



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 _____

WHEEL BRAKE KIT 800/8000 SERIES TRACTORS OPERATORS MANUAL



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

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 part, 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.

NOTE

Read this manual carefully and learn to operate and service your brake kit before using it. To keep the warranty, the kit must be maintained and operated as directed in this manual.

CONTENTS

1. INSTRUCTIONS FOR SAFE OPERATION
2. INSTALLATION
3. ILLUSTRATED PARTS
4. ADJUSTMENTS
5. OPERATING INSTRUCTIONS
6. SERVICE INSTRUCTIONS
7. WARRANTY

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



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 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

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.

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 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 slowly 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 speeds.

2.8 Remove masking tape from brake drum hubs. Coat the axles with a film of grease. Slide the brake drum hubs onto the axle and secure with the key.

2.9 Install the brake drum hub on the axle. Coat the axle with a film of grease. Slide the brake drum hub onto the axle and secure with the key.

2.10 On the right brake rod, install the cotter pin from the top of the brake rod. On the left brake rod, install the cotter pin from the bottom of the brake rod. See Figure 2.

FIGURE 1

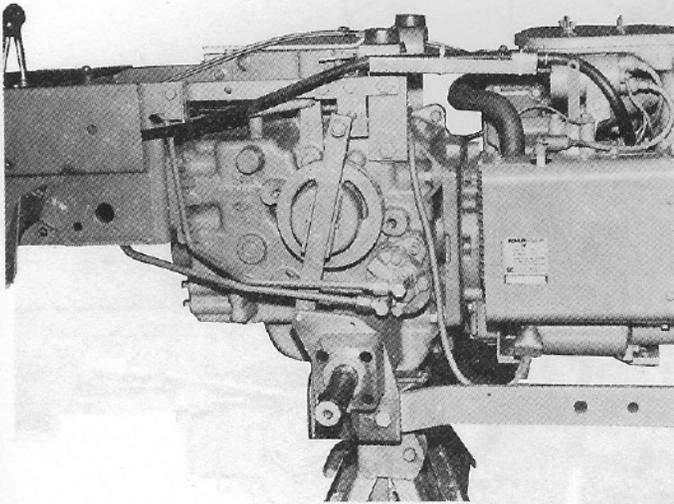
1 - Brake Casting
FIGURE 2

SECTION 2

Installation

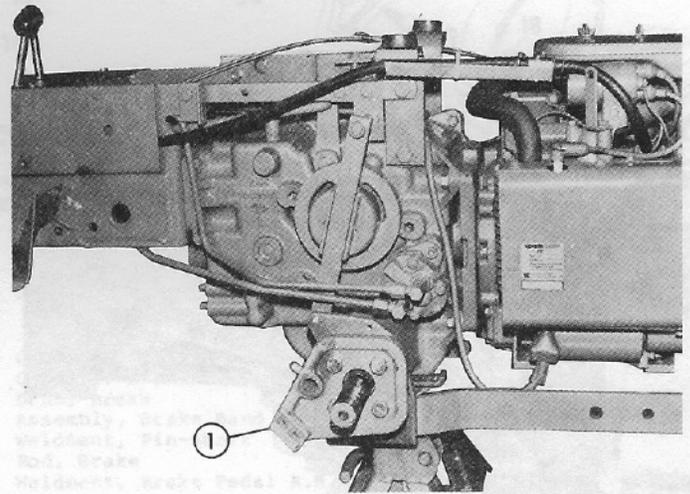
- 2.1 Clean the transmission drain plug. Drain transmission oil into a clean container.
- 2.2 Carefully raise and block the rear of the tractor. Remove the rear wheels and wheel hubs. See Figure 1 and illustrated parts in Section 3.
- 2.3 Remove the four axle bearing retainer bolts on each side.
- 2.4 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 2.
- 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-inch long bolts and washer insert nuts. See Figure 3.
- 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 E-ring. See Figure 4.
- 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 the a 3/8" washer insert nut. See Figure 4.
- 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. On the right brake rod, install the cotter pin from the topside in the rear hole. See Figure 5.

- 2.9 Install the brake pedal weldments with the 5/16" - .75" long bolts and washer insert nuts.
- 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 Use two of the bolts removed from the axle bearing retainer. Put an extension spring on each 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 6.
- 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.



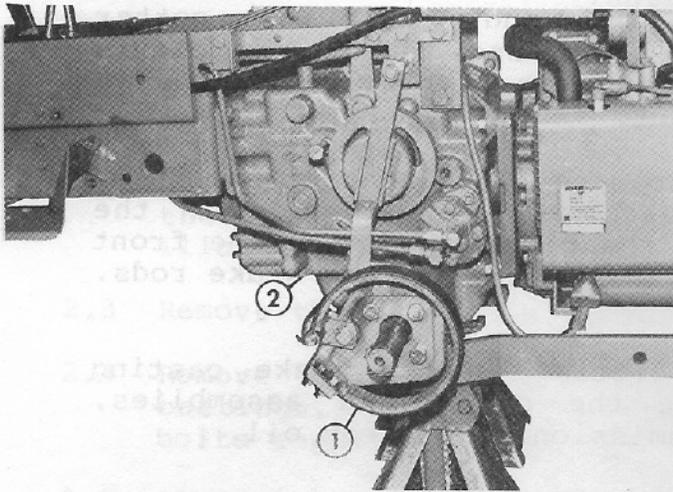
82138

FIGURE 1



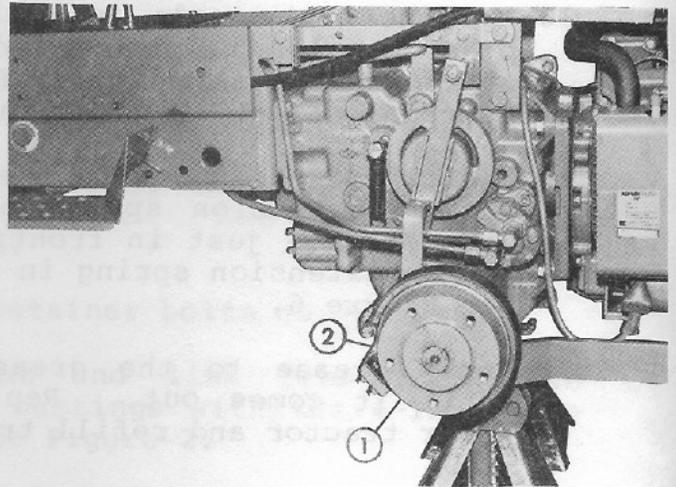
82139

1 - Brake Casting
FIGURE 2



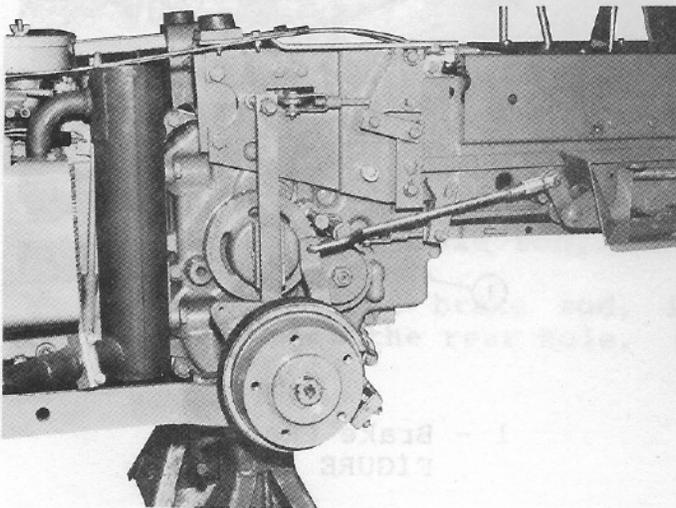
82140

- 1 - Brake Band
 - 2 - Link
- FIGURE 3



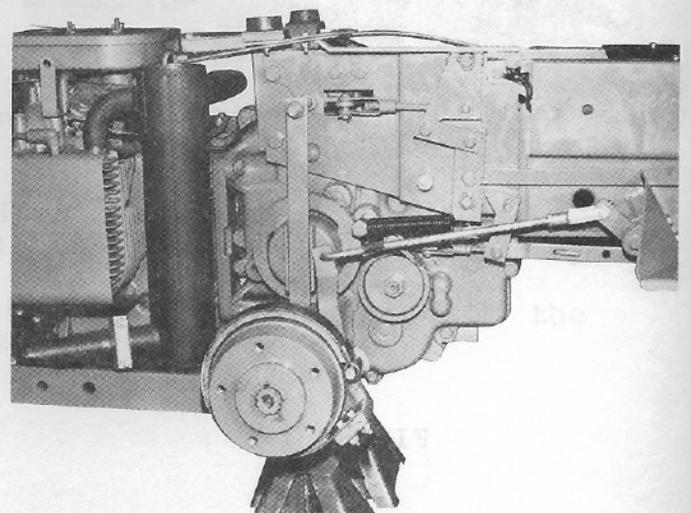
82141

- 1 - Brake Drum Hub
 - 2 - E-Ring
- FIGURE 4



82142

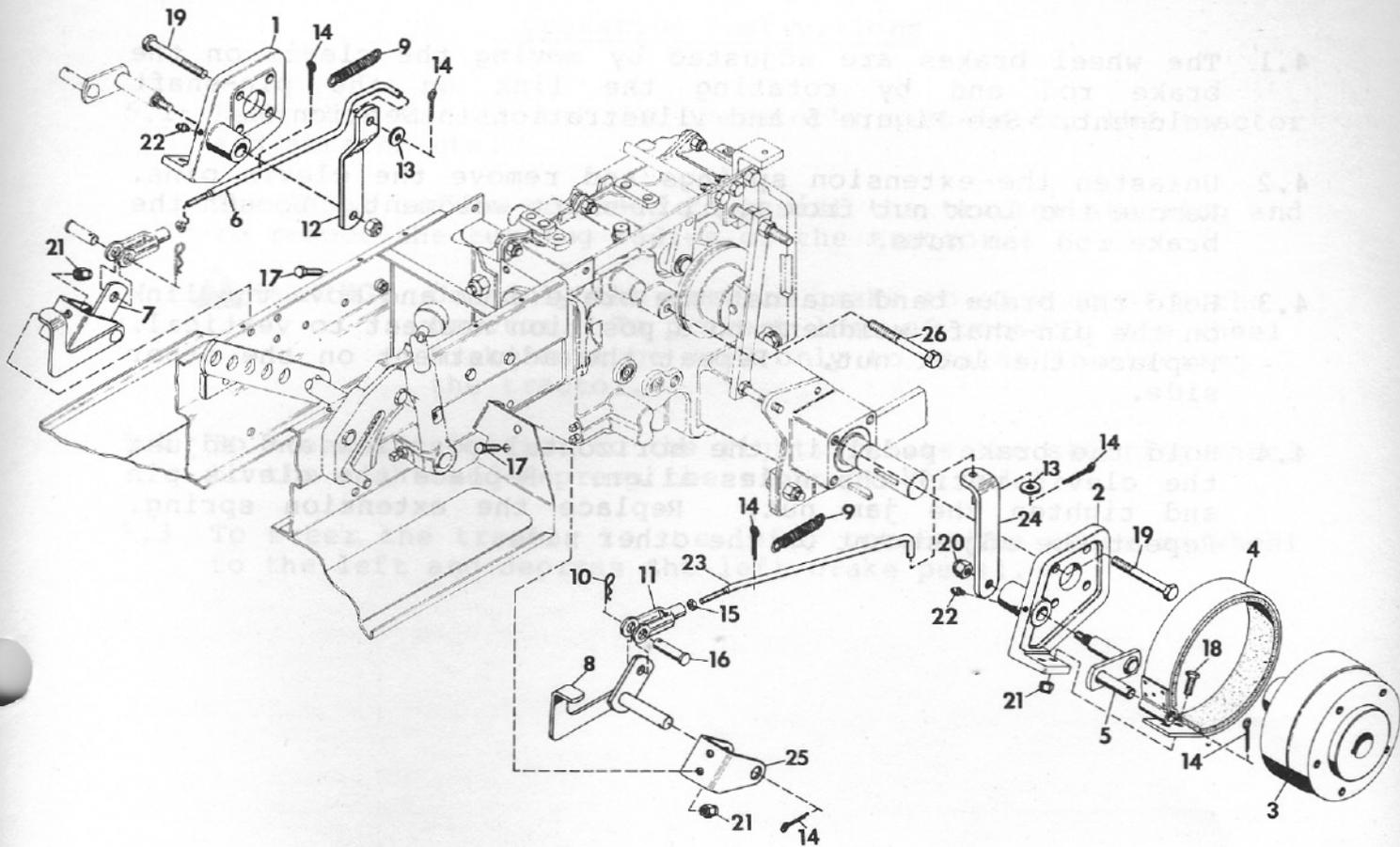
FIGURE 5



82143

FIGURE 6

SECTION 3

Illustrated Parts and Parts List

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	20182	1	Casting, Brake R.H.
2	20183	1	Casting, Brake L.H.
3	20184	2	Drum, Brake
4	20185	2	Assembly, Brake Band
5	20188	2	Weldment, Pin-Shaft
6	20193	1	Rod, Brake
7	20207	1	Weldment, Brake Pedal R.H.
8	35019	1	Weldment, Brake Pedal L.H.
9	34241	2	Spring
10	11860	2	Pin, Cotter Hair
11	18380	2	Clevis, 3/8-24 Adjustable
12	20192	1	Link
13	120388	2	Washer, Flat .438x1.000x.083
14	121222	7	Pin, Cotter .09x.62
15	124925	2	Nut, Jam 3/8-24
16	138078	2	Pin, Clevis .395x.948
17	180077	4	Bolt, Hex 5/16-18x.75
18	180081	4	Bolt, Hex 5/16-18x1.25
19	180194	8	Bolt, Hex 1/2-13x4.00
20	192481	2	Nut, Lock 3/8-24
21	419455	8	Nut, Lock 5/16-18
22	411027	2	Fitting, Lube 1/4-28
23	35018	1	Rod, Brake R.H.
24	35023	1	Link
25	20209	1	Bracket, Brake Pedal
26	180191	2	Bolt, Hex 1/2-13x3.25

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.

GRAVELLY

NEWTON METERS (N)	POUNDS (LBS.)	BOLT SIZE
7	15	1/4"
14	30	3/8"
21	45	1/2"
28	60	5/8"
35	75	3/4"
42	90	7/8"
49	105	1"
56	120	1 1/8"
63	135	1 1/4"
70	150	1 1/2"
77	165	1 3/4"
84	180	2"
91	195	2 1/4"
98	210	2 1/2"
105	225	2 3/4"
112	240	3"
119	255	3 1/4"
126	270	3 1/2"
133	285	3 3/4"
140	300	4"

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 axle snap ring and the brake drum. See Figures 3 and 4.
 3. Remove the two bolts which attach the lining and slide it off the pin-shaft 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

GRAVELY LIMITED WARRANTY

5. Limited Warranty is issued by Gravelly International, Inc., consists of the following terms:

1. Only the original purchaser of new Gravelly equipment is covered by this Warranty.
2. This Warranty covers repair or replacement of parts manufactured by Gravelly which are defective in material or workmanship. Gravelly will pay for parts and labor only.
3. The Warranty starts the date of purchase and lasts for TWELVE (12) MONTHS.
4. Some components of Gravelly equipment are not covered by the Gravelly Warranty. These components are covered by the original manufacturer's warranty, which is included with the product. They are:
 - a. Engines
 - b. Tires
5. To obtain warranty service on Gravelly equipment including components 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: Manager of Customer Services
 - e. Warranty service on Gravelly equipment must be performed by an authorized Gravelly dealer or Gravelly factory branch.

6. This Warranty does not cover the following:

- a. Transportation between owner's home or 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.
- 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.
- c. 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. GRAVELLY MAKES NO OTHER EXPRESS WARRANTIES 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. GRAVELLY 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.

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

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.

