

# 8000 SERIES TRACTOR **OPERATORS MANUAL**

PART NO: 34686, 34687, 34688, 34689, FORM NO: 34827 (8-82)

34690, 38303, 38304

PRINTED IN USA

#### NOTE

Read this manual carefully and learn to operate and service your tractor before using it.

To keep the warranty, the tractor 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 part, requesting service, or making inquiries.

TRACTOR SERIAL NUMBER	
ENGINE SERIAL NUMBER	:
ENGINE SPEC NUMBER	



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

#### CONTENTS

- 1. INSTRUCTIONS FOR SAFE OPERATION
  - 2. CONTROLS AND INSTRUMENTS
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- 5. STORING THE TRACTOR
- 6. SOLVING TRACTOR PROBLEMS
  - 7. GENERAL SPECIFICATIONS
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#### SECTION 1

#### Instructions for Safe Operation

Improper use of this tractor can injure people and damage the equipment. People using or servicing this tractor 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 of all possible dangers in operating and servicing the tractor and attachments.

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

#### 1.1 Preparation

- Read the tractor and attachment operator's manuals carefully.
- Learn the location and function of all tractor and attachment controls.
- 3. Learn how to use the controls to stop the tractor and attachment.
- 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. When hauling the tractor, connect the chassis and rear hitch to the transporting vehicle. Never connect from control levers, rods, or like items that could be damaged.

#### Operation

- Wear foot and eye protection. Do not wear loose clothing.
- Do not use the tractor in the dark without adequate lighting.
- 3. Keep the tractor in good condition. Maintain it as directed in this manual.
- 4. Replace all parts that become damaged or lost.
- 5. USE ONLY GRAVELY ACCESSORIES AND ATTACHMENTS OR ATTACH-MENTS GRAVELY HAS APPROVED FOR USE WITH THIS TRACTOR.
- Do not overspeed the engine. Do not override the governor.
- 7. Keep away from moving parts.
- 8. Keep people and animals away from the operating area.
- 9. Do not let people other than the operator ride on the tractor.
- 10. Use a slow speed and engage the direction control lever slowly when operating on slopes.
- 11. Look for and keep away from hazards.
- 12. Use caution when pulling heavy loads. Go slow and keep away from slopes. Do not tow free rolling loads of over 1000 lbs.
- 13. Look behind when operating in reverse.
- 14. After hitting an object with the tractor or attachment, stop the engine and check for damage. Repair any damage before continuing operation.
- 15. Operate the tractor only from the seat.
- 16. Travel up and down, not across slopes.
- 17. Never permit children to operate the tractor.
- 18. Before leaving the tractor, move the PTO control to "OFF", lower attachment, lock the brake, and remove the ignition key.

- 19. If there is a sudden change in the sound or vibration of the tractor or attachments, stop the engine and check for damage. Repair any damage or failure before continuing operation.
- 20. Never run the engine indoors except to move it outside. Exhaust fumes are dangerous.
- 21. Go slow on slick surfaces.

SEED OF DOOR VEHICLE OF

- 22. Follow traffic laws when operating on or near a road.
- 23. Before making adjustments or servicing, move the PTO to "OFF", turn the ignition switch to "OFF", and wait until all moving parts completely stop.

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## SECTION 2

## Controls and Instruments

This section illustrates and shows the location of the controls and instruments. See Figure 1. Study it carefully.

#### 2.1 Attachment Lift Controls

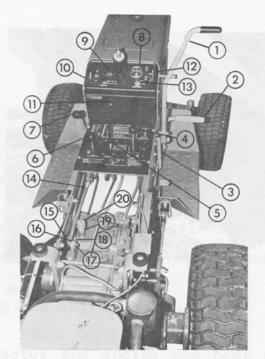
Your tractor has either a manual lift system or a hydraulic lift system, depending on which model it is. See Figures 1 and 2.

#### 2.2 Hourmeter and Ammeter

The hourmeter and ammeter are not on all models of Gravely tractors. If your model has them, they will be as shown in Figure 1.

#### 2.3 Rear Fender

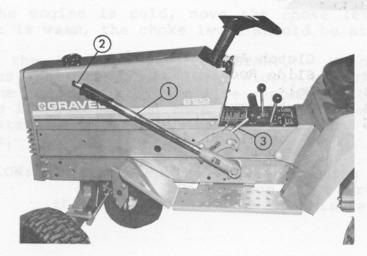
When the rear fender is raised, as shown in Figure 3, the lock bar holds it in position. To lower the fender, hold it up and raise the lock bar. Then lower the fender.



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	1	-	Direction Control Lever	11	-	Fuse Holder
	2	-	Brake Pedal	12	-	Throttle Control
	3	-	Brake Lock Lever	13	-	Ignition Switch
	4	-	Gear Selector	14	-	PTO Rod
	5	-	Range Selector	15	-	Pipe Plug
	6	-	PTO Control	16	-	PTO Lever
	7	-	Hydraulic LIft Control	17	-	Washer
	8	-	Ammeter	18	-	Cotter Pin
	9	-	Hourmeter	19	-	Pipe Nipple
]	10	-	Choke Control	20	-	Pipe Cap

FIGURE I



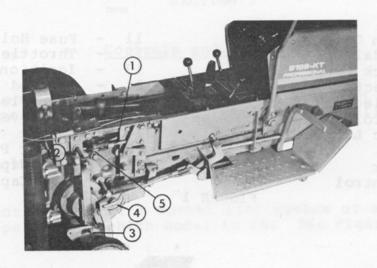
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1 - Manual Lift Lever
2 - Release Button
3 - Lift Range Control
 FIGURE 2



82105

1 - Lock Bar FIGURE 3



82106

1 - Clutch Actuating Rod

2 - Slide Rod

3 - Bolt

4 - Brake Drum

5 - Slide Rod Actuating Lever FIGURE 4

#### SECTION 3

#### Operating Instructions

Read this manual before operating the tractor. Read the Operator's Manual for any attachment that is to be used.

From the tractor seat, note the location of the tractor and attachment controls. (See Section 2.) ALWAYS BE IN THE SEAT WHEN OPERATING THE TRACTOR OTHER THAN IN STATIONARY APPLICATIONS.

3.1 Before Starting the Engine

Be sure that the tractor and engine has been properly serviced and maintained.

3.2 Starting and Stopping the Engine

To start the engine:

- The direction control lever must be in "NEUTRAL" position and the PTO control must be at "OFF" position.
- 2. Put the key in the ignition switch.
- 3. Move the throttle lever to a middle position.
- 4. If the engine is cold, move the choke lever to "ON." If it is warm, the choke lever should be at "OFF."
- 5. Turn the ignition key to "START." When the engine starts, pull the choke lever slowly to "OFF." If the engine does not start in five seconds, release the key for a few seconds and then repeat. If the engine does not start within five tries, see Section 6 for instructions.

CAUTION: Do not keep the starter running for over 15 seconds. Do not run the starter for more than 15 seconds in any one minute.

#### To Stop the Engine:

- Move the throttle lever to "SLOW."
- 2. Turn the ignition switch to "OFF."
- 3. Remove the key before leaving the tractor.

#### 3.3 Operating the Transmission

CAUTION: DO NOT SHIFT TRANSMISSION GEARS WHILE THE FORWARD OR REVERSE CLUTCHES ARE ENGAGED OR THE TRACTOR IS MOVING. This will damage the gears. Always place the direction control lever in "NEUTRAL" and bring the tractor to a complete stop before moving the gear or range selectors.

#### 3.3.1 To Move in a Forward Direction

Use slow engine and transmission speeds until you know how to operate the tractor safely.

1. Start the engine and move the throttle to give the desired engine speed.

- 2. Put any attachment in a raised position.
- 3. Put the range and gear selectors in the positions that will produce the desired speeds. See Section 7 for ground speeds produced.
- 4. Move the direction control lever forward. As the tractor increases speed, push the lever until it locks into position. If the lever is not pushed all the way forward, slippage can damage the forward clutch. USE CAUTION WHILE LEARNING TO OPERATE THE DIRECTION CONTROL LEVER.

#### 3.3.2 To Move in a Reverse Direction

- 1. Follow Steps 1 through 3 under 3.3.1 above.
- 2. Pull the direction control lever firmly backward. The control lever does not lock into a reverse position. You must continue to pull back firmly to continue reverse travel. It will return to "NEUTRAL" upon release.

#### 3.3.3 Stopping the Tractor

Pushing the brake pedal down will stop the tractor and return the direction control lever to "NEUTRAL." Use the brake pedal for sudden stops and for holding the tractor on slopes.

#### 3.3.4 Locking the Brake

To lock the brake for parking, depress the brake pedal and pull back on the brake lock lever. To release, push on the pedal and move the lock lever forward.

#### 3.3.5 Using the PTO

To power an attachment, push the PTO control forward to "ON." To stop an attachment, pull the PTO control rearward to "OFF."

#### 3.3.6 Correct Operating Speeds

A WARNING: On rough and sloping ground and when mowing and trimming near buildings, trees, and other obstructions, use a slow ground speed.

NOTE: Most attachments, especially rotary mowers and snowblowers perform best when operated at full engine speed. Proper ground speed is determined by power limitations, the type of terrain, the quality requirements of the job being performed, obstructions, hazards, etc.

#### 3.4 Using the Attachment Lift Systems

The manual and hydraulic lift systems are used to raise and lower attachments. Either can hold an attachment in position or let it follow the ground.

#### 3.4.1 Using the Manual Lift System

To hold an attachment in position:

- Lift the attachment to the raised position.
- Lift the lift range control and slide it to the desired position.

3. Lower the attachment. The lift lever will stop against the lift range control. If the attachment is not in the desired position, repeat Steps 1 and 2.

To let an attachment follow the ground:

- 1. Move the lift range control to the lowest position.
- 2. Lower the attachment to the ground.

#### 3.4.2 Using the Hydraulic Lift System

To hold an attachment in position:

- Lift the attachment by pulling back on the hydraulic lift lever until the attachment is fully raised.
- Lower the attachment to the desired position by gently pushing the lift lever forward.
- When the attachment reaches the desired position, release the lever. The attachment will be held in that position.

To let an attachment follow the ground:

Push the hydraulic lift lever all the way forward to the "FLOAT" position. The attachment will be lowered to the ground and the lever will remain at that position until you pull it backwards.

#### 3.5 Using the Tractor for Stationary Operations

To operate attachments, such as log splitters or compost shredders, that use PTO power when the tractor is stationary:

- Move the tractor attachment to the desired location. Stay in the seat until the PTO is engaged.
- Lock the brake and block wheels.
- Put the gear selector in "NEUTRAL."
- 4. Move the PTO control to "ON."
- Use caution when leaving the tractor seat. Keep away from moving parts.

#### SECTION 4

## Service Instructions

Chart 1 shows the recommended schedule for service that should be performed on a regular basis.

#### CHART 1

Service	Time Inte	rvals Between	Service
Performed	Daily	25 Hr.	200 Hr.
General Lubrication (Section 4.2)		X	
Check Engine Oil (Section 4.3)	X		
Check Battery Fluid (Section 4.6)	.	X	
Clean Battery (Section 4.7)			Х
Check Air Intake Screen (Section 4.8)	X		
Check Cooling System (Section 4.9)		X	
Check Air Cleaner (Section 4.10)	X	-	
Check Transmission Oil (Section 4.12)		Х	
Check Hydraulic Fluid (Section 4.18)			x
Check Tire Pressure (Section 7)		X i	

#### 4.1 Filling the Fuel Tank

A WARNING: Gasoline is very flammable. Follow safety instructions shown in Section 1.

Gasoline is added as required. Use clean lead free or regular grade gasoline. To add gasoline:

- 1. Put the tractor in an open area.
- 2. Stop the engine and lock the brake.
- 3. Clean the fuel cap area.
- 4. Remove the fuel tank cap.
- 5. Fill the tank with gasoline. Use caution. Do not overflow.
- 6. Reinstall fuel tank cap.
- 7. If gasoline is spilled, wipe it up.

#### 4.2 General Lubrication

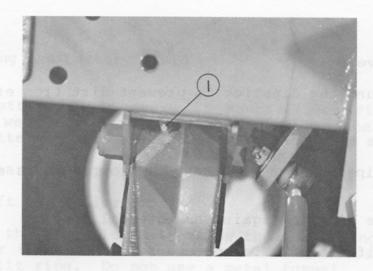
There are seven grease fittings to be greased at 25-hour intervals. Clean the fittings before attaching the grease gun. Use a multi-purpose grease. Add grease until it appears at the ends of the bearings. The locations of the seven fittings are:

- 1. On the direction control lever.
- 2. On the front axle at each king pin.
- 3. On the front axle as shown in Figure 5.
- 4. On the steering mechanism as shown in Figure 6.

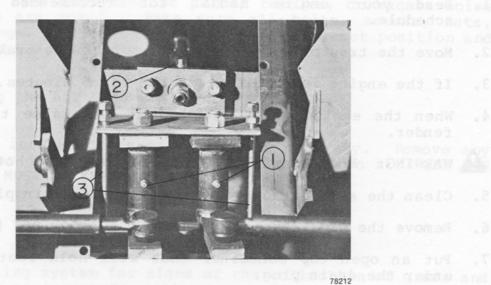
Apply motor oil to all pin connections, pivot points and areas where sliding occurs in the clutch, transmission, PTO, and lift control systems every 25 hours.

## 4.3 Checking the Engine Oil

Check the engine oil level daily. Never operate the engine with the oil level below the low mark on the dipstick. See your engine manual.



#### 1 - Grease Fitting on the Front Axle FIGURE 5



- when coersi-Grease Fittings for the Steering Arms
- 2 -Grease Fittings for the Steering Columns
  - Adjusting Bolt

#### FIGURE 6 10. Clean and reinstall the drain plugged? TiA eds onlybed? 01.4

#### To check the oil level:

- Clean around the dipstick to prevent dirt from entering the tube.
- 2. Remove the dipstick and wipe off the oil.
- 3. Put the dipstick back in place. Be sure it is all the way down.
- 4. Remove the dipstick again and note oil level.
- 5. Add oil, if needed. Do not overfill.
- Repeat Step 3.

#### 4.4 Changing the Engine Oil

#### To change oil

- Read your engine manual for recommended change schedule.
- 2. Move the tractor to a level area. Lock the brake.
- 3. If the engine is cold, let it run for 5 minutes.
- When the engine is warm, stop it and raise the rear fender.
- A WARNING: Engine muffler and other parts are hot.
- 5. Clean the areas around the dipstick and drain plug.
- 6. Remove the dipstick.
- 7. Put an open top container that will hold four quarts under the drain plug.
- 8. Remove the drain plug.
- 9. Allow the engine to drain completely.
- 10. Clean and reinstall the drain plug.
- 11. Fill with new oil to the "FULL" mark on the dipstick.
- 12. Replace the dipstick. Lower the rear fender.
- 13. Start the engine and check for leakage at the drain plug. Tighten the plug if leakage occurs.

## 4.6 Checking the Battery Fluid

Check the battery fluid every 25 hours. See Figure 7. Use caution and wear eye protection when checking the battery. To check the battery:

- 1. Clean the top of the battery.
- 2. Lift the filler caps.
- 3. If the fluid level is below the split rings in the filler tube, add distilled water. Do not fill above the split ring. Do not use a metal funnel.
- 4. Reinstall the filler caps. Push them all the way down.

#### 4.7 Checking the Fasteners

Check all fasteners periodically. Look for loose or missing fasteners any time looseness of parts, rattles, or excess noise and vibration are noted. Make sure all bolts, screws, nuts, pins, snap rings, and cotter pins are in the correct position and replace any that are missing.

### 4.8 Checking the Air Intake Screen

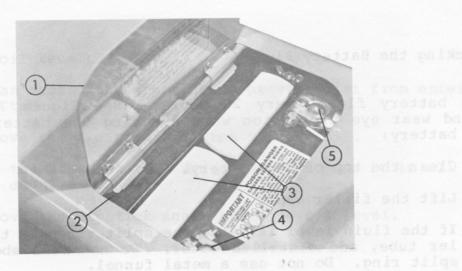
Check the air intake screen on the engine each day. Remove any grass, dirt, or debris that may have accumulated on it. THE AIR INTAKE SCREEN MUST BE KEPT CLEAN.

## 4.9 Checking the Cooling System

Check the cooling system for signs of the collection of grass and debris in the engine cooling fins every 25 hours or more often when operated in dirty conditions. See your engine manual for instructions.

## 4.10 Checking the Air Cleaner

Check the air cleaner each day. See your engine manual for instructions.



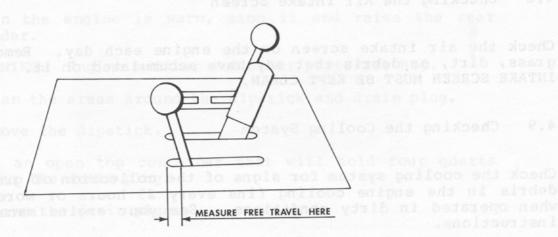
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4. Reinstell the filler caps. Push them 11 the way down.

2 - Battery

3 - Filler Caps on the Battery

4 - Positive Terminal 5 - Negative Terminal FIGURE 7



4.10 Checking the Air Cleanage

FIGURE 8

4.11 Changing the Air Cleaner Element

Replace the air cleaner element at the correct intervals. See your engine manual for instructions.

#### 4.12 Checking the Transmission Oil

Check the transmission oil level every 25 hours. If leakage is observed, check more frequently. The fill tube is shown in Figure 1. The check plug is shown in Figure 1. To check the transmission oil level:

- 1. Move the tractor to a level area. Stop the engine and lock the brake.
- 2. Raise the rear fender.
- 3. Clean the check plug and remove it.
- 4. The oil level is correct when oil is at the top of the hole.
- 5. If the level is correct, reinstall and tighten the plug. If the level is low, add oil. See Section 7 for recommended lubricant specifications.

#### To add oil:

- Remove the fill tube cap.
- Add oil until it reaches the top of the check plug 2. hole.
- 3. Reinstall and tighten the fill tube cap and check pluq.

#### 4.13 Servicing the Brake

## Brake service is required if:

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The brake does not stop and hold the tractor effectively. The brake should be effective enough to cause the rear wheels to slide if applied suddenly on a concrete or asphalt surface.

The brake is shown in Figure 4.

CAUTION: Replace the brake band when the lining is as thin as the ignition key.

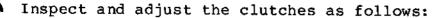
Replace the brake drum if it is visibly worn or rough.

## To adjust the brake:

- Stop the tractor on a level surface.
- Stop the engine and block the wheels so the tractor cannot roll.
- 3. Loosen the jam nut and remove the clevis pin.
- Turn the clevis clockwise to tighten or counterclockwise to loosen as needed.
- To check the adjustment, reconnect the clevis and brake band with the pin.
- 6. Push the direction control lever all the way forward.
- 7. Push the brake pedal by hand while watching the motion of the brake band. The brake is correctly adjusted when the band becomes tight on the drum as the direction control lever moves to "NEUTRAL." If the band is tight before the lever moves to "NEUTRAL", the brake is too tight. If too tight or too loose, repeat Steps 4, 5, 6, and 7 until the correct adjustment is obtained.
- 8. Install the cotter pin in the clevis pin and tighten the jam nut.
- 9. Check the effectiveness of the brake while operating the tractor.

## 4.14 Servicing the Forward and Reverse Clutches

The forward and reverse clutches must be checked every 100 hours. Lubricate if needed. The forward clutch is on the right-side of the transmission and the reverse clutch is on the left-side of the transmission. See Figure 4.



- Stop the engine, place the direction control lever in the neutral position, and engage brake lock.
- 2. Raise the rear fender.
- 3. Measure the clearance in the slot. The correct clearance is 0.070 inch (1.8mm) for the forward clutch and 0.125 inch (3.2mm) for the reverse clutch.
- 4. Adjustment: Adjust the clutch actuating rod so that the fork on the slide rod actuating lever is approximately parallel with the gasket between the transmission case and cover.

Next adjust the bolts which go through the flange on the axle bearing retainer so that the forward-reverse clutch springs are straight up and down when the clutches have zero clearance. Lock the bolt in place with the jam nut. Adjust the nut on the slide rod until the clearance is correct.

To lubricate clutch, remove the clutch and apply a film of multi-purpose grease to the splined clutch shaft. Readjust as described above.

## 4.15 Servicing the PTO Clutch

The PTO clutch should be adjusted whenever there is less than .5 inches of free travel in the clutch lever when it is in the "ON" position. See Figure 8 to see where this free travel is measured. The free travel should be between .5 inch and 1.0 inch. To adjust:

- 1. Stop the engine and lock the brake.
- 2. Raise the rear fender.
- 3. Push the PTO lever to "ON."
- Disconnect the PTO control from the transmission lever. See Figure 1.
- 5. Turn the control rod to change the free travel. Each turn will change it by about .25 inch. Turn clockwise to increase and counterclockwise to decrease the free travel.
- 6. Reconnect the control rod to the transmission lever.
- 7. Check for correct free travel. Repeat Steps 4, 5, and 6 if necessary.

## 4.16 Servicing the Steering System

Adjustment is usually needed whenever there is more than 2 inches of free play in the steering wheel.

## To adjust the steering gear:

- Be sure that all hood fasteners are tight.
- Loosen the lock nuts on both adjusting bolts. See Figure 9.
- Turn the steering wheel to the right as far as it will go.
- 4. Turn the adjusting nut on the left side adjusting bolt clockwise with your fingers until it is tight. Then back the nut off one fourth turn.
- 5. Tighten the lock nut against the adjusting nut being careful not to move the adjusting nut.
- 6. Turn the steering wheel to the left as far as it will go.
- 7. Repeat Steps 4 and 5 for the right side adjusting nut.
- 8. Check for tightness or backlash in the steering gear through the full range of the steering wheel rotation. There should be no noticeable tightness or backlash in the rack and pinion mesh. If there is, repeat Steps 3 through 7 as required.

Upon completion of the steering gear adjustment, recheck the steering wheel free play. If the free play is still excessive, look for loose steering arms on the king pins, loose or worn ball joints, or other signs of wear. Tighten or replace as required.

## 4.17 Servicing the Spark Plug(s)

## To clean or change a spark plug:

- Stop the engine, lock the brake, and raise the rear fender.
- 2. See your engine manual for further instructions.



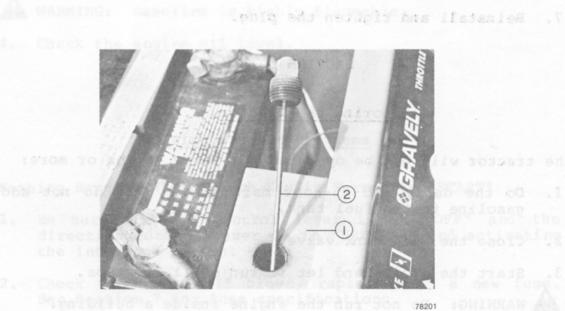
Adjusting Bolt

Lock Nut

Adjusting Nut FIGURE 9

2. Charge the battery if medifility o on od : MOITUAD

WOTE: See Section 7 for mydraulic fluid specifications:



l - Hydraulic Fluid Tank 2 - Plug with Dipstick FIGURE 10

## 4.18 Checking the Hydraulic Fluid

Check the hydraulic fluid level every 200 hours or at any sign of leakage. The tank is under the hood. See Figure 10. To check the level of the fluid:

- Stop the engine, lock the brake, and remove the hood.
- 2. Clean the top of the tank.
- 3. Remove the plug with dipstick.
- 4. Wipe the dipstick and put it back in the hole in the tank. Do not engage threads.
- Remove again and note the level of the fluid on the dipstick.
- 6. If the level is low, add fluid to raise the level to the full mark.

CAUTION: Do not overfill.

NOTE: See Section 7 for hydraulic fluid specifications.

Reinstall and tighten the plug.

#### SECTION 5

## Storing the Tractor

When the tractor will not be operated for three months or more:

- Do the daily and 25-hour maintenance, but do not add gasoline to the fuel tank.
- Close the fuel tank valve.
- 3. Start the engine and let it run until it stops.

A WARNING: Do not run the engine inside a building. Exhaust fumes are dangerous.

- 4. Remove the spark plug(s).
- 5. Put 20 drops of motor oil in each spark plug hole.
- 6. Reinstall the spark plug(s), but do not connect the wires.
- 7. Operate the starter for 5 seconds.
- 8. Remove the ignition key.
- 9. Paint or oil bare metal surfaces to prevent rust.
- Push the tractor to its storage area if inside a building.

#### To use the tractor again:

- 1. Reconnect the spark plug wires.
- 2. Charge the battery if needed.
- Add fresh gasoline to the fuel tank.
- A WARNING: Gasoline is highly flammable.
- 4. Check the engine oil level.

#### SECTION 6

#### Solving Tractor Problems

- 6.1 Nothing Happens When Switch Key is Turned to "START"
  - Be sure the PTO control lever is at "OFF" and the direction control lever is in "NEUTRAL" and activating the interlock switch.
  - Check the fuse. If blown, replace with a new fuse.
     See Section 7 for fuse specifications.
  - Check the battery. Clean and tighten battery terminal.
     Replace or recharge battery if it is dead.

If these procedures do not solve the problem, see your Gravely dealer.

- 6.2 Solonoid Switch Clicks but Starter will not Crank Engine
  - Check for discharged battery. Recharge or replace as necessary.
  - Clean and tighten all cable connections.

If these procedures do not solve the problem, see your Gravely dealer.

- 6.3 Engine Cranks but will not Start
  - 1. Check fuel in fuel tank. If empty, add gasoline.
  - Check fuel tank valve. Open if closed.
  - Check and clean spark plug. See your engine manual and Section 4.18 of this manual.
  - Check fuel cap for plugged vent hole. Clean if necessary.
- 5. Check your engine manual for other instructions. See your Gravely dealer if you still cannot start the engine.
- 6.4 Clutch Engagement is Rough or Clutch Slips When Fully Engaged
  - See Section 4.15.
  - 2. Oil all pivot points in the clutch control linkage.
- 6.5 Brake Does Not Stop or Hold the Tractor
  - 1. See Section 4.13

If the procedures in Section 4.13 do not solve the problem, see your Gravely dealer.

- 6.7 More Than Two Inches (5.0cm) Free Travel in Steering Wheel
  - 1. See Section 4.16

If the procedures of Section 4.16 do not solve the problem, see your Gravely dealer.

- 6.8 Gear Selector or Range Selector Levers Will Not Change Tractor Speed
  - Check linkages for damage. Repair or replace if needed.
  - Check for loose or missing fasteners. Tighten or replace as required.
- 6.9 Hydraulic Lift System Will Not Operate
  - Check level of the hydraulic fluid. See Section 4.19. Add fluid if low.
  - Check for leaks at tube and hose fittings, lift cylinder and valve and look for broken tubes or blown hoses. Tighten or replace as required.
  - 3. Check the lift linkage.

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If you cannot solve the problem, see your Gravely dealer.

## SECTION 7

## General Specifications

Fuel Specification	See your engine manual
Fuel Tank Capacity	5.3 Gallons (U.S.) (20 liters)
Engine Oil Specification	See your engine manual
Engine Oil Capacity	See your engine manual
Transmission Oil Specification	API Service SC 10W-40 Motor Oil
Transmission Oil Capacity	6 Quarts (U.S.) (5.7 liters)
Hydraulic Fluid Specification	Automatic Transmission Fluid Type A, Suffix A
Hydraulic Fluid Capacity	1.5 Quarts (U.S.) (1.4 liters)
Battery	12 Volt, BCl group 22F, 42 amp. hr.
Fuse	30 amp. Acc-30
Tire Sizes: Regular Models, Front	16 x 6.50 - 8
Regular Models, Rear	23 x 8.50 - 12
Professional Models, Front	16 x 7.50 - 8
Professional Models, Rear	23 x 10.50 - 12
Tire Pressure, Front	14 psi $(97 \text{ kN/m}^2)$ to 18 psi $(124 \text{ kN/m}^2)$
Tire Pressure, Rear	10 psi $(69 \text{ kN/m}^2)$ to 14 psi $(97 \text{ kN/m}^2)$

## 7.1 Ground Speeds (at 3600 rpm Engine Speed)

#### **FORWARD**

LO" RANGE		"HI RANGE"		
Gear	Speed	<u>Gear</u>	Speed	
1	.5 mph ( .8 km/h)	1	2.5 mph ( 4.0 km/h)	
2	.8 mph (1.2 km/h)	2	3.8 mph ( 6.1 km/h)	
3	1.1 mph (1.8 km/h)	3	5.7 mph ( 9.2 km/h)	
4	1.7 mph $(2.7 \text{ km/h})$	4	8.5 mph (13.7 km/h)	

#### REVERSE

## "HI" OR "LO" RANGES

Gear	<del></del>	Speed			
1	1.1 mp	h (1.8 km/h)			
2	1.7 mp	h (2.7 km/h)			
3	2.5 mp	h (4.0 km/h)			
4	3.8 mp	h (6.1 km/h)			

#### GRAVELY LIMITED WARRANTY

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

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

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

Attn: Manager of Customer Services

- Warranty service on Gravely equipment must be performed by an authorized Gravely dealer or Gravely factory branch.
- This Warranty does not cover the following:
  - a. Transportation between owner's home of 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.
  - Normal maintenance services and normal replacement of items such as spark plugs, belts, oil, oil filters, air filters, and mower, plow or cultivator blades.
  - 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. GRAVELY MAKES NO OTHER EXPRESS WARRANTÎES. 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. GRAVELY 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.
- This Warranty gives you specific legal rights, and you may have other rights which vary from state to state.
- 10. A Gravely product registration card is supplied with each Gravely product. Please complete the card and return it to Gravely at the address listed on the card. The equipment registration card will be used by Gravely for:
  - a. Recording date of purchase.
  - Notification of owners in compliance with the Consume Product Safety Act, should any notification be necessary.

The return of registration card is not required in order to take advantages of this Warranty.

 This Warranty is not subject to change or modification by anyone, including Gravely dealers and no Gravely dealer is authorized to make any representations or promises on Gravely's behalf.

