

NOTE

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

CONTENTS

To keep the warranty, the brake kit 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.

# WHEEL BRAKE KIT FOR 8000-G SERIES TRACTORS

6. SERVICE INSTRUCTIONS

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

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



GRAVELLY



NOTE

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

To keep the warranty, the brake kit 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 \_\_\_\_\_



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

## 1.2 Operation

1. Wear foot and eye protection and use proper clothing.

2. Do not use the tractor until you have read and understood the instructions for safe operation.

3. Do not use the tractor in areas where it is not intended to be used. Improper use of this tractor can damage the equipment. People using or servicing this tractor must read and follow the instructions in this manual.

## CONTENTS

### 1. INSTRUCTIONS FOR SAFE OPERATION

### 2. INSTALLATION

### 3. ILLUSTRATED PARTS

### 4. ADJUSTMENTS

### 5. OPERATING INSTRUCTIONS

### 6. SERVICE INSTRUCTIONS

### 7. WARRANTY

## SECTION 1

### Instructions for Safe Operation

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

It is important to understand that this manual and any other Gravelly instruction manuals do not cover every possible danger. It is impossible for Gravelly 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

1. Read the tractor and attachment operator's manuals carefully.
2. 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.



## Installation

## 1.2 Operation

1. Wear foot and eye protection. Do not wear loose clothing.
2. 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 ATTACHMENTS GRAVELY HAS APPROVED FOR USE WITH THIS TRACTOR.
6. 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 1,000 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.

1. Wear foot and eye protection. Do not wear loose clothing.
2. Do not use the tractor in the dark without adequate lighting.
3. Keep the tractor in good condition. Maintain it as recommended in the manual.
4. Replace all parts that become damaged or worn.

USE ONLY GRAVELY SURFACES AND ATTACHMENTS OR ATTACHMENTS WHICH ARE APPROVED FOR USE WITH THIS TRACTOR. Do not use the tractor on steep slopes or on uneven ground.

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 and use caution applying steering brakes on slick surfaces.
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.
24. Use steering brakes only in lower gears and lower engine speed.

Look behind when operating in reverse. Do not look back at the tractor when it is in reverse. Stop the engine and check for damage. Repair any damage before continuing operation.

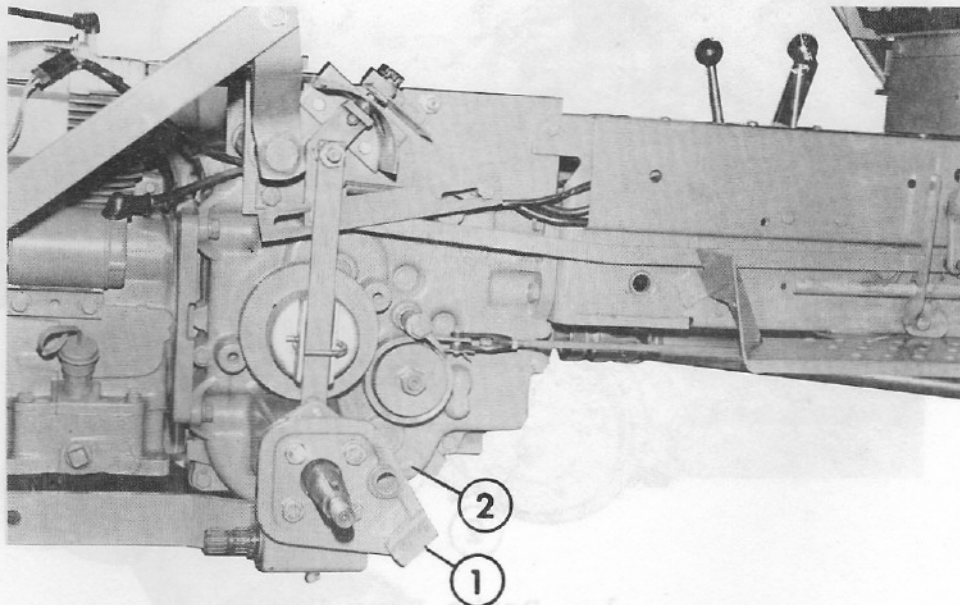
Operate the tractor only from the seat. Do not get off the tractor until it is stopped. Do not drink alcohol or use drugs before operating the tractor.

Before leaving the tractor, move the PTO control to "OFF", lower attachment, lock the brake, and remove the ignition key.

## SECTION 2

### Installation

- 2.1 Clean the transmission drain plug. Drain transmission oil into a clean container.
- 2.2 Carefully raise and block the rear of the tractor. Remove the rear wheels and wheel hubs. See illustrated parts in Section 3.
- 2.3 Remove the four axle bearing retainer bolts on each side.
- 2.4 Remove the pin-shaft weldment and link from the brake castings. Install the brake castings with the 4-inch long bolts supplied in the kit. See Figure 1.
- 2.5 Place the brake bands on the pin-shaft weldment. Slide the pin-shaft weldments into the brake casting and the link so that the holes in the brake bands align with the holes in the casting and the link is at the 10 o'clock position. Secure the brake bands to the castings with two 5/16-1.25" long bolts and washer insert nuts. See Figure 2.
- 2.6 Remove masking tape from brake drum hubs. Coat the axles with a film of grease. Slide the brake drum hubs onto the axles taking care to align the key groove with the key. When the brake drum hub meets the brake band, push up on the link and down on the brake band so that the brake drum hub will slide into the brake band. Secure the hub with the washer and lock nut. See Figure 3.

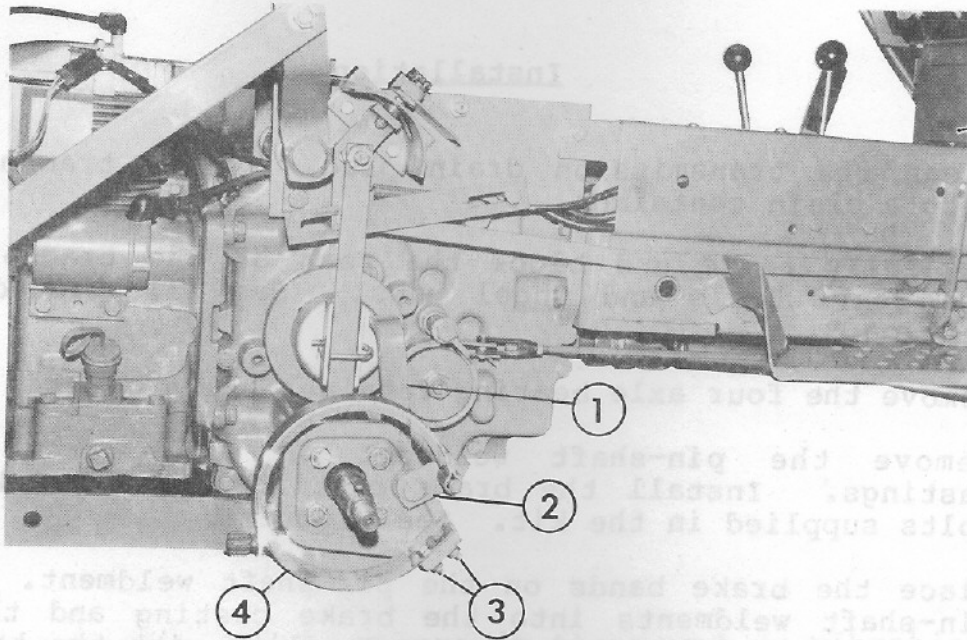


1 - Brake Casting  
2 - Lube Fitting

FIGURE 1

85071

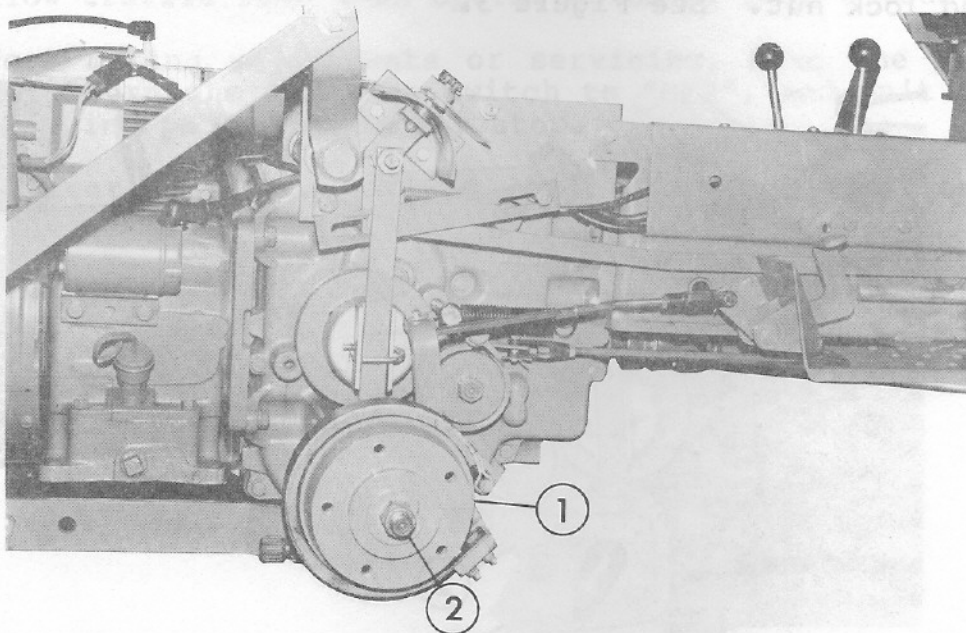




85072

- 1 - Link
- 2 - Pin Shaft Weldment
- 3 - 5/16-18x1.25 Hex Bolts
- 4 - Brake Band

FIGURE 2



85073

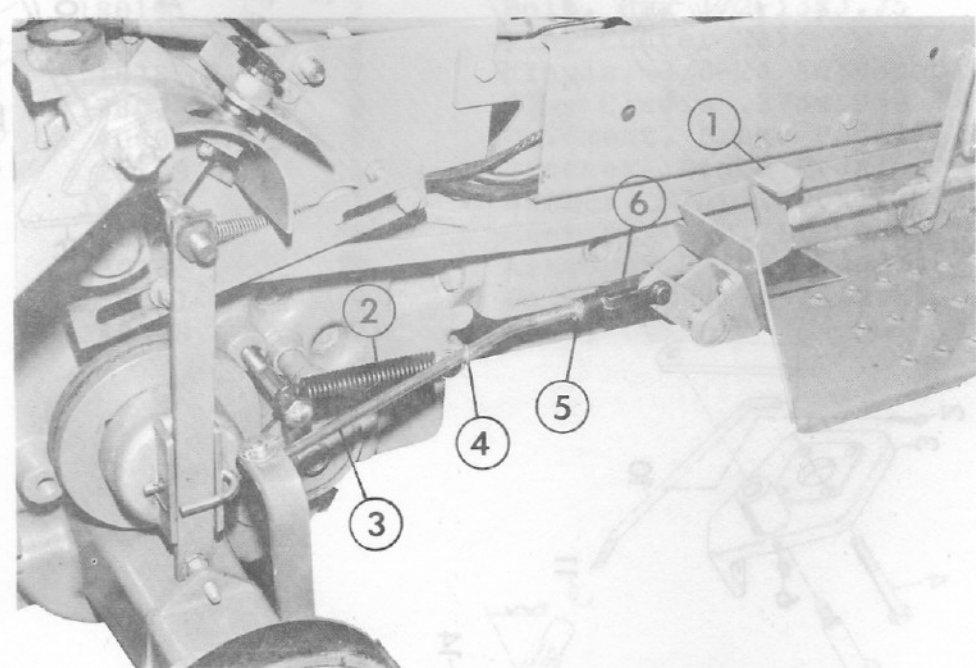
- 1 - Brake Drum Hub
- 2 - Lock Nut

FIGURE 3



Illustrated Parts and Parts List

- 2.7 Push the brake band against the brake drum and adjust the link to a vertical position on the pin-shaft weldment. Secure with a 3/8" washer insert nut.
- 2.8 Install the jam nuts and clevises onto the brake rods. On the left brake rod, install the cotter pin from the top side in the front hole. On the right brake rod, install the cotter pin from the top side in the rear hole. See Figure 4.
- 2.9 Install the brake pedal weldment on the right side with two 5/16-18x.75 hex bolts and lock nuts. Install the brake pedal bracket on the left side with the 5/16 hex bolts and lock nuts. Put the brake pedal weldment into the bracket and secure with washer and cotter pin.
- 2.10 Put the brake rods into the links and secure with cotter pins. Hold the brake pedal level and adjust the clevis until the holes align. Secure with a clevis pin and a hairpin cotter. Tighten jam nut.
- 2.11 Put an extension spring on each 1/2-13x3.25 hex bolt and install in the transmission just in front of the clutch. Fasten the front of the extension spring in the cotter pin in the brake rods. See Figure 4.
- 2.12 Apply grease to the grease fitting on the brake casting until it comes out. Replace the rear wheel assemblies, lower tractor and refill transmission with clean oil.



1 - Brake Pedal Weldment	4 - Cotter Pin
2 - Spring	5 - Jam Nut
3 - Brake Rod	6 - Clevis

FIGURE 4

85074

SECTION 3

Illustrated Parts and Parts List

Use hand... adjust the...  
vertical...  
weldment.

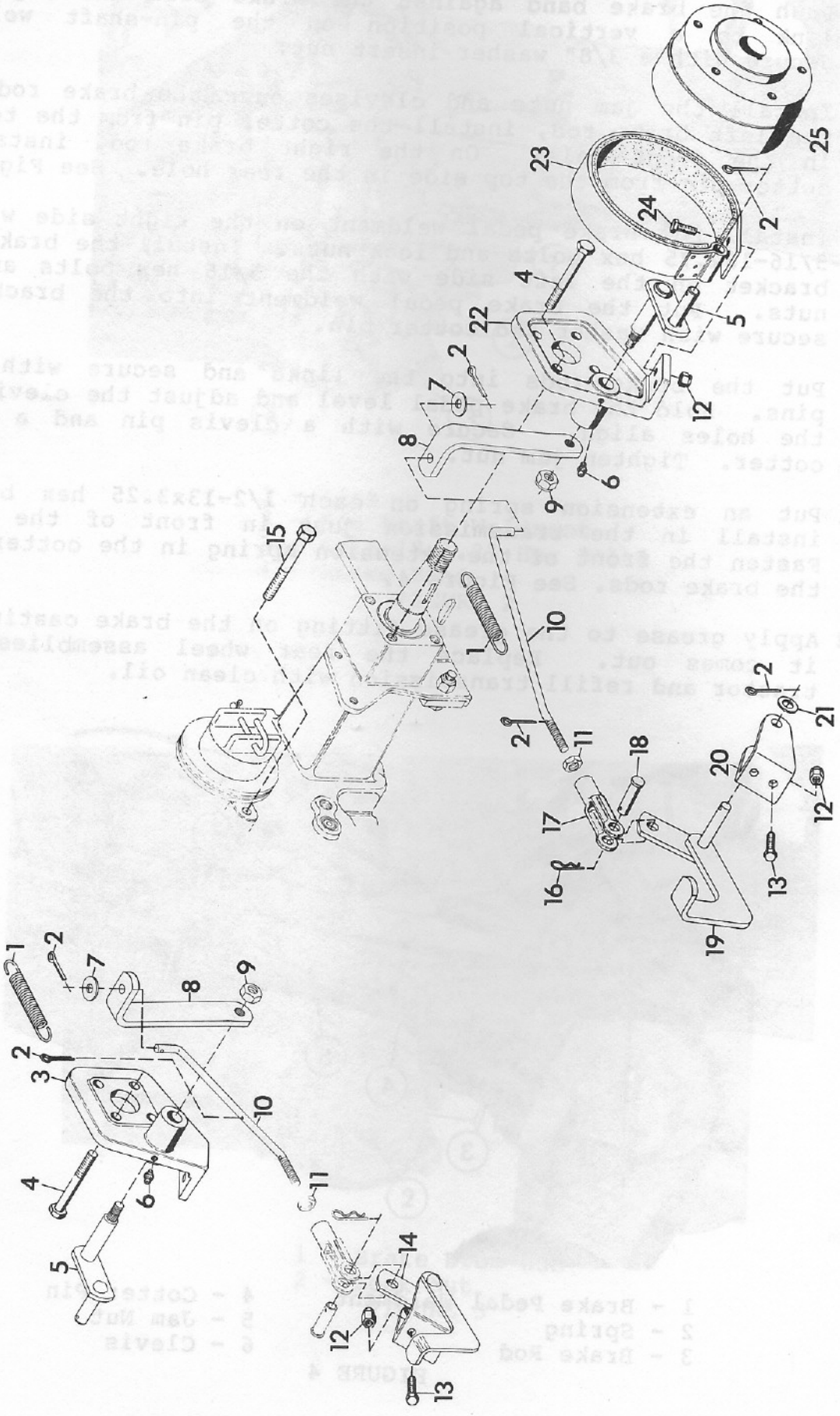
On...  
the top side...  
install...  
See figure...

side with two...  
the brake pedal...  
and lock...  
bracket and

and secure with cover...  
level and adjust the clevis until...  
a clevis pin and a hairpin

Put an expansion...  
in the...  
front of the...  
the cotter pin in

Apply grease to...  
the brake casting until...  
wheel assemblies, lower...  
clean oil.



1 - Brake Pedal  
2 - Spring  
3 - Brake Rod  
4 - Jam Nut  
5 - Clevis  
6 - Cotter Pin  
7 - Hairpin  
8 - Bracket  
9 - Pin  
10 - Lever  
11 - Clevis  
12 - Cotter Pin  
13 - Pin  
14 - Bracket  
15 - Pin  
16 - Pin  
17 - Pin  
18 - Pin  
19 - Lever  
20 - Bracket  
21 - Pin  
22 - Pin  
23 - Bracket  
24 - Pin  
25 - Cover

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	34241	2	Spring
2	121222	7	Pin, Cotter .094x.75
3	20182	1	Casting, R.H. Brake
4	180194	8	Bolt, Hex 1/2-13x4.00
5	20188	2	Weldment, Pin Shaft
6	411027	2	Fitting, Lube 1/4-28
7	120388	2	Washer, Flat .438x1.000x.083
8	40327	2	Link
9	192481	2	Nut, Lock 3/8-24
10	40636	2	Rod, Brake
11	124925	2	Nut, Jam 3/8-24
12	419455	8	Nut, Lock 5/16-18
13	180077	4	Bolt, Hex 5/16-18x.75
14	20207	1	Weldment, Brake Pedal R.H.
15	180191	2	Bolt, Hex 1/2-13x3.25
16	11860	2	Pin, Cotter Hair
17	18380	2	Clevis, 3/8-24 Adjustable
18	138078	2	Pin, Clevis .375x.948
19	40635	1	Weldment, Brake Pedal L.H.
20	20209	1	Bracket, Brake Pedal
21	120389	1	Washer, Flat .500x1.250x.083
22	20183	1	Casting, L.H. Brake
23	20185	2	Assembly, Brake Band
24	180081	4	Bolt, Hex 5/16-18x1.25
25	40328	2	Drum, Brake



## SECTION 4

### Adjustments

- 4.1 The wheel brakes are adjusted by moving the clevis on the brake rod and by rotating the link on the pin-shaft weldment. See Figures 2 and 4 and illustration in Section 3.
- 4.2 Unfasten the extension springs and remove the clevis pins. Remove the lock nut from the pin-shaft weldment. Loosen the brake rod jam nuts.
- 4.3 Hold the brake band against the brake drum and move the link on the pin-shaft weldment to a position nearest to vertical. Replace the lock nut. Repeat the adjustment on the other side.
- 4.4 Hold the brake pedal in the horizontal position and adjust the clevis until the holes align. Replace the clevis pin and tighten the jam nut. Replace the extension spring. Repeat the adjustment on the other side.

SECTION 5

LIMITED FIVE YEAR WARRANTY

Service Instructions

5.1 After each use of the tractor, wash the diff from the brakes with water.

5.2 After each use of the tractor, inspect the fasteners and make sure they are tight. Tighten fasteners as shown in Chart 1.

5.3 Add multi-purpose grease to the indication listing every 8 hours of operation.

5.4 Replace the brake bands when the lining is less than .030" thick.

SECTION 5

Operating Instructions

- 5.1 Read this manual and the operator's manuals for the tractor and attachments.

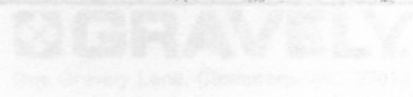
The wheel brakes are used to assist the tractor steering and to reduce the turning radius of the tractor.

**! WARNING:** Use only the service brake to slow or stop the tractor. To prevent loss of control, the wheel brake must be used only to assist in steering the tractor.

- 5.2 To steer the tractor to the right, rotate the steering wheel to the right and depress the right brake pedal.
- 5.3 To steer the tractor to the left, rotate the steering wheel to the left and depress the left brake pedal.

10	10	10
20	20	20
30	30	30
40	40	40
50	50	50
60	60	60
70	70	70
80	80	80
90	90	90
100	100	100

CHART 1



## SECTION 6

### Service Instructions

- 6.1 After each use of the tractor, wash the dirt from the brakes with water.
- 6.2 After each use of the tractor, inspect the fasteners and make sure they are tight. Tighten fasteners as shown in Chart 1.
- 6.3 Add multi-purpose grease to the lubrication fitting every 8 hours of operation.
- 6.4 Replace the brake bands when the lining is less than .050" thick.
  1. Raise the tractor and remove the rear wheel.
  2. Remove the brake drum. See Figure 2.
  3. Remove the two bolts which attach the lining and slide it off the pinshaft weldment.
  4. Reassemble according to the instructions in Section 2.

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 7

### 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). 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 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.

 **GRAVELY**  
One Gravely Lane, Clemmons, NC 27012