

TRAC VAC

Model 854/856



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.



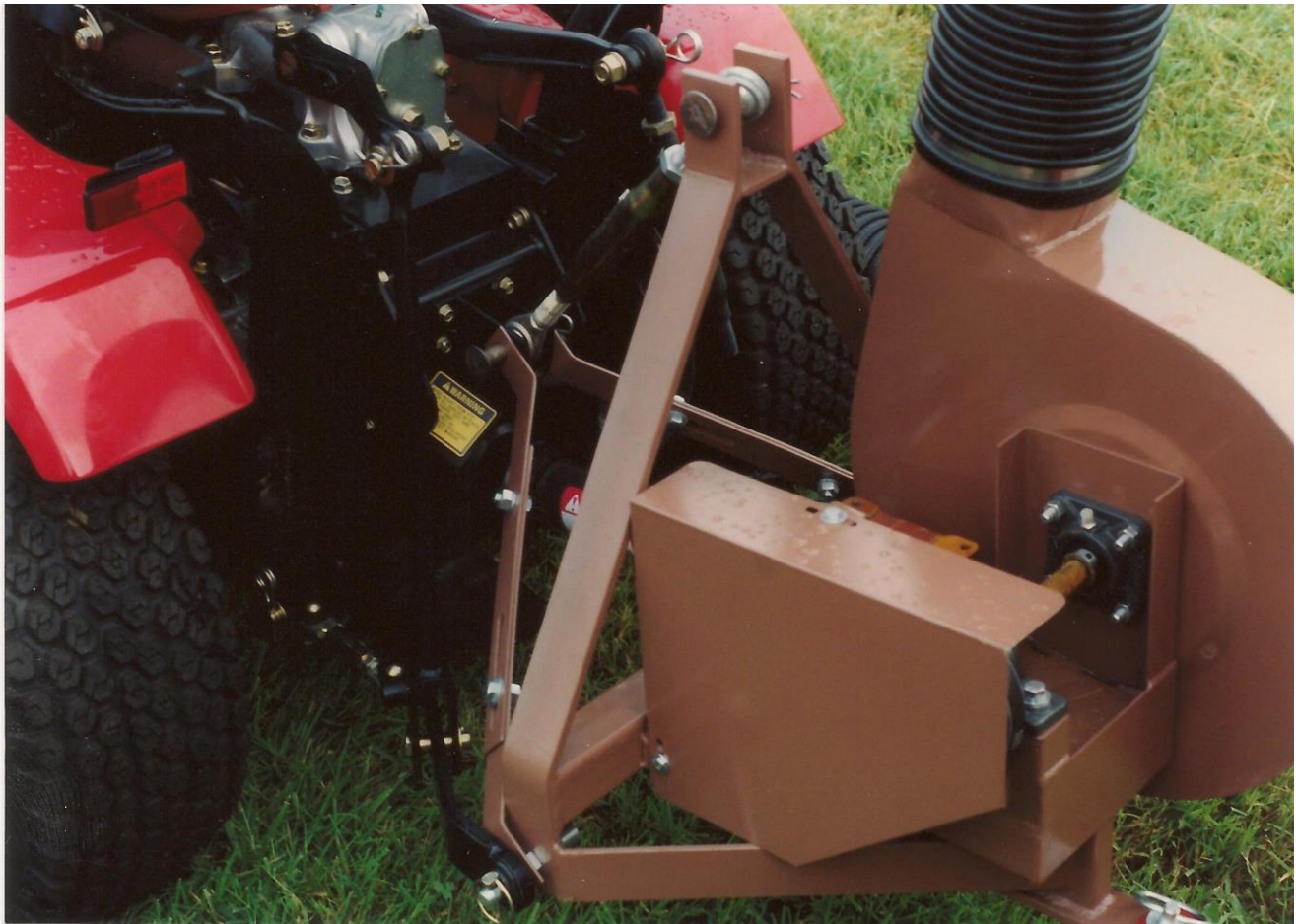
This symbol means Attention!!!! It is used to point out safety precautions.

- 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 in 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.



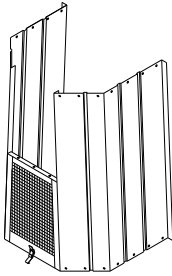
General Instructions

Your Model 854/856 Trac-Vac is designed to mount directly to the 3 point attachment on your lawn and garden tractor. A lift kit must be installed before mounting a vacuum attachment on the 3-point draw arms.

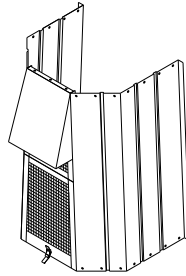


Model 280 Cart Cover Assembly Instructions

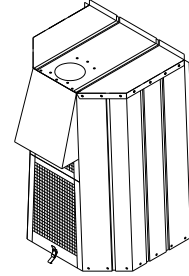
NOTE: Do not tighten any bolts until the end of construction.



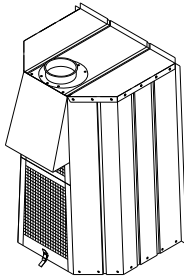
Place side panels on end with decal outward and about a foot apart at top. Place screen with latch, (rear screen), on end between sides with latch outward and to the floor. Attach to sides with 1/4 x 1/2 bolts.



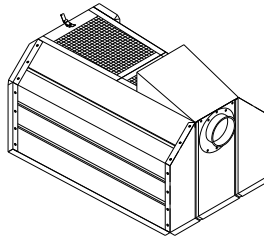
Place screen without latch, (front screen), on top of rear screen and between sides. Secure to rear screen with 1/4 x 1/2 bolts. Slip deflector between sides and front screen with tapered end up. Secure with 1/4 x 1/2 bolts.



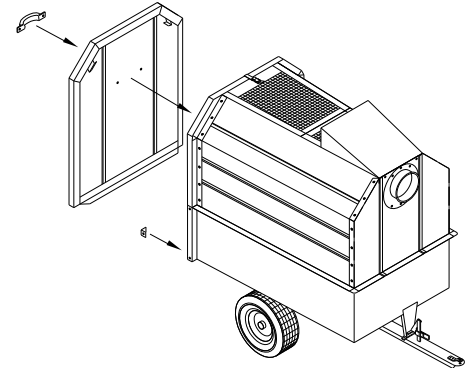
Place front on sides with flanges on outside. Start corner bolts in sides and screen before tightening. Start bolts at top & bottom of side panels and work your way toward center, with truss head, round, to the outside.



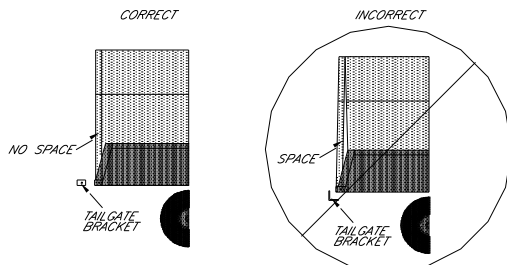
Place connector, (packed in with vac), on outside of front with the lip to the outside. Attach with 1/4 x 1/2 bolts.



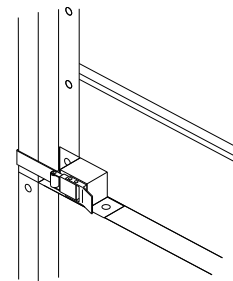
Place cover flat on floor and attach angles to side panels at rear of cover with angles on the outside of cover. Secure with 1/4 x 1/2 bolts. Start at the top and second hole from the bottom, (latch uses bottom hole), then work towards the center of the panels. Bolts truss, (round), head should be to the inside of cart.



Attach handle to tailgate on smooth side. Place cover on cart. Make sure the two lower black angle brackets have been installed on the lower rear of the cart. Fit tailgate to the cover using the top latch and lower brackets only.

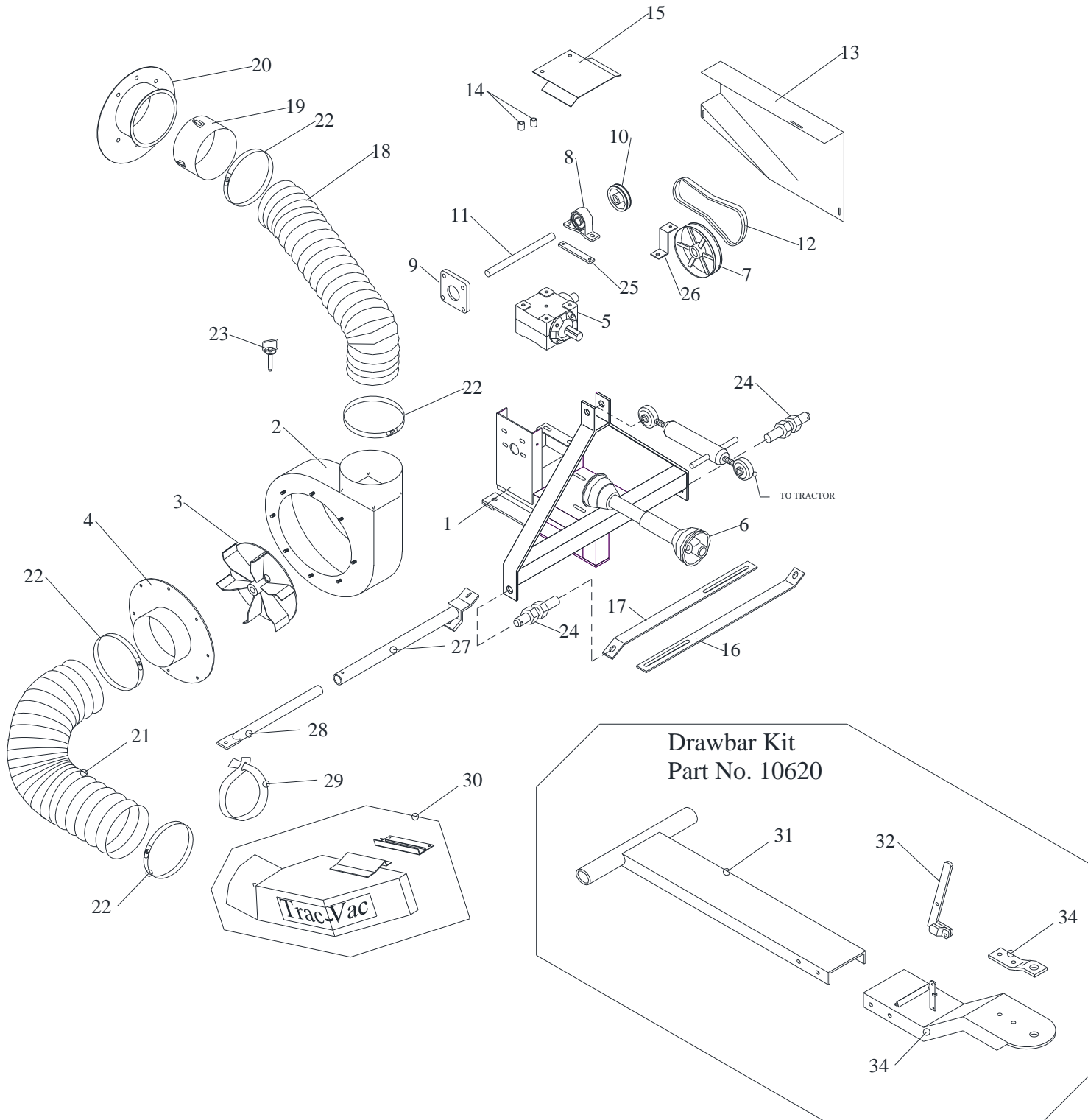


Gently move cover to the rear to insure contact between the tailgate and cover, (along entire contacting surface). Center front on cart. Mark hole locations, and drill 9/32" holes. Attach cover with 1/4 x 1/2 bolts.



Place latch on each side of cart with tongue of latch to rear. Attach to side panel and cart with 1/4 x 1/2 bolts. Tighten all hardware.

Model 856 Trac-Vac Parts List



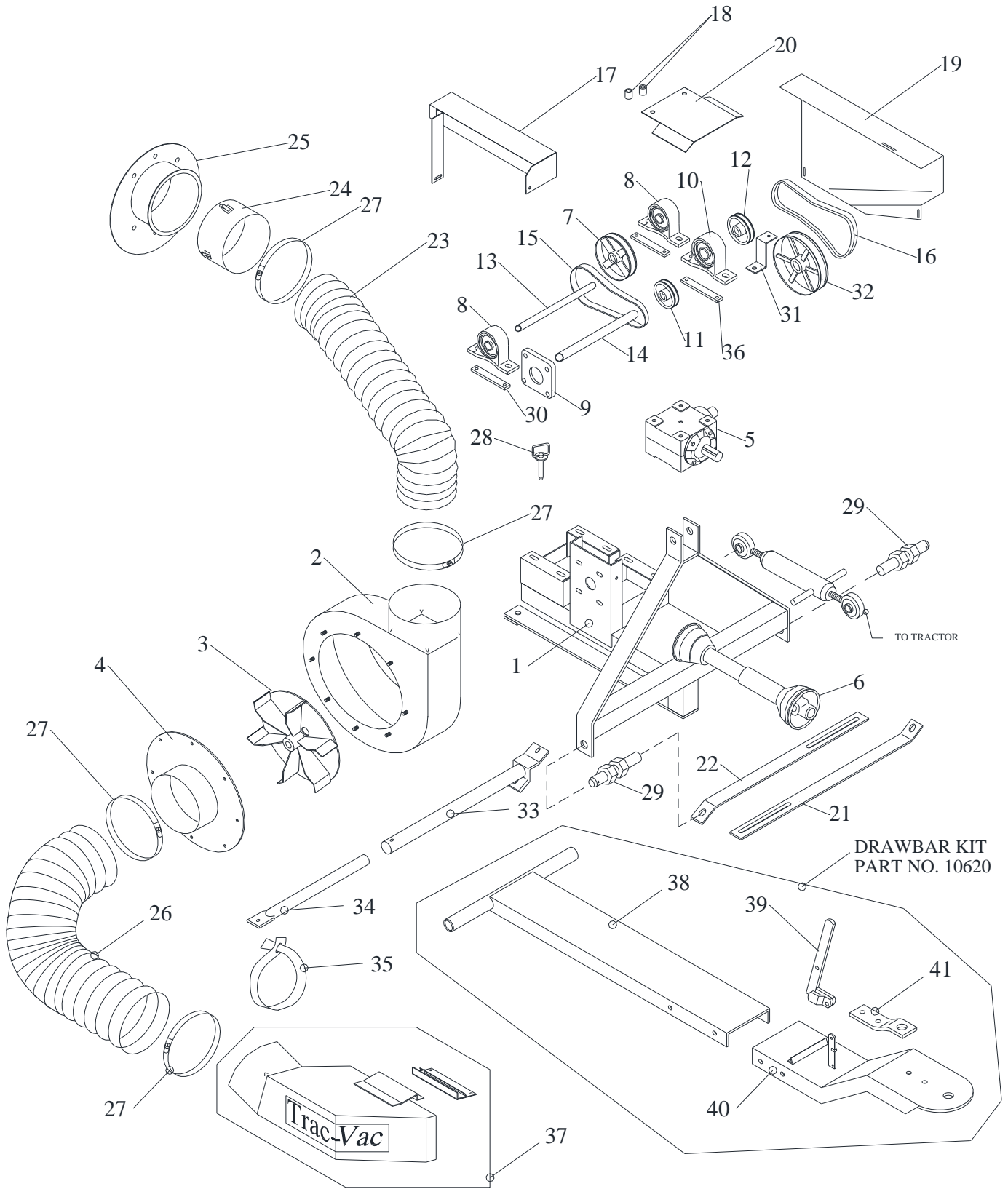
Model 856 Trac-Vac Parts List

<u>Key</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
1	85012	Frame, 856	1
2	18030	Turbine Housing, RH	1
3	86040	Turbine	1
4	18050	8" Inlet	1
5	85001	Gearbox	1
6	85002	PTO Shaft	1
7	85014	Pulley, AK74 x 1"	1
8	85029	Bearing, 1" Pillow Block	2
9	85028	Bearing, 1" Flange	1
10	85027	Pulley, 8400 x 1"	1
11	85025	Shaft	1
12	85017	Belt, AX28	1
13	85201	Belt Guard	1
14	85018	Spacer	2
15	85008	U-Joint Guard	1
16	85060	Upper Sway Bracket	2
17	85061	Lower Sway Bracket	2
18	86101	Exhaust Hose, 8" x 60'	1
19	86060	Hose Connector	1
20	18070	Cart Connector	1
21	88101	Intake Hose, 8" x 90"	1
22	18119	Hose Clamp, 8"	4
23	58104	Hitch Pin	1
24	85024	Draw Pin, 7/8"	2
25	85109	Bearing Support	1
26	85206	Belt Guard Support Bracket	1
27	85110	Support Arm Bracket	1
28	58022	Support Arm Extension	1
29	18118	8" Hose Support Strap	1
30	***-8	8" Deck Chute Assembly	1
	85688	Hardware Bag	1
	45131	Decal, 2" x 8" Trac-Vac White	1
	45133	Decal, Warning Stop Engine	1
	85695	Decal, 856 Serial#	1
	86090	Carton, 860	1
	10620	Drawbar Kit	
31	10606	Drawbar	
32	58061	Cart Latch	
33	58067	Hitch Plate (Comes w/cart)	
34	10605	Extension, Drawbar	

Model 854 Trac-Vac Parts List

<u>Key</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty</u>
1	85010	Frame, 854-RH	1
	85011	Frame, 854-LH	1
2	18030	Turbine Housing, RH	1
	18031	Turbine Housing, LH	1
3	86040	Turbine	1
4	18050	8" Inlet	1
5	85001	Gearbox	1
6	85023	PTO Shaft, 22"	1
	85002	PTO Shaft, 18"	1
7	85016	Pulley, MA 55 x 3/4"	1
8	85009	Bearing, 3/4" Pillow Block	2
9	85028	Bearing, 1" Flange	1
10	85029	Bearing, 1" Pillow Block	1
11	85027	Pulley, 8400 x 1"	1
12	85015	Pulley, 8400 x 3/4"	1
13	18104	Shaft, 3/4"	1
14	18109	Shaft, 1"	1
15	85101	Belt, AX25	1
16	85102	Belt, AX40	1
17	85032	Belt Guard, RH	1
	85033	Belt Guard, LH	1
18	85018	Spacer	2
19	85020	Belt Guard, Outer, RH	1
	85022	Belt Guard, Outer, LH	1
20	85008	U-Joint Guard	1
21	85060	Upper Sway Brackets	2
	85063	Upper Sway Bracket (BX)	2
22	85061	Lower Sway Bracket	2
	85064	Lower Sway Bracket (BX)	2
23	86101	Exhaust Hose, 8" x 60"	1
24	86060	Hose Connector	1
25	18070	Cart Connector	1
26	88101	Intake Hose, 8" x 90"	1
27	18119	8" Hose Clamp	4
28	58104	Hitch Pin	1
29	85024	Draw Pin, 7/8"	2
30	85019	Bearing Support	2
31	85026	Support, Belt Guard	1
32	85014	Pulley, AK74 x 1"	1
33	85110	Support Arm Brace	1
34	58022	Support Arm Extensoin	1
35	18118	8" Hose Support Strap	1
36	85034	Bearing Support, 1" Pillow	1
37	***-8	8" Deck Chute Assembly	1
	10620	Draw Bar Kit	1
38	10606	Drawbar	
39	58061	Cart Latch	
40	10605	Extension, Drawbar	
41	58067	Hitch Plate (comes w/cart)	

Model 854 Trac-Vac Parts List



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Operation

The Model 854 Trac-Vac is designed to operate at a 540 RPM PTO speed. Poor performance will

result if ran much below recommended speed.

The Model 856 is designed to operate at 856 PTO speed. The variable pitch pulley will permit operation at 750 PTO speed. To change the ratio, loosen the bolts under the gearbox. Loosen the set screw on the side of the small pulley. Turn outer half of pulley clockwise and close completely, then turn counterclockwise no more than 5 turns. The pulley should be 13/16" at top of the V. Move the gearbox forward to tighten the belt and secure the bolts. The turbine shaft should turn at 3600 RPM.

1. Inspect area to be vacuumed and pick up 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 manufacturers' recommended speed for best cutting. If grass is high, reduce ground speed to prevent overloading mower and vacuum. If grass is wet, wait until dry for best results.
3. When mowing, keep discharge chute to the outside of the cutting area for better cut of grass and efficient pickup of grass clippings and leaves.
4. Do not overload cart. When it is filled shut off vacuum, disconnect hose at snap disconnect, remove tailgate and dump.
5. When operating tractor on slope or grade, exercise much caution. Do not cut across grade or slope. Mow directly up or down hill.
6. Periodically tighten all bolts.
7. Listen for unusual vibration of air turbine. If excessive vibration is present, STOP vacuum and check for damaged blade.
8. Always shut off tractor engine before servicing vacuum.
9. Replace deflector shield when discharge chute is removed.
10. When removing clogs, SHUT OFF ALL engines.

Maintenance

- Your 854/856 Trac-Vac has been serviced at the factory for initial operation.
- Bearings should be greased and gearbox oil checked. Gearbox oil level should be to the bottom of the cross shaft bearing. Overfilling will cause oil to be forced out through the vent. Fill with 90 weight gear lube.
- Check belt tension after the first hour of operation and every ten hours thereafter.
- On Model 856, adjust belt by moving gearbox forward.
- On Model 854, adjust inboard belt first by moving jack shaft bearing to the rear, then adjust outboard belt by moving gearbox forward.

TRAC VAC WARRANTY 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 days 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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