OJNNAVD AP2D36LV1RS7

OJNNAVD AP2D36 Hydraulic Piston Pump Instruction Manual

Model: AP2D36LV1RS7 | Brand: OJNNAVD

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the OJNNAVD AP2D36 Hydraulic Piston Pump. This pump is designed for hydraulic systems, specifically compatible with the Yanmar VIO-70 Excavator AP2D36LV main pump. Please read this manual thoroughly before using the product to ensure proper function and longevity.

2. Safety Information

WARNING: Failure to follow these safety instructions may result in serious injury, death, or property damage.

- Always disconnect power and relieve hydraulic pressure before performing any installation, maintenance, or repair work.
- Wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and protective clothing.
- Ensure the installation area is clean, well-lit, and free from obstructions.
- Only qualified personnel should perform installation and maintenance procedures.
- Do not exceed the specified operating pressure or temperature limits of the pump.
- Handle hydraulic fluid with care; it can cause skin irritation and is flammable.
- Check all connections for leaks before operating the system.

3. Product Overview

The OJNNAVD AP2D36 Hydraulic Piston Pump is engineered for robust performance in demanding industrial applications. It features a high-pressure output design to efficiently drive excavator hydraulic systems, ensuring

stable and continuous oil flow for precise control. Its compact structure facilitates easy integration and maintenance within the machine's limited space, while its strong durability allows it to withstand high loads, impacts, and wear in harsh environments.

Figure 3.1: Overall view of the AP2D36 Hydraulic Piston Pump, showcasing its robust blue casing and various ports.

4. Specifications

Specification	Value
Application	Hydraulic Systems
Theory	Piston Pump
Structure	Piston Pump
Model Number	AP2D36LV1RS7
Power Source	HYDRAULIC

Specification	Value
Standard or Nonstandard	Standard
Pressure	High Pressure
Usage	Oil
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.76 ounces
Manufacturer	fuhog68bnhuj

5. Setup and Installation

Proper installation is crucial for the pump's performance and longevity. Follow these steps carefully:

1. **Preparation:** Ensure the mounting surface on the excavator is clean, flat, and free from debris. Verify that all necessary mounting hardware is available and in good condition.
2. **Mounting:** Carefully align the pump with the mounting points on the excavator. Secure the pump using appropriate bolts and torque them to the manufacturer's specifications for the excavator.
3. **Hydraulic Line Connections:** Connect the suction and pressure lines to the corresponding ports on the pump. Ensure all connections are tight and sealed to prevent leaks. Refer to the excavator's service manual for specific port identification.
4. **Drain Line Connection:** Connect the drain line (if applicable) to the pump's drain port and route it back to the hydraulic reservoir.
5. **Electrical Connections:** If the pump includes electrical components (e.g., solenoid valves), connect them according to the excavator's wiring diagram.
6. **Fluid Fill:** Fill the hydraulic reservoir with the recommended hydraulic fluid to the appropriate level.
7. **Bleeding Air:** Follow the excavator manufacturer's procedure for bleeding air from the hydraulic system to prevent cavitation and ensure proper pump operation.

Figure 5.1: Front view of the AP2D36 pump, showing the drive shaft and mounting flange, critical for correct installation.

6. Operating Instructions

Once the pump is correctly installed and the system is filled with hydraulic fluid, follow these general operating guidelines:

1. **Pre-Operation Check:** Before starting the excavator, visually inspect the pump and hydraulic lines for any signs of leaks, damage, or loose connections. Check the hydraulic fluid level.
2. **System Start-up:** Start the excavator engine and allow it to warm up. Engage the hydraulic system at a low RPM initially.
3. **Pressure Monitoring:** Monitor the hydraulic pressure gauges to ensure the pump is operating within the specified pressure range for the excavator's hydraulic system.
4. **Function Test:** Slowly actuate all hydraulic functions of the excavator (e.g., boom, arm, bucket) to ensure smooth and responsive operation. Listen for unusual noises.
5. **Continuous Operation:** During continuous operation, periodically check for any abnormal noises, vibrations, or excessive heat from the pump.

6. **Shutdown:** Before shutting down the excavator, ensure all hydraulic functions are in a neutral or safe position.

Figure 6.1: Angled view of the AP2D36 pump, illustrating its compact design and various connection points relevant during operation.

7. Maintenance

Regular maintenance is essential to ensure the long-term reliability and performance of your hydraulic piston pump.

- **Hydraulic Fluid:** Regularly check the hydraulic fluid level and quality. Replace the fluid according to the excavator manufacturer's recommendations or if it appears contaminated. Use only the specified type of hydraulic fluid.
- **Filter Replacement:** Replace hydraulic filters at recommended intervals to prevent contaminants from damaging the pump and other hydraulic components.
- **Leak Inspection:** Periodically inspect all hydraulic lines, fittings, and the pump body for any signs of leaks. Address leaks immediately to prevent fluid loss and system contamination.
- **Mounting Security:** Check the pump's mounting bolts for tightness. Vibrations can loosen fasteners over

time.

- **Cleanliness:** Keep the exterior of the pump clean to prevent dirt and debris from entering the system, especially around seals and connections.
- **Temperature Monitoring:** Ensure the hydraulic system operates within normal temperature ranges. Overheating can degrade fluid and damage components.

Figure 7.1: Side view of the AP2D36 pump, highlighting accessible ports and the general structure for maintenance checks.

8. Troubleshooting

This section provides solutions to common issues you might encounter with your hydraulic piston pump. For complex problems, consult a qualified technician.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Low or No Hydraulic Pressure	Low fluid level, clogged filter, air in system, faulty relief valve, pump wear.	Check fluid level and add as needed. Replace hydraulic filter. Bleed air from system. Inspect/replace relief valve. Inspect pump for wear.
Excessive Noise/Vibration	Cavitation (air in system), loose mounting, worn bearings, contaminated fluid.	Bleed air from system. Tighten mounting bolts. Check fluid quality and replace if contaminated. Inspect for worn components.
Overheating	Low fluid level, clogged cooler, incorrect fluid viscosity, excessive system load.	Check fluid level. Clean hydraulic cooler. Use correct fluid. Reduce system load if possible.
External Leaks	Loose fittings, damaged seals, cracked housing.	Tighten fittings. Replace damaged seals. Inspect pump housing for damage.

9. Warranty and Support

OJNNAVD stands behind the quality of its products. For specific warranty terms and conditions, please refer to the documentation provided at the time of purchase or contact your supplier. If you encounter any issues or require technical assistance, please reach out to your vendor or the manufacturer's customer support with your product model number (AP2D36LV1RS7) and purchase details. Professional staff are available to assist you.