

Read this manual carefully and learn to operate and service your 40" Commercial Mower before using it.

To keep the 40" Commercial Mower in safe condition and operated as directed in this manual.

All references to "right side", "left side", "front", and "back" are given from the operator's position.

Use the serial number to locate parts, or to find service when ordering parts, requesting service or making inquiries.

40" COMMERCIAL MOWER OPERATORS MANUAL



Look for this symbol to point out important safety precautions. Always read the instructions before using. YOUR SAFETY IS INVOLVED.

NOTE

Read this manual carefully and learn to operate and service your 40" Commercial Mower before using it.

To keep the warranty, the 40" Commercial Mower must be maintained and operated as directed in this manual.

All references to "left-side", "right-side", "front", and "back" are given from the operator's position.

Use the serial numbers to ensure prompt and correct service when ordering parts, requesting service or making inquiries.

DRIVE SERIAL NUMBER: _____

DECK SERIAL NUMBER: _____



Look for this symbol to point out important safety precautions. It means -- ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

NOTA

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SECTION 1

Instructions for Safe Operation

Improper use of this equipment can injure people and damage the equipment. People using or servicing this equipment must read and follow the instructions in this manual.

It is important to understand that this manual and any other Gravely instruction manuals do not cover every possible danger. It is impossible for Gravely to know all possible dangers in operating and servicing the equipment.

The purchaser must give these instructions to the people operating and maintaining this equipment. These people must use eye and foot protection.

1.1 Preparation:

1. Read this manual and the tractor manual carefully.
2. Learn the location and function of all controls.
3. Learn how to use the controls to stop the wheels and mower quickly.
4. Use caution with gasoline. Gasoline is very flammable. Keep it in a clean and tight container away from flames or hot items. Never put gasoline in the fuel tank while the engine is running or hot. Clean up spilled gasoline before starting engine.
5. Be certain that all shields, guards, and interlock switches are in the correct positions.
6. Never permit children to operate the mower.
7. Inspect area to be mowed and remove all material which could be thrown by the mower.
8. Before starting the engine, put the PTO control lever in the "OFF" position and the gear shift lever in the neutral "N" position.
9. When hauling the equipment, connect the chassis to the transporting vehicle. Never connect from control levers, rods, or like items that could be damaged.
10. Replace all parts that become damaged or lost.

1.2 Operation:

1. Wear foot and eye protection. Do not wear loose clothing.
2. Do not use the equipment in the dark without adequate lighting.
3. Keep the equipment in good condition. Maintain it as directed in this manual.
4. USE ONLY GRAVELY ACCESSORIES AND ATTACHMENTS.
5. Do not overspeed the engine. Do not override the governor.
6. Keep away from moving parts.
7. Keep people and animals away from the operating area.
8. Do not let people other than the operator near the operating equipment.
9. Use a slow speed and engage the direction control lever slowly when operating on slopes.
10. Look for and keep away from hazards.
11. After hitting an object, stop the equipment and engine. Check for damage. Repair any damage before operating.
12. Look behind when operating in reverse. Look for people and hazards.
13. Operate only from the operator's position, just behind the handlebars.
14. Travel across slopes, not up and down.
15. If there is a sudden change in the sound or vibration of the equipment, stop the engine and check for damage. Repair any damage or failure before continuing operation.
16. Never run the engine indoors except to move it outside. Exhaust fumes are dangerous.
17. Go slowly on slick surfaces.
18. Follow traffic laws when operating on or near a road.
19. Before making adjustments or servicing, move the PTO to "OFF," turn the ignition switch to "OFF," and wait until all moving parts completely stop.
20. Before leaving the operator's position, put the PTO lever in the "OFF" position, turn the ignition key to the "OFF" position. Move the direction control lever to forward position.

SECTION 2

Operating Instructions

- 2.1 Read the tractor Operator's Manual and this Operator's Manual before operating.
- 2.2 After the engine is warm and running smoothly, move the throttle lever to the "SLOW" position.
- 2.3 Put Hi-Lo gear control in the "NEUTRAL" position.
- 2.4 Briskly move the PTO control to the "ON" position.
- 2.5 Move the throttle lever to the fast position.
- 2.6 Move the Hi-Lo gear control to the desired position.
- 2.7 Put the direction control lever in the desired position.
- 2.8 Use the lower gears for rough heavy mowing and until you are familiar with the machine.

SECTION 3

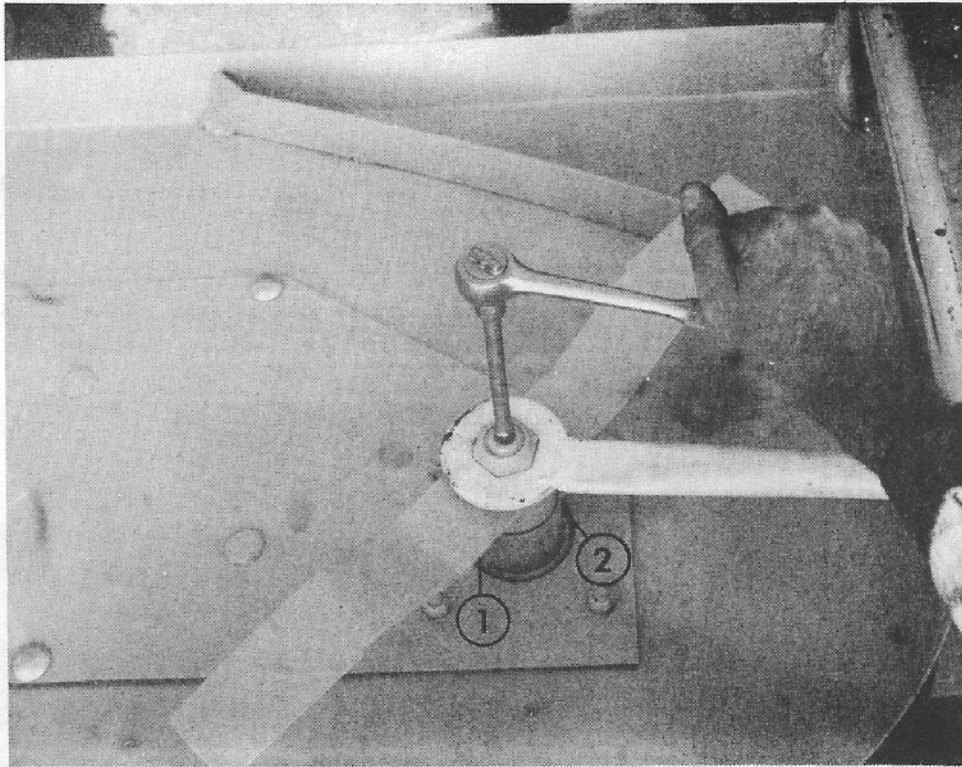
Service Instructions

3.1 Lubrication

1. Every eight hours of operation grease the spindle assemblies. The lube fitting is under the deck. Clean the fitting and apply a multi-purpose grease until it comes out of the grease fitting vent. See Figure 1.
2. Every eight hours of operation grease the gauge wheels and caster fork weldments, clean the lube fittings and apply a multi-purpose grease until it comes out of the bearing.
3. Every 50 hours check the oil level in the gearbox by removing the oil level plug in the left side of the housing (clean before removal). If necessary, add SAE 90 gear oil to bring the oil level up to the oil level plug. If you observe oil on the mower, check the oil level. It may be necessary to make repairs.
4. Every eight hours grease the drive swivel. Clean the lube fitting on the left side of the swivel casting and apply a general purpose grease until it comes out at the bottom of the swivel casting. See Figure 2.

3.2 Adjustments

1. Mower Swivel - adjust the swivel bolt just loose enough so that the mower will follow the contour of the ground.
2. After the mower is mounted to the tractor, level the mower by arranging the spacers on the caster wheel forks.
3. Blade Removal/Installation - remove the mower and turn upside down. Hold the spindle with a 3/8" socket drive and remove the nut with a Gravelly wrench (part number 15367E1) or equivalent. Reverse the procedure for installation. See Figure 1. Hold the spindle with a 3/8" socket drive. Tighten the nut to a torque of 100 ft.-lb. Use of the nut on top of the spindle to hold the spindle will misadjust the bearings. This will result in bearing failure.
4. Cutting Height - arrange the collars above and below the spindle to adjust the cutting height. Adjust both blades alike.



1 - Grease Fitting Vent
 2 - Grease Fitting
 FIGURE 1

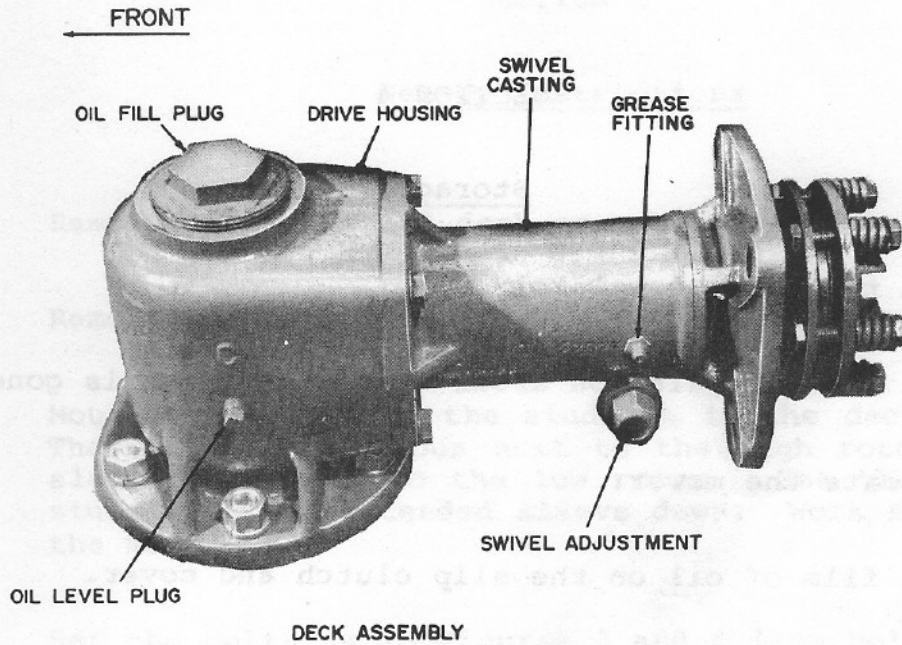


FIGURE 2

5. Belt Removal/Installation - remove the belt covers. Unhook one end of each spring. Remove the drive. Remove the belts. Reverse the procedure to install the belts.
6. Slip Clutch - tighten all six clamping bolts uniformly until the springs are collapsed. Back off 1/2 turn and lock the jam nuts.

3.3 Installation

1. Park the tractor on a level area. Stop the engine and put the PTO control in the "OFF" position. Lower the engine stand and remove any attachment.
2. On 5000 Series tractors, remove the quick hitch adaptor.
3. Put a film of grease on the drive gasket and stick in place on the drive aligning the holes. Move the drive into place in the advance casting of the tractor and secure with four 1/2" bolts, 1-1/2" long. Raise and secure the engine stand.

SECTION 4

Storage

- 4.1 Clean the mower completely.
- 4.2 Put a coat of paint on areas where the paint is gone.
- 4.3 Lubricate the mower.
- 4.4 Put a film of oil on the slip clutch and cover.

SECTION 5

Solving Problems

5.1 Problem Solving Chart

1. Mower slow in heavy cutting without loading engine.	Slip clutch not adjusted or damaged Loose or damaged belts
2. Belt(s) squeal and smoke.	Spindle(s) damaged Blade(s) blocked Spindle(s) bearing adjusted too tight
3. Engine loads when mower is engaged.	Damaged drive Damaged spindle(s) Blocked blade(s)
4. Mower does not cut evenly on successive passes.	Swivel too tight Skids worn Caster fork spacers not adjusted evenly

SECTION 6

Set-Up Instructions

- 6.1 Remove the drive and deck assembly from the cartons.
- 6.2 Remove the belt covers.
- 6.3 Mount the idlers on the studs as in the deck illustration. The short sleeve goes next to the high rotor and the tall sleeve goes next to the low rotor. Set the idlers on the studs with the extended sleeve down. Work from the rear of the mower.
- 6.4 Set the belts as in Figures 3 and 4 (low belt first). This belt positioning is important for ease of assembly.

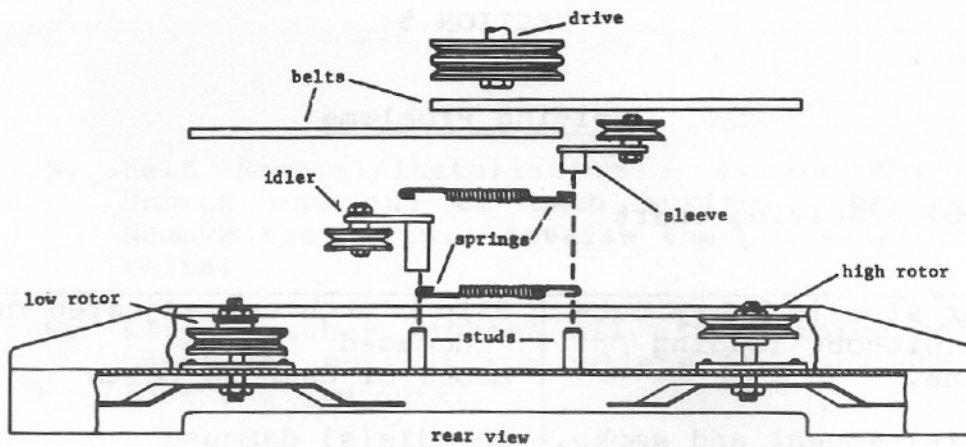


FIGURE 3

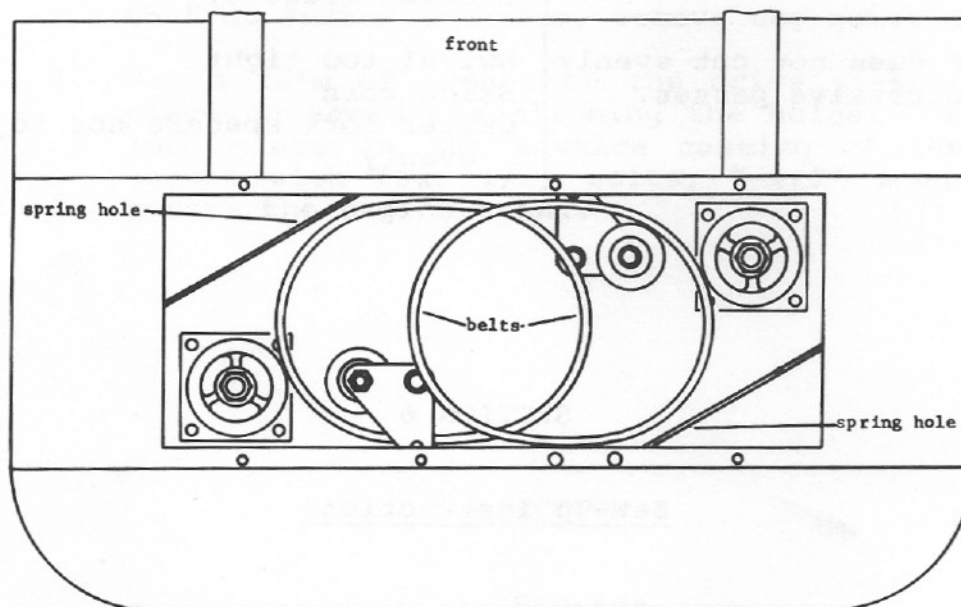


FIGURE 4

- 6.5 Hook the springs to the idler assembly from underneath. See Figures 3 and 5 and deck illustration.
- 6.6 Set the drive in position on the deck. Do not bolt it down. Slip the belts on the drive pulley and then on the rotor (spindle) pulleys. Let the idlers float at this time. See solid lines in Figure 5.
- 6.7 Bolt the drive to the deck. The two carriage bolts are inserted from under the deck. See deck illustration. Be sure that the heads seat properly in the deck. The three hex bolts are inserted from the top. Start all bolts before tightening.

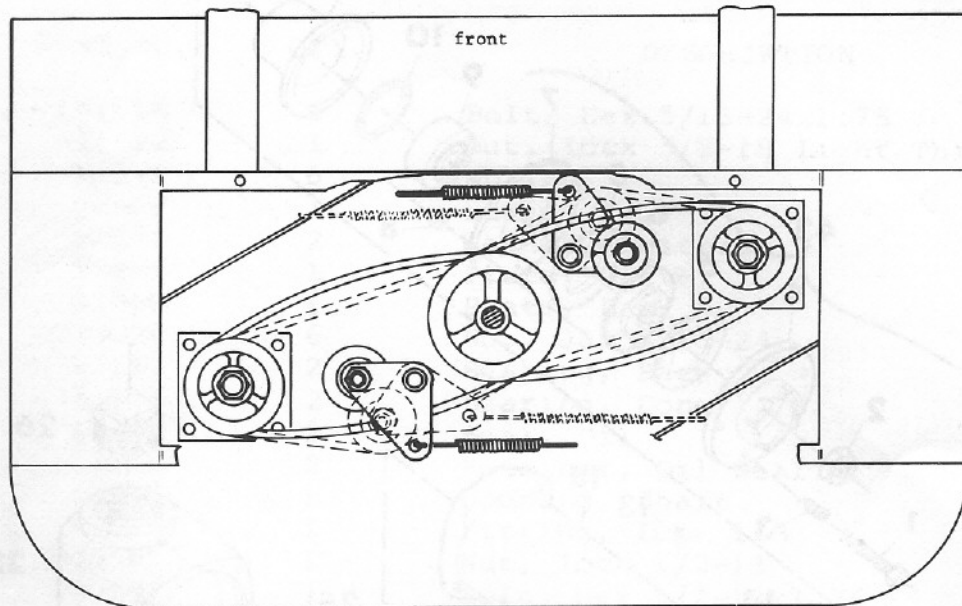
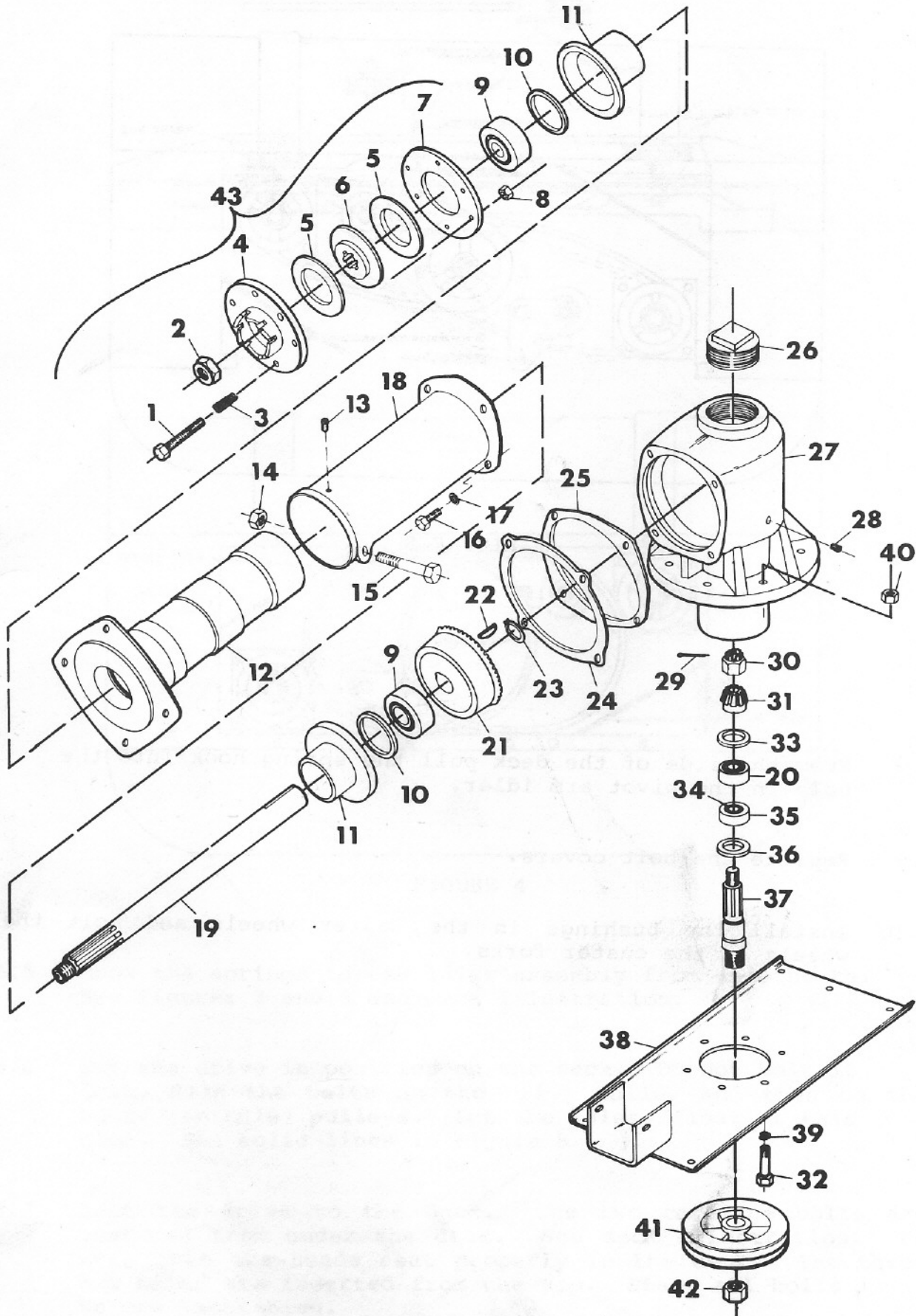


FIGURE 5

- 6.8 From the side of the deck pull the spring hook into the hole in the pivot arm idler.
- 6.9 Replace the belt covers.
- 6.10 Install the bushings in the caster wheels and bolt the wheels in the caster forks.

SECTION 7
Illustrated Parts and Parts List

MOWER DRIVE



MOWER DRIVE

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	181618	6	Bolt, Hex 5/16-24x1.75
2	13412	1	Nut, Lock 5/8-18 Light Thin
3	12871	6	Spring
4	12867	1	Plate, Dog
5	12870	2	Washer, Friction
6	12869	1	Plate, Drive
7	12868	1	Plate, Back
8	124920	6	Nut, Jam 5/16-24
9	13143	2	Bearing, Race
	13144	2	Bearing, Cone
10	13122	2	Seal, Oil
11	12550	2	Retainer, Oil Seal
12	11815	1	Housing, Shaft
13	411010	1	Fitting, Lube 1/8
14	435507	1	Nut, Lock 1/2-13
15	180193	1	Bolt, Hex 1/2-13x3.75
16	180122	4	Bolt, Hex 3/8-16x1.00
17	120382	4	Washer, Lock 3/8
18	12023	1	Casting, Swivel
19	12566	1	Shaft, Drive
20	13145	1	Bearing, Roller Race
	13146	1	Bearing, Roller Cone
21	12862	1	Gear, Bevel
22	120502	1	Key, Woodruff .187x.875 Hard #11
23	13187	1	Ring, Retaining
24	14101	1	Shim, Gear .020
	12490	1	Shim, Gear Housing .005
25	12491	1	Gasket
26	10499	1	Plug, Pipe 2 in. 2/3 Filler Plug
27	9236	1	Housing, 42 in. Mower Gear
28	103877	1	Plug, Pipe 1/8 in.
29	119120	1	Pin, Cotter .094x1.25
30	125384	1	Nut, Slotted 5/8-18
31	12850	1	Gear, Bevel
32	9229	6	Bolt, Hex Special
33	12852	1	Shim, Gear
	13646	1	Shim, Gear .010
34	13142	1	Bearing, Roller Cone
35	13139	1	Bearing, Roller Race
36	13171	1	Seal, Oil (Dual Lip)
37	11363	1	Shaft, Drive Rotor
38	11366	1	Plate, Mounting Weldment
39	120384	6	Washer, Lock 1/2
40	120238	6	Nut, Jam 1/2-13
41	11364	1	Sheave, 1/2x6 Double Groove
42	11365	1	Nut, Special
43	10102	1	Assembly, Clutch Attachment

MOWER DECK

Spindle Assm.

RH - 46126

→ LH - 46127

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	38166	1	Weldment, Deck
2	180126	2	Bolt, Hex 3/8-16x1.50
3	9231	2	Idler
4	11379	1	Weldment, Arm Idler Pivot
5	11382	1	Idler, Pivot Arm
6	456004	10	Nut, Lock 3/8-16
7	11263	2	Spring
8	9200	2	Housing, Spindle Bearing Weldment
9	9246	4	Cone, Roller Bearing
10	9245	4	Cup, Roller Bearing
11	9206	4	Seal, Oil
12	9204	2	Ring, Seal
13	9207	2	Pulley, Rotor
14	131001	4	Washer, Flat .969x2.250x.165
15	17313	4	Nut, Lock 7/8-9
16	9203	2	Shaft, Rotor
17	9213	2	Key, Square .25x1
18	9205	2	Shield, Dust
19	11385	2	Weldment, Caster Fork
20	11387	2	Bushing
21	9209	12	Collar, Blade Spacer (.25 Inch)
22	9212	2	Blade, Mower
23	102581	2	Screw, Set 5/16-18x.38
24	411027	4	Fitting, Lube 1/4-28
25	120915	8	Bolt, 3/8-16x1.00 Rd Hd Sq Nk
26	435507	2	Nut, Lock 1/2-13
27	11384	2	Cover, Belt
28	428638	4	Bolt, Hex 3/8-16x.62
29	120382	10	Washer, Lock 3/8
30	120394	4	Washer, Flat .406x.812x.065
31	9240	2	Belt, Drive
32	9223	2	Skid
33	181596	4	Bolt, Hex 5/16-24x.875
34	120214	4	Washer, Lock 5/16
35	120393	4	Washer, Flat .344x.81x.065
36	11376	1	Support, Deck Weldment
37	33927	2	Decal, Danger Foot
38	11375	2	Bearing, Bronze
39	180193	2	Bolt, Hex 1/2-13x3.75
40	180122	6	Bolt, Hex 3/8-16x1.00
41	120897	2	Bolt, 1/2-13x3.00 Rd Hd Sq Nk
42	120384	2	Washer, Lock 1/2
43	120378	2	Nut, Hex 1/2-13
44	11386	2	Wheel, Caster
45	137204	2	Pin, Cotter .125x1.50
46	131017	22	Washer, Flat .812x1.496x.134

SECTION 8

Specifications

Weight:	182 lbs. (82.6 kg)
Width:	42.0 in. (1067mm)
Height:	15.5 in. (394mm)
Length:	34.75 in. (883mm)
Width of Cut:	40 inches (1016mm)
Heights of Cut:	1.50 inches (44.4mm) to 3.75 inches (95.2mm)

SECTION 9

GRAVELY LIMITED WARRANTY

This Limited Warranty is issued by Gravelly International, Inc., and consists of the following terms:

1. Only the original purchaser of new Gravelly equipment is covered by this Warranty.
2. This Warranty covers repair or replacement of parts manufactured by Gravelly which are defective in material or workmanship. Gravelly will pay for parts and labor only.
3. The Warranty starts the date of purchase and lasts for TWELVE (12) MONTHS.
4. Some components of Gravelly equipment are not covered by the Gravelly Warranty. These components are covered by the original manufacturer's warranty, which is included with the product. They are:
 - a. Engines
 - b. Tires
5. To obtain warranty service on Gravelly equipment including components not manufactured by Gravelly, use this procedure:
 - a. Notify the Gravelly dealer from whom you purchased the equipment.
 - b. If you have moved and it is not convenient to notify the selling dealer, notify the nearest Gravelly dealer. You should supply this dealer with a copy of the bill of sale as proof of the date of purchase.
 - c. Make arrangements to have the equipment delivered to the dealer (refer to paragraph 6(a) below).
 - d. If you have any questions concerning the Gravelly Limited Warranty, they should be referred to:

Gravelly International, Inc.
One Gravelly Lane
Clemmons, NC 27012

Attn: Manager of Customer Services
 - e. Warranty service on Gravelly equipment must be performed by an authorized Gravelly dealer or Gravelly factory branch.
6. This Warranty does not cover the following:
 - a. Transportation between owner's home or place of business and the dealership. If the dealer provides the transportation of the equipment, he will charge the owner his usual rate for such service.
 - b. Normal maintenance services and normal replacement of items such as spark plugs, belts, oil, oil filters, air filters, and mower, plow or cultivator blades.
 - c. Alterations or Modifications - All obligations under this warranty shall be terminated if the equipment is altered or modified in any way.
 - d. Customer Neglect or Lack of Proper Maintenance - The purchaser is responsible for making sure that the tractor is operated and serviced as directed in the operator's manual. Incorrect use or maintenance will void the warranty.
7. GRAVELLY MAKES NO OTHER EXPRESS WARRANTIES. ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE PERIOD SET OUT IN PARAGRAPH 3 ABOVE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE STATEMENT MAY NOT APPLY TO YOU.
8. GRAVELLY SHALL HAVE NO RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE BREACH OF ANY WARRANTY, INCLUDING, BUT NOT LIMITED TO, INCONVENIENCE, RENTAL OR PURCHASE OF REPLACEMENT EQUIPMENT, LOSS OF PROFITS OR COMMERCIAL LOSS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.
9. This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.
10. A Gravelly product registration card is supplied with each Gravelly product. Please complete the card and return it to Gravelly at the address listed on the card. The equipment registration card will be used by Gravelly for:
 - a. Recording date of purchase.
 - b. Notification of owners in compliance with the Consumer Product Safety Act, should any notification be necessary.

The return of registration card is not required in order to take advantages of this Warranty.
11. This Warranty is not subject to change or modification by anyone, including Gravelly dealers and no Gravelly dealer is authorized to make any representations or promises on Gravelly's behalf.

 **GRAVELLY**