Trane / Service First COM08290T

Trane OEM CSHA-150R-0*00 / CSHA-150R-0*0A 15 Ton Compressor Instruction Manual

Brand: Trane / Service First

Model Number: COM08290T

1. Introduction and Product Overview

This manual provides essential information for the proper installation, operation, and maintenance of the Trane OEM CSHA-150R-0*00 / CSHA-150R-0*0A 15 Ton Compressor. This component is designed for use in various Trane and American Standard HVAC systems.

While this manual primarily addresses the 15 Ton CSHA-150R-0 series, it also covers the COM08290T part number, which is associated with the CSHC-093R-0*00 / CSHC-093R-0*0C 9.3 Ton Compressor, and other superseded models. Always refer to your specific system's documentation for complete compatibility and installation requirements.

Figure 1: Trane OEM Compressor Unit. This image illustrates the general appearance of the compressor.

Figure 2: Trane OEM Component Stamp. This stamp signifies the authenticity and quality of the original equipment manufacturer part.

2. Setup and Installation

Installation of this compressor should only be performed by a qualified HVAC professional. Improper installation can lead to equipment damage, personal injury, or voided warranties.

2.1 Pre-Installation Checks

- Verify that the compressor model and specifications match the requirements of the HVAC system.
- Inspect the compressor for any shipping damage.
- Ensure all necessary tools and safety equipment are available.
- Confirm power supply (208-230/60/3 Volts) is compatible and properly wired.

2.2 Installation Steps (General Guidelines)

1. Safely remove the old compressor, ensuring proper refrigerant recovery.
2. Clean the system lines to remove any contaminants or old oil.
3. Install the new compressor, ensuring secure mounting and proper alignment.
4. Connect the braze sweat connections, ensuring leak-free joints.
5. Add the specified type and amount of mineral oil (e.g., OIL00042) if required, or verify factory charge.
6. Evacuate the system to remove non-condensable gases and moisture.
7. Charge the system with the correct type and amount of refrigerant according to system specifications.
8. Perform leak checks on all connections.

3. Operation

Once installed and properly charged, the compressor operates as an integral part of the HVAC system, circulating refrigerant to facilitate heat exchange. The compressor is designed for continuous operation within its specified voltage and pressure limits.

3.1 Initial Startup

- Ensure all electrical connections are secure and correct.
- Verify proper refrigerant charge and oil levels.
- Start the HVAC system according to the manufacturer's instructions.
- Monitor system pressures and temperatures to ensure normal operation.

3.2 Operational Notes

The compressor is designed to operate with a low noise level of approximately 45 dB. Any significant increase in noise or unusual vibrations should be investigated by a qualified technician.

4. Maintenance

Regular maintenance is crucial for the longevity and efficient operation of the compressor and the overall HVAC system. All maintenance procedures should be performed by certified technicians.

4.1 Recommended Maintenance Schedule

- **Annually:** Inspect electrical connections for tightness and corrosion. Check refrigerant levels and system pressures.
- **Annually:** Verify oil level and condition. Replace if contaminated or discolored.
- **Periodically:** Clean the exterior of the compressor to prevent dust and debris buildup, ensuring proper heat dissipation.
- **As Needed:** Check for refrigerant leaks using appropriate detection methods.

4.2 Safety Precautions During Maintenance

Always disconnect power to the HVAC system before performing any maintenance. Allow sufficient time for the compressor to cool down. Wear appropriate personal protective equipment (PPE), including gloves and eye protection.

5. Troubleshooting

This section provides general guidance for common issues. For complex problems, contact a qualified HVAC service technician.

Problem	Possible Cause	Solution
Compressor not starting	No power, faulty thermostat, tripped breaker, faulty capacitor, motor overload.	Check power supply, reset breaker, inspect thermostat, test/replace capacitor, check motor protector.
Compressor running but no cooling	Low refrigerant, restricted airflow, dirty coils, faulty expansion valve.	Check for leaks and recharge, clean coils, inspect airflow, consult technician.
Unusual noise or vibration	Loose mounting, internal mechanical issue, refrigerant slugging, worn bearings.	Check mounting bolts, verify refrigerant charge, contact technician for internal inspection.
Frequent cycling	Low refrigerant, oversized unit, faulty pressure switch, dirty condenser.	Check refrigerant, ensure proper sizing, inspect pressure switch, clean condenser.

6. Technical Specifications

Specification	Detail
Product Model Number	COM08290T
Nominal Tonnage (as per title)	15 TON (CSHA-150R-0*00 / CSHA-150R-0*0A)
Nominal Tonnage (as per description)	9.3 TON (CSHC-093R-0*00 / CSHC-093R-0*0C)
Voltage	208-230 Volts / 60 Hz / 3 Phase
Power Source	AC
Connections	Braze Sweat
Recommended Oil Type	Mineral Oil (e.g., OIL00042)
Noise Level	45 dB
Product Dimensions	48 x 48 x 48 inches
Item Weight	400 Pounds
Manufacturer	Trane / Service First

Recommended Uses	HVAC Systems
Date First Available	December 14, 2017

7. Replacement and Compatibility

This compressor replaces or supersedes a wide range of previous models and is commonly found in various American Standard and Trane systems. Always verify compatibility with your specific system before purchase and installation.

7.1 Superseded Models Include:

COM11445, COM-11445, COM1147, COM-1147, COM7059, COM-7059, COM07059, COM-8290, COM08290, COM8290, COM11159, COM-11159, COM8725, COM-8725, COM08725, SFCOM1082302, SFCOM108-2302, SFCOM108-23020A, SFCOM108-23020C, SFCOM108-2302BC, SM1103VI, SM110-3VI, ZR11M3E-TWC-961, ZR108KCE-TF5-950, ZR12M3E-TWC-961, CSHC093R, CSHC093R0A00, CSHC-093R-0*00, CSHC-093R-0*0C, and others.

7.2 Commonly Used in Systems (Examples):

CSHC093*****, RRU181C3DDAA, RRU181C3DDAB, RRU181C3NCAA, RRU181C3NCAB, RRU241C3DFAA, RRU241C3DFAB, RRU241C3DMAA, RRU241C3DMAB, RRU241C3NEAA, RRU241C3NEAB, RRU241C3NLAA, RRU241C3NLAB, TCD180B300HA, TCD180B300HB, TCD180B30AHA, TCD180B30AHB, TCD180B30BHA, TCD180B30BHB, TCD180B30CHA, TCD180B30CHB, TCD180B30FHA, TCD180B30FHB, TCD180B30GHA, TCD240B30BJA, TCD240B30BJB, TCD240B30CJA, TCD240B30CJB, TCD240B30FJA, TCD240B30FJB, TCD240B30GJA, TCD240B30GJB, TCD241C300CA, TCD241C30ACA, TCD241C30BCA, TCD241C30CCA, TCD241C30FCA, TCD241C30GCA, TCD241C30HCA, TCD241C30JCA, TCD241C30KCA, TCD241C30LCA, TCD241C30MCA, TCD241C30MCB, CD241C30NCA, TCD241C30NCB, TCD241C30PCA, TCD241C30PCB, TCD241C30RCA, TCD241C30RCB, TCH180B300HA, TCH180B300HB, TCH180B30BHA, TCH180B30BHB, TCH180B30FHA, TCH180B30FHB, TCH181C300CA, TCH181C30BCA, TCH181C30FCA, TCH210C300EA, TCH210C30BEA, TCH210C30FEA, TCH240B300JA, TCH240B300JB, TCH240B30BJA, and others.

8. Warranty and Support

As an Original Equipment Manufacturer (OEM) part, this compressor is typically covered by the manufacturer's standard warranty for genuine parts. Specific warranty terms and conditions may vary and are usually provided at the point of purchase or by the manufacturer directly.
For technical support, warranty claims, or professional servicing, please contact a certified Trane / Service First dealer or a qualified HVAC service provider. It is recommended to retain your purchase receipt and any installation documentation for warranty purposes.
Extended protection plans may also be available from your retailer, offering additional coverage beyond the standard manufacturer's warranty.