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› [CAT Pumps 66DX40G1I High-Pressure Triplex Plunger Pump Instruction Manual](#)

CAT Pumps 66DX40G1I

CAT Pumps 66DX40G1I High-Pressure Triplex Plunger Pump Instruction Manual

1. INTRODUCTION AND SAFETY INFORMATION

This instruction manual provides essential information for the safe and efficient installation, operation, and maintenance of your CAT Pumps 66DX40G1I high-pressure triplex plunger pump. Please read this manual thoroughly before operating the pump to ensure proper function and to prevent personal injury or equipment damage.

1.1 General Safety Precautions

- Always wear appropriate personal protective equipment (PPE) including eye protection, gloves, and hearing protection when operating or servicing the pump.
- Ensure all connections are secure and leak-free before starting the pump. High-pressure leaks can cause serious injury.
- Never operate the pump without adequate water supply. Dry running can cause severe damage to internal components.
- Do not exceed the maximum rated pressure or flow for this pump. Refer to the specifications section.
- Disconnect power to the motor or engine before performing any maintenance or adjustments.
- Keep children and unauthorized personnel away from the operating area.

2. PRODUCT OVERVIEW AND FEATURES

The CAT Pumps 66DX40G1I is a robust high-pressure triplex plunger pump designed for demanding applications. It features a durable construction and advanced engineering to provide reliable performance.



Image of the CAT Pumps 66DX40G1I high-pressure triplex plunger pump, showcasing its blue crankcase and brass pump head with multiple ports and a black pressure regulator knob.

2.1 Key Features

- **Triplex Plunger Design:** Provides a smooth and consistent liquid flow, reducing pulsation.
- **Special Concentric, High-Density, Polished, Solid Ceramic Plungers:** Offers a true wear surface, significantly extending seal life and overall pump durability.
- **Compact Flange Mount:** Allows for easy and direct mounting to most gas engines, simplifying installation.
- **Modular Regulating Unloader with Built-in By-pass:** Standard feature for safety and precise pressure setting, protecting the pump from over-pressurization.
- **Fixed Chemical Injector:** Standard and mounts directly onto the unloader, providing flexibility for chemical application.

3. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your pump. Follow these guidelines carefully.

3.1 Mounting

- Mount the pump securely to a stable, level surface or directly to a compatible gas engine using the compact flange mount.
- Ensure adequate ventilation around the pump to prevent overheating.

3.2 Water Inlet Connection

- Connect a clean water supply to one of the 1/2" NPTF inlet ports. It is recommended to use a water filter to prevent debris from entering the pump.
- Ensure the inlet pressure is within the specified range of Flooded to 75 PSI. Insufficient inlet pressure can lead to cavitation and pump damage.
- Avoid kinks or restrictions in the inlet hose.

3.3 Discharge Connection

- Connect the high-pressure hose to one of the 3/8" NPTF discharge ports.
- Ensure all discharge fittings are rated for the maximum operating pressure of the pump.

3.4 Crankcase Oil

- Verify that the crankcase is filled with the recommended CAT Pumps crankcase oil to the proper level before initial startup. Refer to the maintenance section for oil specifications.

4. OPERATING INSTRUCTIONS

Follow these steps for safe and effective operation of your CAT Pumps 66DX40G11.

1. **Check Fluid Levels:** Ensure the crankcase oil is at the correct level and the water supply is connected and turned on.
2. **Purge Air:** Before starting, open the trigger gun or discharge valve to allow water to flow through the pump and hoses, purging any trapped air. This prevents air pockets from damaging the pump.
3. **Start Engine/Motor:** Start the engine or motor connected to the pump. Allow it to reach operating speed (up to 3400 RPM).
4. **Adjust Pressure:** Slowly close the trigger gun or discharge valve. The modular regulating unloader will allow you to adjust the operating pressure within the range of 100 to 4000 PSI. Do not exceed 4000 PSI.
5. **Chemical Injection (Optional):** If using the fixed chemical injector, ensure the chemical solution is prepared according to its instructions and the injector is properly connected.
6. **Shut Down:** To stop operation, release the trigger gun or open the discharge valve to relieve pressure, then shut off the engine or motor. Turn off the water supply.

5. MAINTENANCE

Regular maintenance is essential for extending the life and ensuring the optimal performance of your pump.

5.1 Crankcase Oil

- **Check Oil Level:** Check the oil level before each use. The oil should be visible in the sight glass or at the specified mark on the dipstick.
- **Oil Change:** Change the crankcase oil after the first 50 hours of operation, then every 3 months or 500 hours, whichever comes first. Use genuine CAT Pumps crankcase oil or an equivalent non-detergent oil. The crankcase capacity is 18 oz. (0.55 L).

5.2 Water Seals and Plungers

- Inspect water seals and ceramic plungers periodically for wear or damage. Replace as necessary. Signs of wear include consistent water leaks from the manifold.

5.3 Inlet Filter

- Clean or replace the inlet water filter regularly to prevent debris from entering the pump and causing damage.

5.4 General Inspection

- Regularly check all bolts, nuts, and fittings for tightness.
- Inspect hoses for wear, cuts, or leaks. Replace damaged hoses immediately.

6. TROUBLESHOOTING

This section provides solutions to common operational issues. For problems not listed here, contact CAT Pumps technical support.

Problem	Possible Cause	Solution
No pressure or low pressure	<ul style="list-style-type: none"> • Insufficient water supply • Air in the pump/system • Worn seals or plungers • Unloader valve malfunction 	<ul style="list-style-type: none"> • Check water supply and inlet filter • Purge air from the system • Inspect and replace worn seals/plungers • Inspect and adjust/replace unloader valve
Pump making unusual noise (e.g., knocking)	<ul style="list-style-type: none"> • Cavitation (lack of water) • Low crankcase oil level • Loose components 	<ul style="list-style-type: none"> • Ensure adequate water supply • Check and fill crankcase oil • Inspect and tighten all fasteners
Water leaking from pump head	<ul style="list-style-type: none"> • Worn high-pressure seals • Loose manifold bolts 	<ul style="list-style-type: none"> • Replace high-pressure seals • Check and tighten manifold bolts
Oil leaking from crankcase	<ul style="list-style-type: none"> • Worn oil seals • Loose crankcase bolts 	<ul style="list-style-type: none"> • Replace oil seals • Check and tighten crankcase bolts

7. SPECIFICATIONS

Detailed technical specifications for the CAT Pumps 66DX40G11 pump.

Specification	Value
Model Number	66DX40G11
Flow Rate	4.0 GPM (15.0 L/M)
Pressure Range	100 to 4000 PSI (7 to 275 BAR)
Maximum RPM	3400 RPM
Stroke	0.449" (11.4 mm)
Engine Mounting Face	6.5"

Specification	Value
Inlet Pressure Range	Flooded to 75 PSI (Flooded to 5.25 BAR)
Bore	0.551" (14 mm)
Shaft Diameter (Hollow)	1" (25.4 mm)
Maximum Liquid Temperature	140°F (60°C)
Crankcase Capacity	18 oz. (0.55 L)
Inlet Ports	(2) 1/2" NPTF
Discharge Ports	(2) 3/8" NPTF
Weight	26.15 lbs. (11.9 kg)
Dimensions (Pump Only)	10.0 x 9.96 x 6.38" (254 x 253 x 162 mm)
Material	Metal
Color	Blue
UPC	724373416670

8. WARRANTY AND SUPPORT

For specific warranty information regarding your CAT Pumps 66DX40G1I, please refer to the documentation provided at the time of purchase or visit the official CAT Pumps website. Warranty terms typically cover manufacturing defects for a specified period.

For technical assistance, parts, or service, please contact CAT Pumps customer support directly. Ensure you have your pump model number (66DX40G1I) and serial number available when contacting support.

Manufacturer: CAT Pumps

Related Documents - 66DX40G1I

	<p>CAT PUMPS 67PPX39G1I Direct-Drive Plunger Pump Technical Specifications</p> <p>Comprehensive technical overview of the CAT PUMPS 67PPX39G1I direct-drive plunger pump. Features include triplex design, ceramic plungers, integral unloader, and fixed chemical injector. Details specifications, operational guidance, parts list, and safety information.</p>
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[CAT Pumps 5 Frame Plunger Pump: Models 310, 340, 350 Series](#)

Detailed specifications, features, parts list, and exploded view for CAT Pumps' 5 Frame Triplex Plunger Pump series, including models 310, 340, and 350 in standard, sleeved, and W770 configurations. Learn about superior design, quality materials, and easy maintenance.



[CAT PUMPS 6831 & 6831K Stainless Steel Triplex Plunger Pumps - Technical Data and Parts](#)

Explore the CAT PUMPS 6831 and 6831K stainless steel triplex plunger pumps. This document provides detailed specifications, features, exploded views, and parts lists for these high-performance industrial pumps.



[CAT PUMPS 35PFR Plunger Pump Service Manual \(Models 3507 & 3517\)](#)

Comprehensive service manual for CAT PUMPS 35PFR Plunger Pump, covering installation, start-up, maintenance, troubleshooting, and repair for models 3507 and 3517. Includes technical specifications and procedures.



[CAT PUMPS 25PFR Plunger Pump Service Manual](#)

Comprehensive service manual for CAT PUMPS 25PFR plunger pumps, covering installation, start-up, valve servicing, seal replacement, plunger maintenance, crankcase servicing, preventative maintenance, and troubleshooting.



[CAT PUMPS 25 Frame Piston Pump - Technical Specifications and Parts List](#)

Comprehensive technical specifications, features, and a detailed parts list for the CAT PUMPS 25 Frame Piston Pump series, including models 1020, 1021, 1520, 1521, 2020, 2021, 2520, 2521, and 2520C.