



*FORD*  
**CAR PUSHER  
OPERATOR'S MANUAL**

NOTE

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

To keep the warranty, the car pusher 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 number to ensure prompt and correct service when ordering parts, requesting service or making inquiries.

SERIAL NUMBER: \_\_\_\_\_



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

## CONTENTS

1. INSTRUCTIONS FOR SAFE OPERATION

2. OPERATING INSTRUCTIONS

3. ASSEMBLY

4. ILLUSTRATED PARTS AND PARTS LIST

5. WARRANTY

## 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 attachment 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 equipment.
7. Before starting the engine, put the PTO control lever in the "OFF" position and the gear shift lever in the neutral "N" position.
8. When hauling the equipment, connect the chassis to the transporting vehicle. Never connect from control levers, rods, or like items that could be damaged.
9. Replace all parts that become damaged or lost.
10. Be certain that all operator presence controls function correctly.

## 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. Do not operate car pusher 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. Do not operate car pusher on slopes.
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, move the PTO lever to the "OFF" position, turn the ignition key to the "OFF" position. Move the shift control to forward position.
21. Do not operate unless someone else is controlling the steering, gear selection and brakes of the car being pushed.
22. Use extreme caution when attaching jumper cables to another car. To avoid sparks near the battery which could cause an explosion, connect the positive (+) cable lead to the positive (+) post of the battery and the negative (-) cable to a grounded frame member away from the battery.
23. Tractors equipped with steering brakes are recommended when using the car pusher attachment.

## SECTION 2

### Operating Instructions

#### 2.1 Pushing Cars.

1. A second operator must control the steering, gear selection, and brakes of the car being pushed. The drivers window should be opened so the operators can communicate verbally with each other.
2. The operator inside the car should release the parking brake while applying pressure to the brakes of the car and place the gear selector in neutral.
3. Position the tractor as close as possible to the center of the bumper of the car.
4. Put the tractor in low gear and raise the rear caster wheel off the ground until the tractor is approximately parallel with the ground.
5. Allow the car pusher bumper pad to slowly contact the bumper of the car.
6. The operator inside the car should release pressure on the brakes (not completely) as the tractor operator engages the direction control lever.

NOTE: The car pusher should be operated so that contact is always maintained with the bumper of the car.


7. When stopping the car, the operator of the car should apply brakes as the tractor operator slowly disengages the direction control lever.
8. After the car comes to a stop, the operator of the car should activate the parking brakes and place the gear selection in Reverse for manual shift cars and Park for automatic shift cars.

NOTE: Refer to the operators manual of the car for parking instructions.

9. The tractor operator can then back the tractor away from the car.

## 2.2 Jump Starting Cars.

1. Position the tractor close enough to the car so the positive (+) jumper cable will reach the battery of the car.
2. Stop the tractor engine and engage the parking brake if the tractor is equipped with steering brakes. (See the tractor operations manual.)
3. Attach the positive jumper cable to the positive side of the car battery.
4. Attach the negative jumper cable to a good ground on the frame of the car away from the battery. Never attach the negative jumper cable to the negative side of the car battery.
5. Start the car.
6. Remove the negative jumper cable from the car and attach it to the rubber pad of the car pusher. Remove the positive jumper cable from the car and attach it to the rubber pad of the car pusher.

 **CAUTION:** The jumper cable clamps should never touch each other or any metal surface.




## SECTION 3

### Assembly

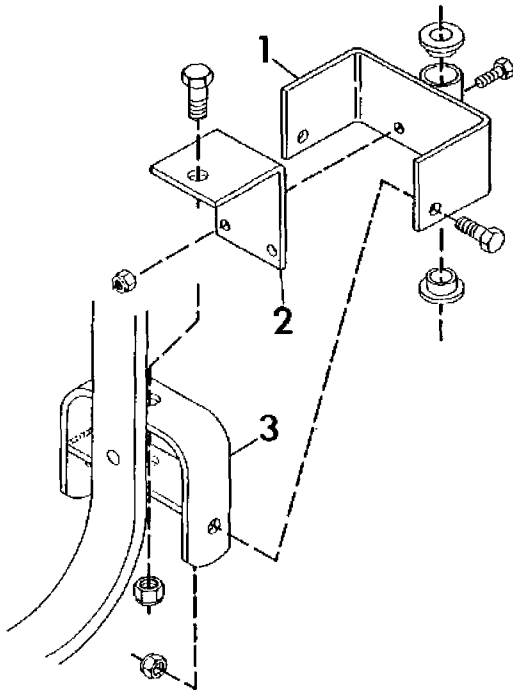
- 3.1 Fasten the caster fork mounting bracket to the tractor hitch weldment using the 5/8-11x1.50 hex bolt and 5/8-11 lock nut.
- 3.2 Fasten the caster wheel support weldment to the tractor hitch weldment and the caster fork mounting bracket using two 1/2-13x1.25 hex bolts, 1/2-13 lock nuts, 3/8-16x1.00 hex bolts and 3/8-16 lock nuts. See Figure 1.

NOTE: The orientation of the caster wheel support weldment on 8 H.P. units is different from the orientation on the 10, 12 and 16 H.P. units.

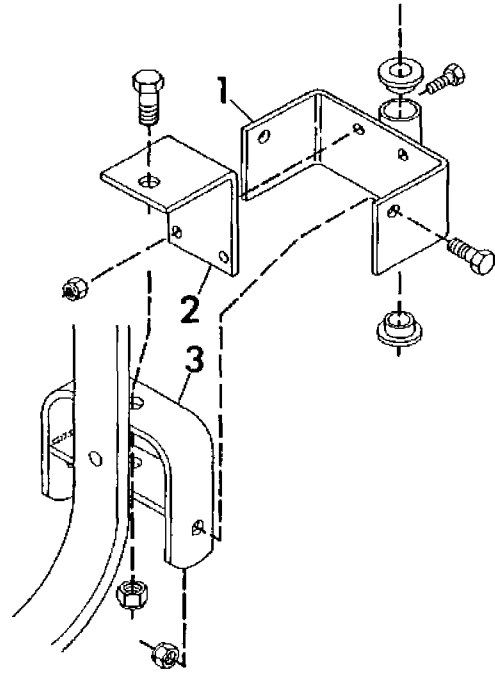
- 3.3 Slide the shaft of the caster fork weldment through the bushings in the caster wheel support weldment and retain with the cotter pin.
- 3.4 Position the car pusher frame in front of the two-wheel tractor. Align the large hole in the car pusher frame with the quick hitch pin on the front of the tractor. Fasten the frame to the tractor using the two 1/2-13 hex nuts and 1/2-13x1.00 hex bolts included with the tractor.
- 3.5 Attach the jumper cable clamps to the rubber insulator pad.

 CAUTION: The jumper cable clamps should never touch each other or any metal surface.

- 3.6 Remove the negative (ground) battery cable from the negative side of the battery.
- 3.7 Remove the 3/8-16 lock nut which fastens the negative battery cable to the stud in the engine adaptor plate. Put the negative (black) jumper cable terminal on the stud and retain with the 3/8-16 lock nut which was just removed. See Figure 2.
- 3.8 Slide the boot away from post on the magnetic switch to which the positive (red) battery cable is attached. Remove the nut and lock washer which fastens the cable to the magnetic switch and slide the cable terminal off the post. Put the positive (red) jumper cable terminal on the post, re-install the positive battery cable and retain with the lock washer and nut which was just removed. See Figure 3.
- 3.9 Re-install the negative battery cable on the negative battery terminal.



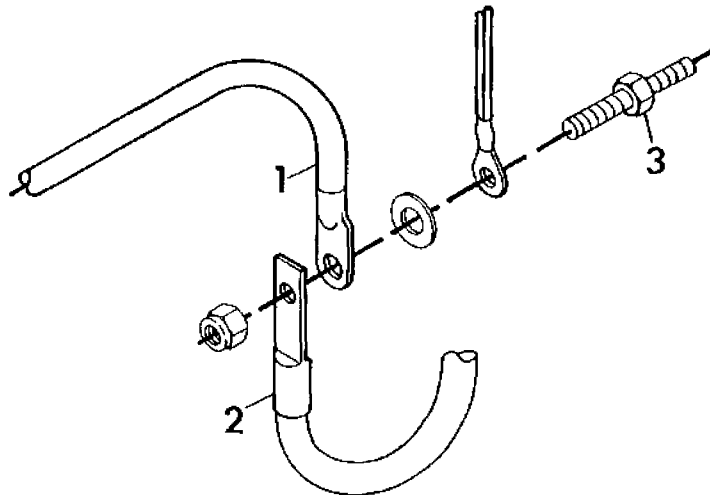
8 H.P. UNITS



10, 12, AND 16 H.P. UNITS

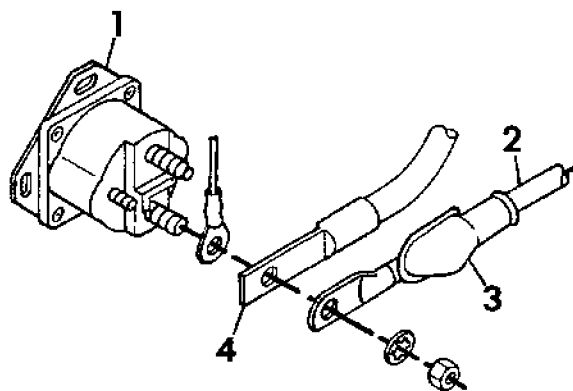
- 1 - Caster Wheel Support Weldment
- 2 - Caster Fork Mounting Bracket
- 3 - Hitch Weldment

FIGURE 1



- 1 - Negative Battery Cable
- 2 - Negative Jumper Cable
- 3 - Stud

FIGURE 2

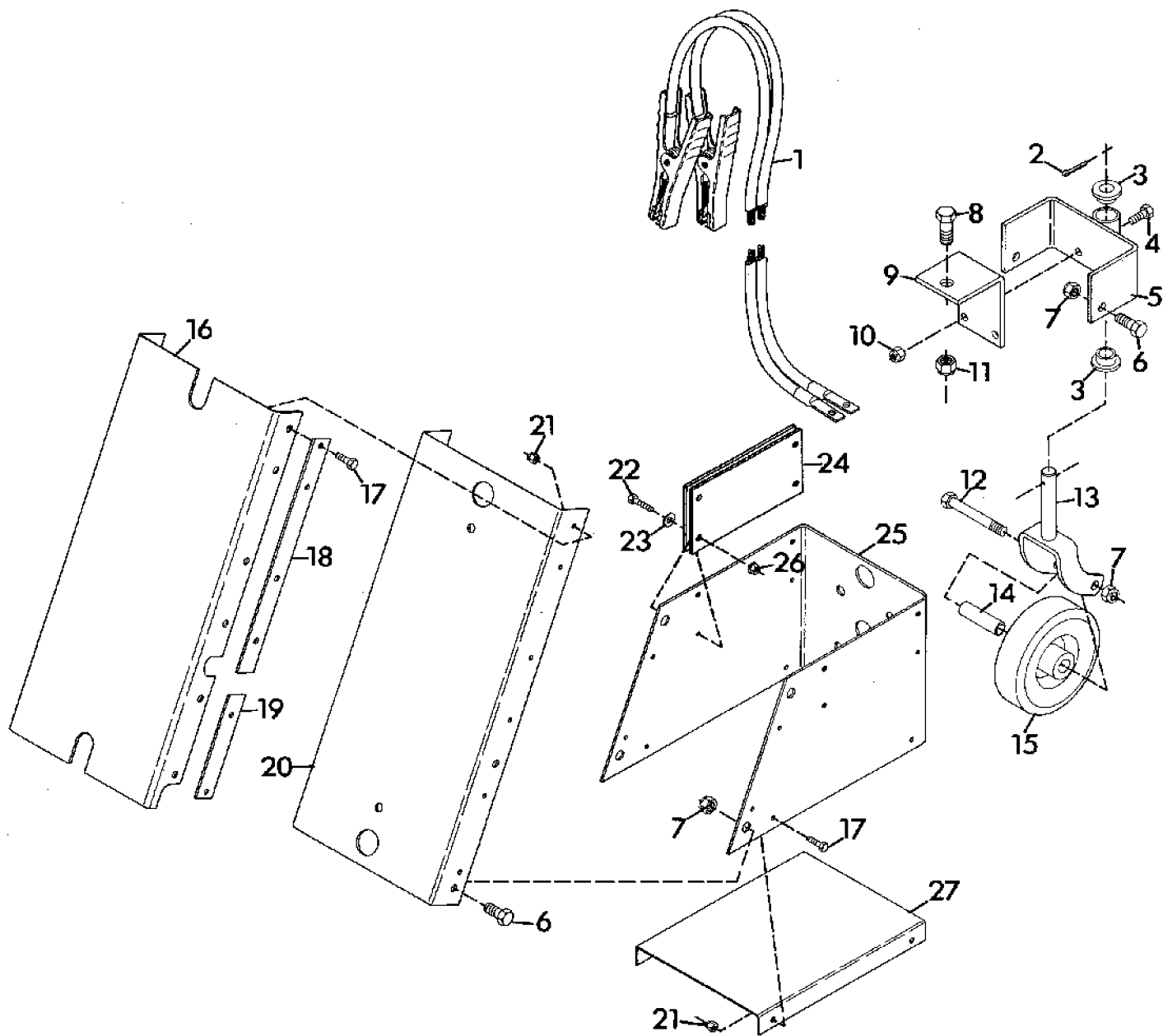


- 1 - Magnetic Switch
- 2 - Positive Battery Cable
- 3 - Battery Cable Boot
- 4 - Positive Jumper Cable

FIGURE 3

SECTION 4

Illustrated Parts and Parts List



ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	43385	1	Assembly, Cable
2	120123	1	Pin, Cotter .125x1.25
3	10174	2	Bushing, Nylon .76x1.00x.6 Flange
4	180122	2	Bolt, Hex 3/8-16x1.00
5	44442	1	Weldment, Caster Wheel Support
6	180175	6	Bolt, Hex 1/2-13x1.25
7	435507	7	Nut, Lock 1/2-13
8	271547	1	Bolt, Hex 5/8-11x1.50
9	44446	1	Bracket, Caster Fork Mounting
10	456004	2	Nut, Lock 3/8-16
11	418692	1	Nut, Lock 5/8-11
12	180193	1	Bolt, Hex 1/2-13x3.75
13	11385	1	Weldment, Caster Fork
14	11387	1	Bushing, .515x.750x2.594
15	11386	1	Wheel, Caster
16	43380	1	Pad, Bumper
17	180022	16	Bolt, Hex 1/4-20x1.00
18	44447	2	Strip
19	44448	2	Strip
20	44436	1	Bumper
21	419454	16	Nut, Lock 1/4-20
22	44449	4	Bolt, 1/4-20x1.0 Nylon
23	11772	4	Washer, Friction
24	43389	2	Pad, Insulator
25	44437	1	Frame, 2-Wheel Pusher
26	44450	4	Nut, Nylon
27	44438	1	Tray

NOTE: The orientation of the caster wheel support weldment shown is correct for 8 H.P. units. Refer to Figure 1 for the orientation of the weldment when used on 10, 12 or 16 H.P. units.

## SECTION 5

### LIMITED FIVE-YEAR WARRANTY

1. This Limited Five-Year Warranty is issued by Gravely International, Inc., only to the original purchaser. If Gravely equipment is leased by Gravely, this Warranty shall extend also to the original lessee as if such lessee were the original purchaser.
2. Gravely warrants that all new equipment manufactured by Gravely ("Gravely 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 Gravely Product. Engine and tires are covered by and subject to separate warranties of the manufacturers thereof.
3. In the event that any Gravely Product warranted hereunder shall be defective or fail to conform with this Warranty, Gravely shall, subject to the provisions hereof, pay for, or provide labor and materials for, the repair or replacement of such defective Gravely Product.
4. This Warranty is for five years (60 months) from purchase date for Gravely 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. Gravely products used for rental purposes will be warranted for 90 days. Repair of Gravely 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, Gravely agrees to repair or replace defective Gravely 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 Gravely 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 Gravely Product (including any battery or other component not manufactured by Gravely), use this procedure:
  - a. 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.
  - 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 Gravely Limited Warranty, they should be referred to:

Gravely International, Inc.  
One Gravely Lane  
Clemmons, NC 27012  
Attn: Customer Service Department
  - e. Warranty service on Gravely Products must be performed by an authorized Gravely dealer.
6. This Warranty does not cover the following:
  - a. Transportation to the Gravely dealership. (If the Gravely 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 Gravely 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 Gravely 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 Gravely. (The use of any such unapproved attachment will void this Warranty.)
7. GRAVELY MAKES NO OTHER EXPRESS 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. GRAVELY 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 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.
  - 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 Gravely dealers and no Gravely dealer is authorized to make any representations or promises on Gravely's behalf.



One Gravely Lane, Clemmons, NC 27012