

### **Operating and Assembly Manual**

PowerTek Inc. P.O. Box 3 Lebanon, IN 46052

## Model CV388-R Parts List

Key	<u>Part No.</u>	<b>Description</b>	<u>Oty.</u>
1	38026	Engine Frame, RH	1
2	38012	Container Frame, 380	1
3	38015	Vertical Upright, 380	1
4	86028	Engine, 9HP Robin	1
5	88046	Turbine Housing, Chipper	1
6	56055	Turbine, Chipper Pro Series	1
7	56107	Turbine Washer	1
8	58036	Inlet, Chipper 6"	1
9	68050	Wheel, Pneumatic	3
10	46233	Filter Support	1
11	46217	Top Support, 462	1
12	56115	Nylon Spacer	3
13	47222	Molded Top, 470	1
14	46228	Filter	1
15	46219	Seal, Molded Top	1
16	46235	Container Latch	1
17	48040	Intake Nozzle	1
18	3120518	Eyebolt	2
19	48038	Spring	2
20	46218	Clevis Pin, Vertical Support	1
21	46310	Container, 44 Gallon, Yellow	1
22	56102	Hose Clamp, 6"	4
23	46103	Exhaust Hose-HD, 6" x 36"	1
25	38029	Hose Support	1
26	38031	Lift Handle	2
27	38028	Hitch Pin	1
28	10665	Collar Clamp, 3/4"	1
29	56032	Turbine Liner, 6"	1
30	38027	Riser, Engine Frame	2
31	3760110	Turbine Bolt	1
32	3120612	Housing Bolt	4
33	3750238	Turbine Set Screw	1
34	2501716	Turbine Key	1
35	45060A	Caster Yoke Assembly	1
36	88041	Chipper Knife (included w/Turbine)	2
37	88045	Chipper Inlet	1
38	88036	Chipper Inlet Guard	1
39	35239	Spring, Lock Pin	2
40	3750801	Turbine Lock Washer	1
41	3750905	Chipper Inlet Nut	3
42	160	Remote Pickup, Model 160	1
43	48061	Tow Handle	1
44	38889	Thrust Bearing	1
	38596	Decal, Caution Rotating Blades	
	45132	Decal, Caution Spinning Blades	
	45133	Decal, Warning Stop Engine	
	48096	Decal, Danger Stop Engine	

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#### **PowerTek Assembly Instruction**

- 1. Place frame (2) on blocks and level the frame with axles towards the bottom and frame facing upwards. Slip wheel (9) over container frame (2) axle pin, trapping 3/4" flatwasher on both sides of wheel. Secure with 1/8" x 1" cotter key. Slid hub cap over wheel hub. Repeat procedure with opposite wheel. **Fig. 1**
- 2. Attach vertical upright (3) to container frame bracket with 3/8" x 1" HHC and whizlocks. <u>Do</u> not tighten. Fig. 2
- 3. Attach eyebolts (18) to vertical upright upper brackets, trapping the brackets between 5/16" hexnut and 5/16" whizlock nuts. Rotate eyebolts so eyelets face from front to back. **Fig. 3**
- 4. Place container (21) in container frame. Install foam seal to molded top where container and top will make contact. Set top assembly on can with top support bracket astride the vertical upright. Align pivot hole on top support to hole on vertical upright, do not force fit this alignment, if holes do not line up, move vertical upright up or down on the frame (2) until proper alignment is achieved and tighten. Secure with 1/2" x 2 1/2" HHC and nylock nut. Tighten until slight drag can be felt when pivoting molded top. Pivot top up and attach springs (19) to eyebolts and spring retainers on top support. Lower top assembly to operating position and immediately slip clevis pin (20) thru locking pin hole on top support. Secure pin with 1/8" x 1" cotter key. Attach latch to molded top with 1/4" x 1/2" truss head bolt and 1/4" whizlock nuts. Fig. 4
- Attach engine frame assembly (1) to risers (30) and secure with 3/8" x 2 ¼" HHC, flat washers, and whizlock nuts. <u>DO NOT TIGHTEN</u>. Fig. 5 Slide Thrust Bearing (44) over caster yoke assembly shaft. (35) Insert shaft through second hole from front of draw plate. Slip collar clamp (28) over shaft and tighten set screw. Now, tighten all bolts. Fig. 6
- 6. Attach engine assembly to engine frame plate. Secure with two 5/16" x 1 1/4" HHC and two 5/16" x 3" Hexbolts and 5/16" locknuts. **Fig. 7**
- 7. Slip exhaust hose over intake nozzle (17) neck and tighten clamp. Slip hose clamp (22) over exhaust hose (23) and over turbine housing (5), and tighten clamp. On the intake side bunch the hose up against the molded top for a good airtight fit. **Fig. 8**
- 8. Slip hose clamps over each end of remote hose (42). Attach nozzle assembly to one end and quick connect to opposite end. Tighten clamps. Attach assembly to inlet (8) **Fig. 9**
- 9. Slid hose support (25) to right side of drawbar and slide it forward close to the draw plate. Secure with 5/16" x 2 1/2" HHC and whizlock nuts included. **Fig. 10**
- 10. For manual towing, attach tow handle (43) through the upper hole in hitch pin (27) and secure with hairpin cotter. **Fig. 11**
- 11. Slide one of the Lift handles (26) under the drawbar and centered between the engine plate and the hose support. Secure with 5/16" x 2 <sup>1</sup>/<sub>2</sub>" HHC and whizlock nuts. The 2<sup>nd</sup> Lift handle attaches to Vertical upright tube (3) as low as it will go. Secure with 5/16" x 2 <sup>1</sup>/<sub>2</sub>" HHC and whizlock nuts. **Fig. 12**
- 12. Read engine operation instructions and service engine before starting.







#### **CHIPPER VAC INSTRUCTIONS**

The chipper components on your chipper vac have been fully assembled at the factory.

Your chipper vac is designed to accommodate limbs up to 3" in diameter.

To remove the chipper blades for sharpening or replacement, detach the three 3/8" whizlock nuts and lift off the chipper chute. Remove the two blades using a 3/16" allen wrench. Sharpen blades and reattach. Make sure blades are fastened securely.

Keep in mind to periodically tighten all bolts.

Listen for unusual vibration of the air turbine. If excessive vibration is present, stop engine and check for damage.

<u>CAUTION!!!</u> \*ROTATING CUTTING BLADES\* \*KEEP BODY PARTS AND CLOTHING AWAY FROM DRIVEN PARTS IN MOTION\* \*AVOID LOOSE CLOTHING\* \*WEAR APPROPRIATE GLOVES, EYE AND HEARING PROTECTION\* \*ALWAYS STOP ENGINE AND DISCONNECT SPARK PLUG TO SERVICE\*

# **OPERATING PROCEDURE**

- 1. Follow engine manufacturer's instructions in preparing engine for operation.
- 2. Inspect area to be vacuumed and pickup all harmful objects and litter. Rocks and other harmful debris can do serious damage to vacuum assembly and cause bodily injury.
- 3. For best vacuuming results operate tractor at manufacturer's recommended speed for best cutting. If grass is high, mow first and vacuum on the second pass.
- 4. When mowing keep discharge chute to the outside of cutting area for better cut and efficient pickup of grass clippings and leaves.
- 5. Your vacuum is preset to run at approximately 3200-RPM (380), 3800-RPM (385), at no load. Do not slow down engine.
- 6. SHUT OFF ENGINE TO UNLOAD.
- 7. When operating tractor on slope or grade, exercise extreme caution. Do not cut across grade or slope. Mow directly up and down hills.
- 8. Periodically check all fasteners for tightness.
- 9. Listen for unusual vibration of engine or air turbine. If excessive vibration is present, STOP engine and check for damage to turbine fan.
- 10. Always shut off tractor engine and vacuum engine before servicing.
- 11. Replace deflector shield when discharge chute is removed.
- 12. When removing clogs, SHUT OFF ALL ENGINES.

### **EXTENDED STORAGE PROCEDURES**

- 1. Wash and clean vacuum, and lubricate any lubrication points.
- 2. Drain fuel from the tank and run vacuum until fuel is exhausted in carburetor.
- 3. Drain and change the engine oil.
- 4. Clean tires and check pressure. Raising and supporting unit with weight off tires is recommended.
- 5. When storing a unit with Rubbermaid® containers, leave containers latched to top.

### **POWERTEK WARANTY POLICY**

Palmor Products, Inc. will repair or replace, free of charge, any part, or parts that are defective in material or workmanship or both for a period of one year residential use, and 90 day's for commercial and rental use. The purchaser will pay transportation charges on parts submitted for replacement under warranty. For warranty service, contact your local dealer from whom the unit was purchased. There are no other express or implied warranties. Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

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