

TORO

Model 682-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.

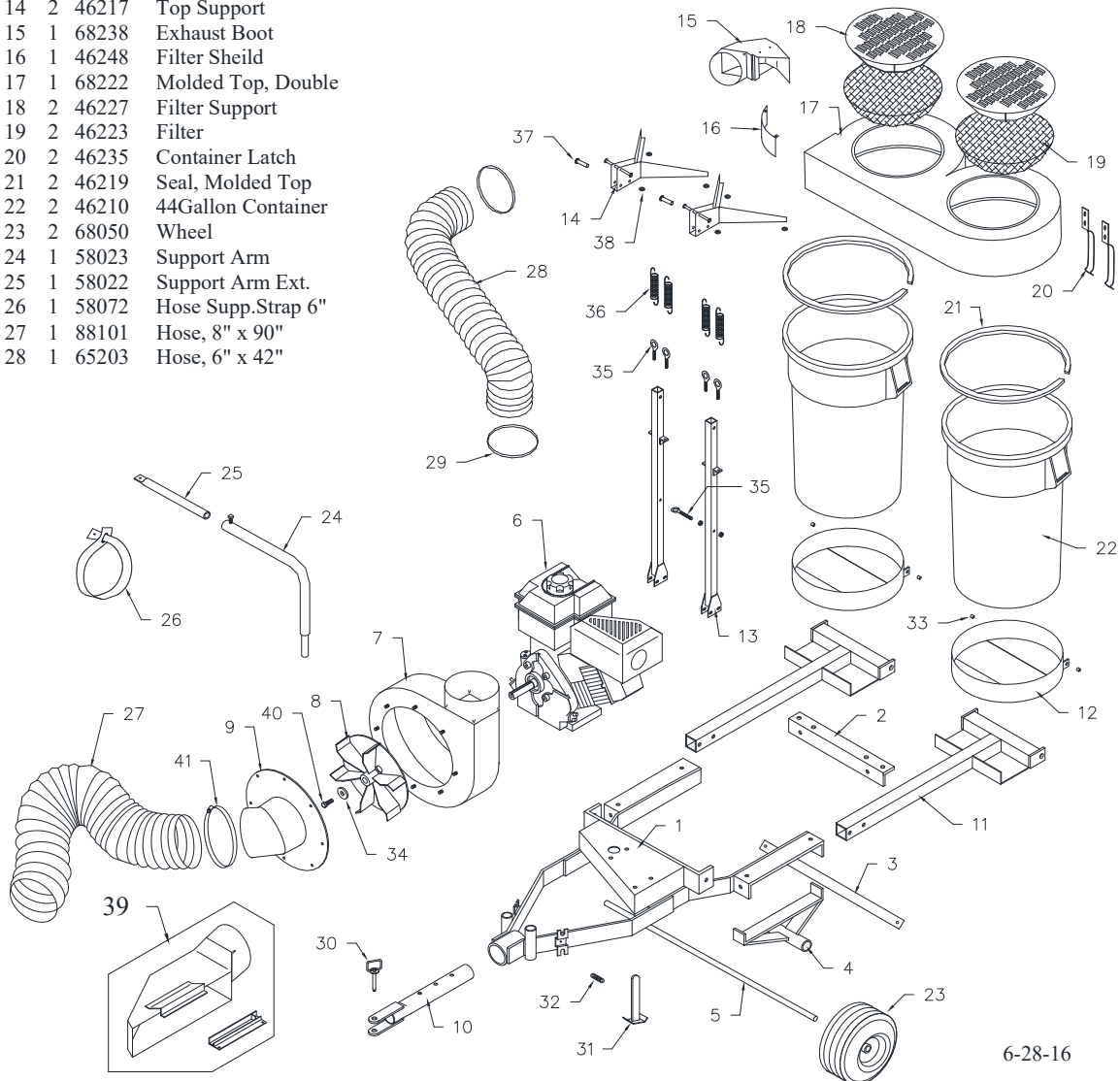
- Read and follow all instructions in this manual before assembly or operation of this equipment. Failure to comply with these instructions may result in personal injury. Keep this manual for future reference and for ordering replacement parts.
- Read this instruction manual carefully. Become familiar 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.



Trac-Vac Model 682

Key	Qty	P/N	Desc.
1	1	68210	Frame, 682
2	1	68211	Support Brkt.
3	1	68017	Axle Holder Brace
4	2	68014	Axle Support
5	1	68018	Axle
6	1	56020	Engine, 5.5 HP Briggs Intek
		56021	Engine, 5.5 HP Briggs Intek IC
		56018	Engine, 6.5 HP Briggs Intek Pro
		56022	Engine, 5.5HP Honda
		86028	Engine, 9HP Robin (Subaru)
7	1	56030	Turbine Housing (5.5 Briggs, Honda)
		46242	Turbine Housing (6.5 Briggs)
8	1	56040	Turbine, 5HP (5.5 Briggs, Honda)
9	1	88040	Inlet, 8" Briggs, Honda)
		47050	Inlet 8" (6.5 Briggs)
10	1	58063	Drawbar, 580
11	2	47014	Frame, 470-FD
12	2	47018	Container Holder
13	2	47020	Vertical Upright
14	2	46217	Top Support
15	1	68238	Exhaust Boot
16	1	46248	Filter Sheild
17	1	68222	Molded Top, Double
18	2	46227	Filter Support
19	2	46223	Filter
20	2	46235	Container Latch
21	2	46219	Seal, Molded Top
22	2	46210	44Gallon Container
23	2	68050	Wheel
24	1	58023	Support Arm
25	1	58022	Support Arm Ext.
26	1	58072	Hose Supp.Strap 6"
27	1	88101	Hose, 8" x 90"
28	1	65203	Hose, 6" x 42"

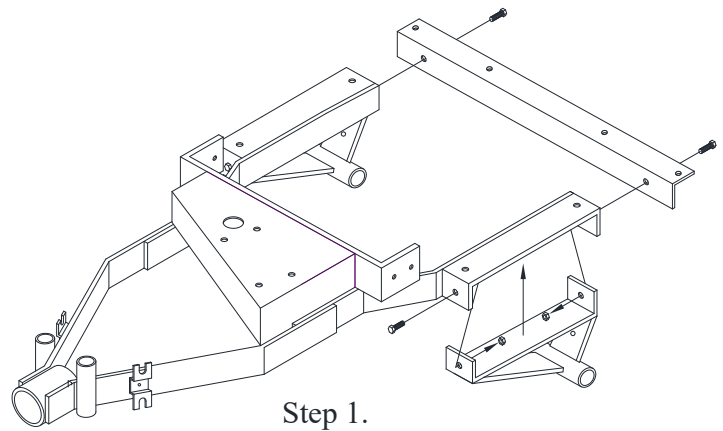
Key	Qty	P/N	Desc.
29	2	56102	Hose Clamp, 6"
30	1	58104	Hitch Pin
31	1	58071	Jack Stand
32	1	32108	Spring
33	4	47019	Bushing, Cont.Holder
34	1	56107	Spacer Turbine (5.5 Briggs, Honda)
35	5	48043	Eyebolt
36	4	48038	Spring
37	2	46218	Clevis Pin
38	6	56115	Nylon Spacer
39	1	***-6	Deck Chute Ass'y (Deck Specific)
40	1	3120608	Turbine Bolt
41	2	18119	Hose Clamp, 8"
		56122	Spacer Kit (Honda)
		1526502	Muffler Deflector (Kohler)
		45131	Decal, Trac-Vac White
		45133	Decal, Warning
		58106	Grease Zerk



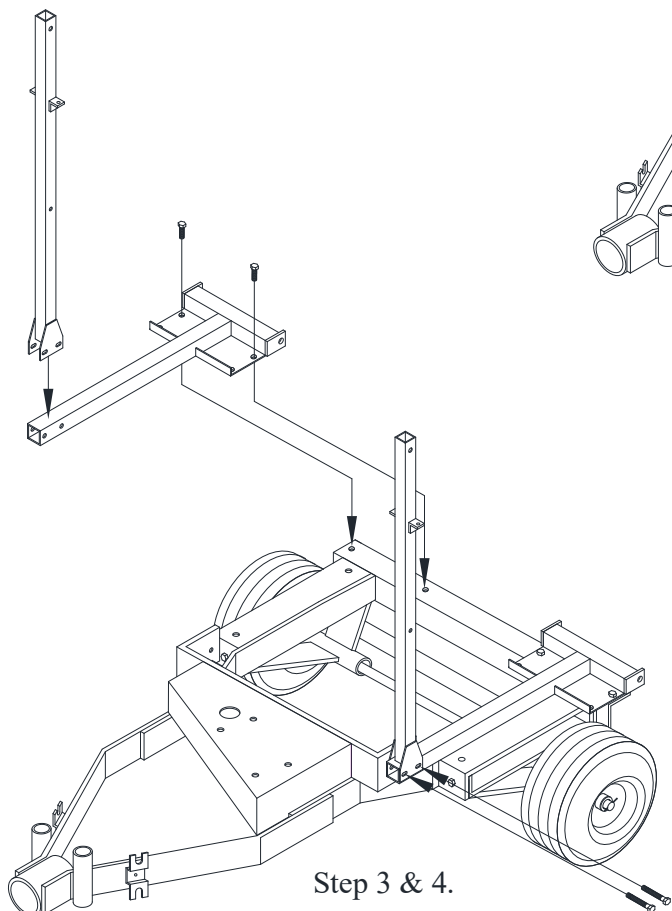
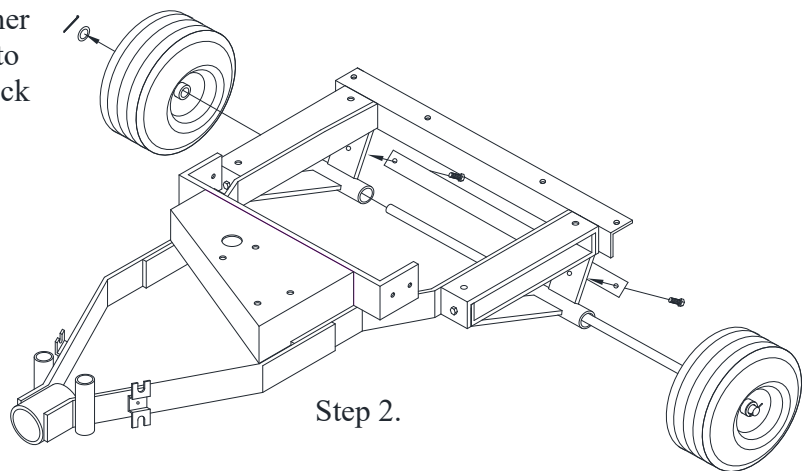
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Model 682 Assembly Instructions

1.) Position axle support (4) into main frame (1). Secure axle support, in the front mounting hole with 3/8" x 3/4" bolts and whizlock nuts. (Note: Axle tube should be closest to the rear of the frame.) Position the support bracket (2) onto the rear of the frame and line up the two holes with the two mounting holes for the axle support. Secure with 3/8" x 1" bolt and whizlock nut.



2.) Insert axle (5) through axle supports (4) and install wheels (23). Secure axle with flatwasher and cotter pins. Attach axle holder brace (3) to axle supports with 3/8" x 1" bolts and whizlock nuts.



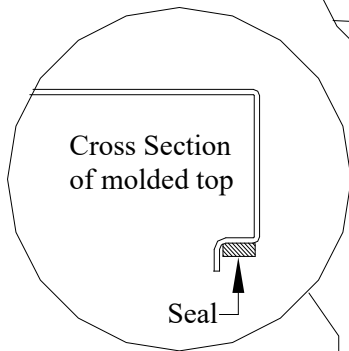
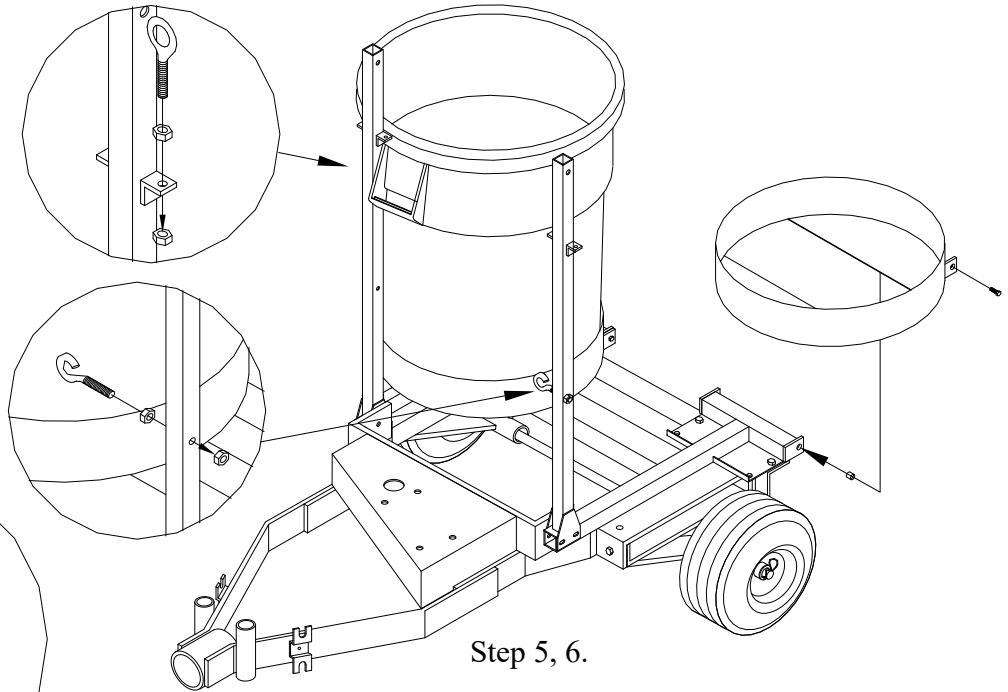
3.) Attach frame (11) to main frame (1) using 5/16" x 3/4" bolts, flatwashers, and whizlock nuts.

4.) Align slots on vertical uprights (13) to holes on container holder frame (11) and secure with 3/8" x 2 1/2" bolts and locknuts. (Note: eyebolts brackets on upright should be positioned toward container holder.)

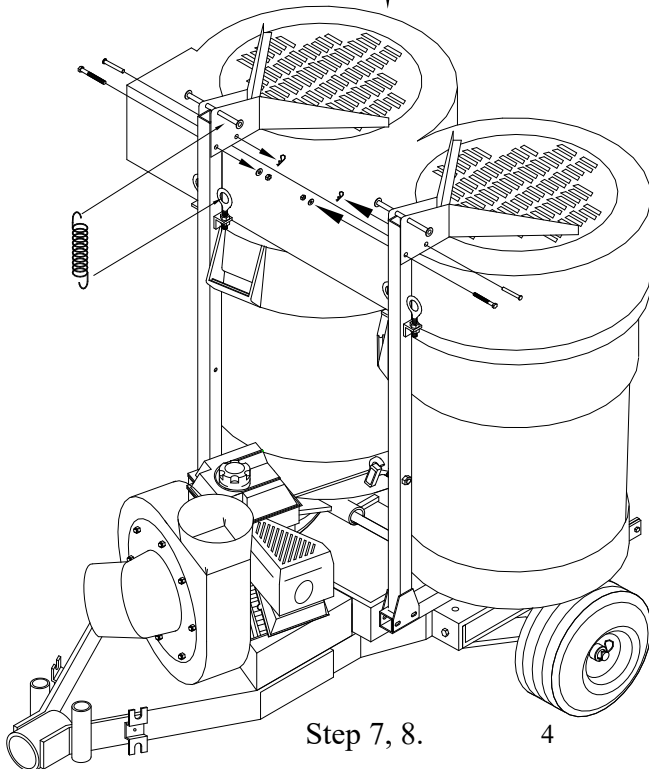
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5.) Spin 5/16" whizlock nuts onto eyebolts (35). Fit (2) eyebolts through eyebolt brackets on vertical uprights and secure with 5/16" whizlocks. Open up the eye on the 3rd eyebolt enough to slip the pull start rope thru. Secure it thru lower hole in the upright with whizlock nut as illustrated.

6.) Set container holders (12) onto container holder frames (11). Align holes and slip spacers (33) through holes. Secure assembly with 5/16" x 1 1/4" bolts and locknuts. Pivot container holder assembly to rest position. Install containers in the holders with the handles to the inside of the vertical uprights.



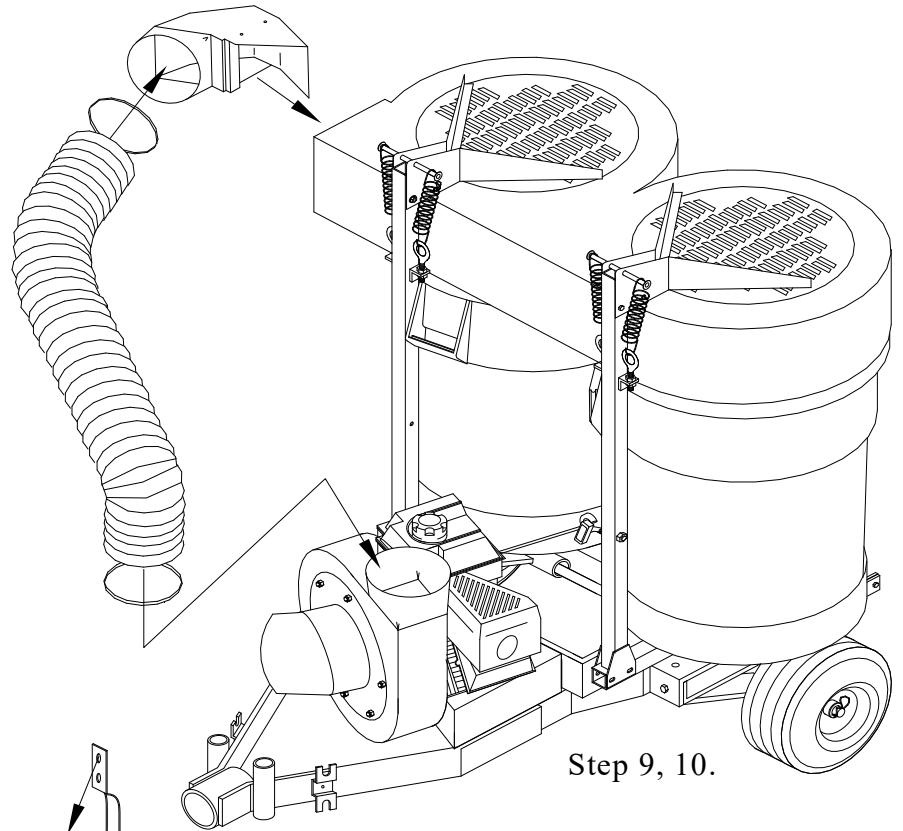
7.) Place molded top assembly on top of containers. Align pivot hole on top support to pivot hole on vertical upright. Secure with 1/2" x 2 1/4" bolt and nylon locknut. Tighten until a slight drag is felt when pivoting top. Tighten all hardware to vertical upright. Pivot upwards until springs (36) can be attached to spring retainer on top support (14) and eyebolts (35). Lower top assembly and slip 3/8" x 2 1/8" clevis pin (37) through locking pinhole. Secure with 1/8" x 1" cotter key.



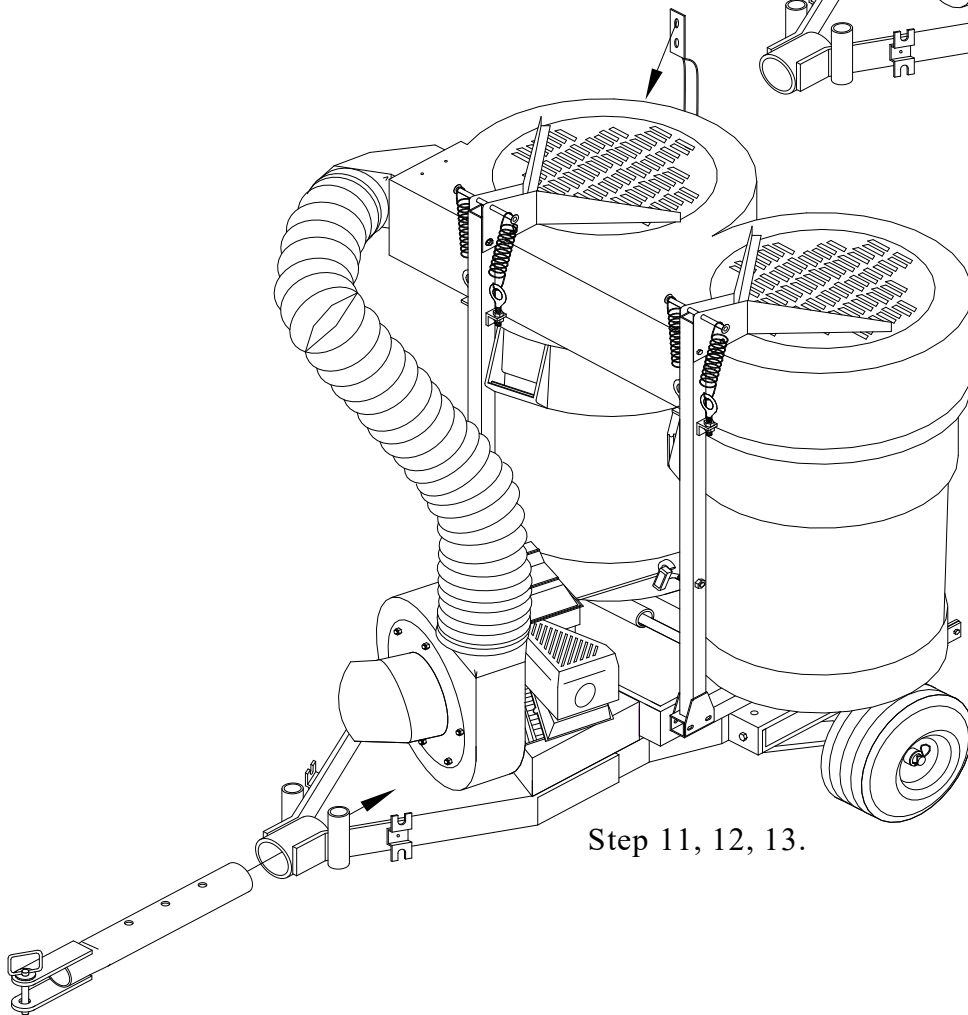
8.) Set engine/blower assembly onto engine plate and align holes in plate with holes in block. Secure with 5/16" x 1 1/2" bolts and locknuts. Slip the pull start rope thru the eyebolt on the upright.

9.) Slide exhaust boot through opening on molded top with lip on the outside. Secure with 1/4" x 3/4" truss head screws and 1/4" whizlock nuts.

10.) Slide one hose clamp (29) onto one end of 6" x 42" hose (28) and slip the hose onto the neck of the exhaust boot and tighten hose clamp. Slip another hose clamp onto opposite end of hose, slip hose over exhaust on blower housing (7) and tighten hose clamp.



Step 9, 10.



Step 11, 12, 13.

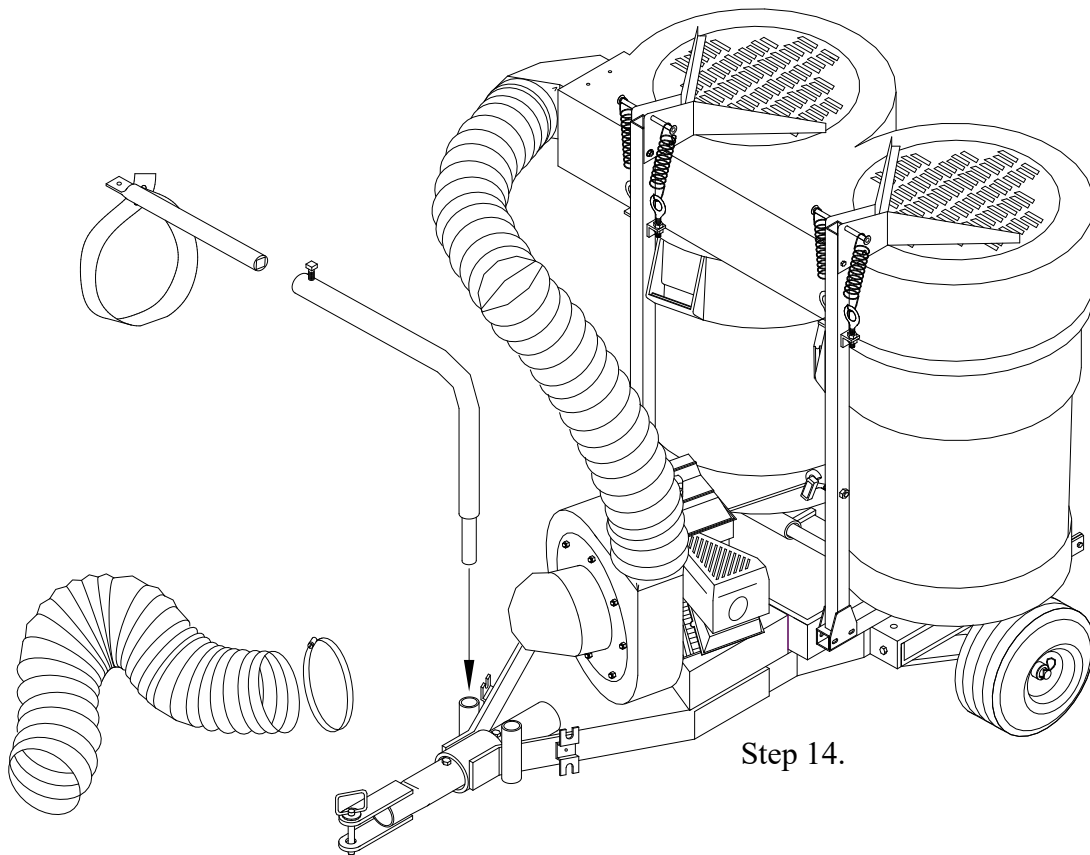
11.) Raise molded top assembly and fit filters (19) over filter support assemblies (18) and resecure molded top assembly.

12.) Align slots on container latches (20) to holes in molded top assembly and secure with 1/4" x 1/2" truss head screws and whizlock nuts. Hook container latches over handles of containers.

13.) Insert adjustable drawbar (10) into front of frame (1) and secure with 3/8" x 2 1/4" bolts and locknuts forward and aft of the receiver tube on the frame.

14.) Install chute on mower deck of tractor. Attach the Model 682 to tractor. Turn tractor until rear wheel opposite discharge contacts frame. If rear wheel is too close to inlet, extend the adjustable drawbar (10). Install hose support arm (24) into frame and support arm extension (25) into support arm. Slip hose clamp over end of intake hose and attach hose to intake on blower housing and tighten hose clamp. Slip hose through hose support strap. Extend hose to chute and cut to fit. Secure hose to chute with hose clamp.

15.) Read engine operating instructions and service engine before starting.



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. Carburetor out of adjustment 6. 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. Adjust carburetor (refer to engine manual) 6. Move choke lever to OFF position
Engine overheats	<ol style="list-style-type: none"> 1. Carburetor not adjusted properly 2. Engine oil level low 3. Operating below full RPM 	<ol style="list-style-type: none"> 1. Adjust carburetor (refer to engine manual) 2. Fill crankcase with proper oil 3. 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.



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.

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 3200-RPM (380), 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 part 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.

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.

MIDWEST EQUIPMENT MANUFACTURING, INC.

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