

MEASURING FOR AN OVERHEAD TYPE PULLOUT HOLDOUT DEVICE

This paper has been prepared to help you understand the information and measurements required on an Overhead Type Pullout Holdout Device measurement sheet. It describes and illustrates the selections and entries that must be made.

Before taking any measurements it is always a good policy to look the subject press over carefully and decide if an Overhead Type device can be mounted on the press and what brackets will be necessary to do so. There are only two (2) points that the device must be securely attached to the press.

1. The Mounting Frame must be attached high on the front of the press frame.
2. The ram attachment must be attached to the ram.

Illustration I indicates the general location of these points. The actual location will vary with the make, size, type and special features of the press.

PRESS & DEVICE SPECIFICATIONS

Enter the make, model and identifying shop number of the press. The Guard No. will be assigned when the device is ordered and built. A copy of this measurement sheet will become part of a permanent record kept by the manufacturer of the device. Complete, accurate information will be valuable when and if there are future questions pertaining to a particular device.

Press Stroke

Enter the stroke of the press. The minimum press stroke to which an Overhead Type device can be applied is 2". The maximum is 24".

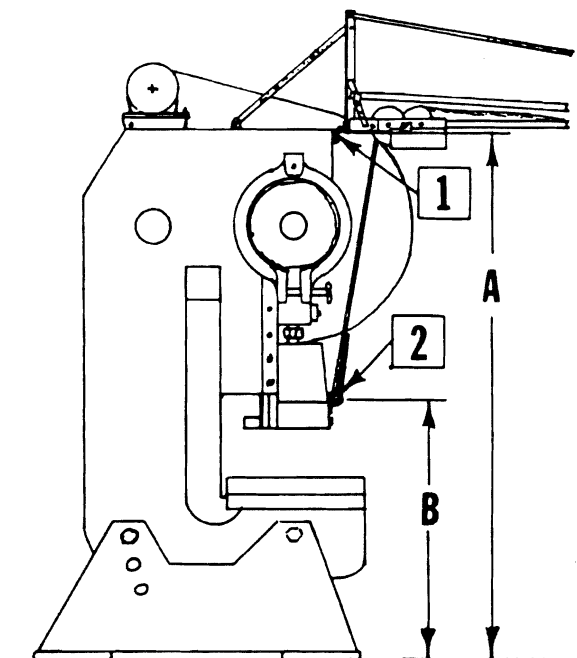


Illustration I

Flywheel R.P.M.

This is the speed of the flywheel that is driving the crank shaft of the press. It should automatically be the strokes per minute if the press were to run continuously. DO NOT underestimate the importance of recording this speed. It, along with the stroke, will be used to select the proper mechanism to be built into the Overhead Type device.

Inclined or Upright

Check the appropriate box. If the press is inclined the "A" and "B" dimensions should be taken from the bolster rather than the floor.

Pullout Selection

The LONG PULL should be selected for most situations. The standard and short pulls are available, as listed, but should only be considered when clearance or fork truck traffic in front of the press is a problem. NEVER select a shorter pull just because the longer pull is not needed. All devices offer the complete range of pull from 0 to the maximum by adjustment.

MEASUREMENTS AND BRACKET SELECTION

Enter all measurements and check off appropriate boxes for bracket selection. These instructions should be used in conjunction with the Overhead Type Pullout Holdout Device measurement sheet folder and installation manual. When the Mounting Frame and/or the Ram Attachment is to be attached directly, without the need for brackets, it is helpful if you write "Direct" near the proper heading on the measurement sheet.

"A"---Frame Mounting Height

This is the measurement from the floor to the bottom of the Mounting Frame of the proposed device. It should be at least 84" from the floor but may be mounted higher to avoid interference with fork trucks used to set dies. Illustration II is the Mounting Frame of an Overhead Type device. Do not confuse it with mounting brackets. It may be necessary to select and measure for mounting brackets before entering the "A" dimension.

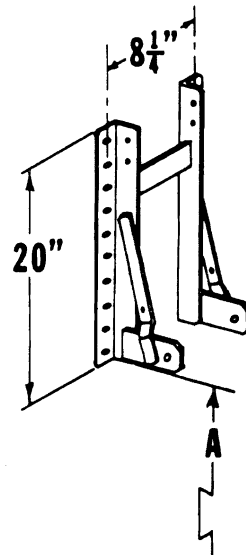


Illustration II

If Direct Mounted

The Mounting Frame may be bolted directly to the mounting surface. If the usable height of the mounting surface will accommodate 12" or more of the Mounting Frame further bracing may not be necessary. If bracing is necessary refer to Illustrations X through XII.

If Top Mounted (Fig. 1 Bracket)

A top mounted bracket, Illustration III, might be selected to bridge across horizontal mounting surfaces on the press frame. The bottom of the Mounting Frame will be attached directly to the upright leg of the angle. It will be necessary to brace the top of the Mounting Frame when this bracket is used. See Braces.

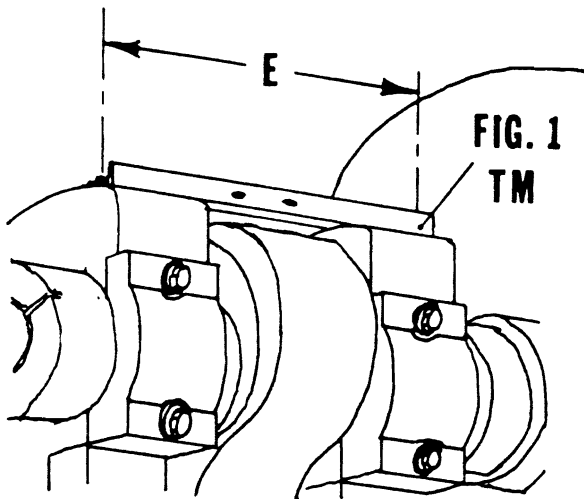


Illustration III

FIG. 2 FM

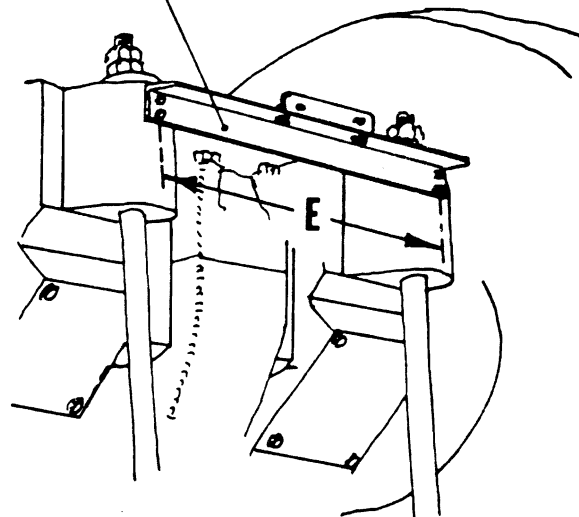


Illustration IV

If Face Mounted (Fig. 2 Bracket)

A face mounted bracket, Illustration IV, might be selected to bridge across vertical mounting surfaces on the press frame. When using a face mount bracket you must make sure the crank will clear the bracket when the press is cycled. There will be a mounting angle provided to make the attachment at the bottom of the Mounting Frame. When the hole center distance exceeds 36" a Fig. 3 Bracket (not illustrated) should be specified. Bracing will be necessary for the top of the Mounting Frame.

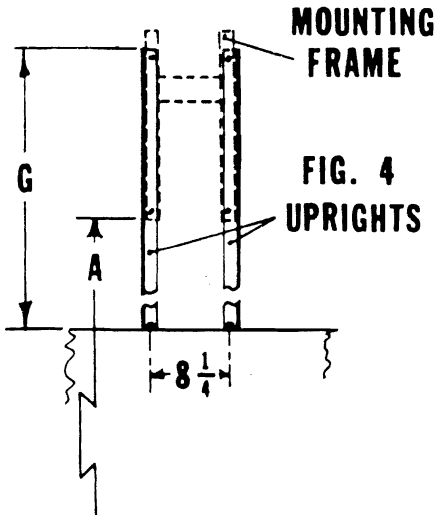


Illustration V

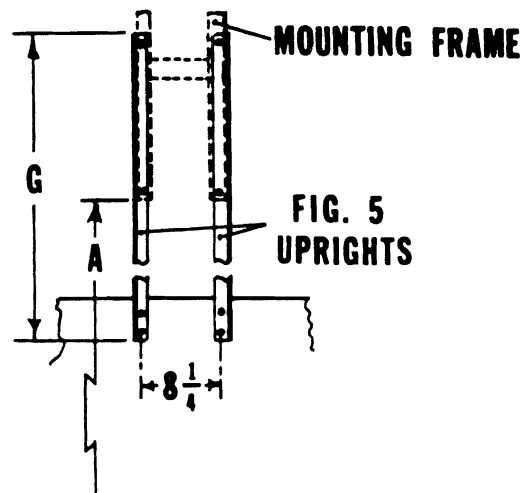


Illustration VI

Uprights (Fig. 4 & Fig. 5)

If the 84" minimum "A" dimension cannot be obtained through the use of direct, top or face mounting, it may be necessary to use uprights. First consider the possibility that an Arm Type Pullout Holdout Device might be a better application. Illustrations V and VI show the application of uprights when they can be mounted on the standard 8-1/4" hole center distance of the Mounting Frame. The "G" dimension or length of the uprights should be enough to provide the desired "A" dimension plus to overlap all or most of the Mounting Frame. The Mounting Frame should bolt to the uprights at both top and bottom. Bracing is always required when uprights are used.

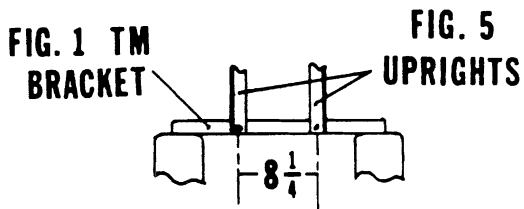


Illustration VII

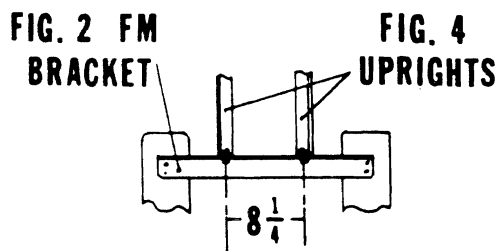


Illustration VIII

A top mount (Fig. 1) or a face mount (Fig. 2) can be used in conjunction with uprights. Illustrations VII and VIII show two ways that this can be done. Caution: pyramiding of brackets should be avoided unless absolutely necessary.

Standoff Brackets (Fig. 6)

The Overhead Type device may be extended outward from the mounting surface through the use of Standoff Brackets. This will provide clearance for the crank or other parts of the press. If drive chain clearance is all that is needed, consider the Extension Mounting Frames on Page 8. If Standoff Brackets are in order, Illustration IX should help you identify and enter the proper information on the measurement sheet. The "I" dimension is the actual clearance that is necessary from the mounting surface to the bridging channel. Enter 1", 5", 9" or 13". The "H" dimension is the total length of the bridging channel. The actual mounting hole center distance will be 2-1/2" less than "H". The illustration also indicates the area necessary on the press to attach these standoffs. A Standoff Bracket set is comprised of two (2) standoffs plus the appropriate channel and fasteners. When one set is used it will be necessary to brace the top of the Mounting Frame. When the mounting surface allows, two complete Standoff Bracket sets may be used. One for the bottom of the Mounting Frame and one for the top.

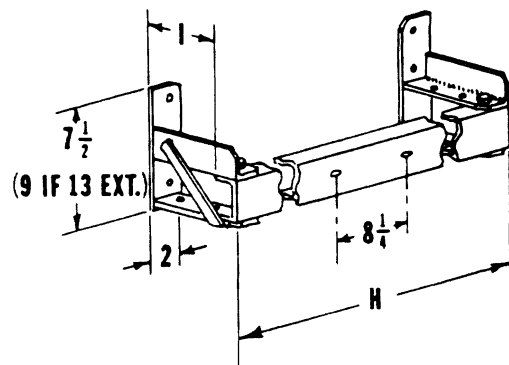


Illustration IX

Mounting Braces (Fig. 7)

If the Mounting Frame of the device is not attached securely at both top and bottom it will be necessary to do additional bracing. Illustration X shows a typical set of braces. The braces are attached near the top of the Mounting Frame and to an appropriate surface on the press. A Brace Anchor is shown in this illustration. When the press does not have convenient surfaces for attaching these braces there are several ways to solve the problem.

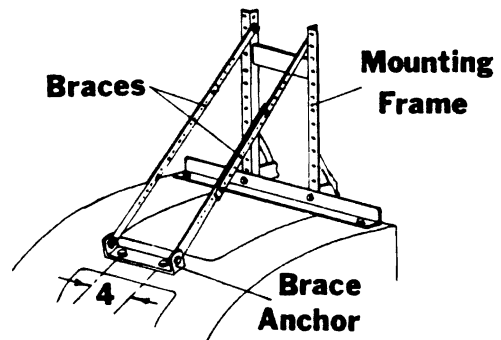


Illustration X

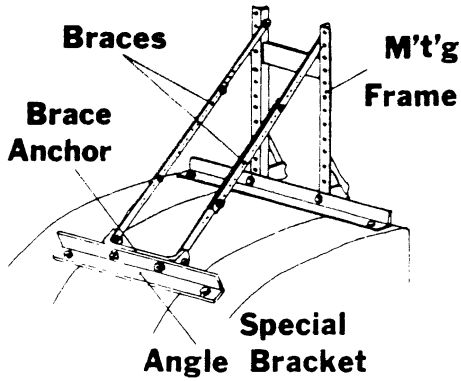


Illustration XI

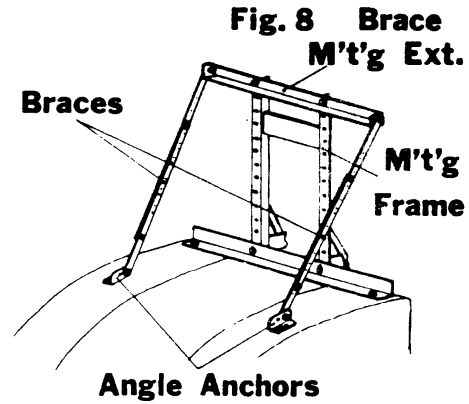


Illustration XII

One way, Illustration XI, would be to attach a piece of angle across the press frame and attach the Brace Anchor to it. Another method, Illustration XII, would be to use a Brace Mounting Extension (Fig. 8) attached to the top of the Mounting Frame and use individual Angle Anchors to attach the braces to the press.

"B"----Ram Mounting Height

This is the height at which the ram attachment will be attached to the ram of the press. It may be necessary to select a ram attachment plate and offset before entering this dimension. It need not be a close or exact dimension. The difference between "A" and "B" will help the manufacturer of the device assure that the drive chain will be long enough.

"C"----Chain Offset

Unlike the Arm Type device, there is no real advantage in offsetting the ram attachment for an Overhead Type device. The offset on the device will refer to the drive chain, Illustration XIII. Quite often the style or size of the ram makes it desirable to have the chain on center or "0" offset. Please note that the drive chain does not emerge from the center of the device (see measurement sheet), therefore a "0" offset of the chain will necessitate an offset of the device. The manufacturer of the device will automatically provide the appropriate offset in any mounting brackets.

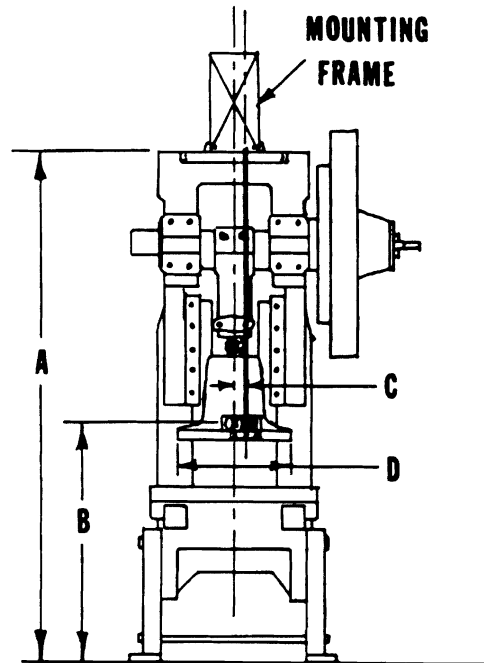


Illustration XIII

"D"---Width of Ram Attachment Area

This dimension will be the width (left to right) of the surface available to mount the Ram Attachment or ram attachment plate whichever the case may be. Illustration XIV is the Ram Attachment Weldment for the Overhead Type device. Overall and hole center dimensions are given to help you check for mounting surface. If there is enough mounting surface available it can and should be mounted directly.

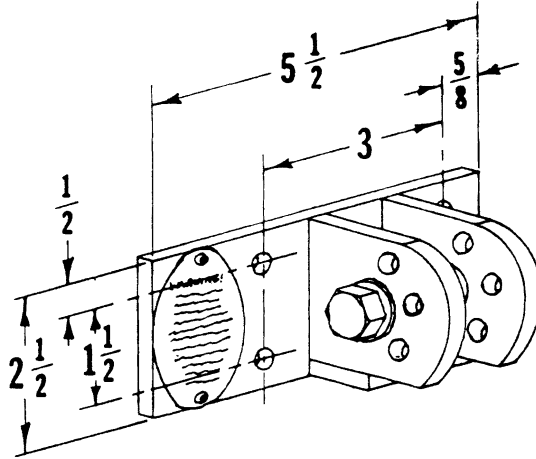


Illustration XIV

RAM ATTACHMENT PLATES

Fig. 9---Limited Vertical Mounting Surface

When the ram does not offer the 2-1/2" height necessary to attach the Ram Attachment directly then a Fig. 9 Plate, Illustration XV, can be used.

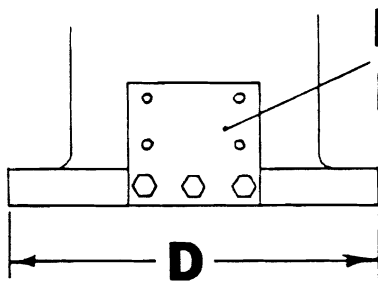


Illustration XV

**Fig. 9
Plate**

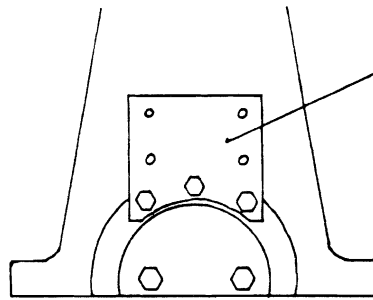


Illustration XVI

**Fig. 10
Plate**

Fig. 10---Round Breech Block

When the ram has a round breech block die clamp use a Fig. 10 Plate, Illustration XVI. The drive chain offset will always be "0" when this plate is used.

Fig. 11----Limited Horizontal or Curved Surface

Specify a Fig. 11 Plate, Illustration XVII, when the horizontal area is limited. You will need at least 4-1/2" height of mounting surface to use this plate. The chain offset will most likely be "0" when this plate is used also.

Drive Chain Idler

The drive chain emerging from the Overhead Type device mechanism must have a clear, unobstructed path to the ram attachment. If there are interferences, such as knockout bar brackets, a Drive Chain Idler may be specified. Illustration XVIII shows a typical drive chain idler installation.

Extension Mounting Frames

Part 301A is the standard (Illustration II) and will be provided unless another is specified. Looking at the proposed installation from the side of the press, Illustration I, the drive chain will emerge from the unit anywhere from 2-1/2" to 5" outward from the mounting point depending upon which drive sprocket is in the unit. Part 301B Mounting Frame offers 4" more extension and Part 301C offers 8" more extension. Write in or circle the frame desired if other than standard

Sliding Angle Bracket

To make it easier for everyone concerned do not specify these brackets unless you have a complete understanding of their application or you have consulted the manufacturer of the device.

The above descriptions and illustrations cover most of the normal situations you will encounter when measuring a press for an Overhead Type Pullout Holdout device. Read these instructions. Become familiar with the bracketing. When in doubt call the manufacturer of the device for the last word. Your questions help us understand what we should provide as instructional material.

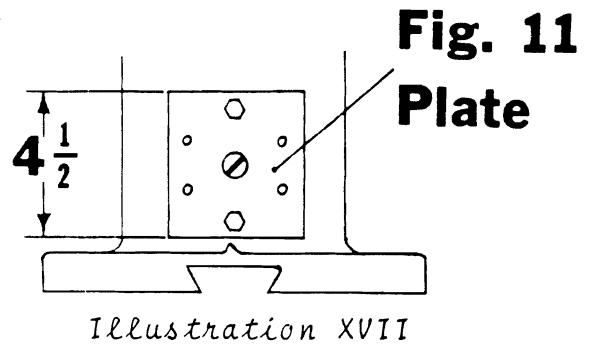


Illustration XVII

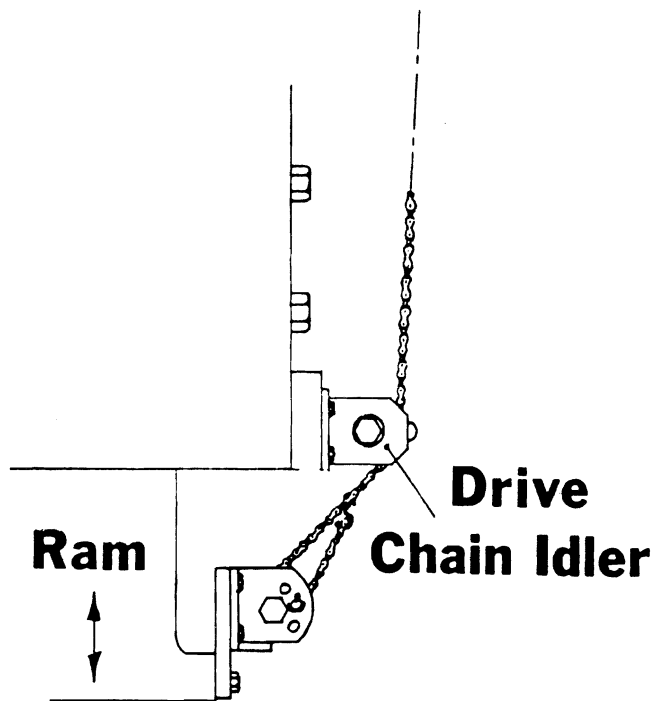


Illustration XVIII