M-C

FLEX SHREDDER

ASSEMBLY — OPERATION

AND MAINTENANCE

INSTRUCTIONS

MODEL

24 - 30

FS 76

MATHEWS COMPANY • CRYSTAL LAKE, ILLINOIS, 60014 • U. S. A.

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INSTRUCTIONS FOR ORDERING PARTS:

1. ALL PARTS MUST BE ORDERED FROM YOUR DEALER.
2. GIVE MODEL NUMBER and SERIAL NUMBER that is stamped on the NAME PLATE of your machine. ORDER BY QUANTITY DESIRED AND DESCRIPTION OF THE PART.
3. NOTE: The Company reserves the right to incorporate any changes in design without obligation to make these changes on units previously sold.

DANGER

1. KEEP ALL SHIELDS IN PLACE.
2. STOP ENGINE BEFORE LEAVING OPERATOR'S POSITION TO ADJUST, LUBRICATE, CLEAN, OR UNCLOG MACHINES, UNLESS OTHERWISE SPECIFICALLY RECOMMENDED IN THE "OPERATOR'S MANUAL".
3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING THE MACHINE.
4. KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
5. KEEP OFF EQUIPMENT UNLESS SEAT OR PLATFORM FOR OPERATION AND OBSERVATION IS PROVIDED.
6. KEEP ALL OTHERS OFF.
7. USE FLASHING WARNING LIGHTS WHEN OPERATING ON HIGHWAYS EXCEPT WHEN PROHIBITED BY LAW.
8. MAKE CERTAIN EVERYONE IS CLEAR OF MACHINE BEFORE STARTING ENGINE OR OPERATION.

SETUP - ASSEMBLY INSTRUCTIONS

Check packages and bundles to make sure that they correspond with your shipping documents. Make claims for shortages immediately.

Step 1. Place the main frame and 7' center body assembly on a level area approximately 6" off the ground. Mount the two double wheel mount assemblies (Ref. No.1) to the extreme ends of the square axle tube using the 5/8 - 11 X 2¼ bolts, lock-washers and nuts provided on each assembly.

Care should be taken to tighten all four bolts equally a few turns at a time to insure proper seating on the axle. Mount four tires to the double wheel mount assemblies.

Step 2. Place either the left or right wing body next to the main frame assembly so that the hinge bushings on both the main frame and the wing body are in line. Skid the wing body sideways and up until the bores of both sets of bushings are in line. This will require blocking of the wing body as it is moved over to meet the main frame.

Install both hinge pins (Ref. No. 2) at the same time, sliding each one a little so as to insure proper alignment of the wing body and main frame assembly.

IMPORTANT

ALL FOUR PINS SHOULD BE INSTALLED WITH TAPERED END POINTING TO OUTSIDE OF WING BODIES.

If both pins do not engage, check the alignment of the hinge bores and shim the wing body accordingly. The hinge pins are sized closely to the bushings so they may need to be tapped in with a rawhide mallet. Do not use excessive force installing the hinge pins as this will cause damage to the pins and bushing bores.

After the hinge pins are in place, install the four keeper 5/16 X 2¼ bolts thru the end of the pins.

Repeat this operation for the opposite wing body.

Step 3. Mount three (two on the 24' model) single wheel mount assemblies (Ref. No. 3) on each wing axle, placing one to the extreme outside end and the other two spaced evenly along the axle tube. (Caution: The inner most wheel mount assembly on the left wing body must be set so as to clear the belt guard when the wing body is raised for road transport.) Again, care should be taken to tighten all four wheel mount bolts equally a few turns at a time to insure proper seating on the axle tube. (See Operating Tips for row crop wheel spacing.)

Step 4. Remove the banding from each wing body height adjustment cylinder and hose (Ref. No. 4) and install them on the wing body mount and wing axle mount using the pins and clips provided in each cylinder.

The wing body tires may now be mounted.

Step 5. Install the two gauge wheel assemblies (Ref. No. 5) on each wing body using the lower set of holes on the body mounting bars. Uncoil the wing body tie chains from the main frame and slip the end of the chain into the slotted bracket (Ref. No. 6) on the top of each wing body. Adjust the eye bolt on the tie chain until the chain is tight and the eye is in line with the center of the body hinge pins. This may require taking up or letting out of links at the slotted bracket on the wing bodies. (NOTE: The eye must be in line with the center line of the hinge points, or the tie chain will become slack and excessively tight during the up and down travel of the wing bodies.)

Install the keeper bars over the slotted tie chain mounts. Two plastic tie wraps are provided for each side to secure the wing lift cylinder hoses to the tie chains.

Step 6. Remove the banding from the wing lift cylinder and primary lift arm assembly (Ref. No. 7) and install the secondary lift arm to the lift cylinder rod by removing the clips and pins inserted through the rod end of the cylinder.

Line up the holes in the secondary lift arm, cylinder rod end and primary lift arm and insert the pin and clips. The lower end of the secondary lift arm is mounted to the wing body with the 1" pin provided.

Step 7. Remove the front PTO shield (Ref. No. 8) and slide the tractor take-apart PTO shaft onto the 1 11/16" -20 splined jackshaft and fasten with the cap screw and washer provided. The cap screw MUST be wired securely through the hole in the head of the cap screw and around the PTO yoke. Replace the PTO shield .

It will be necessary to secure 3-male quick couplers to mate the particular tractor used to the M-C Flex Shredder hydraulic system.

Step 8. Slide the male wing PTO half shaft into the female half shaft attached to each wing body rotor end. Pull the completed assembly back and onto the splined lower jackshaft, depressing the safety lock pin as this is done. Push the assembly all the way on until the safety lock pin snaps into the groove on the splined jackshaft. WITHOUT depressing the safety lock pin, pull and push several times on the PTO to make sure it is securely in place. Both left and right wing body PTO's are installed in the same manner. It is not necessary to phase either of these PTO's.

NOTE: Whenever the wing bodies are raised, it is necessary to repeat the above procedure BEFORE RUNNING the machine.

THE MACHINE ASSEMBLY IS NOW COMPLETE. BEFORE PUTTING THE MACHINE IN OPERATION, CHECK THE GEARBOX OIL LEVEL AND ALL NUTS AND BOLTS FOR TIGHTNESS. MAKE SURE ALL GUARDS AND SHILDS ARE IN PLACE AND SECURELY FASTENED. RUN IT AT A LOW RPM CHECKING TO MAKE SURE THAT ALL DRIVE LINE PARTS ARE MOVING FREELY.

SECTION II.

OPERATING TIPS

By following the sugesstions in OPERATING TIPS, you will be able to PROLONG the LIFE of your FLEX SHREDDER and get the MOST EFFICIENT and EFFECTIVE results.

1. BEFORE ATTEMPTING to make ANY INSPECTION, BE SURE to DISENGAGE the PTO and STOP the tractor engine.

2. AFTER SHREDDING approximately 10 to 15 acres, the inside of the machine and the blades will become polished and will give you the best performance.

3. AFTER OPERATING for a few hours, check to MAKE SURE that all nuts and bolts are TIGHT (check to MAKE SURE that ALL Knife Blades are secure.)

4. AFTER OPERATING for 2 to 3 hours, all the Drive Belts Tension will need to be adjusted. DO NOT operate with the drive belts loose as it will cause excessive wear and shorten belt life. (See Maintenance, Item #2).

5. ALTHOUGH the machine is of very RUGGED construction, excessive ABUSE caused by ROCKS and other OBSTRUCTIONS will result in EXCESSIVE WEAR and costly REPAIR to the ROTORS and BLADES.

6. DO NOT EXCEED the 1000 RPM PTO SPEED.

7. On all row crops, operate the knives 2" above the hills.

8. When operating in row crops, the rear wheels may be adjusted for various spacings. Start in the middle on the two double wheel mounts and adjust them in or out accordingly. (NOTE: Keep the double wheel mounts spaced as wide as possible for better stability when roading.) Next, adjust each wing body wheel mount measuring the desired spacing from the double wheel mounts outward.

9. Cutting Height adjustment is obtained with the three (3) 8" hydraulic lift cylinders. A pre-determined height setting may be achieved by putting an equal number of ram limiters on each cylinder rod.

10. Before running the machine after roading, make sure both wing PTO's are properly hooked up. RUNNING THE MACHINE WITH WING PTO's NOT ENGAGED WILL SERIOUSLY DAMAGE THEM.

11. WHENEVER THE WING BODIES ARE FULLY RAISED AND BEFORE ROADING. THE SAFETY CHAIN BETWEEN BOTH WING BODIES MUST BE SECURELY INSTALLED. Both wing body female PTO half shafts should be chained up with the "S" hook inserted into the hole in the end of the PTO shaft. Both wing body male PTO half shafts should be removed from the lower splined jackshaft.

12. All three Flex Shredder body sections are equipped with an adjustable cutter bar. If crop residues are quite heavy, it may be necessary to loosen the bolts and slide the cutter bar forward and away from the cutting knives. As crop residues become lighter or wear occurs on the cutting knives and/or bar, it may be necessary to loosen the bolts and slide the cutter bar backward towards the knives. Cutter bars are FACTORY - SET at a MAXIUM DISTANCE away from knife tips. AT NO TIME SHOULD THE CUTTING KNIVES STRIKE THE CUTTER BAR.

13. Hitch settings: The straight drawbar hitch is set by leveling the lower front portion of the main frame front to tear and adjusting the machine clevis up or down to suit the drawbar height on the particular tractor being used. The lower front frame of the machine should have 10" to 11" ground clearance as measured from the bottom of this portion of the frame to the ground. There are 10 different height settings with the clevis, 5 in the upright position and 5 with the clevis inverted.

14. Before running, remove the 1" pins on the lower end of the secondary lift arms to allow the wing bodies to flex and follow the contour of the land. Replace these pins before attempting to raise the wing bodies.

15. Wing support arms (for wings in transport position.)
When machine is to be transported with wings folded up, the raised wing support arms MUST be employed.

A. Before raising wings hydraulically, COMPLETLY REMOVE Wing Upward Travel Limiters. Failure to do this will cause machine damage.
B. Remove the 1" clevis pins from the saddles.
C. Wing units can now be raised to the transport position.
D. As the wing nears the transport position the saddle will be coming down over the cross beam. Continue to raise wing until saddle bottoms out. Then install 1" clevis pin & secure same with keeper pins. At this time the second wing will have started up.

D. (Con't)
Repeat operation untill it also is secured with 1" clevis pin. Release hydraulic pressure so the 1" pins are forced against the bottom side of the cross beam. This will remove tension from the 24" Hydraulic Cylinder.

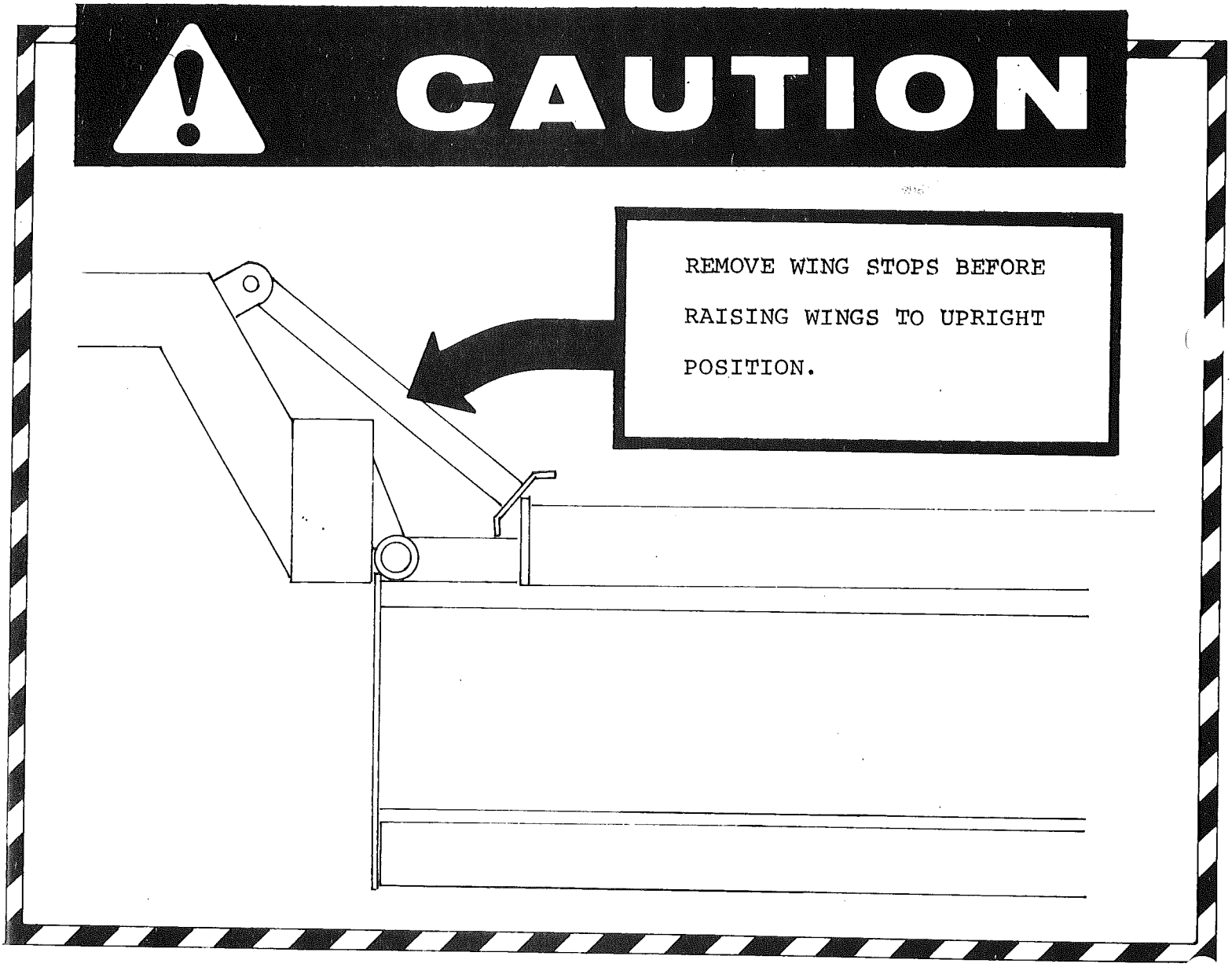
E. Remove male wing PTO half.

F. TO WING DOWN -- reverse procedure.

CAUTION

ALWAYS RAISE AND LOWER WING UNITS ON LEVEL TERRAIN!!

16. Wing Upward Travel Limiter
    A. This was designed to prevent wing PTO damage when body(s) is allowed to raise high enough to cause wing PTO seperation.
    B. These arms MUST BE REMOVED COMPLETELY before raising wings hydraulically to the transport position.
    C. NEVER operate wing(s) in such a steep incline to cause wing(s) to lift the center unit after wing upward travel limiter has engaged.



MAINTENANCE

1. SHARPENING ROTOR BLADES:

Step 1. Secure the Rotor. Line up the bank of Knives with the slot below the Rotor Bearing.

Step 2. Remove the End Locator Bracket and slide the Knife Hanger Rod out allowing the Knives to drop off.

Step 3. Sharpen the Blades. DO NOT sharpen the front edge. REPLACE any damaged Blades or Hangers. Operating with damaged Blades or Hangers can cause Rotor inbalance.

Step 4. Replace the Knife Blades, Knife hanger Rod, and End Locator Bracket. MAKE SURE the dished or concave side of the Blades, when hanging down, are facing the front of the machine and will swing freely.

2. DRIVE BELT ADJUSTMENT AND CARE: Both the 10-band main drive belts and the 3-band secondary drive belt are the same construction. These belts, when new, will do 95% of their stretching and seating in the first 20 to 30 hours of operation. IT IS IMPORTANT that they be kept as tight as possible during this initial run-in period and thereafter.

CAUTION: Drive belts that are run too loose will heat up and wear excessively, greatly shortening their life.

DURING the run-in period, both sets of drive belts should be checked every 2 -3 hours of operation and adjusted as needed. AFTER the run-in period, both sets of belts should be checked each day before running and adjusted when needed.

To adjust the 3-band drive belt, loosen both large idler lock nuts. Adjust the ½" threaded rod outward until proper tension is achieved.

To check for proper tension on the secondary drive (3-band) belts, apply approximately 60 pounds of force inward, midway between the IDLER and the LOWER pulley. With this amount of force, the belt should deflect 1/8" to 3/16" as measured with a straight edge.

3. The 10-band belt drive (wing drive) features a spring loaded idler which maintains proper tension. The only adjustment required, is to keep spring compression distance at 10". To obtain this, adjust lower spring retaining cup upward untill sleeve (inside of spring & outside of rod) is tight. Tighten jam nut against adjusting nut, This procedure should have to be done only occasionally, but usually as soon as the belts are broken in.

IMPORTANT

KEEP STRAW/STALKS, DUST & OTHER DEBRIS FROM BUILDING UP TO ANY EXCESS IN EITHER BELT GUARD BOX. THIS WILL INSURE LONGER BELT LIFE.

(Care should be taken in adjusting both sets of drive belts as it is often the tendency to have banded V-belts too loose and not too tight).

3. CHECK THE OIL LEVEL IN THE GEARBOX REGULARLY. To check it, remove the Oil Level Plug on the side of the gearbox. If at the proper level, the oil will run out of this hole. If not at the proper level, remove the Filler Plug on the top of the Gearbox and bring up to oil level plug with 90 gear lube.

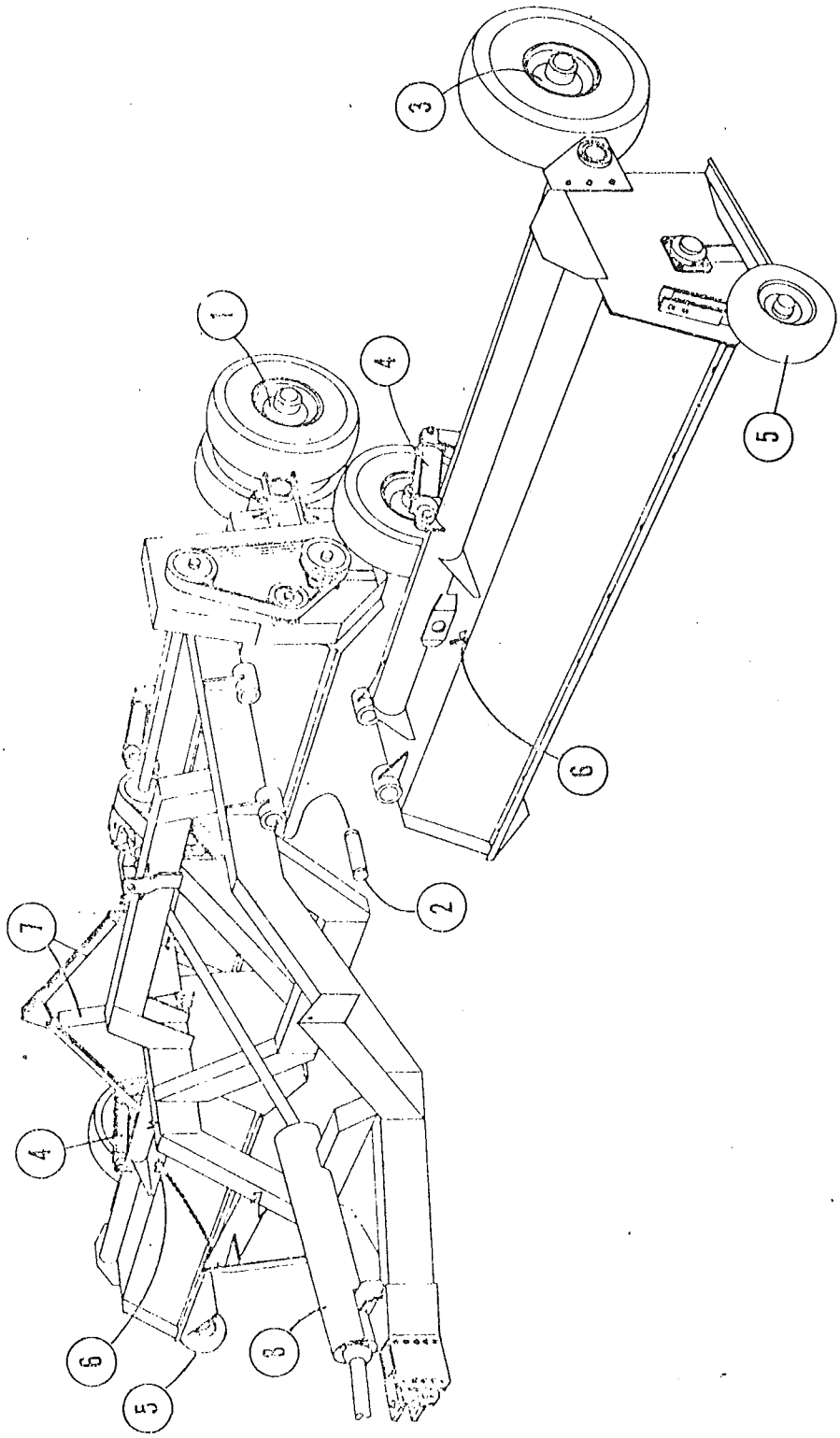
IF MACHINE IS IN CONSTANT USE, LUBRICATE ALL POINTS DAILY. USE GREASE SPARINGLY TO AVOID DAMAGING BEARING SEALS.

4. GREASE ALL BEARINGS, PTO'S AND WING BODY HINGE PINS DAILY. There are 6 flange bearings (one on each end of the cutting rotors), 5 pillow block bearings, (2 on the incoming PTO jackshaft which may be reached through the holes in the round guard tube), 2 on the lower main belt drive jackshaft, and one on the top at the end of the gearbox output shaft.

There are 11 PTO grease zerks: 3 on the tractor take-apart shaft, 2 on the fixed incoming shaft and 3 on both lower wing body drive PTO's. All PTO grease zerks are accessible at the end of the guards. When greasing through the round holes, rotate the particular shaft until the grease zerk lines up with these holes.

There are 8 grease zerks (4 on each side) located on the main frame and wing body bushings. These should be greased daily or more often under dusty conditions.

5. WINTER STORAGE. Before storing your Flex Shredder, grease all of the Bearings to eliminate any cavities where condensation may occur. It is also advisable to coat all the exposed surfaces of the inside of the machine with oil or grease to prevent rusting and pitting during storage.


1
2
3
4
5
6
7
4
6
5
3

INITIAL WING SUPPROT ADJUSTMENT

Place wing support arms (A) on wing plate (B) and bolt down loosely. Place arm support brace (F) as illustrated, bolt down loosely. Raise wings slowly until wing support arms come to a rest on upper cross beam (C). CAUTION MAKE SURE WING ARM DOES NOT HIT CROSS BEAM WHILE RAISING WINGS BEFORE FINAL ADJUSTMENT IS MADE.

Place pin (D) thru arm hole (E) on underside of cross beam. Make final adjustment on wing plate (in direction of arrows) and secure all bolts. Next secure support brace (F) in place checking to make sure wing arm stays in proper alinement.

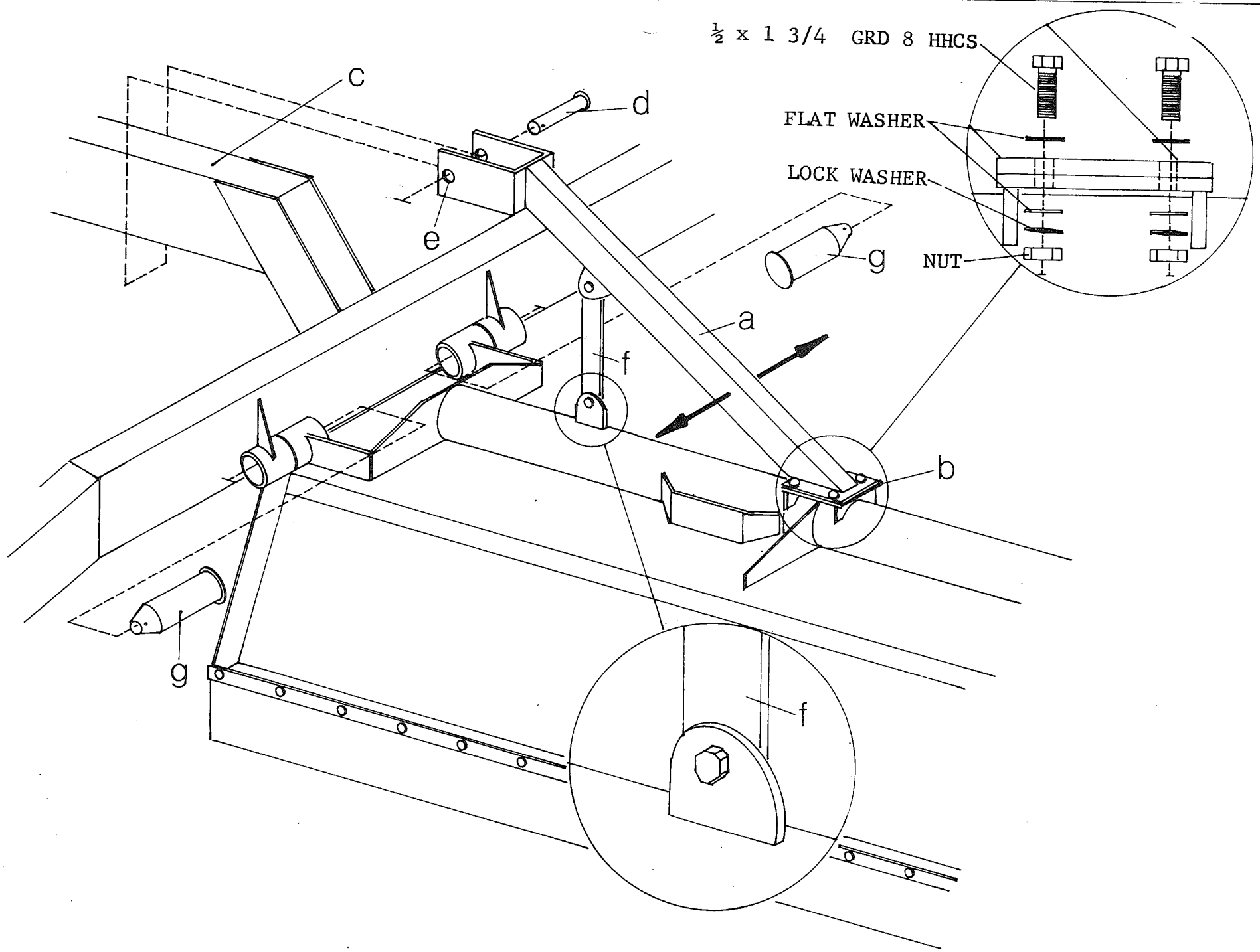
Remove arm pin, lower and raise wing again to make sure unit is working properly

NOTE: When machine is in towing position let wings rest on wing arm pins not on Hydraulic cylinders.

CAUTION

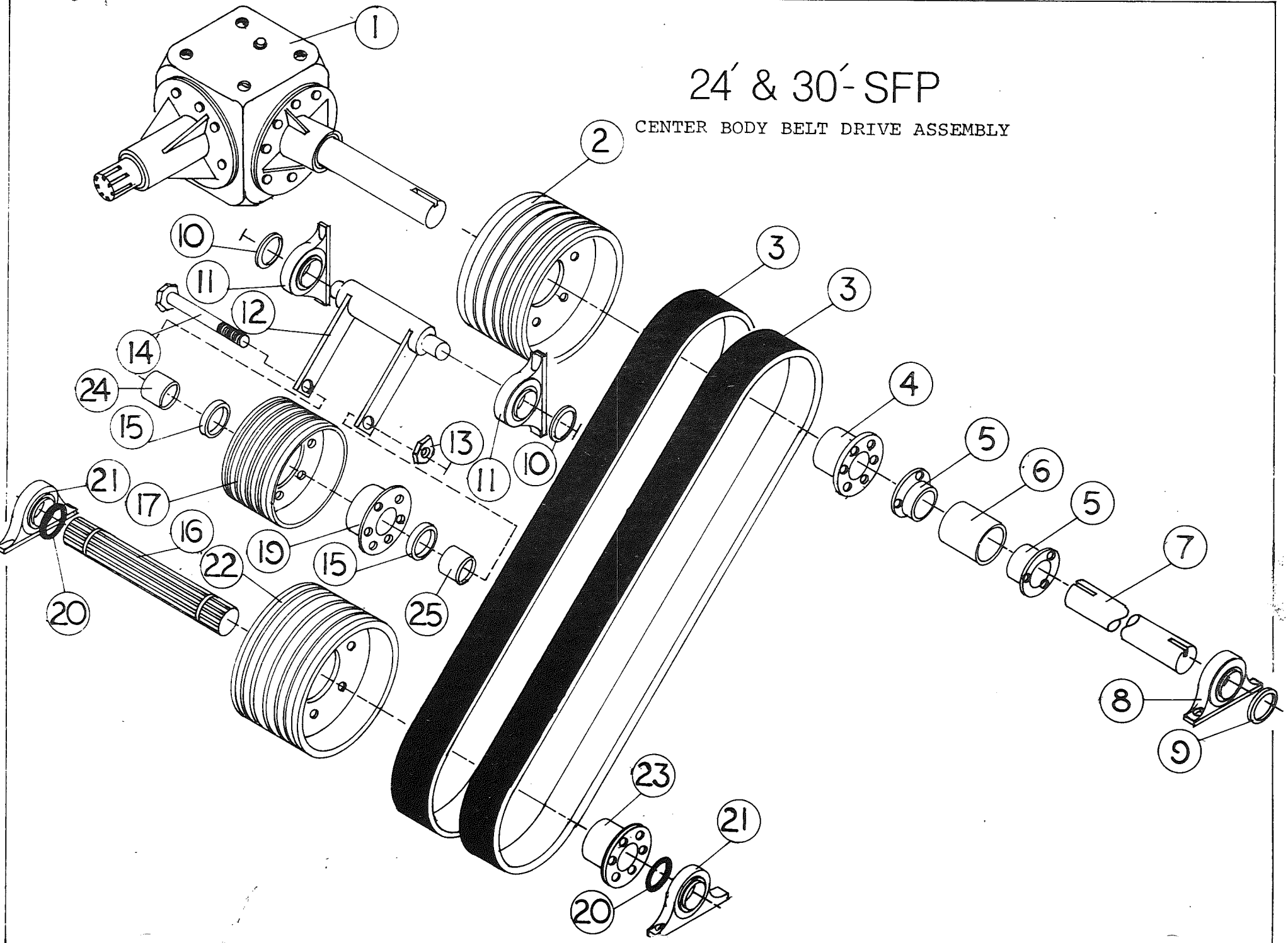
REMOVE WING STOPS (NOT SHOWN) BEFORE RAISING WINGS TO UPRIGHT POSITION.

NOTE: Place hinge pins (D) in sleeves with bullet head facing out as illustrated. Secure 5/16 X 2 1/2 bolt and locking hex nut (provided).


½ x 1 3/4 GRD 8 HHCS
FLAT WASHER
LOCK WASHER
NUT
a
b
c
d
e
f
g
g
f

24' & 30'- SFP

CENTER BODY BELT DRIVE ASSEMBLY



24" & 30" SFP CENTER BODY BELT DRIVE ASS'Y

REF	PART No.	DESCRIPTION
1	1416601	FLEX SHREDDER GEAR BOX
2	1416211	MAIN DRIVE SHEAVE UPPER-5V-10.9-O.D. 10GRV
3	1416102	MAIN DRIVE POWER BAND BELT 5V-1250-5GRV
4	1416205	MAIN DRIVE BUSHING
5	1416608	RIGID COUPLER BUSHINGS
6	1416605	COUPLING SLEEVE
7	1415082	GEAR BOX OUTBOARD SHAFT
8	1416000	OUTBOARD SHAFT BEARING 1 15/16
9		LOCK COLLAR
10		LOCK COLLAR
11		1 1/4" PILLOW BLOCK BEARING
12	1410045	IDLER PIVOT WELDMENT
13		HEX HEAD NUT 1 1/4"
14		HHCS 1 1/4"
15	1426211	MAIN IDLER BEARING
16	1416606	SPLINE DRIVE SHAFT
17	1416213	MAIN DRIVE IDLER SHEAVE 5V-8.0-O.D. 10GRV
18	REF TO 12	IDLER PIVOT WELDMENT
19	1416200	IDLER BUSHING
20		LOCK COLLAR
21	1116001	PILLOW BLOCK BEARING 1 3/4"
22	1416212	MAIN DRIVE SHEAVE
23	1416210	MAIN DRIVE SPLINE BUSHING
24		IDLER SPACER
25	1415610	IDLER SPACER

FARM EQUIPMENT MANUFACTURING
MATHEWS COMPANY
500 INDUSTRIAL AVE
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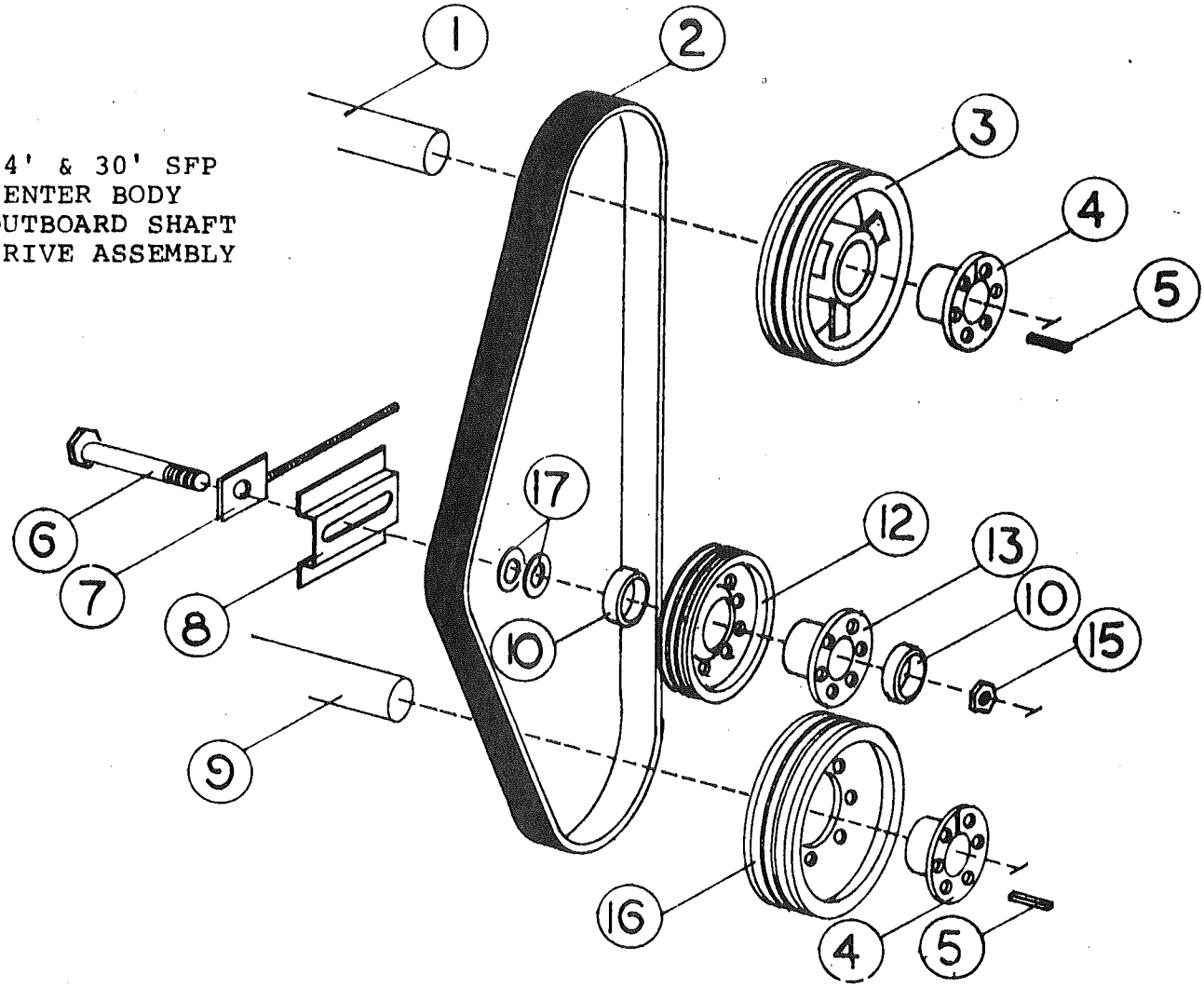
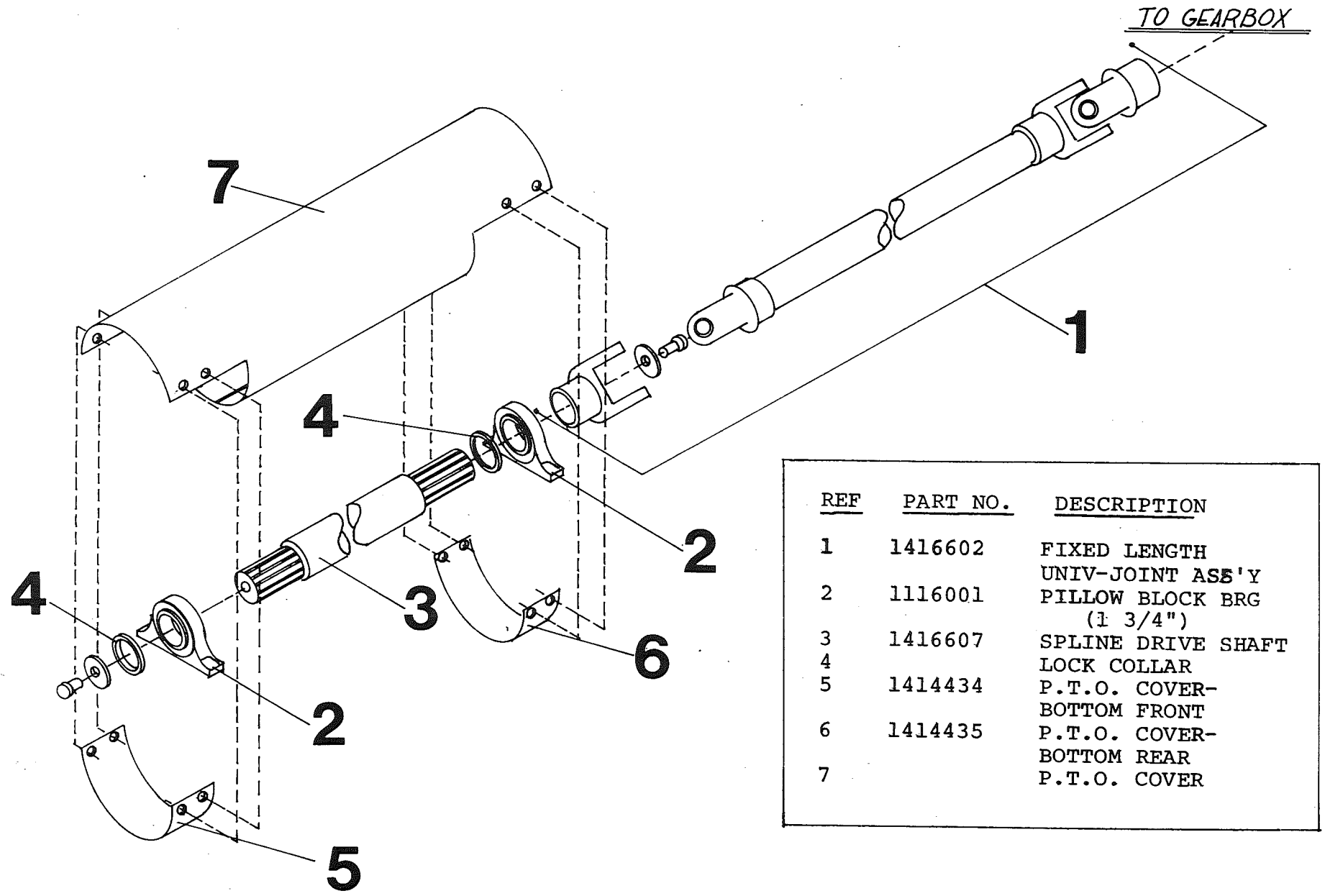
24' & 30' SFP
CENTER BODY
OUTBOARD SHAFT
DRIVE ASSEMBLY



REF. NO.	PART NO.	DESCRIPTION
1		**OUTBOARD SHAFT**
2	1416100	CENTER SECTION POWER BAND 5V-850-3GRV
3	1416206	SECONDARY DRIVE SHEAVE
4	1416209	SECONDARY DRIVE BUSHING
5		1/2 X 1/2 X 2" KEY
6	1416607	IDLER BOLT 1" X 4 1/2"
7		IDLER ADJUSTING BAR
8	1414205	DRIVE IDLER MOUNT
9		CENTER BODY ROTOR
10	1426200	**CENTER SECTION IDLER BEARING**
12	1416208	SECONDARY DRIVE IDLER SHEAVE 5V-8.0-O.D.-3GRV
13	1416200	IDLER BUSHING
15		IDLER BOLT NUT 1" (QTY 2)
16	1416207	SECONDARY DRIVE SHEAVE LOWER 5V-10.3-O.D. 3-GRV
17		1" FLAT WASHER

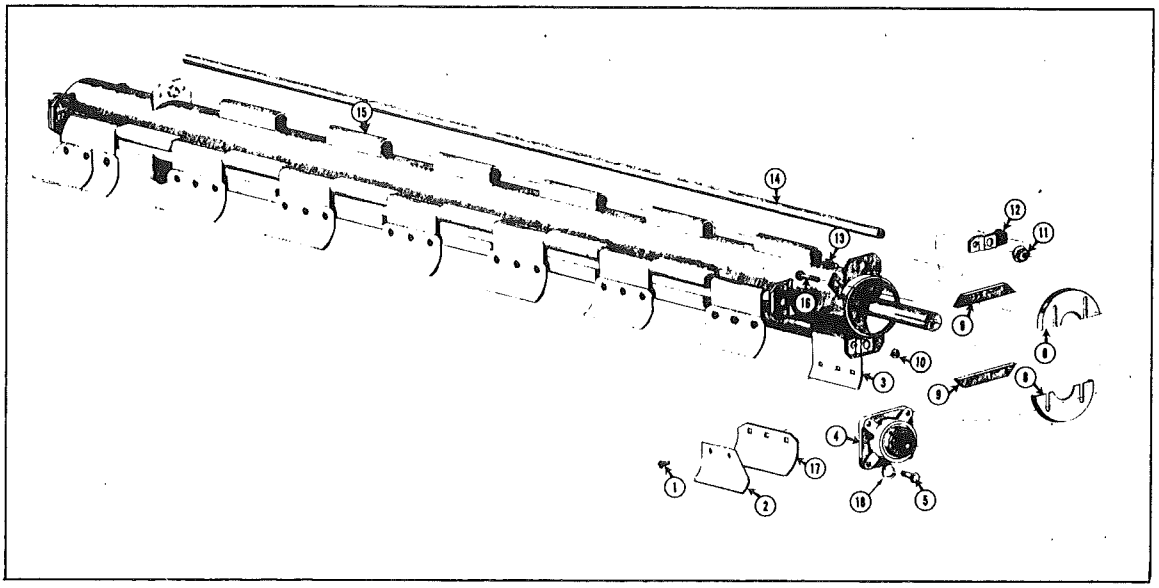
CENTER BODY DRIVE LINE ASSY



REF	PART NO.	DESCRIPTION
1	1416602	FIXED LENGTH UNIV-JOINT ASS'Y
2	1116001	PILLOW BLOCK BRG (1 3/4")
3	1416607	SPLINE DRIVE SHAFT
4		LOCK COLLAR
5	1414434	P.T.O. COVER-BOTTOM FRONT
6	1414435	P.T.O. COVER-BOTTOM REAR
7		P.T.O. COVER

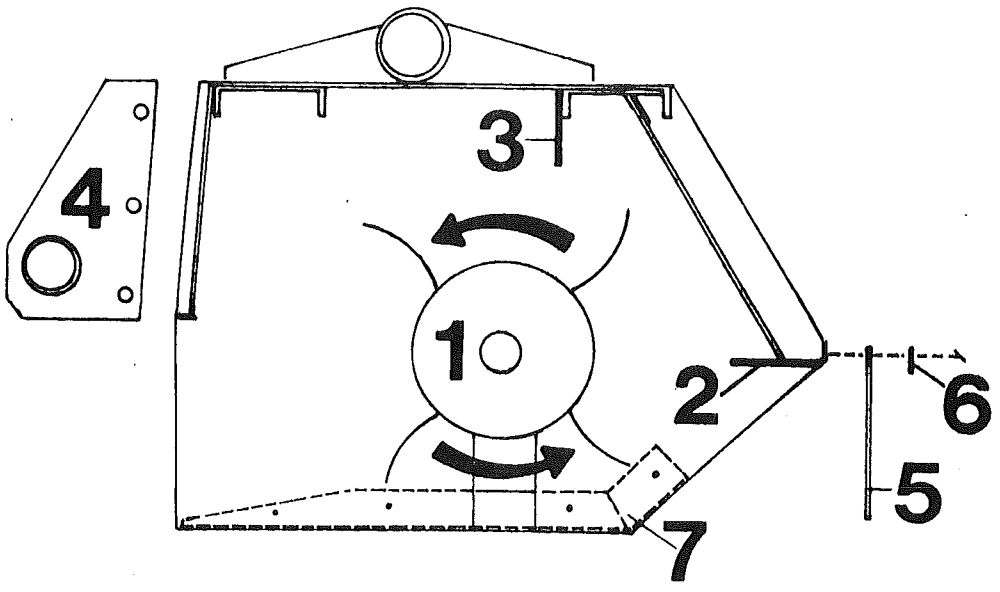
24' & 30'-SFP

ROTOR ASSEMBLY ILLUSTRATION



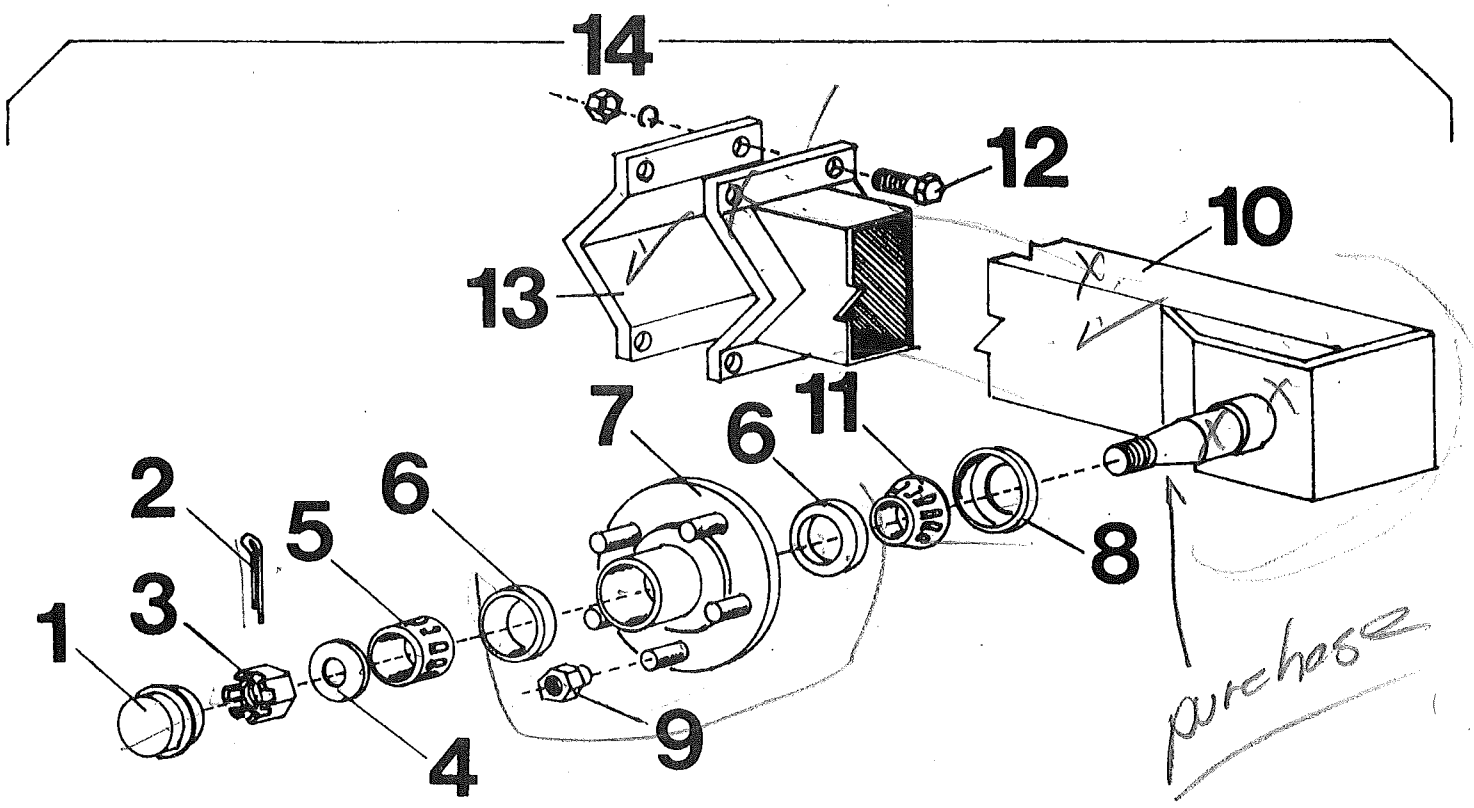
REF. NO.	PART NO.	DESCRIPTION
1	0018131	KNIFE CARRIAGE BOLT
2	0015206	END KNIFE LEFT
	0015207	END KNIFE RIGHT
3	0015205	WIDE KNIFE HANGER
4	0016010	4 BOLT FLANGE BEARING 1 15/16
5	0018261	1/2"-13 X 1 3/4" H.H.C.S.
8	0014652	ROTOR ANTI-WRAP DEVICE
9	0015751	STUD ANCHOR
10	0018147	3/8-16 LOCK NUT
11	.....	3/8-16 HEX NUT
12	0012000	END LOCATOR BRACKET
13	.....	3/8-16X3/4 TRUSS HEAD BOLT
14	0918995	KNIFE ROD (CENTER BODY)
	0918994	KNIFE ROD (24' SFP WINGS)
	0018975	KNIFE ROD (30' SFP WINGS)
15	0010005	ROTOR WELDMENT (CENTER BODY)
	0910140	ROTOR WELDMENT (24' SFP WINGS)
	0010018	ROTOR WELDMENT (30' SFP WINGS)
16	.....	3/8- 16 X 1 1/2" CARRIAGE BOLTS
17	0015208	HEAVY DUTY KNIFE BLADE
	1419001	(24' SFP KNIFE KIT)
	1419000	(30' SFP KNIFE KIT)
18	.....	5/8 LOCK WASHER

ROTOR BODY SECTION ILLUSTRATION



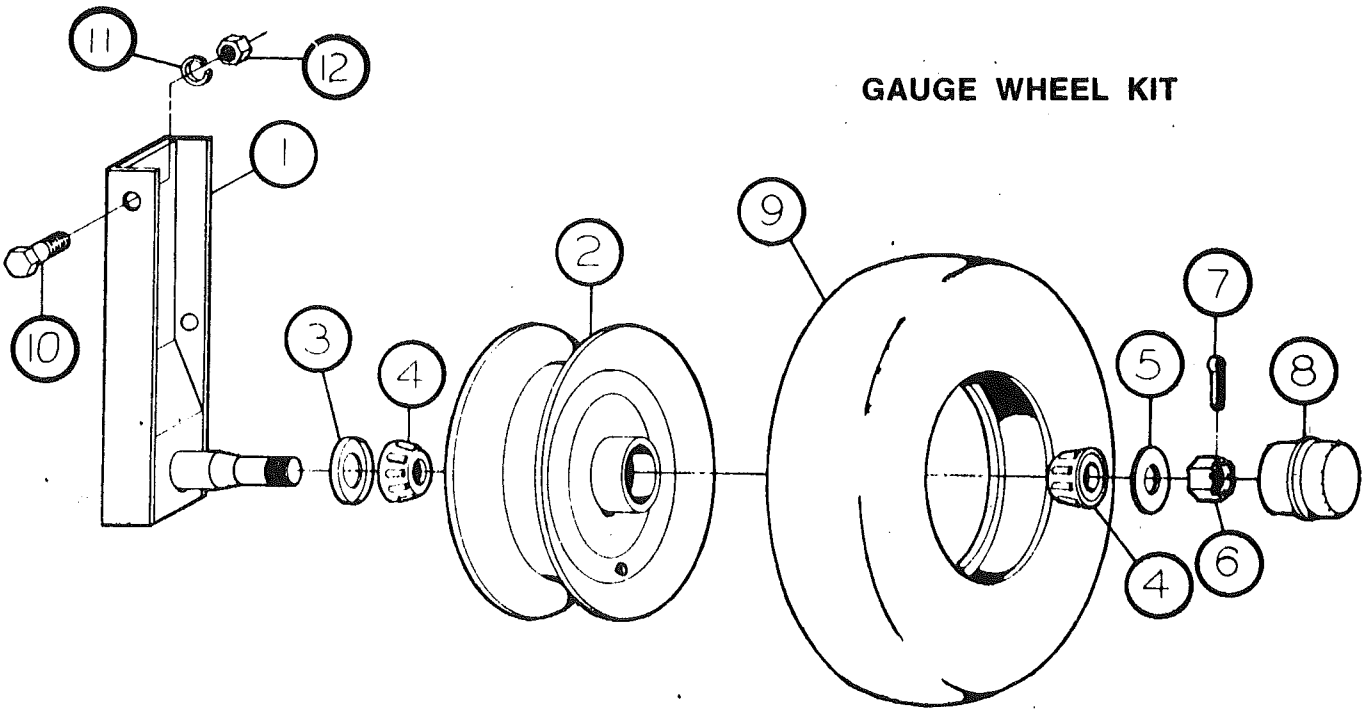
REF. NO.	PART NO.	DESCRIPTION
1		ROTOR
2	0933473	LOWER CUTTER BAR 9' WING
	003470	LOWER CUTTER BAR 12' WING
	0933471	LOWER CUTTER BAR 7' CENTER BODY
3		UPPER CUTTER BAR 9' WING
		UPPER CUTTER BAR 9' WING
		UPPER CUTTER BAR 12' WING
		UPPER CUTTER BAR 7' CENTER BODY
4	1410018	AXLE MOUNT WELDMENT
5	1118982	RUBBER STONE GUARD (9' & 12' WING BODY)
6	1413363	MOUNTING BAR (9' WING BODY)
	1413361	STONE GUARD MAOUNTING BAR (12' WING BODY)
7		SKID LEFT
		SKID RIGHT

WHEEL HUB ASSEMBLY



REF. NO.	PART NO.	DESCRIPTION
1	0018996	WHEEL HUB CAP
2	0018252	WHEEL SPINDLE COTTER PIN
3	0018253	WHEEL SPINDLE NUT
4	0018254	WHEEL SPINDLE WASHER
5	0016000	OUTER WHEEL BEARING
6		WHEEL BEARING CUP (INCLUDED IN ITEM #7)
7	0018992	5 BOLT WHEEL HUB
8	0018991	WHEEL SEAL
9	0018989	½ - 20 LUG NUT
10	1110031	WHEEL MOUNTING WELDMENT (SINGLE)
	1410026	WHEEL MOUNTING WELDMENT (DOUBLE)
11	0016001	INNER WHEEL BEARING
12		5/8 - 13X2½ HHCS GRD 8
13	1113590	WHEEL MOUNT CLAMP
14		COMPLETE ASSEMBLY (SINGLE)
		COMPLETE ASSEMBLY (DOUBLE)

GAUGE WHEEL KIT

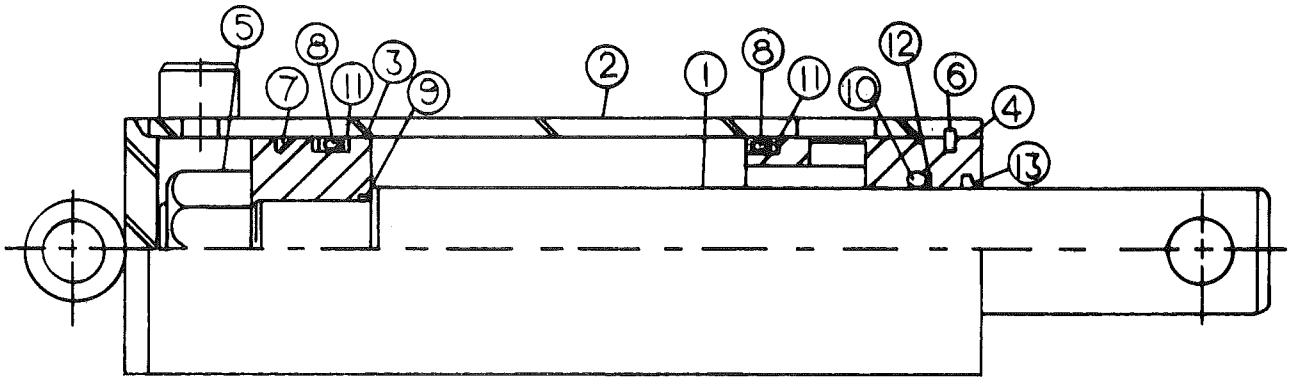


REF. NO.	PART NO.	DESCRIPTION
1	0900018	Gauge Wheel Mount Weldment
2	0928995	Wheel 8" w/non Demountable Hub
3	0928991	Wheel Seal
4	0928993	Bearing Cone Gauge Wheel
5	0008177	3/4" Flat Washer
6	0928987	Wheel Spindle Castle Nut (3/4" Spindle)
	0018253	Wheel Spindle Castle Nut (1" Spindle)

REF. NO.	PART NO.	DESCRIPTION
7	0008225	1/8" x 1-1/2" Cotter Pin
8	0928992	Gauge Wheel Cap
9	0928994	Tire & Tube 4.00 x 8" Smooth Imp.
10	0008137	1/2"-13 x 1-1/4" Hex Head Cap Screw
11	0008180	1/2" Lock Washer
12	0008163	1/2" Hex Nut
13	0939021	Gauge Wheel Complete

3 1/2 X 24 HYDRAULIC WING LIFT CYLINDER

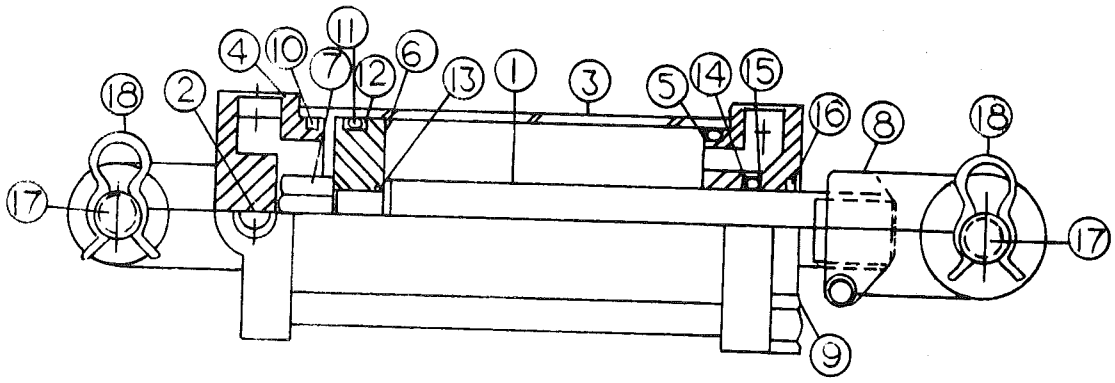
PART NO. 1417001



	PART #	DESCRIPTION
1.	1427016	PISTON ROD
2.	1427017	BUTT & TUBE ASSEMBLY
3.	1427018	PISTON
4.	1427019	GLAND
5.	1427020	LOCK NUT (1-14)
6.	1427021	SNAP RING
7.	1427022	PISTON RING
8.	1427023	O-RING
9.	1427024	O-RING
10.	1427025	O-RING
11.	1427026	BU-WASHER
12.	1427027	BU-WASHER
13.	1427028	WIPER

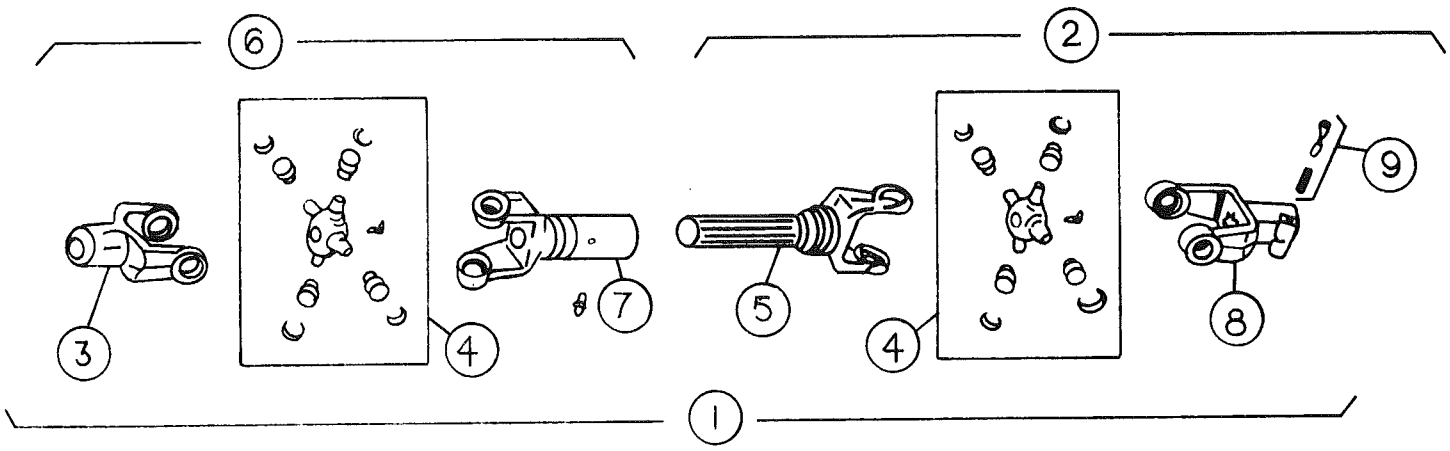
3 X 8 HYDRAULIC AXLE LIFT CYLINDER

PART NO. 1417000



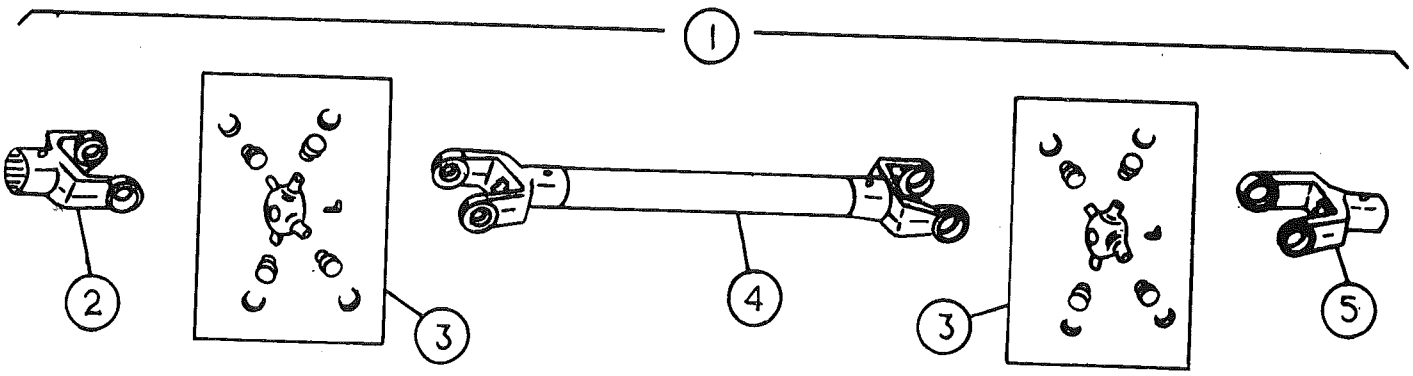
	PART #	DESCRIPTION
1.	1427000	PISTON ROD
2.	1427001	PIPE PLUT
3.	1427002	TUBE
4.	1427003	BUTT
5.	1427004	GLAND
6.	1427005	PISTON
7.	1427006	LOCK NUT
8.	1427007	CLEVIS
9.	1427008	TIE ROD
10.	1427009	O-RING
11.	1427010	O-RING
12.	1427011	BU-WASHER
13.	1427012	O-RING
14.	1427013	O-RING
15.	1427014	BU-WASHER
16.	1427015	WIPER
17.	1428998	CLEVIS PIN
18.	1428997	HAIR PIN CLIP

LEFT & RIGHT WING PTO ASSEMBLY



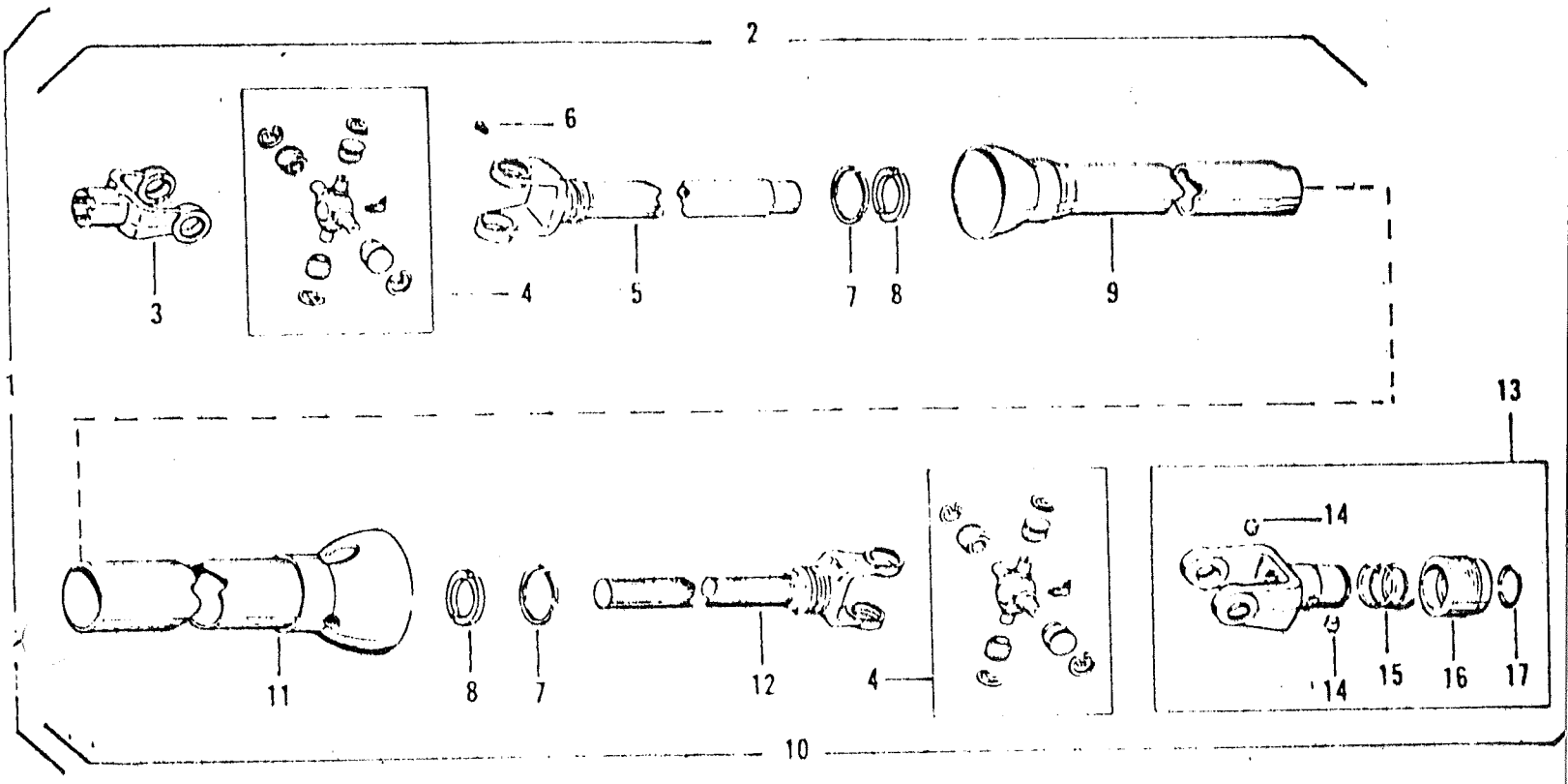
	PART #	DESCRIPTION
1.	1416600	"L55" UNIVERSAL JOINT & TELESCOPING SHAFT ASSEMBLY
2.	1426600	JOINT & SHAFT ASSEMBLY
3.	1426601	YOKE (1 15/16" DIAMETER
4.	0026633	REPAIR KIT
5.	1426603	YOKE & SHAFT
6.	1426604	JOINT & TUBE ASSEMBLY
7.	1426605	YOKE & TUBE WITH LUBE
8.	1426606	Q.D. LOCK YOKE ASSEMBLY
9.	1426607	SAF-T-PIN & SPRING KIT

FIXED LENGTH UNIVERSAL JOINT



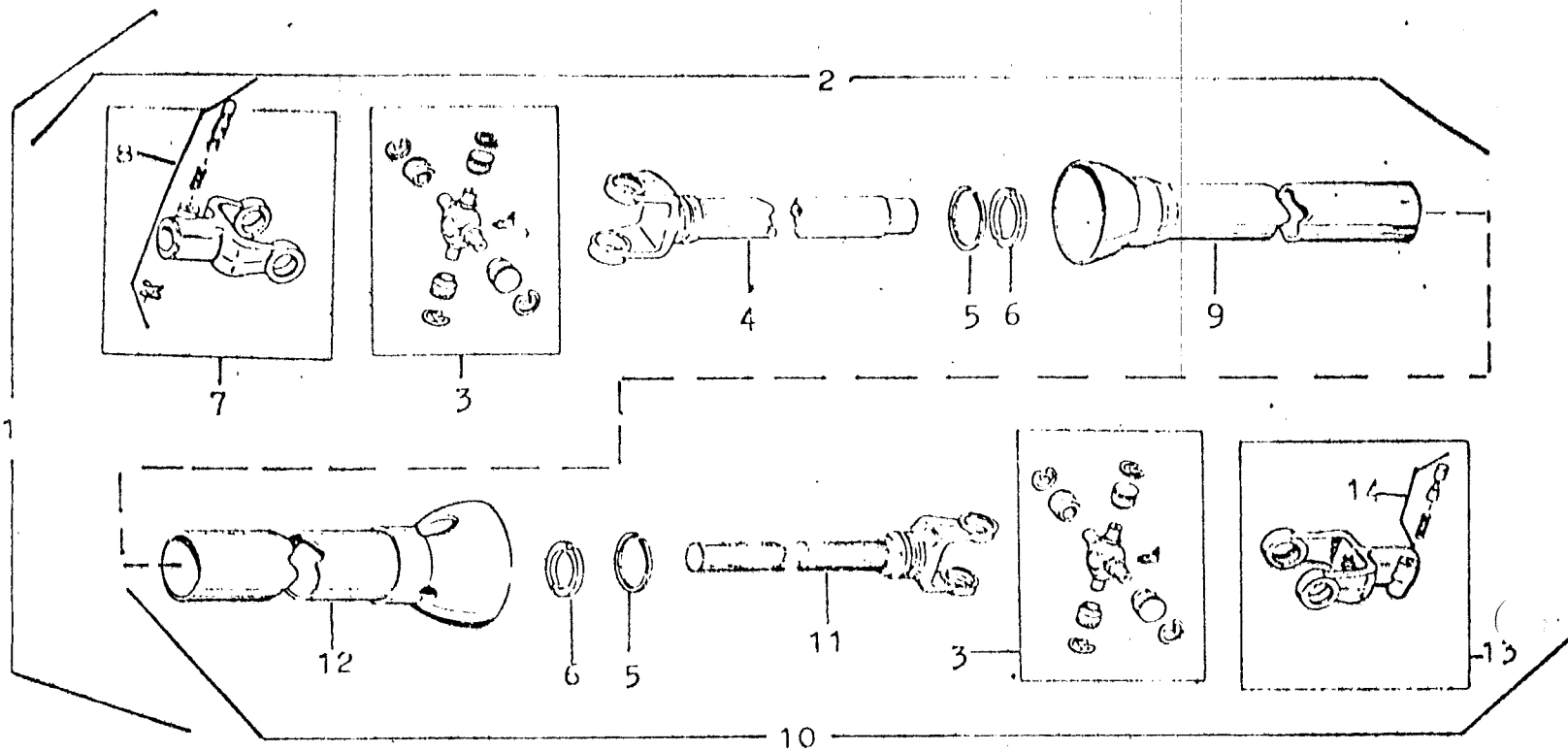
	PART #	DESCRIPTION
1.	1416602	"L55" UNIVERSAL JOINTS & FIXED LENGTH DRIVE ASSEMBLY
2.	1426608	YOKE (2"-10B SPLINE)
3.	0026633	REPAIR KIT
4.	1426609	YOKE & TUBE ASSEMBLY
5.	1426610	YOKE (1 11/16-20 SPLINE)

POWER SHAFT
(FOR 1000RPM TRACTOR W/1 3/8"-21 PTO SHAFTS)



REF	PART NO.	DESCRIPTION
1	1416604	"L55" UNIVERSAL JOINT & TELESCOPING SHAFT ASM W/QDFWG
2	1426616	JOINT & TUBE WITH QDFWG
3	1426610	YOKE (1 11/16 - 20 SPLINE)
4	0026633	REPAIR KIT
5	1426617	YOKE & TUBE
6		LUBE
7	0926692	BEARING RETAINER
8	0926693	NYLON BEARING
9	0926702	MALE GUARD TUBE
10	1426618	JOINT & SHAFT WITH QDFWG
11	0926704	FEMALE GUARD TUBE
12	1426619	YOKE & SHAFT
13	1426615	SAFETY SLIDE LOCK YOKE ASSEMBLY (1 3/8 - 21 INV. SPLINE)
14	0026632	PAWL
15	0026630	SPRING
16	0026631	COLLAR
17	0026655	RETAINING RING

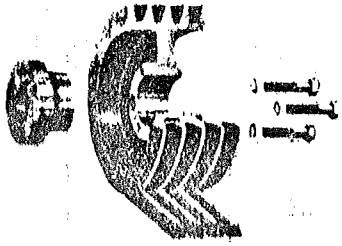
POWER SHAFT
(FOR 1000 RPM TRACTORS W/1 3/4 - 20 PTO SHAFTS)



REF	PART NO.	DESCRIPTION
1	1436601	L55 UNIVERSAL JOINT & TELESCOPING SHAFT ASSM W/QDFWG
2	1426642	JOINT & TUBE W/QDFWG
3	0026633	REPAIR KIT
4	1426647	YOKE AND TUBE
5	0926692	BEARING RETAINER
6	0926693	NYLON BEARING
7	1426610	YOKE (1 11/16 - 20 SPLINE)
8		
9	1426643	MALE GUARD TUBE
10	1426644	JOINT & SHAFT W/QDFWG
11	1426645	YOKE AND SHAFT
12	1426646	FEMALE GUARD TUBE
13	1436600	QD YOKE ASSEMBLY (1 3/4 - 20 SPLINE)
14	1426607	SAF-T-PIN & SPRING KIT

SURE-GRIP BUSHING
INSTALLATION INSTRUCTIONS

Wood's Sure-Grip bushings, which are the most widely used tapered QD type, have exceptional holding power that eliminates wobble. Standard and reverse mounting features provide greater adaptability. Sure-Grip bushings can be used interchangeably in many of Wood's products as well as those of other manufacture.



USE NO LUBRICANTS IN THIS INSTALLATION

TO INSTALL:

1. Make sure that the bore of the mating part and the tapered cone surface of the bushing are free of all foreign substances such as paint, dirt and lubricants.

2. Assemble bushing into mating part as illustrated in Fig. 1 or 2 (whichever applies). Loosely insert the cap screws into this assembly. Do not lubricate the cap screw threads. (Note: on M - S bushings install the bushing in the hub in such a way that the two extra holes in the hub are located as far from the sawcut in the bushing as possible.)

3. With key in keyseat of shaft, slide assembly to its desired position with cap screw heads to the outside, Fig. 3. (A few small sheaves may have to be installed with the cap screws on the inside.) If the bushing is hard to slide onto the shaft, wedge a screwdriver blade into the saw cut to overcome the tightness.

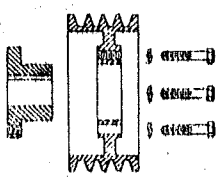


Fig. 1. Standard Mounting

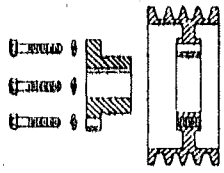


Fig. 2. Reverse Mounting

4. Line up assembly so as not to misalign belts and tighten cap screws evenly and progressively. Apply the recommended torque to cap screws as listed on opposite side of this page.

NOTE: There should be 1/8" to 1/4" gap between the mating part hub and the bushing flange. If gap is closed, the shaft is seriously undersize.

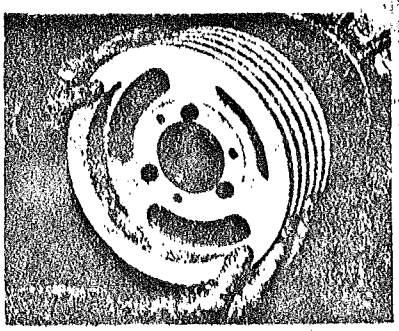


Fig. 3

SURE-GRIP BUSHING

SCREW TIGHTENING INFORMATION

Tapered Bushing	Size & Thread of Cap Screw	Ft.-lbs. To Apply With Torque Wrench
JA	No. 10--24	6
SH · SDS · SD	1/4--20	9
SK	5/16--18	15
SF	3/8--16	30
E	1/2--13	60
F	9/16--12	75
J	5/8--11	135
M	3/4--10	225
N	7/8--9	300
P	1 --8	450
W	1-1/8--7	600
S	1-1/4--7	750

CAUTION -The tightening force on the screws is multiplied many times by the wedging action of the tapered surface. If extreme tightening force is used, bursting pressures will be created in the hub of the mating part. Tighten bushing screws evenly and progressively. Never allow the mating part to be drawn in contact with flange of bushing. Gap should be from 1/8" to 1/4". Do not lubricate cap screw threads.

TO REMOVE:

1. Loosen and remove cap screws.

2. Insert three cap screws (in JA through J Bushings) or two cap screws (in M through S Bushings) in tapped removal holes and progressively tighten each one until mating part is loose on bushing, Fig. 4. (Exception: If mating part is installed with cap screw heads next to motor, with insufficient room to insert screws in tapped holes, loosen cap screws and use wedge between bushing flange and mating part.)

3. Remove mating part from bushing and, if necessary, bushing from shaft. If bushing won't slip off shaft, wedge screwdriver blade in saw cut to overcome tightness. Fig. 5.

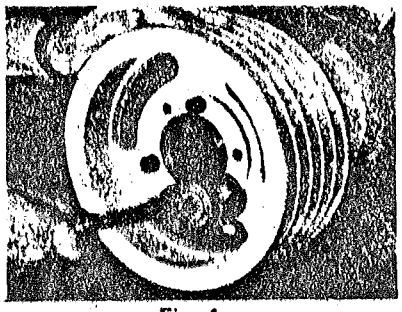


Fig. 4

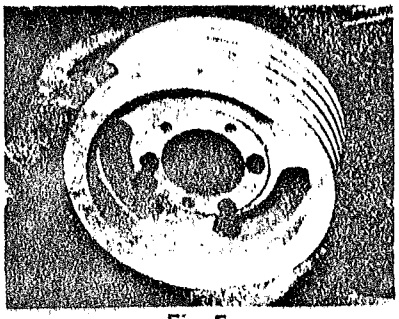
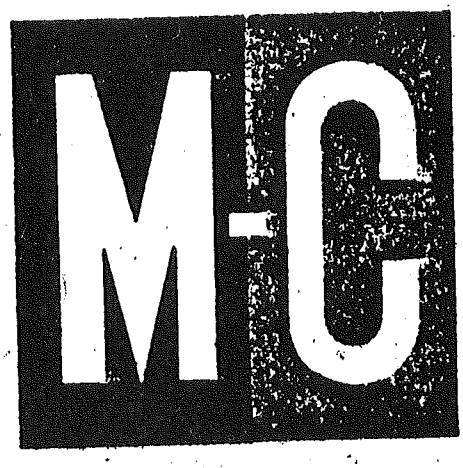


Fig. 5

OWNERS NOTICE

TO INSURE WARRANTY CLAIMS, BE CERTAIN TO FILL OUT AND MAIL WARRANTY CARD WITHIN 30 DAYS.


M-C