

OPERATION GUIDELINES - 607 CHALLENGER VACUUM PUMP

Oil Reservoir

- Check oil reservoir daily and fill as required.
- Drain and clean periodically depending on service.

Temperature

- Check exhaust temperature. It must not exceed 375° F at any time.

Recommended RPM

- Do not operate the pump faster than the recommended rpm of 1250. 1500 RPM is for intermittent use only.
- Too low of an RPM can cause the vanes to clatter (inconsistent contact with the housing) causing wear.

4-Way Valve

- To operate the 4-way valve, move the handle in the appropriate direction for either vacuum or pressure; center is neutral.

Vacuum Levels

- Do not operate your pump for extended periods of time at vacuum levels which cause the pump to exceed 375° F exhaust gas temperature.

Guards

- Make certain all guards are in place prior to running your pump. *Think Safety!*

Lubricant

- We recommend that turbine oil be used in our pumps. Turbine oil is much more resistant to break-down due to heat than normal motor oil, thereby avoiding the problems associated with motor oil such as lacquering and excessive wear.

Acceptable Oil:

1. *NVE ISO 68 Oil
2. Penzoi Penzabell 68 T.O.
3. Shell Turbo 68
4. Mobil D.T.E. Heavy - Medium
5. Texaco Regal R & O 68

* NVE ISO 68 Oil is our recommended pump oil for the Challenger series vacuum pumps. Challenger Vacuum Pump oil is sold by the case, six-1 gallon containers of oil per case.

IMPORTANT

It is the responsibility of the final assembler to align gearbox, tighten all bolts, fittings, set screws, hose clamps, grease all zerks and bearings and make sure all guards are in place. Fill and or check level of oil in gearbox and remote oil tank. Ensure oil is pulsing through all lines on vacuum pump. Thoroughly test the vacuum system and components supplied by NVE prior to delivery of the final product to the end user. NVE will not be responsible for improper installation. To validate product warranty complete the Warranty Validation form. This form must be signed and dated by a qualified installation technician AND returned to NVE via fax 800-998-6834 or email to sales@natvac.com.



BELT DRIVE TOP MOUNT SET UP & OPERATION GUIDE

NVE is the industry leader - with powerful engineering, manufacturing and customer service capabilities that are unmatched by the competition.

Challenger Vacuum Pumps & Pump Packages

Blowers & Blower Packages

Self Contained Pump Packages

Battioni Pagani Pumps & Packages

Rotary Lobe Blowers

NVE DOT Manufactured Valves

RIV Imported Valves

Vacuum Tank Components

Accessories

INSTALLATION PROCEDURES

TOP MOUNT

UNPACK YOUR 607 TOP MOUNT BELT AND PULLEY PACKAGE

Installation:

- 1 Attach jack shaft frame to top mount frame using the supplied (8) HHCS - 5/8" UNC x 2 1/4" bolts; (8) 5/8" flat washers; (8) 5/8" Nylock nuts
- 2 Place the U-bolts around the truck frame and bolt to the mounting bracket on the top mount frame using the supplied (4) U-bolts; (8) Deepnuts; (8) washers
- 3 Remove the external belt guard from 607 Challenger pump
- 4 Install belt on the top and bottom pulley
- 5 Replace the external belt guard
- 6 Adjust jack shaft and tighten belt tension

To tension belts:

1. Measure the distance between the centerline of pulleys.
2. The belt should deflect 1/64" (.0156") at the midpoint between the pulleys for every inch of centerline distance when a 6lb force is applied to the individual belt. This is for a BX belt with a 1.0 ratio and 6" pulley diameter. (Example: 10" center to center distance give a deflection $d = 1/64" \times 10" = .156"$ or 5/32"). Use a spring scale to apply the force and tape measure to measure deflection. Use a straight edge or tight string from sheave to sheave as a reference line. Do this for each belt.
3. After 24 hours, re-tension the belts.

It is crucial that the belts have proper tension and jack shaft is square to the pump.

- 7 Connect jack shaft to PTO with a drive line assembly



Tighten all bolts, set screws and grease all zerks.

Before starting 607 Challenger vacuum pump fill remote oil tank with ISO 68 NVE oil and be sure oil is flowing through lines.

Features:

- Rugged 3/8" steel construction mounting frame
 - Powdercoated finish provides a well deserved level of protection for your equipment to meet the demands of the job site
 - Robust 1 3/4" CNC machined jack stand
 - Upper belt guard with expanded metal window to allow fan cooled pump some breathing room
 - Intuitive belt tension system decreases installation time
 - 3" of adjustable in slot travel for pump and jack shaft mount
 - U-bolts and mounting brackets provided for custom fit to your truck
 - Auxiliary gravity fed 5 qt. oil tank provided to allow for a visual indication of oil tank level
 - 12" oil catch muffler with drain valve included
- Accommodate either fan or liquid cooled pump.
(Pump sold separately)

