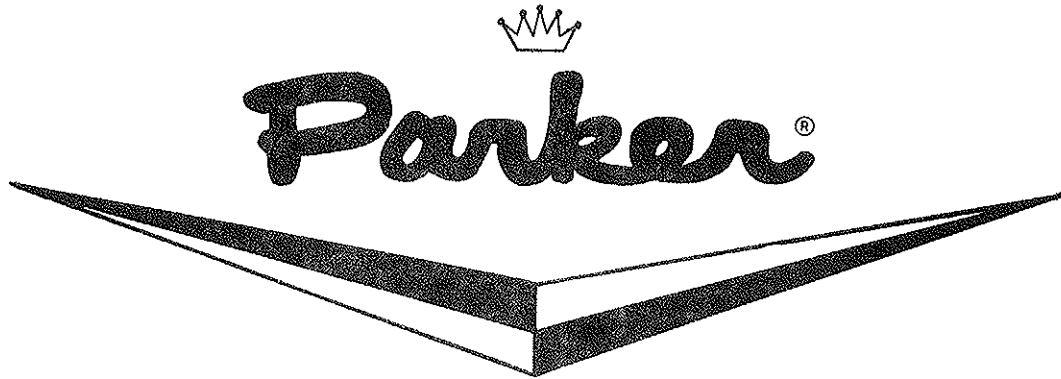


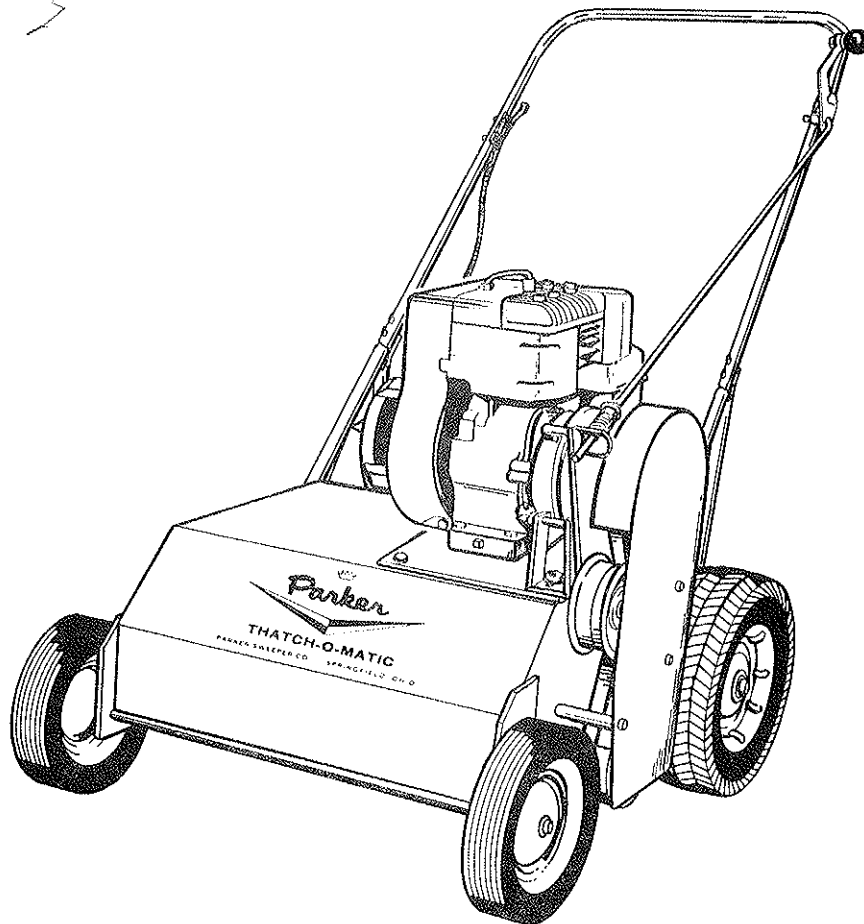
# OWNER'S GUIDE



## Thatch-O-Matic

MODELS

PR-8319-T, PR-8319-K, PR-8319-F



**SAFETY COMES FIRST; READ THIS OWNER'S GUIDE THOROUGHLY, UNDERSTAND ALL INSTRUCTIONS BEFORE SETTING UP AND OPERATING THIS EQUIPMENT.**

Parker Sweeper Company

Box 1728

Springfield, Ohio 45501-1728

Plate No. 850 (Rev. 4-4-88)

87-142A

## TO THE OWNER

These instructions were written to assist you in assembling and operating the power rake quickly and correctly. **READ THE INSTRUCTIONS** thoroughly before attempting to assemble and operate the machine so that you are familiar with the complete procedure and safety precautions.

**YOUR SAFETY IS OUR CONCERN. READ ALL SAFETY RULES AND OPERATING INSTRUCTIONS BEFORE ATTEMPTING TO START OR OPERATE THIS EQUIPMENT. FAILURE TO FOLLOW SAFETY RULES AND OPERATING INSTRUCTIONS MAY RESULT IN SERIOUS INJURY.**

### RULES FOR SAFE OPERATION

1. Do not allow anyone to operate this machine without proper instructions.
2. Do not permit children to operate or play with this machine.
3. Do not try to remove any wire or twine or weed roots that may become wrapped around the reel while the engine is running. To inspect or work on the reel, **first disconnect the wire from the spark plug and ground it to the clip provided on the engine head.**
4. Keep all nuts and bolts tight to be sure the machine is in good working condition.
5. Do not start the engine or operate this machine unless all guards and the discharge gate are in place and properly secured with the fastenings provided.
6. Before starting a thatch removal or turf thinning project, the area to be worked should be thoroughly inspected, and all foreign objects— such as wire, bones, sticks, stones and other debris likely to damage the machine or cause personal injury, should be removed.
7. Follow the maintenance instructions as outlined in this manual.

### ASSEMBLY INSTRUCTIONS

The Thatch-O-Matic is shipped complete in one box. Remove the upper handle assembly, clutch lever assembly, and the machine assembly from the carton. **DO NOT** discard the carton or any inserts until the Unit is completely assembled. All hardware is on the unit in its proper location. If something is missing, please notify a local distributor or the factory to obtain parts needed.

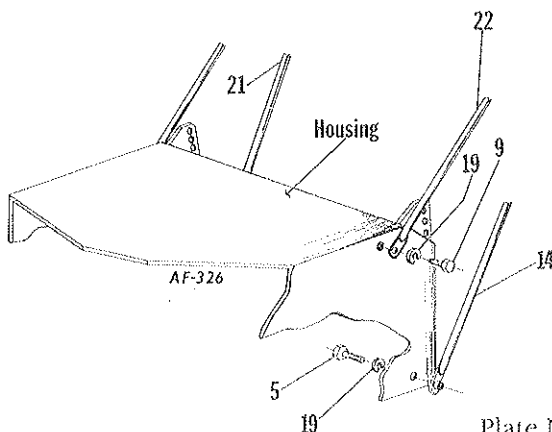
This owner's manual is written to cover all three units. Each unit may have some slight differences in height and/or engine speed. Explanation will be given in the following instructions for any difference or changes. The left or right hand side of the machine is determined when standing behind the unit in the operator's position.

#### HANDLE ASSEMBLY

1. Upper handle must be attached to the lower handle.
2. Remove the four contour head bolts, lock washers and hex nuts from the end of the upper hand assembly.
3. Slip the upper handle assembly onto the lower handles.
4. Align the holes and add the four contour head bolts to the handles. **DO NOT** add the lock washers or hex nuts yet.
5. Add the back brace to the lower contour head bolt of the handles. Repeat for the opposite side.
6. Add the lock washers and hex nuts to all four bolts and tighten.
7. **NOTE:** The lower portion of the handles are preattached to weld nuts.

#### CLUTCH ASSEMBLY

1. The clutch control rod is installed by inserting the straight end of the control rod through the curved hole in the clutch level weldment.
2. Compress the spring enough to allow the roll pin near the end of the rod to pass completely through the curved hole.
3. Turn the control rod 90° so that the bent end, that the control level assembly is on, goes in toward the handle.
4. Remove the contour hd. bolt, lockwasher, and nut from the control lever bracket.
5. Place the curved edge of the control lever bracket around the bottom of the handle.
6. Align holes and replace contour hd. bolt, lockwasher, and nut.
7. Now push the control lever forward as far as it will go. This will cause it to pass over center, and it will stay in this position.



**SAFETY IS IMPORTANT! DO NOT IGNORE IT!  
OBSERVE IT! BE SAFE!**

## OPERATING INSTRUCTIONS

### READ SAFETY & OPERATING INSTRUCTIONS BEFORE OPERATING EQUIPMENT

#### CLUTCH TENSION ADJUSTMENT

1. Before starting the power rake, check the operation of the clutch. This can be done by pulling the knob on the clutch handle to the rear. This releases the tension between the idler pulley and belt.
2. Now, with the throttle closed, pull the starter rope on the engine slowly. The belt should not move and the reel should not turn. If it does turn, the belt is adjusted too tightly.
3. To loosen or tighten the belt, loosen the bolts that hold the engine and the stiffener to the chassis.
4. To loosen the belt, move the engine forward.
5. To tighten the belt, move the engine toward the back of the machine.
6. To check the correct belt tension, engage the idler and, with your finger, apply a small amount of force to the back of the belt, pushing it toward the idler. You should be able to deflect the belt about  $\frac{1}{4}$ " to  $\frac{3}{8}$ ". If you can't deflect the belt about  $\frac{1}{4}$ ", it is too tight.

**IMPORTANT:** Before starting the engine, read the Engine Instruction Manual and add gasoline and oil as required. To start the engine, first be sure that the spark plug wire is attached to the spark plug and not grounded to the engine. Then open the throttle about halfway, close the choke and pull the starter rope. After the engine starts, open the choke or the engine will stall.

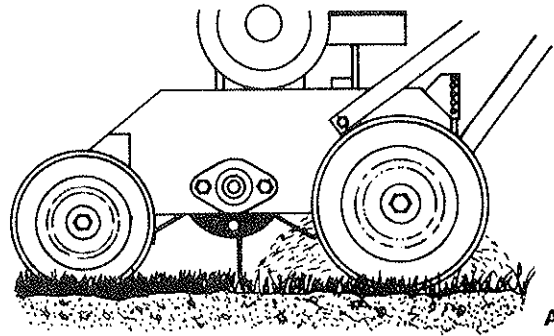
#### REEL HEIGHT ADJUSTMENT

Changing the wheel position (either front or back) one hole position changes the reel height approximately  $\frac{5}{16}$  of an inch. Changing both front and rear wheel positions changes the height approximately  $\frac{5}{8}$  of an inch.

There are six bracket positions for the front wheels. The lowest wheel position, in relation to housing, is obtained by aligning holes 2 and 3 in the bracket with holes "A" and "C" in the housing. Only two bolts are required in each front wheel bracket to secure it to the housing.

Front wheel position is changed by removing front wheel bracket bolts and moving up or down. Replace and tighten bolts. These are reached from inside of housing. It is not necessary to remove wheel from bracket.

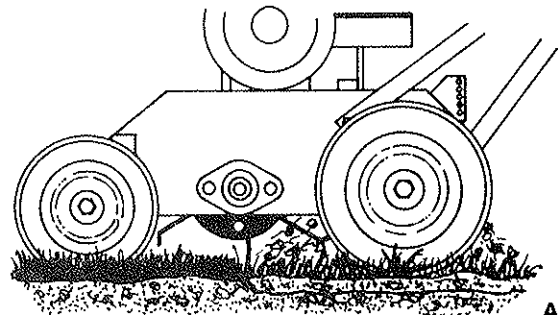
Rear wheel position is changed by loosening the bracket pivot bolt (do not remove); then remove rear wheel adjustment bolt from inside the housing, move bracket up or down to desired position, replace and tighten both bolts. It is not necessary to remove wheel from bracket. The rear wheel bolts will be more accessible if the rear discharge gate is removed. Replace bolt and retighten both bolts in bracket. Be sure to replace discharge gate before starting engine.



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#### CORRECT

The above illustration indicates the correct setting or adjustment for Tine Reel. Tines should **not** be allowed to penetrate soil.



AF-224

#### INCORRECT

The above illustration shows incorrect adjustment or setting for Tine Reel. To get correct setting, adjust wheel assembly downward. The tines are designed for removing dead thatch.

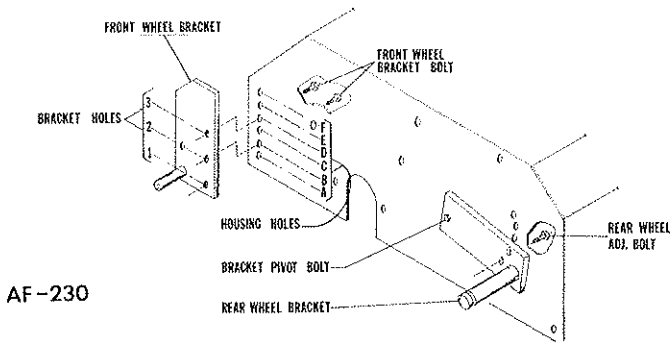
It improves fertilizer and seed response, gives grass room to grow, and reduces the likelihood of insects, fungus infestation or dry grass spots. The tines are designed for removing thatch, and if allowed to penetrate the soil for a prolonged period of time, will cause premature fatiguing, bending and breakage.

Should it be desirable to depopulate and aerate, the Knife Reel should be used. If complete renovation and soil penetration is desirable, use Flail Reel.

**CAUTION:** Wear safety glasses when operating this or any power equipment to prevent eye injury.

**SAFETY IS IMPORTANT! DO NOT IGNORE IT!  
OBSERVE IT! BE SAFE!**

## OPERATING INSTRUCTIONS (continued)



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### REEL SETTINGS

#### 1. TINE REEL

A. There are five axle positions for the rear wheels. All Thatch-O-Matic units with the Tine Reel are shipped with rear wheel adjustment bolt in the bottom hole.

B. The front wheels when shipped are set with holes 2 and 3 of the front wheel bracket aligned with holes B and D of the housing.

**NOTE:** This is the correct setting and no adjustment should be necessary. The best way to find the correct setting for the reel in relation to the ground is to use the machine with the wheels in the position as received. If the tines penetrate the soil, lower the wheels as described in "Reel Height Adjustment." If the tines do not comb the lawn near the soil surface, raise the wheels, but do not allow the tines to "dig" the soil.

Please note that the power rake **is not a tiller**. It is not intended to dig but only to comb the turf and remove dead thatch and help to control creeping weeds in the turf.

#### 2. FLAIL REEL

A. There are five axle positions for the rear wheels. All Thatch-O-Matic units with the Flail Reel are shipped with rear wheel adjustment bolt in the second hole from the bottom.

B. The front wheels, when shipped, are set with holes 2 and 3 of the front wheel bracket aligned with holes B and D of the housing.

This is the correct setting and no adjustment should be necessary.

The Flail Reel assembly should be used if complete turf renovation and soil penetration is desirable to aid in fertilizing and seeding programs. This helps to limit water run-off and retain soil moisture.

#### 3. KNIFE REEL

A. There are five axle positions for the rear wheels. All Thatch-O-Matic units with the Knife Reel are shipped with rear wheel adjustment bolt in the bottom hole.

B. The front wheels when shipped, are set with holes 2 and 3 of the front wheel bracket aligned with holes B and D of the housing.

This is the correct setting and no adjustment should be necessary.

The Knife Reel should be used to eliminate hard surface soil. It slices, thins and aerates all types of turf, and allows moisture and fertilizer to reach grass roots. The Knife Reel is especially effective for thinning running stem grasses, cutting slits in soil prior to overseeding and aerating soil.

Thatch is an accumulation of roots, stems and grass clippings that result in a dense mat between the soil and the visible green vegetation. Often several inches thick, thatch prevents the penetration of fertilizers and water. Every time you mow, thatch builds up. Without proper care thatch can destroy a beautiful lawn.

**CAUTION:** Be sure clutch is disengaged and the reel has come to a complete stop before making any change in the direction of the unit. This will eliminate the risk of over-travel and possible accidents.

**CAUTION!** Reel assemblies are not interchangeable! Serious injury or damage could result if the Reel Assembly is replaced with one not compatible. Consult Parker Sweeper Company for instructions if change is desired.

**BE SAFE. PROTECT YOUR FAMILY, YOUR FRIENDS, YOURSELF.  
OBSERVE ALL SAFETY INSTRUCTIONS.**

## MAINTENANCE INSTRUCTIONS

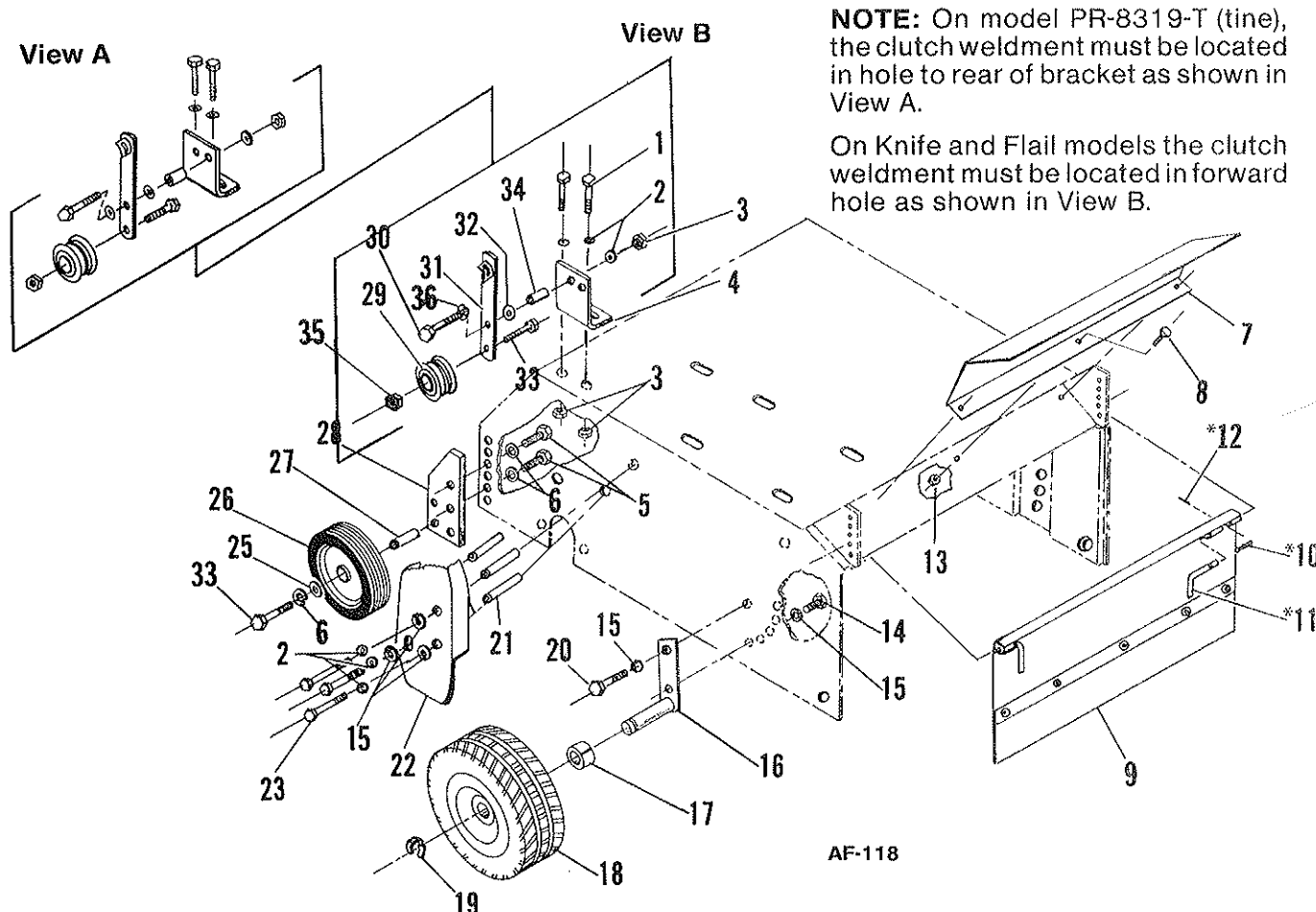
1. Be sure to keep the oil at the proper level in the engine. Check the oil level each time you fill the fuel tank.
2. Change oil after first five hours of operation. Thereafter, change every 25 hours of operation.
3. To drain the crankcase oil from the engine, run the engine for a short time to warm the oil and make it flow more easily. Remove the drain plug from the rear of the engine. It may be desirable to use a piece of tubing or a funnel with a long spout to catch the oil coming out of the engine, and let oil drain into a container for disposal.
4. The Briggs & Stratton engine on this unit uses a dual element air cleaner. Clean and re-oil foam pre-cleaner at three month intervals or every 25 hours of operation, whichever occurs first. Service more often under dusty conditions. Yearly or every 100 hours, whichever occurs first, remove paper cartridge. Clean by tapping gently on flat surface. If very dirty or damaged, replace cartridge. Consult Briggs & Stratton Engine Manual for further cleaning instructions.
5. The engine may require minor carburetor adjustments to compensate for differences in fuel, temperature, altitude or load. See section titled ADJUSTMENTS in the engine manual.
6. Remember that the engine is air cooled, and in order to operate efficiently, it should be kept clean. Dirt and debris should not be allowed to cover the engine and clog the cooling fins.
7. The reel bearings and idler pulley bearings are permanently lubricated and sealed. They require no further attention.
8. The wheels are mounted on plain bearings and require lubrication. Before each use, check the wheels for dirt or grass that might be clogging the spacers and bearings, preventing the wheels from turning freely. Once wheels are free of any clogs, oil all four wheel axles.

**CAUTION!** Do not operate the power rake without the air cleaner installed properly on the engine. Dust particles in the engine will cause rapid wear of the cylinder walls and piston rings and will result in a rapid loss of power.

**CAUTION!** Do not work on Thatch-O-Matic with engine running or idling. Bring to a DEAD STOP. Remove spark plug wire from the plug and ground it to the clip provided on the engine head.

**CAUTION! KEEP ALL NUTS AND BOLTS TIGHT. FOLLOW THE MAINTENANCE INSTRUCTIONS CAREFULLY. A UNIT THAT IS NOT MAINTAINED PROPERLY CAN BE DANGEROUS.**

CHASSIS ASSEMBLY



**NOTE:** On model PR-8319-T (tine), the clutch weldment must be located in hole to rear of bracket as shown in View A.

On Knife and Flail models the clutch weldment must be located in forward hole as shown in View B.

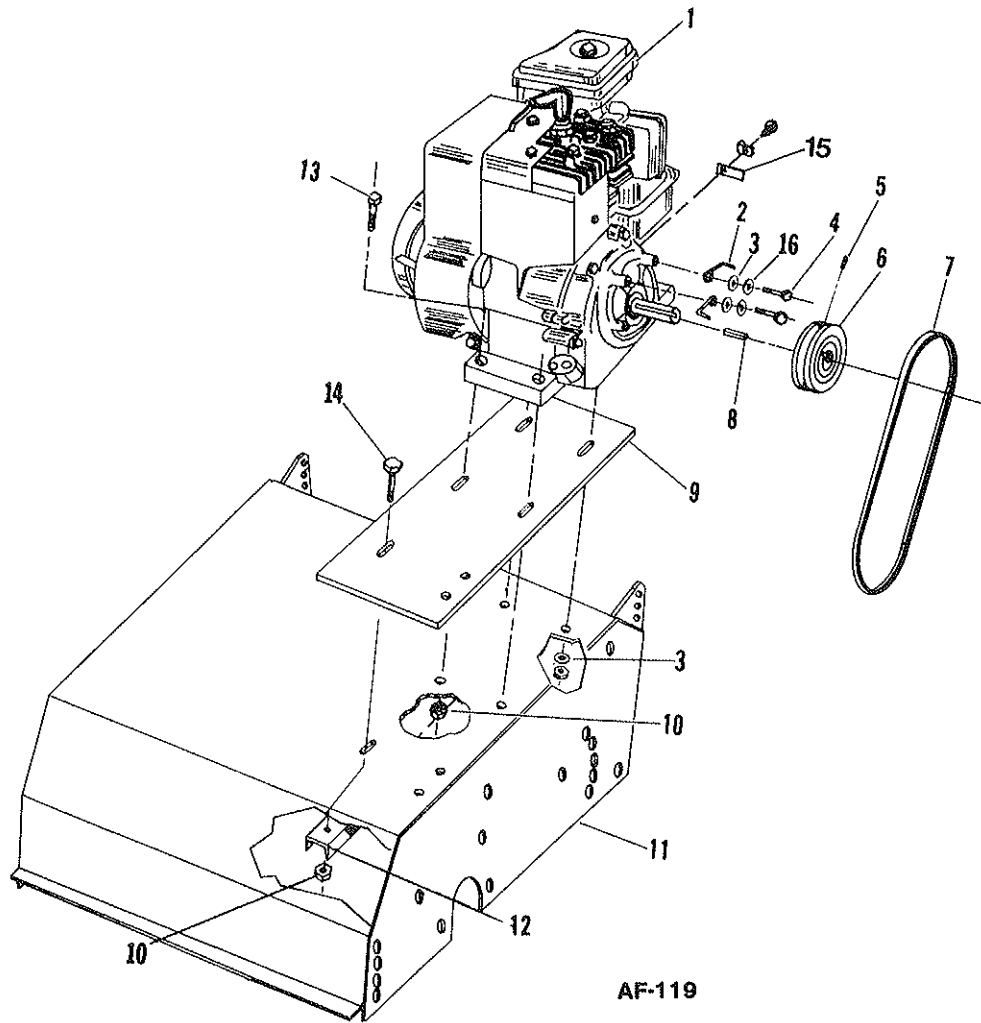
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PARTS LIST

Ref. No.	Part No.	Qty. Per Unit	Description	Ref. No.	Part No.	Qty. Per Unit	Description
1	65-516-16	2	Bolt 5/16-18x1 Hexagon Head	19	1000-12	2	Rear Wheel Retaining Ring
2	945-516	6	Washer 5/16 Flat	20	65-516-10	2	Bolt 5/16-18x3/8 Hexagon Head
3	365-516	3	Nut 5/16-18 Hexagon Lock	21	70-46-A	3	Belt Guard Spacer
4	76-369-B	1	Bracket - Clutch Pivot	22	70-34-C	1	Belt Guard
5	65-616-8	4	Bolt 3/8-16x1/2 Hexagon Head	23	65-516-52	3	Bolt 5/16-18x3/4 Hexagon Head
6	935-616	6	Washer 3/8 Spring Lock	25	945-616	2	Washer 3/8 Flat
7	73-62-B	1	Shield	26	70-69-A	2	Front Wheel
8	65-416-8	3	Bolt 1/4-20x1/2 Hexagon Head	27	70-85-A	2	Front Wheel Spacer
9	SA-310-C	1	Drag Strip Assembly	28	70-41-A	2	Front Axle Bracket
*10	70-90-A	1	Spring - Compression	29	68-136-A	1	Idler Pulley
*11	70-91-A	1	Pin - Drag Strip	30	65-516-20	1	Bolt 5/16-18x1/4 Hexagon Head
*12	70-113-A	1	Roll Pin 1/8x1/2	31	76-381-A	1	Clutch Lever Weldment
13	364-416	3	Nut 1/4-20 Hexagon Lock	32	58-05-A	1	Washer Special
14	65-516-12	2	Bolt 5/16-18x3/4 Hexagon Head	33	65-616-32	3	Bolt 3/8-16x2 Hexagon Head
15	935-516	7	Washer 5/16 Spring Lock	34	55-160-A	1	Spacer
16	70-56-B	2	Rear Axle Weldment	35	365-616	1	Nut 3/8-16 Hexagon Lock
17	70-42-A	2	Rear Axle Spacer	36	68-28-A	1	Cupped Springed Washer
18	66-243-B	2	Rear Wheel				

\*Items 10, 11, & 12 are supplied with item 9, but can be purchased separately.

ENGINE & HOUSING ASSEMBLY

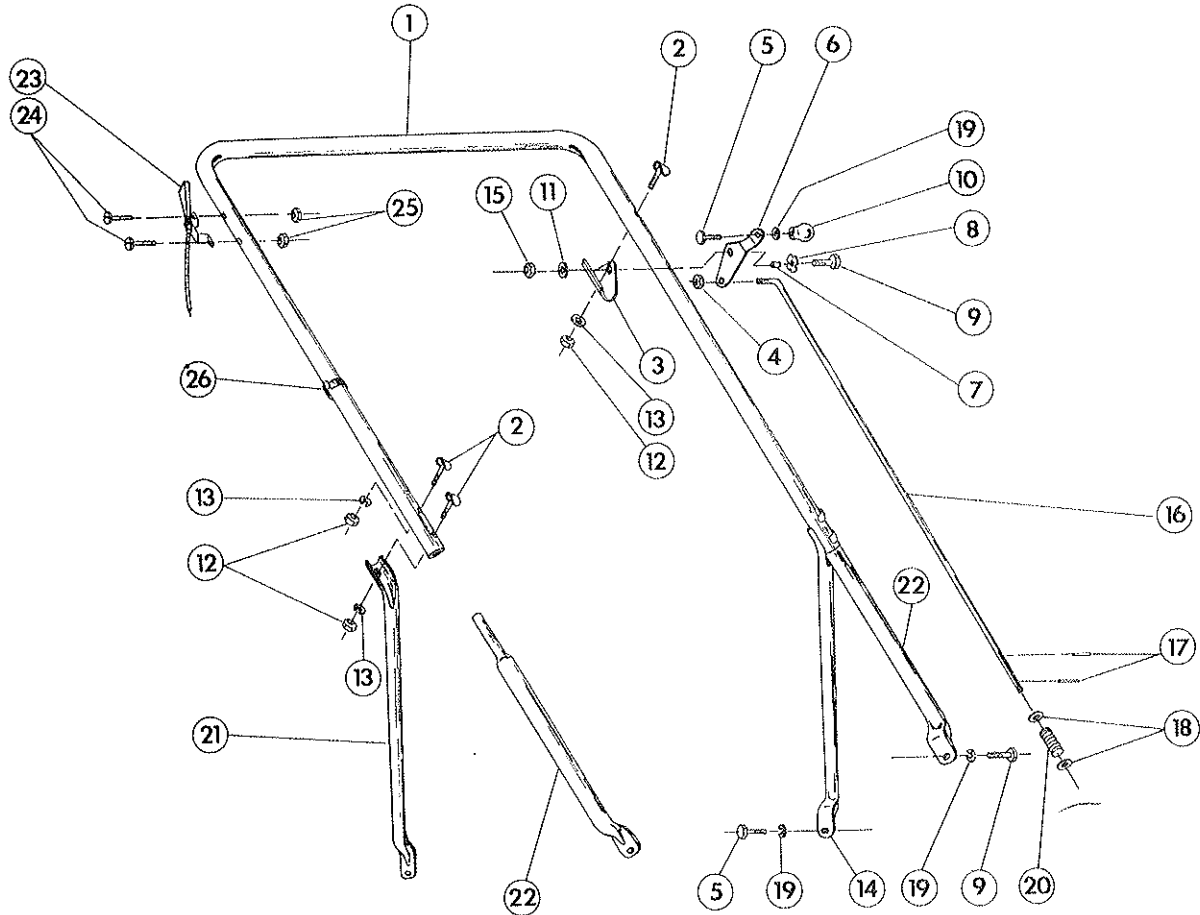


PARTS LIST

Ref. No.	Qty. Per Unit	PR-8319-T Part No.	PR-8319-K Part No.	PR-8319-F Part No.	Description
1	1	**	**	**	Engine
2	2	70-71-A	70-71-A	70-71-A	Belt Popper
3	6	945-516	945-516	945-516	5/16 Flat Washer
4	2	60-516-12	60-516-12	60-516-12	Bolt, 5/16-12 x 3/4 Hex. Hd.
5	1	564-G-516-4	564-G-516-4	564G-516-4	Set Screw 5/16-18 x 1/4 Allen Hd.
6	1	77-62-B	76-374-B	76-374-B	Engine Sheave
7	1	77-61-A	77-01-A	77-01-A	Vee Belt
8	1	68-137-A	68-137-A	68-137-A	Engine Key
9	1	77-58-B	77-58-B	77-58-B	Engine Mounting Plate
10	5	365-516	365-516	365-516	Lock Nut, 5/16-18 Hex.
11	1	83-13-D	83-13-D	83-13-D	Housing Weldment
12	1	76-376-A	76-376-A	76-376-A	Stiffener
13	4	65-516-28	65-516-28	65-516-28	Bolt 5/16-18 x 1 3/4 Hex. Hd.
14	1	65-516-12	65-516-12	65-516-12	Bolt 5/16-18 x 3/4 Hex. Hd.
15	1	87-235-A	-	-	Throttle Stop
16	2	935-516	935-516	935-516	Lockwasher, Spring 5/16

\*\* B&S Model No. 130212, Spec. 3118-01

HANDLE & CLUTCH ROD ASSEMBLY



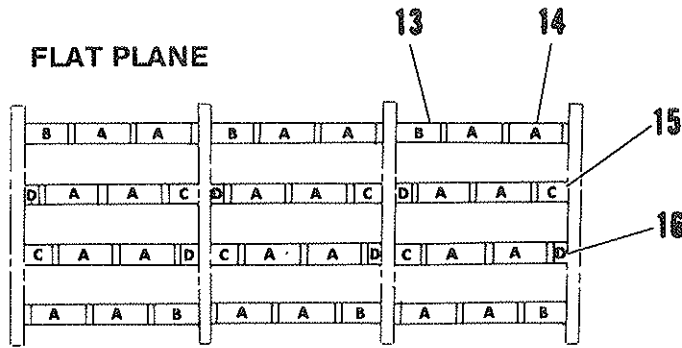
AF-414

PARTS LIST

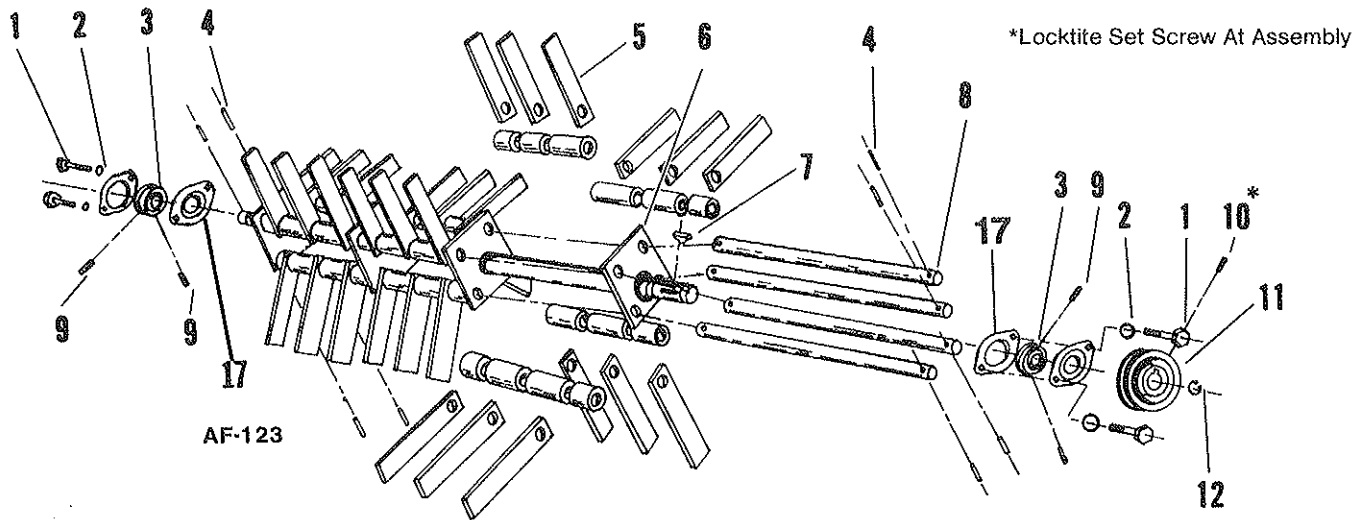
Ref. No.	Part No.	Qty. Per Unit	Description	Ref. No.	Part No.	Qty. Per Unit	Description
1	83-06-C	1	Handle	14	83-11-B	1	Brace Left Hand
2	69-416-24	5	Bolt 1/4-20 x 1 1/2 Contour Hd.	15	364-516	1	Nut 5/16-18 Hex. Lock-Thin
3	83-17-A	1	Bracket	16	70-40-A	1	Clutch Rod
4	364-616	1	Nut 3/8-16 Hex. Lock, Thin	17	60-62-A	2	Roll Pin 1/8 x 3/4
5	65-516-10	3	Bolt, 5/16-18 x 5/8 Hex. Hd.	18	945-616	2	Flat Washer 3/8
6	70-67-B	1	Clutch Control Handle	19	935-516	5	Lock Washer, 5/16 Spring
7	54-227-A	1	Spacer	20	70-80-A	1	Clutch Spring
8	68-28-A	1	Washer - Cupped Spring	21	83-10-B	1	Brace Right Hand
9	65-516-12	3	Bolt, 5/16-18 x 3/4 Hex. Hd.	22	83-07-B	2	Lower Handle
10	55-130-A	1	Ball Knob	23	83-25-B-33	1	Throttle
11	945-516	1	Flatwasher 5/16	24	517-10-20-	2	Screw, Oval Hd. 10-24x1/4
12	335-416	5	Nut, 1/4-20 Hex. Plain	25	365-10	2	Nut, Hex. Lock 10-24
13	935-416	5	Lock Washer 1/4	26	80-276-A	1	Clamp, Snap-on

FLAIL REEL ASSEMBLY

\*\*MA-551-D



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



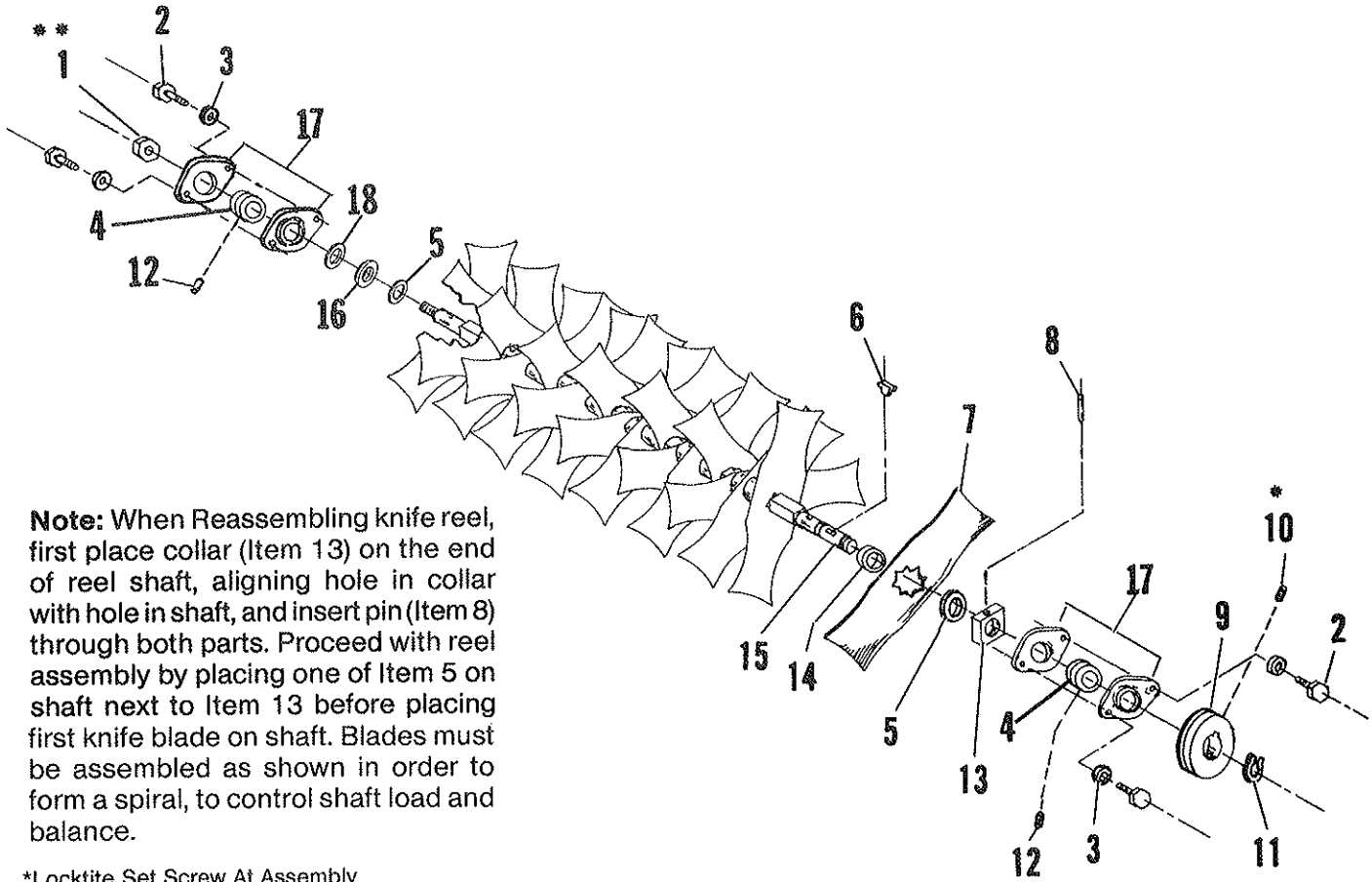
PARTS LIST

Ref. No.	Part No.	Qty. Per Unit	Description of Part	Ref. No.	Part No.	Qty. Per Unit	Description of Part
1	65-516-8	4	Bolt 5/16-18 x 1/2 Hexagon Head	*10	564-C-516-6	1	Set Screw 5/16-18 x 3/8 Allen Head
2	935-516	4	Washer 5/16 Spring Lock	11	76-377-B	1	Sheave
3	<del>66-138-A</del> OK	2	Bearing - Self-Aligning <del>66-47-A</del>	12	994-12	1	Retaining Ring
4	57-97-A	8	Roll Pin 5/32 x 1	13	66-53-A	6	Spacer 1 1/8 long
5	66-56-A	36	Thatching Blade	14	66-52-A	24	Spacer 2 1/64 long
6	70-52-B	1	Flail Reel Weldment	15	66-54-A	6	Spacer 1 3/32 long
7	63-132-A	1	Key, Hi-Pro #606 <del>280-9</del>	16	66-55-A	6	Spacer 17/32 long
8	70-48-A	4	Rod - Flail Reel	17	<del>66-139-A</del> OK	4	Flange Bearing <del>66-47-A</del>
9	563-C-416-4	4	Set Screw 1/4-28 x 1/4 Allen Head				

\*\* Can be purchased as a complete accessory, less items 1, 2, 7, 10, 11, 12, and a quantity of 2, of item 17.

KNIFE REEL ASSEMBLY

\*\*\*MA-552-D



**Note:** When Reassembling knife reel, first place collar (Item 13) on the end of reel shaft, aligning hole in collar with hole in shaft, and insert pin (Item 8) through both parts. Proceed with reel assembly by placing one of Item 5 on shaft next to Item 13 before placing first knife blade on shaft. Blades must be assembled as shown in order to form a spiral, to control shaft load and balance.

\*Locktite Set Screw At Assembly

\*\*Torque To Be 40-50 ft. lbs.

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PARTS LIST

Ref. No.	Part No.	Qty. Per Unit	Description of Part	Ref. No.	Part No.	Qty. Per Unit	Description of Part
1**	368-1016	1	Nut 5/8-18 Hexagon Lock (Thin)	10*	564-C-516-6	1	Set Screw 5/16-18 x 3/8 Allen Head
2	65-516-8	4	Bolt 5/16-18 x 1/2 Hexagon Head	11	994-12	1	Retaining Ring
3	935-516	4	Washer 5/16 Spring Lock	12	563-C-416-4	4	Set Screw 1/4-28 x 1/4 Allen Head
4	66-138-A	2	Bearing — Self-Aligning 66-41-A	13	66-43-A	1	Collar
5	71-35-A	2	Washer — Special	14	71-47-A	17	Spacer
6	63-132-A	1	Key, Hi-Pro #606 280-9	15	66-48-B	1	Knife Reel Shaft
7	87-74-B	18	Knife Blade	16	71-40-A	1	Spacer Weldment
8	66-44-A	1	Spiral Pin	17	66-139-A	4	Flange Bearing 66-41-A
9	76-377-B	1	Sheave 5.5 O.D.	18	66-431-A	1	Flatwasher Special

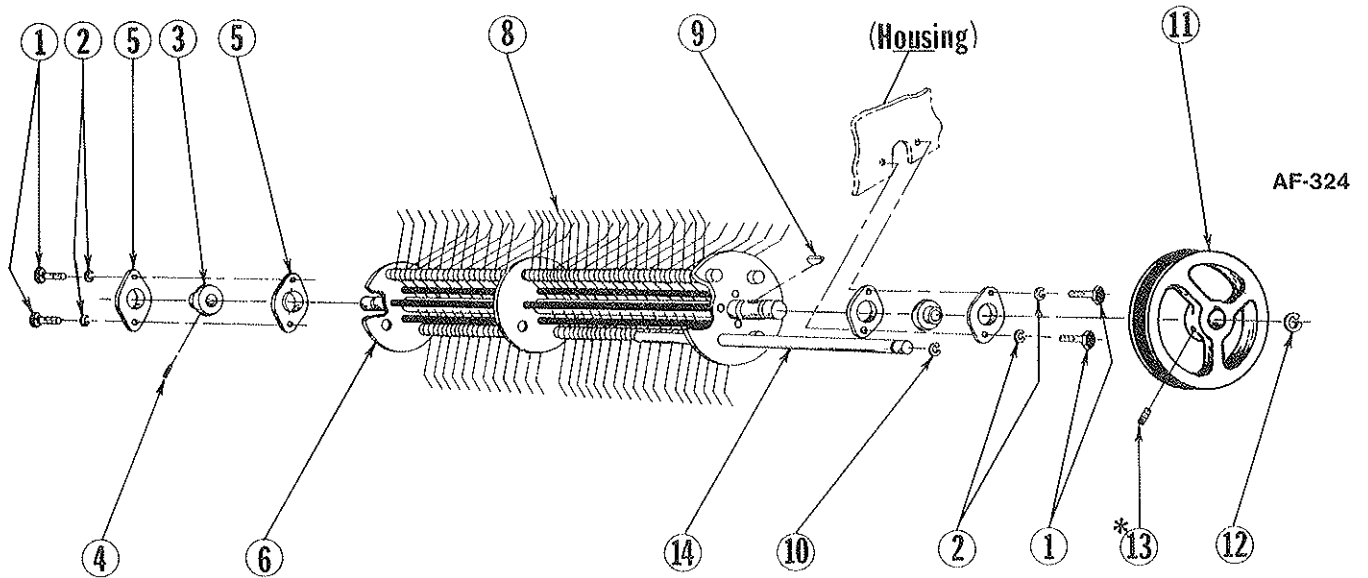
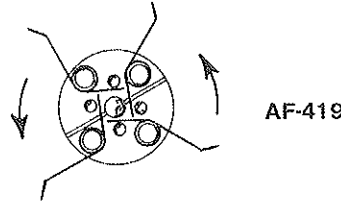
\*\*\*Can be purchased as a complete accessory, less items 2, 3, 6, 9, 10, 11, and a quantity of 2, of item 17.

TINE REEL ASSEMBLY

\*\*MA-553-D

**NOTE:** Tines must be assembled as shown to thatch properly.

Tine Rotation



\*Locktite Set Screw At Assembly

PARTS LIST

Ref. No.	Part No.	Qty. Per Unit	Description of Part	Ref. No.	Part No.	Qty. Per Unit	Description of Part
1	65-516-8	4	Bolt Hex. Hd. 5/16-18 x 1/2	8	66-238-A	100	Tine Springs
2	935-516	4	Lock Washer Spring 5/16	9	<del>63-132-A</del>	1	Key, Hi-Pro #606 <del>280-9</del>
3	<del>66-138-A</del>	2	Bearing, Self Aligning <del>66-41-A</del>	10	83-46-A	8	Retainer Ring "E Type"
4	563-C-416-4	4	Set Screw, Allen Hd. 1/4-28 x 1/4	11	77-60-B	1	Sheave
5	<del>66-139-A</del>	4	Flange Bearing <del>66-94-A</del>	12	994-12	1	Retainer Ring
6	83-44-C	1	Tine Shaft Weldment	13	564-C-516-6	1	Set Screw, Allen Hd. 5/16-18 x 3/8
				14	83-45-A	4	Rod, Spring Retainer

\*\* Can be purchased as a complete accessory, less items 1, 2, 9, 11, 12, 13, and a quantity of 2, of item 17.

