

ASSEMBLY INSTRUCTIONS, OPERATING INSTRUCTIONS
AND PARTS LIST
FOR



THATCH-O-MATIC

MODEL PR-16719

POWER RAKE

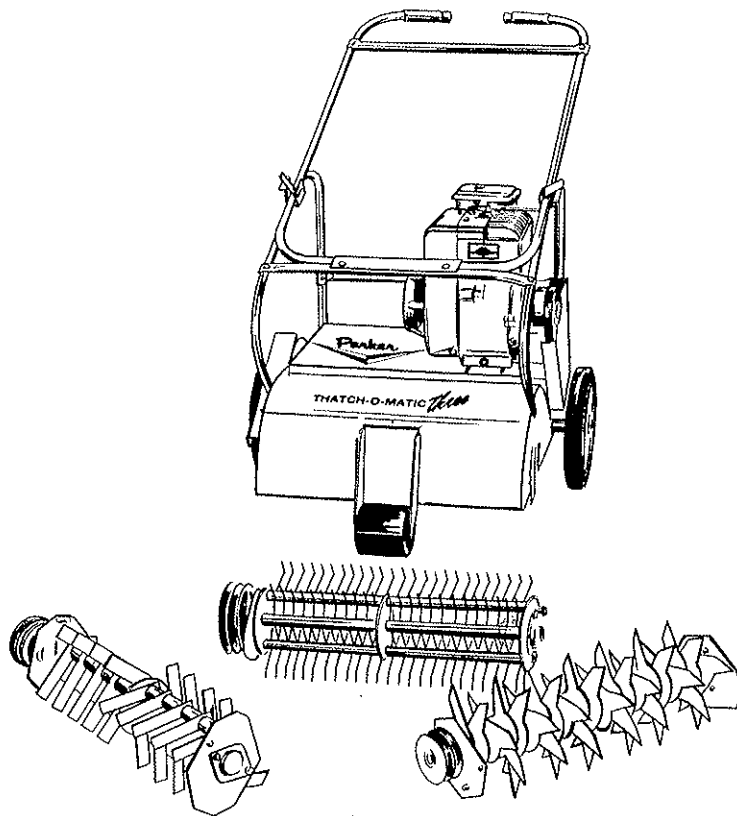


Fig. 1

NOTICE: These instructions were written to assist you in assembling and operating your Power Rake quickly and correctly. Read instructions thoroughly before attempting assembly and/or operating machine so that you are familiar with the complete procedure and safety precautions.

PARKER SWEEPER COMPANY
BOX 720
SPRINGFIELD, OHIO 45501

ASSEMBLY INSTRUCTIONS

Parker Thatch-O-Matic is shipped in three separate cartons, consisting of basic machine, removable handle, and reel assembly. The Thatch-O-Matic can be equipped with your choice of tine reel, knife reel, or flail reel.

NOTE: Right and left hand is determined by standing in the operator's position.

1. Remove basic machine from carton and place on ground or floor in upright position. Note roller assembly has been assembled on machine upside down for ease of shipment. Remove capscrew, Fig. 2 and assemble with roller toward ground. Replace capscrew and flat washer. See paragraph 10 to determine setting of roller for each type reel.
2. Remove upper part of handle from individual carton. Insert lower end under anchor plate, Item 4, Fig. 8. Place handle in channels, Items 10 and 15, Fig. 8, and secure into place by turning locking cams into position.
3. Select reel, that you plan to use in the machine, if you have purchased more than one, and remove from carton. You should also have one loose sheave, with set screw, packed with each type of reel. The tine reel requires a $3\frac{1}{4}$ outside diameter sheave on the jackshaft (right end), and the knife and flail requires a 4.95 outside diameter sheave on the jackshaft.
4. Remove belt guard, Item 7, Fig. 9, from the right hand side of the machine, by turning fastener to the left.
5. Remove cotter pin, Item 11, Fig. 9, and washer, Item 13, Fig. 9, from axle on right hand side. Move wheel out far enough to put sheave on jackshaft. The wheel will still support the machine. Install sheave, Item 20, Fig. 10, on the jackshaft as shown in Fig. 3 but do not tighten set screw. Move wheel back to its normal position and install washer and cotter pin.
6. The three reels as shown on the front cover are oriented correctly to be placed in the machine with the sheaves on the reel to the right side of the machine or to the left as you stand in front of the machine. Refer to Fig. 1. Remove cap screw, Fig. 4, from both reel bearing side plates. Place the reel selected on the ground in front of the roller with the reel sheave to the right of the machine. Push down on handle to raise roller to clear reel as machine is pushed forward. When housing is directly over reel, lower housing so that roller touches the ground in front of reel. With reel under machine, lift reel up into position by placing hinge pin into slot in main housing side

plate. Position cam lock by pushing lever toward rear of machine on each side to clear locking pin, Fig. 4. Swing reel up into position. Turn cam lock lever to front as far as it will go to secure reel in place. Replace both cap screws, Fig. 4.

7. The next step is to line up the sheave on jackshaft with the reel sheave (see Fig. 3), and tighten set screw in jackshaft sheave. Next install the matched set of belts received loose with the basic machine. Loosen four cap screws, items 10 and 17, figure 9. Next loosen the two adjusting bolts, item 18, figure 10, (one on each side of engine base), and push the engine support base, item 16, figure 10, forward to provide plenty of room to fit the belts over the sheave. (Do not pry belts over the side of the sheave). Adjust belt tension by turning the adjustable bolts clockwise, being careful to turn each bolt an equal amount so that the jackshaft and reel shaft will always be parallel. The correct tension is determined by following the test method shown in figure 3.

Next, retighten the cap screws, item 10 and 17, figure 9.

The engine belt has been assembled and should be properly adjusted. After initial run in, all belts should be checked and adjusted, if necessary, to specifications as outlined in figure 3.

8. Replace belt guard, Item 7, Fig. 9.
9. Check engine and prepare it for operation by adding fuel and oil according to Briggs & Stratton Engine Instructions included in Literature Package.
10. Before starting machine, read and observe all Operating and Maintenance Instructions. Adjust front roller if necessary.

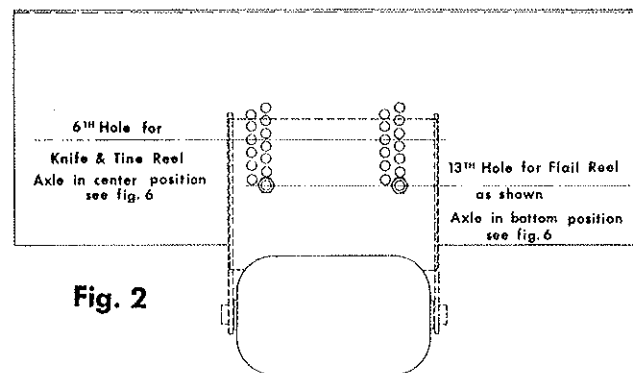


Fig. 2

Before starting to operate the machine, set the front roller according to the positions indicated in figure 2. Next try the machine on the turf. If the thatching condition is too light, move the roller up one hole at a time ($7/32$ ") until the desired condition is obtained. If the action is too severe, move roller in the opposite direction. (DO NOT EVER USE FLAIL WITH AXLE SET IN TOP POSITION.)

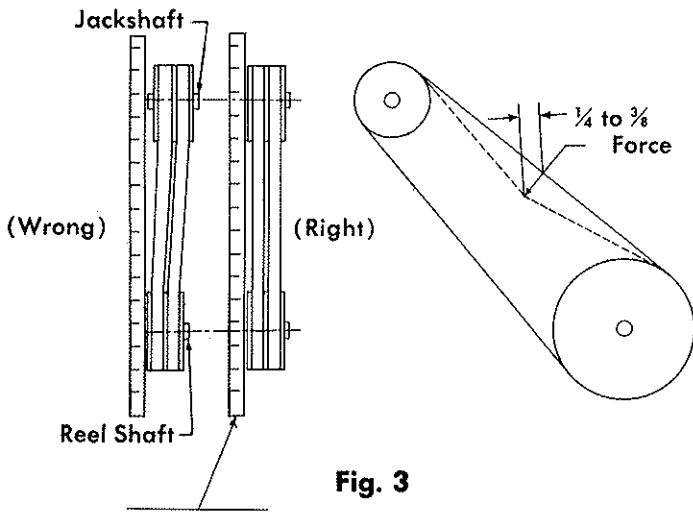


Fig. 3

Place straightedge along Belts or Sheave Grooves (not outside of sheaves) to check alignment.

1. NEVER PRY BELTS ON OVER SHEAVES. "Slack off" before installing new belts by reducing drive center distance. Place the V-Belts in the sheave grooves. Apply tension to belts by increasing drive center distance until belts are snug.
2. Operate the drive for a few minutes. Now check tension by applying a force at, and perpendicular to, the span center. This force should be applied lightly with only one finger and deflect the belts $\frac{1}{4}$ to $\frac{3}{8}$ of an inch.
3. The drive should be operated a few days to permit the belts to seat properly in the sheaves. It should then be checked and retensioned per step #2 if necessary. The drive should be checked periodically (i.e., every 30 days) and retensioned if required.
4. When making belt adjustments be sure to always keep shafts parallel and sheaves in alignment.

OPERATING INSTRUCTIONS

1. **IMPORTANT:** Before starting engine, read engine manual and add oil and gasoline as instructed.
2. Do not start engine or work machine unless all guards and discharge gate are in place and secured with fastenings provided. Keep hands and feet away from all rotating parts including reels. If it is necessary to work on machine, remove spark plug wire to prevent accidental starting of engine.
3. Before starting a thatch removal or turf thinning project, the area to be worked should be "policed" and all "trash" such as wire, stones, sticks and other debris likely to damage machine or cause personal injury, should be removed.
4. Reset front roller in accordance with instructions on front of machine (see Fig. 2.) To determine proper setting of reel, set roller, see Fig. 2, and try. Then lower machine by raising roller bracket one hole at a time and try again until desired thatching condition is obtained. (DO NOT USE FLAIL WITH AXLE SET IN TOP POSITION.)
5. When starting engine, throttle pull lever must be in idle position because at higher RPM's, the centrifugal clutch releases power to belt. **NOTE:** If engine fails to start, slightly increase throttle.
6. Operate engine at full throttle and work machine slowly across lawn for proper results.
7. If grass is exceptionally tall, it may be necessary to place discharge gate in upper position (see Fig. 5), to permit thatch concentrations to escape.
8. Avoid stops on lawn for even a few seconds unless engine is idling.
9. On some types of turf, especially St. Augustine and Zoysia, which is exceptionally thick, it may be advantageous to add a baffle with the knife blade reel when scalping, to aid the discharge of cut material. See Fig. 7 for baffle, Part Number 67-38-B, and method of assembly. This is optional equipment and is to be used ONLY WITH KNIFE BLADE REEL.

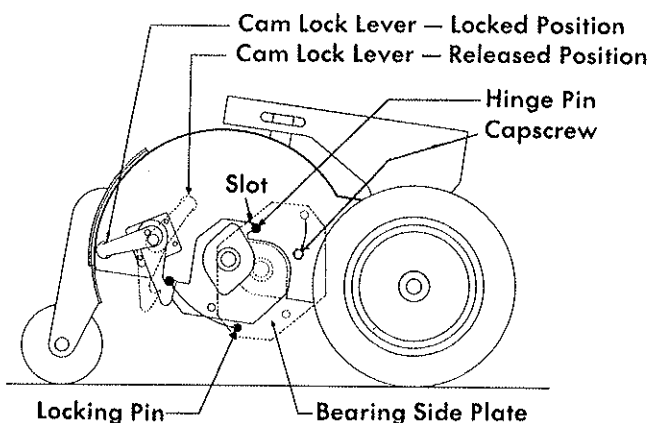


Fig. 4

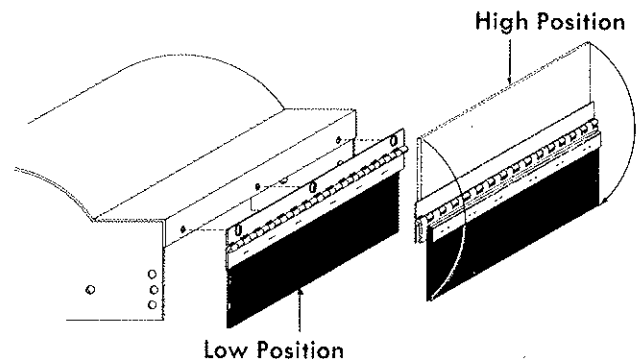


Fig. 5

MAINTENANCE INSTRUCTIONS

1. To tighten engine belt, loosen four engine bolts. Move engine toward front of machine being sure to keep engine crank shaft parallel with jackshaft. Position engine and check tension according to instructions in Fig. 3. Partially tighten bolts and check sheave and belt alignment. If OK, finish tightening engine bolts.
2. To tighten reel belts, loosen the four cap screws, items 10 and 17, figure 9. Turn the adjusting bolts, item 18, figure 10 (one on each side of engine base) clockwise to tighten the belt. Turn it counterclockwise to loosen the belt. **CAUTION:** The adjusting bolts should be turned an equal amount on each side so that the jackshaft and reel shaft will always remain parallel. After adjustment, check the sheave alignment. If okay (see figure 3), retighten the cap screws, items 10 and 17, figure 9.
3. To interchange reels, note that it is necessary to change sheave on right hand end of jackshaft when changing from a tine reel to either a flail reel or knife reel. The jackshaft sheave is the same for the knife reel and flail reel. See paragraphs 4 and 5 of Assembly Instructions.
4. To remove any one of the reels from the machine, remove the belt guard from the right hand side of machine. Take out the cap screws, Fig. 4, from the bearing side plate on each side of machine. Next, move cam lock lever toward rear of machine to release the reel and swing the cam lock away from the locking pin. Push the reel down and toward the back of the machine. Next, remove the belts from the reel sheave and lift the reel assembly toward the front of the machine which will take the hinge pins out of the slots in the housing side plate, allowing the reel assembly to fall free of the machine. If it is necessary to change the jackshaft sheave, follow the instructions in paragraph 5 of assembly instructions. After the proper sheave is in place on the jackshaft, place the new reel under the housing with the sheaves on the same side of the machine as

the two-groove sheave on the jackshaft, which is the right hand side of the machine. Lift the assembly up and place the hinge pins in the slots of the side plate and push them all the way to the back of the slot. Next, place the two belts in the grooves of both sheaves and swing the reel assembly to the front of the machine and up into place. Move the cam lock levers toward the front of the machine locking the reel into place. (When installing the reel assembly, be sure bearing side plates, Fig. 4, do not catch on main housing as assembly is moved up into place.) Install cap screws, Fig. 4, and replace belt guard. It should not be necessary to change belt tension when interchanging reels, however, belt adjustment can be made by following instructions in paragraph 7 of Assembly Instructions. **NOTE:** When re-assembling pulley, grease end of shaft to prevent parts from rusting together.

5. Wheel height adjustment. It may be desirable to change wheel height because of tine wear, knife or blade wear, or due to turf condition. This is accomplished by first loosening cap screws, Item 1, Fig. 6, and then removing cap screw, Item 3, Fig. 6, and pivoting wheel and axle assembly up or down to next hole. There are three wheel positions. Retighten both cap screws in each axle weldment. In changing wheel position, it is necessary to readjust front roller. Follow instructions on front of machine. See paragraph 4 of operating instructions. **DO NOT USE FLAIL REEL WITH AXLE SET IN TOP POSITION.**
6. The height of the discharge gate has two positions. Fig. 5 clearly indicates location and method of changing to a suitable high or low position.

BAFFLE

Optional Equipment — Must be purchased separately.
Ref. paragraph 9, Operating Instructions.

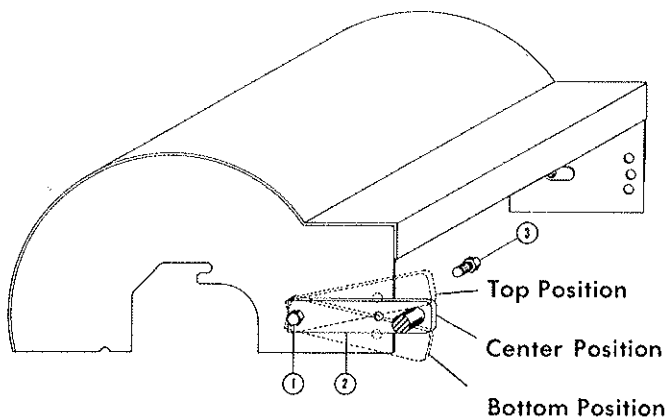


Fig. 6

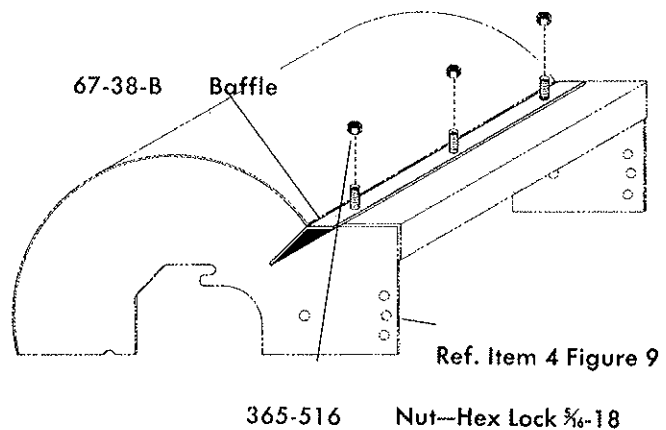


Fig. 7

HANDLE ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	65-416-20	8	Bolt—Hex Head $\frac{1}{4}$ -20 x $1\frac{1}{4}$
2	65-415-B	1	Brace—Lower—Cross
3	65-416-16	2	Bolt—Hex Head $\frac{1}{4}$ -20 x 1
4	65-416-A	1	Bracket—Handle
5	65-413-C	1	Handle—Upper
6	63-275-B	2	Brace—Cross
7	64-152-A	2	Grip—Handle
8	59-77-A	6	Clamp

Item No.	Part No.	Qty. Per Unit	Description of Part
9	364-416	10	Nut—Hex Lock Thin Type $\frac{1}{4}$ -20
10	65-419-RA	1	Bracket—Lock—Assy. R.H.
11	66-285-RD	1	Lower Handle Assy. R.H.
12	521-516-8	4	Capscrew—Hex Hd. $\frac{5}{16}$ -18 x $\frac{1}{2}$
13	936-516	4	Washer—Internal Tooth $\frac{5}{16}$
14	66-284-LD	1	Lower Handle Assy. L.H.
15	65-420-LA	1	Bracket—Lock—Assy. L.H.

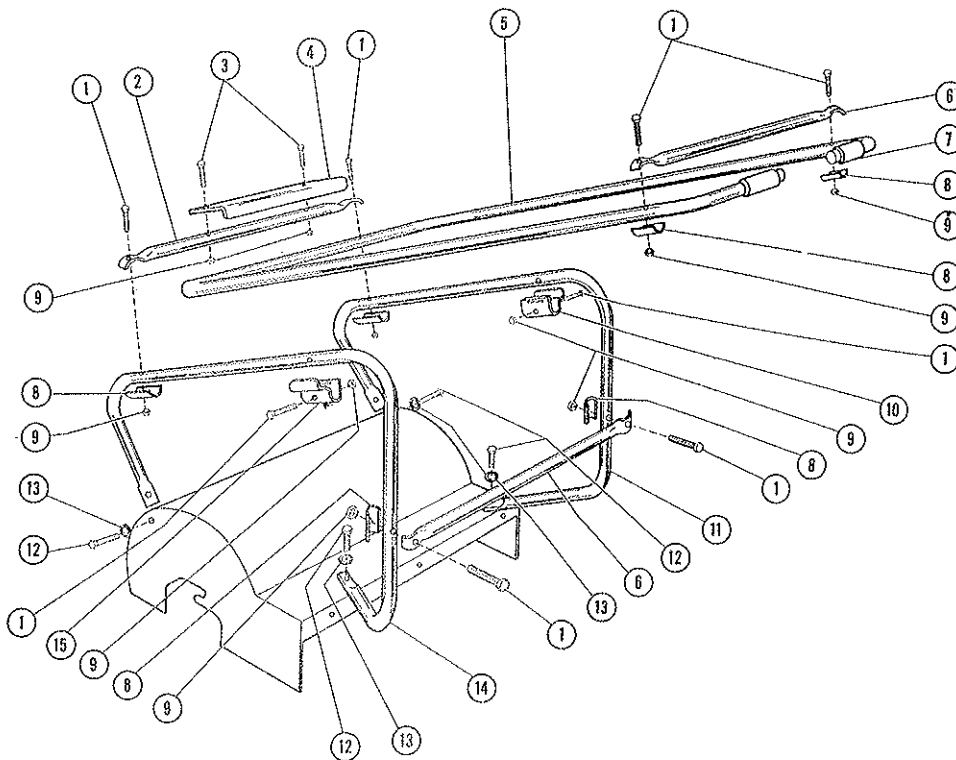


Fig. 8

ALWAYS GIVE THE FOLLOWING INFORMATION WHEN ORDERING REPAIR PARTS:

1. PART NUMBER (Not Item No.)
2. QUANTITY NEEDED
3. DESCRIPTION OF PART
4. SERIAL No. (Found on Guarantee Card)
5. MODEL No. PR-16719

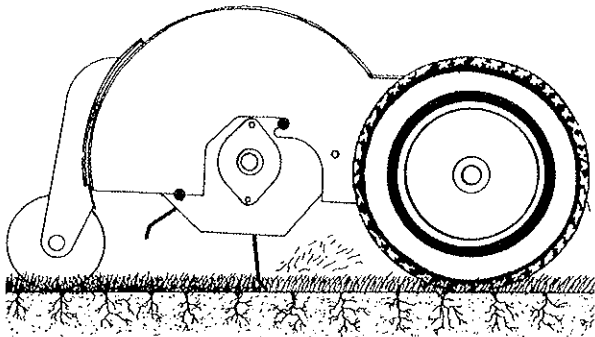
If unable to obtain parts locally, write down the above information and send to:
 PARKER SWEEPER CO., BOX 720, SPRINGFIELD, OHIO 45501

Your unit is right hand (R.H.) or left hand (L.H.) as you stand behind it.

OPERATING INSTRUCTIONS CONTINUED

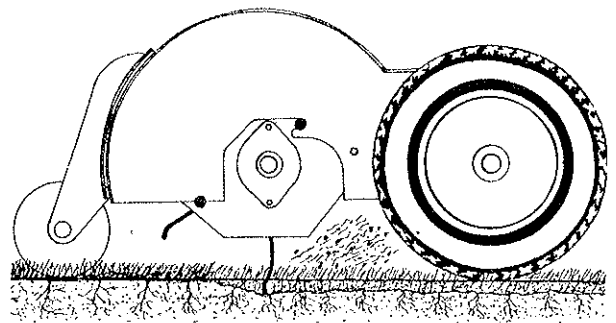
CORRECT TINE REEL (67-MA-102) ADJUSTMENT

READ CAREFULLY BEFORE OPERATING



CORRECT

Above illustration indicates the correct setting or adjustment for tine reel — Tines should NOT be allowed to penetrate soil. It should not be necessary to change transport wheel setting from standard center position. Make all necessary adjustments by adjusting front roller upward (lowers machine) to get proper tine relationship with the ground.



INCORRECT

Above illustration shows incorrect adjustment or setting for tine reel. To correct, adjust front roller assembly downward and at same time, check wheel setting to be sure that both transport wheels are in the center position — The tines are designed for removing dead thatch only, and if allowed to penetrate soil for a prolonged period of usage, will cause premature fatiguing, bending and breakage.

CAUTION: The Thatch-O-Matic Three can be equipped with either a Knife Reel or Flail Reel if actual soil penetration is required. These reels are specifically designed for this purpose — but not the tine reel. Do not pull machine backwards with tine reel in working position or you will bend tines. To move backwards at any time push down on handles lifting reel clear of ground.

Should it be desirable to de-populate and aerate, the knife reel should be used. If complete renovation and soil penetration is desirable, use flail reel. Neither the knife reel or flail reel should be used with transport wheels set in high position. This position is used only after the knives or flails have worn considerably.

THE THATCH-O-MATIC THREE WHEN EQUIPPED WITH THE TINE REEL IS NOT A TILLER — IT IS A POWER RAKE.

HOUSING ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
*1	410-43	8	Pop Rivet SD 43 BS
2	66-233-LA	1	Hook—Lock L.H. (shown)
3	66-232-RA	1	Hook—Lock R.H. (not shown)
4	66-120-D	1	Hood Weldment
5	66-106-A	2	Split Retainer—Lion #2
6	66-105-A	2	Lion #2 Stud Fastener
7	66-95-B	1	Belt Guard—Reel
8	66-250-B	1	Axle Assy. Weldment R.H.
9	935-516	4	Lockwasher $\frac{5}{16}$
10	65-516-8	4	Hex Head Capscrew $\frac{5}{16}$ -18 x $\frac{1}{2}$
11	380-632-20	2	Cotter Pin $\frac{3}{16}$ x $1\frac{1}{4}$ Lg.
12	66-228-B	2	Wheel Assembly
13	66-431-A	4	Washer Plain $\frac{3}{4}$ I.D. x $1\frac{1}{4}$ O.D.
14	66-457-A	3	Split Retainer—Lion #5
15	66-108-A	3	Lion #5 Stud
16	SA-104-B	1	Dragstrip Assembly
17	65-516-12	4	Hex-Head Cap Screws $\frac{5}{16}$ -18 x $\frac{3}{4}$
18	66-258-B	1	Axle Assy. Weldment L.H.
20	68-285-A	2	Adjustment Angle Bracket
21	945-516	4	Washer, Plain $\frac{5}{16}$ I.D.

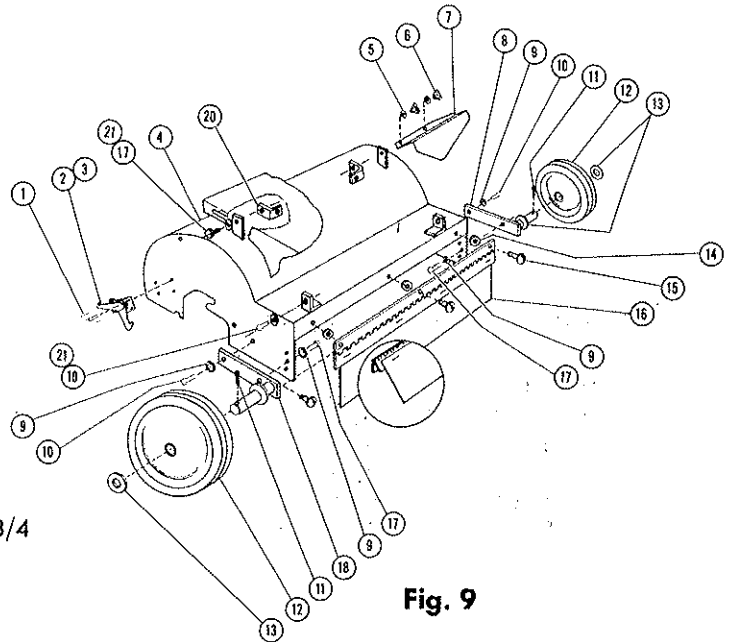


Fig. 9

**Note: May be replaced with Socket Head Capscrew # 5-40 x $\frac{3}{8}$ and Hex Lock Nut #5-40.

ENGINE ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	66-234-A	1	Engine—Briggs & Stratton 5 H.P.
2	66-104-A	1	Engine Clutch

Item No.	Part No.	Qty. Per Unit	Description of Part
3	66-100-A	1	Belt Cog #AX-31
4	365-516	4	Nut—Hex Head Lock $\frac{5}{16}$ -18
5	63-132-A	1	Key—Hi Pro #606
6	66-87-B	1	Jackshaft
7	563-C-416-4	4	Setscrew—Allen Head—Cup Point $\frac{1}{4}$ -28 x $\frac{1}{4}$
8	65-516-12	4	Capscrew—Hex Hd. $\frac{5}{16}$ -18 x $\frac{3}{4}$
*9	564-C-516-6	1	Setscrew—Allen Head—Cup Point $\frac{5}{16}$ -18 x $\frac{3}{8}$
10	66-99-A	1	Sheave 6.7 P.D.
11	66-41-A	2	Bearing Assembly
12	65-416-8	4	Capscrew—Hex Hd. $\frac{1}{4}$ -20 x $\frac{1}{2}$
13	66-433-C	1	Belt Guard—Engine
14	66-434-B	1	Bracket—Belt Guard
15	364-416	2	Nut—Hex Lock Thin $\frac{1}{4}$ -20
16	68-271-C	1	Engine Support Weldment
17	66-93-A	2	Engine Hold Down Weldment
18	72-516-72	1	Adjusting Bolt, $\frac{5}{16}$ -18 x $4\frac{1}{2}$
19	66-259-A	1 (set)	Two V-Belts Matched Set AP-33
20	Ref.		See Parts List of Reel Assy. for Parts No. of this Sheave
21	61-65-A	1	Key $\frac{3}{16}$ sq. x $1\frac{1}{4}$ long
24	935-516	4	Lock Washer Spring $\frac{5}{16}$
25	65-516-24	4	Bolt—Hex Head $\frac{5}{16}$ -18 x $1\frac{1}{2}$
26	935-416	2	Lock Washer, Spring $\frac{1}{4}$

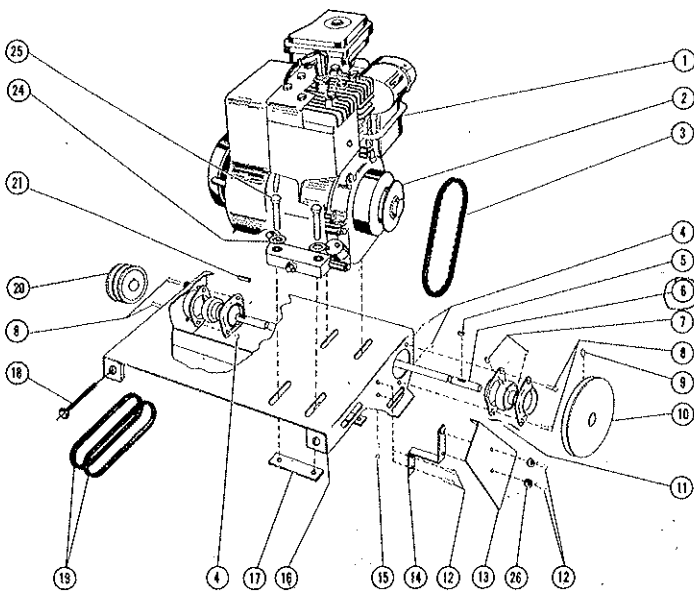


Fig. 10

Note: When replacing bearings on Jackshaft they should both be mounted with the longer hub extension toward engine driven belt.

*Locktite Set Screw at assembly.

FRONT ROLLER ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	66-432-A	2	Flange Bearing
2	SA-220-B	1	Front Roller
3	65-615-12	2	Hex Hd. Capscrew 5/16-18 x 3/4
4	365-516	2	Hex Lock Nut 5/16-18
5	68-278-B	1	Roller Bracket Weldment
6	380-432-16	2	Cotter Pin 1/8 x 1"
7	68-282-A	1	Axle Roller

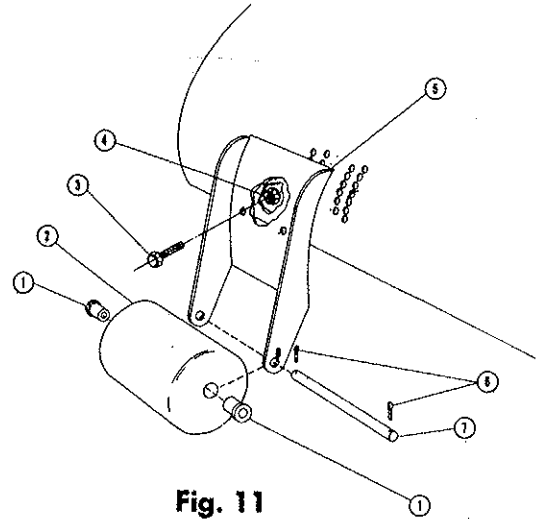


Fig. 11

TINE REEL ASSEMBLY OPTIONAL EQUIPMENT

~~MA-102~~

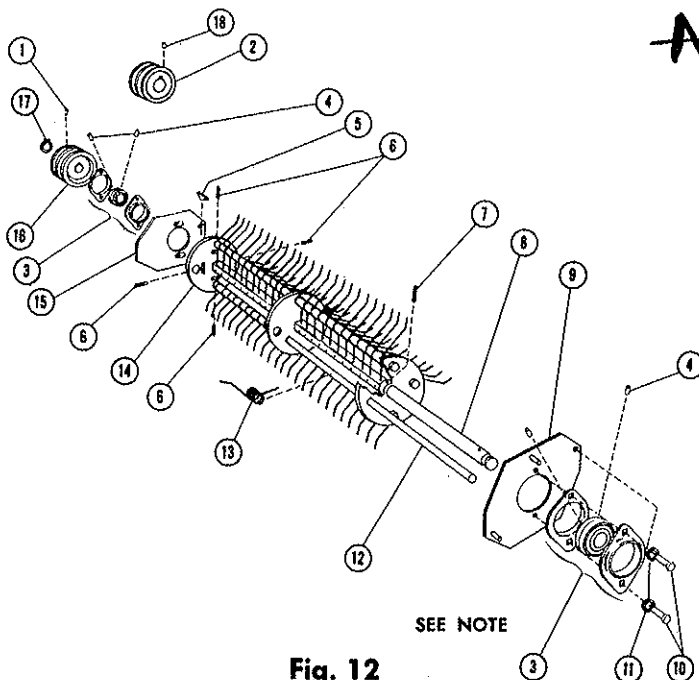


Fig. 12

Note: When replacing bearings, the Right Hand Bearing should be mounted with the extended hub toward reel sheave. The Left Hand Bearing should be mounted with the extended hub toward left side of machine.

*Loctite Set Screw at assembly.

Item No.	Part No.	Qty. Per Unit	Description of Part
*1	564-C-416-6	1	Set Screw—Allen Head, Cup Point 1/4-20 x 3/8
2	66-98-B	1	Sheave 3 1/4" O.D. for Jackshaft
3	66-41-A	2	Bearing
4	563-C-416-4	4	Set screw—Allen Head, Cup Point 1/4-28 x 1/4
5	63-132-A	1	Key—Hi-Pro #606
6	66-437-A	4	Roll Pin 1/8 x 1"
7	66-44-A	1	Spirol—Pin
8	66-271-A	1	Tine Shaft
9	66-33-LA	1	Bearing Mtg. Weldment L.H.
10	521-516-8	6	Capscrew—Hex Hd 5/16-18 x 1/2
11	935-516	6	Lockwasher—Spring 3/8
12	66-14-A	4	Tine Rod
13	66-238-A	100	Tine Spring
14	66-274-C	1	Tine Reel Weldment
15	66-34-RA	1	Bearing Mtg. Weldment R.H.
16	66-214-B	1	Sheave 5.25 O.D.
17	994-12	1	Retaining Ring
18	564-C-516-6	1	Set Screw - Allen Hd Cup Point 5/16-18 x 3/8

KNIFE REEL ASSEMBLY

OPTIONAL EQUIPMENT

AA-229

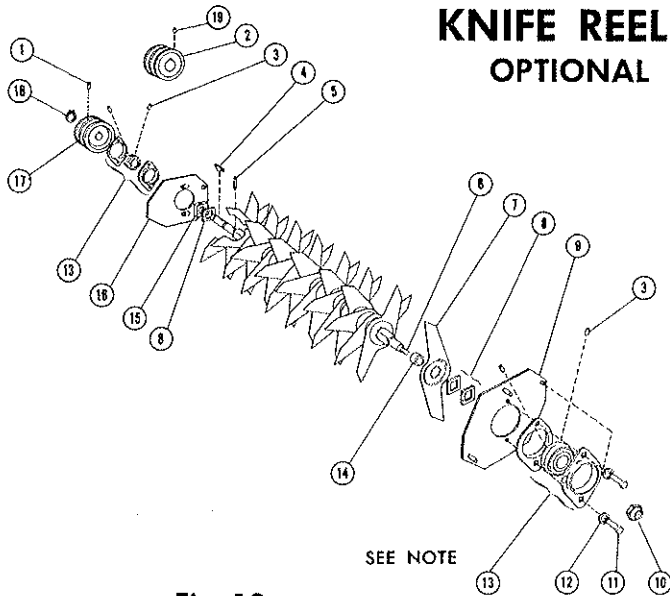


Fig. 13

Note: 1. When reassembling Knife Reel, first place Collar, Item 15, on the end of reel shaft, aligning hole in Collar with hole in shaft and insert pin, Item 5, thru both parts. Proceed with reel assembly by placing one of Item 8 on shaft next to Item 15 before placing first Knife Blade on shaft. Be sure all blades are facing as shown in Fig. 13.

2. When replacing bearings they should be mounted with the extended hub toward sheave side of reel. Both Bearings.

*Locktite Set Screw at assembly.

**Torque to be 40-50 ft. lbs.

Item No.	Part No.	Qty. Per Unit	Description of Part
*1	564-C-416-6	1	Setscrew--Allen Head, Cup Point 1/4-20 x 3/8
2	66-205-B	1	Sheave 4.95 O.D. for Jackshaft
3	563-C-416-4	4	Setscrew--Allen Head, Cup Point 1/4-28 x 1/4
4	63-132-A	1	Key--Hi-Pro #606
5	66-44-A	1	Spiral Pin
6	66-48-B	1	Shaft--Knife Reel
7	66-47-B	25	Knife Blade USE 70-78-A
8	66-40-A	3	Spacer--Knife Reel USE 71-35-A
9	66-308-LA	1	Bearing Mtg. Weldment L.H.
10	65-468	1	Nut, Reel Shaft 5/8-18
11	521-516-8	6	Capscrew--Hex Hd. 5/16-18 x 1/2
12	935-516	6	Lock Washer--Spring 5/16
13	66-41-A	2	Bearing Assembly
14	66-463-A	24	Spacer--Knife Reel
15	66-43-A	1	Collar--Knife Reel
16	66-309-RA	1	Bearing Mtg. Weldment R.H.
17	66-213-B	1	Sheave 3.8 O.D.
18	994-12	1	Retaining Ring
19	564-C-516-6	1	Set Screw Allen Head Cup Point 5/16-18 x 3/8

FLAIL REEL ASSEMBLY

OPTIONAL EQUIPMENT

MA-104

Item No.	Part No.	Qty. Per Unit	Description of Part
*1	564-C-416-6	1	Setscrew--Allen Head, Cup Point 1/4-20 x 3/8
2	66-205-B	1	Sheave 4.95 O.D. for Jackshaft
3	563-C-416-4	4	Setscrew--Allen Head, Cup Point 1/4-28 x 1/4
4	63-132-A	1	Key--Hi-Pro #606
5	66-56-A	36	Thatching Blade
6	66-52-A	28	Spacer--Flail Reel
7	66-53-A	4	Spacer--Flail Reel
8	66-55-A	4	Spacer--Flail Reel
9	66-54-A	4	Spacer--Flail Reel
10	66-51-A	8	Orbit Rod
11	521-516-8	6	Capscrew--Hex Hd. 5/16-18 x 1/2
12	935-516	6	Lock Washer--Spring 5/16
13	66-41-A	2	Bearing Assembly
14	66-308-LA	1	Bearing Mtg. Weldment L.H.
15	66-30-B	1	Reel Weldment
16	60-62-A	8	Roll Pin 1/8 x 3/4
17	66-309-RA	1	Bearing Mtg. Weldment R.H.
18	66-213-B	1	Sheave 3.8 O.D.
19	994-12	1	Retaining Ring
20	564-C-516-6		Set Screw Allen Head Cup Point 5/16-18 x 3/8

*Locktite Set Screw assembly.

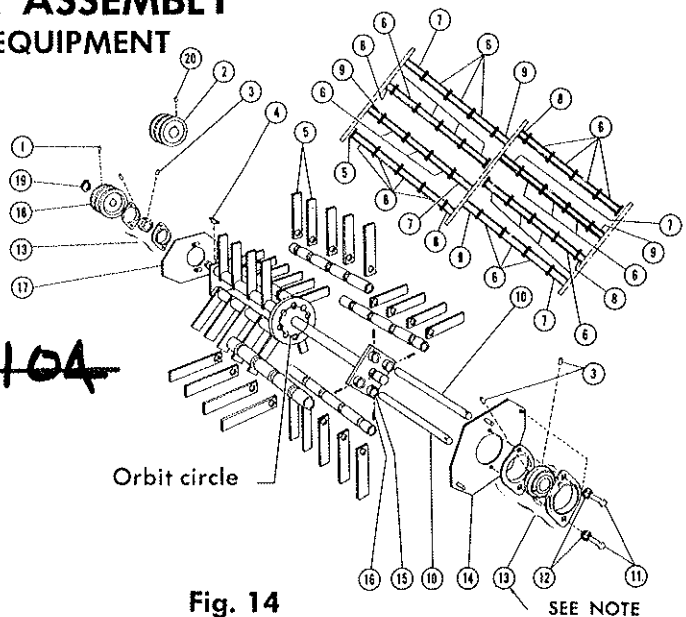


Fig. 14

Note: 1. To obtain view of spacer arrangement imagine the path circle of the flail orbit rod, to be rolled out into a flat plane.

2. When replacing bearings they should be mounted with the extended hub toward sheave side of reel. Both Bearings.

PARKER SWEEPER COMPANY

BOX 720

SPRINGFIELD, OHIO 45501



LETTER	CHANGES	DATE	BY
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03-4

A A

FAIRBANKS-MORSE
 35P-45
 5/8 DIA.
 9/16 W/SET SCREW
 3 1/2 - LGTH. 2 1/16
 3
 AORB
 20-53
 1950-2000 RPM
 FAIRBANKS-MORSE

COMET
 A-300-62 AB
 5/8 DIA.
 9/16 W/SET SCREW
 3 1/2 - LGTH. 2 1/16
 3
 AORB
 23346-3
 1100/1800 RPM
 COMET INDUSTRIES

MODEL NO.
 SHAFT SIZE
 KEYWAY SIZE
 CLUTCH O.D.
 PULLY DIA.
 BELT SIZE
 SPRING NO.
 ENGAGEMENT SPEED
 PURCHASE FR.

REMOVE ALL BURRS AND SHARP EDGES UNLESS OTHERWISE SPECIFIED. DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE IN INCHES. MARK PIECE WITH PART NO.		JIG NO.	
THIS PRINT SUPERSEDES ALL PRINTS PREVIOUSLY ISSUED		MATERIAL FINISH	
DATE JUN 25 1969		THE PARKER SWEEPER COMPANY SPRINGFIELD, OHIO	
DESTROY ALL OBSOLETE PRINTS OR RETURN TO ENGINEERING DEPT.		NAME OF PART CLUTCH - CENTRIFUGAL	
FRACTIONS - ± .010 DECIMALS - ± .005 ANGLES - ± 0'-15"		JOB NO.	
FAIRBANKS-MORSE		MODEL NO.	
35P-45		NO. REQ.	
5/8 DIA.		DRAFTSMAN	
9/16 W/SET SCREW		CHECKED	
3 1/2 - LGTH. 2 1/16		O. K. BY	
3		SCALE	
AORB		SHEET NO.	
20-53		1	
1950-2000 RPM		DATE	
FAIRBANKS-MORSE		6-25-69	
PART NUMBER		03-40A	

1.72
66-41-A

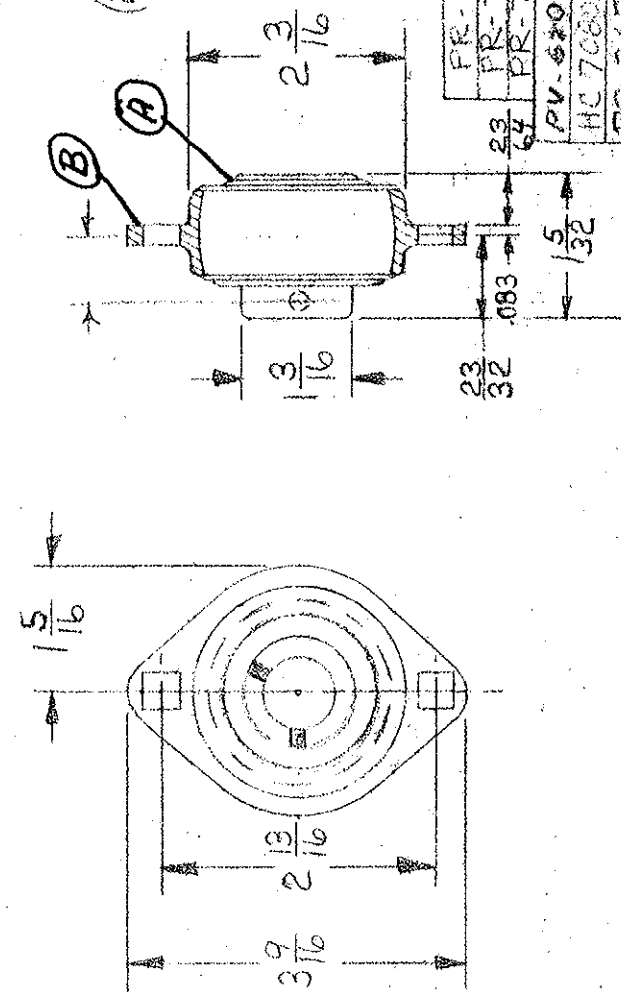
No Req'd Item Name Qty No
 1 A Bearing 66-138A 7.00
 2 B Flange 66-139A (1EA) 2.5

7.00
2.50
7.50

LETTER	CHANGES	DATE	BY

NOTE:

- (1) SEALMASTER BEARING WITH STAMPED STEEL 2-BOLT FLANGE
- (2) PART NO. SSFT-12-C SHAFT SIZE 3/4" DIA. MAX STEADY RADIAL LOAD 600 LBS. BOLT SIZE 5/16 BOLT CIRCLE 2 13/16 DIA. WITH CONTACT SEALS



PR-7119-F	2	SA-315-D	10-7-71
PR-7119-K	2	SA-314-D	11-7-71
PR-7119-J	2	SA-313-D	11-7-71
PV-6206-SP	2	SA-312-D	11-7-71
HC7080-SP	2	SA-311-D	11-7-71
PR-26719	2	MA-104-D	12/5/68
PR-26719	2	MA-103-D	12/5/68
PR-26719	2	MA-102-D	12/5/68
PR-26719	2	SA-216-C	12/5/68

MATL PR-1719-K 2 SF-32-D 3-11-71

THIS PRINT SUPERSEDES ALL PRINTS PREVIOUSLY ISSUED

UNLESS OTHERWISE NOTED:
 DECIMAL MACHINED $\pm .005$
 FRACT. DIM. MACHINED $\pm \frac{1}{16}$
 SAW SHEAR ETC. $\pm \frac{1}{8}$
 WELD OR BURR $\pm \frac{1}{8}$
 ANGLES $\pm \frac{1}{2}^\circ$

RISH. WT. _____
 FIN. WT. _____

DESTROY ALL OBSOLETE PRINTS OR RETURN TO ENGINEERING DEPT.

DATE _____

THE PARKER SWEEPER COMPANY
 SPRINGFIELD, OHIO

BEARING SEALMASTER 66-41-A

NAME OF PART

PR-7119-K 2 SF-32-D 3-11-71

MODEL NO. NO. PER. NEXT ASSY. DATE

RHS DLS RDR 6 = 1.1

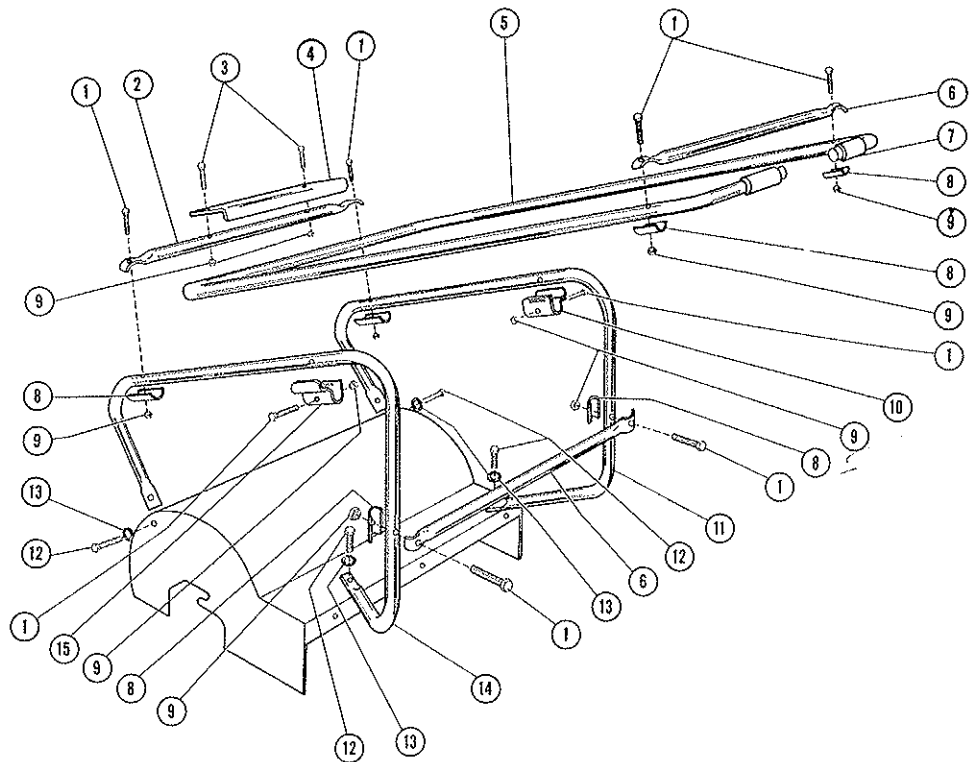
DRAFTSMAN CHECKER APPD. SCALE SHEET NO. SHEETS

2 1 1

THATCH-O-MATIC POWER RAKE	SIZE 19''	PRODUCTION YEAR 1969	MODEL No. PR - 16719
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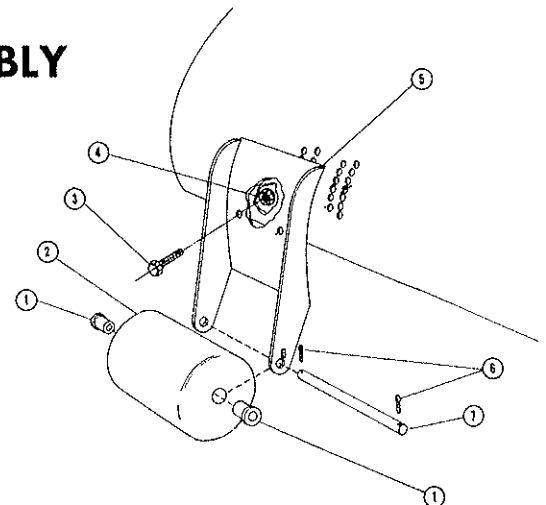
HANDLE ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part	Item No.	Part No.	Qty. Per Unit	Description of Part
1	65-416-20	8	Bolt—Hex Head ¼-20 x 1¼	9	364-416	10	Nut—Hex Lock Thin Type ¼-20
2	65-415-B	1	Brace—Lower Cross	10	65-419-RA	1	Bracket—Lock Assy. R.H.
3	65-416-16	2	Bolt—Hex Head ¼-20 x 1	11	66-285-RD	1	Lower Handle Assy. R.H.
4	65-416-A	1	Bracket—Handle	12	521-516-8	4	Capscrew—Hex Hd. ⅜-18 x ½
5	65-413-C	1	Handle—Upper	13	936-516	4	Washer—Internal Tooth ⅜
6	63-275-B	2	Brace—Cross	14	66-284-LD	1	Lower Handle Assy. L.H.
7	64-152-A	2	Grip—Handle	15	65-420-LA	1	Bracket—Lock Assy. L.H.
8	59-77-A	6	Clamp				



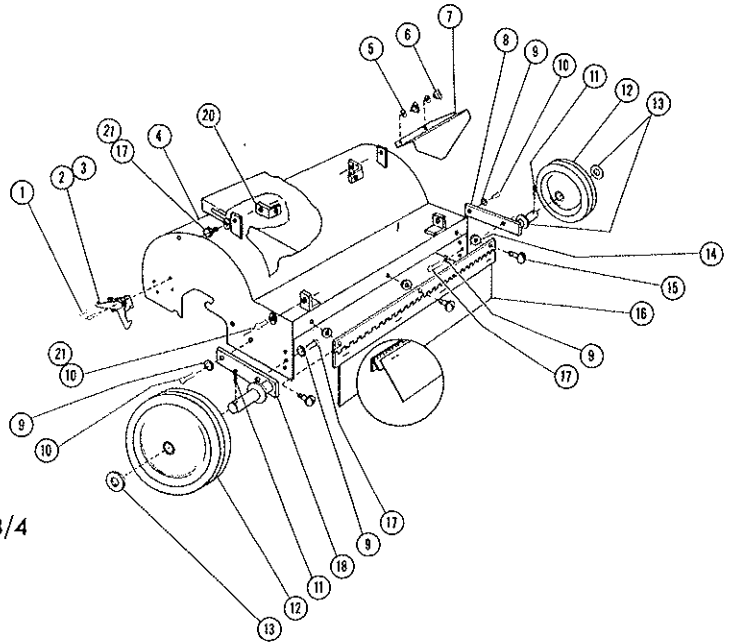
FRONT ROLLER ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	66-432-A	2	Flange Bearing
2	SA-220-B	1	Front Roller
3	65-615-12	2	Hex Hd. Capscrew 5/16-18 x 3/4
4	365-516	2	Hex Lock Nut 5/16-18
5	68-278-B	1	Roller Bracket Weldment
6	380-432-16	2	Cotter Pin 1/8 x 1"
7	68-282-A	1	Axle—Roller



HOUSING ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
**1	410-43	8	Pop Rivet SD-43-BS
2	66-233-LA	1	Hook—Lock L.H. (shown)
3	66-232-RA	1	Hook—Lock R.H. (not shown)
4	66-120-D	1	Hood Weldment
5	66-106-A	2	Split Retainer—Lion #2
6	66-105-A	2	Lion #2 Stud Fastener
7	66-95-B	1	Belt Guard—Reel
8	66-250-B	1	Axle Assy. Weldment R.H.
9	935-516	4	Lockwasher $\frac{5}{16}$
10	65-516-8	4	Hex Head Capscrew $\frac{5}{16}$ -18 x $\frac{1}{2}$
11	380-632-20	2	Cotter Pin $\frac{3}{16}$ x $1\frac{1}{4}$ Lg.
12	66-228-B	2	Wheel Assembly
13	66-431-A	4	Washer Plain $\frac{3}{4}$ I.D. x $1\frac{1}{16}$ O.D.
14	65-457-A	3	Split Retainer—Lion #5
15	66-108-A	3	Lion #5 Stud
16	SA-104-B	1	Dragstrip Assembly
17	65-516-12	4	Hex-Head Cap Screws $\frac{5}{16}$ -18 x $\frac{3}{4}$
18	66-258-B	1	Axle Assy. Weldment L.H.
20	68-285-A	2	Adjustment Angle Bracket
21	945-516	4	Washer, Plain $\frac{5}{16}$ I.D.

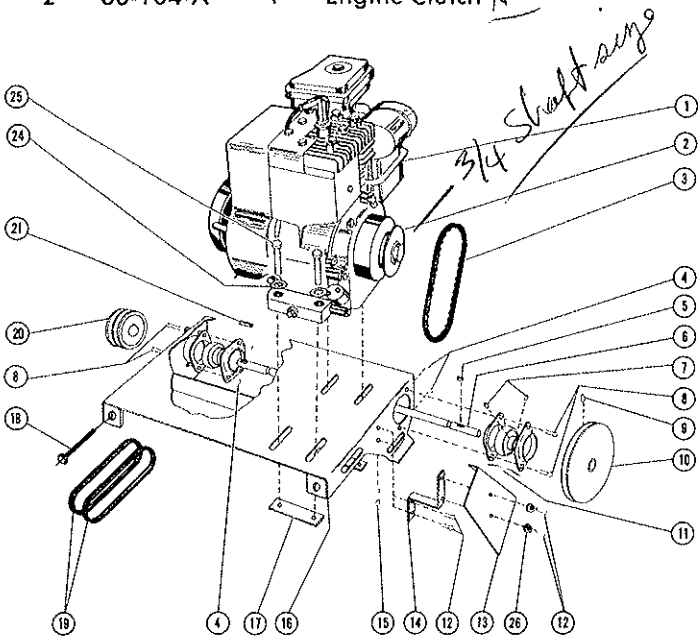


**Note: May be replaced with Socket Head Capscrew # 5-40 x $\frac{3}{8}$ and Hex Lock Nut #5-40.

ENGINE ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	66-234-A	1	Engine—Briggs & Stratton 5 H.P.
2	66-104-A	1	Engine Clutch <i>N-A</i>

Item No.	Part No.	Qty. Per Unit	Description of Part
3	66-100-A	1	Belt—Cog #AX-31
4	365-516	4	Nut—Hex Head Lock $\frac{5}{16}$ -18
5	63-132-A	1	Key—Hi Pro #606
6	66-87-B	1	Jackshaft
7	563-C-416-4	4	Setscrew—Allen Head—Cup Point $\frac{1}{4}$ -28 x $\frac{1}{4}$
8	65-516-12	4	Capscrew—Hex Hd. $\frac{5}{16}$ -18 x $\frac{3}{4}$
*9	564-C-516-6	1	Setscrew—Allen Head—Cup Point $\frac{5}{16}$ -18 x $\frac{3}{8}$
10	66-99-A	1	Sheave 6.7 P.D.
11	66-41-A	2	Bearing Assembly
12	65-416-8	4	Capscrew—Hex Hd. $\frac{1}{4}$ -20 x $\frac{1}{2}$
13	66-433-C	1	Belt Guard—Engine
14	66-434-B	1	Bracket—Belt Guard
15	364-416	2	Nut—Hex Lock Thin $\frac{1}{4}$ -20
16	68-271-C	1	Engine Support Weldment
17	66-93-A	2	Engine Hold Down Weldment
18	72-516-72	1	Adjusting Bolt, $\frac{5}{16}$ -18 x $4\frac{1}{2}$
19	66-259-A	1 (set)	Two V-Belts Matched Set AP-33
20	Ref.		See Parts List of Reel Assy. for Parts No. of this Sheave
21	61-65-A	1	Key $\frac{3}{16}$ sq. x $1\frac{1}{4}$ long
24	935-516	4	Lock Washer Spring $\frac{5}{16}$
25	65-516-24	4	Bolt—Hex Head $\frac{5}{16}$ -18 x $1\frac{1}{2}$
26	935-416	2	Lock Washer, Spring $\frac{1}{4}$



Note: When replacing bearings on Jackshaft they should both be mounted with the longer hub extension toward engine driven belt.

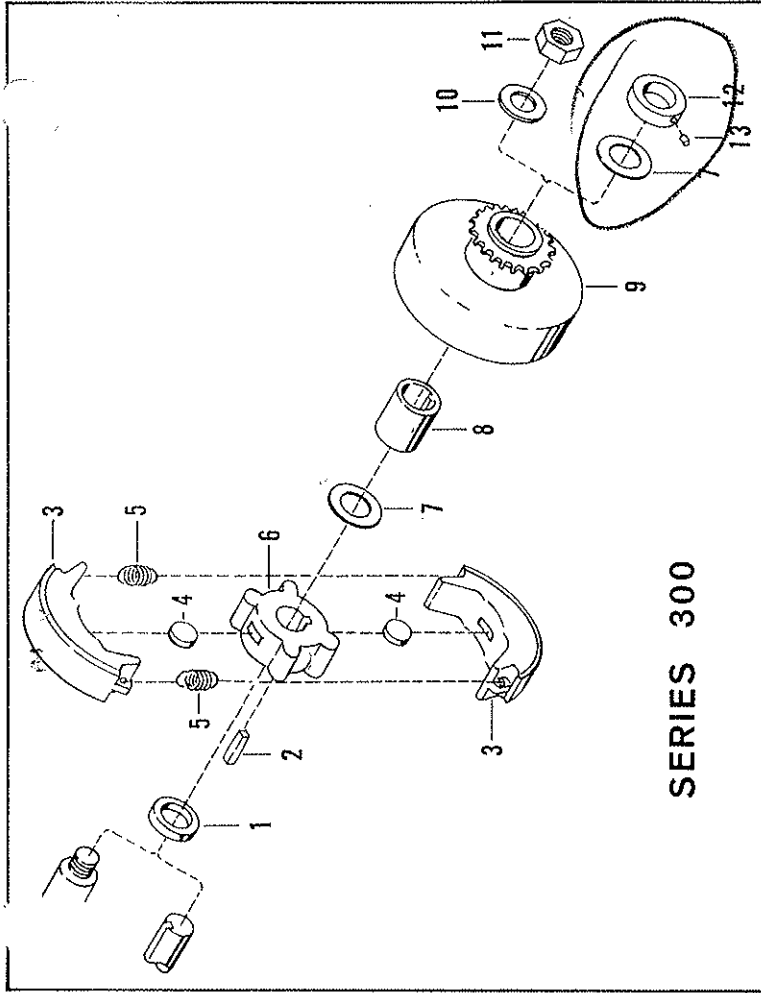
*Loctite Set Screw at assembly.

DESIGN INFORMATION REQUIRED —

by Engineering Department of Comet Industries

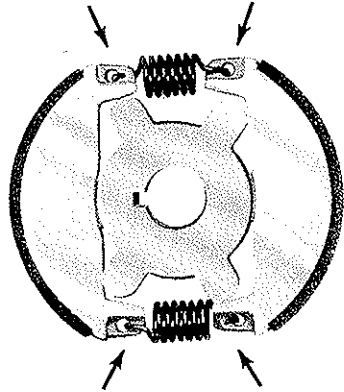
(The following can be used as a guide, adding a sketch and any other explanation of requirements.)

- A. **Application — Proposed or present.**
State machine purpose and use, if possible, in full detail.
- B. **Power Source —**
 - 1. Engine make and model _____
 - Horsepower — Maximum _____ at _____ rpm
 - Torque — Maximum _____ at _____ rpm
 - Speed — Minimum operating _____ rpm
 - Idle _____ rpm
- 2. **Electric —**
 - Horsepower _____ Synchronous rpm
 - Phase _____ Cycle _____
- 3. **Other — (give full details)** _____ To run _____
- C. **Torque Requirement —** To start _____ To run _____
- D. **Engagement Range Required** _____ rpm to _____ rpm
- E. **Full Slip Required —** _____ rpm to _____ rpm
- F. **Shafts — Driving —** diameter _____, key way _____
Driven — diameter _____, key way _____
- G. **Drive or Type of Transmission**
 - 1. V-Belt — OD _____ PD _____ Section _____
 - 2. Chain — Pitch _____ No. of Teeth _____
Chains _____
 - 3. Sprocket — Pitch _____ No. of Teeth _____
Chains _____
- H. **Service —**
 - Continuous _____ hours per day
 - Intermittent _____ hours per day
 - Load — Steady _____ Shock — Severe _____ heavy
 - Starts — Frequent _____ Starts per hour _____
 - Cycling _____
- I. **Sketch or Drawings —** Include if possible.



SERIES 300

- 1. Steel Spacer
- 2. Key
- 3. Clutch Shoe
- 4. Clutch Shoe Keeper
- 5. Clutch Spring
- 6. Clutch Rotor Hub
- 7. Fibre Washer
- 8. Bearing
- 9. Sprocket & Drum (Sheave & Drum)
- 10. Steel Washer
- 11. Nut
- 12. Collar
- 13. Set Screw



NOTE

INSTALL SPRINGS WITH

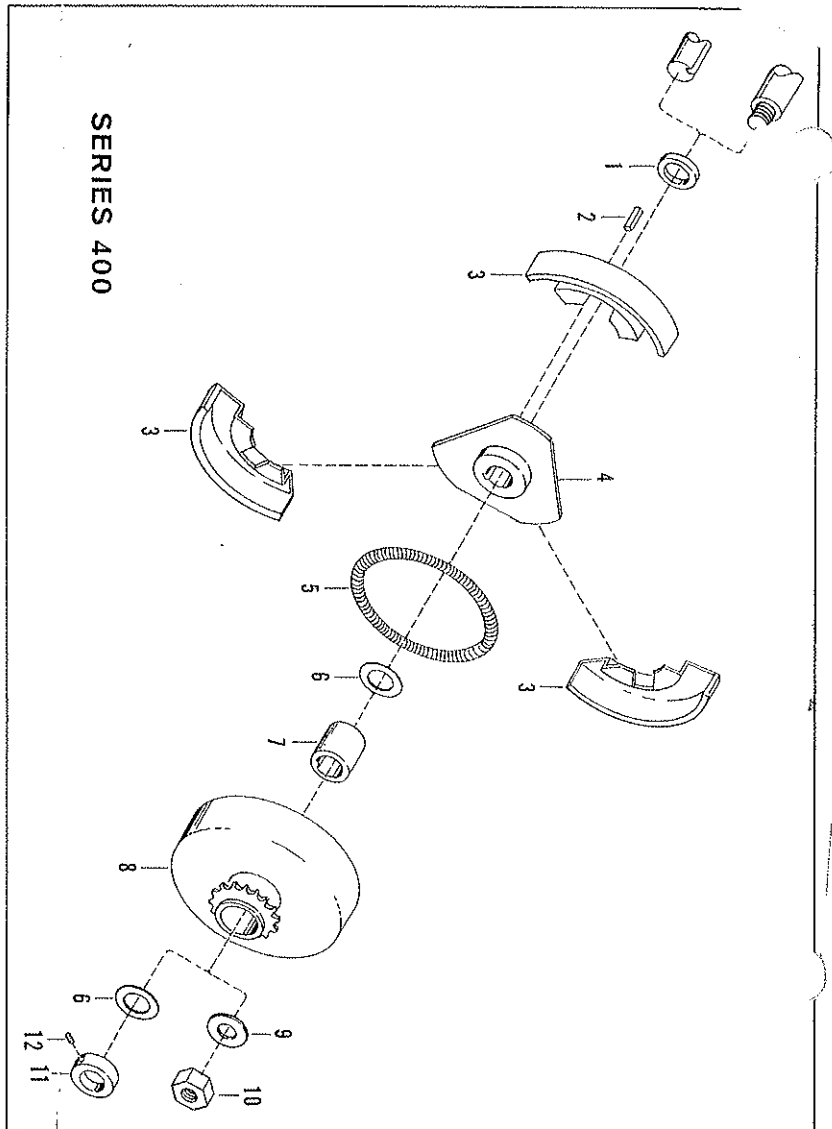
HOOKS AS SHOWN

300 SERIES

COLOR CODED SPRING SELECTION	300 SERIES
23346-7	WHITE 1100/1200
23346-3	GREEN 1700/1800
23346-4	PURPLE 2100/2200
23346-5	BROWN 2600/2700
23346-6	RED 2900/3000
23346-10	BLUE 2300/2400
23346-11	BLACK 4000/4100
23346-12	GOLD 4900/5000

COMET INDUSTRIES
DIVISION OF HOFFCO, Inc.
27 WASHINGTON AVE., RICHMOND, INDIANA

SKETCH:



SERIES 400

- 1. Spacer
- 2. Key
- 3. Clutch Shoe
- 4. Clutch Rotor Hub
- 5. Clutch Spring
- 6. Fibre Washer
- 7. Bearing
- 8. Sprocket & Drum
(Sheave & Drum)
- 9. Steel Washer
- 10. Nut
- 11. Collar
- 12. Set Screw

400 SERIES
COMET SPRING CHART

- 39413-5 Blue 2000/2100
- 30413-1 Orange 1500/1600
- 39413-6 Black 1200/1300

COMET INDUSTRIES
DIVISION OF HOFFCO, Inc.
27 WASHINGTON AVE., RICHMOND, INDIANA

REMARKS:

REPRESENTED BY

FRONT ROLLER ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	66-432-A	2	Flange Bearing
2	66-436-A	1	Front Roller
3	521-516-8	1	Hex Hd. Capscrew $\frac{3}{16}$ x $1\frac{1}{2}$
4	945-516-12	1	Washer—Plain $\frac{3}{16}$ I.D. x $\frac{3}{4}$ O.D.
5	365-5	1	Hex Lock Nut #5-40
6	66-310-B	1	Roller Bracket Weldment
7	66-307-A	1	Indicator
8	524-516-6	1	Socket Head Capscrew #5-40
9	380-432-16	2	Cotter Pin $\frac{1}{8}$ x 1"
10	66-76-A	1	Axle Roller

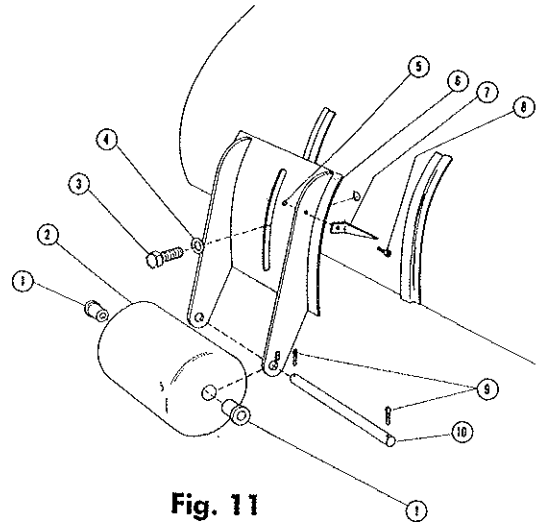


Fig. 11

TINE REEL ASSEMBLY

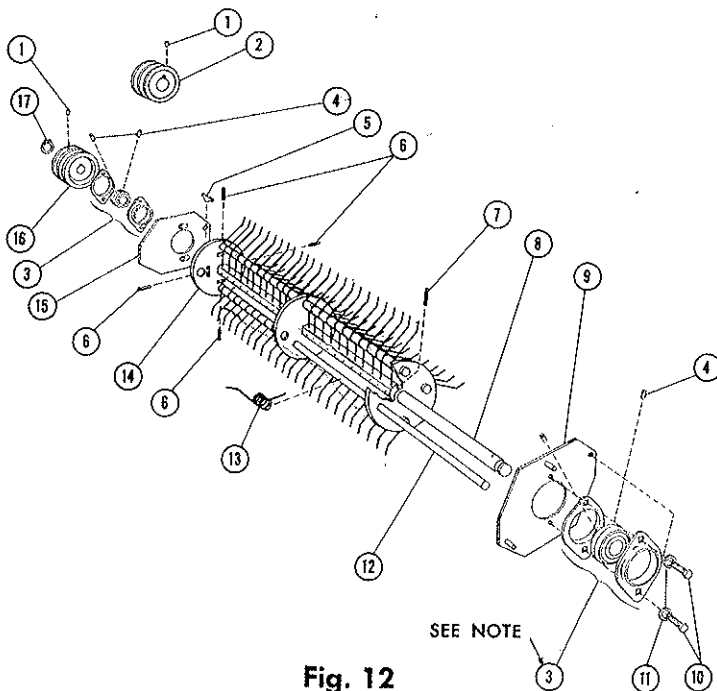


Fig. 12

Note: When replacing bearings, the Right Hand Bearing should be mounted with the extended hub toward reel sheave. The Left Hand Bearing should be mounted with the extended hub toward left side of machine.

Item No.	Part No.	Qty. Per Unit	Description of Part
1	564-C-416-6	2	Set Screw—Allen Head, Cup Point $\frac{1}{4}$ -20 x $\frac{3}{8}$
2	66-98-B	1	Sheave $3\frac{1}{4}$ " O.D.—for Jackshaft
3	66-41-A	2	Bearing
4	563-C-416-4	4	Setscrew—Allen Head, Cup Point $\frac{1}{4}$ -28 x $\frac{1}{4}$
5	63-132-A	1	Key—Hi-Pro #606
6	66-437-A	4	Roll Pin $\frac{1}{4}$ x 1"
7	66-44-A	1	Spiral—Pin
8	66-271-A	1	Tine Shaft
9	66-33-1A	1	Bearing Mtg. Weldment L.H.
10	521-516-8	6	Capscrew—Hex Hd $\frac{3}{16}$ x $1\frac{1}{2}$
11	935-516	6	Lockwasher—Spring $\frac{3}{16}$
12	66-14-A	4	Tine Rod
13	66-238-A	100	Tine Spring
14	66-274-C	1	Tine Reel Weldment
15	66-34-RA	1	Bearing Mtg. Weldment R.H.
16	66-214-B	1	Sheave 5.25 O.D.
17	994-12	1	Retaining Ring

KNIFE REEL ASSEMBLY

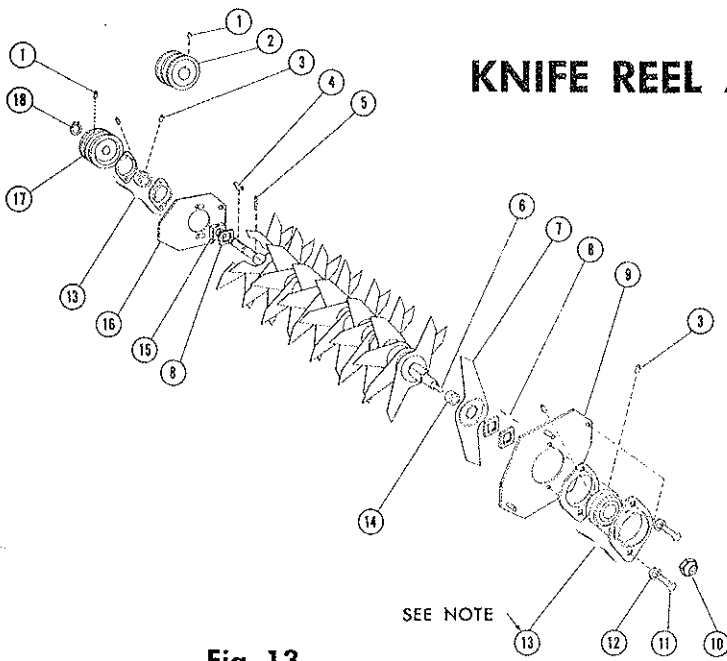


Fig. 13

Note: 1. When reassembling Knife Reel, first place Collar, Item 15, on the end of reel shaft, aligning hole in Collar with hole in shaft and insert pin, Item 5, thru both parts. Proceed with reel assembly by placing one of Item 8 on shaft next to Item 15 before placing first Knife Blade on shaft. Be sure all blades are facing as shown in Fig. 13.

2. When replacing bearings they should be mounted with the extended hub toward sheave side of reel. Both Bearings.

Item No.	Part No.	Qty. Per Unit	Description of Part
1	564-C-416-6	2	Setscrew—Allen Head, Cup Point $\frac{1}{4}$ -20 x $\frac{3}{8}$
2	66-205-B	1	Sheave 4.95 O.D. for Jackshaft
3	563-C-416-4	4	Setscrew—Allen Head, Cup Point $\frac{1}{4}$ -28 x $\frac{1}{4}$
4	63-132-A	1	Key—Hi-Pro #606
5	66-44-A	1	Spiral Pin
6	66-48-B	1	Shaft—Knife Reel
7	66-47-B	25	Knife Blade USE # 70-78-A
8	66-40-A	3	Spacer—Knife Reel USE # 71-28-A
9	66-308-LA	1	Bearing Mtg. Weldment L.H.
10	65-468	1	Nut, Reel Shaft $\frac{3}{8}$ -18
11	521-516-8	6	Capscrew Hex Hd. $\frac{3}{8}$-18 x $\frac{1}{2}$
12	935-516	6	Lock Washer—Spring $\frac{3}{8}$
13	66-41-A	2	Bearing Assembly
14	66-453-A	24	Spacer—Knife Reel
15	66-43-A	1	Collar—Knife Reel
16	66-309-RA	1	Bearing Mtg. Weldment R.H.
17	66-213-B	1	Sheave 3.8 O.D.
18	994-12	1	Retaining Ring

FLAIL REEL ASSEMBLY

Item No.	Part No.	Qty. Per Unit	Description of Part
1	564-C-416-6	2	Setscrew—Allen Head, Cup Point $\frac{1}{4}$ -20 x $\frac{3}{8}$
2	66-205-B	1	Sheave 4.95 O.D. for Jackshaft
3	563-C-416-4	4	Setscrew—Allen Head, Cup Point $\frac{1}{4}$ -28 x $\frac{1}{4}$
4	63-132-A	1	Key—Hi-Pro #606
5	66-56-A	36	Thatching Blade
6	66-52-A	28	Spacer—Flail Reel
7	66-53-A	4	Spacer—Flail Reel
8	66-55-A	4	Spacer—Flail Reel
9	66-54-A	4	Spacer—Flail Reel
10	66-51-A	8	Orbit Rod
11	521-516-8	6	Capscrew Hex Hd. $\frac{3}{8}$-18 x $\frac{1}{2}$
12	935-516	6	Lock Washer—Spring $\frac{3}{8}$
13	66-41-A	2	Bearing Assembly
14	66-308-LA	1	Bearing Mtg. Weldment L.H.
15	66-30-B	1	Reel Weldment
16	60-62-A	8	Roll Pin $\frac{1}{8}$ x $\frac{3}{4}$
17	66-309-RA	1	Bearing Mtg. Weldment R.H.
18	66-213-B	1	Sheave 3.8 O.D.
19	994-12	1	Retaining Ring

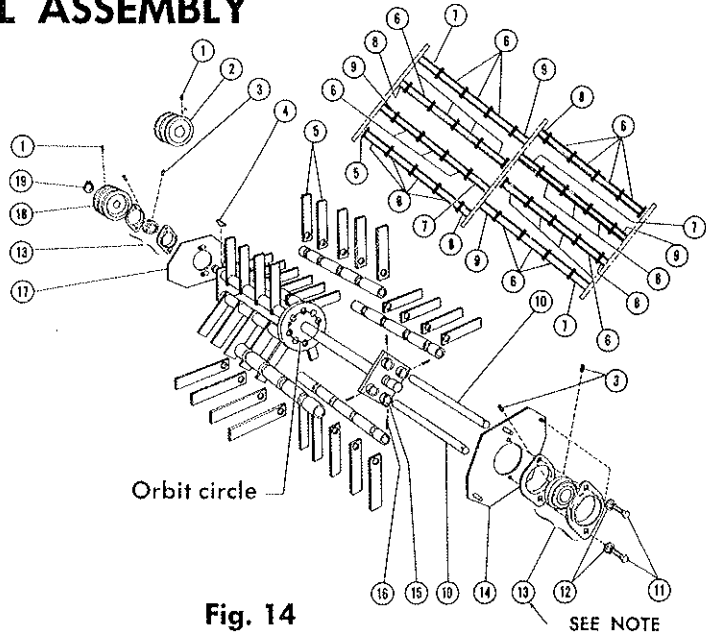


Fig. 14

Note: 1. To obtain view of spacer arrangement imagine the path circle of the flail orbit rod, to be rolled out into a flat plane.

2. When replacing bearings they should be mounted with the extended hub toward sheave side of reel. Both Bearings.

PARKER SWEEPER COMPANY

BOX 720

SPRINGFIELD, OHIO 45501