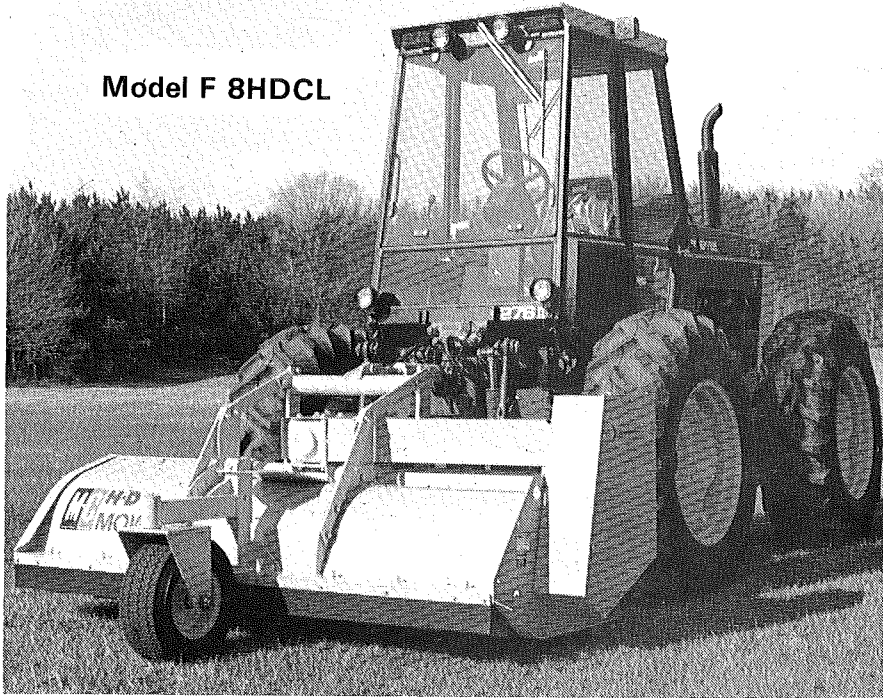




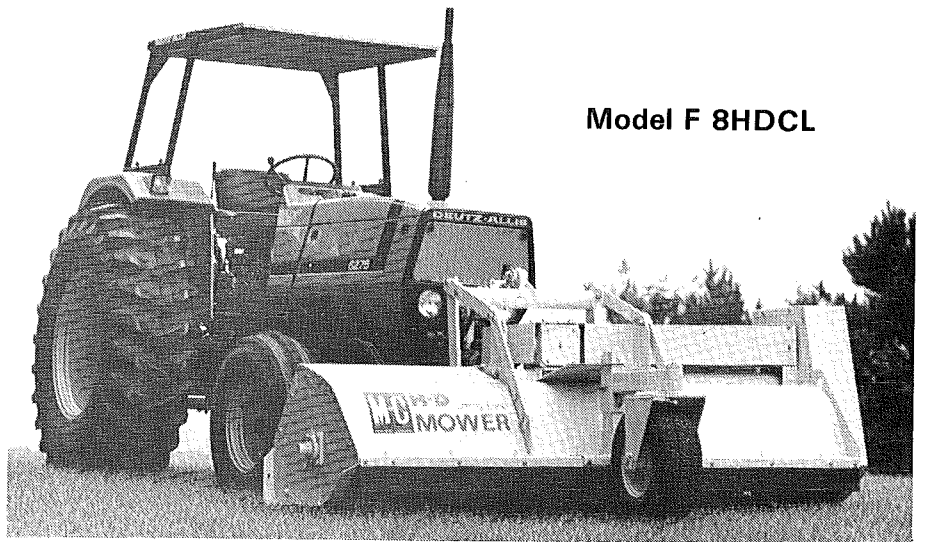
# Front Mounted Heavy Duty Flail Mower/Shredder



Model F 8HDCL

Supplement to  
Heavy Duty Mower  
Operator's Manual  
HD184 878

For Model-  
F 5HDCL  
F 7HDCL & OL  
F 8HDCL & OL  
F 10HDCL & OL  
F 12HDCL  
Front Mounted Mowers



Model F 8HDCL

Form No. HD267, June 1989

## IMPORTANT — PLEASE READ

This supplement contains Set-Up instructions for Front Mounted Heavy Duty Mowers. The Operating and Maintenance instructions in the Operator's Manual also apply to the Front Mounted Mowers.

All parts that are peculiar to Front Mounted Heavy Duty Mowers are shown in this supplement. All other parts are the same as those shown in the Operator's Manual.

## SET-UP INSTRUCTIONS

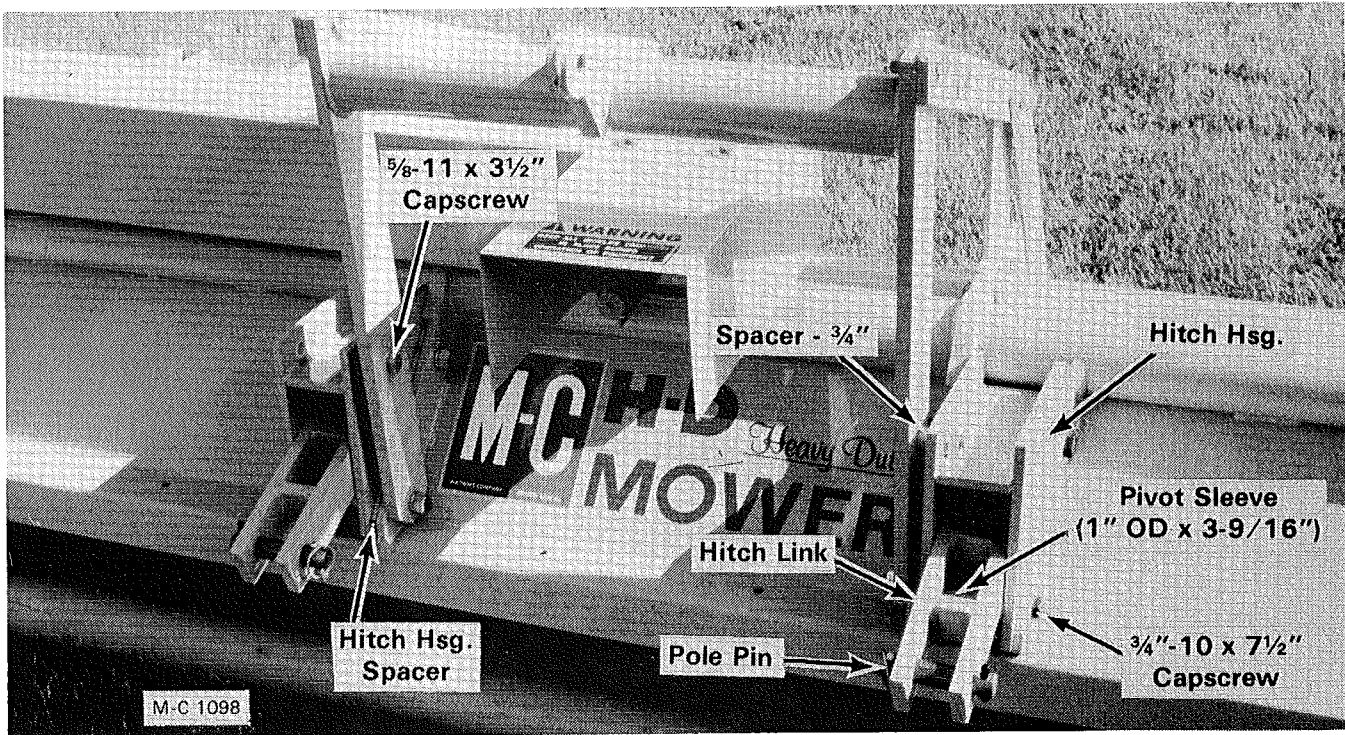


Figure 1

### General

Before beginning to set-up the 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 mower gear box input shaft.

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



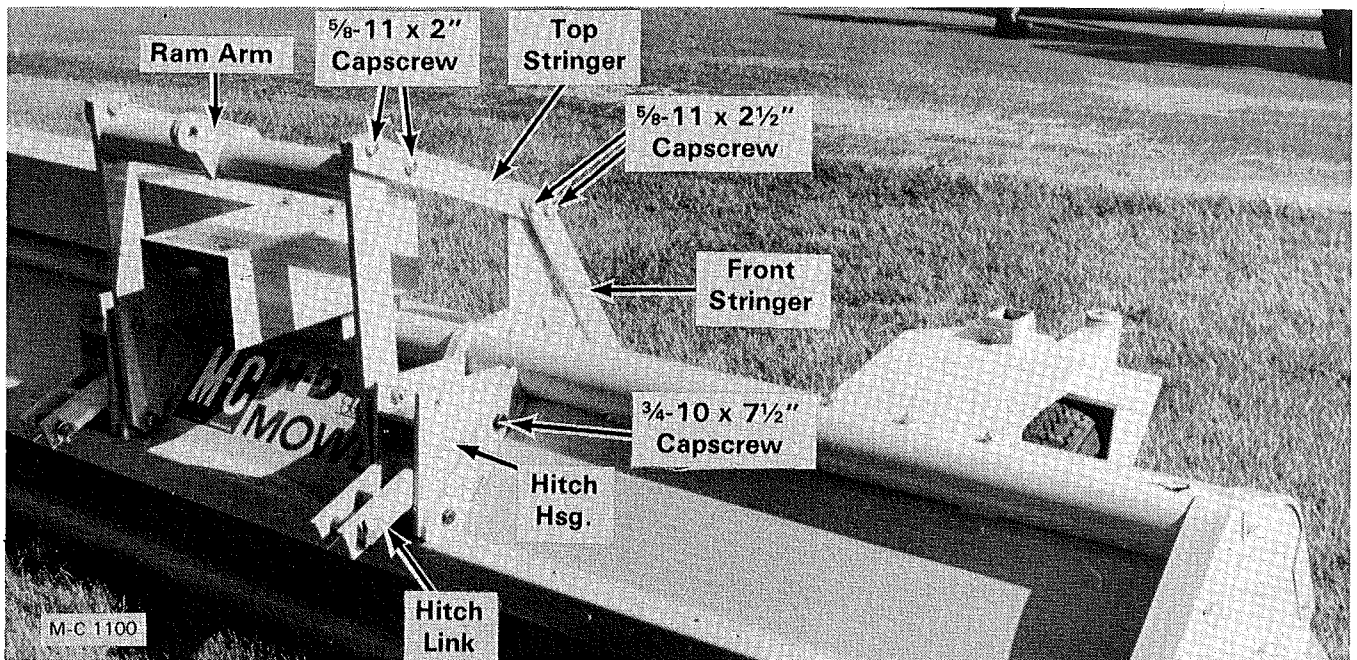
**CAUTION:** Always use safety stands or blocking in conjunction with hydraulic jacks or hoists. Do not rely on the jack or hoist to carry the load, they could fail.

**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.

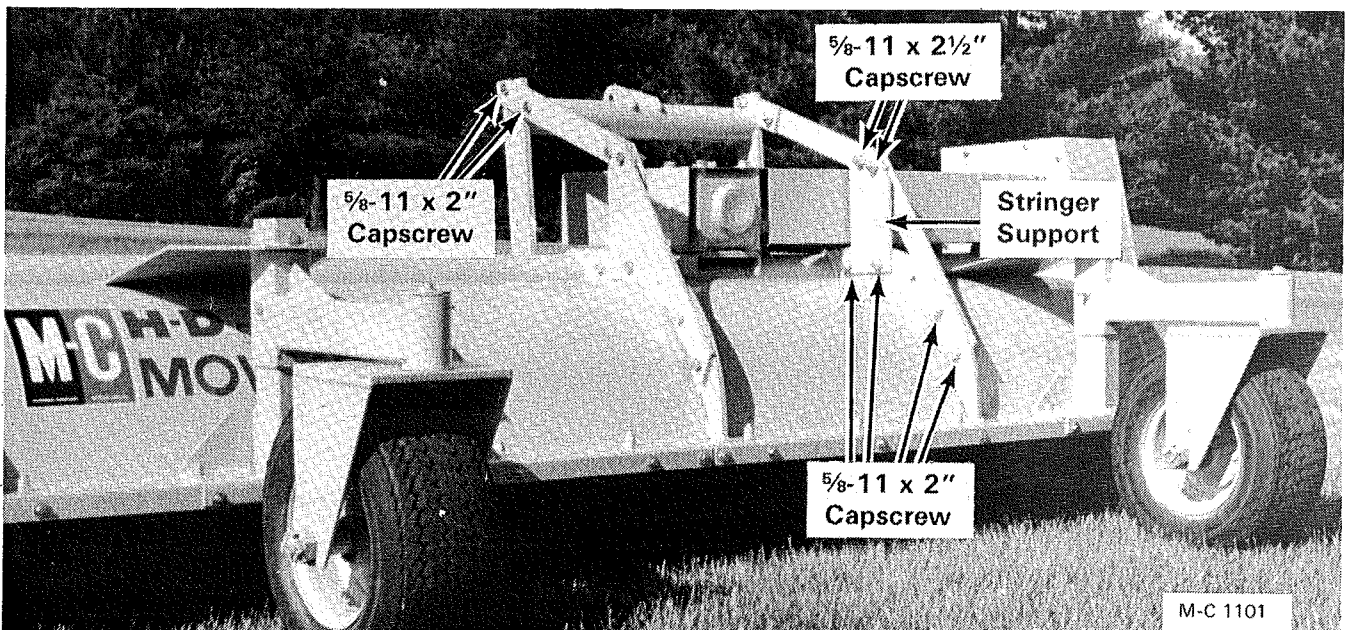
### Three Point Hitch (See Figure 1, 2 & 3)

**NOTE:** It is suggested that all capscrews and hex nuts be assembled loosely to make fitting of parts easier. Tighten all capscrews and hex nuts after the assembly is completed.

1. Install the hitch housings and links as follows:
  - A. Put a pivot sleeve (1" O.D. x 3-9/16") into the tapered end of the hitch link.
  - B. Place the hitch link into the hitch housing and put a 3/4-10 x 7 1/2" capscrew through the hitch housing and hitch link.
  - C. Place the hitch housing spacer against the body rib and install the hitch housing. Secure with lockwasher and hex nut.



**Figure 2**



**Figure 3**

2. Hold the ram arm in position and install the other  $\frac{3}{4}$ -10 x  $7\frac{1}{2}$ " capscrews through the hitch housing, pivot sleeve, hitch housing spacer and ram arm as shown. Secure with lockwashers and hex nuts.
3. Install a  $\frac{5}{8}$ -11 x  $3\frac{1}{2}$ " capscrew,  $\frac{3}{4}$ " spacer, lockwasher and hex nut on each side of the upper part of the hitch housing and ram arm.
4. Bolt the stringer supports to the body ribs at the rear of the mower with  $\frac{5}{8}$ -11 x 2" capscrews, lockwashers and hex nuts.
5. Bolt the top stringers to the ram arm with  $\frac{5}{8}$ -11 x 2" capscrews, lockwashers and hex nuts. Bolt the front stringers to the body ribs at the rear of the mower with  $\frac{5}{8}$ -11 x 2" capscrews, lockwashers and hex nuts.
6. Bolt the top and front stringers to the stringer supports with  $\frac{5}{8}$ -11 x  $2\frac{1}{2}$ " capscrews, lockwashers and hex nuts.
7. Tighten all capscrews and hex nuts. Install the pins in the hitch links.

## Caster Wheels (See Figure 4, 5, & 6)

If the mower has one caster wheel mount it in the center of the mower. If the mower has two caster wheels mount them as shown in Figure 4.

**NOTE:** Do not mount the caster wheels too close to the end of the mower. If they are mounted too far out, the wheels will extend beyond the mower body when they pivot.

1. Remove two cutter bar capscrews and two stone guard retainer capscrews (remove four if the caster wheel is mounted in the center of the mower). Install the wheel hanger with the capscrews that were removed, see Figure 4.
2. Place the support plate on the wheel hanger. Using the support plate as a guide, drill three  $\frac{1}{2}$ " holes through the mower body, see Figure 6. Remove the support plate.
3. Put the caster arm on the wheel hanger and secure with a  $\frac{1}{2}$ -13 x 5" capscrew, lockwasher and hex nut.

**NOTE:** There are two holes in the wheel hanger for height adjustment. Also, the hole in the caster arm is off center so two additional height adjustments are available when the caster arm is turned over.

4. Install the support plate. Use three  $\frac{1}{2}$ -13 x 2" capscrews, lockwashers and hex nuts to secure it to the mower body. The heads of the capscrews are to be on the inside, see Figure 6.
5. Bolt the top of the wheel hanger to the support plate with a  $\frac{1}{2}$ -13 x 5" capscrew, lockwasher and hex nut, see Figure 6.
6. Install the caster and wheel assembly into the caster arm. Put two retaining washers on top of the caster arm and install the roll pin in the caster pivot pin.
7. Inflate the tire to 50 PSI.

## Gear Box

1. The gear box has a 1.35:1 gear ratio and is designed to be used for either 540 or 1000 RPM tractor PTO use. The mower was shipped from the factory for 540 or 1000 RPM operation as ordered.
2. With the gear box mounted in the 540 RPM position, the output shaft speed will be increased to 740 RPM. When the gear box is in the 1000 RPM position, the output shaft

speed will be decreased to 740 RPM.

3. If the mower is to be operated by a tractor with a PTO speed different than the mower, the gear box mounting must be changed as explained on page 6 of the mower operator's manual.



**CAUTION:** Never operate the mower with a 1000 RPM PTO when the gear box is installed in the 540 RPM position. To do so will greatly over-speed the rotor, and possibly cause bodily harm.

## PTO Shaft and Lift Cylinder

1. Remove all paint and foreign material from the gear box splined input shaft and from both PTO shaft yokes. Be sure the quick disconnect devices on the PTO shaft couplings are working smoothly to ease installation.
2. Apply a small amount of grease to the splines of the gear box input shaft and both PTO shaft yokes. Install the six spline yoke end of the PTO shaft onto the gear box input shaft. Be sure the Saf-T-Pin is fully engaged.
3. Connect the lift cylinder to the ram arm and install the breather plug.

## Rear Deflector (Optional)



**CAUTION:** Do not install the rear deflector with the mower connected to the tractor. Disconnect the tractor and move it away until you are ready to check the installation.

1. Bolt the rear deflector to the mower body with  $\frac{1}{2}$ -13 x  $1\frac{3}{4}$ " (Grade 5) hex-head capscrews, flatwashers and hex nuts. The heads of the capscrews go to the inside, see Figure 7.
2. Use two hex-nuts on each capscrew to lock the rear deflector in place. Tighten the first hex-nut securely, then hold the first hex-nut and tighten the second one.
3. Connect the mower to the tractor and run the rotor **slowly** to be sure the knives are not striking the rear deflector.



**CAUTION:** When checking for rotor clearance, do not stand behind the mower. Stay well clear and **listen** for possible interference.

## Lubrication

1. Check the oil level in the gear box. The oil level should be even with the bottom of the

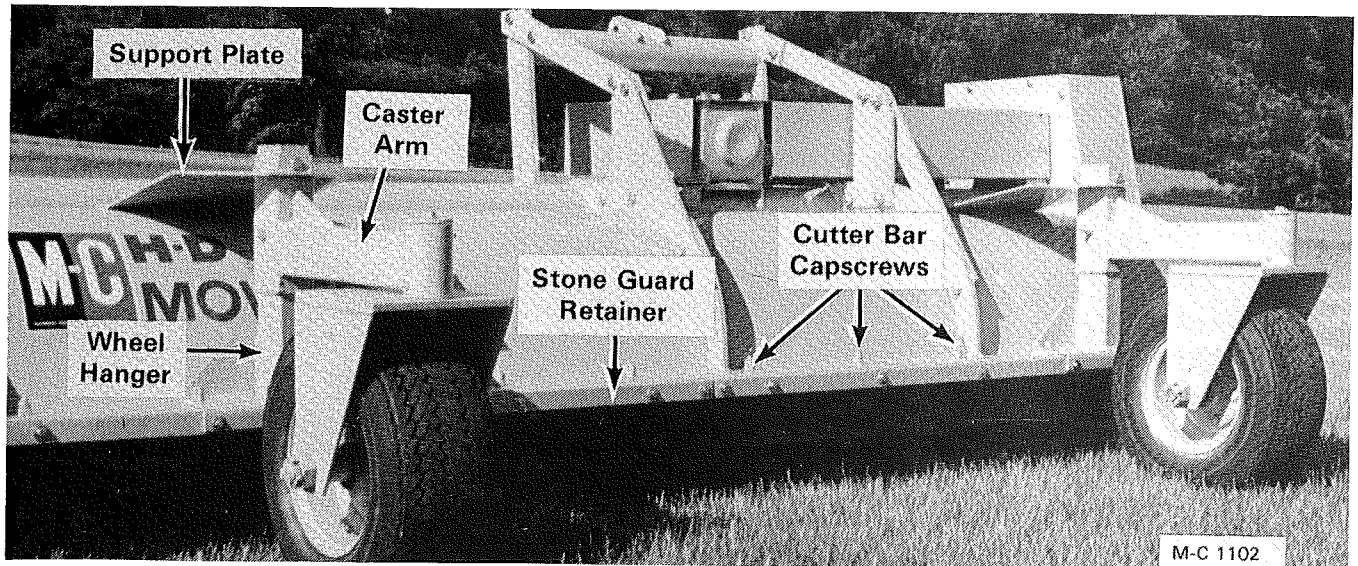


Figure 4

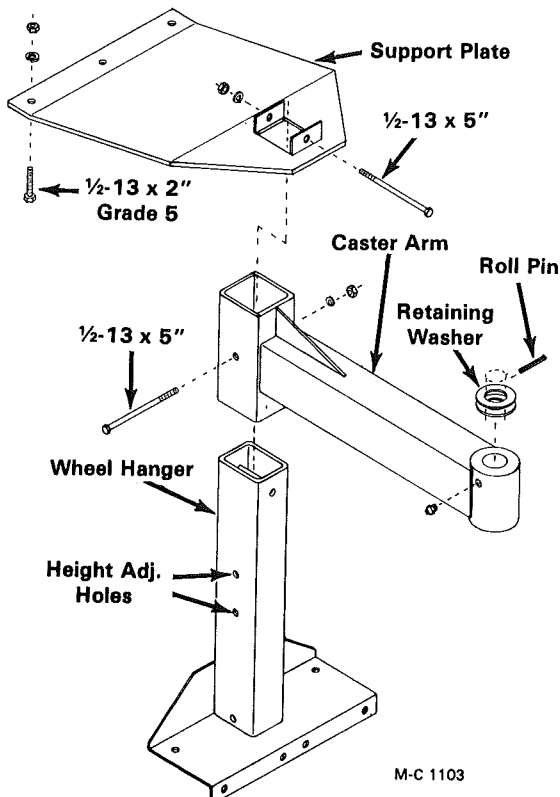


Figure 5

level plug. If the oil level is low, remove the bushing with vent on top of the gear box and add Mobilfluid 423 multipurpose transmission lubricant or equivalent until it just runs out of the level plug. **DO NOT OVERFILL.** Install the level plug.

Mobilfluid 423 is available from M-C in one pint containers. Order M-C part number 000 8991.

2. Check to be sure the vent is not plugged with paint or dirt. Install the bushing with vent.
3. There are eight (8) lubrication fittings on the

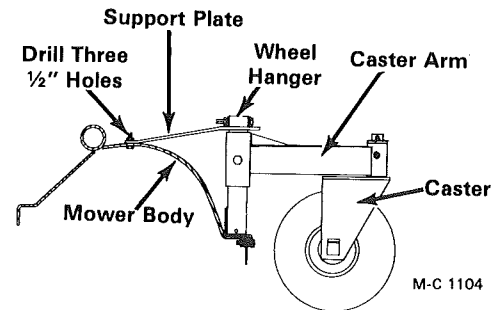


Figure 6

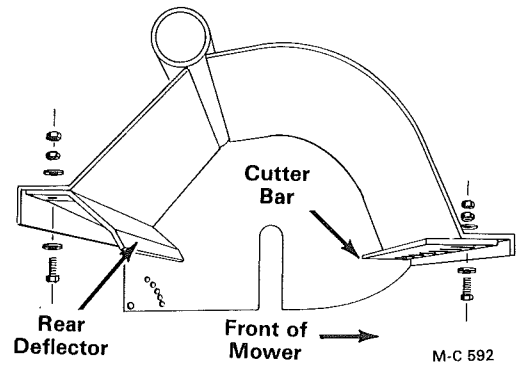


Figure 7

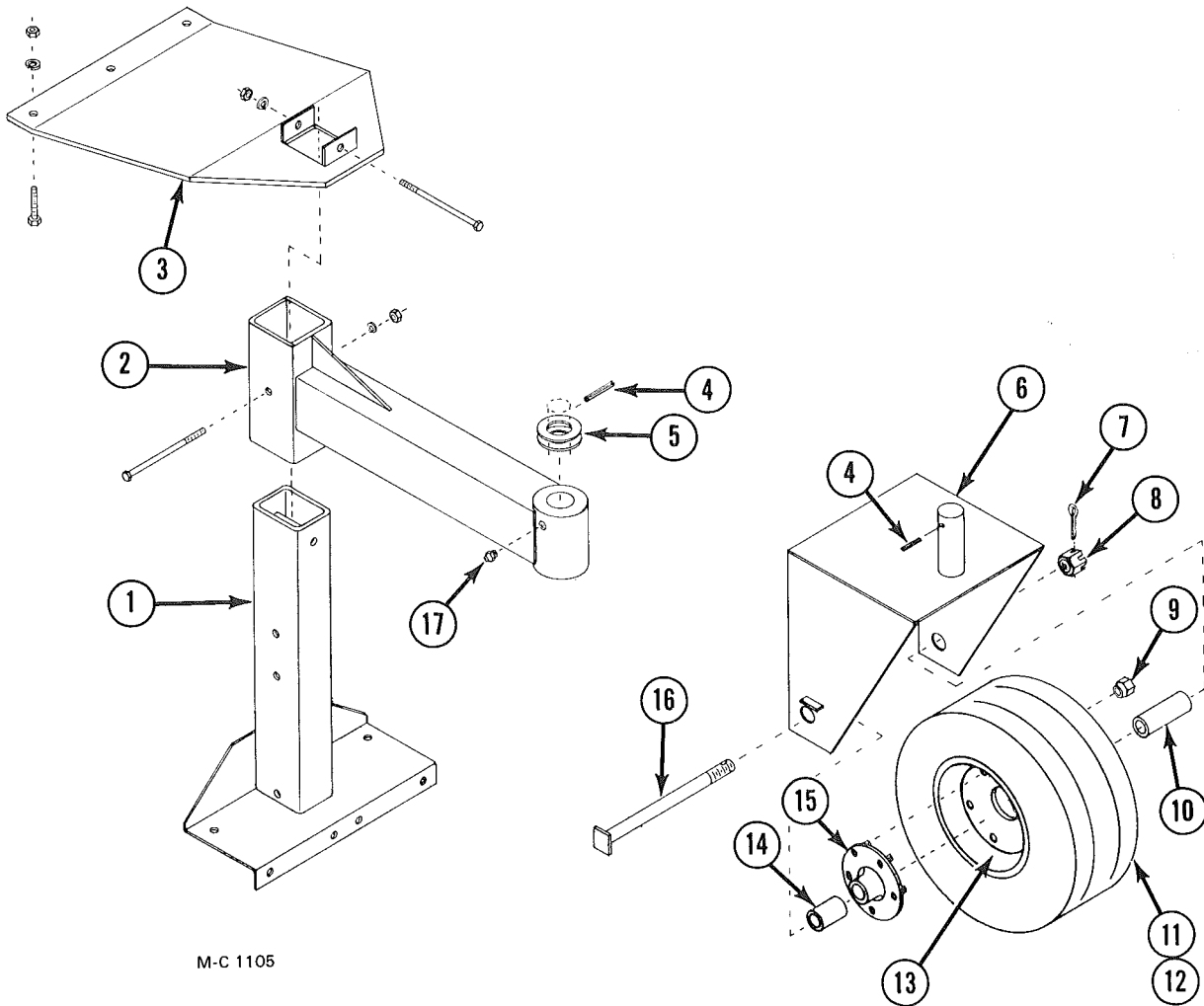
mower and two (2) on each caster wheel. For fitting locations refer to "Lubrication" page 14 of the mower operator's manual. Lubricate with a hand grease gun. Do not over lubricate. Too much grease may damage the bearing seals.

#### IMPORTANT

**NOW THAT THE MOWER IS SET UP AND ALL SAFETY EQUIPMENT IS INSTALLED, RUN IT AT A LOW RPM CHECKING TO MAKE SURE THAT ALL DRIVE LINE PARTS ARE MOVING FREELY.**

# PARTS

## Caster Wheel Assembly - 081 1085

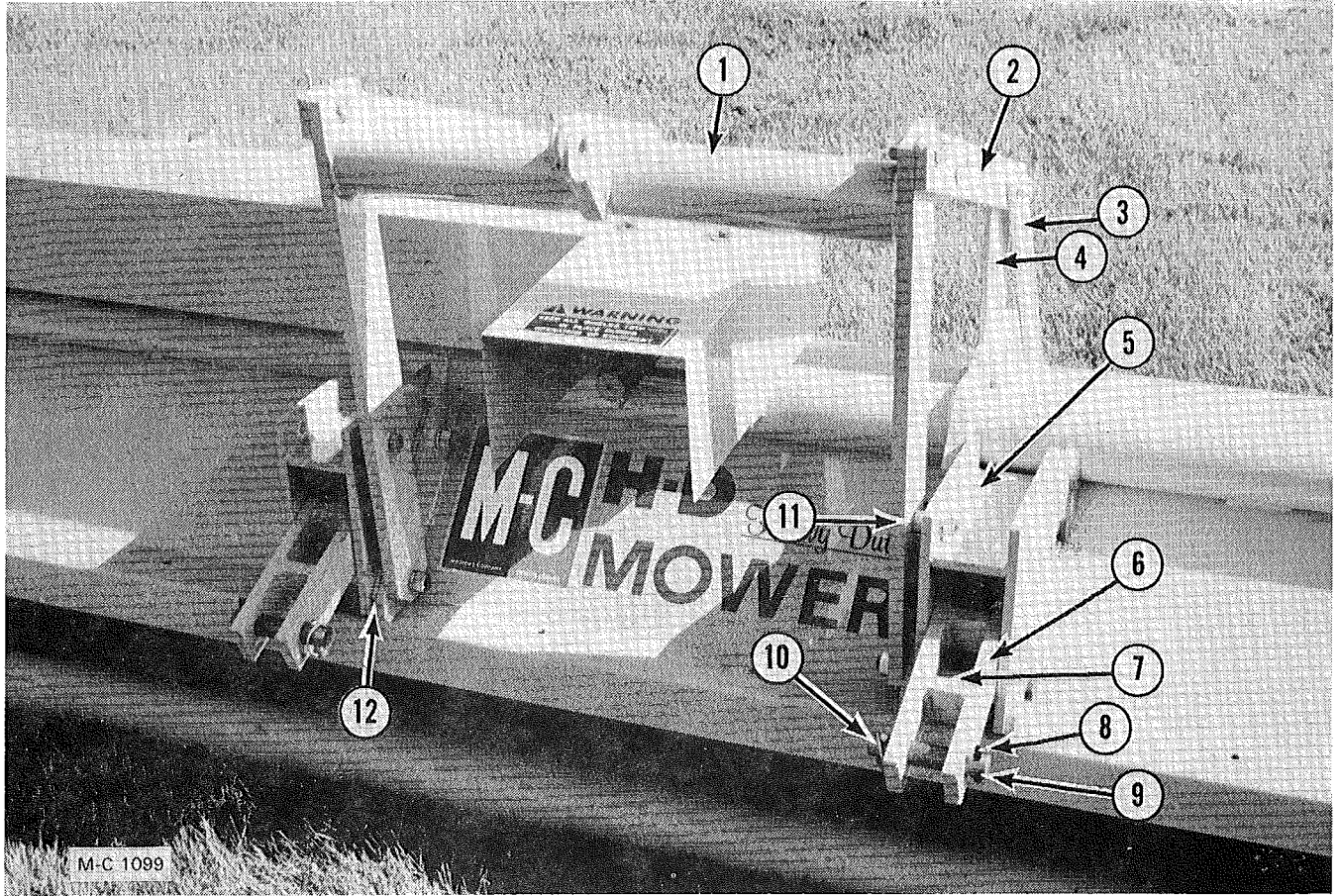


M-C 1105

Ref.	Part No.	Qty.	Description
1	081 0074	1	Wheel Hanger
2	081 0070	1	Caster Arm
	132 8981	1	½-13 x 5" Capscrew
	000 8180	1	½" Lockwasher
	000 8163	1	½-13 Hex Nut
3	081 0076	1	Support Plate
	000 8140	3	½-13 x 2" Capscrew- Grd. 5
	132 8981	1	½-13 x 5" Capscrew
	000 8180	4	½" Lockwasher
	000 8163	4	½-13 Hex Nut
4	127 8130	1	¾"x 2" Roll Pin
5	081 4442	2	Retaining Washer
6	081 0068	1	Caster
7	000 8255	1	¼"x 2" Cotter Pin
8	111 8252	1	1⅜-12 Castellated Nut

Ref.	Part No.	Qty.	Description
9	001 8989	5	½-20 NF Lug Nut - 45°
10	081 5611	1	Wheel Spacer- Long
11	041 8990	1	10" Wheel & 20.5 x 800 x 10- 6 Ply Tubeless Tire
12	042 8998	1	20.5 x 800 x 10- 6 Ply Tubeless Tire
13	042 8999	1	Wheel-6" Wide x 10" Dia.
14	081 5610	1	Wheel Spacer- Short
15	112 8999	1	5 Bolt Hub w/2 Brg. Cups 112 6001
	112 6001	2	1⅜" Brg. Cup
	112 6002	2	1⅜" Tapered Roller Brg.
	112 6000	2	1⅜" Bearing Seal
16	081 0067	1	Axle
17	002 6604	2	⅛" PT Straight Zerk

## Hitch Assembly

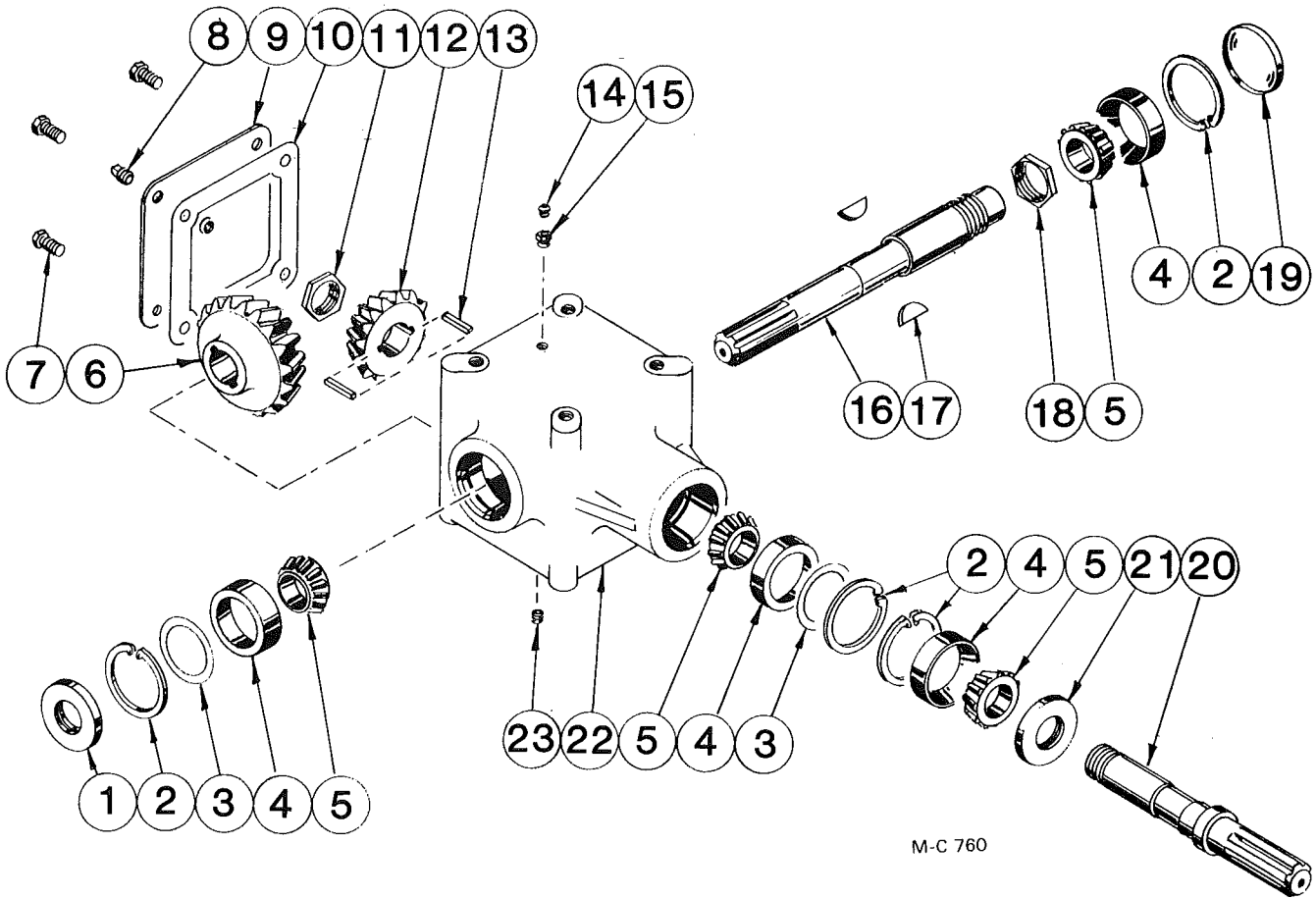


Ref.	Part No.	Qty.	Description	Ref.	Part No.	Qty.	Description
1	081 0072	1	Ram Arm	5	081 0073	2	Hitch Housing
2	081 3582	2	Top Stringer	000 8246	2	5/8-11 x 3 1/2" Capscrew- Full Thread	
	001 8279	4	5/8-11 x 2" Capscrew- Grd. 5	000 8181	2	5/8" Lockwasher	
	000 8181	4	5/8" Lockwasher	000 8164	2	5/8-11 Hex Nut	
	000 8164	4	5/8-11 Hex Nut	081 8190	4	3/4-10 x 7 1/2" Capscrew- Grd. 5	
3	081 3586	2	Front Stringer	000 8182	4	3/4" Lockwasher	
	001 8177	4	5/8-11 x 2 1/2" Capscrew- Grd. 5	000 8165	4	3/4-10 Hex Nut	
	001 8279	4	5/8-11 x 2" Capscrew- Grd. 5	6	081 0075	2	Hitch Link
	000 8181	8	5/8" Lockwasher	7	081 5604	4	Pivot Sleeve- 1" O D x 3-9/16" Long
	000 8164	8	5/8-11 Hex Nut	8	127 8130	2	3/8"x 2" Roll Pin
4	081 3531	2	Stringer Support	9	081 5020	2	Pole Pin- Category 2
	001 8279	4	5/8-11 x 2" Capscrew- Grd. 5	10	000 8993	2	Klick Pin- 7/16" Dia.
	000 8181	4	5/8" Lockwasher	11	081 5605	2	Spacer-1"x O D x 3/4" Long
	000 8164	4	5/8-11 Hex Nut	12	081 3426	2	Hitch Housing Spacer

# Gear Box Assembly

**081 6606 -Complete Gear Box With Counterclockwise Input Shaft Rotation**

**081 6607 -Complete Gear Box With Clockwise Input Shaft Rotation**



M-C 760

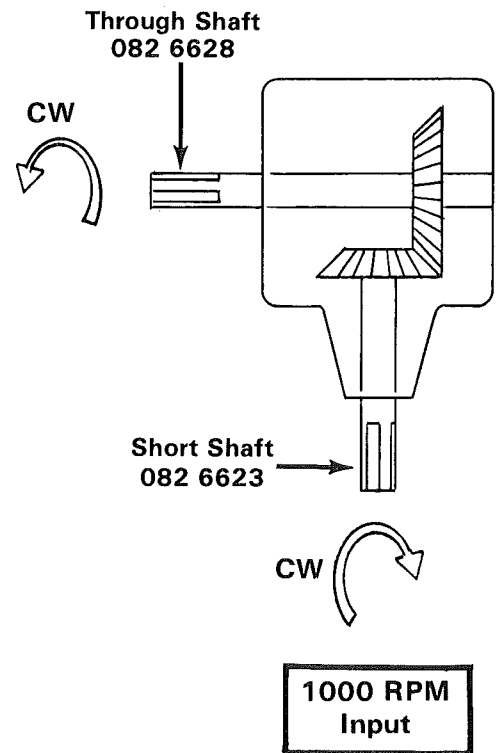
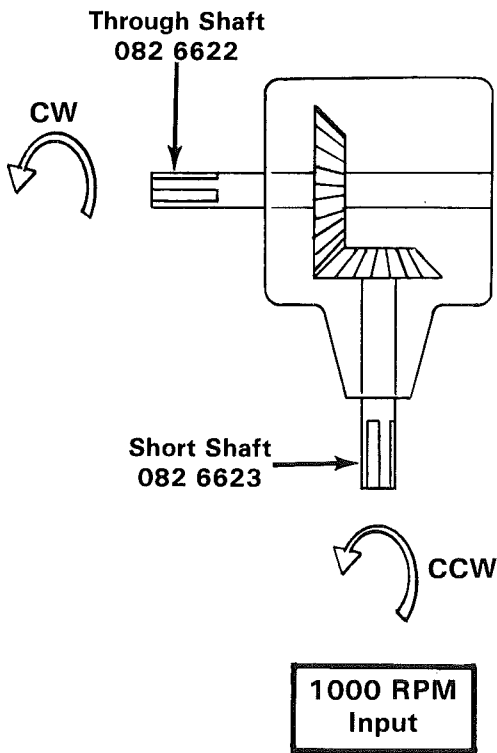
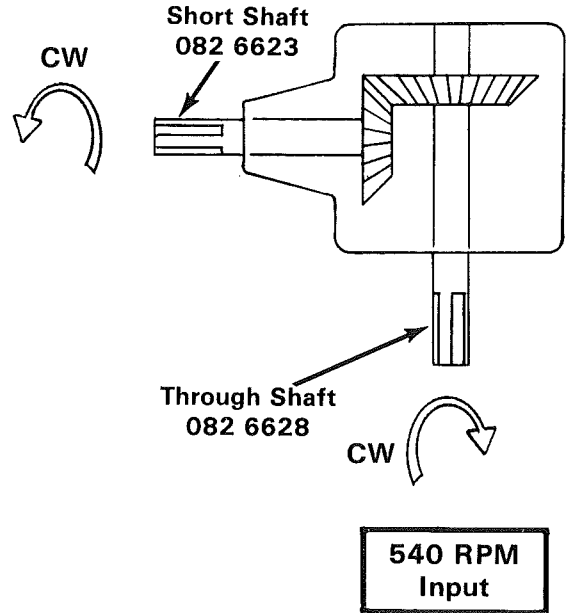
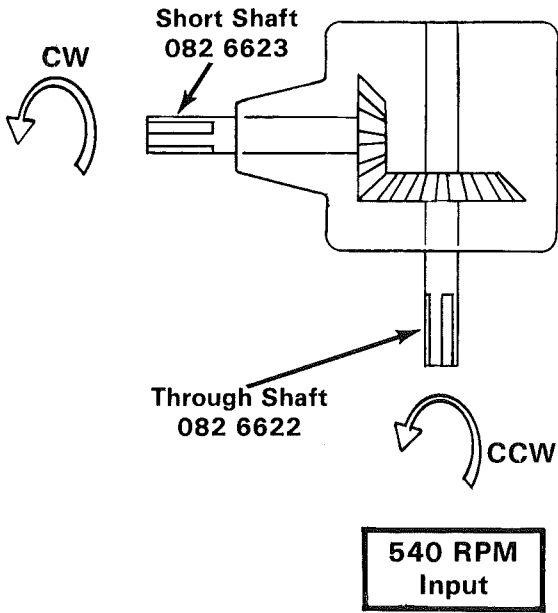
**NOTE:** All parts in gear box 081 6606 and 081 6607 are the same except for the "Through Shaft"- ref. 16.

Ref.	Part No.	Qty.	Description	Ref.	Part No.	Qty.	Description
1	082 6625	1	Seal	16	082 6622	1	Through Shaft-17-3/16" Long (For gear box 081 6606 with CCW input shaft rotation)
2	082 6621	4	Snap Ring				
3	082 6627	AR	Shim				
4	002 6011	4	Bearing Cone				
5	002 6010	4	Bearing Cup	082 6628	1	Through Shaft-17-3/16" Long (For gear box 081 6607 with CW input shaft rotation)	
6	082 6610	1	Bevel Gear-23T	17	- - - 7626	2	Woodruff Key 3/8" x 1 1/4" (hard)
7	- - - 7622	4	5/16-18 x 5/8" Hex-Hd Capscrew	18	112 8252	1	Stake Nut
8	002 7500	1	Level Plug 3/8-18 NPTF	19	082 6626	1	End Cap
9	102 6629	1	Cover	20	082 6623	1	Short Shaft-11 1/2" Long
10	082 6624	1	Cover Gasket	21	002 6639	1	Seal
11	002 6668	1	Stake Nut	22	082 6620	1	Gear Box Housing
12	082 6609	1	Bevel Gear - 17T	23	122 8001	1	Drain Plug 3/8-18 NPTF
13	001 8969	2	Key 3/8" x 1 3/8" (hard)	-	000 8991	-	Pint of Mobilfluid 423 Lubricant
14	002 6677	1	Vent Plug 1/8-27 NPT				
15	002 6678	1	Bushing 1/8" x 3/8" NPT				



# Gear Box Through Shaft and Short Shaft Identification

Front of Mower



**Gear Box 081 6606  
(CCW Input Shaft Rotation)**

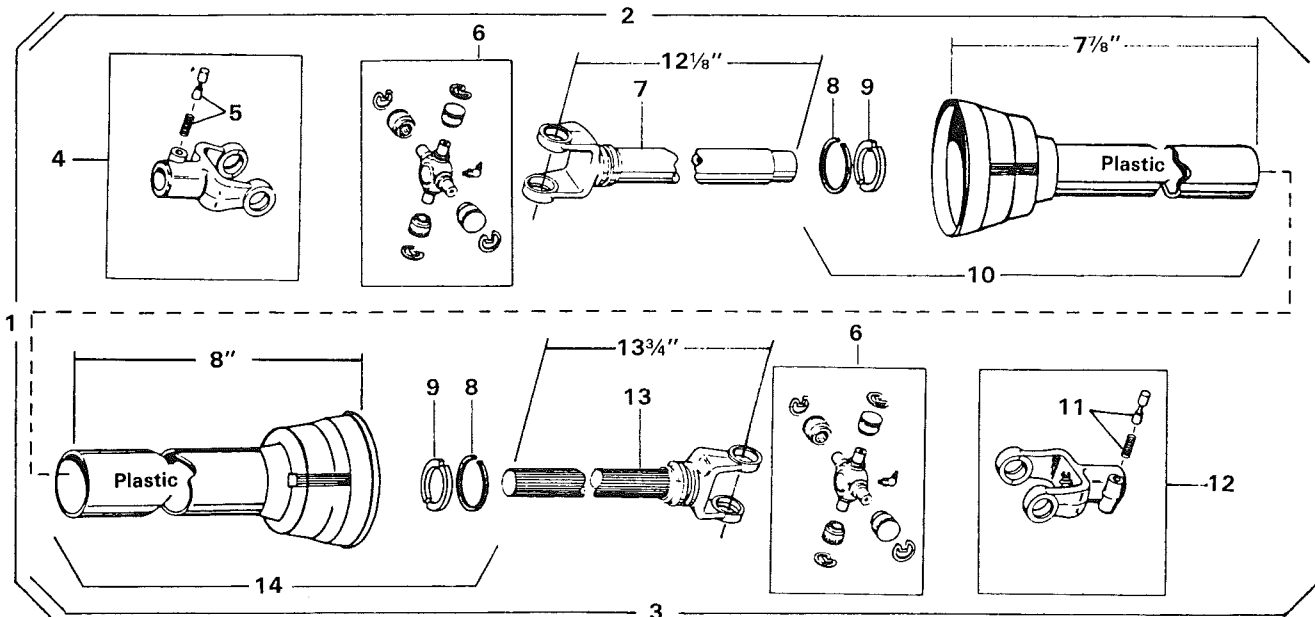
M-C 1092

**Gear Box 081 6607  
(CW Input Shaft Rotation)**

## Power Take-Off Shaft

**081 6608 - Complete PTO Shaft w/1 $\frac{3}{8}$ "-6B Spline on Tractor End**

**081 6609 - Complete PTO Shaft w/1 $\frac{3}{8}$ "-21 Spline on Tractor End**

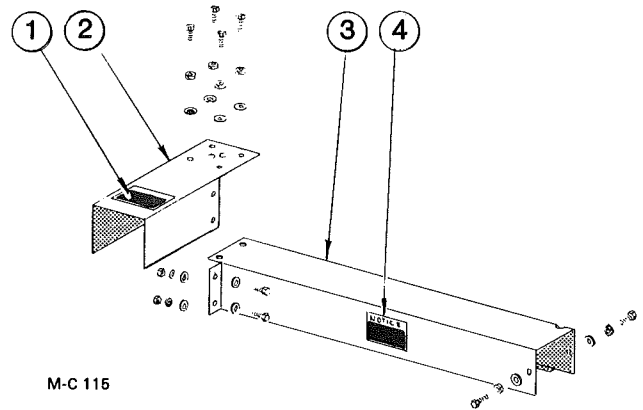


M-C 1106

Ref.	Part No.	Qty.	Description	Ref.	Part No.	Qty.	Description
1	081 6608	1	PTO Shaft Complete w/1 $\frac{3}{8}$ "-6B Spline On Tractor End	8	092 6692	2	Nylon Bearing Retainer
	081 6609	1	PTO Shaft Complete w/1 $\frac{3}{8}$ "-21 Spline On Tractor End	9	112 8998	2	Nylon Bearing
2	082 6634	1	PTO Shaft (Mower Half)	10	082 6629	1	Inner Guard w/Brg. & Retainer
3	082 6633	1	PTO Shaft (Tractor Half w/1 $\frac{3}{8}$ "-6B Spline)	11	002 6629	1	Saf-T-Pin & Spring Kit (For 1 $\frac{3}{8}$ "-6B spline yoke)
	082 6635	1	PTO Shaft (Tractor Half w/1 $\frac{3}{8}$ "-21 Spline)		002 6690	1	Saf-T-Pin & Spring Kit (For 1 $\frac{3}{8}$ "-21 spline yoke)
4	002 6686	1	QD Yoke Ass'y.- 1 $\frac{3}{4}$ "-6B Spline	12	002 6656	1	QD Yoke Ass'y.- 1 $\frac{3}{8}$ "-6B Spline
5	002 6684	1	Saf-T-Pin & Spring Kit		002 6689	1	QD Yoke Ass'y.- 1 $\frac{3}{8}$ "-21 Spline
6	002 6633	2	Universal Joint Repair Kit	13	082 6631	1	Yoke & Shaft
7	082 6632	1	Yoke & Tube	14	082 6630	1	Outer Guard w/Brg. & Retainer

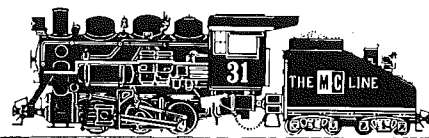
## Input and Output Shaft Guards

Ref.	Part No.	Qty.	Description
1	001 8314	1	Caution Decal
	000 8301	1	Safety Shield Warning Decal
2	081 4653	1	Input Shaft Guard
	000 8145	4	5/8-11 x 1 1/4" Capscrew- Grd. 5
	000 8181	4	5/8" Lockwasher
	000 8299	4	5/8" SAE Flatwasher
3	-----	—	Output Shaft Guard
	081 4785	1	F 5HDCL & F 8HDOL
	081 4786	1	F 7HDCL & F 10HDOL
	081 4787	1	F 8HDCL
	081 4788	1	F 10HDCL
	081 4789	1	F 12HDCL
	081 4784	1	F 7HDOL
	001 8119	2	5/16-18 x 3/4" Capscrew- Grd. 5
	000 8108	2	5/16-18 x 1" Capscrew- Grd. 5
	000 8173	6	5/16" Flatwasher
	000 8222	4	5/16" Lockwasher
	000 8159	4	5/16-18 Hex Nut
4	001 8318	2	Shipping Notice Decal



## Hydraulic Cylinder

Part No.	Qty.	Description
081 0080	1	Hydraulic Cylinder w/two pins (001 8248) and four clips (000 8252)
081 7001	1	Breather Plug
001 8248	2	Clevis Pin - 1" x 3 1/2"
000 8252	4	Hair Pin Clip
082 9018	—	Repair Kit For 081 0080 Hyd. Cyl.



*Iron Horse Quality*