

ABAC CA1 / 1312202800

ABAC Atlas Copco/Belaire/Chicago Pneumatics CA1/1312202800 Air Compressor Pump Instruction Manual

Comprehensive guide for installation, operation, and maintenance of your 2-stage cast iron replacement air compressor pump.

INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your ABAC Atlas Copco/Belaire/Chicago Pneumatics 2-stage cast iron replacement air compressor pump, model CA1 or 1312202800. Please read this manual thoroughly before attempting any installation or operation to ensure proper function and longevity of the unit.

This pump is designed for 5-7.5 running horsepower applications and is air-cooled, capable of producing up to 175 PSI and 21 SCFM at 100 PSI.

SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the equipment:

- Ensure the power source is disconnected before performing any maintenance or installation.
- Wear appropriate personal protective equipment (PPE), including eye protection and hearing protection.
- Do not operate the pump in hazardous environments or near flammable materials.
- Verify all connections are secure and leak-free before operation.
- Refer to the complete air compressor system's manual for additional safety guidelines.

SETUP AND INSTALLATION

This section outlines the general steps for installing the replacement air compressor pump. Professional installation is recommended.

Unpacking and Inspection

Carefully remove the pump from its packaging. Inspect for any shipping damage. Report any damage immediately to the carrier and supplier.



Figure 1: Front view of the ABAC air compressor pump, showing the large flywheel and cooling fins.

Mounting the Pump

1. Ensure the mounting surface is level and capable of supporting the pump's weight (approximately 252 lbs).
2. Secure the pump to the compressor tank or frame using appropriate bolts and hardware.
3. Verify proper alignment of the pump's flywheel with the motor pulley to prevent belt wear and vibration.



Figure 2: Side view of the air compressor pump, illustrating the flywheel and the air intake filter connection point.

Connecting Air Lines and Electrical

- Connect the discharge line from the pump to the air receiver tank. Use appropriate fittings and sealants to prevent leaks.
- Install the air intake filter (if not pre-installed) to protect the pump from contaminants.
- Ensure all electrical connections are made by a qualified electrician, adhering to local codes and the compressor system's electrical requirements (e.g., 120 Volts).



Figure 3: Opposite side view of the pump, detailing the two-stage cylinder heads and the oil fill cap location.



Figure 4: Rear view of the pump, indicating the oil sight glass for level checks and the oil drain plug.

Lubrication

Before initial startup, fill the pump crankcase with the recommended air compressor oil to the specified level. Refer to the oil sight glass for accurate measurement. Do not overfill.

OPERATING INSTRUCTIONS

Pre-Operation Checklist

- Confirm all fasteners are tight.
- Check oil level.
- Ensure air filter is clean and properly installed.
- Verify all air lines are securely connected.

- Confirm electrical connections are correct and safe.

Initial Startup

1. With the discharge valve open (no pressure in the tank), briefly start the motor to check for proper rotation of the flywheel.
2. Allow the pump to run for a short period (e.g., 15-30 minutes) with the discharge valve open to allow components to seat.
3. Close the discharge valve and allow the compressor to build pressure. Monitor for unusual noises or vibrations.
4. Check for air leaks using soapy water on connections.

Normal Operation

The pump is designed to operate within its specified pressure and SCFM ratings. Avoid continuous operation at maximum pressure without adequate cooling. Regularly monitor the oil level and ensure proper ventilation around the pump.

MAINTENANCE

Regular maintenance is crucial for the longevity and performance of your air compressor pump. Always disconnect power before performing maintenance.

Daily/Before Each Use

- Check oil level and add if necessary.
- Inspect for visible leaks (air or oil).
- Drain moisture from the air receiver tank (refer to your compressor tank manual).

Weekly/Every 40 Hours of Operation

- Clean or replace air filter element.
- Inspect drive belts for tension and wear. Adjust or replace as needed.
- Check all fasteners for tightness.

Monthly/Every 160 Hours of Operation

- Change pump oil. Use only recommended air compressor oil.
- Inspect safety valve operation (refer to your compressor tank manual).

TROUBLESHOOTING

This section provides solutions to common issues. For problems not listed, contact qualified service personnel.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Pump does not start	No power; Motor overload; Faulty pressure switch	Check power supply; Reset motor overload; Inspect/replace pressure switch
Low air pressure	Air leaks; Worn piston rings/valves; Clogged air filter; Loose drive belt	Check for leaks; Service pump internals; Clean/replace air filter; Adjust belt tension
Excessive noise/vibration	Loose mounting bolts; Worn bearings; Misaligned belt/pulley	Tighten bolts; Inspect/replace bearings; Align belt/pulley
Oil consumption is high	Overfilled oil; Worn piston rings/seals	Check oil level; Service pump internals

SPECIFICATIONS

Feature	Detail
Model Numbers	CA1, 1312202800
Horsepower (Running)	5-7.5 HP
Number of Stages	2 Stage
Maximum PSI	175 PSI
SCFM at 100 PSI	Up to 21 SCFM
Pump Material	Cast Iron
Cooling Type	Air Cooled
Weight	Approximately 252 lbs
Voltage (Typical)	120 Volts (refer to motor specifications for exact requirements)
Compatible Brands	Atlas Copco, ABAC, Belaire, Chicago Pneumatics

WARRANTY INFORMATION

This ABAC air compressor pump comes with a limited 1-year manufacturer's warranty from Chicago Pneumatics/Belaire. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims. For full warranty terms and conditions, please refer to the documentation provided with your complete air compressor unit or contact the manufacturer directly.

SUPPORT AND CONTACT

For technical assistance, parts, or service inquiries, please contact your authorized dealer or the manufacturer directly. When contacting support, please have your pump model number (CA1 or 1312202800) and serial number available.

Manufacturer: ABAC / Chicago Pneumatics / Belaire

For specific contact details, please refer to the official websites of ABAC, Atlas Copco, Belaire, or Chicago Pneumatics.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question