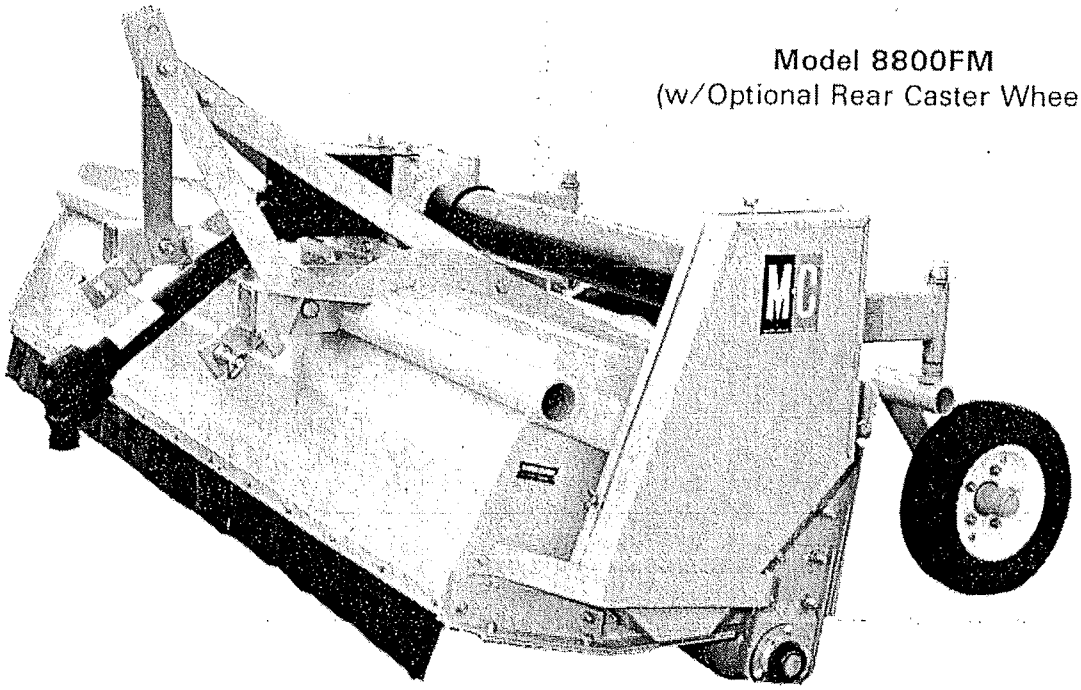
$5.00

M-C® MATHEWS COMPANY

Flailmaster™ Mower



Model 8800FM
(w/Optional Rear Caster Wheels)

OPERATOR'S & PARTS MANUAL

Model 6000FM, 7200FM, 8800FM & 8800FMO

(Starting w/Serial Number 46789)

Model 6000TC, 7200TC, 8800TC & 8800TCO

(Starting w/Serial Number 49650)

Form No. FM200-1, January 1991
(Replaces FM200, Rev. 2 Dated March 1988)

Mathews Company/ 500 Industrial Ave., Crystal Lake, IL 60012, U.S.A.
815/459-2210 FAX: 815/459-5889

INTRODUCTION

To The Owner

Before operating your Flailmaster Mower, read the Operating, Adjustment and Maintenance instructions in this manual. Check each item referred to and become familiar with the adjustments and/or settings required to obtain efficient operation and maximum trouble-free service.

Work Safely

This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions.

Warranty Registration

It is important to send in your warranty registration card as soon as your new Flailmaster Mower is delivered. Not only does the card validate your warranty, but it is also our way of knowing who has purchased M-C equipment so that we can keep in touch with you.

Model and Serial Number Location

The model and serial number of your Flailmaster Mower are stamped on a plate located on the left side of the body in front of the belt guard, see Figure 1. For future reference, record the model and serial number in the blank spaces in Figure 2.

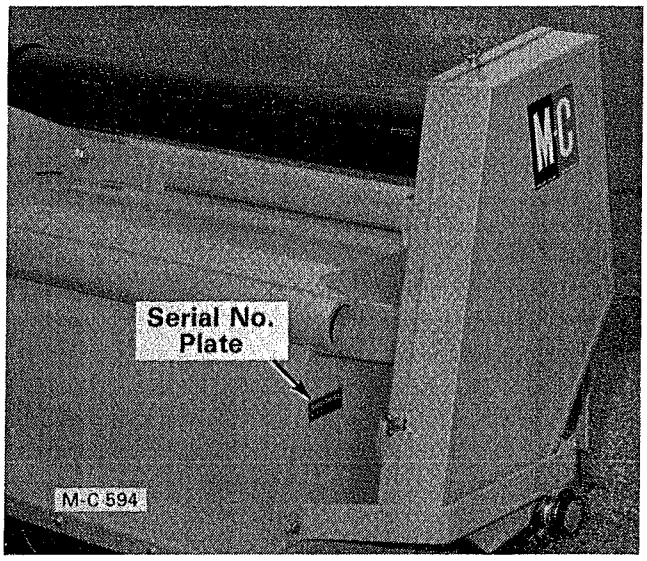


Figure 1

M-C.003

Figure 2

Parts Ordering Instructions

Order parts from your local M-C dealer or distributor.

Always furnish the Flailmaster Mower model and serial number. This information is stamped on the serial number plate.

Service parts for your Flailmaster Mower are listed in the "Parts" section of this manual. When ordering parts be sure to furnish the part number, description and quantity required.

Inspect all shipments upon receipt. If any packages and/or boxes are missing, or parts are damaged, file claim with the carrier immediately. Failure to do so may void a claim. Check the shipment against the packing list carefully. Report any shortages to the shipper immediately.

Do not return any parts to the Mathews Company without a "Return Goods Authorization" from the factory. All return parts shipments will be shipped prepaid (COD shipments will not be accepted). Shipments must also include:

A. A letter of explanation including the "Return Goods Authorization Number," your name and address.

B. A list of all parts being returned. List must include part number, description, quantity and original invoice number.

Capscrew Grade Identification

There are four grades of hex-head capscrews. Grade 1 and 2 are common capscrews, grade 5 and grade 8 are used when greater strength is required. Each grade can be identified by the marking on the head of the capscrew, see chart below.

When servicing the Mower and/or replacing capscrews, be sure to use the correct size and grade. If in doubt, refer to the parts list. If a specific grade is not shown as part of the description, the capscrew is a grade 1 or 2.

CAPSCREW GRADE IDENTIFICATION CHART

S.A.E. Grade	Description	Capscrew Head Marking*
1 2	WILL HAVE A PLAIN HEAD - NO RADIAL LINES Low or Medium Carbon Steel Not Heat Treated	
5	WILL HAVE 3 RADIAL LINES Quenched and Tempered Medium Carbon Steel	
8	WILL HAVE 6 RADIAL LINES Quenched and Tempered Special Carbon or Alloy Steel	

*The center marking identifies the capscrew manufacturer.

Metric (SI) Measurements

(English Units & Metric (SI) Equivalents)

Area
1 square inch = 6.4516 square centimeters
1 square foot = 0.0929 square meters
1 square yard = 0.8361 square meters
1 acre = 4047 square meters
1 acre = 0.4047 hectare

Force
1 pound (force) = 4.45 newtons

Length
1 inch = 25.4 millimeters
1 inch = 2.54 centimeters
1 foot = 304.8 millimeters
1 foot = 30.5 centimeters
1 foot = 0.305 meters
1 yard = 0.9144 meters
1 mile = 1.6093 kilometers

Mass
1 ounce = 28.35 grams
1 pound = 0.454 kilograms
1 ton = 907.1848 kilograms

Power
1 horsepower = 0.7457 kilowatts

Pressure
1 psi = 6.89 kilopascals
1 psi = 0.00689 megapascals
1 inch of mercury = 3.377 kilopascals

Temperature
1 degree Fahrenheit (°F – 32) ÷ 1.8 = °Celsius

Torque
1 inch pound = 0.113 newton meters
1 foot pound = 1.356 newton meters

Velocity
1 mile per hour = 1.61 kilometers per hour

Volume
1 bushel = 35.24 liters
1 bushel = 0.0352 cubic meters
1 pint = 0.4731 liters
1 quart = 0.9464 liters
1 gallon = 3.7854 liters
1 cubic inch = 16.387 cubic centimeters
1 cubic foot = 0.0283 cubic meters
1 cubic yard = 0.7646 cubic meters

NOTE: The Mathews Company reserves the right to incorporate any changes in design without obligation to make these changes on units previously sold.

SET-UP INSTRUCTIONS

General

Before beginning to set-up your Mower, read the set-up instructions carefully to become familiar with the machine.

Check to make sure that you have received all parts listed on your packing list and/or machine order. Make claims for any shortages immediately.

RIGHT or LEFT and FRONT or REAR of the Mower is determined by standing behind the Mower looking toward the tractor PTO.

Assemble the Mower on a solid flat level surface to insure safety and to aid in aligning parts during assembly.

IMPORTANT: Never lift or handle the Mower by the rotor. Also, when shipping, never use the rotor as an anchor point to tie the Mower down.

CAUTION: Always use safety stands or blocking in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

Three-Point Hitch (See Figure 3)

NOTE: Install the hitch floating links to the inside of the support tube for tractors with a category 1 hitch and to the outside for tractors with a category 2 hitch. Figure 3 shows the floating links in category 1 positon.

1. Bolt the mast support bars to the inside of the body ribs with ⅝-11 x 1½" capscrews (grade 5), lockwashers and hex nuts. Do not tighten the nuts.
2. Hold a floating link in the category 1 or 2 position and insert a floating link bushing (3-3/16" long) through the floating link tube and floating link.
3. Install a ¾-10 x 5½" (grade 5) capscrew through the tube and floating link. Install the mast and secure with a lockwasher and hex nut. Do not tighten the nut. Install the other floating link and mast.
4. Hold the mast spacers between the mast support bars and install ¾-10 x 4" capscrews (grade 5) through the masts, support bars and spacers. Secure with a lockwasher and hex nut. Tighten all capscrews evenly.
5. Install a hitch link pin (category 1) in each floating link and secure them with the lockwasher and hex nut that come with the pins. It may be necessary to remove the paint from the hole in the floating link to make installation easier.

NOTE: Hitch link pins for category 1 (⅞" OD) three-point hitch tractors are supplied with the Mower. Category 2 (1⅛" OD) link pins are available under part number 083 8211.

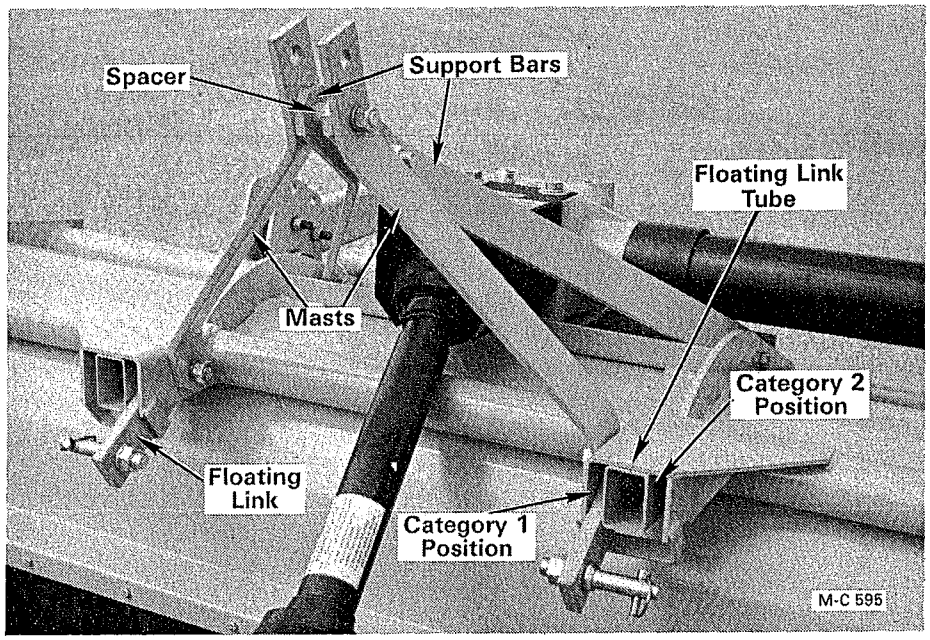


Figure 3

OPERATION

Safety Precautions

A safe operator is the best insurance against accidents. The precautions listed below must be observed at all times.

- Do not operate the Mower above 540 RPM power take-off speed. To do so will overspeed the rotor and possibly cause personal injury.
- Do not allow children or bystanders on or around the Mower while it is operating.
- Do not operate the Mower without all safety shields in place and secure.
- Do not operate the Mower without the stone guard. Operating without the stone guard could cause personal injury.
- Do not make any inspections or adjustments while the Mower is operating or while the tractor is running.

General

1. Always start and stop the Mowr slowly to prevent excessive shock loads to the belt drive assembly and rotor. Engage and disengage the tractor PTO at low engine RPM.
2. Rotor rotation is clockwise when standing on the left side of the Mower looking at the belt guard cover.
3. Never operate the Mower with missing or broken knives. If any knives are missing or broken, the rotor will be out of balance and the Mower will vibrate. Replace any missing or broken knives. See page 14 and 15 for procedures.

CAUTION: Before attempting to make any inspection, be sure to disengage the PTO and stop the tractor engine.

4. After 10 to 20 hours of operation check the drive belt adjustment, see page 15.
5. A safety check should be made after the Mower has been in operation a few hours.

   A. Tighten all capscrews and locknut.

   B. Inspect all knives to be sure they are not damaged and are secure.

   C. Check to be sure that all guards and shields are in place and secure.

   D. Inspect the gauge roller, rotor, gear box, output drive shaft belt drive assembly and PTO shaft for signs of unusual wear or lubrication leaks that could lead to part failure.

Connecting the Mower to the Tractor

1. Back the tractor up to the Mower and attach the hitch floating links to the two lower links of the tractor hitch. Insert the klick pins through the hitch link pins from the top. Be sure the klick pin ring is snapped down into the locking position.
2. Lift the Mower with the tractor hydraulic system and connect the tractor hitch top (3rd) link to the Mower mast.
3. Connect the power take-off shaft to the tractor power take-off as follows:

   A. Pull the collar on the "Spring-Lok" yoke back to release the spring tension on the locking balls.

   B. Push the yoke onto the tractor PTO shaft until it bottoms.

   C. Pull the yoke back slightly until the locking balls snap into the groove in the tractor PTO shaft.

   D. To disconnect the PTO shaft, pull the collar back and pull the yoke off of the tractor PTO shaft.

4. Raise the mower slowly (without the PTO running) and watch the PTO shaft to see that it does not pull apart when the mower is completely raised.
5. Most tractors have an adjustable stop on the hydraulic lift control lever that will stop the lift of the tractor hitch at a predetermined height. This stop should be adjusted so that the mower is off of the ground just high enough for transport.
6. Raising the mower higher than necessary can cause the PTO shaft universal joints to be at a severe angle. This could cause

premature failure of the universal joints if the tractor PTO is engaged.

7. Lower the mower slowly and watch the PTO shaft telescope. Make sure it does not bottom out.

IMPORTANT: Never drop the mower, always lower it slowly. Constant dropping may cause premature gauge roller bearing failure.

8. Position the tractor with the front wheels up on the side of a bank. Lower the mower slowly the full travel of the tractor hitch. Inspect the PTO shaft to be sure it has not bottomed out.

IMPORTANT: If the PTO shaft bottoms out damage can occur to the mower gear box and/or PTO shaft.

IMPORTANT

RUN THE MOWER AT A LOW RPM CHECKING TO MAKE SURE THAT ALL DRIVE LINE PARTS ARE MOVING FREELY.

Cutting Height - Below S/N 49650 (w/O Optional Rear Caster Wheels)

1. The cutting height (0 to 6") is established by the height of the gauge roller. The height of the gauge roller can be adjusted by moving the gauge roller bearing brackets up or down in the seven adjustment holes in the Mower side plates.

2. Lift the Mower with the tractor hydraulic system and place safety stands under the Mower body.

CAUTION: Always use safety stands under the Mower body when changing the position of the gauge roller. Do not depend on the tractor hydraulic system to hold the Mower, it could fail.

3. When the bearing brackets are assembled as shown in Figure 5, the gauge roller can be adjusted for cutting heights of 0 to 3". When the two top holes in the bearing bracket and the two top holes in the Mower side plate are used, the cutting height is 0.

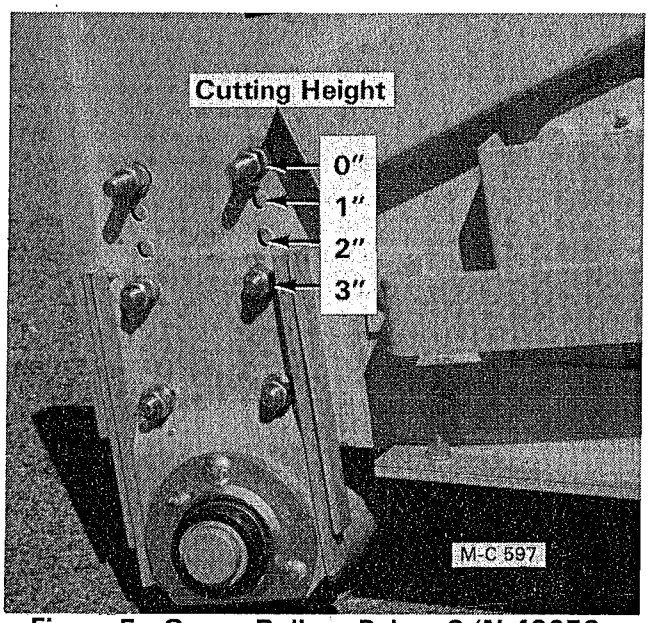


Figure 5 - Gauge Roller - Below S/N 49650

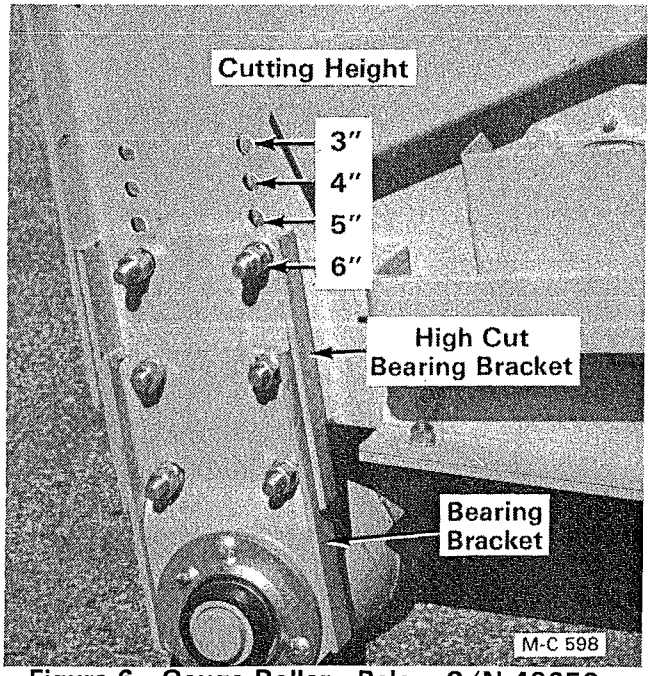


Figure 6 - Gauge Roller - Below S/N 49650

4. Moving the bearing bracket down to the second hole will provide a 1" cutting height, the third hole - 2" and the fourth hole - 3" as shown in Figure 5.

IMPORTANT: Do not move the gauge roller down any further. The gauge roller bearing brackets **must** be bolted to four holes in the Mower side plates. Also, the bearing brackets must be bolted to the same holes on each side of the Mower.

5. If the cutting height is to be more than 3", assembly the bearing brackets as shown in Figure 6. When the two top holes in the

bearing bracket and the two top holes in the Mower side plate are used, the cutting height is 3".

6. Moving the bearing bracket down to the second hole will provide a 4" cutting height, the third hole 5", and the fourth hole 6" as shown in Figure 6.
7. Additional cutting height adjustment can be made by lengthening or shortening the top link of the tractor three point hitch.
8. For best operation, the Mower skids should be parallel to the ground when the Mower is on the ground and all tractor hydraulic pressure is released.

Cutting Height - Above S/N 49649
(w/o Optional Rear Caster Wheels)

1. The cutting height (0 to 6") is established by the height of the gauge roller. The height can be adjusted by moving the gauge roller hangers up or down in the seven adjustment holes in the Mower side plates.
2. Lift the Mower with the tractor hydraulic system and place the safety stands under the Mower body.

CAUTION: Always use safety stands under the Mower body when changing the position of the gauge roller. Do not depend on the tractor hydraulic system to hold the Mower, it could fail.

3. Figure 7 shows the gauge roller in position for 4" cutting height. Moving the gauge roller up or down one hole in the body will change the cutting height 1".

IMPORTANT: The gauge roller hangers **MUST** be bolted to four holes in the Mower side plates. Use the bolt holes that are farthest apart. Also, the gauge roller hangers must be bolted to the same holes on each side of the Mower.

4. Additional cutting height adjustment can be made by lengthening or shortening the top link of the tractor three point hitch.
5. For best operation, the Mower skids should be parallel to the ground when the Mower is on the ground and all tractor hydraulic pressure is released.

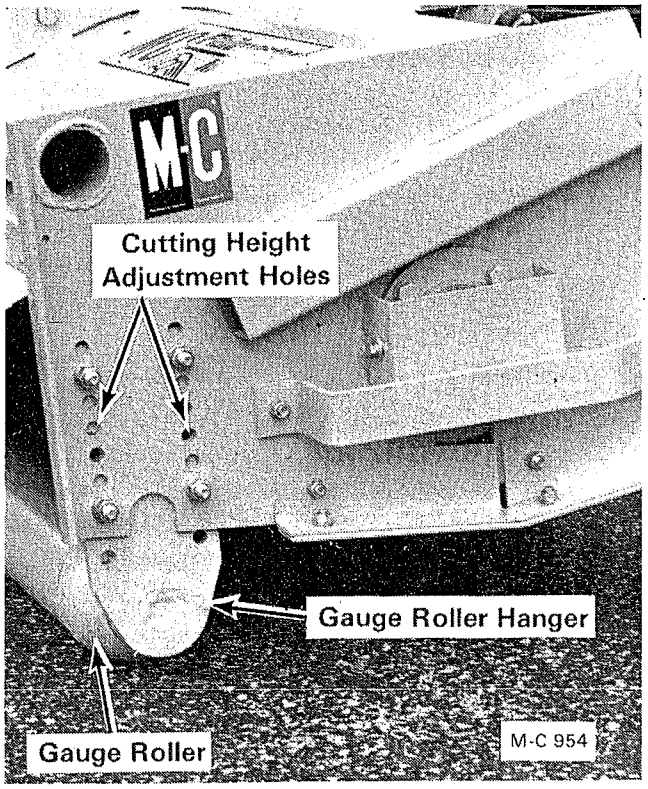


Figure 7 - Gauge Roller - Above S/N 49649

Cutting Height
(w/Optional Rear Caster Wheels)

1. The cutting height (0 to 9⅜") is established by the height of the rear caster wheels.

   A. When the caster wheel pivot tube is assembled to the caster w/spindle weldment with the long part of the pivot tube (1¾") at the top as shown in Figure 8, the cutting height range is ⅝" to 8⅛", **see note.**

   B. When the caster wheel pivot tube is assembled to the caster w/spindle weldment with the long part of the pivot tube (1¾") at the bottom as shown in Figures 9 and 10, the cutting height range is 1⅞" to 9⅜", **see note.**

NOTE: Moving the caster spacer, Figures 8 and 9, from the bottom to the top of the pivot tube will decrease all cutting heights by ⅝".

2. Assemble the caster wheel pivot tube to the caster w/spindle as shown in Figure 8 or 9 depending on the cutting height desired.
3. Bolt the caster wheel pivot tubes to the mower body in the position desired with three ⅝-11 x 4¼" capscrews (grade 5), lockwashers and hex nuts, see Figure 10.
4. Lift the back of the Mower just high enough to install the rear caster wheels on the hubs. **DO NOT** lift the Mower by the rotor.

CAUTION: Always use safety stands or blocking in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

5. It is suggested that the gauge roller be positioned 2" to 3" above the cutting height setting to prevent scalping.
6. Lift the Mower, remove the safety stands or blocking and lower the Mower to the ground.

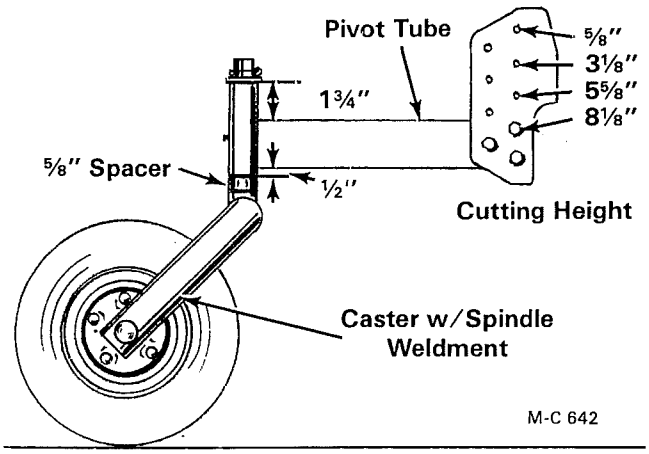


Figure 8

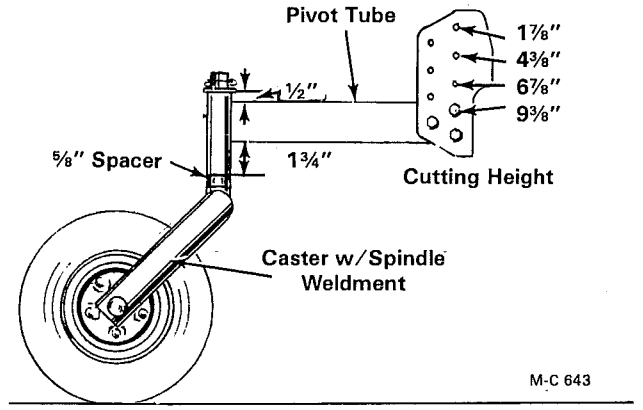


Figure 9

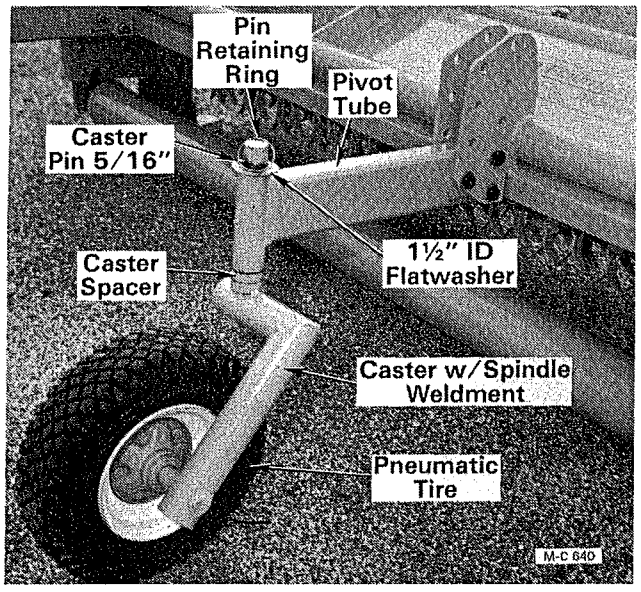


Figure 10 - 9⅜" Cutting Height Position Shown

Leveling the Mower

1. Level the Mower with the tractor hitch upper (3rd) link adjusting screw. Set the tractor hydraulic lever stop so that when the Mower is lifted to the transport position the power take-off shaft universal joints do not lock.
2. When the tractor hitch top (3rd) link is adjusted properly, measure the center to center distance of the two pins. Record this measurement so that the next time the Mower is attached to the tractor, the tractor hitch top (3rd) link can be preset to this length.

Mowing

1. Never operate the Mower with missing or broken knives. If any knives are missing or broken, the rotor will be out of balance and the Mower will vibrate. Replace missing or broken knives in sets. See "Knife Replacement" page 14 and 15 for procedure.

CAUTION: Before attempting to make any inspection, be sure to disengage the PTO and stop the tractor engine.

2. When mowing heavy grass from 4 to 6 inches tall, your ground speed should be lower than if the grass where only 2 to 3 inches tall. Determine the type of mowing job you have and adjust your ground speed accordingly.
3. Maintain 540 RPM power take-off shaft speed to provide a constant rotor speed of 1950 RPM on FM Models or 1350 RPM on TC Models. If power take-off shaft speed is correct and rotor speed cannot be maintained, check the drive belt adjustment. Refer to Drive Belt Adjustment on page 15.
4. If the rotor still slows down when mowing, reduce the tractor ground speed.

Thatching Blades (FM Models Only)

NOTE: Optional Thatching Blade Kits are available. See the parts section of this manual. Order from your local M-C dealer.

1. Thatching blades can be installed between the two knives (see "C" in Figure 11) or the knives can be removed and thatching blades alone installed on the hangers (see "B" in Figure 11). Refer to "Knife and Thatching Blade Replacement" on page 14 for removal and installation procedure.

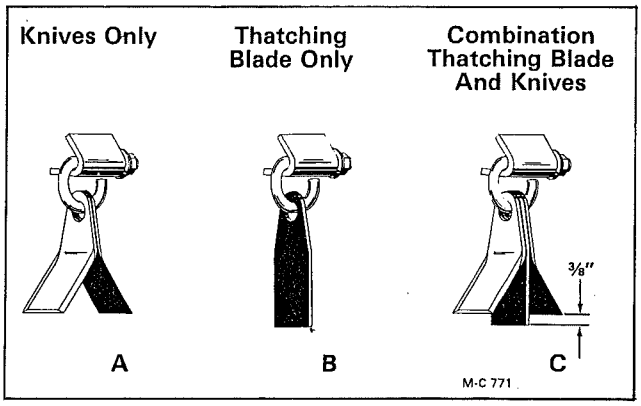


Figure 11 - FM Model Knives - Above S/N 47197

2. For the greatest amount of thatching, install a thatching blade on every knife hanger on each row. For less thatching, install the thatching blades on every other or every third knife hanger on each row.

IMPORTANT: Thatching blades **MUST** be installed in equal amounts of 180° apart to keep the rotor balanced.

3. When the thatching blades are installed between the two knives they will hang down 3/8" lower than the knives. This arrangement is excellent for preparing an existing lawn for overseeding. The mat of dead grass (thatch) will be removed and provide a seed bed in the existing turf. However, the grass will be cut very short.
4. Knowledge of each particular strain of grass is necessary as some grasses cannot be cut this short. In these strains of grasses, remove the knives and install thatching blades only.
5. Thatching blades only should be used when verti-cutting strains of grass such as Creeping Bent, Bermuda, St. Augustine, etc.
6. These types of grass spread very rapidly in ideal conditions. They grow horizontally and have a tendency to grow on the surface of the ground. By verti-cutting you cut the plants horizontal growth and force the roots to grow downwards which makes for a healthier plant that is taking nutrients and moisture from the soil.
7. When using thatching blades, the depth and ground conditions will determine correct tractor ground speed. If the rotor starts to slow down (below 1950 RPM), reduce the tractor ground speed.

MAINTENANCE

General

CAUTION: Do not allow children or bystanders near the Mower while it is being adjusted and/or serviced.

CAUTION: Never do any maintenance on the Mower with the tractor running.

Periodically During the Season

1. Tighten all capscrews and locknut.
2. Inspect all knives and knife hangers to be sure they are not damaged and are secure.
3. Check to be sure that all the guards and shields are in place and secure.
4. Inspect the gauge roller, rotor, gear box, output drive shaft, belt drive assembly and PTO shaft for signs of unusual wear or lubrication leaks that could lead to part failure.

Lubrication

IMPORTANT: Use a hand grease gun. Grease sparingly to avoid damage to the bearing seals by forcing grease out.

Every 8 Hours

1. Power take-off shaft universal joints (2). One fitting in each yoke and one fitting in the telescoping PTO shaft, see Figure 12.

NOTE: To locate the fitting in the telescoping PTO shaft, disconnect the PTO shaft from the tractor PTO. Lengthen or shorten the PTO shaft until the distance from the center of one yoke to the center of the other yoke is 24 inches.

Rotate the male and female guards until the slots in the guards are aligned. Then rotate both guards together until the fitting appears in the slot.

Every 40 Hours

1. Rotor bearings (2). One fitting on each end of the rotor, see Figure 13 and 14.

NOTE: The left rotor bearing fitting is between the belt guard and Mower body. It is not necessary to remove the belt guard to reach this fitting.

2. Gauge roller bearings (2)-below S/N 49650. One fitting on each end of the gauge roller, see Figure 13.

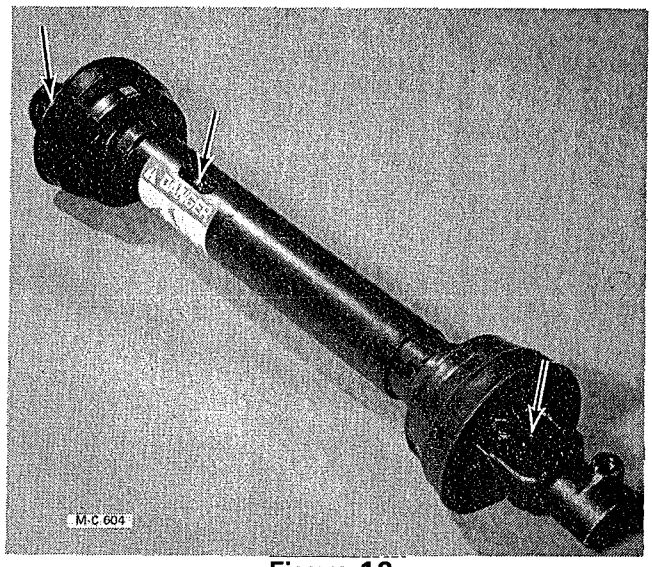


Figure 12

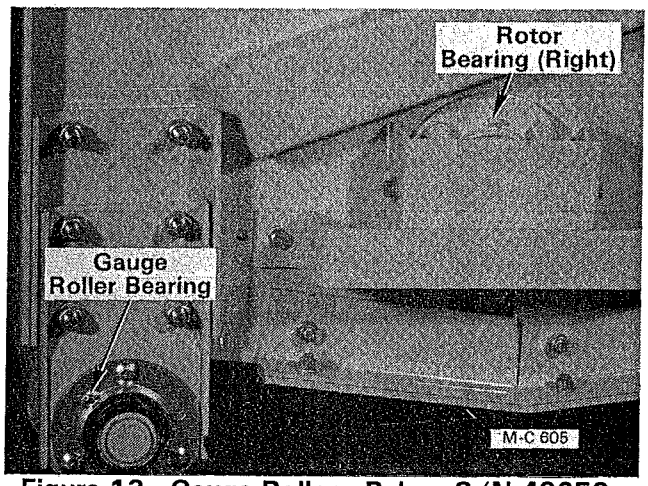


Figure 13 - Gauge Roller - Below S/N 49650

3. Output shaft bearing (1). Reach through hole in output shaft guard, see Figure 15.
4. Output shaft universal joint (1). Reach through hole in output shaft guard, see Figure 16.
5. If equipped - caster wheel spindles (2). One fitting in each caster wheel bracket, see Figure 17.
6. Apply grease to both sides of each floating link at the pivot point, see Figure 18.

Periodically During the Season

1. Remove the oil level plug on the right side of the gear box and check the oil level, see Figure 19. The oil should be up to the bottom of the level plug hole.

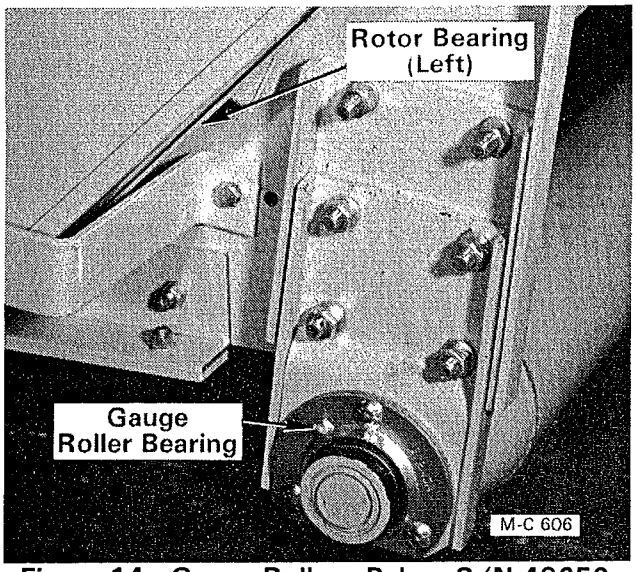


Figure 14 - Gauge Roller - Below S/N 49650

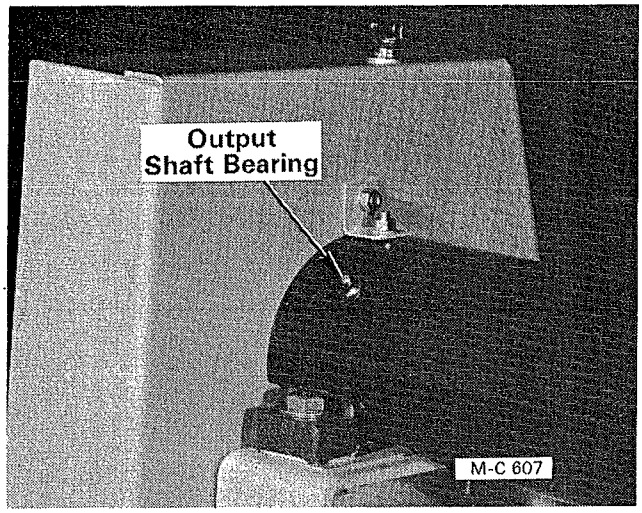


Figure 15

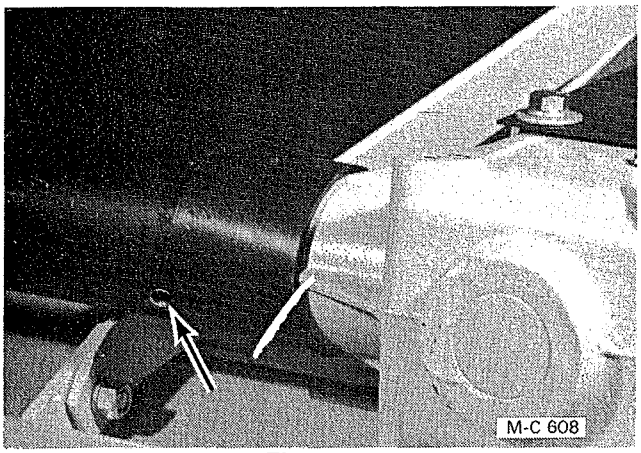


Figure 16

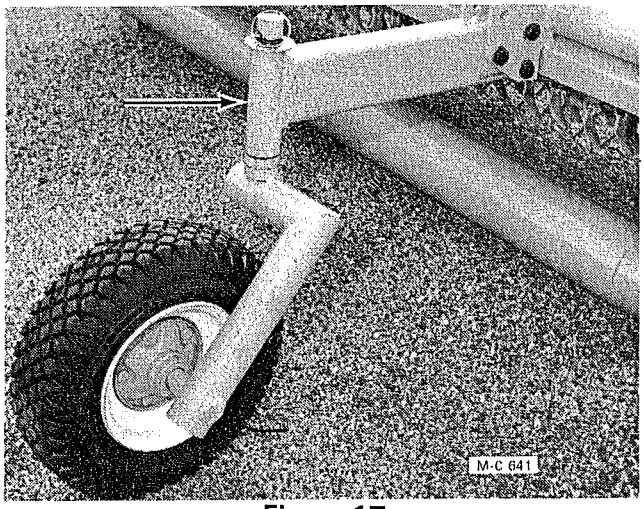


Figure 17

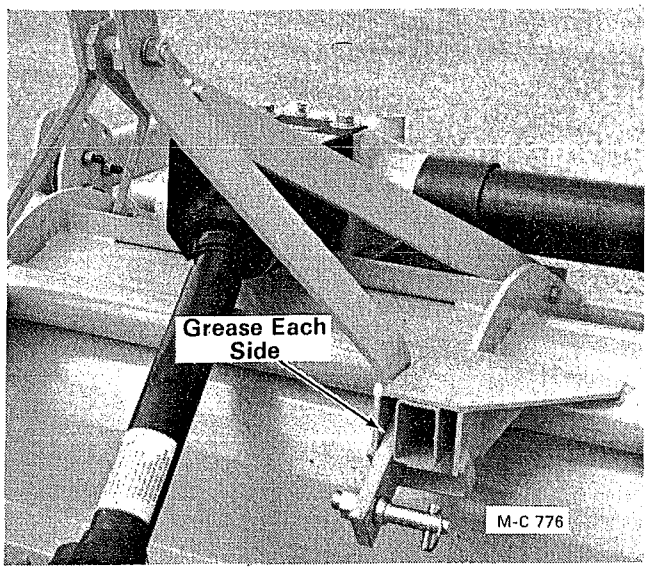


Figure 18

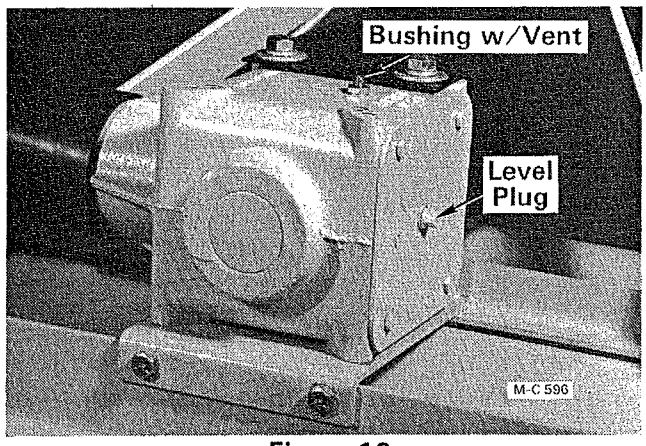


Figure 19

2. If the level is too low, remove the bushing, with vent, on top of the gear box and add Mobilfluid 423 multipurpose transmission lubricant or equivalent until it runs out of the level plug hole. Mobilfluid 423 is available from M-C in one pint containers. Order M-C part number 000 8991.
3. Install the level plug. Check to be sure the vent is not plugged. Install the bushing with vent.

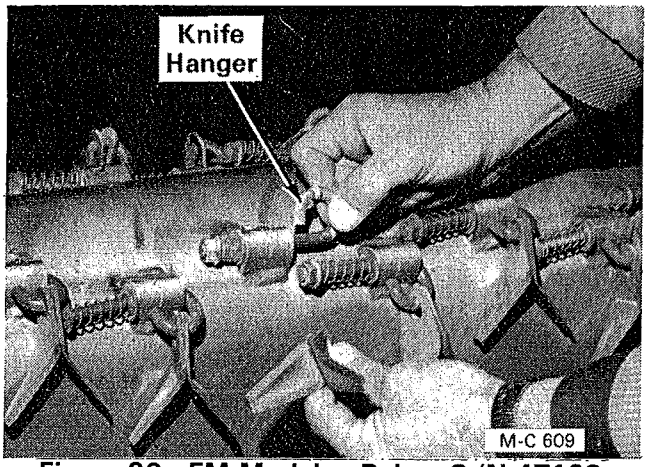


Figure 20 - FM Models - Below S/N 47198

Knife and Thatching Blade Replacement - FM Models Only

Knives

1. **Below S/N 47198** — The knives can be reversed to expose a new cutting edge or replaced by pulling the knife hanger back until it clears the knife hanger support, see Figure 20.

   Above S/N 47197 — The knives can be reversed to expose a new cutting edge or replaced by removing the knife hanger, see Figure 21.

NOTE: The tapered knives, shown in Figure 20 and 22, are no longer available. They have been replaced with the new square end knives shown in Figure 21.

If most of the tapered knives are being replaced, it is recommended that the entire set be replaced to maintain rotor balance. However, if only a few tapered knives are being replaced, the square end knives **MUST BE** installed in pairs 180 degrees apart to maintain rotor balance.

2. The knives can be sharpened on an electric bench grinder if desired.

CAUTION: Always wear safety glasses when sharpening knives with a grinder.

IMPORTANT: To get the correct overlap of knives, the hangers must be installed as follows: (See Figure 21 and 22).

Row 1 - All hanger nuts to the left.
Row 2 - All hanger nuts to the left.
Row 3 - (Hidden) All hanger nuts to the right.
Row 4 - All hanger nuts to the right.

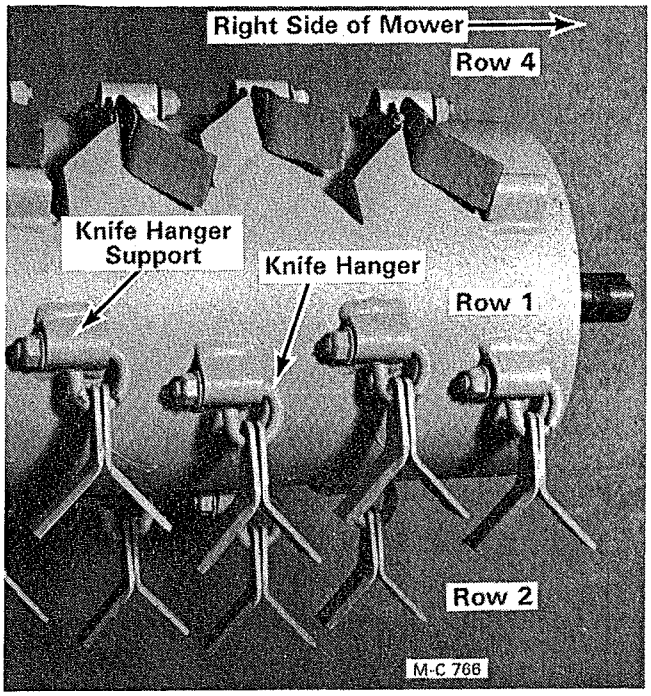


Figure 21 - FM Models - Above S/N 47197

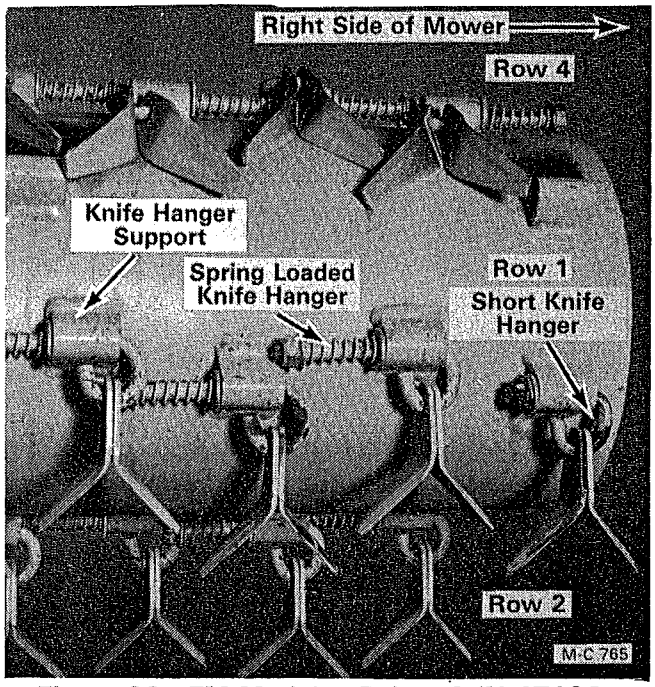


Figure 22 - FM Models - Below S/N 47198

Below S/N 47198 — One short knife hanger is installed at the extreme right of row 1 as shown in Figure 22 and one at the extreme left of row 3 (hidden).

Thatching Blades

1. Thatching blades can be installed between the two knives on the knife hangers (see "C" in Figure 24) or the knives can be removed and thatching blades alone installed on the hangers (see "B" in Figure 24).

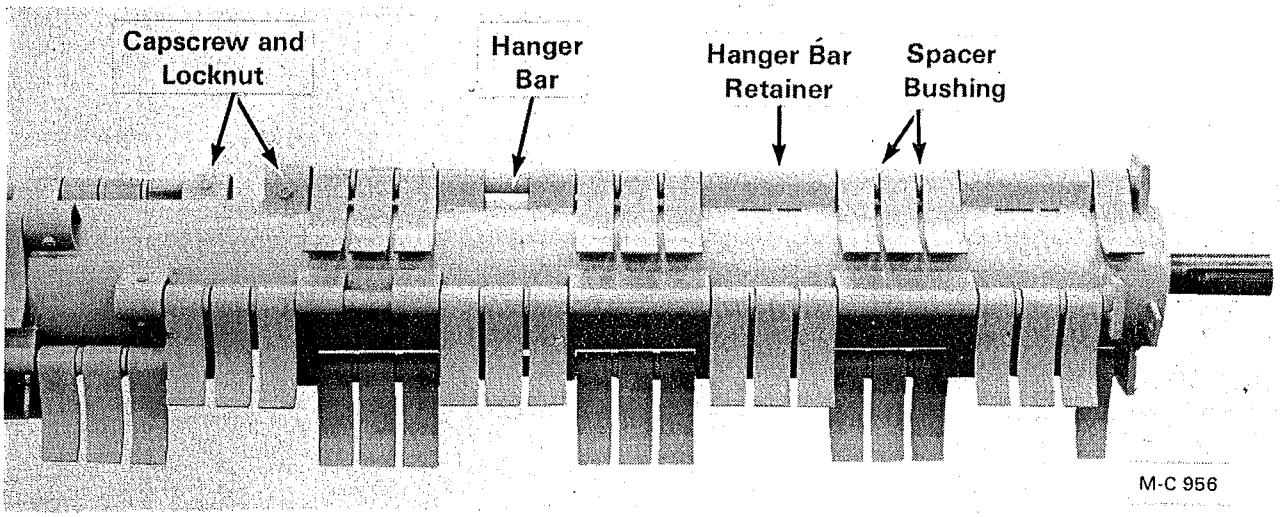


Figure 23 - TC Models

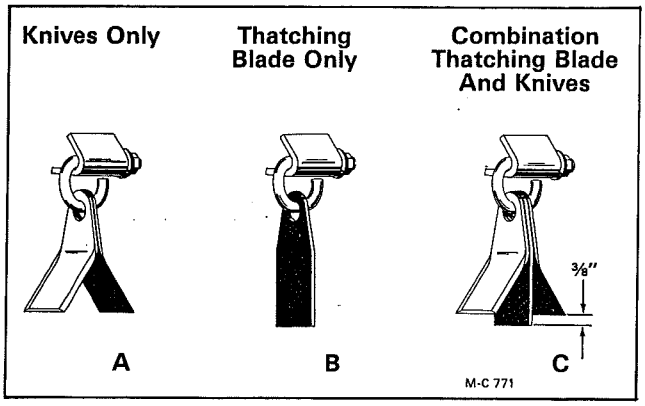


Figure 24 - FM Models - Above S/N 47197

Knife Replacement - TC Models Only

1. Remove the capscrew and locknut from one hanger bar retainer, see Figure 23.
2. Rotate the hanger bar with pliers and pull the hanger bar out of the hanger bar retainer. The knives and knife spacers will drop off as the hanger bar is removed. Repeat this procedure for all hanger bars.
3. Installation of the knives is the reverse of the removal procedure. When reassembling pay particular attention to the following:

   A. The dished or concave side of the knives must face the front of the mower when hanging down and swing freely.

   B. Two spacer bushings go between each set of three knives, see Figure 23.
4. The knives can be sharpened on an electric bench grinder. The knives should be sharpened only on the back side. Be sure to retain the original 53°.

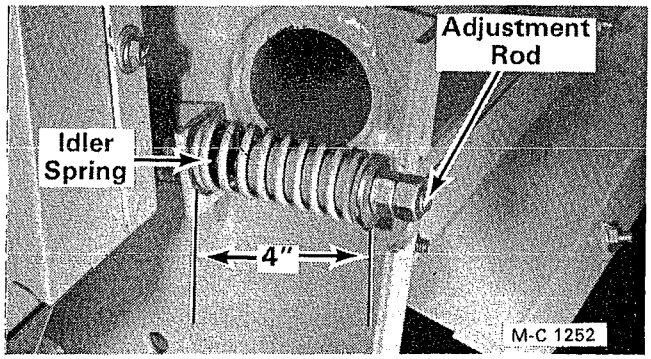


Figure 25 - Idler Adj. Rod - S/N 49650 & Up

Drive Belt Adjustment

1. Measure the compressed length of the idler spring. It should be 4", see Figure 25.
2. If not, loosen the locknut and tighten the idler spring adjusting rod until the idler spring compressed length is 4". Tighten the locknut.

NOTE: An adjusting bolt was used below S/N 49650.

Drive Belt Replacement

1. Remove the left tree guard and belt guard cover.
2. Before replacing the drive belt determine what caused the belt failure. Three common causes of belt failure are:

   A. If the belt is broken, this indicates a severe shock load or engagement of the tractor PTO at high engine RPM. Always engage and disengage the tractor PTO at low engine RPM.

   B. If the belt is burned in places, this indicates that the belt is slipping. Adjust belt tension. See "Drive Belt Adjustment".

C. If the belt is frayed or there is a great amount of powdered rubber in the belt guard, the drive and rotor pulleys are misaligned. Refer to "Pulley Alignment" below.

To prevent another belt failure, correct the problem before installing a new belt.

3. Loosen the idler spring adjusting rod and remove the belt, see Figure 25.
4. Clean dirt and debris from inside the guard and in the pulley grooves. Dirt build-up in the pulley grooves can ruin the belt.
5. Install the new belt. Tighten the idler spring adjusting rod until the idler spring compressed length is 4". Tighten the locknut.

Pulley Alignment

1. To check pulley alignment, remove the left tree guard and belt guard cover. Place a straight edge across the face of the drive and rotor pulley, see Figure 26.
2. If the drive and rotor pulleys are not in alignment, adjust the output shaft bearing as explained in steps A, B and C. If they are in alignment proceed to step 3.
   A. Loosen the idler spring adjusting rod to relieve belt tension. Remove the capscrew securing the output shaft guard clip to the belt guard back plate, see Figure 27.
   B. **Pulleys are out of alignment vertically.** Loosen the output shaft bearing mounting capscrews and raise or lower the output shaft and bearing as required by adding or removing shims under the bearing, see Figure 27 and 28.
   C. **Pulleys are out of alignment horizontally.** Loosen the output shaft bearing mounting capscrews and move the output shaft and bearing forward or back as required. The bearing mounting holes and bracket are slotted for this purpose, see Figure 27 and 28.
3. Check the alignment of the drive and rotor pulleys to the idler pulley as follows:

NOTE: The position of the idler pulley is fixed. The drive or rotor pulley must be moved in or out on the output or rotor shaft to align them with the idler pulley.

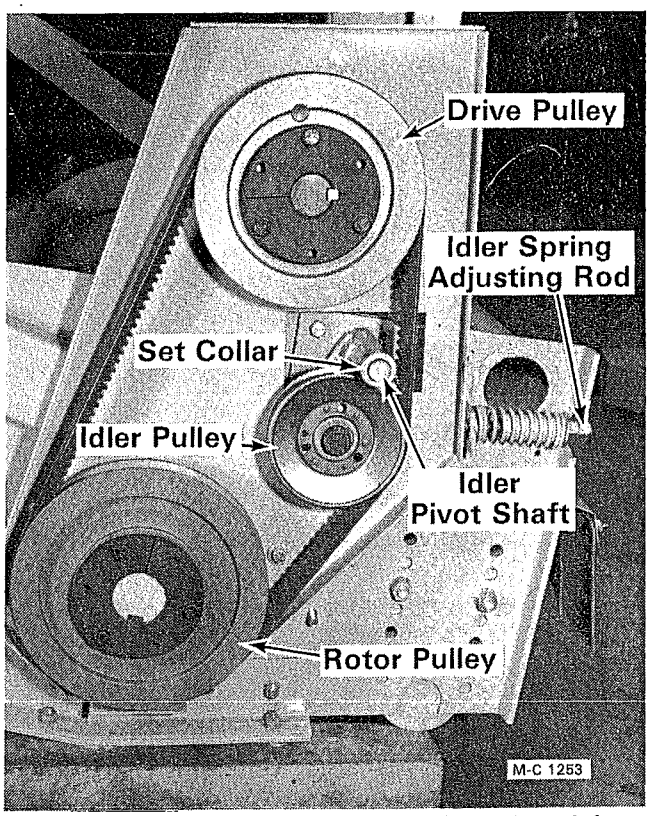


Figure 26 - TC Model Shown. On FM Models Rotor and Drive Pulleys Are Interchanged.

   A. Place a straight edge across the face of the idler pulley to the face of the drive pulley and then to the face of the rotor pulley.
   B. If the drive or rotor pulley is out of alignment with the idler pulley, loosen it and move it in or out as required. Refer to "Drive and Rotor Pulley Replacement" below for procedure.
4. Install the belt if it was removed and tighten the idler spring adjusting rod until the idler spring compressed length is 4". Tighten the locknut.
5. Bolt the output shaft guard clip to the belt guard back plate. Install the belt guard cover and the tree guard.

Drive and Rotor Pulley Replacement

NOTE: The drive and rotor pulleys are held on the shafts with tapered bushings. Use the jackscrew holes in the bushings to separate the bushings from the pulleys. Do not attempt to remove the pulleys with a gear puller as this could result in damage to the pulleys.

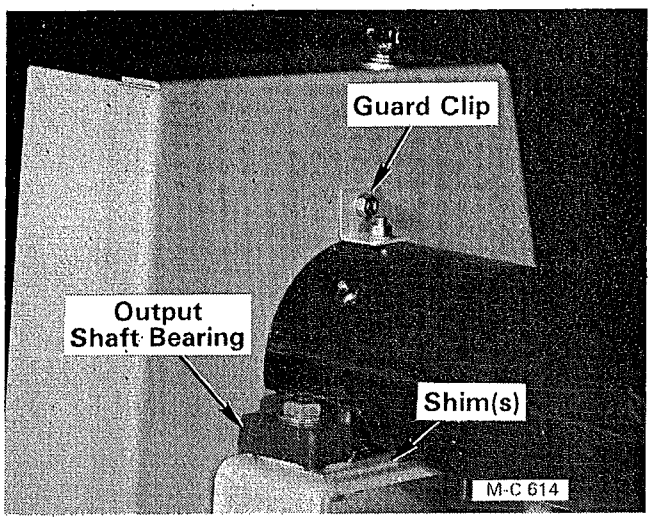


Figure 27

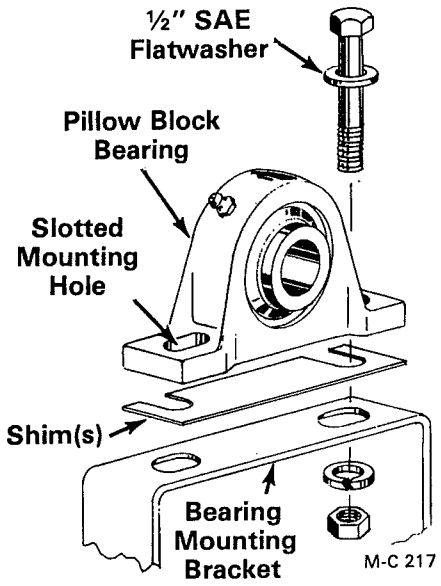


Figure 28

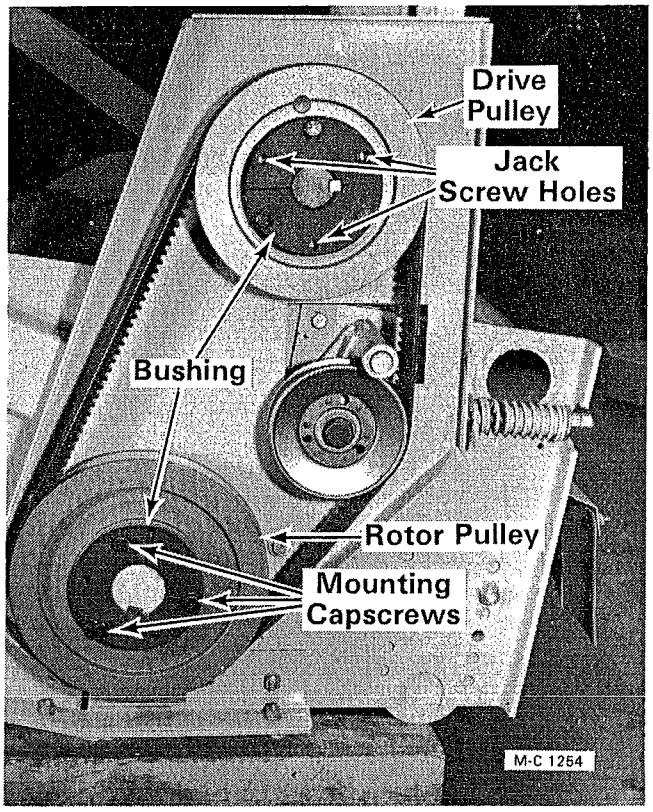


Figure 29 - TC Model Shown. On FM Models Rotor and Drive Pulleys Are Interchanged.

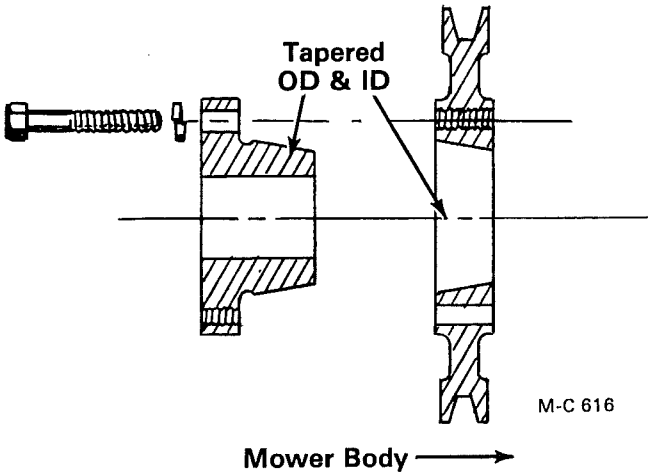


Figure 30

1. Remove the left tree guard and the belt guard cover. Loosen the idler spring adjusting rod and remove the drive belt.
2. Remove the three mounting capscrews in the bushing, see Figure 29. Thread the capscrews into the three jack screw holes in the bushing. Tighten the three capscrews progressively and evenly until the bushing is loose on the shaft.
3. Remove the bushing and pulley from the shaft. If the bushing does not slip off of the shaft, wedge a screwdriver blade in the saw cut in the flange of the bushing (not the tapered surface) to spread the bushing.
4. Before installing the pulley and bushing thoroughly inspect the tapered bore of the pulley and the tapered surface of the bushing. Any paint, dirt, oil or grease **must** be removed.
5. Place the bushing into the pulley from the front so that the bushing flange is to the outside, see Figure 30. The bushing and the

bore of the pulley are tapered. Be sure to install the bushing into the large ID of the pulley tapered bore. If the bushing is installed into the small ID of the pulley, the pulley hub will crack when the mounting capscrews are tightened.

6. Place the three capscrews through the open holes in the bushing and thread them into the pulley by hand. Do not tighten the capscrews.

IMPORTANT: The capscrew and pulley threads must be clean and dry. Do not lubricate.

7. Install the key in the output drive and/or rotor shaft. Slide the pulley and bushing assembly onto the shaft. If the bushing is too tight on the shaft, wedge a screwdriver blade into the saw cut in the flange (not the tapered surface) to spread the bushing.
8. Install the drive belt and move the pulley and bushing in or out until the belt is in alignment on the pulleys. Tighten the three capscrews evenly and progressively. Torque the capscrews to 30 ft. lbs.

IMPORTANT: The tightening force on the three capscrews is multiplied many times by the wedging action of the bushing tapered surface. Do not exceed the specified torque, or use a lubricant on the capscrew threads. To do so may create bursting pressures in the hub of the pulley.

NOTE: There should be a ⅛ to ¼ inch gap between the pulley hub and the flange of the bushing. If the gap is closed, the shaft is undersize.

9. Tighten the idler spring adjusting rod until the idler spring compressed length is 4". Tighten the locknut. Install the belt guard cover and the tree guard.

Rotor Bearing Replacement

Right Bearing

1. Lift the right side of the Mower and block up the rotor so it cannot fall when the bearing is removed. **Do not** lift the Mower by the rotor.

CAUTION: Always use safety stands or blocking in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

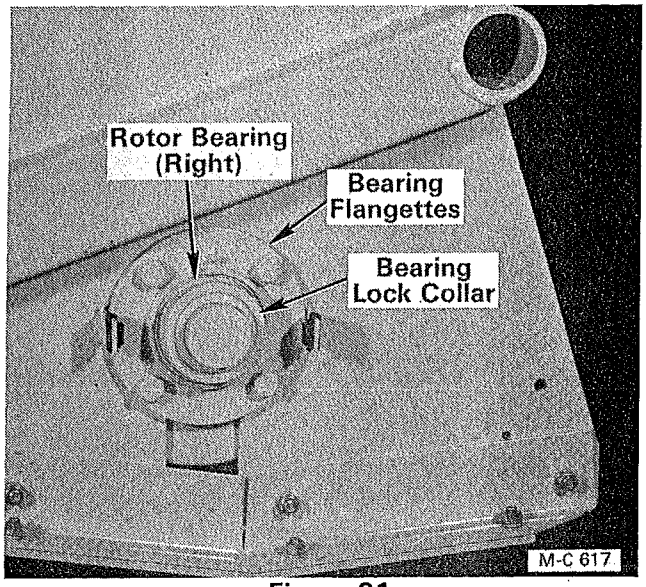


Figure 31

2. Remove the tree guard and stub shaft guard, see Figure 31.
3. Clean the end of the rotor shaft with emery cloth. Remove the two set screws in the bearing lock collar.
4. Remove the four capscrews and lockwashers from the flangettes and remove both flangettes and bearing from the rotor shaft.
5. Lightly polish the rotor shaft with emery cloth. Lubricate the rotor shaft with motor oil. Install both flangettes with new rotor bearing on the rotor shaft. Flangette with grease fitting goes to the outside. Install the four capscrews and lockwashers loosely into the anti-wrap, see illustration on page 24.
6. Remove the the blocking from under the rotor and turn the rotor by hand to align the bearing on the rotor shaft. Tighten the flangette capscrews and the two set screws in the bearing lock collar securely.
7. **TC Models Only**-Check the position of the two wipers (180° apart) at the end of the rotor, see illustration on page 31. They should be as close to the anti-wrap as possible without touching it.

   The wiper prevents material from building up on the anti-wrap. If necessary, loosen the wiper locknut and reposition the wiper in the adjusting slot.
8. Install the stub shaft guard and tree guard.
9. Lubricate the rotor bearing with a hand grease gun. Do not over lubricate. Too much grease may damage the bearing seal.

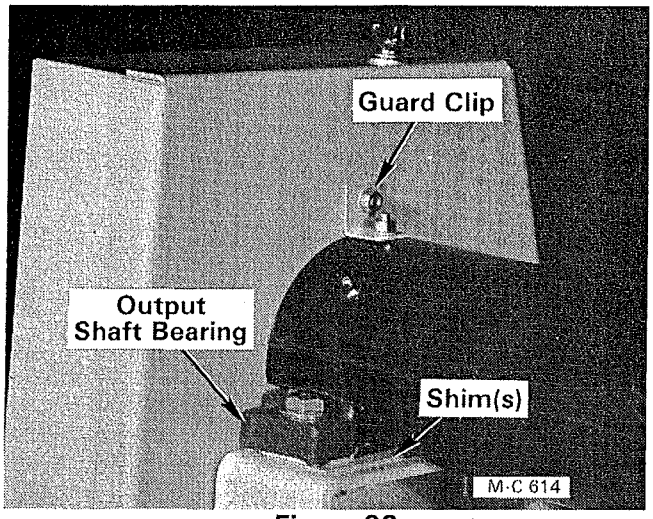


Figure 32

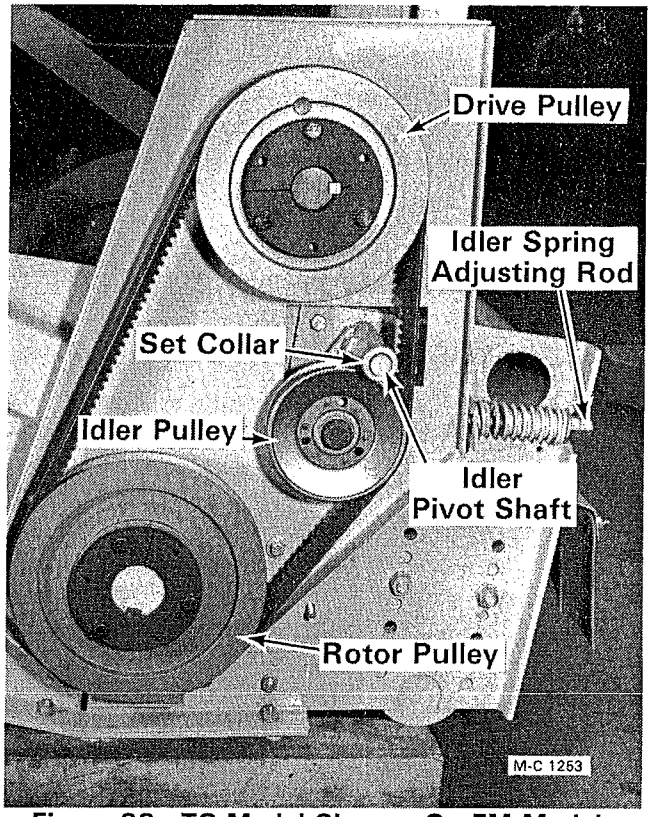


Figure 33 - TC Model Shown. On FM Models Rotor and Drive Pulley Are Interchanged.

Left Bearing

1. Remove the tree guard and belt guard cover. Remove the idler spring adjusting rod and spring. Remove the drive belt.
2. Remove the drive and rotor pulleys. Refer to "Drive and Rotor Pulley Replacement" page 16 for procedure. Remove the rotor pulley key.
3. Remove the capscrew securing the output shaft guard clip to the belt guard back plate, see Figure 32. Remove the set collar on the end of the idler pivot shaft, see Figure 33.
4. Remove the three capscrews securing the belt guard back plate to the Mower side plate and remove the belt guard back plate and idler assembly.
5. Lift the left side of the Mower and block up the rotor so it cannot fall when the bearing is removed. **Do not** lift the Mower by the rotor.

CAUTION: Always use safety stands or blocking in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

6. Clean the end of the rotor shaft with emery cloth. Remove the two set screws in the bearing lock collar.
7. Remove the four capscrews and lockwashers from the flangettes and remove both flangettes and bearing from the rotor shaft, see Figure 34.
8. Lightly polish the rotor shaft with emery cloth. Lubricate the rotor shaft with motor oil. Install both flangettes with new rotor bearing on the rotor shaft. Flangette with grease fitting goes to the outside with the grease fitting facing to the rear. Install the four capscrews and lockwashers loosely into the anti-wrap, see illustration on page 24.

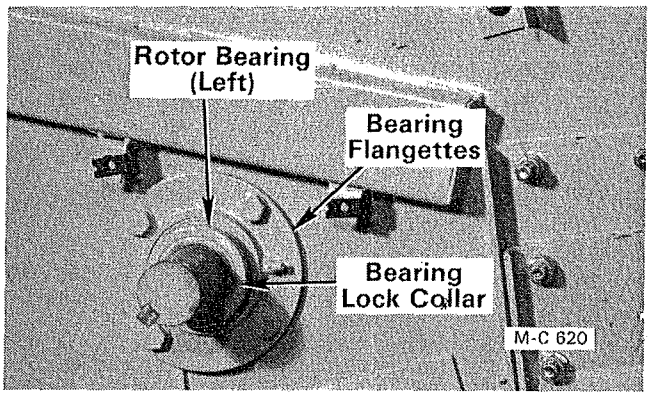


Figure 34

9. Remove the blocking from under the rotor and turn the rotor by hand to align the bearing on the rotor shaft. Tighten the flangette capscrews and the two set screws in the bearing lock collar securely.
10. **TC Models Only**-Check the position of the two wipers (180° apart) at the end of the rotor, see illustration on page 31. They

should be as close to the anti-wrap as possible without touching it.

The wiper prevents material from building up on the anti-wrap. If necessary, loosen the wiper locknut and reposition the wiper in the adjusting slot.

11. Apply a coating of grease to the idler pivot shaft. Install the belt guard back plate and idler assembly to the Mower side plate. Bolt the belt guard back plate to the side plate.
12. Install and lock the set collar on the end of the idler pivot shaft, see Figure 33. Bolt the output shaft guard clip to the belt guard back plate, see Figure 32.
13. Put the idler spring and flatwashers on the idler spring adjusting rod. Thread the rod into the idler adjustment rod take-up nut on the idler arm.
14. Install the drive and rotor pulleys. Refer to "Drive and Rotor Pulley Replacement" page 16.
15. Lubricate the rotor bearing with a hand grease gun. Do not over lubricate. Too much grease may damage the bearing seal.

Gauge Roller Bearing Replacement
Below S/N 49650

1. Lift the back of the Mower just high enough to allow for removal of the gauge roller bearing. **Do not** lift the Mower by the rotor.

CAUTION: Always use safety stands or blocking in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

2. Support the gauge roller with safety stands or blocking. Remove the two set screws in the bearing locking collar and remove the collar, see Figure 35 and 36.
3. Remove the three ⅜" bolts and locknuts securing the bearing to the bearing bracket. Slide the gauge roller bearing off of the shaft.
4. Lightly polish the shaft with emery cloth and lubricate it with motor oil. Remove the locking collar from the new bearing and install the new bearing on the gauge roller shaft.
5. Install the three ⅜" bolts and new locknuts. Do not fully tighten the locknuts. Turn the gauge roller by hand to align the bearing on the shaft. Tighten the locknuts securely.
6. Install the bearing locking collar and tighten the two set screws. Remove safety stands or blocking and lower the Mower to the ground.
7. Lubricate the gauge roller bearings with a hand grease gun. Do not over lubricate. Too much grease may damage the bearing seal.

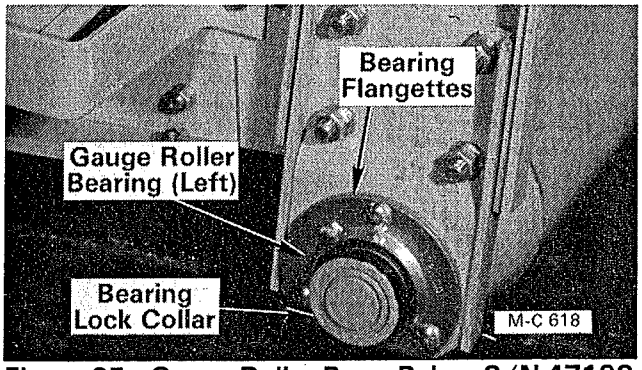


Figure 35 - Gauge Roller Brg. - Below S/N 47198

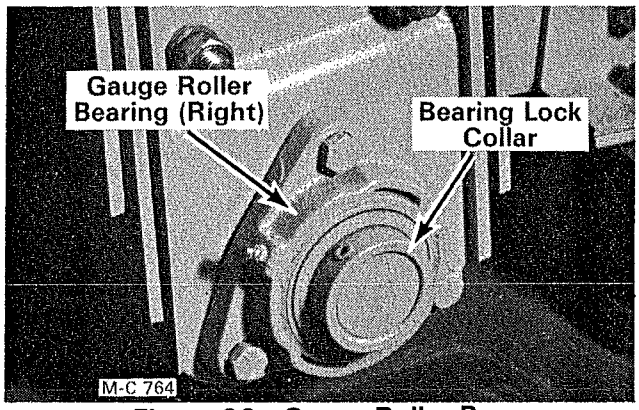


Figure 36 - Gauge Roller Brg. S/N 47198 thru 49649

Gauge Roller Bearing Replacement
Above S/N 49649

1. Lift the back of the mower to take the weight off of the gauge roller. **Do not** lift the mower by the rotor.

CAUTION: Always use safety stands or blocks in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

2. Remove the four ½" capscrews on each side of the mower that secure the gauge roller hangers to the mower side plates, see Figure 37. Roll the gauge roller out from under the mower.
3. Heat the end of the gauge roller with a torch and use an internal bearing puller, like those

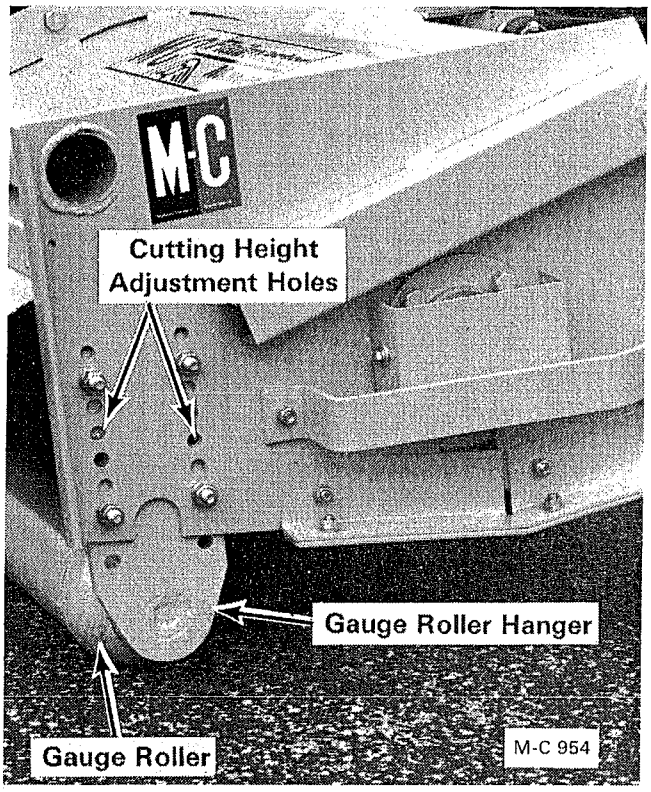


Figure 37 - Gauge Roller Brg. - Above S/N 46649

shown in figure 38, to remove the bearing from the end of the gauge roller.

NOTE: If the bearing inner race is broken, weld a bar into the outer race and attach the puller to it.

4. When installing the new bearing, drive or press on the outer race only. Pressing on the inner race will damage the bearing. Press the bearing in until it seats on the shoulder in the gauge roller.
5. Install the gauge roller. Lift the Mower, remove the safety stands or blocking and lower the Mower to the ground.

Output Shaft Bearing Replacement

1. Remove the left tree guard and belt guard cover. Remove the idler spring adjusting rod and spring. Remove the drive belt.
2. Remove the drive and rotor pulleys. Refer to "Drive and Rotor Pulley Replacement" page 16 for procedure.
3. Remove the capscrew securing the output shaft guard clip to the belt guard back plate, see Figure 39. Remove the set collar on the end of the idler pivot shaft, see Figure 40.
4. Remove the three capscrews securing the belt guard back plate to the Mower side plate

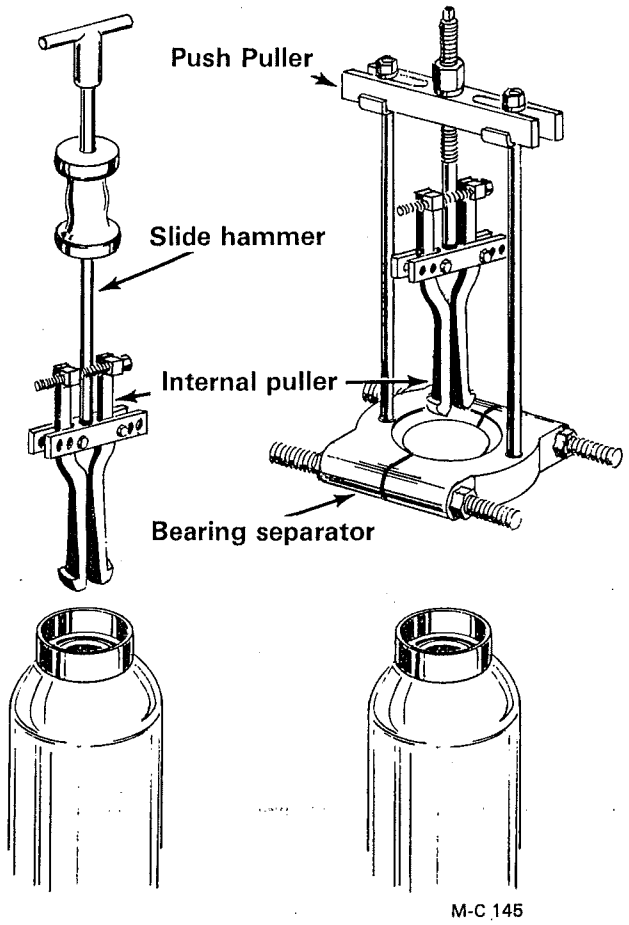


Figure 38

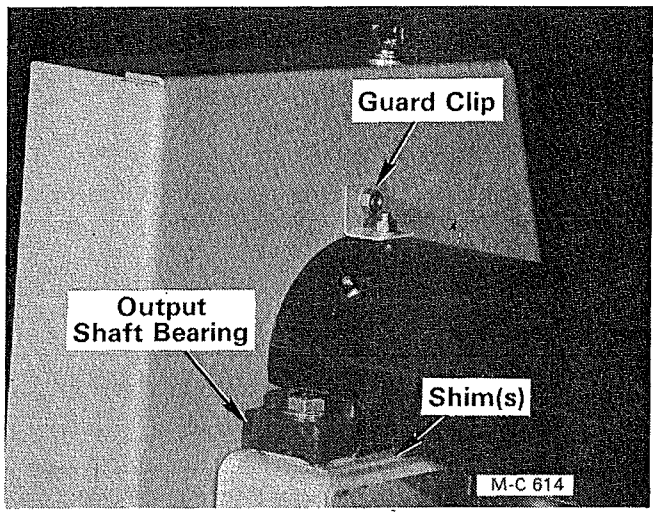


Figure 39

and remove the belt guard back plate and idler assembly.

5. Scribe a line on the output shaft bearing mounting bracket as shown in Figure 41 to establish the location of the new bearing when reassembling.
6. Remove the two set screws in the bearing collar, two capscrews, lockwashers and

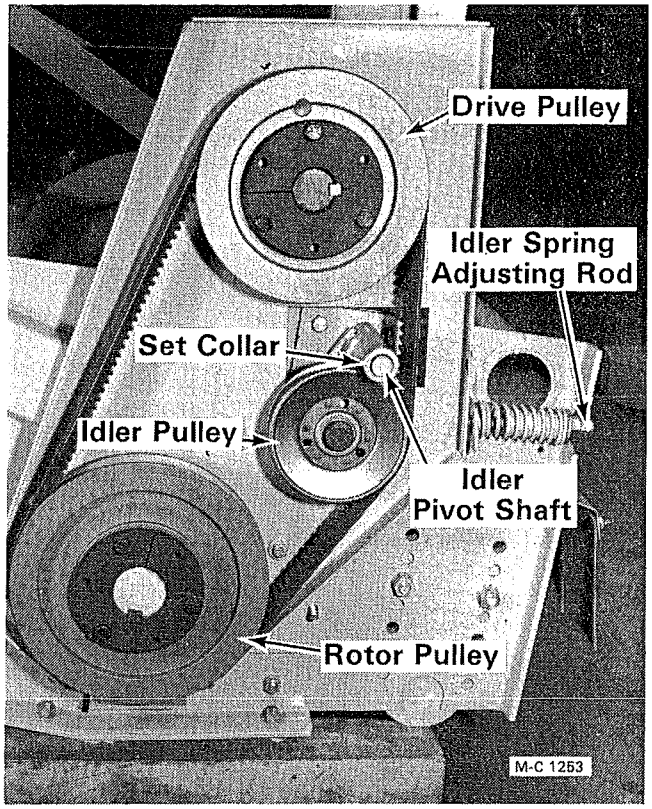


Figure 40 - TC Model Shown. On FM Models Rotor and Drive Pulleys Are Interchanged.

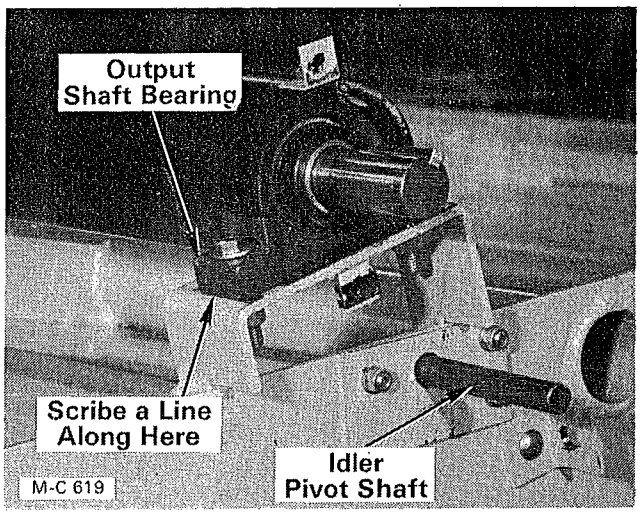


Figure 41

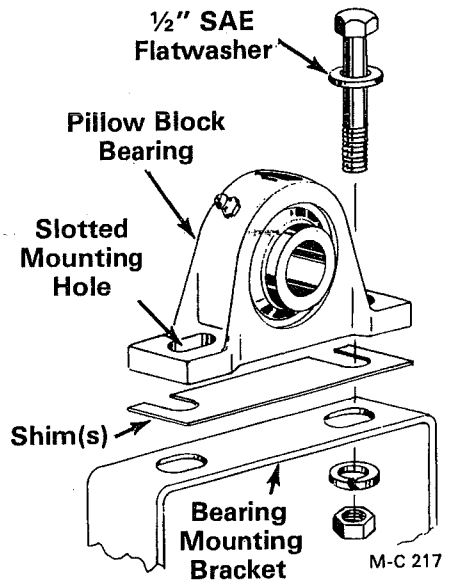


Figure 42

hexnuts securing the output shaft bearing. Lift up on the output shaft and remove the shim(s) from under the output shaft bearing, see Figure 42.

7. Clean the output shaft with emery cloth and pull the output shaft bearing off of the output shaft.
8. Lightly polish the output shaft with emery cloth. Lubricate the output shaft with motor oil and slide the new bearing onto the shaft. Be sure that the lubrication fitting faces the rear of the Mower.
9. Lift up on the output shaft and place the shim(s) on the output shaft bearing mounting bracket, see Figure 42. Install the capscrews, SAE flatwashers, lockwashers and hex-nuts.
10. Align the edge of the output shaft bearing with the mark scribed on the mounting bracket made in step 5, see Figure 41. Tighten the output shaft bearing capscrews and two set screws in the bearing collar.
11. Apply a coating of grease to the idler pivot shaft. Install the belt guard back plate and idler assembly to the Mower side plate. Bolt the belt guard back plate to the Mower side plate.
12. Install and lock the set collar on the end of the idler pivot shaft, see Figure 40. Bolt the output shaft guard clip to the belt guard back plate, see Figure 39.
13. Put the idler spring and flatwashers on the idler spring adjusting rod. Thread the rod into the idler rod take-up nut on the idler arm.
14. Install the drive and rotor pulleys. Refer to "Drive and Rotor Pulley Replacement" page 16. Check drive and rotor pulley alignment, see "Pulley Alignment" page 16.
15. Lubricate the output shaft bearing with a hand grease gun. Do not over lubricate. Too much grease may damage the bearing seal.

Storing the Mower

1. When the Mower is to be stored for an extended period of time or at the end of the season, lubricate all bearings with enough grease to eliminate any cavities where water condensation may occur and cause damage. Refer to "Lubrication" page 12 for location of all grease fittings. Be sure the vent on top of the gear box is open.

IMPORTANT: Use a hand grease gun. Do not over lubricate. Too much grease may damage the bearing seals.

2. Remove the belt guard cover and clean dirt and debris from inside the guard and in the pulley grooves. Loosen the idler spring adjusting rod to relieve all spring tension on the drive belt.

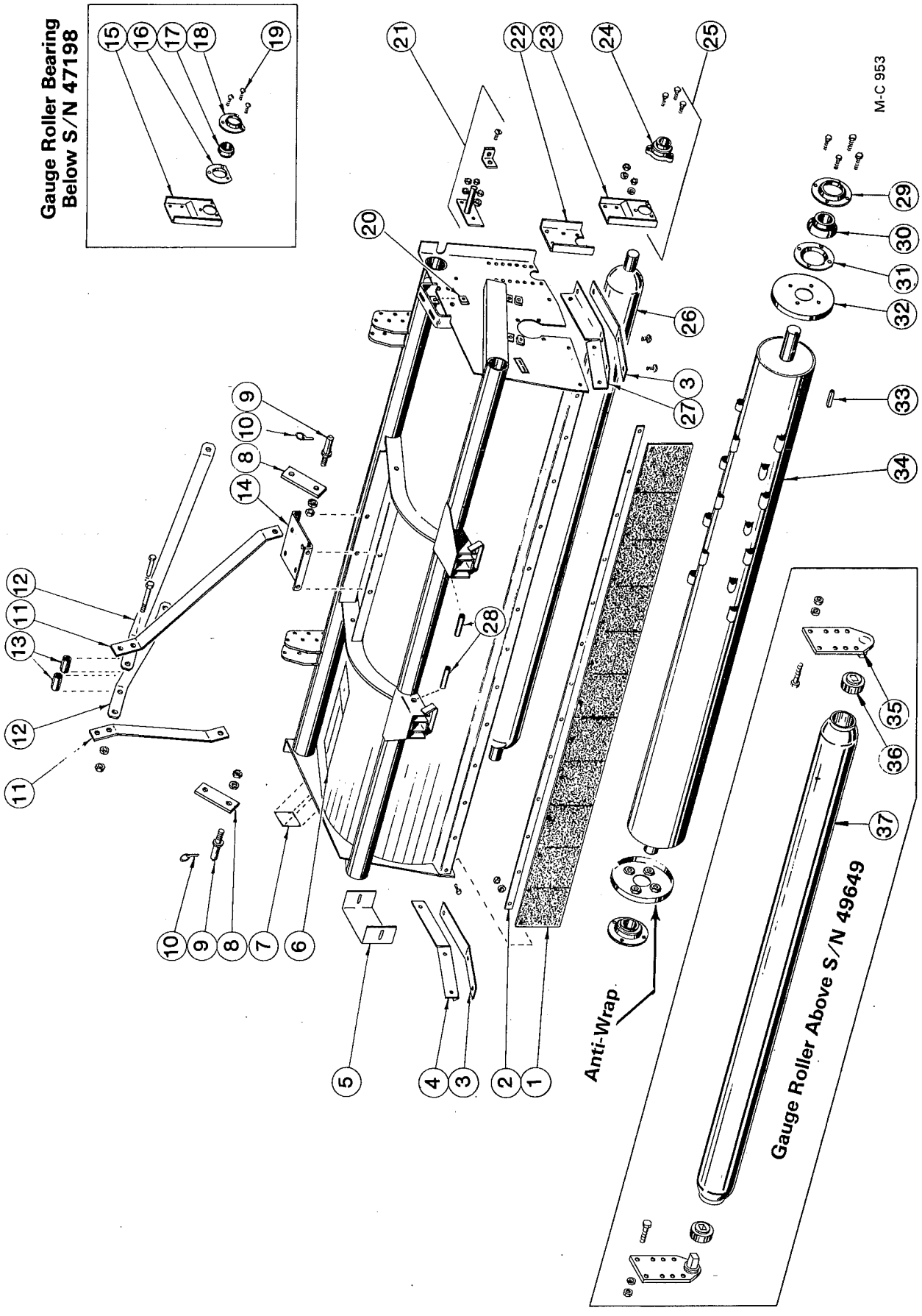
NOTE: Before next seasons use, be sure to adjust the drive belt tension. Refer to "Drive Belt Adjustment" page 15.

3. Coat all exposed surfaces inside the Mower with oil or grease to prevent rusting and pitting during storage.

Pre-Season Check

1. Check the oil level in the gear box and lubricate all bearings. refer to "Lubrication" page 12 for location of all grease fittings.
2. Adjust the drive belt tension. Refer to "Drive Belt Adjustment" page 15.
3. Inspect for missing or broken knives. Replace as necessary. Refer to page 14 and 15.
4. Be sure all safety shields are in place and secure.
5. Run the Mower at a low RPM checking to make sure that all drive line parts are moving freely.

Body and Gauge Roller



NOTE: Attaching hardware is listed (but not included) with the main part. It must be ordered separately.

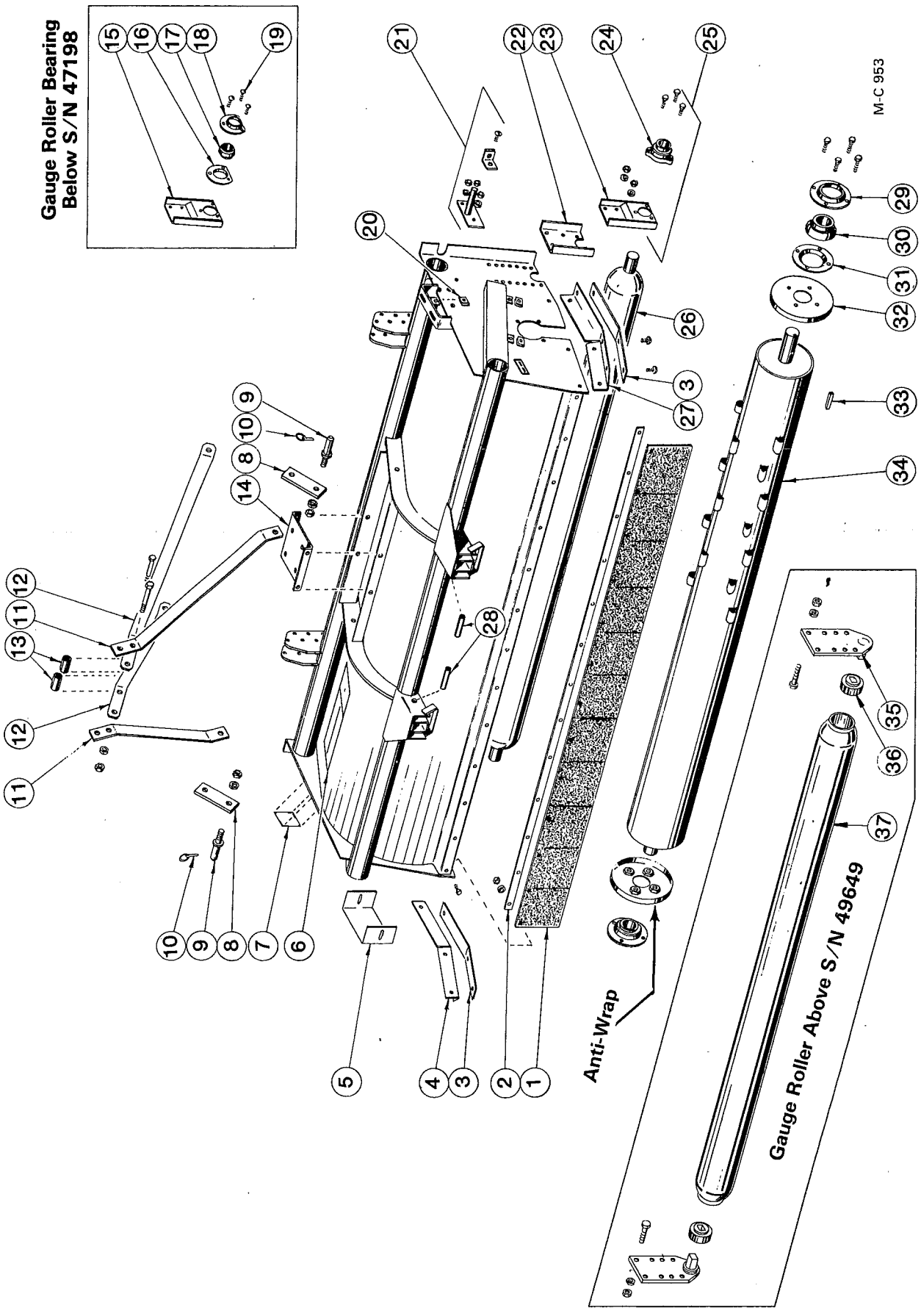
Ref.	Part No.	Qty.	Description
1	--- ----	—	Rubber Flap
	101 5714	1	**6000FM & TC**
	101 5710	1	**7200FM & TC**
	101 5709	1	**8800FM, FMO, TC & TCO**
2	- - - - - - -	—	Retainer Strip
	101 2002	1	**6000FM & TC**
	101 2001	1	**7200FM & TC**
	101 2000	1	**8800FM, FMO. TC & TCO**
	000 8108	—	5/16-18 x 1" Capscrew - Grd. 5
	000 8173	—	5/16" Flatwasher
	000 8222	—	5/16" Lockwasher
	000 8159	—	5/16-18 Hex Nut
3	101 3442	2	Skid Wear Plate
	000 8134	6	3/8-16 x 3/4" Truss Hd. Screw
	001 8139	6	3/8" Lockwasher
	000 8162	6	3/8-16 Hex Nut
4	101 4224	1	Right Hand Skid
	000 8134	3	3/8-16 x 3/4" Truss Hd. Screw
	001 8139	3	3/8" Lockwasher
	000 8162	3	3/8-16 Hex Nut
5	131 4676	1	Stub Shaft Guard
	001 8111	2	5/16-18 Clip Nut
	000 8106	2	5/16-18 x 3/4" Capscrew
	000 8173	2	5/16" Flatwasher
	000 8222	2	5/16" Lockwasher
6	101 8300	1	Flailmaster Decal
7	000 8300	1	M-C Decal 3 3/8" x 4"
8	101 3670	2	Floating Link
	001 8199	2	3/4-10 x 5 1/2" Capscrew - Grd. 5
	000 8182	2	3/4" Lockwasher
	000 8165	2	3/4-10 Hex Nut
9	131 8210	2	Link Pin - Category 1 (see note)
10	000 8993	2	Klick Pin - 7/16" Dia.

Ref.	Part No.	Qty.	Description
11	101 3542	2	Mast
12	101 3541	2	Mast Support Bar
	000 8146	2	5/8-11 x 1 1/2" Capscrew - Grd. 5
	000 8181	2	5/8" Lockwasher
	000 8164	2	5/8-11 Hex Nut
13	101 5603	2	Mast Spacer
	001 8200	1	3/4-10 x 4" Capscrew - Grd. 5
	001 8280	1	3/4-10 x 3" Capscrew - Grd. 5
	000 8182	2	3/4" Lockwasher
	000 8165	2	3/4-10 Hex Nut
14	101 3433	1	Gear Box Mount Plate
	000 8135	4	1/2-13 x 1" Capscrew - Grd. 5
	000 8180	4	1/2" Lockwasher
	000 8163	4	1/2-13 Hex Nut
15	101 0080	2	Bearing Bracket - Below S/N 47198
	000 8278	12	1/2-13 x 1 3/4" Capscrew - Grd. 5
	000 8180	12	1/2" Lockwasher
	000 8163	12	1/2-13 Hex Nut
16	101 5705	2	1-7/16" Three Bolt Flangette w/o Zerk- Below S/N 47198
17	001 6020	2	1-7/16" Bearing w/ Collar Below S/N 47198
18	101 5704	2	1-7/16" Three Bolt Flangette w/Zerk- 001 8970 - Below S/N 47198
19	000 8122	6	3/8-16 x 1" Carriage Bolt - Grd. 5 Below S/N 47198
	000 8204	6	3/8-16 Hex Nut w/NY Lock
20	001 8111	3	5/16-18 Clip Nut

NOTE: Mowers are equipped with category 1 link pins. Category 2 link pins w/nut and lockwasher are available. Order two of 083 8211.

Continued on next page

Body and Gauge Roller

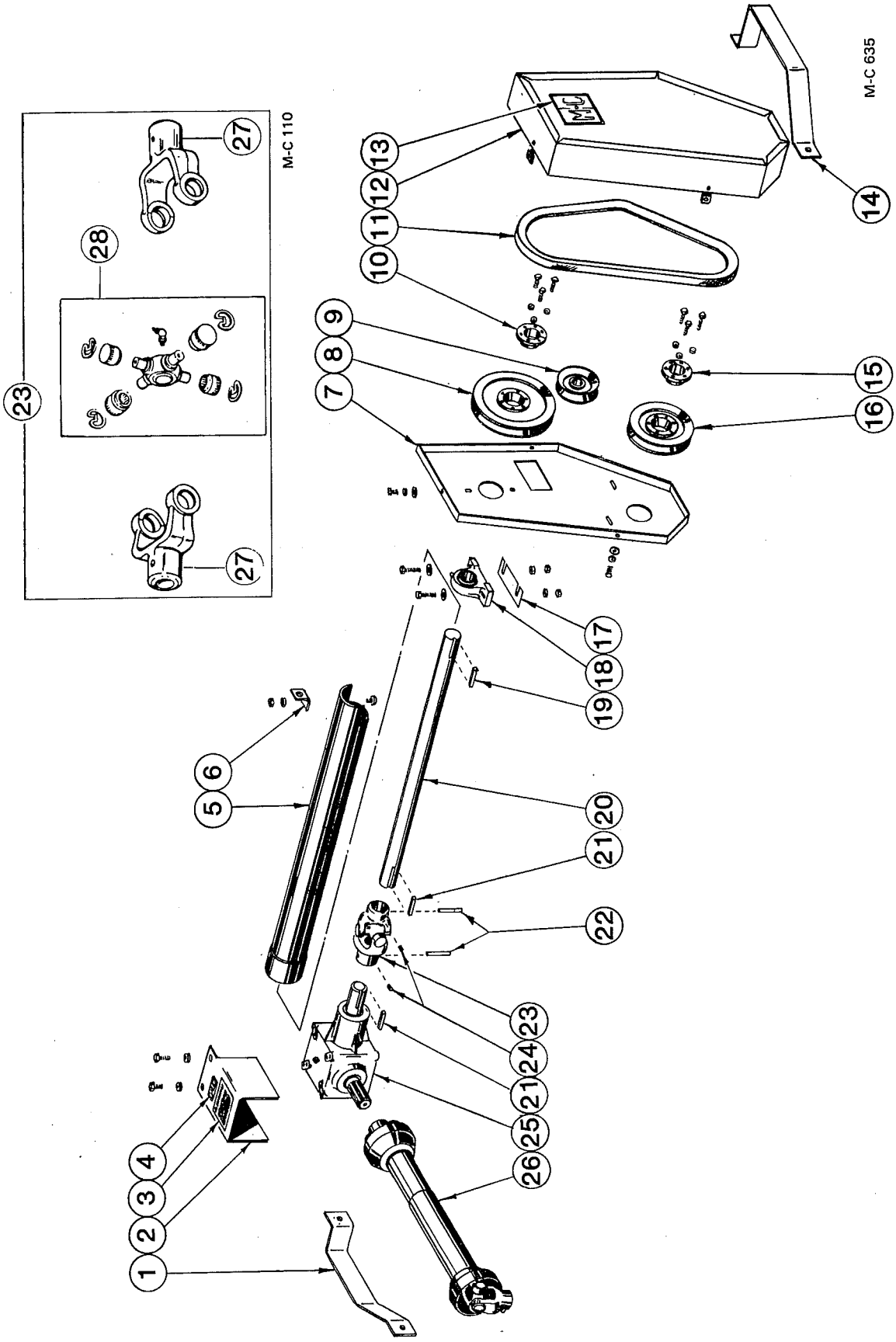


NOTE: Attaching hardware is listed (but not included) with the main part. It must be ordered separately.

Ref.	Part No.	Qty.	Description
21	- - - - - - -	—	See "Idler Ass'y" page 33
22	101 3450	2	High Cut Bearing Bracket-S/N 46789 thru 49649
23	101 0088	2	Bearing Bracket - S/N 47198 thru 49649
24	131 6002	2	Flange Bearing - 3 Bolt, 1-7/16" Bore S/N 47198 thru 49649
	001 8144	6	3/8-16 x 1¼" Capscrew - Grd. 5
	000 8204	6	3/8-16 Hex Nut w/NY Lock
25	101 1040	2	Gauge Roller Brg. Ass'y.- For all mowers thru S/N 49649 (Incl. one ea. of ref. 23 & 24. Also three capscrews 001 8144 and hex nuts 000 8204)
26	- - - - - - -	—	Gauge Roller-Below S/N 49650
	101 0082	1	**6000FM**
	101 0081	1	**7200FM**
	101 0078	1	**8800FM & FMO**
27	101 4225	1	Left Hand Skid
	000 8134	6	3/8-16 x ¾" Truss Hd. Screw
	001 8139	6	3/8" Lockwasher
	000 8162	6	3/8-16 Hex Nut
28	101 5602	2	Floating Link Bushing
29	001 6023	2	1-15/16" Four Bolt Flangette w/Zerk - 001 8970
	131 8163	8	½-13 x 1¼" Capscrew w/NY Patch-Grd. 5
	000 8180	8	½" Lockwasher

Ref.	Part No.	Qty.	Description
30	131 6008	2	1-15/16" Bearing w/Collar
31	001 6022	2	1-15/16" Four Bolt Flangette w/o Zerk
32	131 0137	2	Anti-Wrap Flange-FM Models
	101 0096	2	Anti-Wrap Flange - TC Models
33	001 5154	1	Key - ½" x ½" x 2"
34	101 1051	1	**6000FM** Rotor Ass'y. (see page 30 & 31)
	101 1049	1	**7200FM** Rotor Ass'y. (see page 30 & 31)
	101 1047	1	**8800FM & FMO** Rotor Ass'y. (see page 30 & 31)
	101 1062	1	**6000TC** Rotor Ass'y (see page 32)
	101 1056	1	**7200TC** Rotor Ass'y (see page 32)
	101 1057	1	**8800TC & TCO** Rotor Ass'y (see page 32)
35	101 0089	2	Gauge Roller Hanger - Above S/N 49649
36	081 6000	2	Gauge Roller Brg. - Above S/N 49649
37	--- ----	-	Gauge Roller w/Brgs. - Above S/N 49649
	081 1061	1	**6000FM & TC**
	101 1064	1	**7200FM & TC**
	101 1063	1	**8800FM, FMO, TC & TCO**

Drive Line and Guards



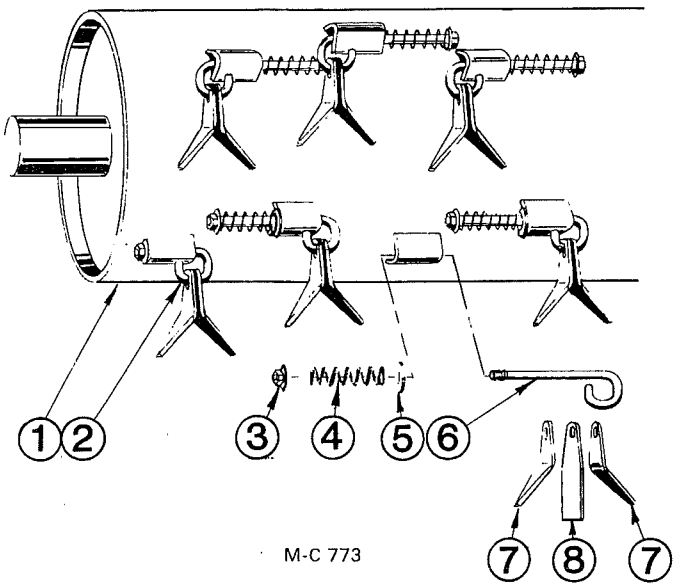
NOTE: Attaching hardware is listed (but not included) with the main part. It must be ordered separately.

Ref.	Part No.	Qty.	Description
1	101 3447	1	Tree Guard - Right
	000 8120	2	3/8-16 x 1" Truss Hd. Screw
	001 8139	2	3/8" Lockwasher
	000 8162	2	3/8-16 Hex Nut
2	101 4456	1	PTO Guard
	000 8145	2	5/8-11 x 1 1/4" Capscrew - Grd. 5
	000 8299	2	5/8" SAE Flatwasher
	000 8181	2	5/8" Lockwasher
3	001 8315	1	Safety Warning Decal
4	121 8310	1	"Made in USA" Decal
5	- - - - - - -	—	Output Shaft Guard
	101 1043	1	**6000FM & TC and 8800FMO & TCO**
	101 1044	1	**7200FM & TC**
	101 1045	1	**8800FM & TC**
6	101 4765	1	Guard Clip
	000 8212	1	1/4-20 x 1/2" Truss Hd. Whiz Screw
	000 8211	1	1/4-20 x 3/4" Truss Hd. Whiz Screw
	000 8172	1	1/4" Flatwasher
	000 8178	2	1/4" Lockwasher
	000 8158	2	1/4-20 Hex Nut
7	101 4453	1	Belt Guard Back Plate
	001 8111	3	5/16-18 Clip Nut
	000 8106	6	5/16-18 x 3/4" Capscrew
	000 8173	6	5/16" Flatwasher
	000 8222	6	5/16" Lockwasher
8	101 6200	1	Sheave - 9" SF "C" Section (FM model drive sheave & TC model rotor sheave)
9	101 6202	1	Idler Pulley (see "Idler Ass'y" page 33)
10	120 6211	1	SF Bushing - 1-7/16" Bore (Incl. Capscrews and Lockwashers)
11	101 6100	1	Belt - CX55
12	101 0075	1	Belt Guard Cover
	001 8111	3	5/16-18 Clip Nut

Ref.	Part No.	Qty.	Description
13	128 8300	1	M-C Decal 5" x 4-9/16"
14	101 3446	1	Tree Guard - Left
	000 8120	2	3/8-16 x 1" Truss Hd. Screw
	001 8139	2	3/8" Lockwasher
	000 8162	2	3/8-16 Hex Nut
15	141 6209	1	SF Bushing 1-15/16" Bore (Incl. Capscrews and Lockwashers)
16	101 6201	1	Sheave - 7 1/2" SF "C" Section (FM model rotor sheave & TC model drive sheave)
17	001 4877	AR	Bearing Shim
18	001 6011	1	Pillow Block Brg. - 1-7/16" w/Zerk
	128 8166	2	1/2-13 x 2 1/2" Capscrew - Grd. 5
	001 8257	2	1/2" SAE Flatwasher
	000 8180	2	1/2" Lockwasher
	000 8163	2	1/2-13 Hex Nut
19	131 5130	1	Key - 3/8" x 3/8" x 2 1/4"
20	- - - - - - -	—	Output Shaft
	101 5065	1	**6000FM & TC and 8800FMO & TCO**
	101 5064	1	**7200FM & TC**
	101 5062	1	**8800FM & TC**
21	001 5132	2	Key - 3/8" x 3/8" x 2"
22	131 8136	2	Roll Pin - 3/8" x 2 1/2"
23	131 6615	1	Output Shaft Universal Joint
24	121 8130	2	3/8-16 x 3/8" Cup Pt. Set Screw
25	101 6610	1	Gear Box (see pg. 34)
	000 8145	4	5/8-11 x 1 1/4" Capscrew - Grd. 5
	000 8181	4	5/8" Lockwasher
	000 8176	4	5/8" Flatwasher
26	101 6611	1	PTO Shaft (see pg. 35)
27	132 9010	2	End Yoke
28	132 9011	1	Universal Joint Repair Kit

Rotor, Knives and Thatching Blades

FM and FMO Models Below S/N 47198



Individual repair parts only are available for rotors used below S/N 47198. Part numbers of complete rotor assemblies and balanced rotor weldments are the same as those used on mowers above S/N 47197 shown on page 31.

Complete Assembly
6000 FM - 101 1051
7200 FM - 101 1049
8800 FM & FMO - 101 1047

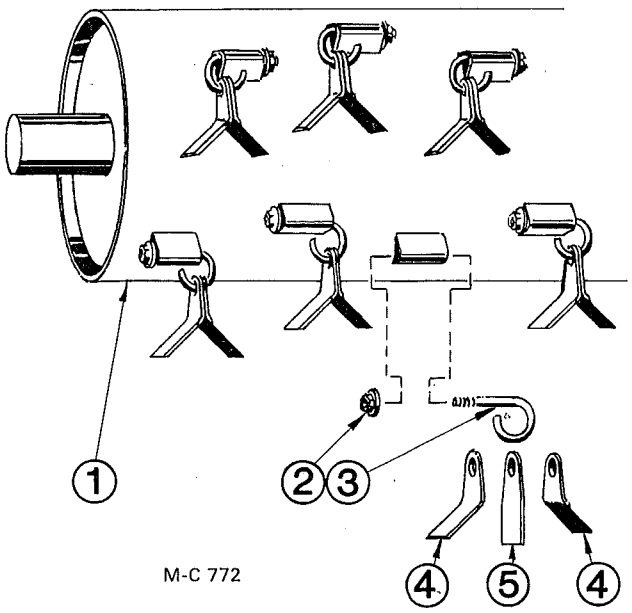
NOTE: Knife Kits are shown on page 32.

Ref.	Part No.	Qty. 6000	Qty. 7200	Qty. 8800	Description
1	131 0139	1	—	—	Balanced Rotor Weldment
	131 0140	—	1	—	Balanced Rotor Weldment
	131 0141	—	—	1	Balanced Rotor Weldment
2	101 8701	2	2	2	Knife Hanger - Short
3	000 8205	70	86	106	3/8-16 Top Lock Flange Nut
4	~~131 8708~~ 131 8718	68	84	104	Spring
5	~~000 8173~~ 000 8174	68	84	104	~~5/16~~ 3/8" Flatwasher
6	~~131 8709~~ 131 8717	68	84	104	Knife Hanger - Spring Loaded
7	--- ----	—	—	—	Knife - Tapered End - See note
	131 4465	140	172	212	Knife - Square End
8	133 4468	70	86	106	Thatching Blade - Optional

NOTE: The tapered end knives are no longer available. They have been replaced with square end knives 131 4465. When installing replacement square end knives on rotors with tapered end knives, they **MUST BE** installed in pairs 180 degrees apart to maintain rotor balance.

Rotor, Knives and Thatching Blades

FM and FMO Models S/N 47198 and Up



Complete Assembly
6000 FM - 101 1051
7200 FM - 101 1049
8800 FM & FMO - 101 1047

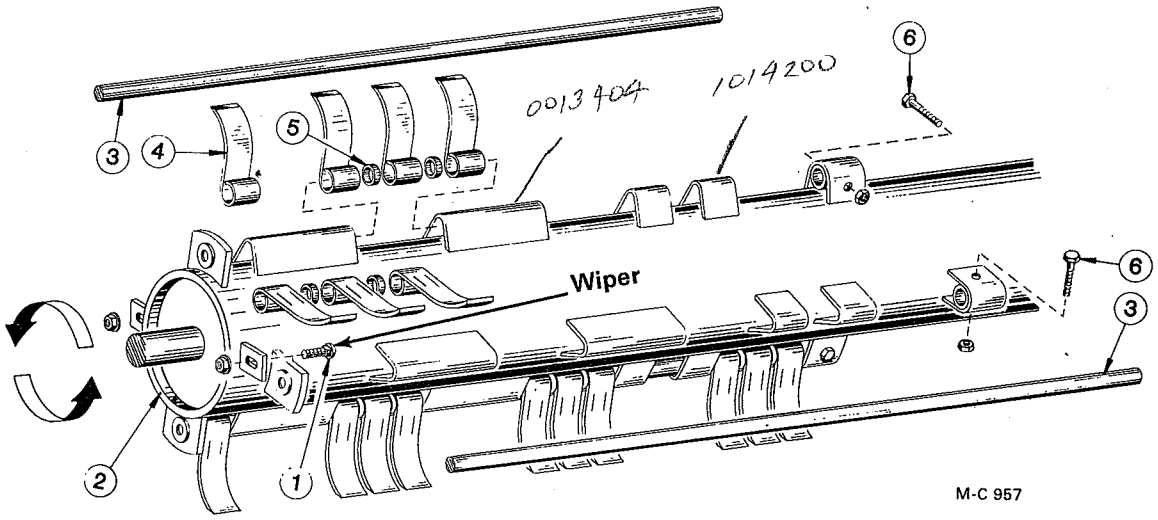
Complete assemblies consist of ref. 1 thru 4 in quantities shown.

NOTE: Knife Kits are shown on page 32.

Ref.	Part No.	Qty. 6000	Qty. 7200	Qty. 8800	Description
1	131 0139	1	—	—	Balanced Rotor Weldment
	131 0140	—	1	—	Balanced Rotor Weldment
	131 0141	—	—	1	Balanced Rotor Weldment
2	000 8205	70	86	106	⅜-16 Top Lock Flange Nut
3	101 8701	70	86	106	Knife Hanger
4	131 4465	140	172	212	Knife - Square End
5	133 4468	70	86	106	Thatching Blade - Optional

Rotor and Knives

All TC and TCO Models



Complete Assembly
6000TC - 101 1062
7200TC - 101 1056
8800TC & TCO - 101 1057

Complete assemblies consist of ref. 2 thru 6 in quantities shown.

NOTE: Knife Kits are shown below.

Ref.	Part No.	Qty. 6000	Qty. 7200	Qty. 8800	Description
1	000 8125	4	4	4	⅜-16 x 1½" Carriage Bolt
	000 8168	4	4	4	⅜ - 16 Flanged Locknut
2	101 0093	1	—	—	Balanced Rotor Weldment
	101 0094	—	1	—	Balanced Rotor Weldment
	101 0095	—	—	1	Balanced Rotor Weldment
3	101 5595	4	—	—	Hanger Bar - Long (29½")
	101 5596	4	—	—	Hanger Bar - Short (18 5/32")
	101 5592	—	8	—	Hanger Bar (30")
	101 5594	—	—	4	Hanger Bar - Long (41½")
	101 5593	—	—	4	Hanger Bar - Short (37-11/16")
4	101 5205	60	72	88	Tuf-Cut Knife
5	--- 6524	36	48	56	Knife Spacer Bushing
6	001 8115	8	8	8	5/16-18 x 2" Capscrew - Grd. 5
	000 8288	8	8	8	5/16-18 Two Way Locknut

Knife Kits

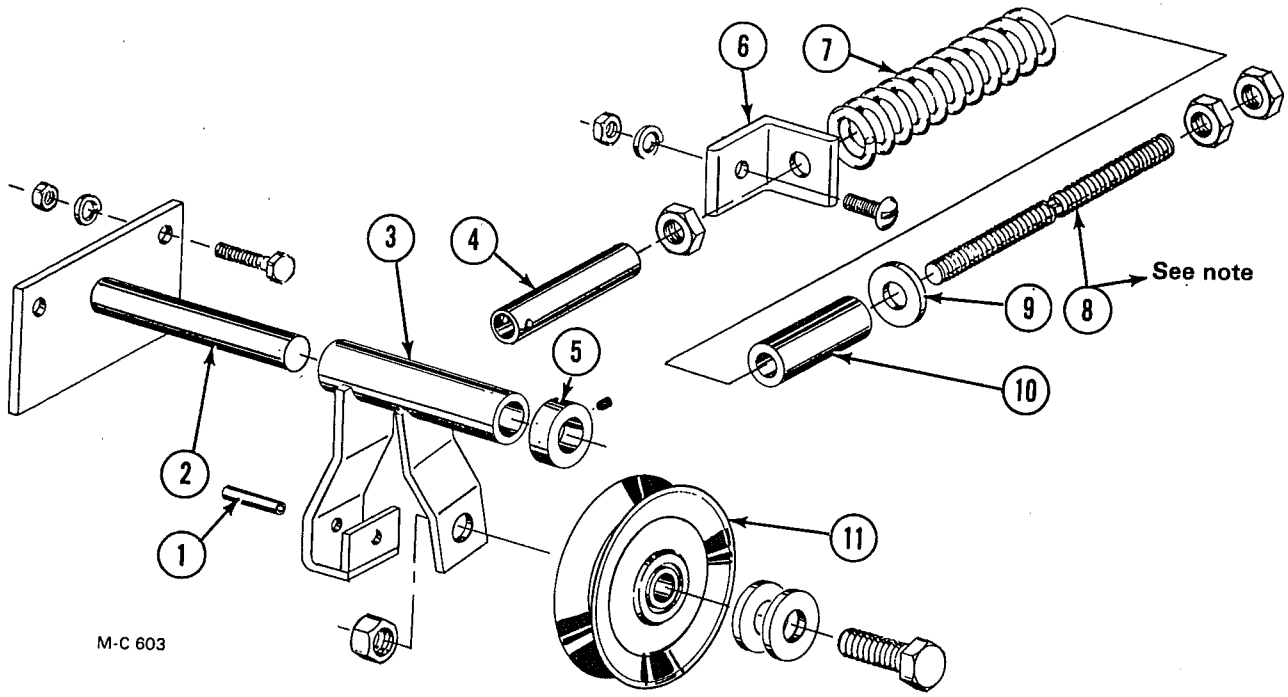
Mower Model	Kit Part No.	Kit Contents
6000FM	132 9005	140 of 131 4465 Knife
7200FM	132 9006	172 of 131 4465 Knife
8800FM	132 9007	212 of 131 4465 Knife
8800FMO	132 9007	212 of 131 4465 Knife
6000TC	102 9004	60 of 101 5205 Knife
7200TC	102 9005	72 of 101 5205 Knife
8800TC	102 9006	88 of 101 5205 Knife
8800TCO	102 9006	88 of 101 5205 Knife

Thatching Blade Kits

(FM Models Only)

Mower Model	Kit Part No.	Kit Contents
6000FM	133 9035	70 of 133 4468 Thatching Blade
7200FM	133 9037	86 of 133 4468 Thatching Blade
8800FM	133 9073	106 of 133 4468 Thatching Blade
8800FMO	133 9073	106 of 133 4468 Thatching Blade

Idler Assembly

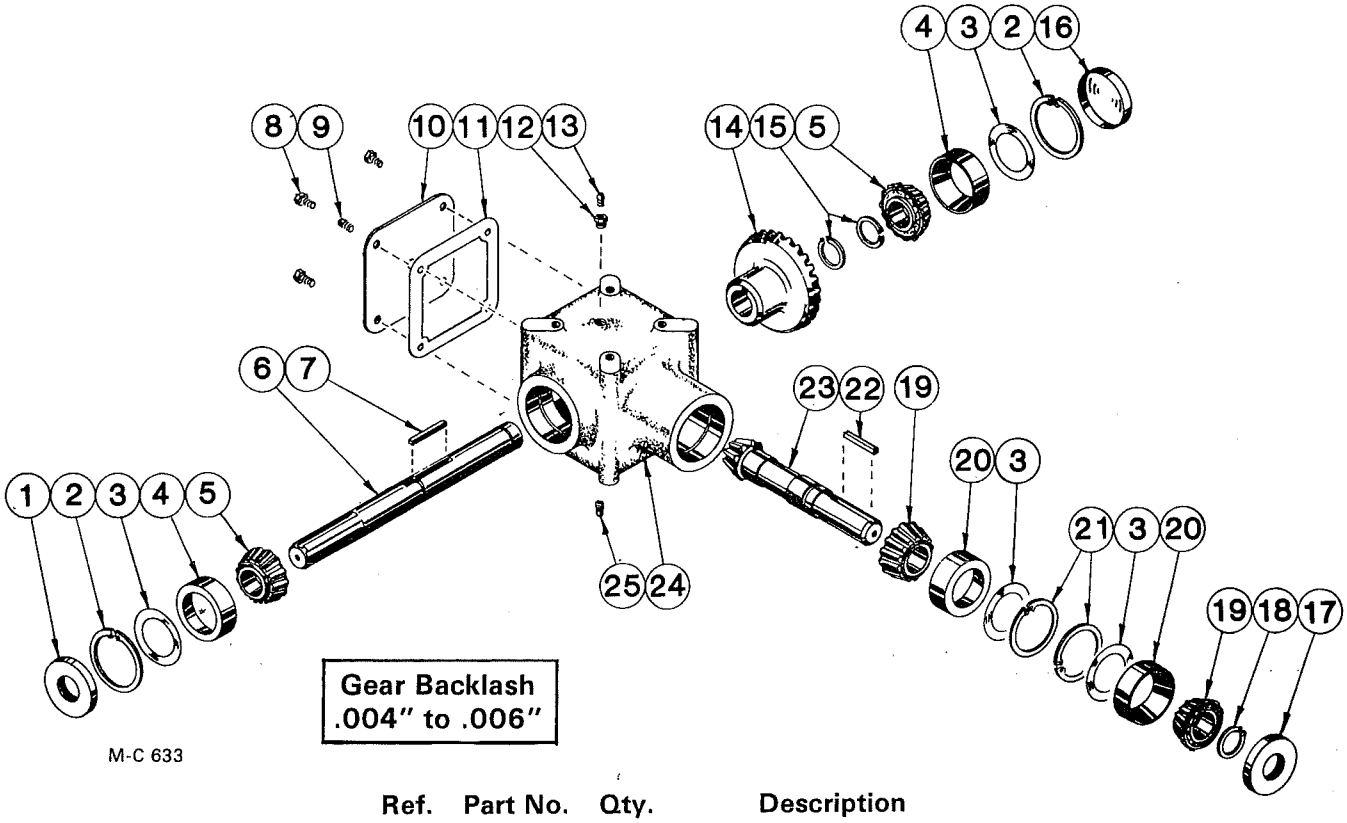


NOTE: Below S/N 49650 - 128 8162 - ½-13 x 8" full thread grade 5 capscrew and one 000 8163 - ½-13 hex nut (between ref. 4 & 6) were used.

Ref.	Part No.	Qty.	Description
1	101 8109	1	Roll Pin ¼" x 1¼"
2	101 0073	1	Idler Pivot
	001 8135	3	⅜-16 x 1" Capscrew - Grd. 5
	001 8139	3	⅜" Lockwasher
	000 8162	3	⅜-16 Hex Nut
3	101 5533	1	Idler Arm
4	101 5591	1	Idler Adj. Rod Take-Up Nut
5	131 8995	1	Set Collar ¾" ID x 1¼" OD
6	101 3865	1	Idler Bolt Stop
	000 8120	1	⅜-16 x 1" Truss Hd. Screw
	001 8139	1	⅜" Lockwasher
	000 8162	1	⅜-16 Hex Nut
7	101 8996	1	Idler Spring
8	101 5003	1	½-13 x 8½" Idler Adjustment Rod
	0008163	3	½-13 Hex Nut
9	000 8175	2	½" Flatwasher
10	101 5604	1	Spring Spacer
11	101 6202	1	Idler Pulley
	091 8170	1	⅝-11 x 1¾" Capscrew w/ NY Lock - Grd. 5
	000 8299	2	⅝" SAE Flatwasher
	000 8164	1	⅝-11 Hex Nut

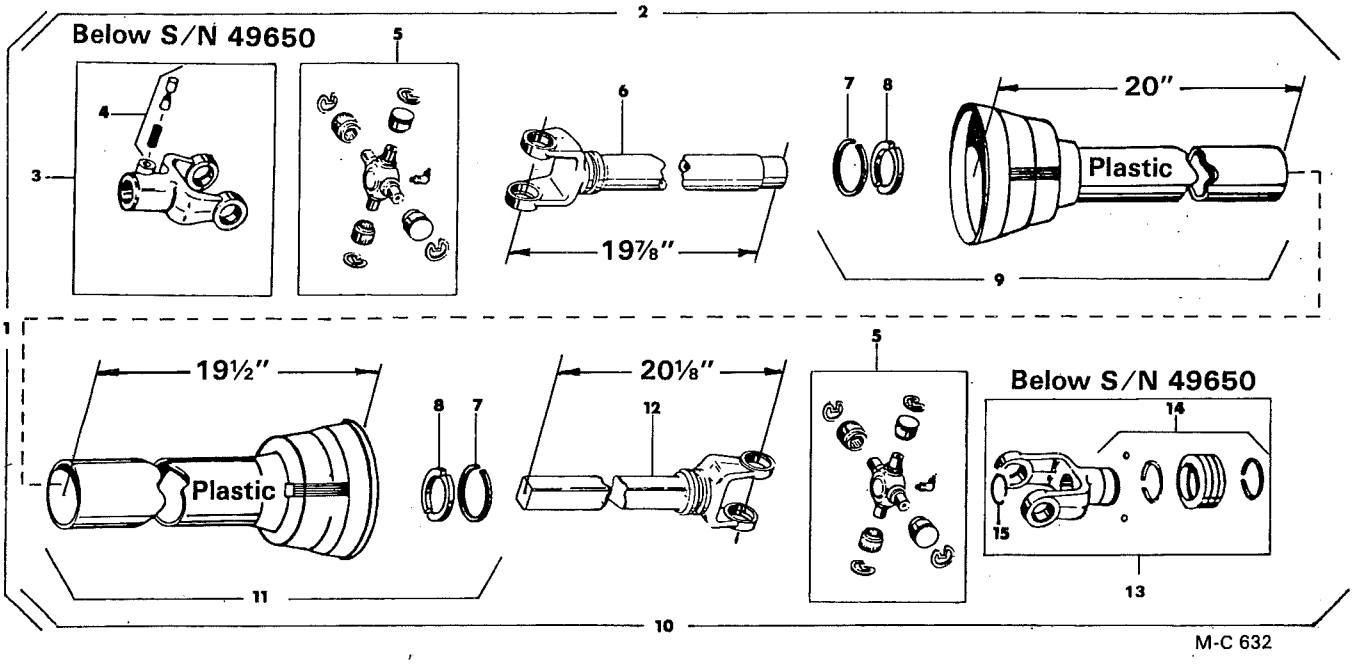
Gear Box

Complete Assembly - 101 6610

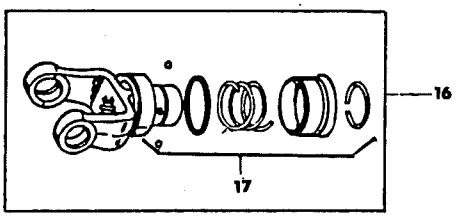


Ref.	Part No.	Qty.	Description
1	042 6614	1	Seal - Splined Shaft
2	042 6608	2	Snap Ring
3	042 6615	AR	Shim
4	042 6604	2	Bearing Cone
5	042 6605	2	Bearing Cup
6	102 6635	1	Splined Shaft
7	102 6636	1	Key 5/16" x 2½" Hard
8	102 6640	4	5/16-18 x ⅝" Capscrew
9	002 7500	1	Level Plug ⅜-18 NPTF
10	102 6629	1	Cover
11	102 6638	1	Gasket
12	002 6678	1	⅜"-⅛" Red. Bushing
13	002 6677	1	Vent Plug ⅛-27 NPTF
14	102 6627	1	Gear - 39T
15	102 6633	2	Snap Ring
16	102 6637	1	Cap
17	102 6639	1	Seal - Pinion Shaft
18	102 6632	1	Snap Ring
19	102 6631	2	Bearing Cone
20	002 6010	2	Bearing Cup
21	102 6634	2	Snap Ring
22	001 5132	1	Key ⅜" x 2"
23	102 6628	1	Pinion Shaft - 13T
24	102 6630	1	Gear Box Housing
25	122 8001	1	Drain Plug ⅜-18 NPTF
—	000 8991	—	Pint of Mobilfluid 423 Lubricant

Power Take-Off Shaft 101 6611



Above S/N 49649 - Ref. 16 is used on each end of the PTO shaft.

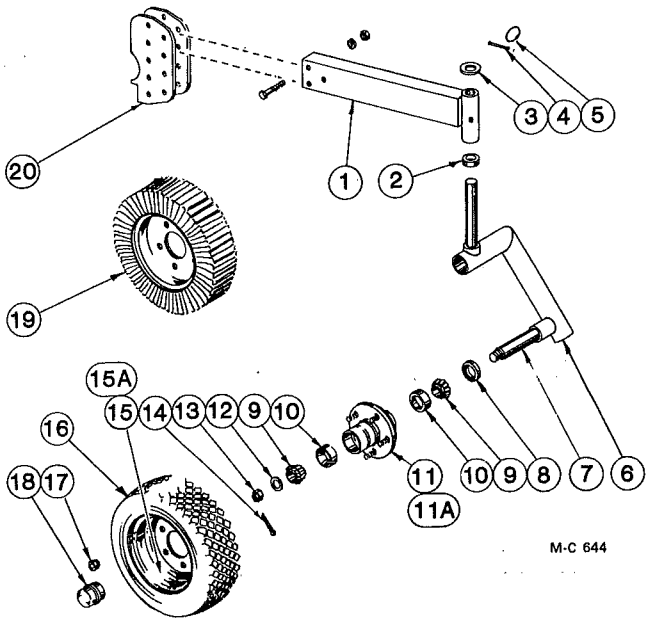


Ref.	Part No.	Qty.	Description
1	101 6611	1	PTO Shaft Complete (w/Plastic Guards)
2	102 6641	1	PTO Shaft - Machine Half (w/Plastic Guard)
3	002 7658	1	Q.D. Yoke Ass'y. (1⅜"-6B Spline) Below S/N 49650
4	002 6629	1	Saf-T-Pin & Spring Kit
5	002 6676	2	Universal Joint Repair Kit
6	132 6606	1	Yoke and Tube
7	002 8250	2	Nylon Bearing Retainer
8	002 6004	2	Nylon Bearing
9	132 6671	1	Male Guard - Plastic (Incl. 1 of ref. 7 & 8)
10	132 6672	1	PTO Shaft - Tractor Half (w/Plastic Guard)
11	132 6673	1	Female Guard - Plastic (Incl. 1 of ref. 7 & 8)
12	132 6602	1	Yoke and Shaft
13	132 6674	1	Quik-Lok Yoke Ass'y. (1⅜"-6B Spline) Below S/N 49650
14	132 6675	1	Quik-Lok Repair Kit
15	132 6680	1	Internal Snap Ring
16	132 6681	2	Spring-Lok Yoke Ass'y (1⅜"-6B Spline) Above S/N 49649
17	002 9003	2	Spring-Lok Repair Kit
—	001 8317	1	Danger - Rotating Drive Line Decal

Pneumatic Caster Wheel Kit 103 9002
Segmented Caster Wheel Kit 103 9003

NOTE: Kit 103 9002 consists of ref. 1 thru 18 and 20 in quantities shown. Kit 103 9003 consists of ref. 1 thru 14 and 17 thru 20 in quantities shown.

Ref.	Part No.	Qty.	Description
1	103 1000	2	Pivot Tube w/zerk 132 8990
	101 8170	6	5/8-11 x 4¼" Capscrew - Grd. 5
	000 8181	6	5/8" Lockwasher
	000 8164	6	5/8-11 Hex Nut
2	103 5621	2	Caster Spacer
3	103 8251	2	Flatwasher 1½" ID
4	103 8110	2	Caster Pin 5/16"
5	103 8252	2	Pin Retaining Ring
6	103 0009	2	Caster Weldment
7	102 8992	2	Spindle Only (must be welded in place)
8	102 8993	2	Seal
9	092 8982	2	Bearing Cone - 1" Bore
10	102 8995	2	Bearing Cup
11	103 8998	2	5 Bolt Hub Ass'y. (Incl. ref. 8, 9, 10, 12, 13, 14, 17 & 18)
11A	102 8997	2	5 Bolt Hub w/Two Brg. Cups (ref. 10)
12	001 8290	2	¾" SAE Flatwasher
13	092 8987	2	¾-16 Hex Nut-Slotted
14	000 8225	2	Cotter Pin 1/8" x 1½"
15	102 8991	2	Wheel
15A	103 8997	2	Wheel, Tire & Tube



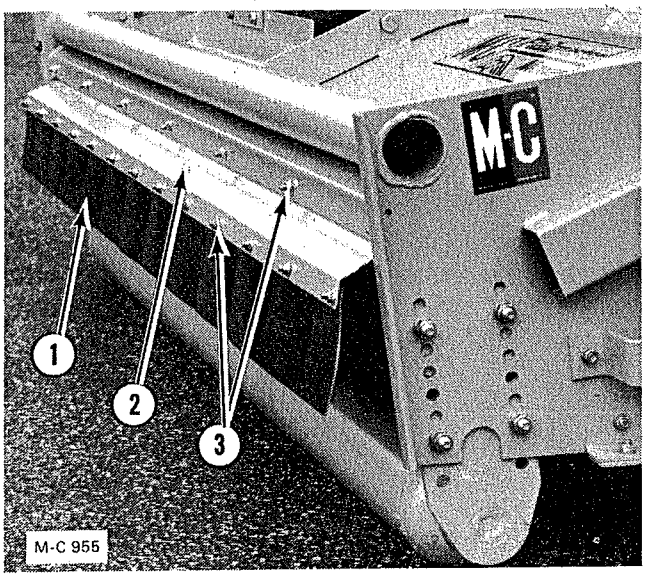
Ref.	Part No.	Qty.	Description
16	102 8990	2	Tire 4.80 x 8-4 Ply
	102 8989	2	Tube
17	102 8994	10	½-20 NF Lug Nut-60°
18	102 8996	2	Dust Cap
19	103 8994	2	Wheel & Segmented Tire
20	103 3570	4	Mount Plate

Debris Deflector Kits

Kits consist of ref. 1 thru 3 in quantities shown.

103 1009 for 6000FM & TC
103 1010 for 7200FM & TC
103 1011 for 8800FM, FMO, TC & TCO

Ref.	Part No.	Qty.	Description
1	--- ----	—	Rubber Flap
	101 5714	1	**6000FM & TC**
	101 5710	1	**7200FM & TC**
	101 5709	1	**8800FM, FMO, TC & TCO**
2	--- ----	—	Rear Deflector
	101 4768	1	**6000FM & TC**
	101 4767	1	**7200FM & TC**
	101 4766	1	**8800FM, FMO, TC & TCO**
3	000 8104	—	5/16-18 x ¾" Slotted Screw
	000 8168	—	5/16-18 Flanged Locknut



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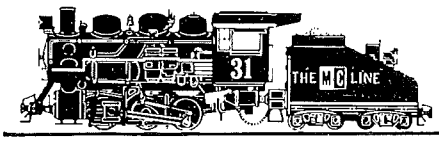

Iron Horse Quality

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