

TRAC VAC

Model 655-IC/PRO/H/R



Operating and Assembly Manual

**Midwest Equipment Manufacturing, Inc.
5225 Serum Plant Road
Thorntown, IN 46071**

SAFETY RULES

Remember, any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times when using power equipment.



This symbol means **Attention!!!!** It is used to point out safety precautions.

- Read and follow all instructions in this manual before assembly or operation of this equipment. Failure to comply with these instructions may result in personal injury. Keep this manual for future reference and for ordering replacement parts.
- Read this instruction manual carefully. Become familiar with the controls and proper use of this equipment.
- Read the engine owners manual and safe operation rules before using this equipment.
- Never allow children less than 16 years of age to operate the Trac-Vac. Children 16 years and older should operate **only** under close parental supervision.
- Do not allow anyone to operate this equipment without proper instruction.
- Do not allow passengers to ride on the Trac-Vac or on the towing vehicle.
- Keep children and pets out of area of operation.
- Check fuel before starting engine. **Do Not** fill fuel tank indoors, or while engine is running or hot. Wipe off any spilled fuel before starting engine.
- Engine and muffler get **HOT! Do Not** touch! Keep debris from accumulating on or around engine and muffler to avoid fire hazard.
- Allow engine to cool before storing in any enclosed area. Never store Trac-Vac with fuel in tank.
- Do not operate engine if air cleaner or cover is removed, except for adjustments. Removal of the part could create a fire hazard.
- Keep hands, feet, face, long hair and clothing out of inlet and discharge areas. There are **ROTATING BLADES** inside these openings.
- Make certain that all moving parts come to a complete stop before cleaning, repairing or inspection. Disconnect spark plug wire and keep away from plug to prevent accidental starting.
- If Trac-Vac should become clogged with debris, **SHUT OFF ALL ENGINES** and wait until impeller comes to a complete stop before attempting to remove obstruction. Disconnect spark plug wire to prevent accidental starting.
- If excessive vibration occurs while operating your Trac-Vac, stop the engine immediately, disconnect the spark plug wire and allow all moving parts to stop completely before taking the following steps.
 - A. Inspect for damage.
 - B. Repair or replace any damaged parts.
 - C. Check for loose parts and tighten to assure continued safe operation.
- Check all hardware periodically to insure safe operation.
- Check cart cover periodically for wear and replace if worn or damaged.
- **Never** operate Trac-Vac without intake hose and exhaust hose attached in proper place.
- **Do Not** remove exhaust hose or attempt to empty contents of container while engine is running.
- Keep all shields and guards in place and securely attached.
- Always wear eye protection (safety glasses or goggles) when operating this equipment.
- **Do Not** stand behind unit in exhaust discharge area while engine is running.
- **Do Not** operate this equipment while intoxicated or while taking medications that could impair reactions or senses.
- Operate this equipment at reduced ground speed on rough terrain, along creeks and ditches and on slopes to prevent tipping or loss of control.
- Vehicle stability and braking are affected by the addition of this unit. Do not fill the Trac-Vac to its full capacity without checking the capability of the towing vehicle to safely pull and stop with the unit attached.
- **Do Not** operate on slopes in excess of 10 degrees. **STAY OFF OF STEEP SLOPES!**
- Follow the maintenance instructions outlined in this manual.



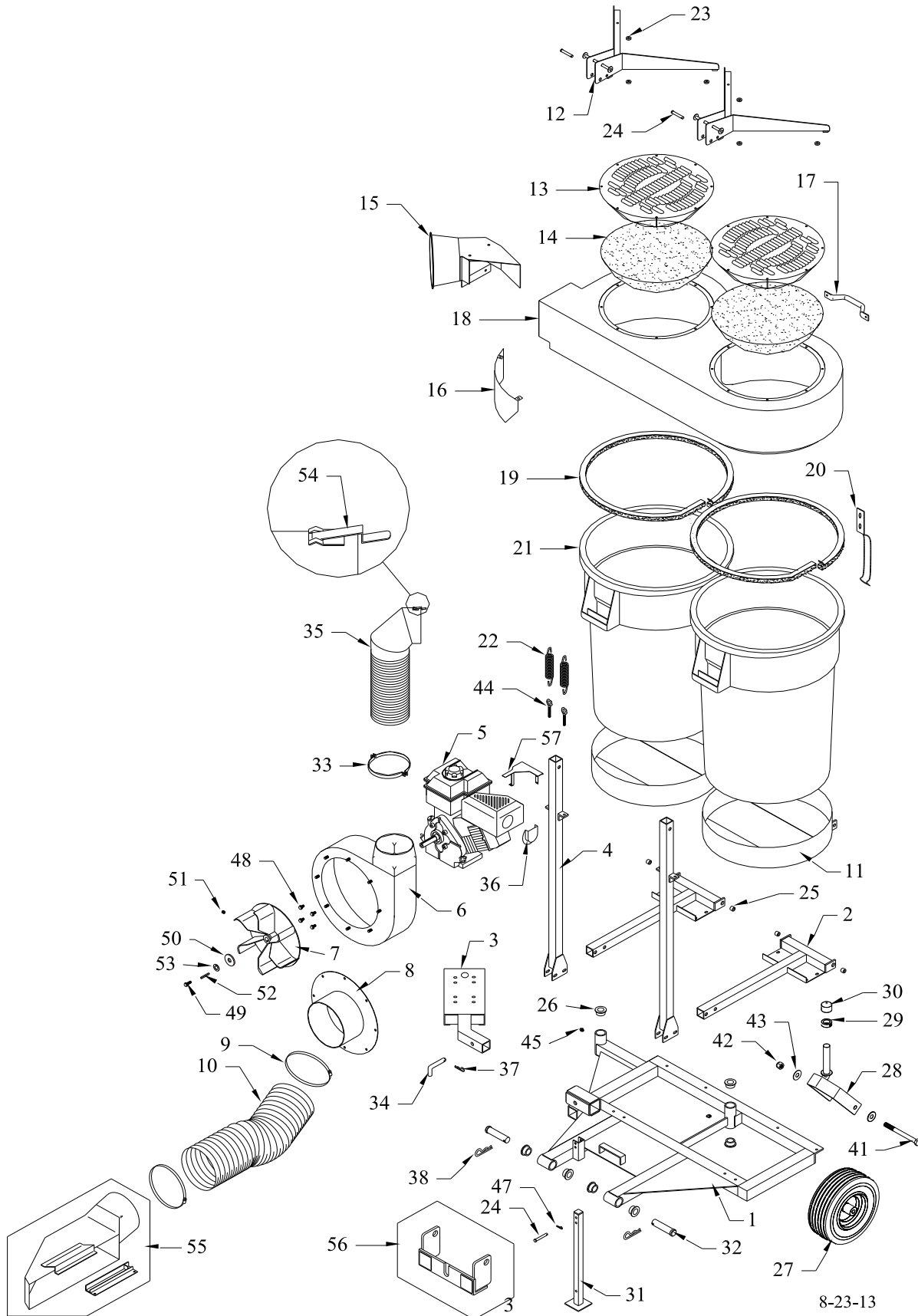
Model 655-IC/PRO/H Trac-Vac Parts List

<u>Key</u>	<u>Part No.</u>	<u>Description</u>	<u>Key</u>	<u>Part No.</u>	<u>Description</u>
1	65510	Frame, 655	33	45101	6" Metal Hose Clamp
2	47014	Frame, 470-FD	34	85226	Bent Pin, 5/8"
3	56510-1	Frame, 565-RH	35	66230	Exhaust Hose, 662
	86510-1	Frame, 865 (9HP Robin)	36	86115	Muffler Deflector (Briggs 5.5 & 6.5 HP
4	47020	Vertical Upright		560221	Muffler Deflector, Honda 5.5HP
5	56021	Engine, 5.5HP Briggs Intek I/C			
	56018	Intek, 6.5HP Intek Pro,			
	56022	5.5HP Honda	37	1101301	Hairpin Cotter, 1/2"
	86028	9HP Robin (Subaru)	38	1101302	Hairpin Cotter, 1"
6	56030	Turbine Housing (5.5HP Briggs, Honda)	41	6250152	Caster Bolt, 5/8" x 6 1/2"
	46242	Turbine Housing (6.5HP Briggs)	42	6251101	Caster Nut, 5/8" Nylon Insert
7	56040	Turbine, 5HP (5.5 Briggs, Honda)	43	6250800	Caster Washer
	46253	Turbine, 6.5HP Briggs Pro	44	3120518	Eyebolt, 5/16 x 2 1/4"
8	18050	Inlet, 8" (5.5HP Briggs, Honda)	45	3122501	Grease Zerk, 5/16"
	66010	Inlet, 8" 6.5 Briggs	47	11100	Hairpin Cotter
9	18119	Hose Clamp, 8"	48	3120612	Housing Bolt
10	86101	Hose, 8" x 60"		3120608	Housing Bolt, (Honda only)
11	47018	Container Holder, 470	49	3120608	Turbine Bolt
12	46217	Top Support		3170110	Turbine Bolt (6.5 Briggs Pro only)
13	46227	Filter Support, Double Top	50	56107	Turbine Washer
14	46228	Filter, Open Mesh	51	3750238	Turbine Set Screw
15	66238	Exhaust Boot, 662	52	1871714	Key Stock
16	46248	Filter Shield	53	3120801	Turbine Lock Washer (Honda)
17	28014	Handle		3750801	Turbine Lock Washer (6.5 Briggs Pro)
18	68222	Double Molded Top	54	56052	Connector Clip, Exhaust Hose
19	46219	Seal, Molded Top	55	***-8	Discharge Chute (tractor specific)
20	46235	Container Latch	56	656**	Hitch Kit (tractor specific)
21	46210	Container, 44 Gallon	57	58075	Engine Guard
22	48038	Spring		45133	Decal, Warning Stop Engine
23	56115	Nylon Spacer		45131	Decal, 2 x 8 Trac-Vac Clear
24	46218	Clevis Pin, Vertical Support		45130	Decal, 3 x 12 Trac-Vac Clear
25	47019	Bushing, 470		48096	Decal, Danger
26	65032	Bearing, 1" Nylon			
27	65513	Wheel, 13" x 5.00-6			
28	65511	Caster Yoke Assembly			
29	65514	1" Collar Clamp			
30	58058	Cover, Collar Clamp			
31	65512	Stand			
32	28801	Clevis Pin, 1" x 4"			

Optional Accessories

190 6" Remote Pickup Assembly
for 8" Hose

Trac-Vac Model 655-IC/PRO/H/K



1. Slip caster assembly (28) through the receiver tube on the frame (1). Secure with 1" collar clamp, slip plastic cover over collar clamp. Repeat for the other caster. Slip stand (31) into receiver on main frame and secure with 3/8" x 2 1/4" clevis pin (24) and 5/16" hairpin cotter (47). See Fig. 1
2. Attach hitch (56) to rear of tractor as shown in hitch instructions. Hold frame (1) up to hitch (once installed on tractor) aligning the horizontal receiver tubes up with 1" diameter holes in hitch arms, secure with 1" clevis pins and hairpin cotter clips. Set FD frame (2) onto main frame (1). Align holes in FD-frame (2) with holes in main frame (1) as shown and loosely secure with 2-5/16" x 3/4" bolts, flatwashers and whizlock nuts on the "T" side of FD-frame, and with 5/16" square bend u-bolt and whizlock nuts on the leg of the FD-frame. Do not tighten. Repeat procedure for second FD-frame. Note: be sure and use the holes on FD-Frame illustrated in Fig. 2 to secure them to the main frame. See Fig. 2
3. Slip vertical upright (4) over leg in FD-frame (2) align the holes and loosely secure with 3/8" x 2 1/2" bolts flatwashers and whizlock nuts. Note: eyebolt brackets on the upright should be positioned toward the containers. Do not tighten. See Fig. 3
4. Set container holder (11) onto "T" side of FD-frame (2) and align holes. Slip Bushings (25) through the mount holes of both the container holder (11) and the FD-frame (2) and secure with 5/16" x 1" bolt, 5/16" flatwashers and a 5/16" locknut. Tighten bolts until the holder will support container in a tilted position. See Fig. 4
5. Place containers (21) into container frames, rotate the handles to the inside of the vertical uprights. Spin 5/16" nut onto the eyebolt (44) about half way. Slip eyebolt with nut through the hole in the bracket on the side of vertical upright (4) and secure with a 5/16" whizlock nut. See Fig. 5
6. Set top assembly on containers (21) with top support bracket capturing the vertical upright (4). Align 1/2" hole on top support to 1/2" hole on vertical upright (4). Secure molded top with 1/2" x 2 1/2" HHC's and nylock nuts. Tighten until slight drag can be felt when pivoting molded top. See fig. 6
7. Pivot top up and attach springs (22) to eyebolts (44) and spring retainers on top support (12). Lower top assembly to operating position and immediately slip clevis pin (24) thru locking pinhole on top support. Secure pin with 1/8" x 1" cotter key. Attach container latch (20) to molded top with 1/4" x 1/2" truss head bolt and 1/4" whizlock nuts. Slip exhaust boot (15) into molded top and secure with 1/4" x 3/4" bolts, 1/4" flatwashers and whizlock nuts. With molded top assembly setting flat on the containers and latched, tighten all bolts left loose in earlier assemblies (vertical upright and FD-frame bolts). Once tightened rotate top up and down a few times to see if proper alignment has been achieved. If proper alignment was not achieved loosen vertical upright and FD-frame bolts and try again. See Fig. 7
8. Bolt Engine ass'y to frame (3) with 5/16" x 1 1/4" bolts and 5/16" locknuts. Note: bolt the engine ass'y into the holes closest to the end of the engine plate. Slip engine/frame assembly into receiver on main frame (1). Secure with 5/8" bent pin (34) and 1/2" hairpin cotter (37). See Fig. 8
9. Slip metal hose clamp (33) up onto bottom of exhaust hose (35) and slip both down over exhaust neck on blower housing. Slip other end of exhaust hose (35) into exhaust boot (15) bolted into molded top assembly. Once achieved tighten bolts in metal hose clamp securing exhaust hose to the blower housing, if installed properly the connector clip (54) on the top of the exhaust hose should not have to be clipped to hold the hose into the exhaust boot on molded top unless unit is running (pressurized). Attach discharge chute to tractor, slip intake hose (10) over inlet and secure with 8" band clamp (9). Cut hose to fit to discharge chute, slip onto neck on discharge chute and secure with 8" band clamp. See Fig. 9
10. Read engine operation instructions and service engine before starting.

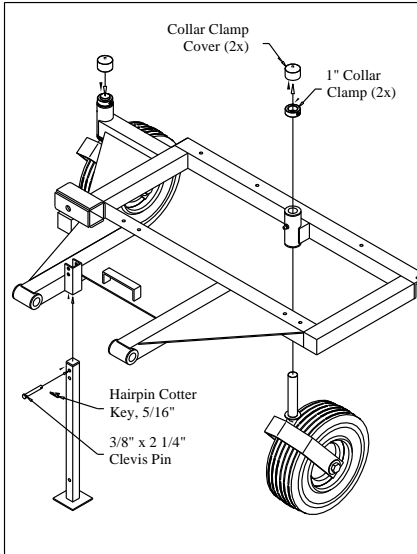


Fig. 1

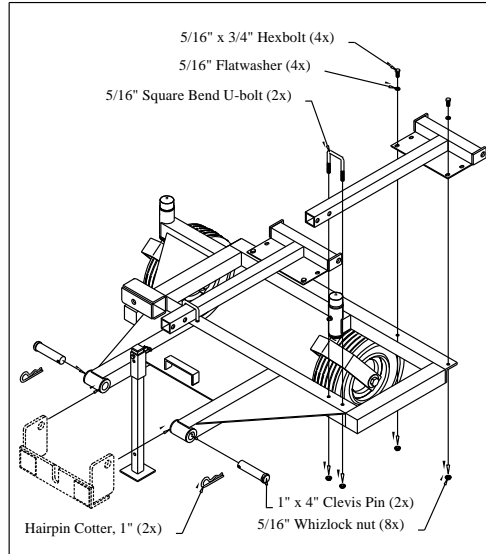


Fig. 2

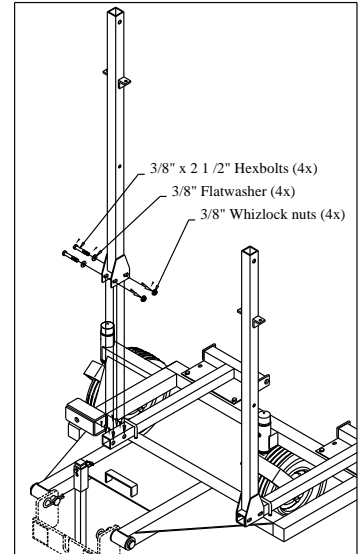


Fig. 3

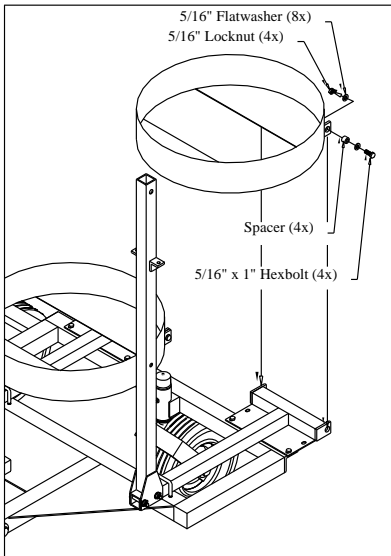


Fig. 4

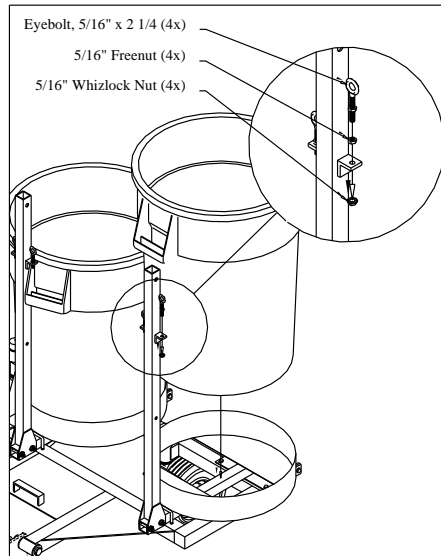


Fig. 5

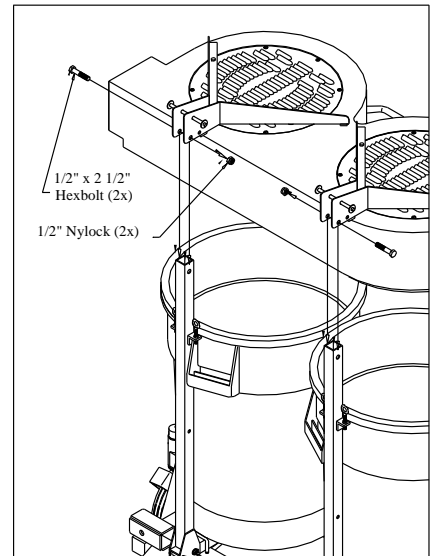


Fig. 6

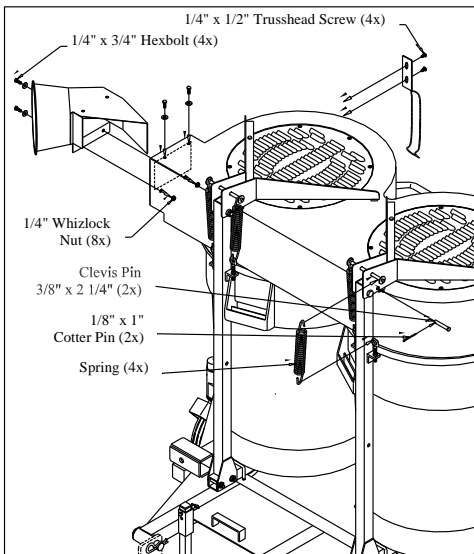


Fig. 7

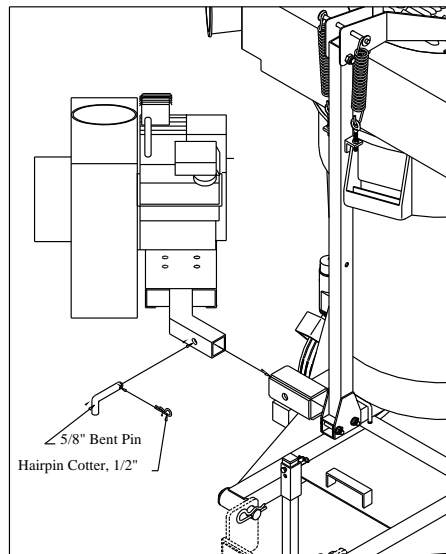


Fig. 8

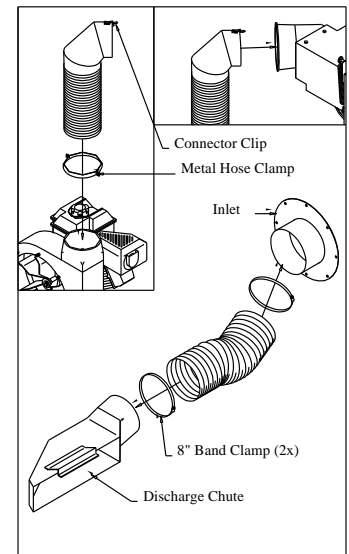


Fig. 9

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Engine fails to start	<ol style="list-style-type: none"> 1. Spark plug wire disconnected 2. Fuel tank empty 3. Faulty spark plug 	<ol style="list-style-type: none"> 1. Connect wire to spark plug 2. Fill tank with clean fuel 3. Clean, adjust gap or replace
Loss of power or erratic operation	<ol style="list-style-type: none"> 1. Spark plug wire loose 2. Blocked fuel line 3. Water or dirt in fuel system 4. Dirty air cleaner 5. Unit running on choke 	<ol style="list-style-type: none"> 1. Connect & tighten spark plug wire 2. Clean fuel line 3. Disconnect fuel line at carburetor drain fuel tank. Refill with fresh fuel 4. Service air cleaner (refer to engine manual) 5. Move choke lever to OFF position
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low 2. Operating below full RPM 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil 2. Run throttle full open.
Excessive vibration	<ol style="list-style-type: none"> 1. Damaged turbine or loose parts 	<ol style="list-style-type: none"> 1. Stop engine immediately and disconnect spark plug wire. Tighten all bolts & nuts. Make necessary repairs. If vibration continues, have unit serviced by an authorized dealer.
Unit won't pick up.	<ol style="list-style-type: none"> 1. Discharge chute clogged 2. Foreign object lodged in turbine. 3. Container full 	<ol style="list-style-type: none"> 1. Stop engine & disconnect spark plug wire. Clean inside of discharge chute. 2. Stop engine and disconnect spark plug wire. Remove lodged object in turbine. 3. Stop engine and empty container.

NOTE: Please contact the nearest authorized service dealer for repairs beyond the minor adjustments above.

MAINTENANCE



DANGER: The Trac-Vac was built to be operated according to the rules for safe operation in this manual. Carelessness or error on the part of the operator can result in serious injury. This unit is capable of amputating fingers or hands and throwing objects. Failure to comply with the safety instructions could result in serious injury or death.



CAUTION!!!!
SPINNING BLADE

MAINTENANCE SCHEDULE	Before each use	After each use	Every season	Before Storage	Service Dates												
Check engine oil level	X																
Check tire pressure	X																
Check all hardware for tightness	X																
Lubricate			X														
Clean		X		X													
Maintain engine per engine manual																	

BEFORE EACH USE

CHECK FOR LOOSE HARDWARE

- Make a thorough visual check of the unit for any bolts and nuts which may have become loose. Retighten any loose nuts and bolts

CHECK TIRE PRESSURE

- Check tire pressure regularly. The recommended tire pressure is printed on the tire.

CHECK ENGINE OIL LEVEL

- Check oil level before each use. Maintain engine oil as instructed in engine manual.

LUBRICATION

- Use a light machine oil to lubricate the axle where the hitch tongue pivots and the latch and pivot bolt at the beginning of each season.
- Grease or oil wheel bearings, using automotive wheel bearing grease at least once every season.



WARNING: Always stop engine and disconnect spark plug wire before lubricating, cleaning or before maintenance or repairs.

ENGINE MAINTENANCE

- Check oil level before each use, maintain engine oil according to the engine manual
- Service air cleaner after every 25 hours of normal conditions. Under extremely dusty conditions, clean every few hours. Poor engine performance usually indicates that the air cleaner needs to be serviced.
- Clean spark plug and reset gap once every season. It is recommended that the spark plug be replaced at the start of each season. Check the engine manual for the correct spark plug and gap specifications.

CLEANING

- Clean the unit after each use. Grass clippings and leaves can mildew and cause damage if not properly cleaned.
- Clean the engine regularly with a cloth or brush. Remove all dirt and debris from muffler area.

NOTES

OPERATING PROCEDURE



BEFORE STARTING, Follow the engine manufacturer's instructions in preparing engine for operation. Never fill fuel tank indoors, with engine running or while engine is hot. **Do not smoke while filling tank!**

1. 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.
2. 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.
3. Your vacuum is preset to run at approximately 3800-RPM (385), at no load. Do not slow down engine.
4. SHUT OFF ENGINE TO UNLOAD.
5. When operating tractor on slope or grade, exercise **EXTREME CAUTION**. Do not cut across grade or slope. Mow directly up and down hills.
6. Periodically check all fasteners for tightness.
7. Listen for unusual vibration of engine or air turbine. If excessive vibration is present, **STOP** engine and check for damage to turbine fan.
8. Always shut off tractor engine and vacuum engine before servicing.
9. Replace deflector shield when discharge chute is removed.
10. When removing clogs, **SHUT OFF ALL ENGINES and wait for all moving parts to come to a complete stop! Failure to do so can cause serious bodily injury!**
11. Do not tow unit on public roads
12. Do not carry passengers on unit
13. Avoid sudden turns or maneuvers.



CAUTION!!!
SPINNING BLADE

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.
6. Store inside a clean dry area, when not in use.

TRAC VAC WARRANTY POLICY

Midwest Equipment Manufacturing, 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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