

# STRUCTURAL ATTACHMENTS

**Fig. 55 (Short)**  
**Fig. 55L (Long)**

## Structural Welding Lug

**Size Range:** Fig. 55: 1/2" through 3 3/4"  
Fig. 55L 1/2" through 2"

**Material:** Carbon steel

**Finish:** Plain or Galvanized

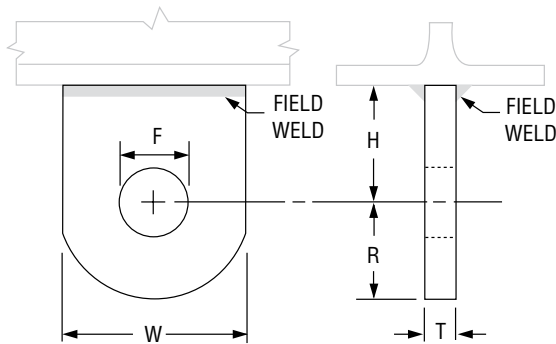
**Service:** For attachment to structural steel in conjunction with the Fig. 299 clevis and with type C variable spring hanger or Type C Constant Support.

**Maximum Temperature:** Plain 750° F, Galvanized 450° F

**Approvals:** Complies with Federal Specification A-A-1192A (Type 57), WW-H-171-E (Type 57), ANSI/MSS SP-69 and MSS SP-58 (Type 57).

**Ordering:** Specify rod size, figure number, name, finish and whether short or long lug is required.

**Order Separately:** Fig. 291 pin with cotters or bolt and nut



**FIG. 55, FIG. 55L: LOAD (LBS) • WEIGHT (LBS) • DIMENSIONS (IN)**

		Fig. 55, Fig. 55L				Fig. 55 (Short)		Fig. 55L (Long)			
Rod Size A*	Pin or Bolt Dia.	F	R	T	W	Max Load		Rod Take Out - H	Weight	Rod Take Out - H	Weight
						650° F	750° F				
1/2	5/8	1 1/16	1 1/4	1/4	2 1/2	1,350	1,057	1 1/2	0.48	3	0.75
5/8	3/4	1 3/16		3/8		2,160	1,692		0.41		0.68
3/4	7/8	1 5/16		1/2		3,230	2,530		0.60		1.0
7/8	1	1 1/8		3/4		4,480	3,508	0.71	0.98		
1	1 1/8	1 1/4	1 1/2	1/2	3	5,900	4,620	2	1.2		1.6
1 1/4	1 3/8	1 1/2	2	5/8	4	9,500	7,440	3	3.0	4	3.7
1 1/2	1 5/8	1 3/4		3/4		5	13,800		10,807		4.8
1 3/4	1 7/8	2	3	3/4	6	18,600	14,566	4	4.7	4 1/2	6.3
2	2 1/4	2 3/8				1	24,600		19,265		7.2
2 1/4	2 1/2	2 5/8	4	1	8	32,300	25,295	4 1/2	7.6	-	-
2 1/2	2 3/4	2 7/8				1 1/2	39,800		31,169	15.5	-
2 3/4	3	3 1/8	4 1/2	1 1/2	9	49,400	38,687	5	15.1	-	-
3	3 1/4	3 3/8				1 3/4	60,100		47,066	16.0	-
3 1/4	3 1/2	3 5/8	4 1/2	1 1/2	9	71,900	56,307	6	18.9	-	-
3 1/2	3 3/4	3 7/8				1 3/4	84,700		66,331	31.3	-
3 3/4	4	4 1/8				98,500	77,139		35.9	-	-

\* Note: Rod size "A" is the assembly rod diameter. Dimension not shown on drawing

## Fig. 54

### Two Hole Welding Beam Lug

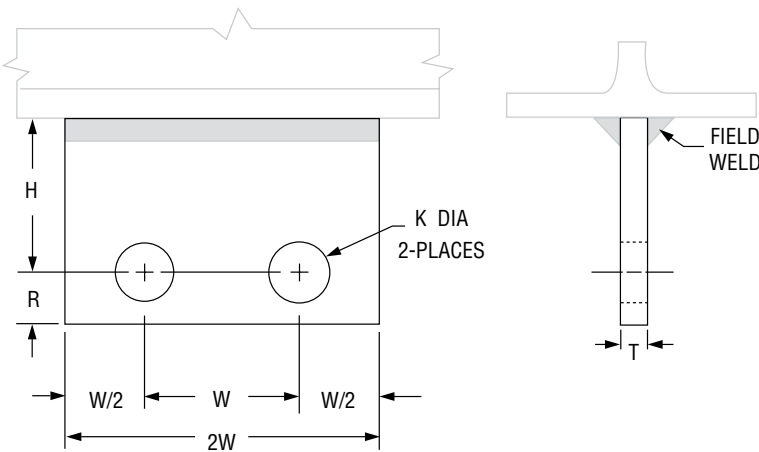
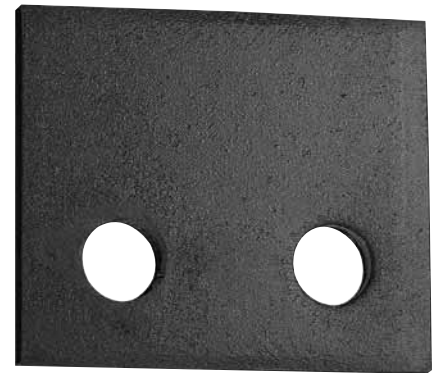
**Size Range:** 1/2" through 2 1/4"

**Material:** Carbon steel

**Finish:** Plain or Galvanized

**Service:** For single rod suspension of Fig. 81-H, type B and C constant supports.

**Ordering:** Specify rod size, figure number, name, finish and "H" dimension.



**FIG. 54: LOAD (LBS) • WEIGHT (LBS) • DIMENSIONS (IN)**

Rod Size A *	Max Load	Weight "H" Dimension ▲				Rod Take Out - "H" Dimension Constant Support Frame Sizes					Pin or Bolt	K Hole	R	T	W	2W	W/2	
		1 1/2	2	3	4	1-9	10-18	19-34	35-49	50-63								
1/2	1,350	1.4	1.7	2.2	-	1 1/2	10-18	19-34	35-49	50-63	-	5/8	1 1/16	1 1/4	3/8	2 1/2	5	1 1/4
5/8	2,160	1.4	1.6	2.2	-						-	3/4	1 3/16					
3/4	3,230	1.3	1.6	2.1	2.6	-	2	3	4	7/8	1 5/16	1 1/2	1/2	3	6	1 1/2		
1	5,900	-	2.6	3.5	4.3	-	-			1 1/8	1 1/2						2	5/8
1 1/4	9,500	-	5.0	6.5	7.9	-	-	4	5	1 5/8	1 3/4	2 1/2	3/4	5	10	2 1/2		
1 1/2	13,800	-	-	10.7	12.8	-	-			1 7/8	2							
1 3/4	18,600	-	-	10.4	12.5	-	-	-	-	2 1/4	2 3/8	3	6	12	3			
2	24,600	-	-	-	16.0	-	-	-	-	2 1/2	2 5/8							
2 1/4	32,300	-	-	-	15.6	-	-	-	-	2 1/2	2 5/8							

Select "H" dimension applicable to constant support frame size.

▲ Weight varies with "H" dimension.

\* Note: Rod size "A" is the assembly rod diameter. Dimension not shown on drawing

## Fig: 66

## Welded Beam Attachment

**Size Range:**  $\frac{3}{8}$ " through  $3\frac{1}{2}$ "

**Material:** Carbon steel

**Finish:** Plain or Galvanized

**Service:** Recommended for attachment to bottom of beams, especially where loads are considerable and rod sizes are large.

**Maximum Temperature:** Plain 750° F, Galvanized 450° F

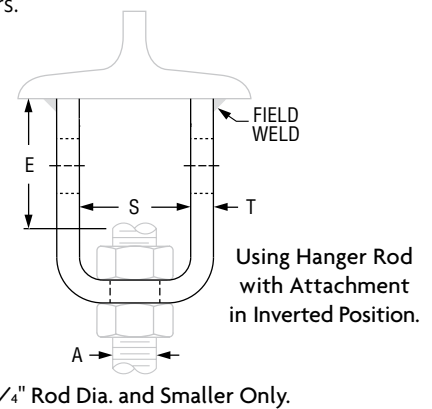
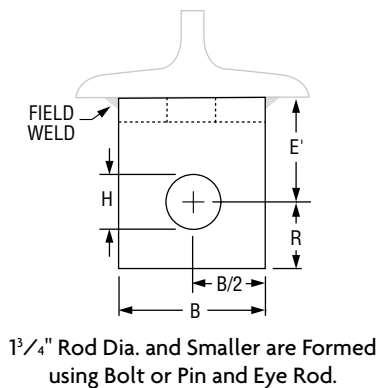
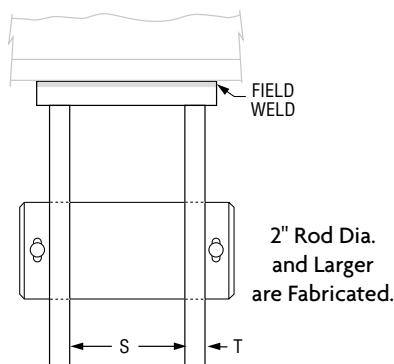
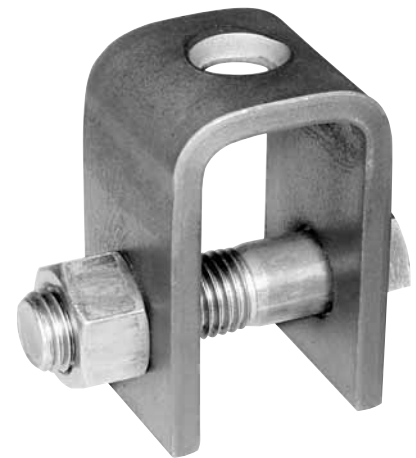
**Approvals:** Complies with Federal Specification A-A-1192A (Type 22), WW-H-171-E (Type 22), ANSI/MSS SP-69 and MSS SP-58 (Type 22).

**Installation:** If flexibility at the beam is desired, use with bolt and eye rod Fig. 278, page 98, or with weldless eye nut Fig. 290, page 102. If vertical adjustment is desired, use with threaded rod and nut and weld the attachment in an inverted position to the beam.

**Features:**

- Will accommodate very heavy loads and rod sizes through  $3\frac{1}{2}$ ".
- Can be installed so as to provide for either flexibility or for vertical adjustment.
- Versatility affords economical stocking and erection.
- Beam size need not be considered.

**Ordering:** Specify rod size, figure number, name and finish. Sizes 1" and smaller are typically supplied with a bolt and nut. Sizes  $1\frac{1}{4}$ " and larger are typically supplied with a pin and cotters.



**FIG: 66: LOAD (LBS) • WEIGHT (LBS) • DIMENSIONS (IN)**

Rod Size A	Pin or Bolt Size	Max Load		Weight		Rod Take Out		B	H	R	S	T
		650° F	750° F	Without Bolt and Nut	With Bolt and Nut	E	E'					
$\frac{3}{8}$	$\frac{1}{2} \times 2\frac{1}{2}$	730	572	0.96	1.2	$1\frac{7}{8}$	2	2	$\frac{9}{16}$	$\frac{7}{8}$	$1\frac{1}{4}$	$\frac{1}{4}$
$\frac{1}{2}$	$\frac{5}{8} \times 2\frac{1}{2}$	1,350	1,057		1.3	$1\frac{3}{4}$			$1\frac{11}{16}$			
$\frac{5}{8}$	$\frac{3}{4} \times 2\frac{3}{4}$	2,160	1,692		1.6				$1\frac{13}{16}$			
$\frac{3}{4}$	$\frac{7}{8} \times 4$	3,230	2,530	1.9	2.8	$2\frac{5}{8}$	2½	$1\frac{15}{16}$	$1\frac{1}{8}$	$1\frac{1}{8}$	2	$\frac{3}{8}$
$\frac{7}{8}$	1 x 4	4,480	3,508	2.5	3.9			$1\frac{1}{8}$	$1\frac{1}{4}$			
1	$1\frac{1}{8} \times 5$	5,900	4,620	4.3	6.3	$2\frac{3}{4}$	3	3	$1\frac{1}{4}$	$1\frac{1}{2}$	2½	$\frac{1}{2}$
$1\frac{1}{4}$	$1\frac{3}{8} \times 5\frac{3}{8}$	9,500	7,440	8.1	10.2	$2\frac{7}{8}$		4	$1\frac{1}{2}$	2		3
$1\frac{1}{2}$	$1\frac{5}{8} \times 6$	13,800	10,807	–	19.0	–	4	5	$1\frac{3}{4}$	$2\frac{1}{2}$	3	
$1\frac{3}{4}$	$1\frac{7}{8} \times 6\frac{7}{8}$	18,600	14,566	–	24.2	–			5	2		$2\frac{3}{4}$
2	$2\frac{1}{4} \times 6\frac{7}{8}$	24,600	19,265	–	30.6	–	5	6	$2\frac{3}{8}$	$3\frac{1}{4}$	$3\frac{1}{2}$	$\frac{1}{2}$
$2\frac{1}{4}$	$2\frac{1}{2} \times 7\frac{3}{8}$	32,300	25,295	–	36.8	–			6	$2\frac{3}{8}$		
$2\frac{1}{2}$	$2\frac{3}{4} \times 7\frac{3}{8}$	39,800	31,169	–	39.7	–	5¾	6	$2\frac{3}{8}$	$3\frac{3}{4}$	$3\frac{1}{2}$	$\frac{5}{8}$
$2\frac{3}{4}$	3 x 7	49,400	38,687	–	40.8	–			6	$3\frac{1}{8}$		
3	$3\frac{1}{4} \times 7$	60,100	47,066	–	46.7	–	6¼	7	$3\frac{3}{8}$	4	$4\frac{1}{4}$	$\frac{3}{4}$
$3\frac{1}{4}$	$3\frac{1}{2} \times 7\frac{3}{4}$	71,900	56,307	–	62.1	–			7			
$3\frac{1}{2}$	$3\frac{3}{4} \times 7\frac{3}{4}$	84,700	66,331	–	72.4	–	7½	8	$3\frac{7}{8}$	$4\frac{1}{2}$	$4\frac{1}{4}$	$\frac{3}{4}$