

# POWER GRAVELER (WHEEL UNDER)

## Instruction and Safety Information



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Weston, ON M9L 1T3  
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- Pickering, ON
- Toronto (Bloor St.), ON
- Toronto (Wade Ave.), ON
- Weston (Weston Rd.), ON
- Weston (Signet Dr.), ON
- Barrie, ON
- Oakville, ON
- Hamilton, ON
- London, ON
- Edmonton, AB
- Calgary, AB
- Winnipeg, MB
- Bensenville (Chicago), IL

## **WARNING**

Misuse of this equipment may result in damage or injury. It is the responsibility of the purchaser to ensure that the personnel operating the machine is trained in the proper operating procedures and all safety regulations.

The employer shall permit only these employees qualified by training or experience to operate equipment and machinery.

The employer shall instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment, to control or eliminate any hazards or other exposure to illness or injury.

Regulations governing the use, selection, and maintenance of personal protective and lifesaving equipment as stated in safety regulations shall be followed.

Do not operate on a roof without a perimeter warning system or barrier.

## **SAFETY PRECAUTIONS**

1. When using this equipment, safety shoes, full-face shield and proper clothing should be worn to protect the operator from flying debris.
2. Do not operate this equipment within 10 feet of the roof edge.
3. When on-deck equipment is being used, perimeter warning lines must be set up 10 feet from the roof edge, and around all roof openings.
4. Follow local code requirements.
5. Never leave machine unattended when engine is running.
6. Shut off the engine before refuelling, checking, making adjustments or repairs.
7. Keep hands and feet clear of moving parts at all times.
8. Do not operate unless all safety covers and guards are in position.


## **OPERATOR TRAINING**

1. Before being allowed to use this or any piece of equipment, the operator should first fully understand all proper operating procedures. Special attention should be paid to the control locations and functions, all warning messages, and possible hazardous operations conditions.
2. Proper training includes informing the operator as to the correct protective clothing and safety equipment that should be worn while operating the equipment. Clothes that fit properly (that is, not too tight and not too loose) includes a long sleeve shirt buttoned at the cuff, long cuffless pants, steel toe safety shoes and safety glasses or full face shield. These items should be mandatory apparel for the operator. If work is being done at a level lower than the level at which the sweeper is being used, a hard hat must be worn.
3. Before using the machine on a roof, the operator should become familiar with the controls, safety features, and the overall 'feel' of the machine; on the ground, preferably in an open area with no vehicular or pedestrian traffic.

## **INTENDED USE**

This machine is intended to be used for the sole purpose of moving gravel, roofing material, trash and 55 gallons insulated tank on the flat roof. It is not designed for moving people.

## **BEFORE STARTING**

 **Warning** Make certain that all the safety covers are in place and all bolts and nuts are tightened securely. Never under any circumstances operate the machine without all safety covers bolted firmly in place.

Never put hands, feet or any parts of body close to the rotating parts when engine is running.

Never leave the machine unattended when the engine is running.

**Note:** Make certain that the engine crankcase is filled with oil and that the engine has been serviced as per the engine instruction.

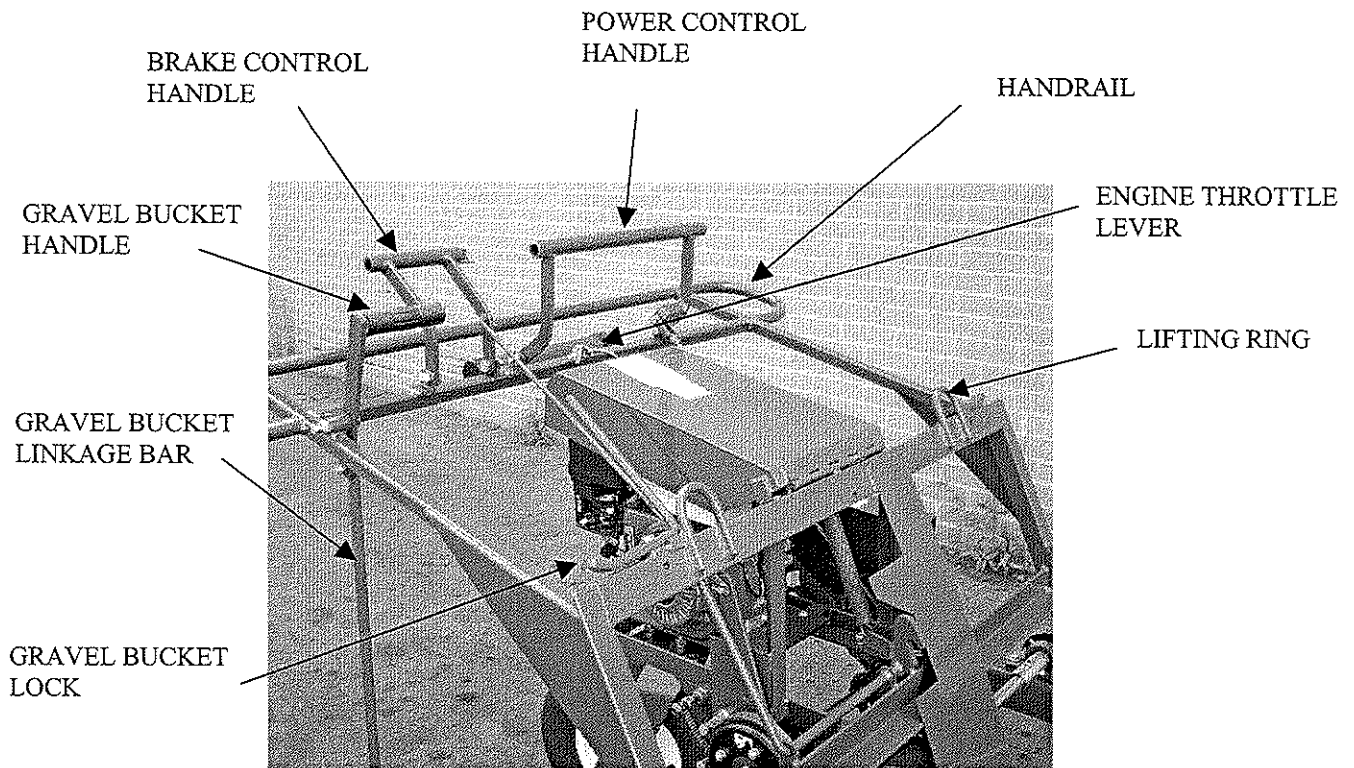


FIGURE #1

## **OPERATION WITH POWER**

**Note:** The power graveler can only move forward with power.

Start the engine as per the engine operation instruction. When engine running smoothly, turn the throttle lever to a higher engine speed.

To start moving forward:

Press power control handle fully down. The brake will release automatically and the power graveler will start moving forward.

To turn while power graveler is moving:

Pull on the handrail to the direction of turn and push with the other hand on the other side of handrail while holding down the power control handle.

To stop the power graveler:

Release the power control handle and the brake will engage and stop the power graveler.

To change the speed:

Turn the throttle lever clockwise to increase the speed.

Turn the throttle lever counter-clockwise to decrease the speed.

## **OPERATION WITHOUT POWER**

**Note:** This operation can be performed with or without the engine is turned on.

Press down the brake control handle fully down to release the brake. Move the power graveler forward, backward or make a turn as desired.

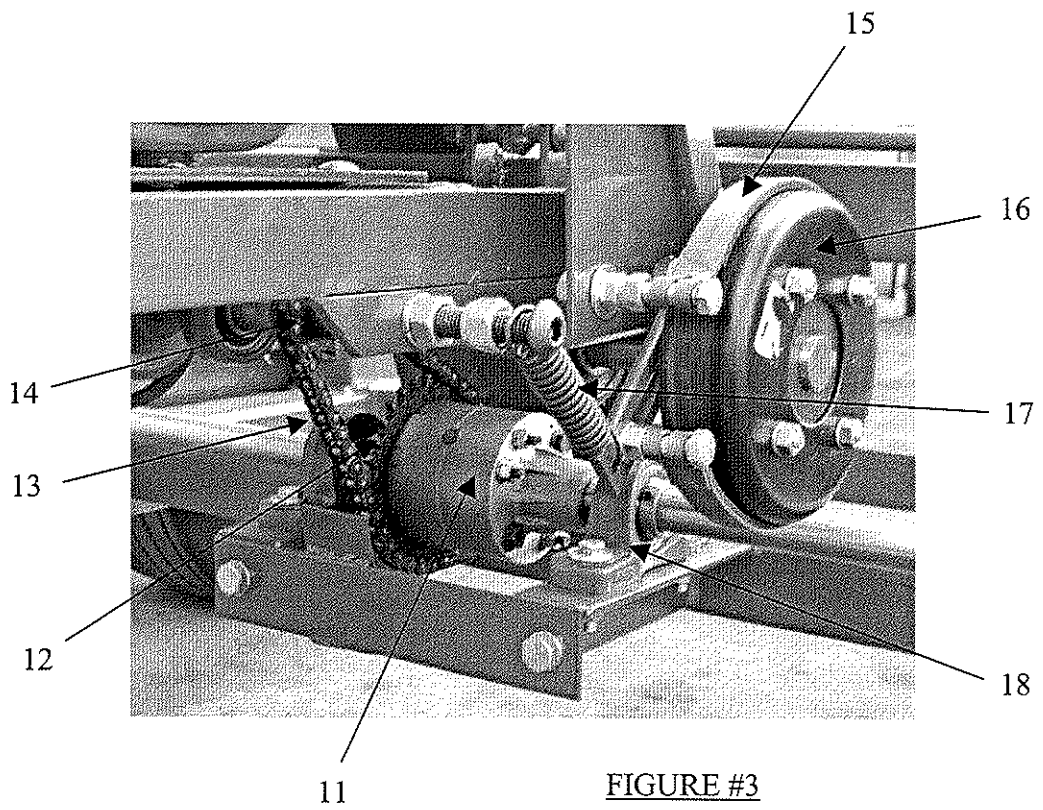
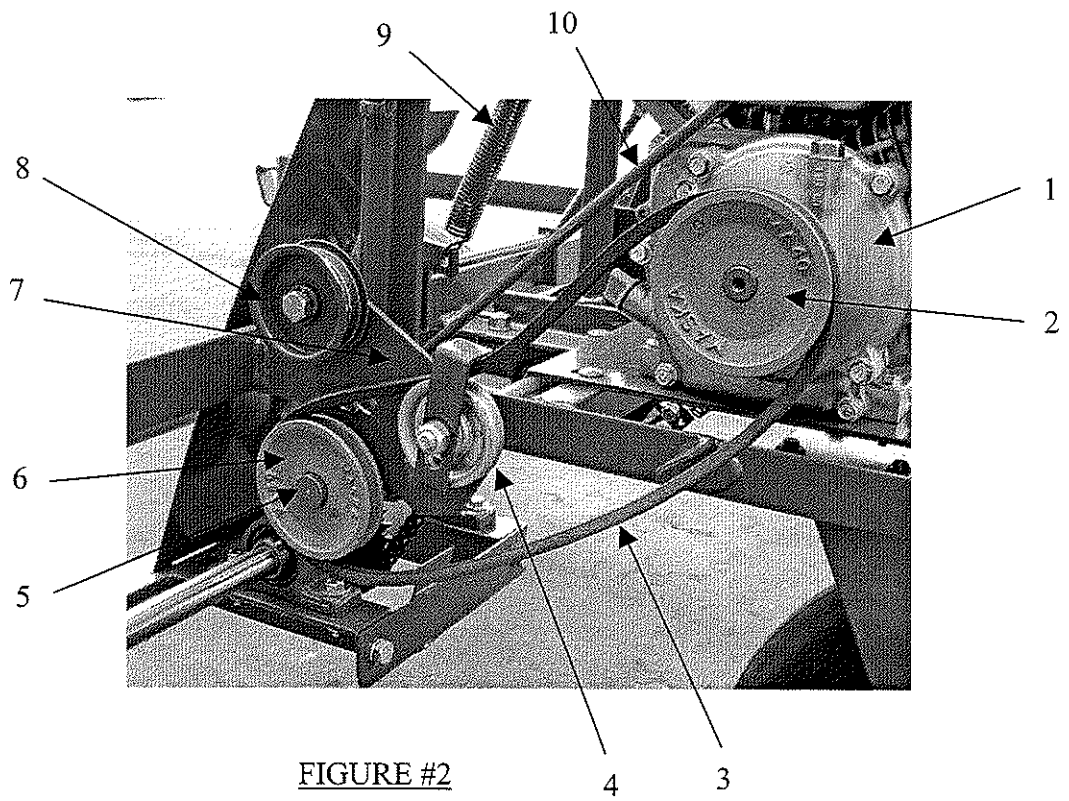
## **MAINTENANCE**

Clean and grease the chain when needed.

Grease all bearings with grease every 3 months.

For engine maintenance, carefully follow the engine maintenance instructions that are provided with this machine.

**Note:** Remove spark plug wire from spark plug to avoid engine start-up accidentally before servicing the power Graveler or the engine.



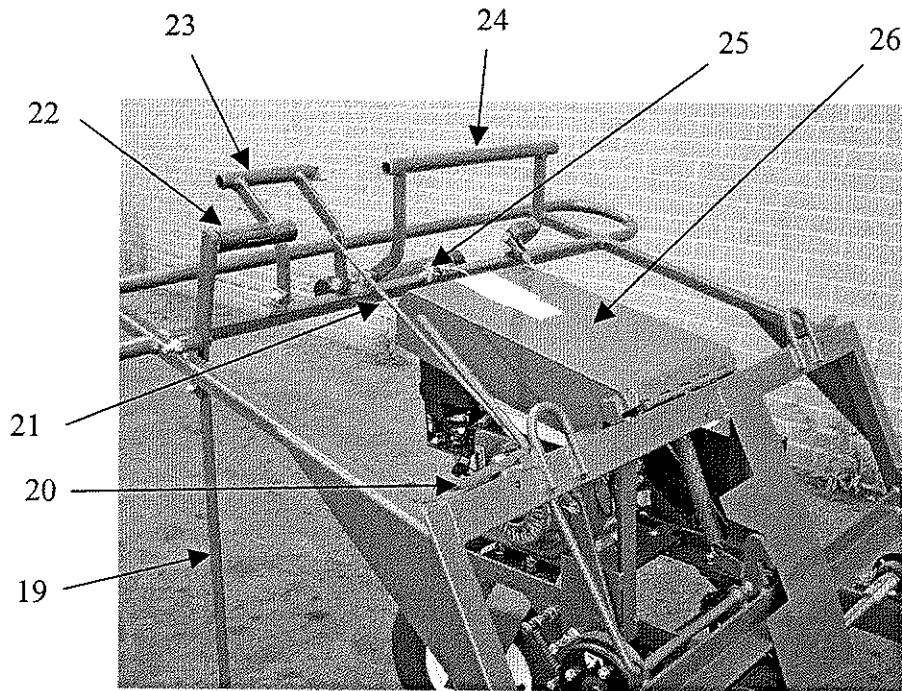


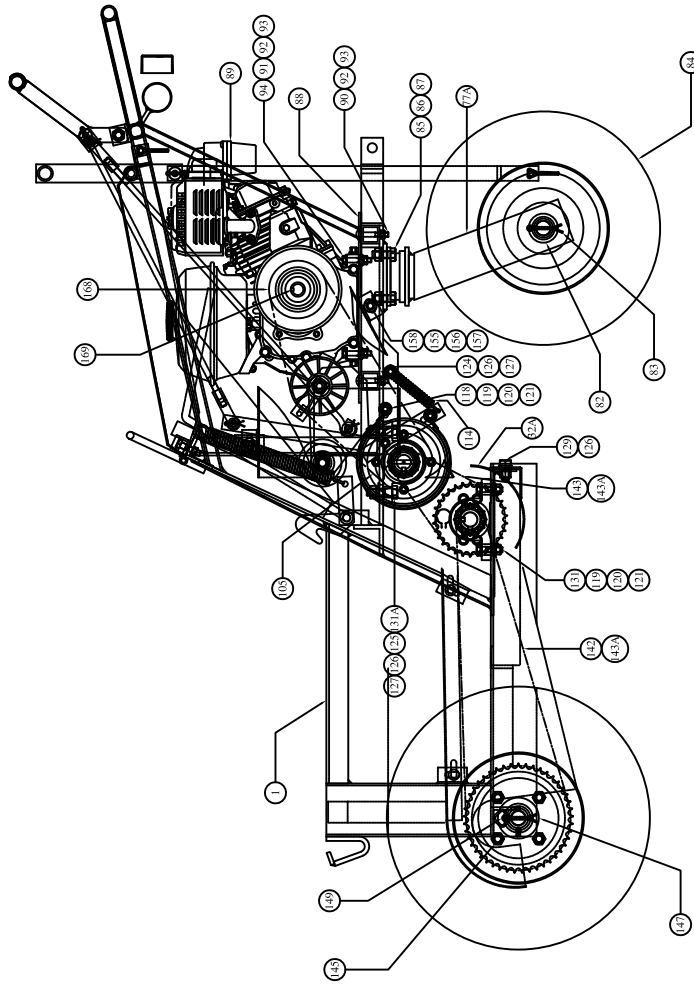
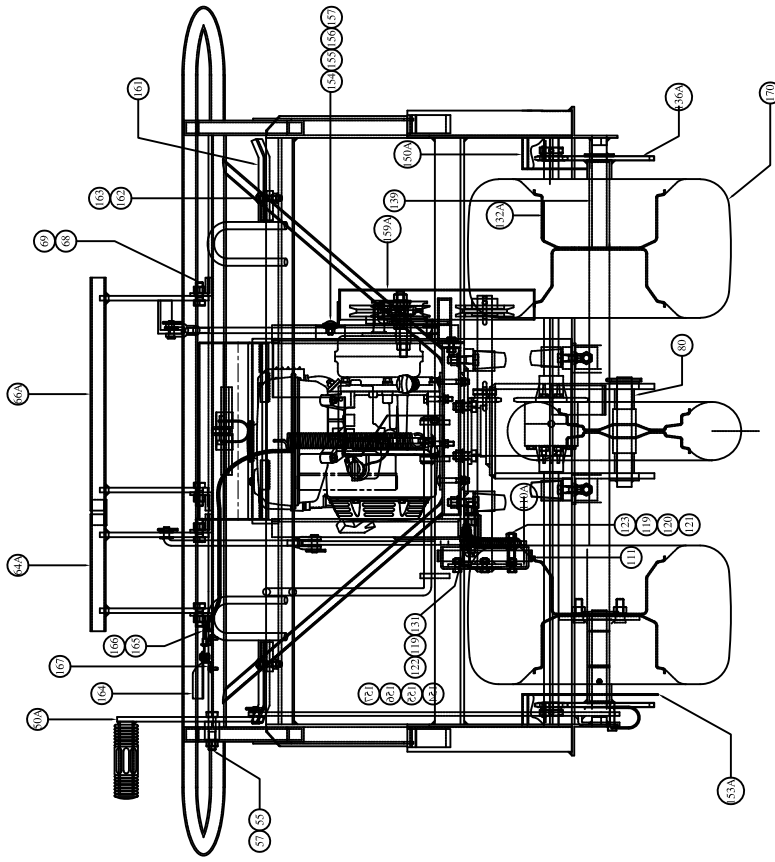
FIGURE #4

PARTS LIST

#	Parts #	Qty	Description
1	PG-01	1	Engine
2	PG-02	1	Engine pulley
3	PG-03	1	V-belt
4	PG-04	1	Small idler pulley
5	PG-05	1	Brake shaft
6	PG-06	1	Brake pulley
7	PG-07	1	Idlers linkage plate
8	PG-08	1	Large idler pulley
9	PG-09	1	Lock spring
10	PG-10	1	Handle linkage bar
11	PG-11	1	Gearbox
12	PG-12	1	Gearbox sprocket
13	PG-13	1	Drive shaft chain
14	PG-14	1	Brake shaft sprocket
15	PG-15	1	Brake band
16	PG-16	1	Brake drum
17	PG-17	1	Brake spring

#	Parts #	Qty	Description
18	PG-18	6	Shaft bearing
19	PG-19	1	Bucket linkage bar
20	PG-20	2	Gravel bucket lock
21	PG-21	1	Brake handle linkage bar
22	PG-22	1	Gravel bucket handle
23	PG-23	1	Brake Control handle
24	PG-24	1	Power control handle
25	PG-25	1	Engine throttle
26	PG-26	1	Engine cover
27	PG-27	2	Front wheel
28	PG-28	1	Rear wheel
29	PG-29	2	Wheel drive sprocket
30	PG-30	2	Wheel hub
31	PG-31	2	Wheel chain
32	PG-32	4	Wheel hub bearing
33	PG-33	1	Left chain cover
34	PG-34	1	Right chain cover





ITEM #	DESCRIPTION	MATERIAL	QTY	DRAWING #
170	WHEEL 18 X 9.50-8	PARTS	2	N/A
169	KEY 3/16 X 3/16 X 1 1/4 LG	PARTS	1	N/A
168	4" PULLEY X 3/4 BORE (#AK41X3/4)	PARTS	1	N/A
167	SCREW 10-24 X 1/2	PARTS	2	N/A
166	THRITTLE CONTROL INNER WIRE - 28 LG	PARTS	1	N/A
165	THRITTLE CONTROL OUTER WIRE - 22 LG	PARTS	1	N/A
164	THRITTLE CONTROL LEVER	PARTS	2	N/A
163	NYLOCK NUT 3/8 UNC	PARTS	2	N/A
162	HEX BOLT 3/8 UNC X 1 1/2 LG	PARTS	2	N/A
161	ENGINE PULLEY COVER SUB ASSLY	SEE DRG	2	PG-161
159A	GRAVEL BUCKET LOCK BAR	SEE DRG	2	PG-159A
158	HEX NUT 5/16 UNC X 1 LG	PARTS	6	N/A
157	HEX NUT 5/16 UNC	PARTS	6	N/A
156	FLAT WASHER 5/16	PARTS	6	N/A
155	CARRIAGE BOLT 5/16 UNC X 3/4 LG	PARTS	5	N/A
154	WHEEL CHAIN COVER (RIGHT) SUB ASSLY	SEE DRG	1	PG-153A
153A	WHEEL CHAIN COVER (LEFT) SUB ASSLY	SEE DRG	1	PG-150A
149	COITLER PIN 3/16 X 2 LG	PARTS	2	N/A
147	FLANGE BUSHING 1 3/8 OD X 1 ID X 1 LG	PARTS	2	N/A
145	1/2-20 UNF WHEEL NUT	PARTS	8	N/A
143A	CONNECTING LINK FOR # 40 CHAIN	PARTS	3	N/A

ITEM #	DESCRIPTION	MATERIAL	QTY	DRAWING #
143	CHAIN # 40R X 23 LG	PARTS	1	N/A
142	CHAIN # 40R X 55 LG	PARTS	2	N/A
139	1" ID ROLLER BEARING	PARTS	4	N/A
136A	FRONT DIFFERENTIAL HUB SUB ASSLY	SEE DRG	2	PG-136A
132A	DIFFERENTIAL AXLE SUB ASSLY	SEE DRG	1	PG-132A
131A	HEX BOLT 1/2 UNC X 1 3/4 LG	PARTS	4	N/A
131	HEX BOLT 1/2 UNC X 1 1/2 LG	PARTS	9	N/A
129	HEX BOLT 1/2 UNC X 1 LG	PARTS	2	N/A
127	HEX NUT 1/2 UNC	PARTS	6	N/A
126	LOCK WASHER 1/2	PARTS	7	N/A
125	FLAT WASHER 7/16	PARTS	4	N/A
124	SCREW ROUND HEAD 1/2 UNC X 3 1/2 LG	PARTS	1	N/A
123	HEX BOLT 3/8 UNC X 2 LG	PARTS	1	N/A
122	NYLOCK NUT 3/8 UNC	PARTS	1	N/A
121	HEX NUT 3/8 UNC	PARTS	13	N/A
120	LOCK WASHER 3/8	PARTS	10	N/A
119	FLAT WASHER 5/16	PARTS	22	N/A
118	HEX BOLT 3/8 UNC X 2 1/2 LG	PARTS	1	N/A
114	EXT SPRING 7190DX.105WIREX3LG(#020-087)	PARTS	1	N/A
111	6" BRAKE BAND (#48-145)	PARTS	1	N/A
110A	GRAVEL DRUM SUB ASSLY	SEE DRG	1	PG-110A
105	BELT A 40	PARTS	1	N/A
94	HEX BOLT 5/16 UNC X 1 3/4 LG	PARTS	4	N/A

ITEM #	DESCRIPTION	MATERIAL	QTY	DRAWING #
93	HEX NUT 5/16 UNC	PARTS	8	N/A
92	LOCK WASHER 5/16	PARTS	8	N/A
91	FLAT WASHER 1/4	PARTS	6	N/A
90	CARRIAGE BOLT 5/16 UNC X 2 LG	PARTS	4	N/A
89	HONDA ENGINE 5.5HP(WITH REDUCTION UNIT)	SEE DRG	1	PG-088
88	ENGINE BASE PLATE	SEE DRG	1	N/A
87	HEX NUT 1/2 UNC	PARTS	4	N/A
86	LOCK WASHER 1/2	PARTS	4	N/A
85	HEX BOLT 1/2 UNC X 1 1/4 LG	PARTS	4	N/A
84	WHEEL 4.8 - 8 NHS	PARTS	1	N/A
83	COITLER PIN 3/16 X 2 LG	PARTS	1	N/A
82	FLAT WASHER 1"	STD	2	N/A
80	PIPE 1" X 1 3/8 LG	REAR WHEEL BRACKET SUB ASSLY	1	PG-77A
77A	REAR WHEEL BRACKET SUB ASSLY	SEE DRG	1	N/A
69	NYLOCK NUT 1/2 UNC	PARTS	4	N/A
68	HEX BOLT 1/2 UNC X 1 1/4 LG	SEE DRG	1	PG-66A
66A	POWER HANDLE SUB ASSLY	SEE DRG	1	PG-64A
64A	GRAVEL BUCKET HANDLE SUB ASSLY	SEE DRG	1	N/A
57	NYLOCK NUT 1/2 UNC	PARTS	1	N/A
55	HEX BOLT 1/2 UNC X 2 1/4 LG	SEE DRG	1	PG-50A
50A	GRAVEL BUCKET HANDLE SUB ASSLY	SEE DRG	1	PG-32A
32A	GEAR BOX CHAIN GUARD SUB ASSLY	SEE DRG	1	43
1	BODY ASSLY	MATERIAL	1	44

NO.	REVISION	BY	DATE
1	ITEM 129 & 170 SIZE CHANGED; ITEM 166A DELETED		ROS DEC 6, 10

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POWER GRAVELLER

UNIT NO. \_\_\_\_\_  
 SERIAL NO. \_\_\_\_\_  
 DRAWING NUMBER 1:6

SEE PARTS LIST  
 DATE MAY 29, 2008  
 REV. 0