

GRAVELY
408
LAWN
TRACTOR
OWNERS
MANUAL



To continue its program of quality and design improvement, the manufacturer reserves the right to change specifications, design or prices without notice and without incurring obligation.

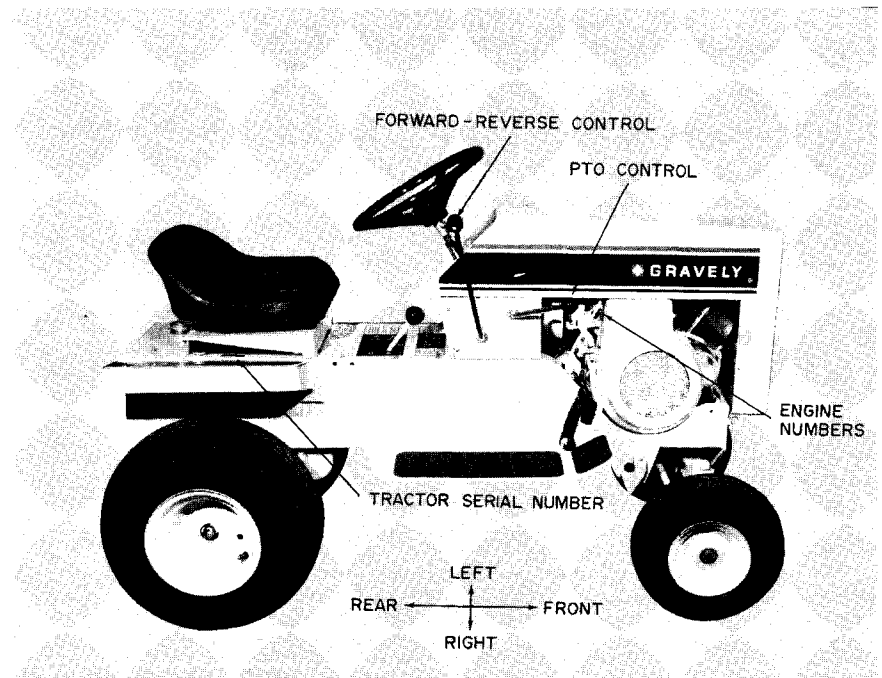


Figure 1

INTRODUCTION

THANK YOU for your investment in Gravely equipment. It is an investment, for your Gravely 408 will save you work and worry for many years.

Numerous independent dealers and factory branches handle Gravely equipment. All are ready to give prompt and efficient service, with parts in stock and personnel trained in factory-service methods.

Your Gravely 408 and attachments are warranted under terms shown herein. To qualify for the Warranty, you must register your equipment by completing the enclosed Registration Card and returning it. For your own protection, please do this right away.

Your 408 will give you long years of highly satisfactory performance if maintained and operated as outlined in this manual.

It is important that you record the serial number of your tractor. It is located on the frame under the seat and is 408-_____.

Also, it is important you record the model number specification number and number of the engine. They are located on the plate on the engine blower housing.

Model Number _____

Specification Number _____

Serial Number _____

Please refer to these numbers in any correspondence with the factory or dealer regarding your 408.

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WARRANTY

Products manufactured by Gravely are warranted to be free from defective material and workmanship for a period of one year from date of purchase, under normal use by a homeowner, and for a period of ninety (90) days from date of purchase, when used for commercial purposes.

Any defective part manufactured by Gravely will be replaced without charge provided such part is certified as defective by the manufacturer or be the manufacturer's expressly authorized representative.

IMPORTANT PROVISIONS

This warranty is not subject to change or modification by field representatives or Gravely dealers. Any warranty other than the warranty expressly stated above will not be binding upon the manufacturer.

Certain components carry separate warranties by the manufacturer of such components. Defective components are subject to their manufacturer's warranties, and any claims, work, or return of parts must be through an authorized Gravely dealer. Service costs for the transporting of a unit to and from the dealer are the responsibilities of the customer, and when such service is performed by the dealer, the dealer will charge the customer the usual rate for such service.

It is the customer's responsibility to mail the "Warranty Card" to the manufacturer within fourteen (14) days after date of purchase to ensure prompt handling of any warranty claim by the dealer or the manufacturer.



GRAVELLY LANE — CLEMMONS — NORTH CAROLINA 27012
A DIVISION OF CLARKE-GRAVELLY CORPORATION

SAFETY SPECIFICATIONS

1. Know the controls and how to stop quickly — READ THE OWNER'S MANUAL.
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instructions.
3. Do not carry passengers. Keep children and pets a safe distance away.
4. Clear work area of objects which might be picked up and thrown.
5. Disengage all attachment clutches and shift into neutral before attempting to start engine.
6. Disengage power to attachments and stop engine before leaving operator position.
7. Disengage power to attachments and stop engine before making any repairs or adjustments.
8. Disengage power to attachments when transporting or not in use.
9. Take all possible precautions when leaving vehicle unattended, such as disengaging power take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
10. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of steep slopes; never across the face.
11. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
12. Stay alert for holes in terrain and other hidden hazards.
13. Use care when pulling loads or using heavy equipment.
 - A. Use only approved drawbar hitch points.
 - B. Limit loads to those you can safely control.
 - C. Do not turn sharply. Use care when backing.
 - D. Use Wheel weights or Weight box when suggested in owner's manual.
14. Watch out for traffic when crossing or near roadways.
15. When using any attachments never direct discharge of material toward by-standers nor allow anyone near vehicle while in operation.
16. Handle gasoline with care — it is highly flammable.
 - A. Use approved gasoline container.
 - B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
 - C. Open doors if engine is run in garage — exhaust fumes are dangerous. Do not run engine indoors.
17. Keep vehicle and attachments in good operating condition and keep safety devices in place.
18. Keep all nuts, bolts and screws tight to be sure equipment is in safe working condition.
19. Never store equipment with gasoline in the tank inside of building where fumes may reach an open flame or spark.
20. Allow engine to cool before storing in any enclosure.
21. To reduce fire hazard keep engine free of grass, leaves or excessive grease.
22. Vehicle and attachments should be stopped and inspected for damage after striking a foreign object and the damage should be repaired before restarting and operating the equipment.
23. Do not change engine governor settings or overspeed engine.
24. When using vehicle with mower:
 - A. Mow only in daylight or in good artificial light.
 - B. Never make a cutting height adjustment while engine is running if operator dismounts to do so.
 - C. Shut engine off when unclogging chute.
 - D. Check blade bolts for proper tightness at frequent intervals.

ROUTINE MAINTENANCE

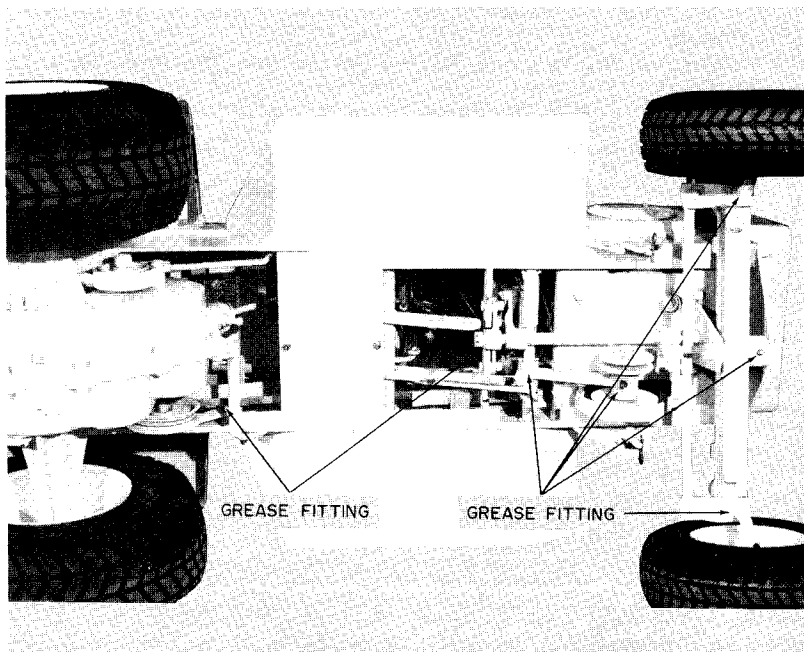


Figure 2

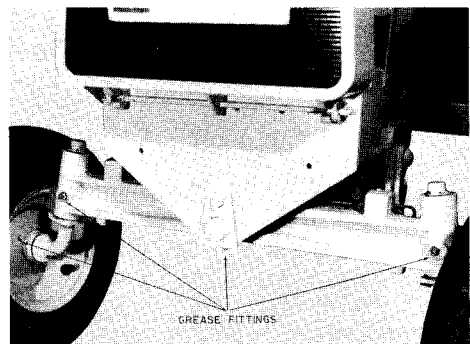


Figure 3

Greasing

There are 9 grease fittings on the 408. Grease each fitting liberally with general purpose grease every 8 hours of operation.

- A. Steering gear support - 1
- B. PTO arm - 2
- C. Front Axle - 3
- D. Front Wheels - 1 each
- E. Belt idler pulley arm - 1

Apply a thin layer of grease on the teeth of the steering gears each time the tractor is greased.

Any time the tractor is washed or "hosed off" it should be greased to force any moisture out of bearings and bushings. Periodic oiling lightly of all pivot points of linkage aids operation.

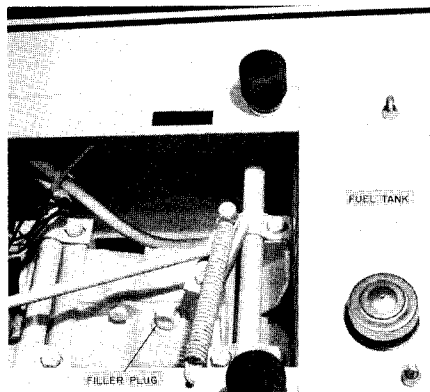


Figure 4

Transmission

Capacity - 3 U. S. quarts SAE 90 W EP multipurpose gear lubricant.

Check level every 50 hours of operation. Change lubricant every 200 hours of operation.

Level plug and drain plug are on the right side of the transmission housing.

Engine

Capacity - 2½ pints of API classification SC or SD oil.

Summer - SAE 30

Winter - SAE 5W20

Check oil level daily. Maintain at full level. Do not overfill.

Change oil after initial 5 hours of operation and then every 25 hours or oftener under dusty conditions. Drain plug is on the bottom of the oil base on the under side of the engine.

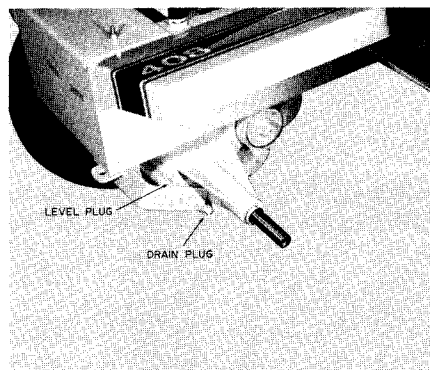


Figure 5

Air Cleaner

Clean or replace when necessary. A loss of power is an indication that air cleaner service is required.

The air cleaner element should be cleaned by gently tapping on a flat surface. Replace the element if it is bent, crushed or damaged in any way.

When reinstalling, be sure the element fits the adapter plate and the wing nut on the cover is finger tight.

Battery

Regularly check fluid level. Maintain at proper level.

Tires

Front tires - Maintain pressure at 12 psi.

Rear tires - Maintain pressure at 6 psi.

Spark Plug

Gap - .025 inch

Valves

Intake clearance (cold) - .006/.008

Exhaust clearance (cold) - .015/.017

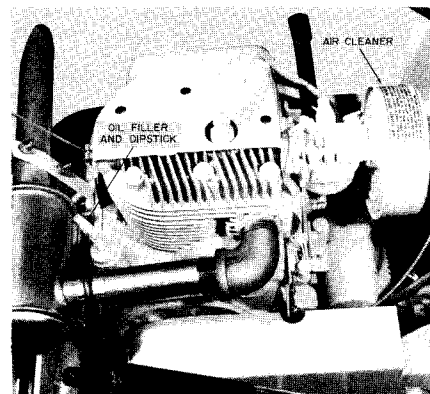


Figure 6

OPERATION

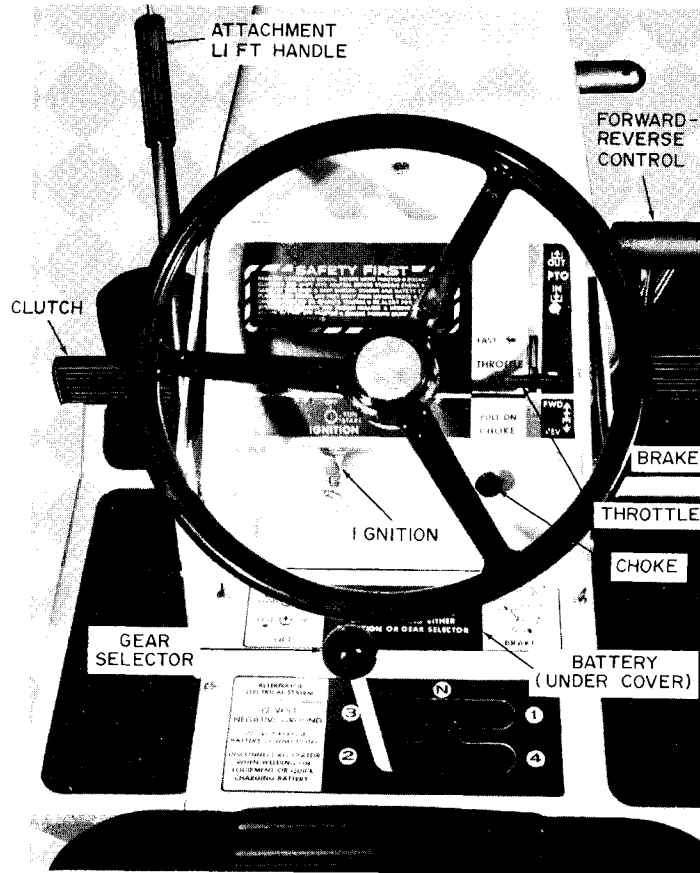


Figure 7

Before Starting

1. Check fuel level in fuel tank. Capacity is 9 pints. Use a high quality regular grade gasoline.
2. Check oil level in engine.
3. Check to see if PTO is in "OUT" position.
4. Check to see if Gear selector is in neutral.

Starting

1. Be sure tractor is in neutral and PTO is in "OUT" position.
2. Pull choke and control out.
3. Move throttle control to about half throttle.
4. Turn key to start engine, release when engine fires.

CAUTION: Do not hold starter engaged more than 15 seconds without allowing a cooling period for the starter motor.

5. As engine warms up, push choke control in.

Starting Tractor Movement

1. Fully depress clutch pedal, and move gear shift to desired gear, and while holding clutch pedal, fully depressed, move forward-reverse control for desired direction. **NOTE:** Be sure to fully depress clutch pedal to engage belt brake to stop belt movement.
2. Slowly release clutch pedal.

Stopping

1. Depress clutch pedal.
2. Depress brake pedal.
3. Move gear shift lever to neutral.

NOTE: There is NO neutral position of the Forward-Reverse Control.

Storage

1. Stop tractor motion, secure brake lock.
2. Turn off engine and remove key.
3. Lower attachment to floor.

34" ROTARY MOWER

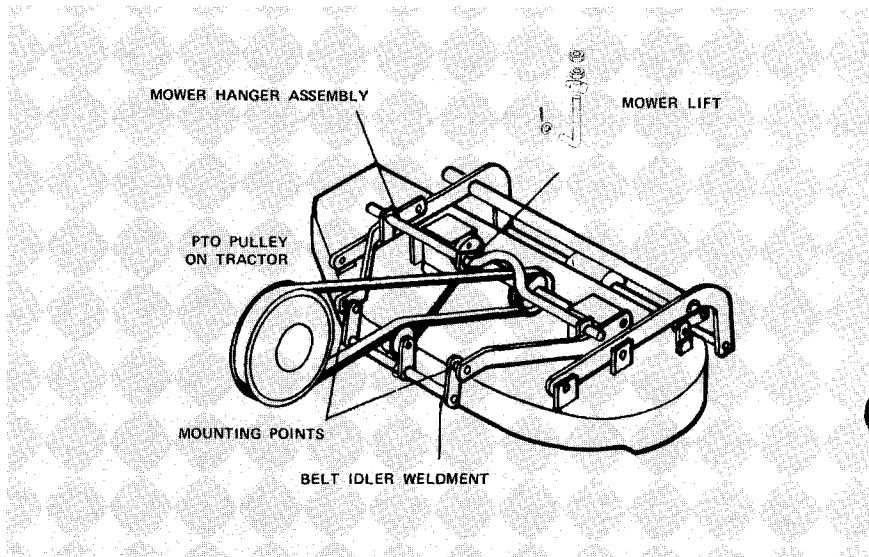


Figure 8

Mounting on Tractor

Slide mower under tractor, rollers toward rear of tractor. Place belt around pulley on PTO. Be sure belt is on pulley of mower.

Turn mower lift upside down and insert pivot through the second hole from the end of the tractor lift lever weldment. Rotate 180 degrees so bend is down. Install the lift through the tab on the mower hanger assembly. Secure with washer and hair pin cotter.

Open the attachment latches on each side of the tractor frame.

Using the attachment lift lever, raise the mower, guiding the mounting points of the mower hanger assembly into the attachment latches of the tractor. Close the latches and secure in place with hairpin cotteners.

Attach the spring anchors on each end of the spring and install the spring, hooking the one anchor on the cross shaft of the mower hanger assembly and the other on the belt idler weldment. The idler rides on the back (flatside) of the belt.

Operation

The cutting height is controlled by the height adjustment lever on the R.H. side of the mower. Move the lock rod out of notch on quadrant. Move the lever towards the front of the mower to lower the cutting height; moving the lever toward the rear of the tractor raises the cutting height. Range — 1½ - 3¾".

To begin mowing, stop tractor motion, lower lift lever completely which will allow the mower to float and follow ground contours. With the engine running at a fast idle, move the PTO lever for "OUT" to "IN".

Select desired gear, accelerate engine to full throttle and resume tractor motion.

To disengage mower, move PTO lever for "IN" to "OUT". This may be done at any time.

42" SnowDozer

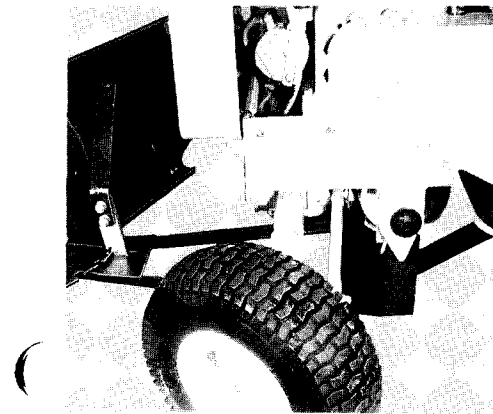


Figure 9

Mounting on Tractor:

Slide frame under front axle of tractor. Open latches, raise frame and secure in latches. Secure latch with hair pin cotteners.

Attach the lift arm in the last hole of the lift lever weldment (hole closest the cross shaft).

Operation:

The angle of the blade is controlled by the lever on the quadrant.

To change angles, raise the blade. Pull back on the lever and swing blade to the desired position. Release lever.

Wheel weights, tire chains, and/or a weight box can be added to the tractor to increase traction.

WHEEL COVERS

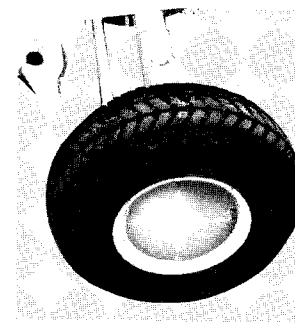


Figure 10

Wheel covers to enhance the appearance of your 408 are available.

TIRE CHAINS

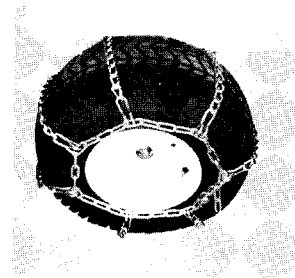


Figure 11

Chains for the rear wheels are available to increase traction.

36" SNOWTHROWER

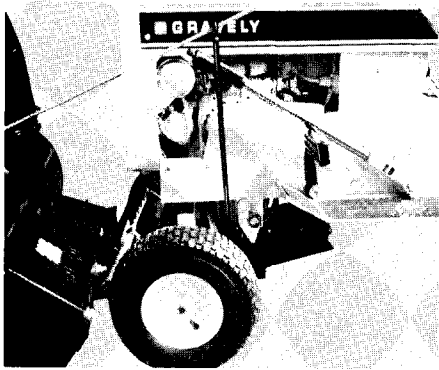


Figure 12

Thereafter, to mount, Install the mounting bracket of the snow thrower in the attachment latches and secure.

Install the lift push arm in the last hole of the lift lever weldment (hole closest to the cross shaft.)

Attach the lift assist springs to the spring anchor bracket.

Install drive belt.

Mounting:

For the initial mounting of the snowthrower, carefully follow the instructions packed with the snowthrower.

Be sure the belt popper and spring anchor bracket are installed. These may be left permanently installed on the tractor.

WEIGHT BOX

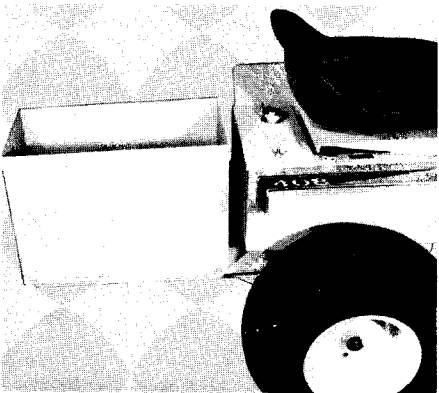


Figure 13

The weight box mounts on the rear hitch of the tractor. Secure in place with the clevis pin and hair pin cotter. Tighten adjusting handles against the rear hitch until the weight box is rigid.

For increased traction the weight box can be filled with any suitable material such as sand.

During the mowing season, the empty weight box makes a handy container for debris picked up while mowing.

CART

The cart attaches to the rear hitch of the tractor with the pin provided with the cart.

When loading the cart, concentrate the weight ahead of the cart axle.

WHEEL WEIGHTS

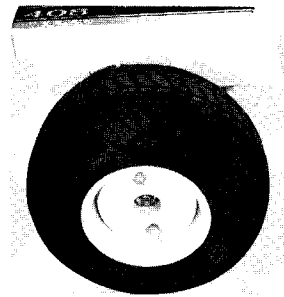
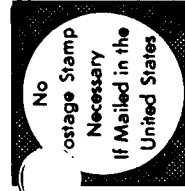


Figure 14

The 11924E1 Wheel Weights fit the rear wheels of the 408. To mount the weights, the wheels may have to be turned so the valve stems are on the inside.

SPECIFICATIONS

| | | |
|---------------------------|---------------------|---------|
| Engine | Kohler K181 | |
| Horsepower | 8 @ 3600 rpm | |
| Oil Capacity | 2½ pints | |
| Oil Recommendations | | |
| Summer | SAE 30 SC | |
| Winter | SAE 5W20 SC | |
| Transmission | 4 forward 4 reverse | |
| Oil capacity & type | 3 qts. SAE 90W EP | |
| Speed Range (mph) | Forward | Reverse |
| 1 gear | 1.6 | .7 |
| 2 gear | 2.7 | 1.1 |
| 3 gear | 3.6 | 1.6 |
| 4 gear | 5.4 | 2.4 |
| Tire size — front | 13 x 5.00 — 6 | |
| Pressure | 12 psi | |
| Tire size — rear | 18 x 8.50 — 8 | |
| Pressure | 6 psi | |
| Length | 56.5 inches | |
| Width | 33 inches | |
| Height | 37 inches | |
| Net Weight | 372 lbs. | |



BUSINESS REPLY MAIL
 First Class Permit No. 5 Clemmons, N. C.



GRAVELLY

A Division of Clarke-Gravelly Corporation
 Gravelly Lane

Clemmons, North Carolina 27012

