Installation Instructions for the Walking Beam Interlock for R-Frame Series C Circuit Breakers and Molded Case Switches

WARNING

DO NOT ATTEMPT TO INSTALL OR PERFORM MAINTENANCE ON EQUIPMENT WHILE IT IS ENERGIZED. DEATH, SEVERE PERSONAL INJURY, OR SUBSTANTIAL PROPERTY DAMAGE CAN RESULT FROM CONTACT WITH ENERGIZED EQUIPMENT. ALWAYS VERIFY THAT NO VOLTAGE IS PRESENT BEFORE PROCEEDING WITH THE TASK, AND ALWAYS FOLLOW GENERALLY ACCEPTED SAFETY PROCEDURES.

CUTLER-HAMMER IS NOT LIABLE FOR THE MISAPPLICATION OR MISINSTALLATION OF ITS PRODUCTS.

The user is cautioned to observe all recommendations, warnings, and cautions relating to the safety of personnel and equipment, as well as, all general and local health and safety laws, codes, and procedures.

The recommendations and information contained herein are based on Cutler-Hammer experience and judgement, but should not be considered to be all-inclusive or covering every application or circumstance which may arise. If any questions arise, contact Cutler-Hammer for further information or instructions.

1. INTRODUCTION

General Information

The walking beam interlock (Fig. 1-1) provides mechanical interlocking between two adjacent R-frame 3-Pole breakers to prevent both circuit breakers from being switched ON at the same time. The walking beam interlock assembly is bolted to the rear of the customer's mounting panel. The circuit breakers are then aligned with the mounting panel such that the plungers enter the holes in the back of the breakers as they are secured. Adjustment of the plungers is necessary. Mounting panels that are at least one inch thick are suggested.

The walking beam interlock is UL listed for field installation per UL File E64983.

Note: Factory modified circuit breakers must be ordered to install the walking beam interlock.

This instruction leaflet (IL) gives detailed procedures for installing the walking beam interlock.

2. INSTALLATION

The walking beam interlock assembly must be mounted before the circuit breakers are connected to an electrical system. Installation consists of drilling the mounting panel to accept the circuit breakers and walking beam assembly, installing the walking beam assembly to the panel, and then mounting the circuit breakers to the panel.

2-1. Drill the breaker mounting panel using the dimensions which are provided in Fig 2-1 for mounting the breakers and the walking beam interlock assembly. Dimensions are given in inches and (millimeters).

2-2. Install the walking beam assembly to the panel using 3/8 inch hardware per Figure 2-2. A one inch panel is illustrated; a thinner panel is not recommended because, sufficient thickness is needed in order to recess the bolt heads to allow the breakers to be mounted properly.

2-3. Mount the circuit breakers to the front surface of the mounting panel using 3/8 inch hardware. The breakers must be must be aligned carefully so the plungers enter into the holes in the back of the circuit breakers.

3. ADJUSTMENT

The walking beam interlock must be adjusted before the circuit breakers are connected to an electrical system. Carry out these adjustment procedures as follow:

3-1. Turn one circuit breaker to the ON position and the other to the OFF position.

3-2. Adjust the locknuts on each plunger assembly until there is 1/16 to 3/16 inch free travel of the plungers with either breaker closed. Align the plungers for free operation of the interlock with the beam in any position, with no interference or rubbing which may prevent proper functioning or abnormal wear of the walking beam parts. Torque the locknuts to 10 - 12 ft-lb.

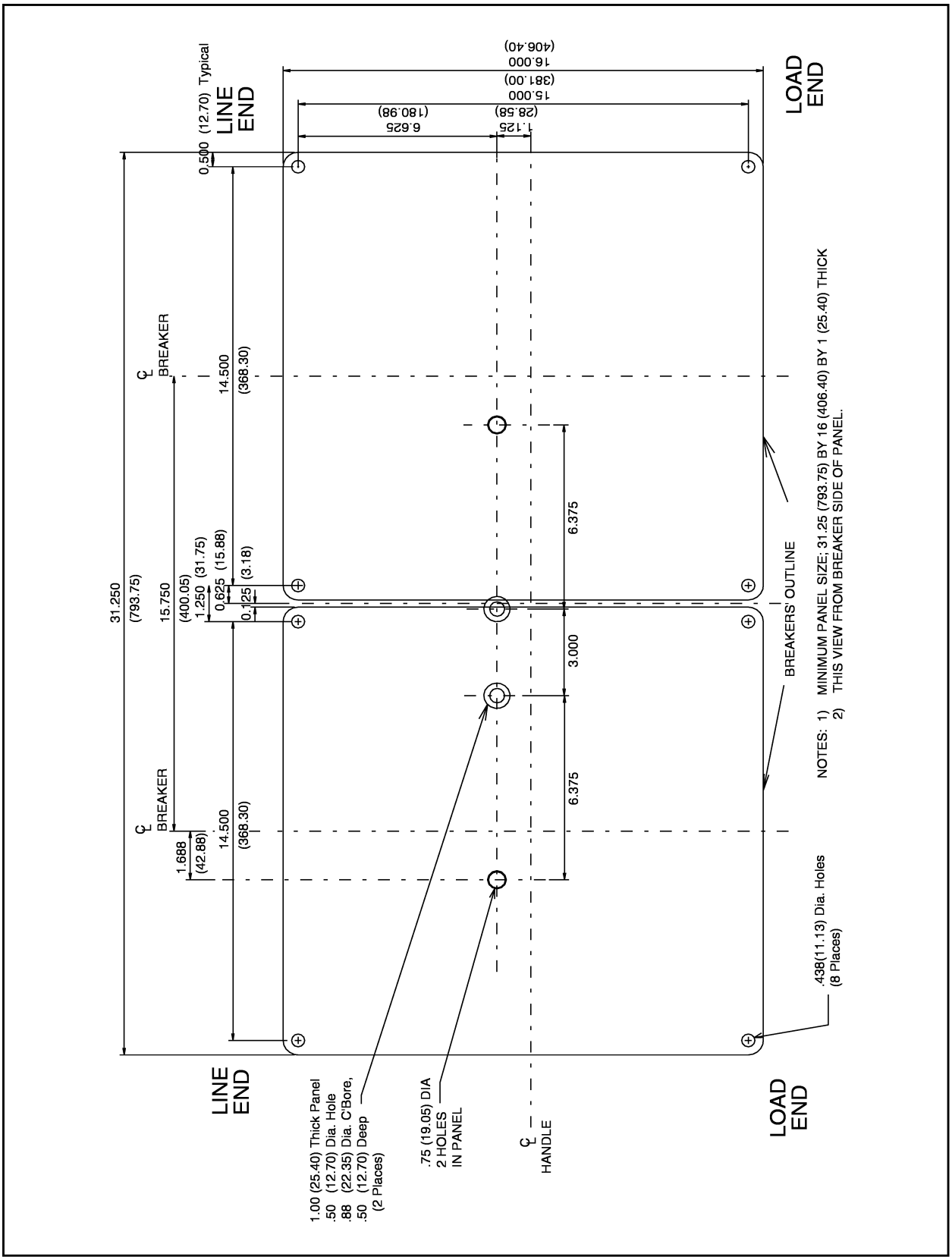

Fig 2-1 R-Frame 3-Pole Circuit Breaker Mounting Panel Hole Sizes and Dimensions, Viewed from Breaker Side of Panel.

WARNING

BEFORE ATTEMPTING ANY WORK ON CIRCUIT BREAKERS INSTALLED IN AN ELECTRICAL SYSTEM, MAKE SURE THE CIRCUIT BREAKERS ARE SWITCHED TO THE *OFF* POSITION AND THAT THERE IS NO VOLTAGE PRESENT WHERE WORK IS TO BE PERFORMED. SPECIAL ATTENTION SHOULD BE PAID TO REVERSE FEED APPLICATIONS TO ENSURE NO VOLTAGE IS PRESENT. THE VOLTAGES IN ENERGIZED EQUIPMENT CAN CAUSE SEVERE PERSONAL INJURY OR DEATH.

3. ADJUSTMENT (Continued)

3-3. Carry out a functional check as follows:

a. Make sure that both breakers cannot be switched to the ON position at the same time.
b. Open one circuit breaker. Make sure the other breaker will close.
c. Reverse the open and close operations.

3-4. Connect both circuit breakers as required.

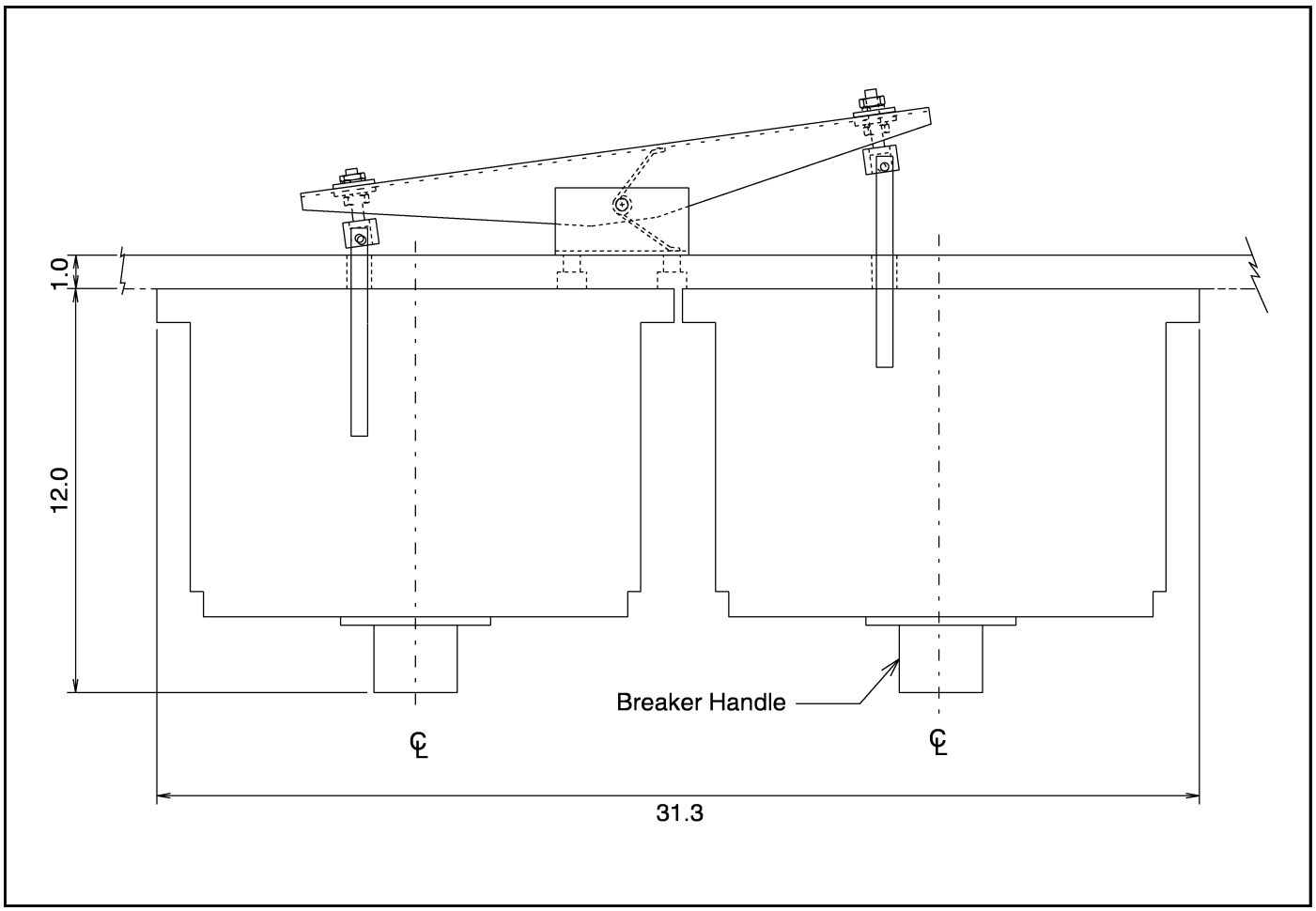

Fig. 2-2 Top View of Walking Beam Assembly

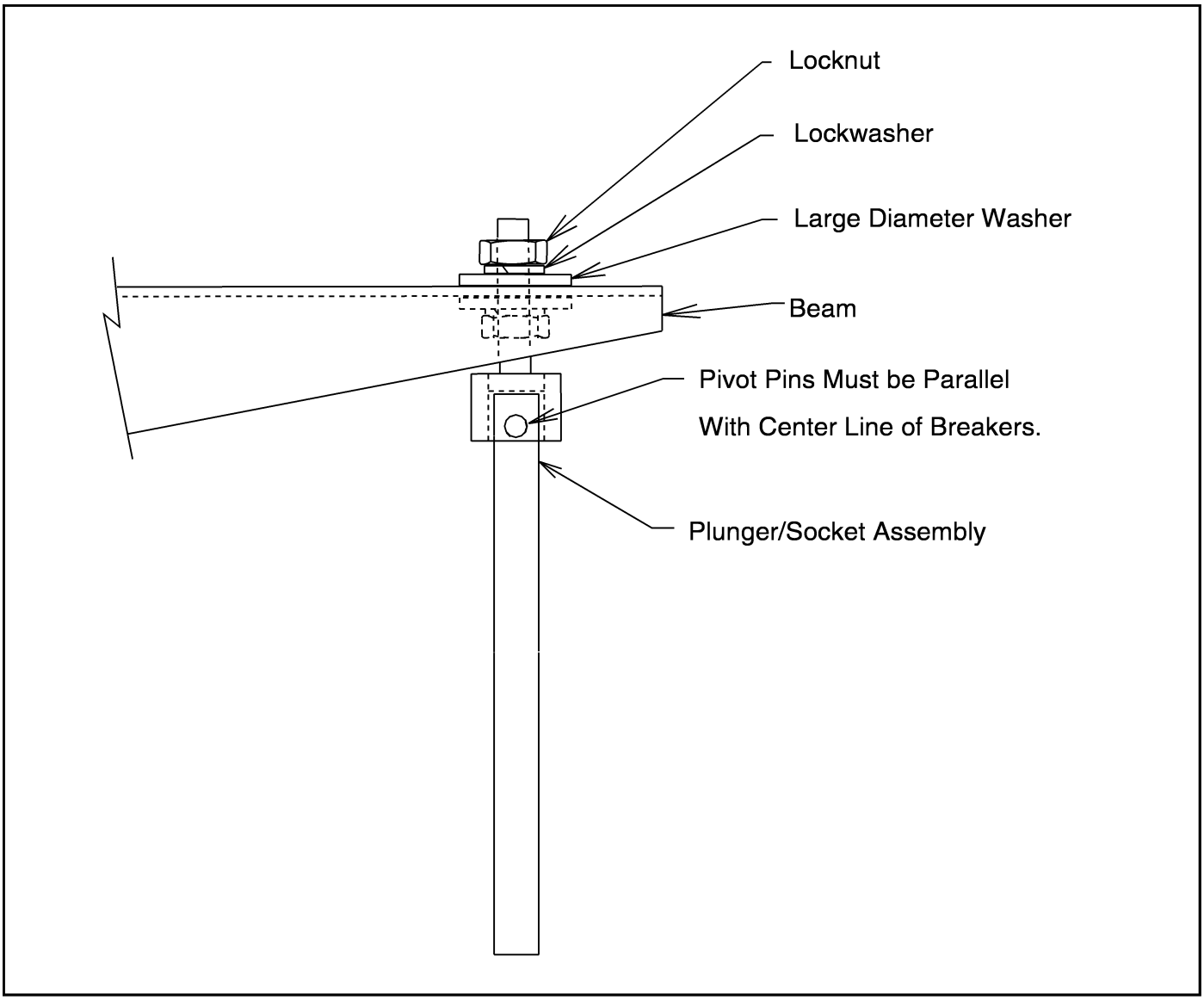

Fig. 2-3 Assembly of Plunger/Socket to Beam