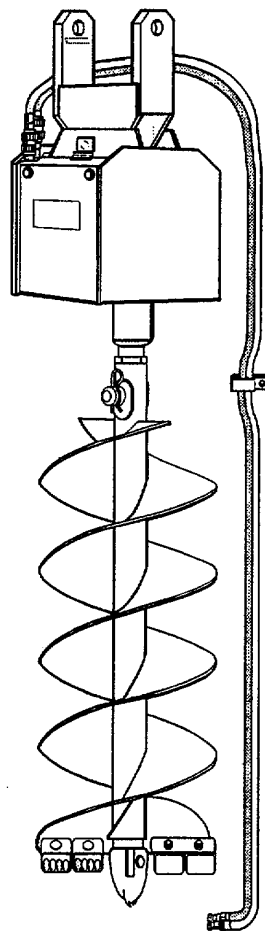

**OPERATOR, UNIT MAINTENANCE,
AND
DIRECT SUPPORT MAINTENANCE
MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)**

FOR

EARTH AUGER ASSEMBLY

MODEL 1650EH-MS

**LOWE Manufacturing Company
NSN 2590-01-384-6857
P/N 1650 EH-MS
CONTRACT DAAE07-93-C-1034
CAGEC ONAG9**



Approved for Public Release; Distribution is Unlimited

Technical Manual
No. 5-2590-512-13&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 16 January 1995

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Current As Of
December 12,1994

REPORTING OF ERRORS

You can help improve this manual. If you find any mistakes 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, direct to: Commander, US Army Tank automotive and Armaments Command, ATTN: AMSTA-IM-MMAA, Warren, MI 48397-5000. A reply will be furnished directly to you.

You may also send DA-Form 2028/2028-2 information to TACOM via E-mail or data fax. Our fax number is DSN 786-6323. Our E-mail address is: amstammaa@cc.tacom.army.mil

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CHAPTER 1 INTRODUCTION

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SECTION I. GENERAL INFORMATION

1-1. Scope.

- a. *Type of Manual.* Operator, Unit, and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List).
- b. *Model Number and Equipment Name.* LOWE Earth Auger Assembly, Model 1650EH-MS. Attaches to SEE Vehicle (Small Emplacement Excavator).
- c. *Purpose of Equipment.* Earth Auger Assembly is used for boring 12" holes in natural earth soil, to a depth of approximately 72 inches (6 feet). These holes are used for countermobility, survivability, and sustainment engineering missions, such as emplacing pumps, slurry and cratering explosives, and setting utility posts and obstacles.

1-2. Maintenance Forms Records and Reports.

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

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

If your Earth Auger Assembly 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 (Product Quality Deficiency Report). Mail it to us at Commander, U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-GF, Warren, MI 483975000. We'll send you a reply.

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

Refer to TM 750-244-6, Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use.

1-5. Preparation for Storage or Shipment.

Refer to Chapter 4, Section IV, for procedures for preparing Earth Auger Assembly for storage or shipment.

SECTION II. EQUIPMENT DESCRIPTION AND DATA.

1-6. Equipment Characteristics, Capabilities, and Features.

Description. Earth Auger Assembly is attached to and controlled from SEE vehicle. SEE hydraulic pump delivers fluid under pressure, thru hoses, to hydraulic motor in Auger Drive Unit. This provides rotational movement to Auger. Four adjacent teeth (two per side), (10), mounted on cutting head (11), dig hole, as SEE operator lowers boom/dipper and attached Auger into ground. Boom will not obstruct line of vision of Earth Auger Assembly operator if hole site is at either 10 to 11 o'clock or 1 to 2 o'clock position.

Characteristics. Earth Auger Assembly is designed to be attached to rear of Small Emplacement Excavator (SEE) and is operated and powered from it. Metric sizes are not used and no special tools are required.

Capabilities and Features. SEE vehicle rear bucket is removed and Auger Drive Unit is installed in its place. Earth Auger Assembly can dig 12" holes in natural earth soil, to depth of approximately 72" or 6 feet.

Short Distance Moving. Earth Auger Assembly may be left attached to SEE vehicle, but it must be tied down or monitored to minimize swinging.

Long Distance Moving. There is no room or provision on SEE vehicle to secure Auger when moving it long distances. Disconnect Auger from Auger Drive Unit and transport it in a companion vehicle.

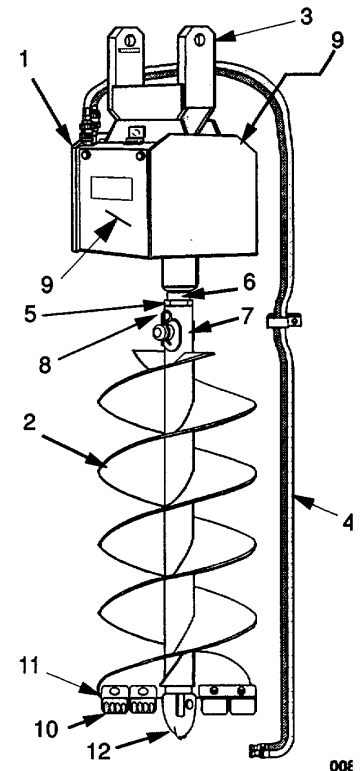
1-7. Location and Description of Major Components.

a. Earth Auger Assembly has two major components-Auger Drive Unit (1) and Auger (2).

b. Auger Drive Unit (1) uses connecting link (3) to interface with SEE dipper. Inside of Auger Drive Unit (1) is hydraulic drive motor, drive chain, sprockets, bearings, and a solid hex shape output shaft. Two 138" hoses (4) are connected thru two quick disconnect fittings into top of Auger Drive Unit.

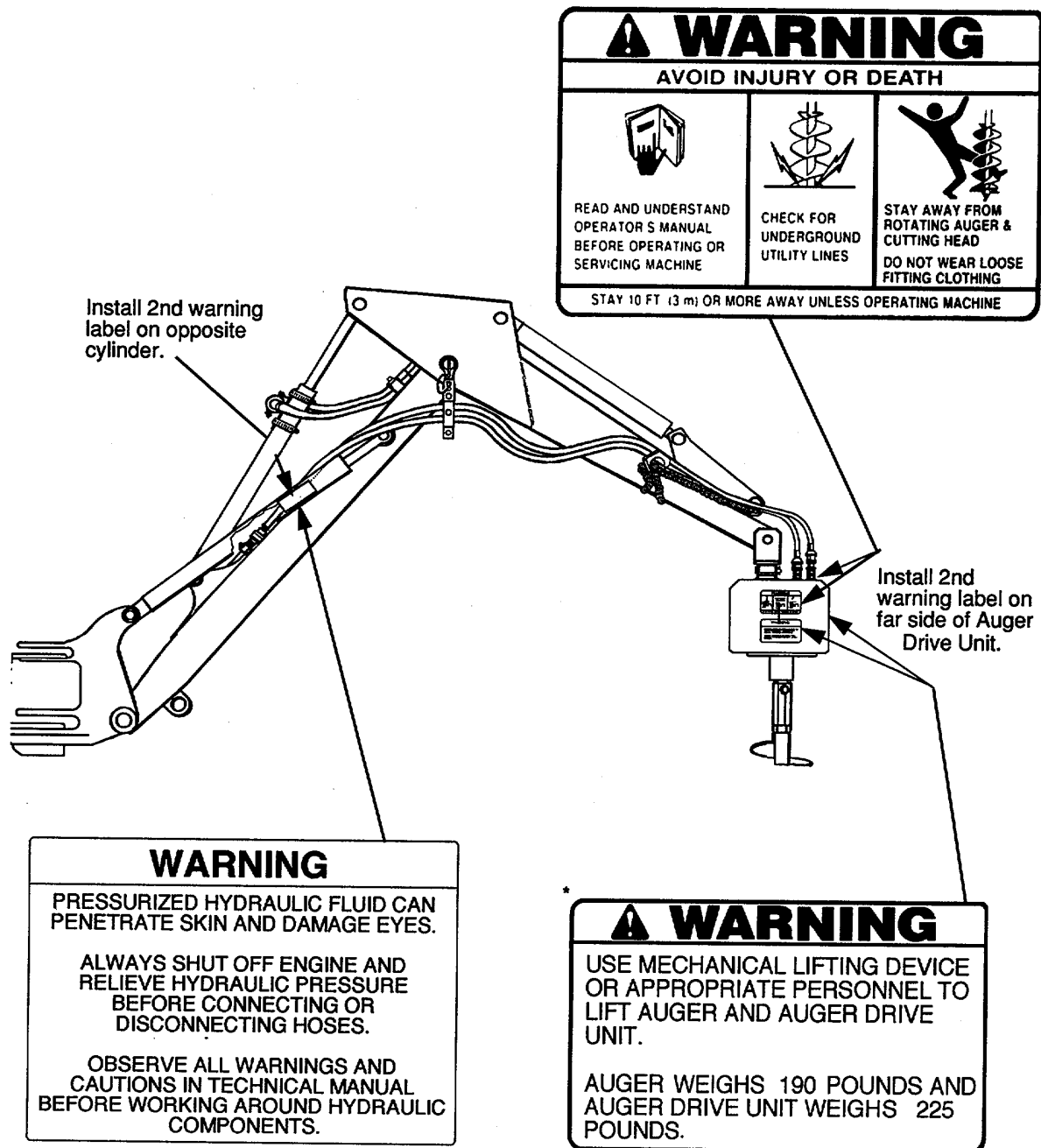
1. Auger Drive Unit connecting link (3) is a universal type drive coupling and provides constant multi-direction Auger movement during hole digging.
2. Auger shaft (5) is hollow and also hex shape. It slides over solid shaft (6) of Auger Drive Unit.
3. When Auger shaft (5) and Auger Drive Unit shaft (6) are nestled, pin (7) is inserted into aligned holes. Hitch Pin Clip (8) is inserted into pin (7) end hole, (with hitch pin clip loop facing up), to secure parts together.
4. Front and rear metal covers (9) are safety covers. Greased rotating parts are kept inside Auger Drive Unit (1) and dirt and contaminants kept out.
5. A spare chain master link is stored on flat washer welded to motor plate inside Auger Drive Unit (1).

c. Auger (2) is spiral shape. Four carbide tipped cutting teeth (10) are bolted to cutting head (11). Center point (12) guides Auger into center of selected hole.



1-8. Location of Decals.

Safety Warning Decals are located as shown. Duplicate label is located on opposite side of component.



*Note - Some units may be shipped without this safety warning decal.