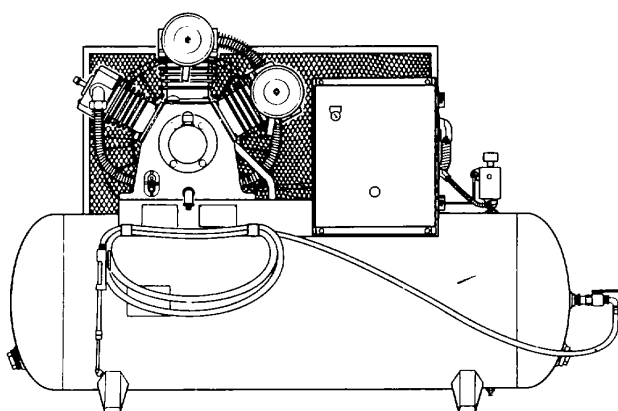


TECHNICAL MANUAL

OPERATOR, UNIT, AND INTERMEDIATE DIRECT SUPPORT MAINTENANCE INSTRUCTIONS



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COMPRESSOR UNIT, RECIPROCATING,
25 CFM, 175 PSI, ELECTRIC
MOTOR DRIVEN
MODEL: 10HT8G
NSN: 4310-01-198-9365

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CHAPTER 1

INTRODUCTION

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Section I. GENERAL INFORMATION

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1-1. SCOPE.

- a. *Type of manual.*
Operator's, Unit, and Intermediate Maintenance Instructions.
- b. *Equipment Name.*
Compressor Unit, Reciprocating, 25 CFM, 175 PSI, Electric Motor Driven.
- c. *Purpose of Equipment.*
Provides 175 psig (12.3 kgs/cm²) compressed air at a discharge rate of 25.0 cubic feet (0.708 m³) per minute.

1-2. MAINTENANCE FORMS AND RECORDS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pamphlet 738-750, The Army Maintenance Management System (TAMMS).

1-3. This paragraph has been deleted

1-4. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Refer to TM 750-244-3 for methods and procedures to destroy Army materiel to prevent enemy use.

1-5. PREPARATION FOR STORAGE OR SHIPMENT

To prepare the equipment for storage or shipment, refer to Chapter 3, Section XI.

1-6. REPORTING OF EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR's).

If your air compressor needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (quality Deficiency Report). Mail it to us at AMSTR-MOF, 4300 Goodfellow Boulevard, St. Louis, MO 631201798. We'll send you a reply.

1-7. LIST OF ABBREVIATIONS.

<u>Abbreviation</u>	<u>Definition</u>
cfm	cubic-feet-per-minute
cm	centimeter
EIR	Equipment Improvement Recommendation
hp	horsepower
Hz	Hertz
kg	kilogram
lb-ft	pound-foot
lbs	pounds
mm	millimeters
nm	newton meters
psi	pounds-per-square-inch
psig	pounds-per-square-inch-gage
rpm	revolutions-per-minute
vac	Volts-altemating-current

1-8. WARRANTY INFORMATION.

The air compressor is warranted by Curtis-Toledo for 12 months. It starts on the date, found in block 23, DA Form 2408-9, in the logbook. Report all defects in materiel or workmanship to your supervisor, who will take appropriate action through your organizational maintenance shop.

Section II. EQUIPMENT DESCRIPTION

	Para.		Para.
Capabilities and Features.	1-10	Equipment Data	1-12
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1-9. CHARACTERISTICS.

- a. Electric motor driven.
- b. Belt driven.
- c. Stationary tank mounted.
- d. Air cooled.
- e. Two-stage compressor.

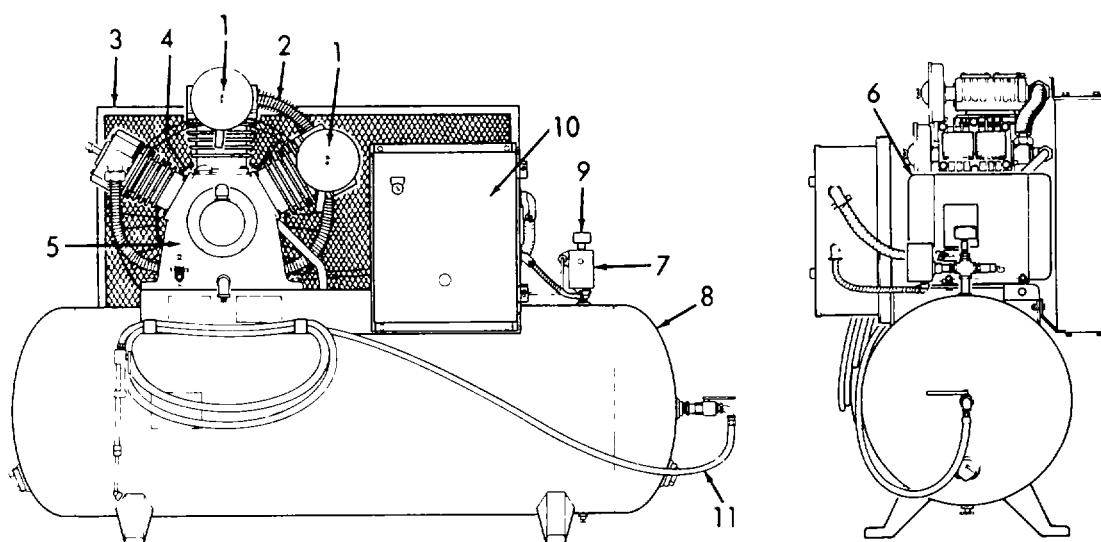
1-10. CAPABILITIES AND FEATURES.

- a. Supplies 175 psig (12.3 kgs/cm²) air to the receiver tank.
- b. Can supply 25.0 cubic feet (0.70 m³) of free air per minute.
- c. Operates at a normal motor speed of 1,725 rpm and a compressor speed of 940 rpm.
- d. Has a receiver tank with a 80 gallon (302.8 liters) capacity.
- e. Has a 50 foot (15.25 meters) flexible hose.
- f. Receiver tank has air pressure gage reading from 0 to 300 psi (21.2 kgs/cm²) capacity.
- g. Starter overload in the starter box is set at 28 amps.

1-11. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

(Refer to Figure 1-1)

- a. *Air Intake Filters.* The air intake filters (1) remove the dust and debris from the incoming air to prevent damage to the compressor.
- b. *Intercooler.* The intercooler (2) cools the compressed air between the first and second stages.
- c. *Belt Guard.* The belt guard (3) prevents personnel and debris from getting caught in the belts.
- d. *Cooling Fan.* The cooling fan (4) directs cooling air to the finned intercooler and to the finned cylinders.
- e. *Air Compressor.* The air compressor (5) is of three cylinder design and compresses the air.
- f. *Motor.* The motor (6) is a 10 hp, brushless type that provides the motive force to drive the compressor.
- g. *Pressure Switch.* The pressure switch (7) automatically turns on the motor at $175 \text{ psi} \pm 10$ ($12.3 \pm 0.70 \text{ kgs/cm}^2$) and turns off the motor at $200 \pm 0, -10 \text{ psi}$ ($14.1 \pm 0, -0.70 \text{ kgs/cm}^2$) to regulate the pressure in the tank.
- h. *Air Receiver Tank.* The air receiver tank (8) holds the compressed air until ready for use.
- i. *Air Pressure Gage.* The air pressure gage (9) reads the air pressure in the air receiver tank.
- j. *Starter.* The starter (10) starts and stops the motor upon command from the pressure switch.
- k. *Flexible Hose.* The flexible hose (11) transfers the compressed air from the air receiver tank to where the air will be used.

**Figure 1-1. Compressor Unit, Reciprocating, 25 CFM, 175 PSI, Electric Motor Driven.**