

INTRODUCTION

Installing a new CEMCO crusher involves mounting the crusher to a framework, installing the feed hopper, exit chutes, oil system, and supplying electricity to the crusher and oil pump motors. This section describes the mechanical installation guidelines only. Electrical installation guidelines are discussed in the next section.

At the end of this section is a listing of the miscellaneous components supplied with your crusher and their purpose.

FRAME MOUNTING

 Failure to follow these crusher mounting guidelines could result in personal injury and equipment damage. Use only Grade 8, unused fasteners for mounting a crusher to a frame.

CEMCO manufactures a wide array of crushing configurations. For a stand alone electric drive crusher, short pieces of square tubing are mounted under each of the crusher mounting feet for shipping. CEMCO may deliver a crusher with a mounting frame but usually the frame is supplied by the customer. The customer must mount the crusher to the frame at the job site. Usually a frame mounted on a concrete foundation is suitable. Skids are also common. Occasionally, a frame with pads is simply set upon hard soil.



Frame mounted on a concrete slab



Frame set on hard dirt



Skid mounted unit



Trailer mounted unit

Single drive crushers have five or seven mounting feet. Dual drive crushers have between six and ten. Most likely you received a general arrangement drawing before your crusher was delivered. That drawing shows



Crushers in series at a large mining operation

the precise hole locations for the mounting feet. Remove the shipping feet from the crusher and set it on the stand. Fasten the crusher to the stand with Grade 8, 1" diameter mounting bolts at each mounting foot. It is acceptable to use lockwashers. Torque these bolts to a minimum of 795 ft-lbs. (A Grade 8 bolt can safely be torqued to 900 ft-lbs with no lubrication).

Check and retorque the mounting bolts just prior to operating the crusher for the first time and after the first few hours of operation.

CEMCO does not recommend any vibration damping mounting schemes. If you intend to mount the crusher in any manner other than the crusher's steel frame to a steel stand, please contact the factory.

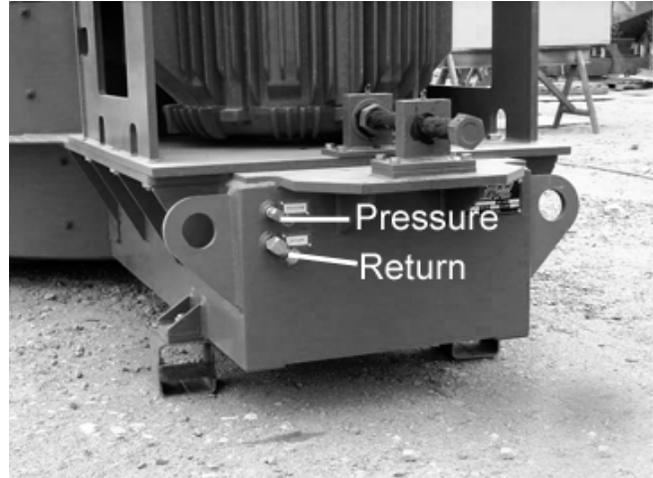
OIL SYSTEM INSTALLATION



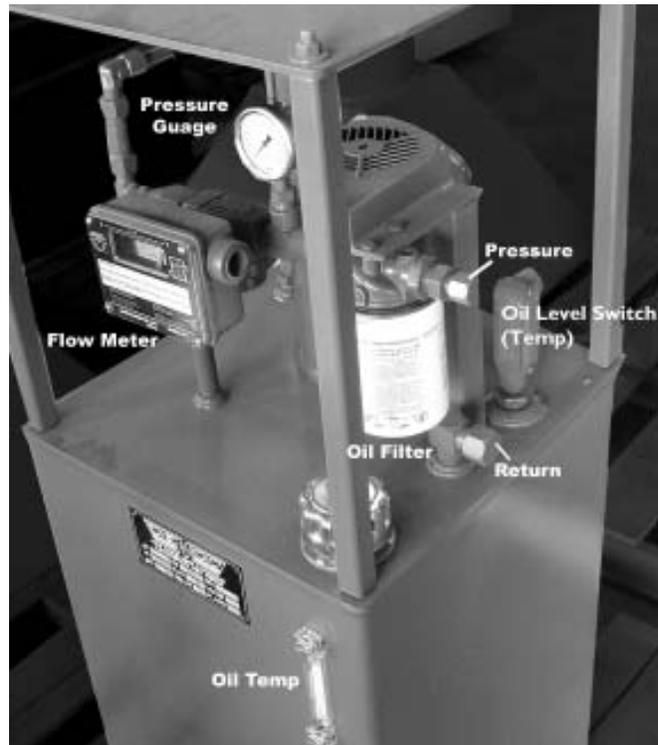
The spare parts box contains two oil system hoses, each 15 feet long, with fittings and oil reservoir mounting hardware. The smaller diameter hose is the supply line. The larger diameter hose is the return line. These hoses link the crusher to the oil tank. Mount the oil reservoir near the crusher and below the pedestal to facilitate the gravity return. Remove any plugs or caps from the fittings and hoses before installation. Avoid getting teflon tape or any dirt or debris in the oil system components.



The Ernst flow meter instructions specifically prohibit the use of Loctite or liquid thread sealant at the meter connections.



Oil hose connections at the crusher



Follow the ELECTRIC DRIVE START UP instructions in the ROUTINE ELECTRIC DRIVE OPERATION section. The oil level in the tank will drop the first time oil is introduced into the system. It may be necessary to add oil after this.

MECHANICAL INSTALLATION

You may use the factory installed filter for the first 50 hours of use. The oil reservoir is shipped empty. Oil and filter specifications and change intervals are defined in the CRUSHER SPECIFICATIONS section and discussed in detail in the LUBRICATION GUIDELINES section.

DISCHARGE CHUTE INSTALLATION

The spare parts box contains a bag of cap screws, flatwashers, nut, and lock washers for installing the discharge chutes. Bolt the discharge chutes up to the mating flange on the underside of the crusher.

Some customers choose not to use standard CEMCO exit chutes. Non CEMCO chutes must have a large enough opening and steep enough angle to prevent material from backing up into the crusher. We are willing to assist customers in nonstandard exit chute design.



Standard discharge chute ready for installation

FEED HOPPER INSTALLATION

The feed hopper is assembled and ready to go. It simply needs to be inserted in the opening in the lid. Check the square head feed hopper retainer bolts for tightness. Once installed, verify that the feed tube is at the correct height for the rotor. See the section titled FEED HOPPER ADJUSTMENT AND MAINTENANCE for details.



Enclosed feed hopper

CONNECTORS AND FASTENERS

A box of small parts and components is included with your crusher shipment. Below is a listing and breakdown of the components and their purpose.

Discharge Chute Hardware

Turbo 35 12 - 3/8 x 3/4 CAP SCR, 24 FW, 12 NUT, 12 LW

Turbo 54 24 - 3/8 x 1 1/4 CAP SCR, 48 FW, 24 NUT, 24 LW

Turbo 70 24 - 3/8 x 1 1/4 CAP SCR, 48 FW, 24 NUT, 24 LW

Turbo 80 24 - 3/8 x 1 1/4 CAP SCR, 48 FW, 24 NUT, 24 LW

Turbo 96 24 - 3/8 x 1 1/4 CAP SCR, 48 FW, 24 NUT, 24 LW

Turbo 160 24 - 1/2 x 1 1/2 CAP SCR, 48 FW, 24 NUT, 24 LW

Turbo 175 24 - 1/2 x 1 1/2 CAP SCR, 48 FW, 24 NUT, 24 LW



Oil System Hoses

(1) 15 ft of 1/2 LOL hose with 1/2 LOC (swivel)
hose ends installed, high pressure line

(1) 15 ft of 3/4 LOL hose with 3/4 LOC (swivel)
hose ends installed, low pressure line