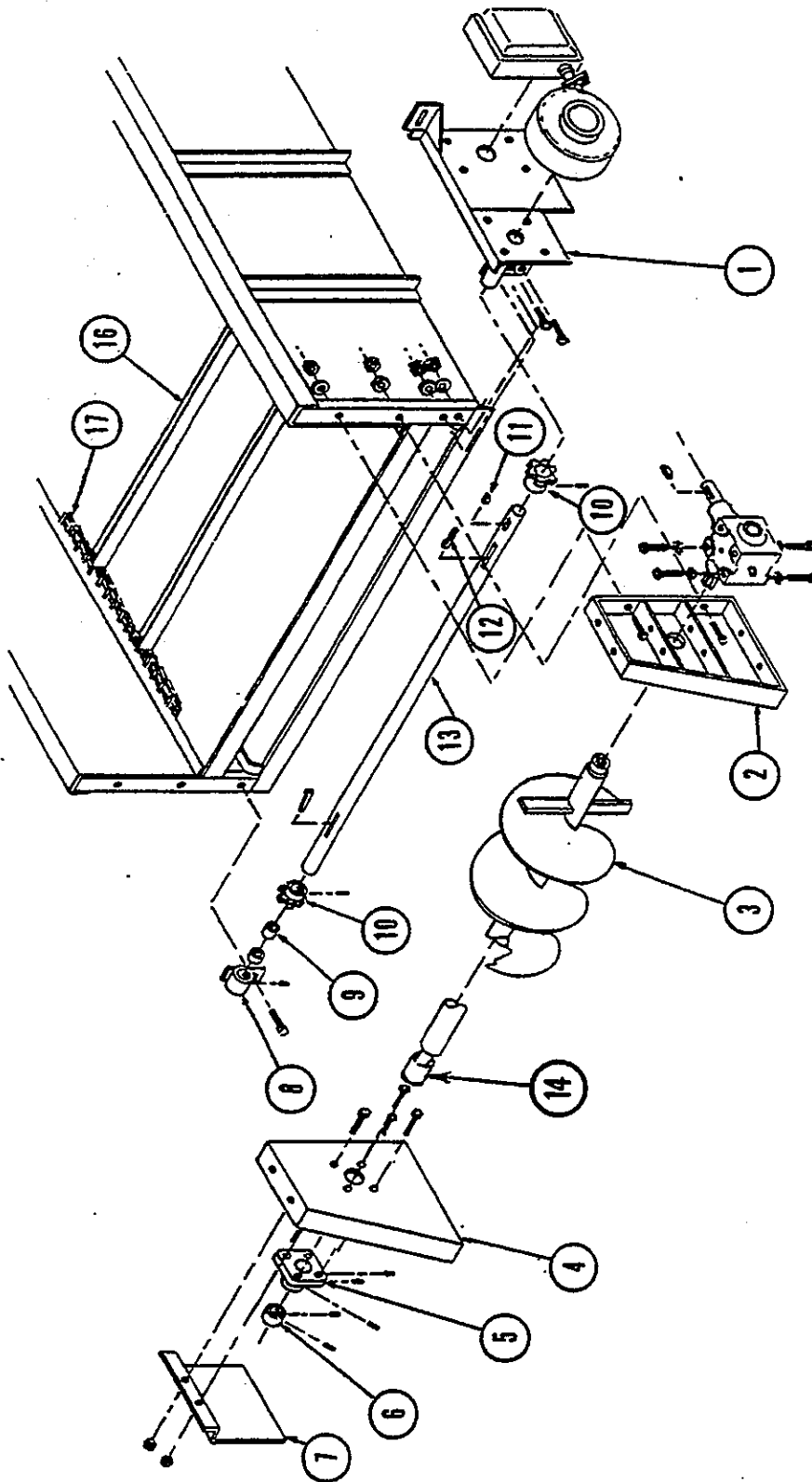


R.H. SIDE PARTS

252-TOW R120391

REF	PART NO	QTY	DESCRIPTION
1	100-348	1	Bearing; Center Transfer Shaft Mtg Hrd: 3/8" x 1" Bolt, LW & Nut (2 ea).
2	170-171	1	Bushing; 1-1/4" x 1-1/2" x 1-1/2"
3	130-600	1	Shield; Center Transfer Shaft, 1-1/4" x 38-1/4"
4	130-985	1	Shield; Rear Transfer Shaft, 1-1/4" x 67-3/8"
5	100-349	1	Bearing; Rear Transfer Shaft, Mtg Hrd: 3/8" x 1-1/4" Top Bolt & 3/8" x 1" Bolt, LW & Nut (2 ea).
6	170-171	1	Bushing; 1-1/4" x 1-1/2" x 1-1/2"
7	131-773	1	Bearing Mount Angle; 1/4" x 2" x 2" x 5", Mounts Between The Side Stake & Bearing. Mounts To Side Stake With 3/8" x 1" Bolt, LW & Nut (2 ea).
8	100-351	1	Bearing Brace Assy
9	171-040	1	Key; Type 128 Woodruff 5/16" x 1-3/8"
10	132-326	1	Sprocket; 50-B-15, 1-1/4" B, 5/16" KW Note: A 50-B-13 Sprkt Is Available.
11	170-315	1	Roller Chain; #50-62 P. Inc. (#50 Conn. Link)
12	170-455	1	Roller Chain; #60-12 P. Inc. (#60 Conn. Link)
13	131-653	1	Sprocket; Split Chain Coupler 1-1/4" B, 5/16" KW
14	171-040	1	Key; Type "E" Woodruff 5/16" x 1-3/8"
15	131-654	1	Sprocket; Split Chain Coupler, 1-3/8" B, 3/8" KW
16	170-170	1	Key; Type "E" Woodruff 3/8" x 1-1/4"
17	100-708	1	Sprocket; 50-B-13 Idler Mtg Hrd: 5/8" x 3" Bolt, LW, (2) FW & (2) Nuts.
18	170-039	1	Bushing; 5/8" x 3/4" x 1"
19	170-501	1	Clevis For Clutch Rod; 1/2"
20	101-045	1	Gearcase Mount
21	170-318	2	Bushings; 2" O.D. x 1-1/2" I.D. x 1-1/4" Bronze
22			Ref. Only, See 50:1 Gearcase Pages For Parts
23	101-076	1	Gearcase Shield: Use 170-045 Ctr Key & 170-949 Hairpin Clip
24	132-220	1	Belt Flap Shield for Shear Coupler; Mts to Bracket (with 5/16" x 3/4" CS); (5/16" Fln) 1 ea.
25	170-937	3	Shear Pin; 3/16" x 1" Inc. 3/32" x 3/4" Ctr Pin
26	170-120	1	Key; Type "A" Woodruff 1/4" x 7/8" - For Shear Collar
27	132-130	1	50:1 Case Input Shaft
28	100-860	1	Shear Collar Assy; Inc. (3/8" SS)
29	100-899	1	Two Speed Output Shaft
30	170-937	1	Shear Pin; 3/16" x 1"; Inc. (3/32" x 3/4") Ctr Pin
31	100-919	1	Two Speed Gearcase Complete
32	130-814	1	Sprkt; 50-B-24, 1" Bore, 1/4" KW;
	170-120	1	Key; Type "A" Woodruff 1/4" - For Sprkt 130-814

BEATER & APRON ASSEMBLY



BEATER & APRON ASSEMBLY

252-TOW R110891

REF	PART NO	QTY	DESCRIPTION
1	101-045	1	Combination Gearcase & RH Bearing Mount Assy Mtg Hrd: 1/2" x 2-1/2" Gr 5 Bolt, LW & Nut (2 ea)
2	170-318	2	Bushing; 1-1/2" x 2" x 1-1/4" Bronze
	100-353	1	RH Beater Panel Mtg Hrd: 1/2" x 2" Bolt, LW & Nut (3 ea)
3	101-445	1	Main Beater Assembly
	101-449	1	Splined Beater Plug; Welded To Beater Assy; Bolted To Output Bevel Case Shaft With 5/16" x 4" Bolt, LW & Nut
4	100-352	1	LH Beater Panel; Mtg Hrd: 1/2" x 2" Bolt, LW & Nut (3 ea)
5	170-000	1	Bearing; Sealmaster SF-22, 1-3/8" Flange Ball Mtg Hrd: 1/2" x 1-1/2" Bolt, LW & Nut (4 ea)
6	130-129	1	Collar; 1-3/8" x 2" x 3/4" L. Inc. 3/8" SS
7	101-590	1	Eyebrow Shield Mtg Hrd: 3/8" x 1" B, LW & Nut (2 ea)
8	100-335	1	LH Bearing Assy; Inc. Zerk Mtg Hrd: 1/2" x 2-1/2" Gr 5 Bolt, LW & Nut (1 ea)
9	170-318	2	Bushing; 1-1/2" x 2" x 1-1/4"
10	131-693	2	Sprocket; Apron Drive 6 T. 1-1/2" B. 1/4" KW
11	170-012	1	Key for Worm Gear Drive; 3/8" x 2"
12	170-182	2	Key for Apron Drive Sprocket; 1/4" x 1/4" x 2" Gib
13	132-803	1	Shaft; Apron Drive 1-1/2" x 70-3/4" L.
14	133-020	1	Collar; 1st Us.d W/6 Spline Beater, 9-82

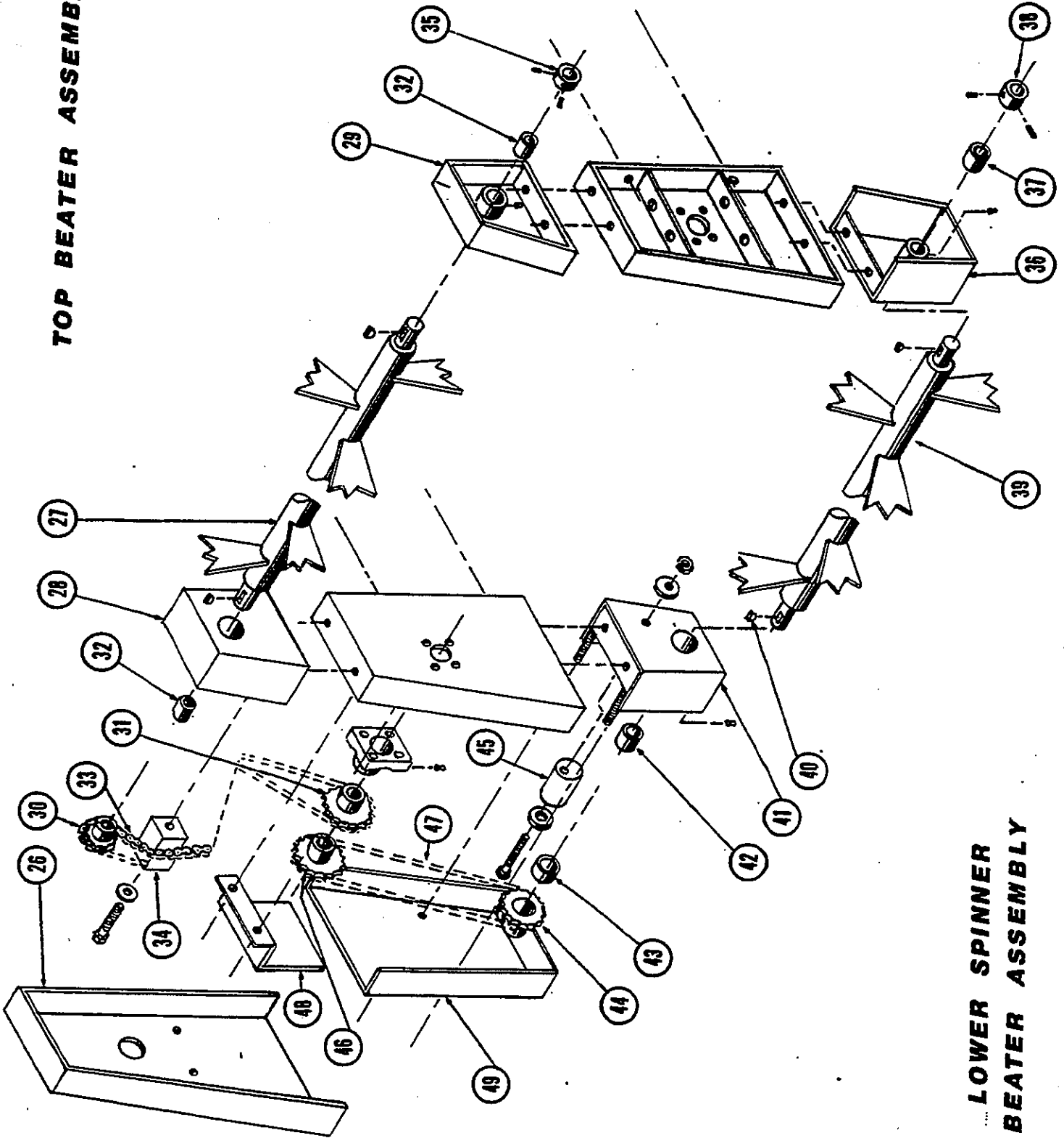
APRON ASSEMBLIES

	100-590	1	252 T-Bar Apron Assy, 220 Links, 18 Slat Assy
16	100-627		T-Bar Slat Assembly
17	170-448		T-Bar Plain Link

16

A * following a part number (XXX-XXX*) indicates that the part is no longer used in production for this application. Superscript letters (XXX-XXX^A) refer to footnotes and/or illustration boxes.

TOP BEATER ASSEMBLY



**LOWER SPINNER
BEATER ASSEMBLY**



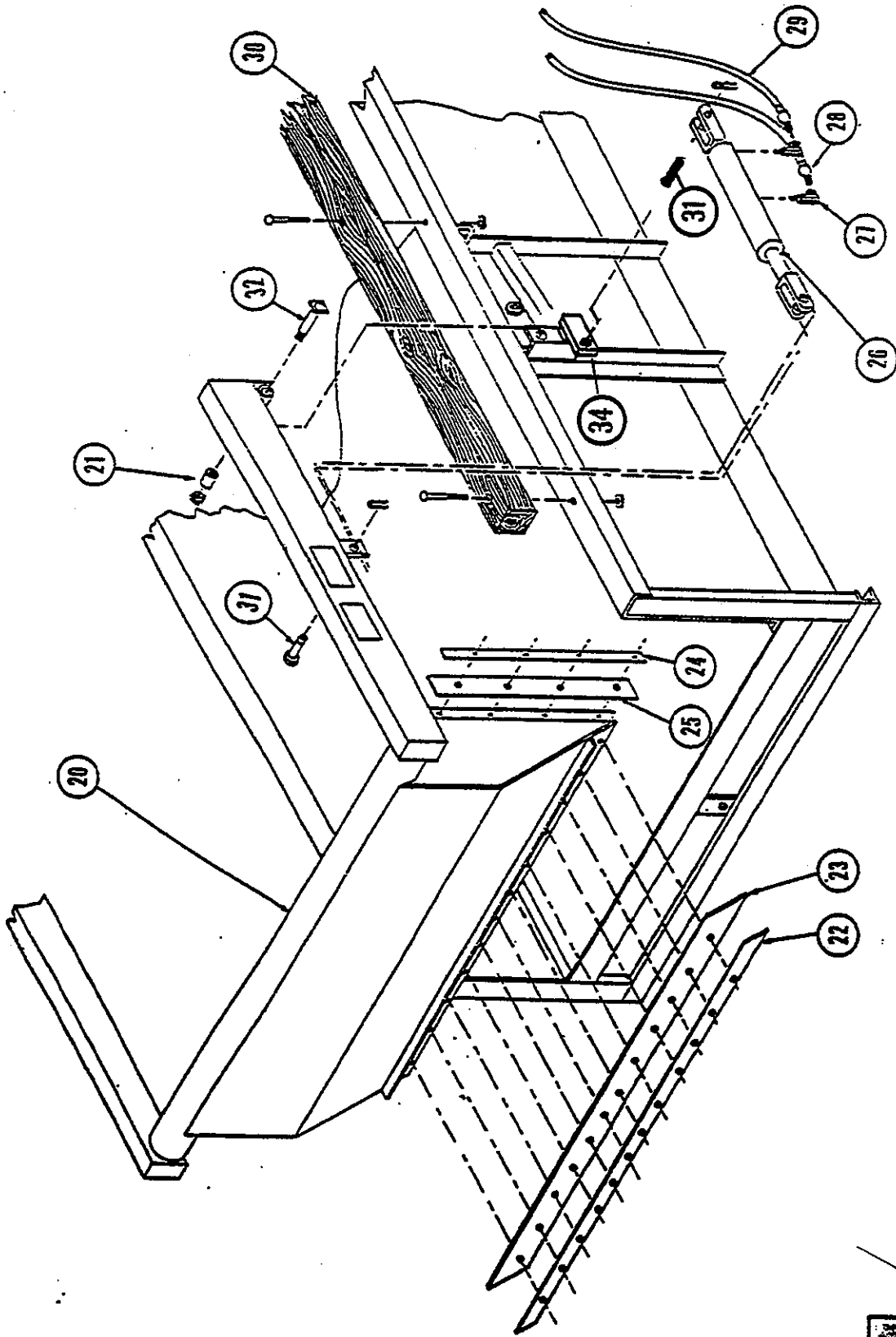
Ref.	Part No.	Description	Top Beater Assembly	Q.
26	100-358	Shield; mounts with 170-040 ($\frac{1}{2}$ fw); 170-003 ($\frac{1}{2}$ lw); 170-004 ($\frac{1}{2}$ n)		1
27	101-292	Beater assembly		2 ea.
28	101-293	LH beater mount panel; mounts to unit with 170-002 ($\frac{1}{2}$ x $1\frac{1}{2}$ cs); 170-003 ($\frac{1}{2}$ lw); 170-004 ($\frac{1}{2}$ n)		1
	170-165	Bushing; 1 $\frac{5}{8}$ x 1 $\frac{3}{8}$ x $1\frac{1}{2}$ Lg.		2 ea.
29	101-294	RH beater mount panel; mounts to unit with 170-002 ($\frac{1}{2}$ x $1\frac{1}{2}$ cs); 170-003 ($\frac{1}{2}$ lw); 170-004 ($\frac{1}{2}$ n)		1
	170-165	Bushing; 1 $\frac{5}{8}$ x 1 $\frac{3}{8}$ x $1\frac{1}{2}$ Lg.		2 ea.
30	130-425	Sprocket; 60-B-15 1 $\frac{3}{8}$ " b. $\frac{3}{8}$ kw (driven sprocket) includes 170-151 (3/8NC x 3/8 ss)		1
31	130-128	Sprocket; 60-B-18 1 $\frac{3}{8}$ " b. $\frac{3}{8}$ kw (drive sprocket) includes 170-151 (3/8NC x 3/8 ss)		1
	170-170	Key; type E woodruff $\frac{3}{8}$ x $1\frac{1}{2}$ (for 130-425 & 130-128)		1 ea.
33	170-179	Roller chain; #60-73 p. includes 170-089 (#60 conn. link)		1
34	170-880	Wood block; 2" L. mounts with 170-038 ($\frac{5}{8}$ x $3\frac{1}{2}$ cs) 170-066 ($\frac{5}{8}$ fw); 170-010 ($\frac{5}{8}$ lw); 170-011 ($\frac{5}{8}$ n)		1
35	130-129	Collar; 1 $\frac{3}{8}$ x 2 x $\frac{3}{4}$ includes 170-151 ($\frac{3}{8}$ ss)		1

Ref.	Part No.	Description	252 Lower Spinner Beater	Q.
		Lower Spinner Beater Assembly		1
36.	100-145	RH Panel; Mounts with 170-054 ($\frac{3}{8}$ x 1 cs); 170-006 ($\frac{3}{8}$ lw); 170-007 ($\frac{3}{8}$ n)		1
37.	170-165	Bushing; 1 $\frac{5}{8}$ x 1 $\frac{3}{8}$ x $1\frac{1}{2}$		1 ea.
38.	130-129	Collar; 1 $\frac{3}{8}$ x 2 x $\frac{3}{4}$, Includes (2) 170-151 $\frac{3}{8}$ x $\frac{3}{8}$ ss		1
39.	101-292	Lower Spinner Beater		1
40.	170-170	Key; Type E Woodruff $\frac{3}{8}$ x $1\frac{1}{2}$		2
41.	100-147	LH Panel Mounts with 170-054 ($\frac{3}{8}$ x 1 cs); 170-006 ($\frac{3}{8}$ lw); 170-007 ($\frac{3}{8}$ n)		1
42.	170-165	Bushing; 1 $\frac{5}{8}$ x 1 $\frac{3}{8}$ x $1\frac{1}{2}$		2 ea.
43.	131-212	Spacer Collar; 2 O.D. x 1 $\frac{3}{8}$ I.D. x $\frac{3}{8}$ L.		1
44.	130-425	Sprocket; 60-B-15, 1 $\frac{3}{8}$ b. $\frac{3}{8}$ kw. Includes (2) 170-151 (3/8ss)		1
45.	170-880	Wood Block Tightener; 2" L. Center drill Mounts with 170-038 ($\frac{5}{8}$ x $3\frac{1}{2}$ cs); (2) 170-066 ($\frac{5}{8}$ fw); (2) 170-010 ($\frac{5}{8}$ lw); 170-011 ($\frac{5}{8}$ n)		1 ea.
46.	130-128	Sprocket; 60-B-18, 1 $\frac{3}{8}$ b. $\frac{3}{8}$ kw Includes (2) 170-151 (3/8ss)		1
47.	170-197	Roller Chain; #60-67p. Includes 170-097 Off-set, 170-089 connector		1
48.	101-590	Shield; Mounts with 170-054 ($\frac{3}{8}$ x 1 cs); 170-006 ($\frac{3}{8}$ lw); 170-007 ($\frac{3}{8}$ n)		1 ea.
49.	130-529	Shield; Mounts with 170-040 ($\frac{1}{2}$ fw); 170-003 ($\frac{1}{2}$ lw) 170-004 ($\frac{1}{2}$ n)		2 ea.

NOTE: If the lower spinner beater is used along with the the upper spinner beater use the following shield combination: 130-529 shield is used on the bottom and the upper spinner beater is shielded with 130-528



252 HYDRAULIC ENDGATE
ASSEMBLY



HYDRAULIC ENDGATE

252-TOW R111892

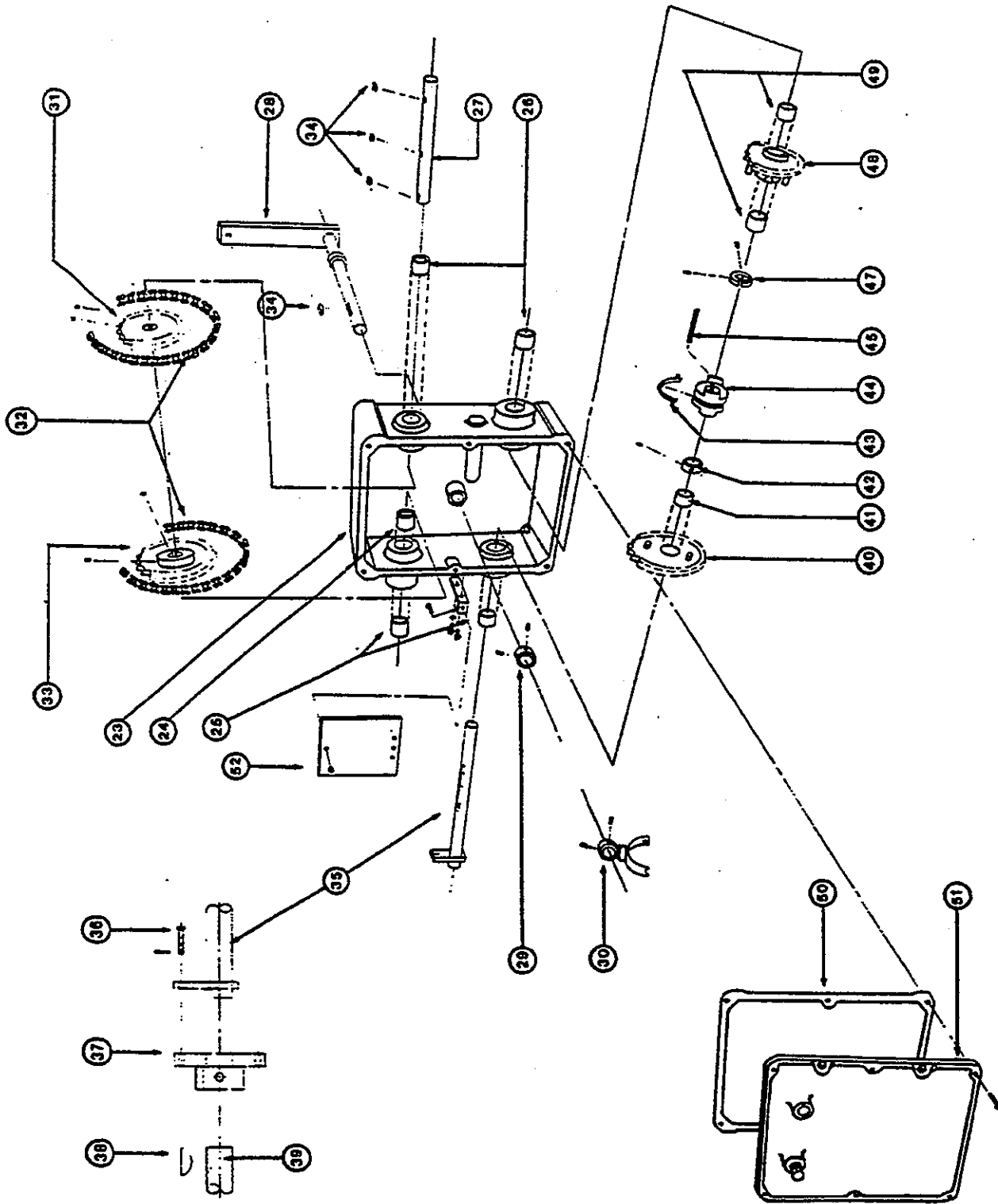
REF	PART NO	QTY	DESCRIPTION
	101-199	1	252 Hydraulic Endgate; Complete
20	101-198	1	Hydraulic Endgate
21	171-034	4	Bushing; Bronze, Steel-Backed, Split 1" Long
22	130-543	1	Bottom Belt Strap Mtg Hrd: 1/4 x 7/8 Bolt & Nut (10)
23	130-542	1	Bottom Belt Flap; 59" Long
24	130-545	2	Side Belt Strap Mtg Hrd: 1/4 x 7/8 Bolt & Nut (4)
25	132-415	2	Side Belt Flap; 25-1/4" Long
26	170-941	2	Hyd. Cylinder; 2" x 8" (Repair Kit: 170-075)
27	171-030	4	Swivel Adapter; 3/8", 90 Degree
28	170-467	2	Hyd. Hose; 1/4" x 154-1/2", 3/8" NPT Male Ends
29	171-129	2	Hyd. Hose; 1/4" x 164-1/2", 3/8" NPT Male Ends
30	131-748	2	Wood Rails; 150" Mtg Hrd: 3/8" x 5" Bolt & Nut (10)
31	170-073	4	Pin; Install With Hairpin Clip (170-074) To The Outside
32	101-133	2	HFG Pivot Bolt; 7/8 NF Mtg Hrd: 7/8" Lock Nut
34	101-950 ^A	2	Hyd. Cyl. Anchor Weldment (Used After S/N 252-1586)

A: To repair units (below SN 1587) with welded anchor pins, order kit #300-026.

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An asterisk (*) at the end of a part number (XXX-XXX*) indicates that the part is no longer used in production for this application. Superscript letters (XXX-XXX^A) refer to footnotes and/or illustration boxes.

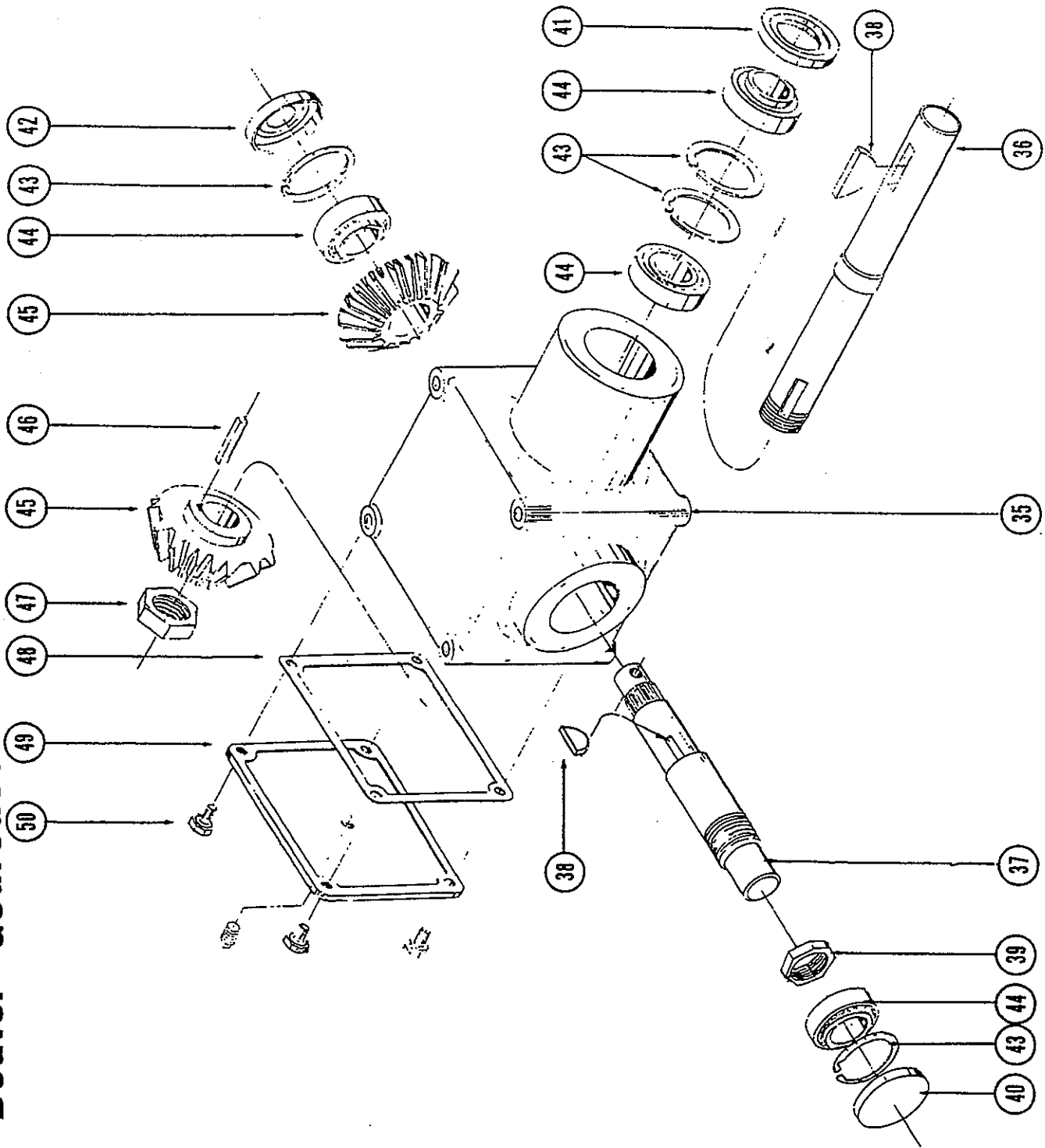
2-Speed Gearcase



Ref.	Part No.	Description	2-Speed Case Assembly	Q.
	100-919	2-Speed case assembly;		1
		Case mounts to unit with 170-032 (7/16 x 1 cs) & 170-061 (7/16 lockwasher)		4 ea.
23	170-647	Housing with bushings		1
24	170-024	Bushing; 1 x 1 1/4 x 1		1
25	170-055	Bushing; 1 x 1 1/4 x 1 1/2		2
26	170-164	Bushing; 1 x 1 1/4 x 1 1/4		2
27	131-054	Shaft; input (upper shaft) 1 x 1 1/8		1
28	100-943	Shift lever assembly		1
29	130-394	Collar; 1 x 1 3/4 x 5/8 includes 170-248 (5/16 ss)		1
30	100-432	Clutch clevis assembly; includes 170-248 (5/16 ss)		1
31	130-710	Sprocket; 50-B-21 1" b. 1/4" kw includes 170-248 (5/16 ss)		1
32	170-266	Roller chain; #50-36 p. includes 170-088 (#50 conn. link)		2
33	130-234	Sprocket; 50-B-15 1" b. 1/4" kw includes 170-248 (5/16 ss)		1
34	170-120	Key; type A woodruff 1/4 x 7/8 for input shaft sprockets and clutch clevis assembly.		3
35	100-899	Shaft assembly; output 1 x 1 1/8		1
36*	170-937	Shear pin; 3/16 x 1 includes 170-364 (3/32 x 3/4 cotter)		1
37*	100-F J	Shear collar assembly; includes 170-151 (3/8 ss)		1
38*	170-120	Key; type A woodruff 1/4 x 7/8		1
39*	132-130	Shaft; input for 50:1 case		
40	100-264	Sprocket; 50-21 clutch sprocket		1
41	170-241	Bushing; 1 x 1 1/4 x 1 1/8		1
42	130-394	Collar; 1 x 1 3/4 x 5/8 1/4" kw includes 170-248 (5/16NC x 5/16 ss) & 170-254 (5/16NC x 1/2 ss)		1 ea.
43	170-611	Brass yoke		1
44	170-595	Sliding clutch jaw 1" b.		1
45	171-132	Key; 1/4 x 1/4 x 3 3/8 - Tapered ends		1
47	130-769	Collar; 1 x 1 3/4 x 5/8 split includes 170-248 (5/16NC x 5/16 ss) & 170-254 (5/16NC x 1/2 ss)		1 ea.
48	100-237	Sprocket; 50-15 clutch		1
49	170-024	Bushing; 1 x 1 1/4 x 1		2
50	170-609	Gasket		1
51	101-103	Cover; includes 170-579 (3/8 fill plug) (2) cover mounts to housing with 170-256 (5/16 x 7/8 cs)		1 ea. 6 ea.
52	132-220	Shield; belt flap for shear coupler; mounts to bracket with 170-262 (5/16 x 3/4 cs) & 170-028 (5/16 fln)		1 ea.



Beater Gearcase



BEATER GEARCASE

252-TOW R120391

REF	PART NO	QTY	DESCRIPTION
	171-406	1	Bevel Case Assy; Inc. Vent Plug Mtg Hrd: 1/2" x 1" Bolt & LW (4 ea).
35	170-658	1	Housing
36	131-489	1	Shaft; Input
37	171-405	1	Shaft; Output
38	170-170	2	Key; Type "E" Woodruff 3/8" x 1-1/4"
39	170-441	1	Stake Nut For Output Shaft 1-1/2" x 18"
40	170-550	1	Dust Cap
41	170-559	1	Grease Seal For Input Shaft
42	170-676	1	Grease Seal For Output Shaft
43	170-632	4	Snap Ring
44	170-545	4	Bearing Cone 14137A
	170-546	4	Bearing Race 14276
45	170-671	2	Gear
46	170-507	1	Key; 3/8" x 3/8" x 1-3/8"
47	170-558	1	Stake Nut for Input Shaft 1-3/8"- 18
48	170-603	1	Gasket
49	170-661	1	Cover; Inc. Fill Plug
50	170-532	4	Bolt for Cover; 5/16" x 5/8"
	170-641	4	Shims (Use As Required)
	101-449	1	Splined Beater Plug
	133-020	1	Collar; See Pgs. 15 & 16 For Illustration

REPAIR INSTRUCTIONS

Remove cover bolts -50- from cover -49-, and remove cover and gasket -48-.

Remove dust cap -40- and snap ring -43- from output shaft end, and push output shaft -38- thru from beater side.

Remove nut -39- and key from the output shaft, and remove the bearings and races -44-, and the snap rings -43- and seal -42-. Clean and check these items and replace if they are damaged or worn.

Remove nut -47- from input shaft -37-, and drive out gear -45- and key -46-.

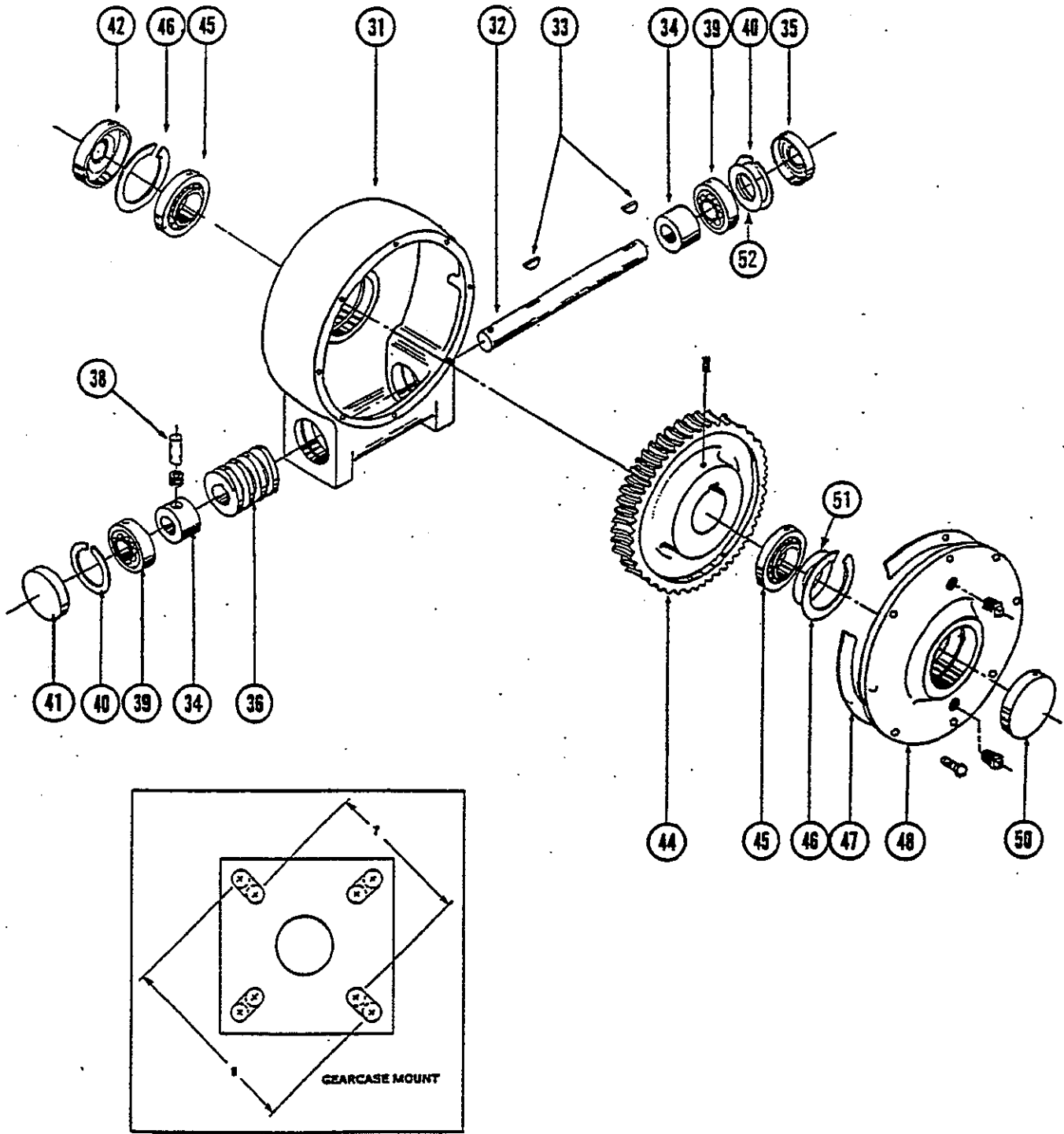
Remove the grease seal -41-, and push shaft out pushing from inside the housing.

Remove bearings and races -44- and snap rings -43-, check and replace if worn or damaged.

Reverse procedure to assemble.

50:1 GEARCASE - MECHANICAL APRON DRIVE

252-TOW R101393



KNIGHT MANUFACTURING CORP. PO BOX 167 BRODHEAD, WI 53520
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25

REF	PART NO	QTY	DESCRIPTION
	170-914 ^A	1	50:1 Case Complete Less Output Shaft; Used After 2-13-76, 7" Mtg Bolt Circle
	170-739* ^A	1	50:1 Case Complete Less Output Shaft; Used Before 2-13-76 8" Mtg Bolt Circle
31	170-913 ^A	1	Housing; 7" Mtg Bolt Circle, Used After 2-13-76
31	170-634* ^A	1	Housing; 8" Mtg Bolt Circle, Used Before 2-13-76
32	132-130	1	Shaft; Input 1" x 8-1/8" Used After 2-13-76
	131-360*	1	Shaft; Input 1" x 19-3/8" Used Before 2-13-76
33	170-120	2	Key; Type A Woodruff 1/4" x 7/8"
34	170-645	2	Spacer
35	170-538	1	Grease Seal
36	170-637	1	Worm
38	170-646	1	Roll Pin (Note; Some Spacers Used A 3/8" Set Screw In Place Of The Roll Pin)
39	170-535	2	Bearing Race; 15245
	170-534	2	Bearing Cone; 15101
40	170-536	2	Snap Ring
41	170-539	1	Dust Cap
42	170-640	1	Grease Seal
43	170-636 ^B	1	Hub
44	172-773	1	Worm Gear
	170-635 ^B	1	Worm Gear Ring Mtg Hrd: 3/8" x 1" Bolt & LW
	170-012	1	Key; 3/8" x 3/8" x 1-7/8"
45	170-639	2	Bearing Race; C20
	170-638	2	Bearing Cone; C19
46	170-632	2	Snap Ring
47	170-643	1	Gasket
48	170-642	1	Cover Mtg Hrd: 3/8" x 1" Bolt (8)
50	170-550	1	Dust Cap
51	170-641	A/R	Shim; Output Shaft
52	170-537	A/R	Shim; Input Shaft

Repair Instructions

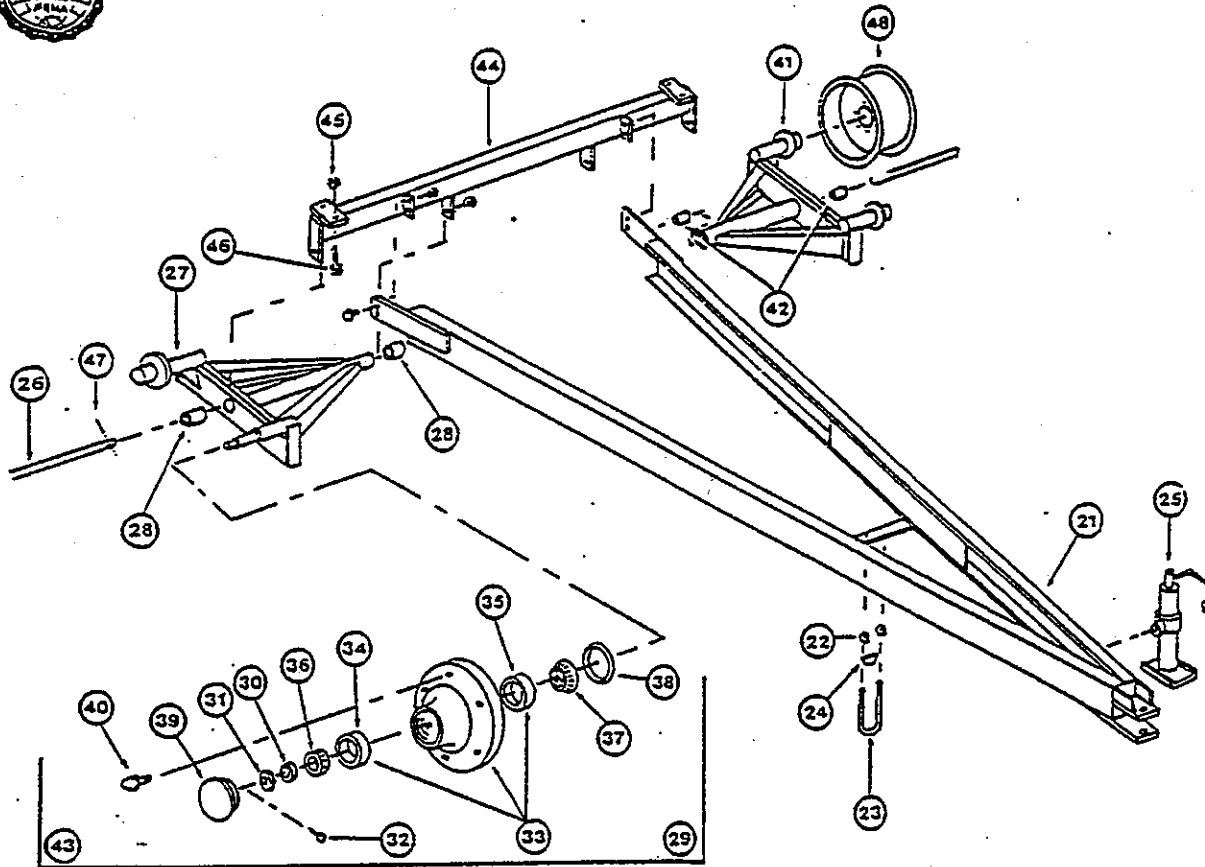
- Remove the cover and gasket from the case, and remove the cover roller bearing from the output shaft.
 - Remove the bronze gear ring from the hub, loosen the set screw on the hub, and remove the hub from the output shaft.
 - Remove the dust cap and snap ring from the housing. (See ref. #40 & 41)
 - Remove the shear pin from the shear coupler assembly, and drive the coupler assembly away from the 2-speed case far enough to separate the 2-speed output shaft from the 50:1 case input shaft.
 - From the coupler end of the gearcase, drive the input shaft thru the case, pushing all of the parts on the input shaft out.
 - Inspect all parts and replace if worn or damaged.
 - Reverse procedure to assemble. Fill case to plug level with Multi-vis 85-W140 gear lube.
- NOTE: For cases with a set screw in spacer #38, be sure this spacer is in the proper position as drawing, and be sure to tighten the set screw.

A: The 170-913 Housing can be used in place of the 170-634 Housing. The holes in the gearcase mount will need to be slotted to accept the 170-913 housing's 7" mounting bolt circle.

B: The 50:1 gearcase worm gear assembly has been redesigned eliminating (170-636) hub and (170-635) worm gear ring. After serial # (350-226) and (410-838), use (172-773) one piece gear.



ALWAYS GIVE MODEL AND SERIAL NUMBER OF UNIT.
ORDER BY PART NUMBER, NOT FIGURE REFERENCE NUMBER.



252 Spreader Oscillating Axle Parts

Ref	Part No.	Description	Qty	Ref	Part No.	Description	Qty
21	100578	Tongue Ass'y	1	41	101669	LH Bogie Ass'y	1
22	170031	Locknut 5/8"	4		101665	LH Bogie Weldment	1
23	170184	U-Bolt 5/8"	2		170023	Zerk 1/2-28 NF Straight	1
24	170198	Spacer	2	42	170171	Bushing 1 1/2 x 1 1/2 x 1 1/2	2
25	170984	Jackstand	1	43	170699	6-Bolt Hub	2
26	132967	Bogie Pin	2	44	101452	Beam Axle Ass'y	1
27	101663	RH Bogie Ass'y	1	45	170185	Locknut 3/4"	4
	101666	Bogie Weldment	1	46	170374	Bolt 3/4 x 2 1/2	4
	170023	Zerk 1/2-28 NF Straight	1	47	171414	Roll Pin 5/16 x 2 1/2	4
28	170171	Bushing 1 1/2 x 1 1/2 x 1 1/2	2	48	Parts to Complete the "60A-15" Option		
29	170699	6-Bolt Hub Ass'y	2		170116	Wheel 15 x 8 6-Bolt	4
30	170131	Washer 7/8 Flat	1	Parts to Complete the "60A-15T" Option			
31	170132	Nut 7/8 NF Castle	1		170116	Wheel with 12.5L x 15 New	
32	170236	Cotter Key 5/32 x 1 1/2	1		171535	Tubeless Ribbed 10-Ply Implement	
33	170544	6-Bolt Hub	1		171862	Tire Mounted	
34	170546	Race - Outside 14276	1	Parts to Complete the "60A-20" Option			
35	170547	Race - Inside 332	1		171016	Wheel 20 x 7 6-Bolt	
36	170545	Bearing 14137A OUTSIDE	1		171660	TIRE 16.00 x 20 RELAP	
37	170548	Bearing 372 INSIDE	1		1715L3	TIRE MOUNTED	
38	170549	Grease Seal	1				
39	170550	Dust Cap	1				
40	170551	Wheel Stud 1/2" NF	1				



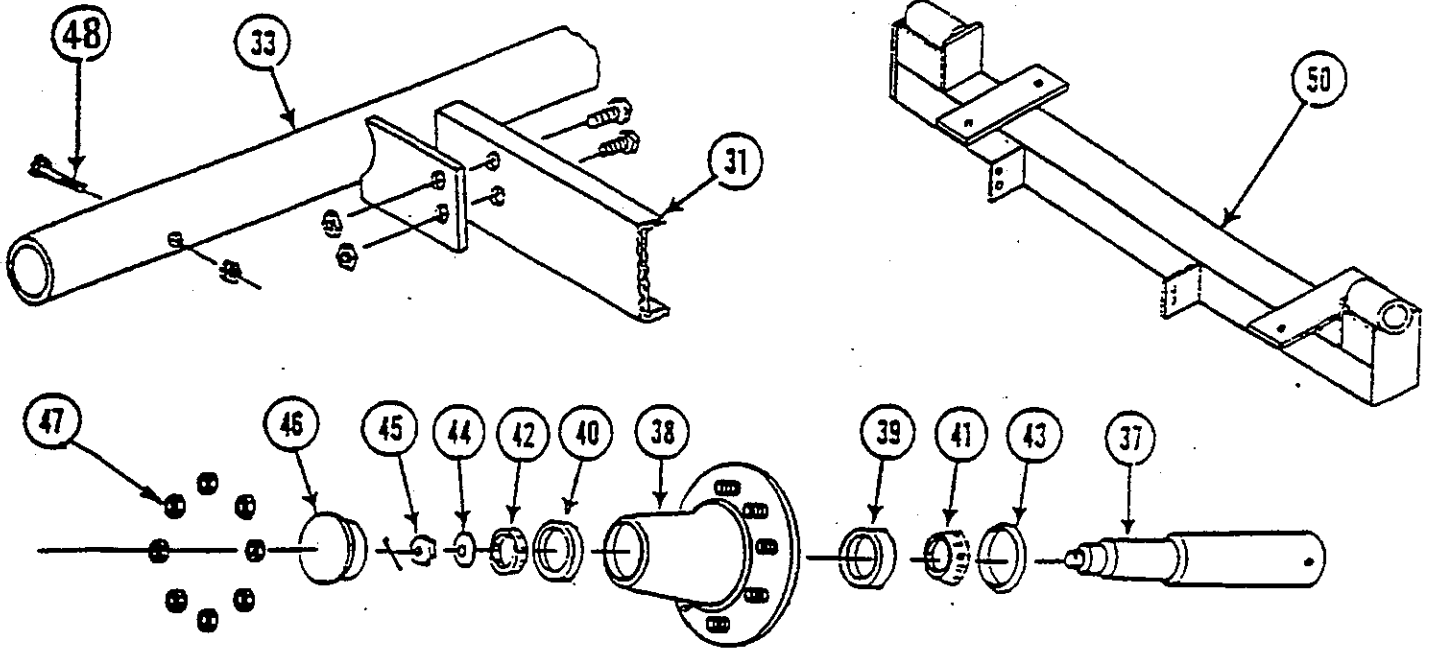
KNIGHT MANUFACTURING CORP.

P.O. BOX 167 1501 WEST 7TH AVE.
BRODHEAD, WISCONSIN 53520
PHONE - GENL. OFFICE (608) 897-2131
PHONE - PARTS DEPT. (608) 897-2125
CABLE: KNIGHT

REVISED: 9-30-84
ECN -

SINGLE AXLE UNDERCARRIAGE

252-TOW R070692

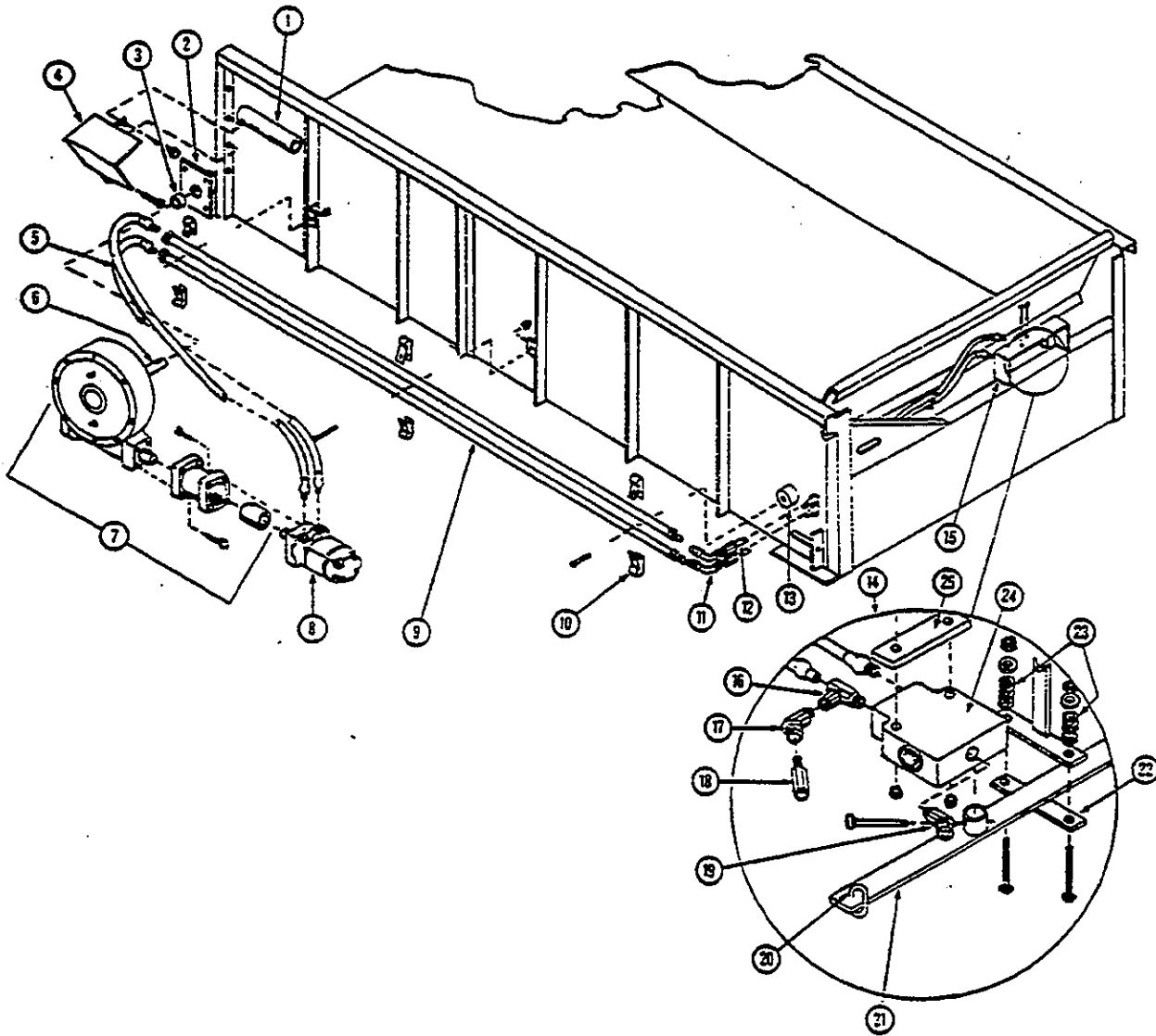


REF	PART NO	QTY	DESCRIPTION
31	100-578	1	Tongue Assy Mtg Hrd: 170-184 U-Bolt; 5/8" (2), 170-198 Cast Spacer (2) & 5/8" LN (4)
33	100-862	1	Single Axle; Straight Mtg Hrd: To Tongue: 5/8" x 1-3/4" Bolt & LN (4 ea) To Body: 170-183 3/4" U-Bolt (2) & 3/4" LN (4)
	170-112	2	Wheel; 20 x 8, 8-Hole Drop Center
	172-284	2	Wheel; 22.5 x 8.25, 8-Hole
	171-800	2	8-Bolt Hub & Spindle Assy.
37	171-745	1	Spindle; 2-1/2"
	170-755	1	8-Bolt Hub Assy
38	170-705	1	8-Bolt Hub
39	170-553	1	Bearing Race; Inside, 3720
40	170-546	1	Bearing Race; Outside, 14276
41	170-554	1	Bearing Cone; Inside, 3780
42	170-545	1	Bearing Cone; Outside, 14137A
43	170-556	1	Grease Seal
44	170-131	1	Washer; 7/8 Heavy Flat Type
45	170-132	1	Castle Nut; 7/8" NF
	170-236	1	Cotter Pin; 5/32" x 1-1/2"
46	170-550	1	Dust Cap
47	171-827	8	Nut
48	170-877	1	Spindle Mounting Bolt; 3/8" x 4" Grade 5 (170-047 LN)
50	101-001	1	Drop Axle Option Mtg Hrd: 3/4 x 2-1/2 Bolt & LN (4)

An asterisk (*) at the end of a part number (XXX-XXX*) indicates that the part is no longer used in production for this application. Superscript letters (XXX-XXX^A) refer to footnotes and/or illustration boxes.

HYDRAULIC APRON DRIVE

252-TOW R120391



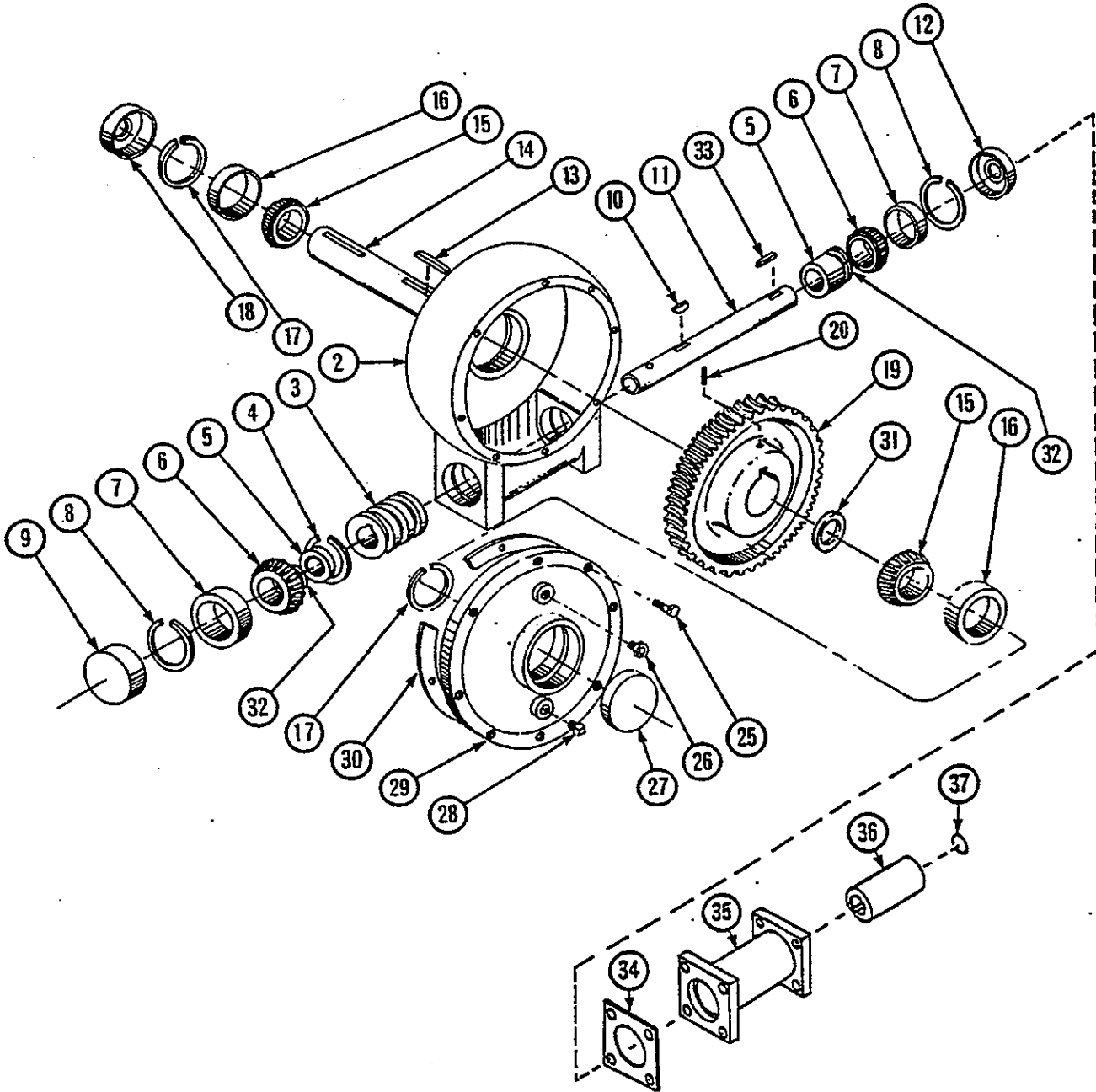
HYDRAULIC APRON DRIVE

252-TOW R012793

REF	PART NO	QTY	DESCRIPTION
1	132-827	1	Rear Transfer Shaft Shield; 1-1/4" x 12" Hyd. Apron Drive Only
2	100-898	1	RH Apron Drive Shaft Bearing Mtg Hrd: 1/2" x 2-1/2" Bolt, LW & Nut (2 ea)
3	170-318	2	Bushing; 1-1/2" x 2" x 1-1/4" Bronze
4	101-239	1	Shield; 50:1 Gearcase
5	171-196	2	Hydraulic Hose Assy; 1/2" x 20-3/4"
6	132-803	1	Shaft; Apron Drive; 1-1/2" x 89-3/4"
7			Ref. Only, See 50:1 Gearcase Pages For Parts
8	170-809	1	Hydraulic Motor; 6 Cu. In. Mtg Hrd: 3/8" x 1" Bolt & LW (4 ea)
9	171-293	2	Hydraulic Tube Assy; 3/4" x 138"
10	171-561	6	Tube Clamp Mtg Hrd: 5/16" x 1" Bolt & FLN (1 ea)
11	171-277	1	Hydraulic Hose; 1/2" x 44"
12	171-278	1	Hydraulic Hose; 1/2" x 47-1/2"
13	134-375	1	Poly Block Mtg Hrd: 5/16" x 2-1/2" Bolt, LW & Nut
14	101-893		Assy; Flow Control Complete Mtg Hrd: 5/16" x 3/4" Bolt, LW & Nut (3 ea)
15	101-894	1	Assy; Flow Control Mount Mtg Hrd: 5/16" x 3/4" Bolt, LW & Nut (3 ea)
16	170-859	1	Service Tee; 1/2"
17	171-182	1	Swivel Adapter; 1/2" x 45°
18	171-151	1	Line Check Valve; 1/2"
19	171-182	1	Swivel Adapter; 1/2" x 45°
20	170-977	2	Repair Link-Rope Hook
21	101-244	1	Control Handle Assy Mtg Hrd: 1/4" x 2-3/4" Bolt, FW & Nut (4 ea)
22	132-759	1	Friction Bar
23	170-345	2	Spring
24	170-510	1	Flow Control Valve
25	170-302	4	Spacer Washer

50:1 GEARCASE - HYDRAULIC APRON DRIVE

252-TOW R101393



KNIGHT MANUFACTURING CORP. PO BOX 167 BRODHEAD, WI 53520
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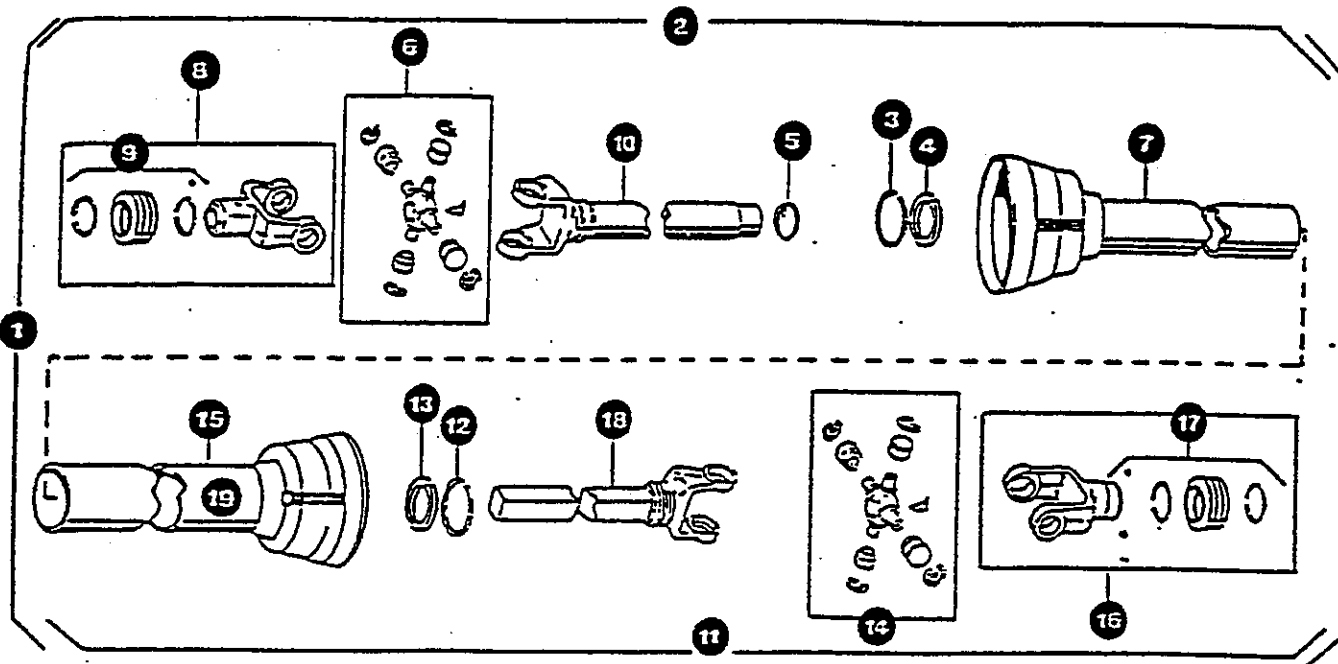
REF	PART NO	QTY	DESCRIPTION
	172-020	1	50:1 Case Complete
2	171-051 ^A	1	Housing, Use With 171-880 Hyd. Adapter Only
3	170-637	1	Worm
4	170-605	1	Snap Ring
5	170-645	2	Spacer
6	170-534	2	Bearing Cone
7	170-535	2	Bearing Cup
8	170-536	2	Snap Ring
9	170-539	1	Cap
10	170-120	1	Key; Type "A" Woodruff
11	133-733 ^A	1	Input Shaft, Use With 171-880 Hyd. Adapter Only
11	132-487* ^A	1	Input Shaft, Use With 171-173 Hyd. Adapter Only
12	171-881 ^A	1	Seal, Use With 171-880 Hyd. Adapter Only
12	170-538* ^A	1	Seal, Use With 171-173 Hyd. Adapter Only
13	170-012	1	Key; Square, 3/8" x 2-3/8"
14			Shaft (Reference only. See Apron Drive Section)
15	170-638	2	Bearing Cone
16	170-639	2	Bearing Cup
17	170-632	2	Snap Ring
18	170-640	1	Seal
19	172-773	1	Gear
20	170-151	1	Setscrew
21	170-636 ^B	1	Hub
22	170-635 ^B	1	Ring Gear
23	170-054 ^B	6	Bolt; 3/8" x 1"
24	170-006 ^B	6	Lockwasher; 3/8"
25	170-054	8	Bolt; 3/8"
26	170-565	1	Vent Plug; 3/8"
27	170-550	1	Cap
28	170-541	1	Level Plug
29	170-642	1	Cover
30	170-643	1	Gasket
31	170-641	A/R	Shim
32	170-537	A/R	Shim
33	171-883 ^A	1	Key; Square, 1/4" x 1", Used With 171-880 Hyd. Adapter
33	170-120* ^A	1	Woodruff Key; Used With 171-173 Hyd. Adapter
34	171-882	1	Gasket
35	171-880 ^A	1	Hyd. Adapter; With Seal Mtg Hrd: 3/8" x 1" Bolt & LW (8 ea)
35	171-173* ^A	1	Hyd. Adapter; No Seal
36	171-172	1	Coupler
37	171-124	1	Snap Ring

REPAIR INSTRUCTIONS

- 1). Remove the cover (#29) and gasket (#30) from the case (#2).
- 2). Remove the roller bearing (#15) from the output shaft (#14).
- 3). Remove the bronze gear ring (#22) from the hub (#21).
- 4). Loosen the set screw (#20) on the hub (#21) and remove the hub from the output shaft (#14).
- 5). Remove the grease seal (#18) and snap ring (#17) from the housing and tap out the output shaft (#14).
- 6). Remove the Hydraulic Adapter (#35) and dust cap (#9) from the ends of the case.
- 7). Drive the input shaft (#11) through the case, pushing out all of the parts on the input shaft.
- 8). Remove snap rings (#8 & #4) and keys (#10) to separate parts.
- 9). Inspect all parts and replace if worn or damaged.
- 10). Reverse procedure to assemble. NOTE: When assembling ring gear (#22) to hub (#21), be certain that the deeper recess is against the hub face.
- 11). Fill case to plug level with 85W140 gear lube.

A: Before 10-88, the Input Shaft Seal (Ref. #12) was pressed in the gearcase housing. Currently, the seal is pressed into the Hydraulic Adapter. Order parts based on where this seal is found.

B: The 50:1 gearcase worm gear assembly has been redesigned eliminating (170-636) hub, (170-365) ring gear, (170-054) bolt and (170-006) lock washer. After serial # (252-1708), use (172-773) one piece gear.



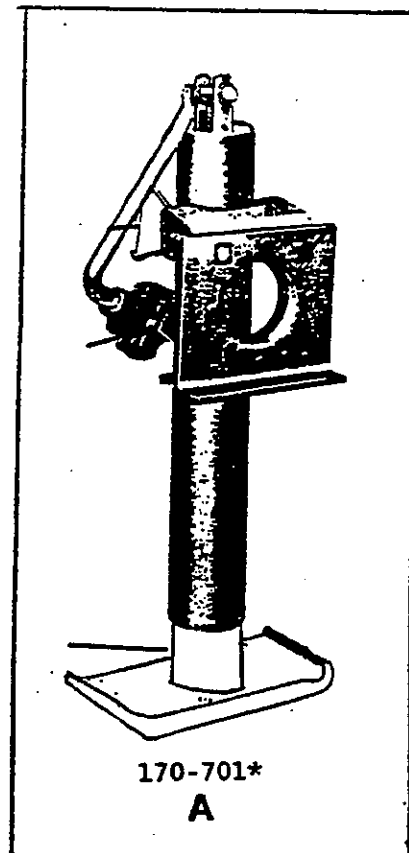
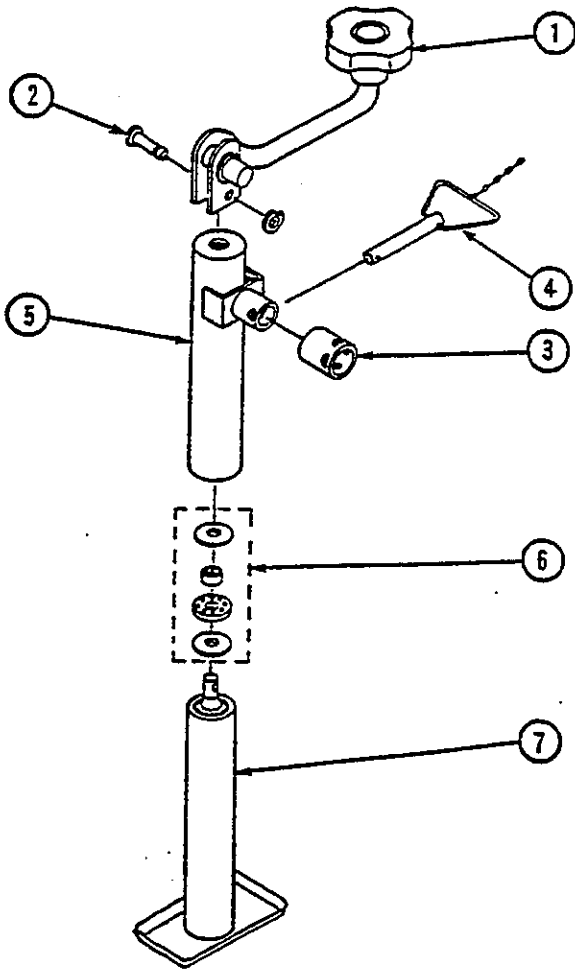
REF	PART NO	QTY	DESCRIPTION
1	171-530	1	#52H PTO Driveline - 540 RPM - Plastic Shield
2	171-533	1	Joint & Tube With Shield
3	170-219	1	Bearing Retainer
4	170-220	1	Nylon Bearing
5	171-528	1	Nylon Centralizer
6	170-720	1	Repair Kit
7	171-534	1	Male Shield
8	171-538	1	Lock Yoke Assy
9	171-529	1	Quik-Lok Repair Kit
10	171-002	1	Yoke & Tube Assy
11	171-531	1	Joint & Shaft With Shield
12	170-219	1	Bearing Retainer
13	170-220	1	Nylon Bearing
14	170-720	1	Repair Kit
15	171-532	1	Female Shield
	171-550	1	Decal; Danger
16	172-018	1	Lock Yoke Assy
17	172-019 ^A	1	Spring Lock Repair Kit
18	171-001	1	Yoke & Shaft Assy

A: The manual slide lock repair kit (171-529*) is obsolete. Order the 172-018 lock yoke assembly.

JACKSTAND

252-TOW R120391

REF	PART NO	QTY	DESCRIPTION
	170-984	1	Jackstand Assy; Swivel Tube Type, Used After 10-76
	170-701* ^A	1	Jack; Swivel Plate Type, Used Before 10-76
1	170-386	1	Crank Assy
2	171-860	1	Crank Pin (Includes "C" Washer)
3	170-985	1	Mount Tube
4	170-987	1	Pin And Chain Assy
5	170-986	1	Outer Tube
6	170-397	1	Thrust Bearing Kit
7	171-941	1	Inner Tube Assembly (Includes Nut & Screw)



A: This jack is no longer available. The current jack (170-984) may be used if a new mount tube (170-985) is welded to the spreader.

An asterisk (*) at the end of a part number (XXX-XXX*) indicates that the part is no longer used in production for this application. Superscript letters (XXX-XXX^A) refer to footnotes and/or illustration boxes.