



**40" PRO MOWER  
OPERATOR'S MANUAL**

## NOTE

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

To keep the warranty, the 40" Pro 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.

SERIAL NUMBER: 00611117



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

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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 Power Unit 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 shield, guards, and interlock switches are in the correct positions.
6. Never permit children to operate the equipment.
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.
11. Check the operation of the operator presence controls before operating the mower.


## 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 shift 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 lever 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 and turn the ignition key to the "OFF" position. Move the shift control to the first gear position. Wait until all moving parts have stopped.


## SECTION 2

### OPERATING INSTRUCTIONS

Read this manual and the Power Unit manual carefully before operating the equipment.

 **WARNING:** When the engine is running and the transmission is in gear, releasing only one steering lever will cause the unit to circle around one drive wheel.

- 2.1 Transport the equipment to the area to be mowed.
- 2.2 Inspect the area to be mowed and remove all material which could be thrown by the mower.
- 2.3 Plan the pattern for cutting the grass. Generally an area is mowed around the periphery towards the center by discharging the grass toward the center on the first pass. The remainder of the mowing is done discharging the grass outward in the area which has been cut.
- 2.4 See Section 7 for the schedule of heights of cut. Set the mower for the height of cut desired.
- 2.5 One of the operator presence control levers has to be depressed so that the power take off (PTO) or traction drive can be operated. See Figure 1.

 **CAUTION:** The operator presence control is to protect the operator from the moving blades of the mower and the powered moving of the Pro. Operate the equipment only when the operator presence control is in working condition.

- 2.6 See the Power Unit manual for correct operation of the PTO. Start the engine and put the PTO control in the "ON" position. Move the throttle control to the "FAST" position.
- 2.7 Keep the PTO lever in the "OFF" position when not mowing. Review Section 1 for other safety instructions.
- 2.8 To mow with the 40" Pro Mower, move the shift lever to the neutral "N" position. Slow engine down to about half speed. Then move the PTO lever to the "ON" position to engage the mower. Move the throttle to between 3/4 to full speed, depending on mowing conditions. Move the shift lever to one of the numbered slots. See Diagrams 1 and 2.
- 2.9 To disengage the mower, move the PTO lever to the "OFF" position. See Diagram 2.
- 2.10 When you know how to operate the Pro, select a gear appropriate to your mowing conditions. See Diagram 1.

2.11 To stop the Pro:

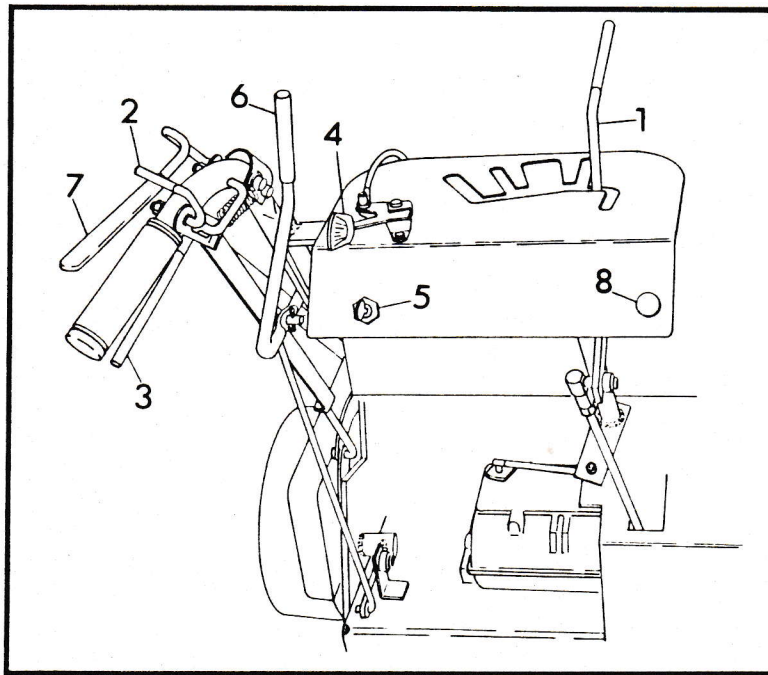
Move the shift lever to the neutral "N" position. Move the throttle-choke lever to the "SLOW" position and turn the ignition key to the "OFF" position.

Or stop the Pro as follows:

Pull up both steering levers. Next, hold up both steering levers while you lock the right hand steering lever latch. Then continue to hold up the left hand steering lever while you use your right hand to move the gear selector lever to the neutral "N" position.

Move the throttle-choke lever to the "SLOW" position and turn the ignition key to the "OFF" position. Finally, unlock the right hand steering lever latch.

**! WARNING:** When the engine is running and the transmission is in gear, releasing only one steering lever will cause the Pro to circle around one drive wheel.



- |                          |  |
|--------------------------|--|
| 1 - Shift Lever          | 5 - Ignition Switch                    |
| 2 - Steering Lever Latch | 6 - PTO Lever                          |
| 3 - Steering Lever       | 7 - Presence Control Lever             |
| 4 - Throttle-Choke Lever | 8 - Choke Control (16 & 18 H.P. Units) |

FIGURE 1

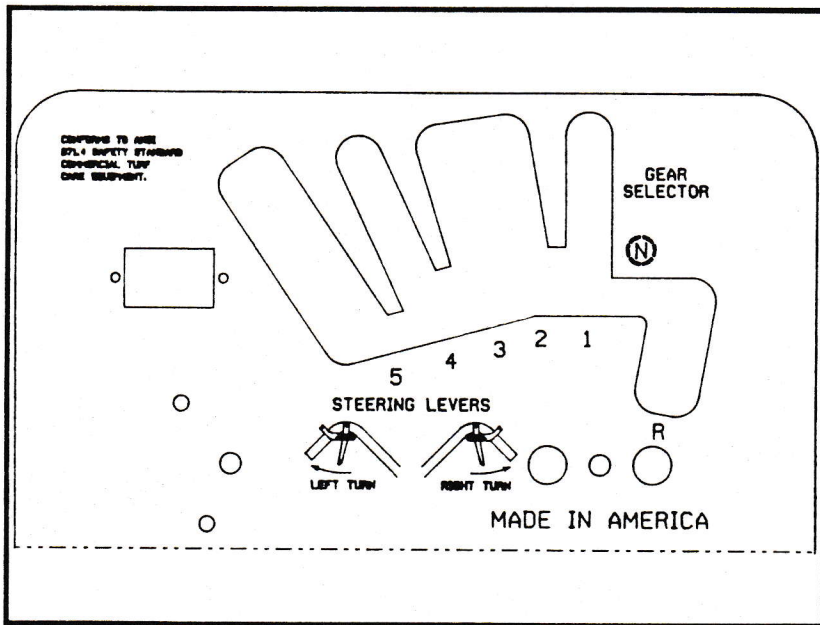


DIAGRAM 1

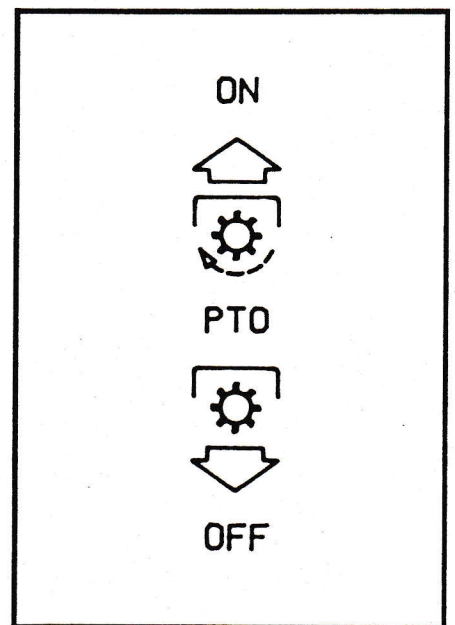


DIAGRAM 2



## SECTION 3

### SERVICE INSTRUCTIONS

Correct maintenance can increase the life of the Pro equipment. Perform the maintenance described in Section 4 of the Pro Power Unit operator's manual.

#### **3.1 Lubrication:**

See Figure 2. Every eight hours of operation apply multi-purpose grease to the lube fittings on:

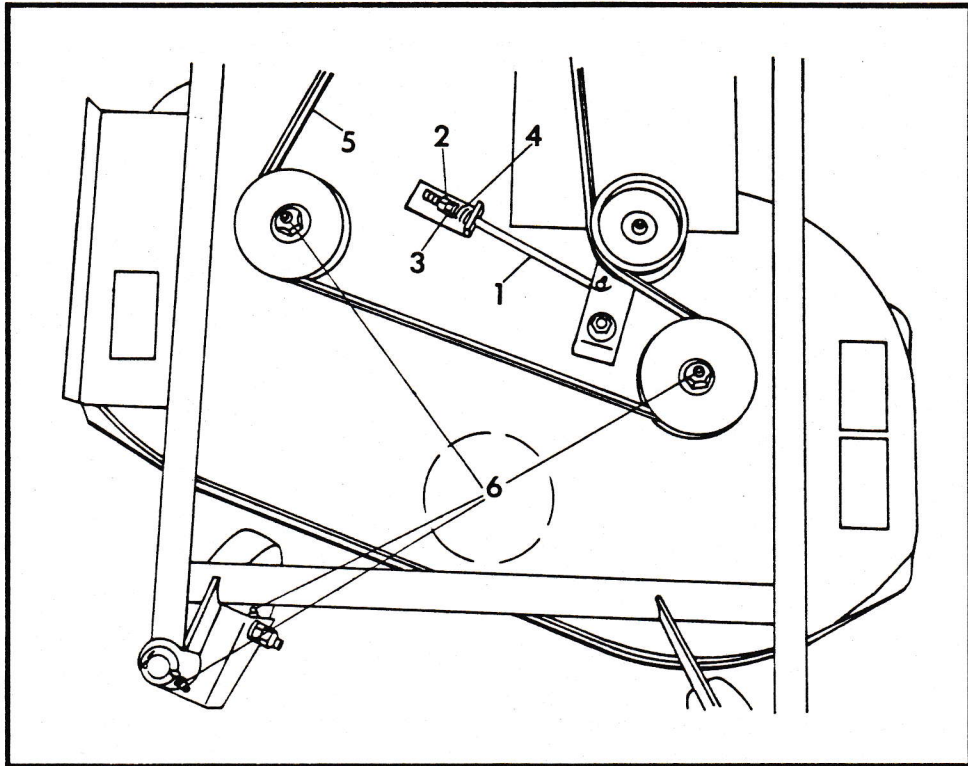
- Each spindle (2)
- Each gauge wheel (2)
- Each caster fork (2)

#### **3.2 To Sharpen the Mower Blades:**

1. Turn the engine off. Remove the ignition key. Remove the ignition wire from the spark plug.
2. Remove the lock nuts, the flat washers, and the blades from the spindle shafts.
3. Sharpen the beveled edges of the blades. Do not change the angle of the beveled edge. If more than 0.5 inches (12.7mm) are removed from the width of a blade, discard the blade. Make sure the sharpened blades are balanced.
4. Put the blades, the washers, and the lock nuts back on the spindle shafts.
5. Tighten the lock nuts to a torque of 120 ft.lbs. (163 N.m).
6. Put the ignition wire back on the spark plug.

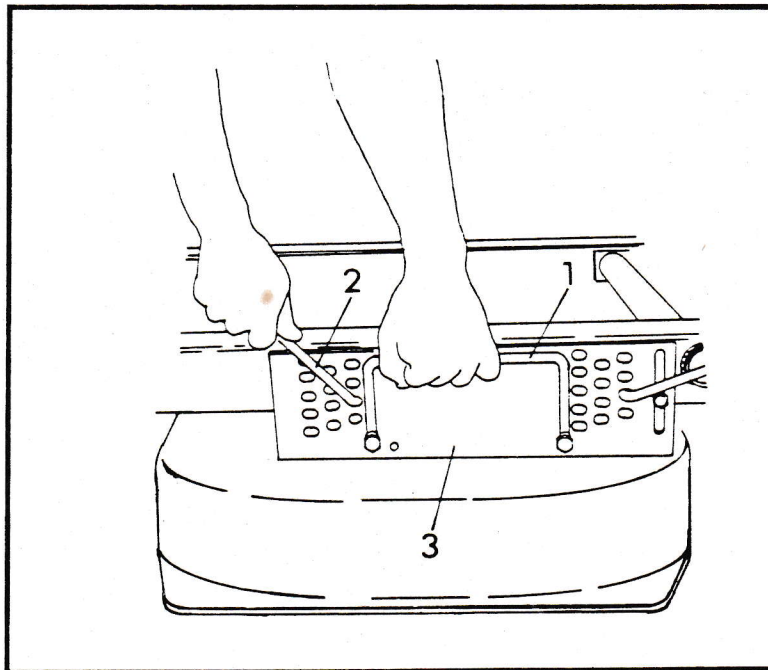
#### **3.3 Height of Cut Adjustment:**

1. Raise the mower by pulling up on the handle until the two mower locking pins can be removed. See Figure 3.
2. Adjust mower to the desired height and reinsert the mower locking pins, being sure to lock them behind the handle.
3. Now adjust the other side to match.



- 1 - Idler Rod
- 2 - Jam Nut
- 3 - Adjusting Nut
- 4 - Spring
- 5 - Mower Belt
- 6 - Lubrication Fitting

FIGURE 2



- 1 - Handle
- 2 - Mower Locking Pin
- 3 - Mower Support Bracket

FIGURE 3

### **3.4 Belt Adjustment:**

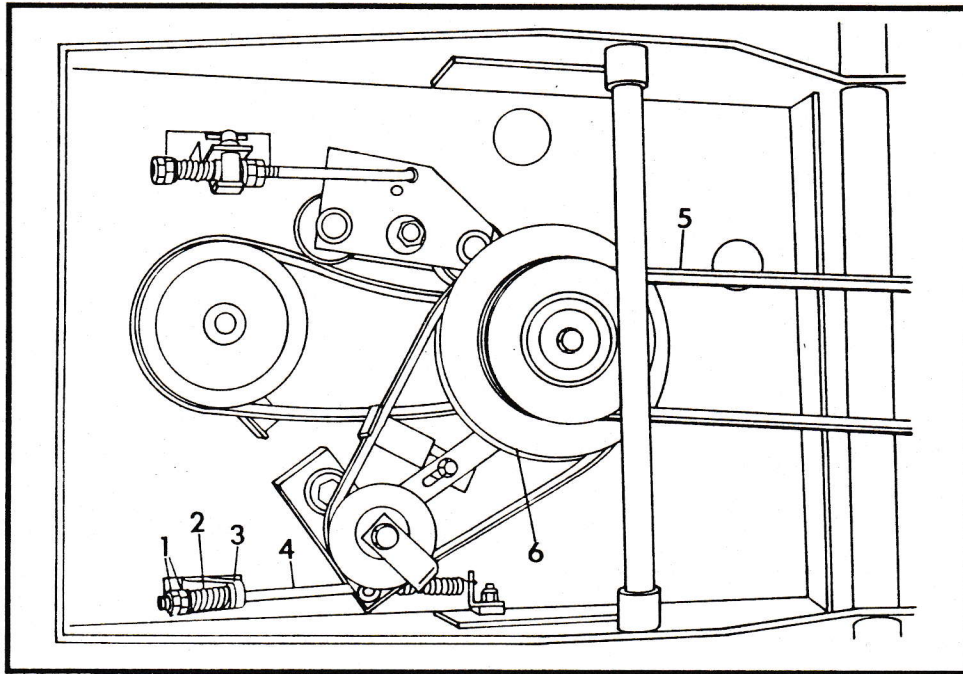
Check the mower belt after the first 8 hours of operation for proper tension. Thereafter, check the mower belt for proper tension every 25 hours of operation or when a change is made in the height of cut.

To tighten the mower belts:

1. Stop the engine. Remove the ignition key.
2. Remove belt guard from support frame.
3. Loosen the jam nut on the idler rod. See Figure 2.
4. Turn the adjusting nut on the idler rod until the gap between the coils of the spring is .010" to .015" (.25mm to .38mm).
5. Hold the adjusting nut and lock the jam nut against it.
6. Replace the belt guard.

### **3.5 Belt Replacement:**

1. Stop the engine. Remove the ignition key.
2. Remove the belt guard from the support frame.
3. Loosen the two nuts on the idler rod enough to remove the old belt.
4. Arrange the new mower belt on the mower clutch sheave, one of the spindle sheaves and the idler pulley. Roll the belt around the other spindle sheave. See Figures 2 and 4.
5. To tighten the mower belt, turn the adjusting nut on the idler rod until the gap between the coils of the spring is .010" to .015" (.25mm to .38mm). When the belt is tight, hold the adjusting nut and lock the jam nut against it.
6. Put the belt guard back on the support frame.



- 1 - Jam Nuts
- 2 - Spring
- 3 - PTO Clutch Actuating Arm
- 4 - PTO Clutch Actuating Rod
- 5 - Mower Belt
- 6 - Mower Clutch Sheave

FIGURE 4

### 3.6 Checking the Fasteners:

Each day before operating, check all nuts, bolts, and other fasteners. Replace fasteners that are missing or damaged. Tighten all nuts and bolts to the torque shown in Chart 1 unless shown differently.

BOLT TORQUE SPECIFICATIONS		
BOLT SIZE	FOOT POUNDS (ft.lbs.)	NEWTON METERS (N.m)
1/4"	7	9.5
5/16"	14	19
3/8"	25	34
7/16"	40	54
1/2"	60	82
9/16"	83	113
5/8"	120	163
3/4"	200	217

CHART 1

## SECTION 4


### STORAGE

#### 4.1 To Store the Pro:

1. Do the maintenance described in Section 3 of this manual and Section 4 of the Pro Power Unit operator's manual.
2. Clean the unit thoroughly.


NOTE: Do not use harsh or abrasive cleaners on any painted surface. Do not allow gasoline or oil to remain on any silk-screened surface.

3. Put paint or lubricant wherever paint has been removed.
4. See your engine manual for engine storage instructions.

 **WARNING:** Fuel is very flammable. Make sure the muffler and other engine parts are cool before removing the fuel from the fuel tank. Clean up spills immediately.

#### 4.2 To Take the Pro Out of Storage:

1. Put fresh, clean fuel in the fuel tank.

 **WARNING:** Fuel is very flammable. Clean any spilled fuel before starting the engine.

2. Begin the maintenance schedule specified in Section 3 of this manual and Section 4 of the Pro Power Unit operator's manual.

## **SECTION 5**

### **PROBLEM SOLVING**

#### **5.1 If the 40" Pro Mower will not mow when the engine is running, do the following:**

1. Stop the engine. Remove the ignition key.
2. See if the PTO clutch belt or the mower belt is broken or off the pulleys. If necessary, install or replace the belt. See Section 3 in this manual and Section 4 in the Pro Power Units Operator's Manual.
3. See if the PTO clutch is adjusted correctly. See Section 4 in the Pro Power Units Operator's Manual.

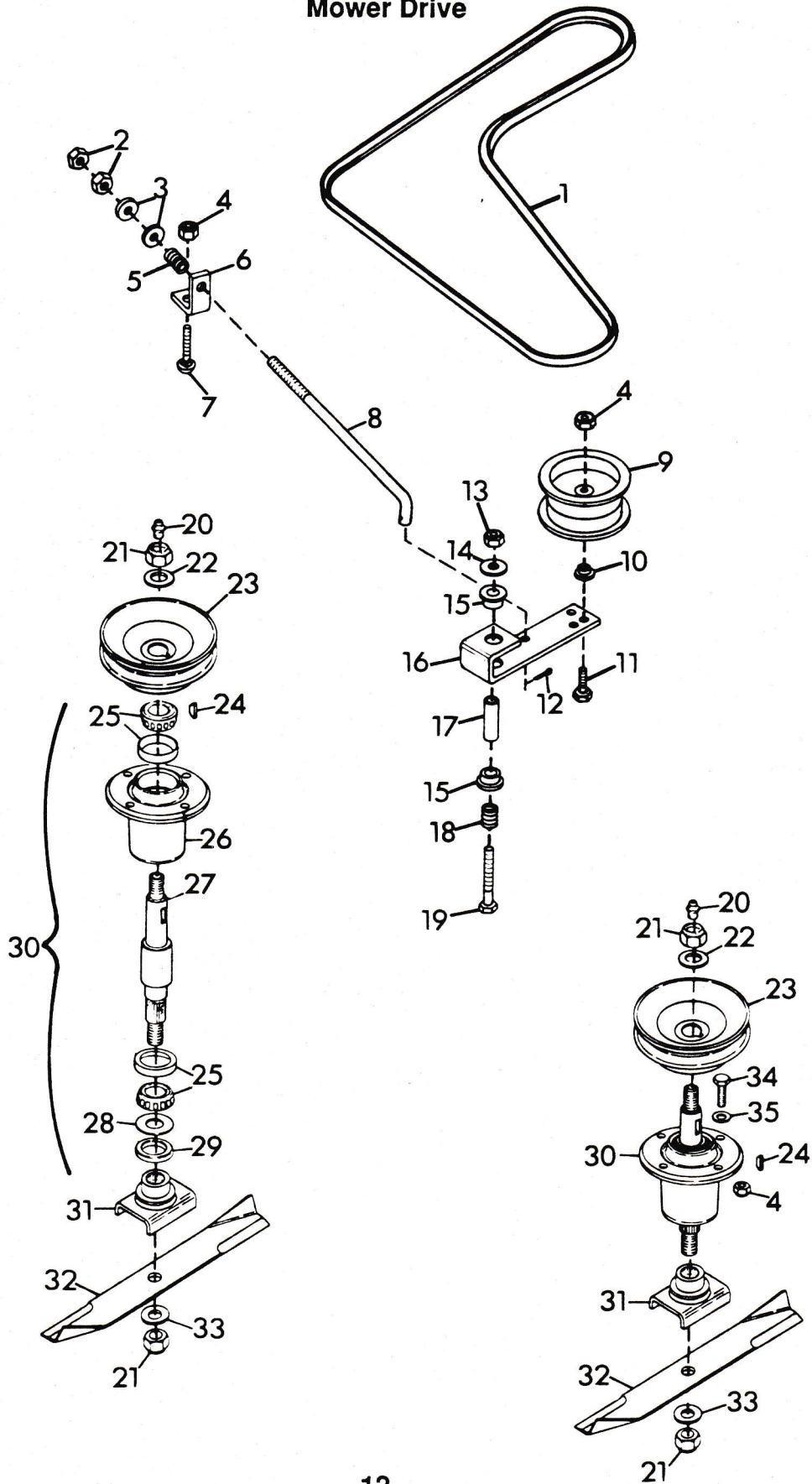
#### **5.2 If there are changes in the sound or vibrations of the 40" Pro Mower, do the following:**

1. Stop the engine. Remove the ignition key. Remove the ignition wire from the spark plug.
2. Check the mower blades. If either is damaged, replace that blade.
3. See that the fasteners holding the blades are tightened correctly to a torque of 120 ft.lbs.(163 Nm).
4. Check all fasteners on the Pro equipment. See Section 3.

SECTION 6

ILLUSTRATED PARTS AND PARTS LISTS

Mower Drive

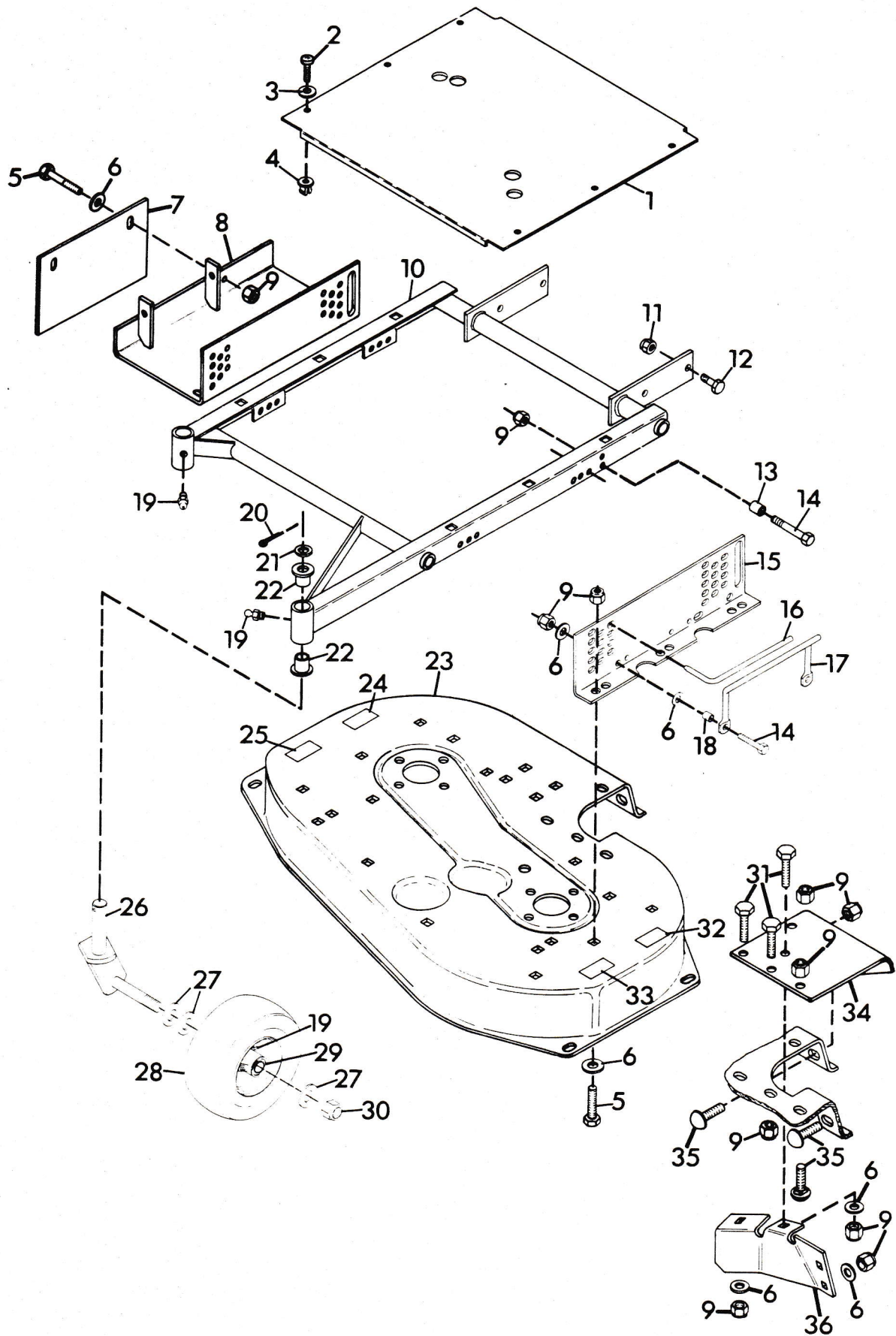


### Mower Drive

ITEM NO.	PART NO.	QTY.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	43318	1	Belt, Pro-40 Mower	19	180191	1	Bolt, Hex 1/2-13x3.25
2	120369	2	Nut, Hex 3/8-24	20	411010	2	Fitting, Lube 1/8
3	120394	2	Washer, Flat .406x.812x.065	21	418692	4	Nut, Lock 5/8-11
4	456004	10	Nut, Lock 3/8-16	22	33845	2	Washer, Flat .687x1.312x.122
5	11779	1	Spring, Comp. 1x.78x338 Lb/N	23	34282	2	Sheave, Spindle
6	34287	1	Bracket, Belt Tensioner	24	124553	2	Key, Woodruff 1/4x1 Hard
7	120915	1	Bolt, 3/8-16x1.00 Rd Hd Sq Nk	25	38199	2	Assembly, Bearing
8	21111	1	Rod, Idler	26	21215	1	Housing, Bearing
9	34286	1	Pulley, Idler	27	34603	1	Shaft, Spindle
10	24815	1	Bushing	28	20743	1	Washer, Flat .975x1.970x.030
11	180132	1	Bolt, Hex 3/8-16x2.25	29	21211	1	Seal, Steel
12	121222	1	Pin, Cotter .09x.75	30	34605	2	Assembly, Spindle
13	414074	1	Nut, Lock 1/2-13	31	23026	2	Weidment, Blade Cradle
14	415543	1	Washer, Flat .531x1.250x.100	32	25124	2	Blade
15	10174	2	Bushing, Nylon .76x1.00x.600 Flg.	33	131016	2	Washer, Flat .656x1.312x.095
16	34120	1	Arm, Idler Pivot	34	180124	8	Bolt, Hex 3/8-16x1.25
17	34119	1	Spacer	35	120388	8	Washer, Flat .438x1.000x.083
18	20444	1	Spring, Comp. 1x.80x36 Lb/N				



# Mower Frame



## Mower Frame

ITEM NO.	PART NO.	QTY.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	45016	1	Cover, Silkscreen 40" Mower	20	103409	2	Pin, Cotter .187x1.50
2	167260	6	Screw, Tapping 1/4-20x.625 P/Hd	21	19340	2	Race, Bearing Thrust
3	120392	6	Washer, Flat .281x.625x.065	22	18355	4	Bushing, Pivot
4	11777	6	Grommet, Plastic	23	34854	1	Deck, 40" Mower
5	180122	8	Bolt, Hex 3/8-16x1.00	24	35127	1	Decal, Caution
6	120394	21	Washer, Flat .406x.812x.065	25	33927	1	Decal, Danger Foot
7	35029	1	Plate, Discharge Cover	26	44680	2	Weldment, Caster Fork
8	44688	1	Weldment, Mower Support Brkt.	27	131017	6	Washer, Flat .812x1.496x.134
9	456004	22	Nut, Lock 3/8-16	28	45205	2	Wheel, Gauge
10	41731	1	Weldment, Mower Frame	29	37823	2	Bearing, Gauge Wheel
11	418692	4	Nut, Lock 5/8-11	30	456007	2	Nut, Lock 3/4-10
12	271547	4	Bolt, Hex 5/8-11x1.50	31	180124	4	Bolt, Hex 3/8-16x1.25
13	21076	2	Bushing .391x.622x.670	32	33928	1	Decal, Warning Eye
14	180126	6	Bolt, Hex 3/8-16x1.50	33	33926	1	Decal, Danger Hand
15	44480	1	Bracket, Mower Side Support R.H.	34	25123	1	Shield, Discharge
16	38514	4	Pin, Mower Locking	35	120915	4	Bolt, 3/8-16x1.00 Rd Hd Sq Nk
17	44507	1	Handle	36	25122	1	Shroud, Blade
18	43922	1	Bushing	NS	43003	1	Decal, Gravely Logo
19	411027	3	Fitting, Lube 1/4-28	NS	44530	1	Decal, Pro-40



Tires:	Size Pressure Description	9x3.50-4 35-40 PSI (241-276 KN/m <sup>2</sup> ) pneumatic with 3/4 in. (19mm) ball bearings and grease fittings.
Weight:		184 lbs. (83.5 kg)
Length:		46.5 in. (1181mm)
Width:		42 in. (1066.8mm)
Height:		13.5 in. (343mm)

## **SECTION 8**

### **SET-UP INSTRUCTIONS**

- 8.1 Remove the 40" Pro Mower from the shipping container.
- 8.2 Remove the belt cover.
- 8.3 Attach the mower to the Pro Power Unit with the four 5/8" bolts and nuts provided in the hardware pack.
- 8.4 Position the mower drive belt on the mower deck and around the drive sheave on the Pro Power Unit. See Figures 2 and 4.
- 8.5 Tighten the mower belt by adjusting the nut on the idler rod until the gap between the coils of the spring is .010" to .015" (.25mm to .38mm). Hold the adjusting nut and lock the jam nut against it.
- 8.6 Replace the belt cover.

## SECTION 9

### LIMITED FIVE-YEAR WARRANTY

1. This Limited Five-Year Warranty is issued by Gravelly International, Inc., only to the original purchaser. If Gravelly equipment is leased by Gravelly, this Warranty shall extend also to the original lessee as if such lessee were the original purchaser.
2. Gravelly warrants that all new equipment manufactured by Gravelly ("Gravelly Products") shall be free of defects in material and workmanship for the term described in paragraph 4, below. Except as hereinafter provided, this Warranty does not cover any engine, tires or battery forming a part of the Gravelly Product. Engine and tires are covered by and subject to separate warranties of the manufacturers thereof.
3. In the event that any Gravelly Product warranted hereunder shall be defective or fail to conform with this Warranty, Gravelly shall, subject to the provisions hereof, pay for, or provide labor and materials for, the repair or replacement of such defective Gravelly Product.
4. This Warranty is for five years (60 months) from purchase date for Gravelly Products used exclusively for personal, family or household purposes, and two years (24 months) for products used for other purposes (commercial use), excluding rental firms. Gravelly products used for rental purposes will be warranted for 90 days. Repair of Gravelly Products after the second year (24 months from date of purchase) shall be subject to a \$50.00 deductible for each repair. (After two years, Gravelly agrees to repair or replace defective Gravelly Products used exclusively for personal, family or household purposes only to the extent that the cost of such warranty covered repair or replacement exceeds \$50.00.)

Batteries are warranted by Gravelly for a period of twelve (12) months only. If a battery shall fail within twelve (12) months of purchase, the replacement cost thereof shall be prorated over a twelve-month term based upon the number of months since purchase.
5. To obtain Warranty Service on a Gravelly Product (including any battery or other component 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: Customer Service Department
  - e. Warranty Service on Gravelly Products must be performed by an authorized Gravelly dealer.
6. This Warranty does not cover the following:
  - a. Transportation to the Gravelly dealership. (If the Gravelly dealer provides transportation, he will charge 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, gauge wheels, skids and other wear items.
  - c. Any Gravelly Product which has been altered or modified in any way.
  - d. Any repair or replacement occasioned by customer neglect or lack of proper maintenance. (The purchaser is responsible for making sure that Gravelly Products are operated and serviced as directed in the applicable manual or service instruction. Incorrect use or maintenance will void this Warranty.)
  - e. Any repair occasioned by the use of any attachment not approved by Gravelly. (The use of any such unapproved attachment will void this Warranty.)
7. GRAVELLY MAKES NO OTHER EXPRESSED OR IMPLIED WARRANTIES, OR WARRANTIES AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL WARRANTIES ARE LIMITED IN DURATION TO THE TERMS SET OUT IN PARAGRAPH 4, ABOVE. GRAVELLY SHALL HAVE NO LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE BREACH OF ANY WARRANTY, INCLUDING, BUT NOT LIMITED TO, LIABILITY FOR INCONVENIENCE, RENTAL OR PURCHASE OF REPLACEMENT EQUIPMENT, OR FOR LOSS OF PROFITS OR OTHER COMMERCIAL LOSS.
8. Some states do not allow limitations on how long an implied warranty lasts, so the above statement may not apply to you. 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 such card is necessary for your warranty to be effective.
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**

One Gravelly Lane, Clemmons, NC 27012