The Ranger

- INSTALLATION
- OPERATION
- MAINTENANCE

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Safety :

- Do not operate this equipment until you have read this manual and fully understand the machine's operation.

- Never operate the vacuum without a hose on the inlet.

- Never operate the vacuum without a hose or bag on the discharge of the fan housing.

- Never place your hands, arms or any body parts near the fan inlet or discharge while the fan is in motion. The fan can cause severe and permanent injuries to body parts.

- Never attempt any maintenance while the fan is rotating.

- Prior to any maintenance, turn the key to the off position and remove the key from the ignition. Then remove the wire from the spark plugs. This will eliminate the possibility of accidental ignition.

- Never touch the positive and negative leads of the battery. This is a 12 volt Direct Current negative ground system.

- Exercise caution when moving your vacuum up and down ramps. This machine weighs in excess of 350 lbs. and can cause injury if moved improperly.

- Do Not touch the muffler or exhaust system. The engine on the vacuum produces an extremely hot exhaust system and can cause severe burns if touched.

- Do Not transport the vacuum without properly securing the vacuum in your vehicle.

- Do Not continue to operate a vacuum that has an out of balance condition. This will be apparent by the machine shaking violently. Operating a machine that is out of balance could result in damage to the machine or injury to the operator.

The Ranger
I.O.M. MANUAL

Installation :

Upon receipt of your power vacuum and equipment, double check your packing list against the actual materials received. Note any discrepancies and/or damage to the freight on the trucker's freight bill. Any claims will have to be processed through the freight company and they will require documentation.

Unpack your **Ranger** power vacuum using caution not to damage the machine. Locate the packing slip attached to your shipment; check to see that you received everything that is listed. Your machine should be fully assembled with the exception of the gas tanks and discharge setup. Locate the 6 gallon gas
tank, this has a quick coupler mounted so that it can be connected when and where you are going to position the vacuum.

Your **Ranger** power vacuum is a multi-purpose tool and can be used in the duct cleaning industry as well as the insulation and debris removal industry.

Insulation / Debris Pick-up Setup:

Attach a 10" discharge hose to the discharge of the vacuum hosing for attaching a disposable filter bag. The filter bags can be used to hold blown in insulation (fiberglass, cellulose, rockwool, etc.) or yard waste. Attach enough inlet hose to the vacuum to reach the work area. Install the gas tank using the quick couplers provided on the engine gas line and the gas tank. Open the air vent on the top of the gas cap. The vacuum is now ready to run.

****Using larger diameter hoses will increase efficiency over smaller diameter hoses.*
Never operate the Ranger without a hose on the vacuum inlet or discharge!

Duct Cleaning Setup:

Take the filter bag and position it so that the 11" dia. inlet to the bag is aligned with the discharge of the fan. The lined half of the 11" inlet sleeve should be on the top half of the fan discharge & the unlined part of the sleeve should be on the bottom. Using the stainless steel strap clamp provided, mount the bag to the fan housing (this clamp should be tight). Insert each guide rod through the grommet located on the side of the filter bag and into the pipe located on the fan discharge. Install the dust container under the filter bag and close the metal clamping ring. Install the gas tank using the quick couplers provided on the engine gas line and the gas tank. Open the air vent on the top of the gas cap. The vacuum is now ready to run.

Warning: Make sure fuel line and fuel tank are placed away from the muffler to minimize the chance of fire.

Note: Check the oil in the engine prior to starting the engine. See the Kohler Owner's Manual for these instruction.

Operation :

Prior to operating your **Ranger** power vacuum, there are a few necessary points that must be checked.

- Check oil level
- Inlet hose is firmly in place
- Discharge bag/hose is clamped on
- Machine is located in a well ventilated area

NOTE: Never operate your vacuum without proper inlet and discharge connections.

Once you have checked the items above, you are ready to proceed with starting the vacuum.

Place the throttle lever midway between low and high speed, pull the choke out while you initially crank the engine. Crank the engine until it starts, then push the choke in and the engine will begin to run smoothly. Guide the top of the filter bag up between the rods so the bag and bucket stand up straight.

When the vacuum begins to run, arrange the filter bag and bucket so it stands straight up when in use. Let the engine idle for 2-3 minutes prior to increasing the speed. The vacuum may then be brought up to operating speed.

We define “operating speed”’ as the speed that is necessary to effectively do the job. If the job is small, then the throttle need not be moved to the maximum setting. On larger jobs you will need to increase the speed to achieve the proper vacuum level.

When the vacuuming job is done, do not remove the inlet hose or the discharge bag or hose until the vacuum has come to a complete stop and the key is in the off position.

To shut down the vacuum, gradually move the throttle lever to the middle of the speed range, then turn the key to the off position. This will minimize the possibility of the engine back-firing.

NOTE: All warranty repairs must go through Meyer Machine Supply & Equipment prior to any service work being done. Work not authorized by Meyer Machine Supply & Equipment will not be covered under warranty.

Maintenance :

Your **Ranger** power vacuum, as well as the rest of your equipment, will last for many years if you properly maintain the equipment.

The **Ranger** requires the following regular maintenance procedures:

NOTE: ALWAYS FOLLOW THE SAFETY GUIDELINES AS OUTLINED ON PAGE 1 OF THIS MANUAL.

FOR A NEW ENGINE, change the oil after the first **5** hours of operation. Thereafter, change oil after every 100 hours of operation.

I. Every day check the oil level by removing and checking the dip stick. Refer to the accompanying Briggs & Stratton Owner's manual for the proper oil viscosity. Add the appropriate amount of oil, as necessary.

II. The engine should have the oil and filter changed every 100 hours of operation. Drain the oil from the extended oil drain on the side of the engine opposite the muffler. Then refill the oil reservoir with the oil recommended in the accompanying Briggs & Stratton Owner's manual.

III. The bolts on the fan wheel should be checked for tightness every time you change your oil. This requires a ½" dia. socket wrench with an extension. Locate the (3) bolts on the bushing inside the fan inlet. Then turn each bolt clockwise until they are tight. These bolts should be torqued to 30 ft-lbs.

IV. The air filter on the engine should be checked every 50 hours of operation. To do this, loosen the air cleaner clamp and remove the cover. Remove the air cleaner and take the pre-filter off the pleated air filter. Replace filters that appear soiled or have oil residue within the filter media. When you maintain the pre-filter you will not have to replace the main filter as often.

V. New Equipment built after April 1, 2017 utilizes a 'Jack-Shaft' drive with a flexible coupler to transfer radial torque from the engine to the fan wheel. This set-up requires maintenance on the bearings and coupler. Bearings should be given 1 pump of grease every 6 weeks or 50 engine run hours, whichever comes first. The flexible coupler should be checked for loose bolts and structural integrity on the same schedule. Any coupler that has cuts or abrasions should be removed from service and replaced. All bolts connecting the coupler to hubs should be tightened to 12 ft-lbs of torque.

*** Over-greasing a bearing can cause overheating and premature bearing failure. When establishing a relubrication schedule, note that small amounts of grease at frequent intervals is preferable to large amounts of grease at infrequent intervals.**

*** Additional information on Dodge/Baldor Raptor Couplers in available in appendix.**

V. The engine will also require other maintenance as outlined in the accompanying Briggs & Stratton Owner's Manual.

VI. The fan wheel should be checked every 1,000 hours or, at a minimum, once per year. Remove the fan wheel and visually inspect it for mechanical integrity. If any aberration is detected, the fan wheel should be replaced immediately.