

TECHNICAL MANUAL

**OPERATOR, ORGANIZATIONAL, DIRECT AND GENERAL
SUPPORT MAINTENANCE MANUAL**

**COMPRESSOR, AIR, RECIPROCATING
ELECTRIC MOTOR DRIVEN, RECEIVER MOUNTED,
5 CFM AT 175 PSI
CHAMPION PNEUMATIC MACHINERY CO., INC.
MODEL NO. HR2-6M-1
NSN 4310-01-040-7171**

**H E A D Q U A R T E R S , D E P A R T M E N T O F T H E A R M Y
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NO. 5-4310-356-14 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 30 November 1978**OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL
SUPPORT MAINTENANCE MANUAL****Compressor, Air Reciprocating,
Electric Motor Driven, Receiver Mounted,
5 CFM at 175 PSI
(Champion Pneumatic Machinery Company)
Model No. HR 2-6M-1
NSN 4310-01-040-7171****REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of this manual, directly to Commander, U.S. Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-MTPS, 4300 Goodfellow Blvd., St. Louis, Missouri 63120. A reply will be furnished to you.

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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope.

a. This manual is for your use in operating the air compressor, Model HR2-6M-1. It provides information on the operation, organizational, direct support, and general support maintenance of the air compressor, as well as a description of the main units and their functions in relation to the other components.

b. Appendix A contains a list of publications applicable to this manual. Appendix B contains the Maintenance Allocation Chart.

1-2. Maintenance Forms and Records.

Equipment maintenance forms and procedures for their use are contained in TM 38-750, The Army Maintenance Management System (TAMMS).

1-3. Reporting Equipment Improvement Recommendations (EIR).

EIR's will be prepared on DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, The Army Maintenance Management Systems. EIR's should be mailed directly to U.S. Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTSMEM, 4300 Goodfellow Blvd., St. Louis, MO 63120. A reply will be furnished directly to you.

1-4. Destruction of Army Materiel To Prevent Enemy Use.

a. Demolition of Air Compressors. Methods of destruction should achieve such damage to equipment and repair parts that it will not be possible to restore the equipment to a usable condition in the combat zone either by repair or cannibalization.

(1) Mechanical Destruction. Using an axe, pick, mattock, sledge, or any other heavy implement, damage all vital elements.

(2) Explosives. Place 1/2-pound charges on the following for demolition with explosives.

(a) One 1/2-pound charge between the compressor and the air receiver tank.

(b) One 1/2-pound charge between the motor and the air receiver tank.

b. For additional data procedures for destruction of equipment to prevent enemy use, refer to TM 750-244-3.

1-5. Administrative Storage.

a. Storage Site.

(1) Select the best available site for administrative storage. Separate stored equipment from equipment in use. Conspicuously mark the area "Administrative Storage".

(2) Covered space is preferred. When sufficient covered space for all items to be stored is not available, priority should be given to items which are most susceptible to deterioration.

(3) Open sites should be improved hardstand, if available. Unimproved sites should be firm, welldrained, and kept free of excess vegetation.

b. Storage Plan.

(1) Store equipment so as to provide maximum protection from the elements and to provide access for inspection, maintenance, and exercising. Anticipate removal or deployment problems and take suitable precautions.

(2) Take into account environmental conditions, such as extreme heat or cold; high humidity; blowing sand, dust, or loose debris; soft ground; mud; heavy snows; earthquakes; or combinations thereof and take adequate precautions.

(3) Establish a fire plan and provide for adequate firefighting equipment and personnel.

(4) For further information, refer to TM 74090-1 (Administrative Storage).

Section II. DESCRIPTION AND DATA

1-6. Description.

a. The HR2-6M-1 (figs. 1-1 and 1-2) is a two cylinder, reciprocating type air compressor capable of delivering 5 cubic feet per minute (0.1415 cu meters per min). The compressor assembly and associated electric motor are mounted on a frame which is welded to the air receiver, and 60 gallon steel tank. The electric motor drives the compressor assembly by means of a matched pair of V-belts.

The pressure switch assembly determines cut-in and cut-out pressure for the compressor assembly. The switch can be adjusted for cut-out pressures over the

range of 165 to 190 psi (11.60 to 13.36 kgs per sq cm). The switch can also be adjusted for a 25 psi to 65 psi (1.76 to 4.57 kgs per sq cm) differential between cut-in and cut-out pressure. The safety valve assembly releases when air receiver pressure exceeds 200 psi (14.06 kgs per sq cm).

b. The maintenance paragraphs of this manual contain detailed descriptions of its components.

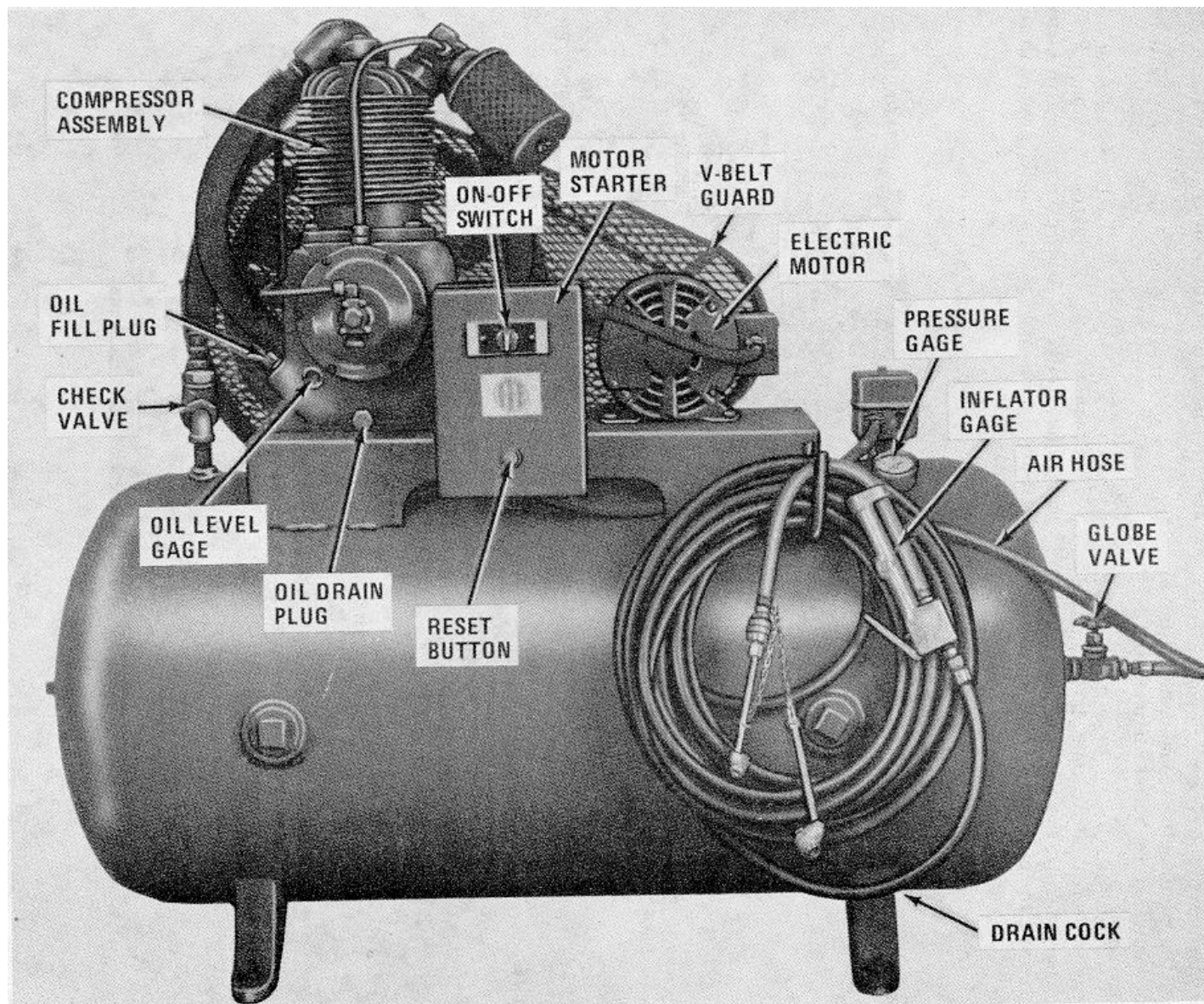


Figure 1-1. Air Compressor, right side view.