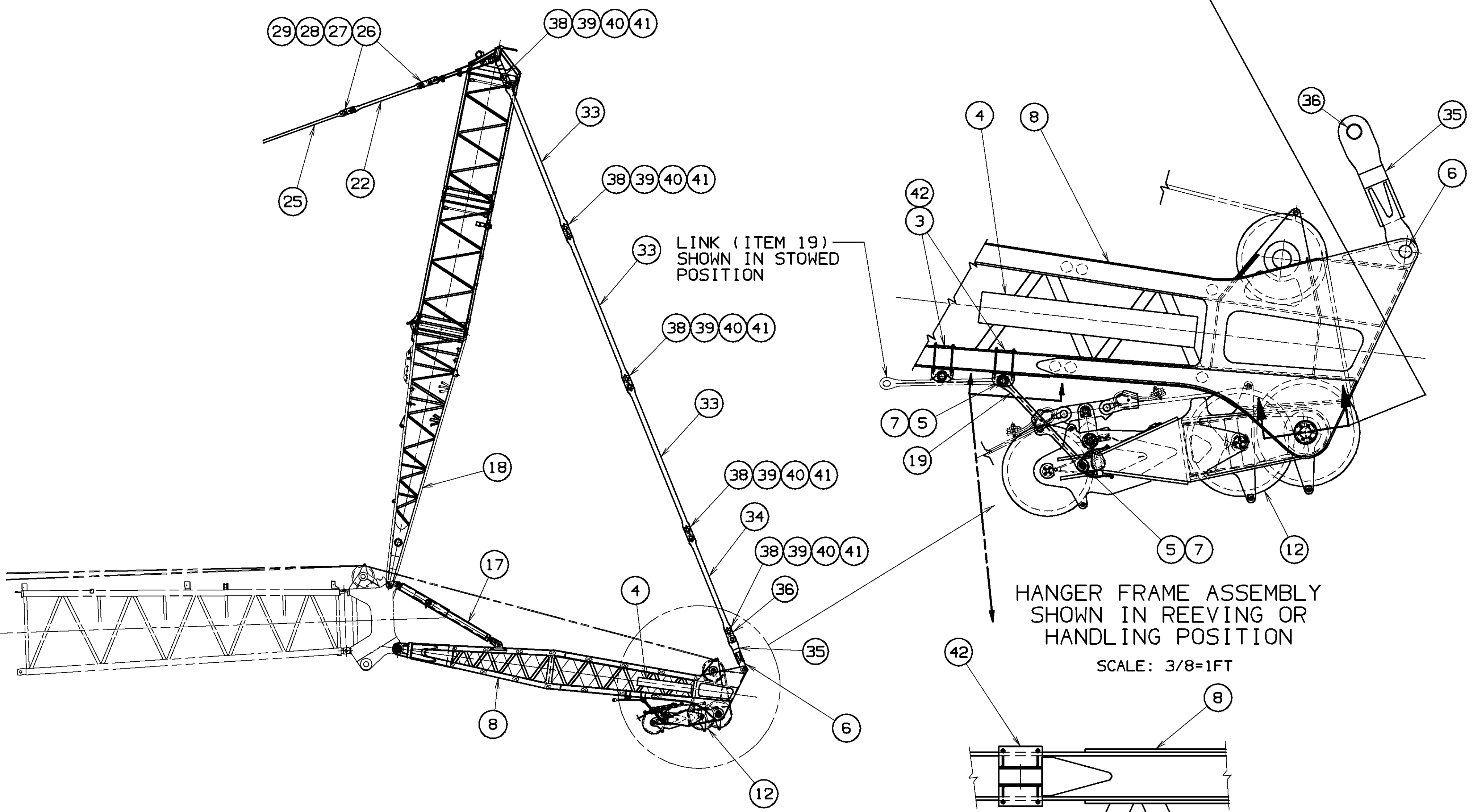
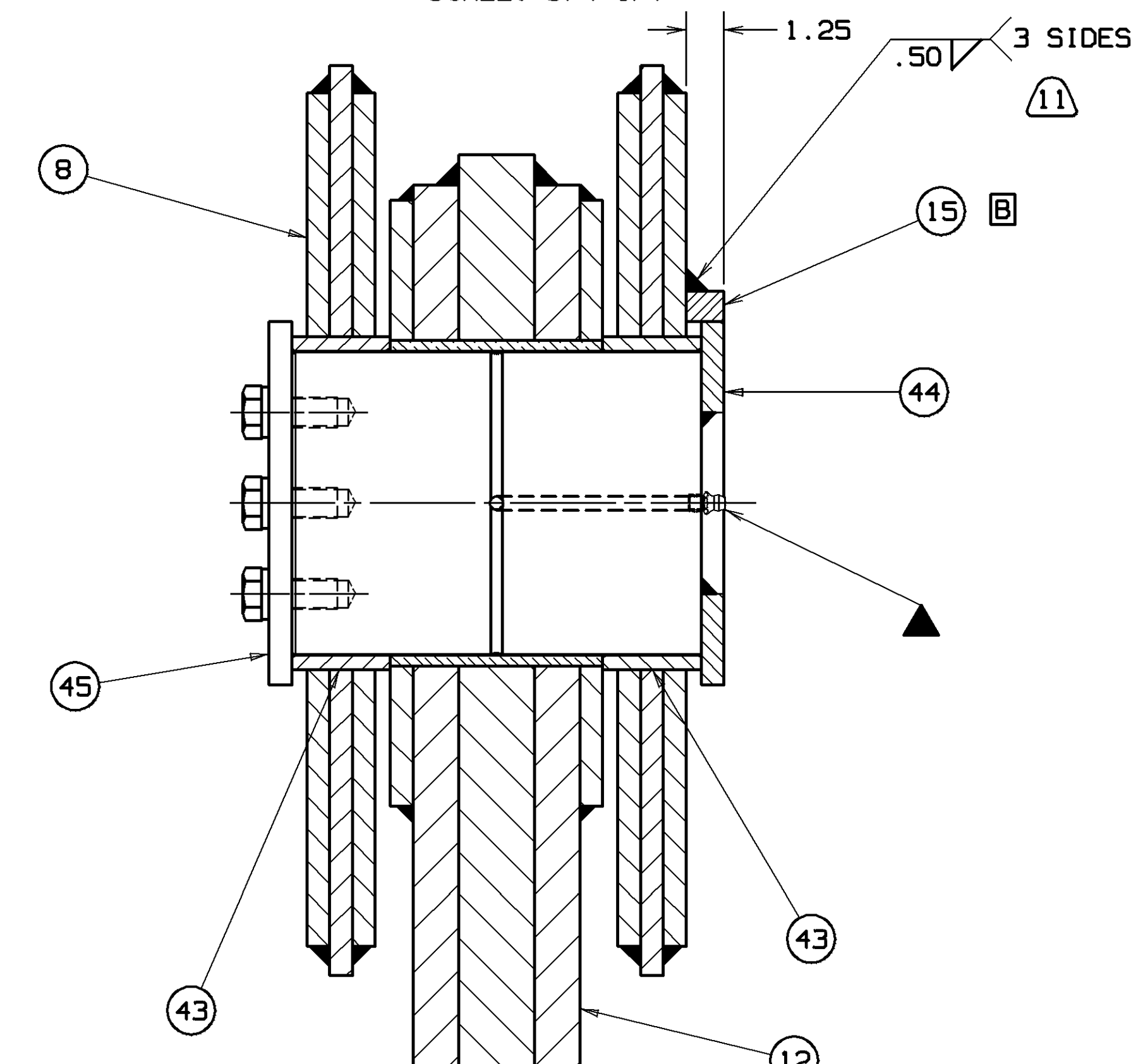
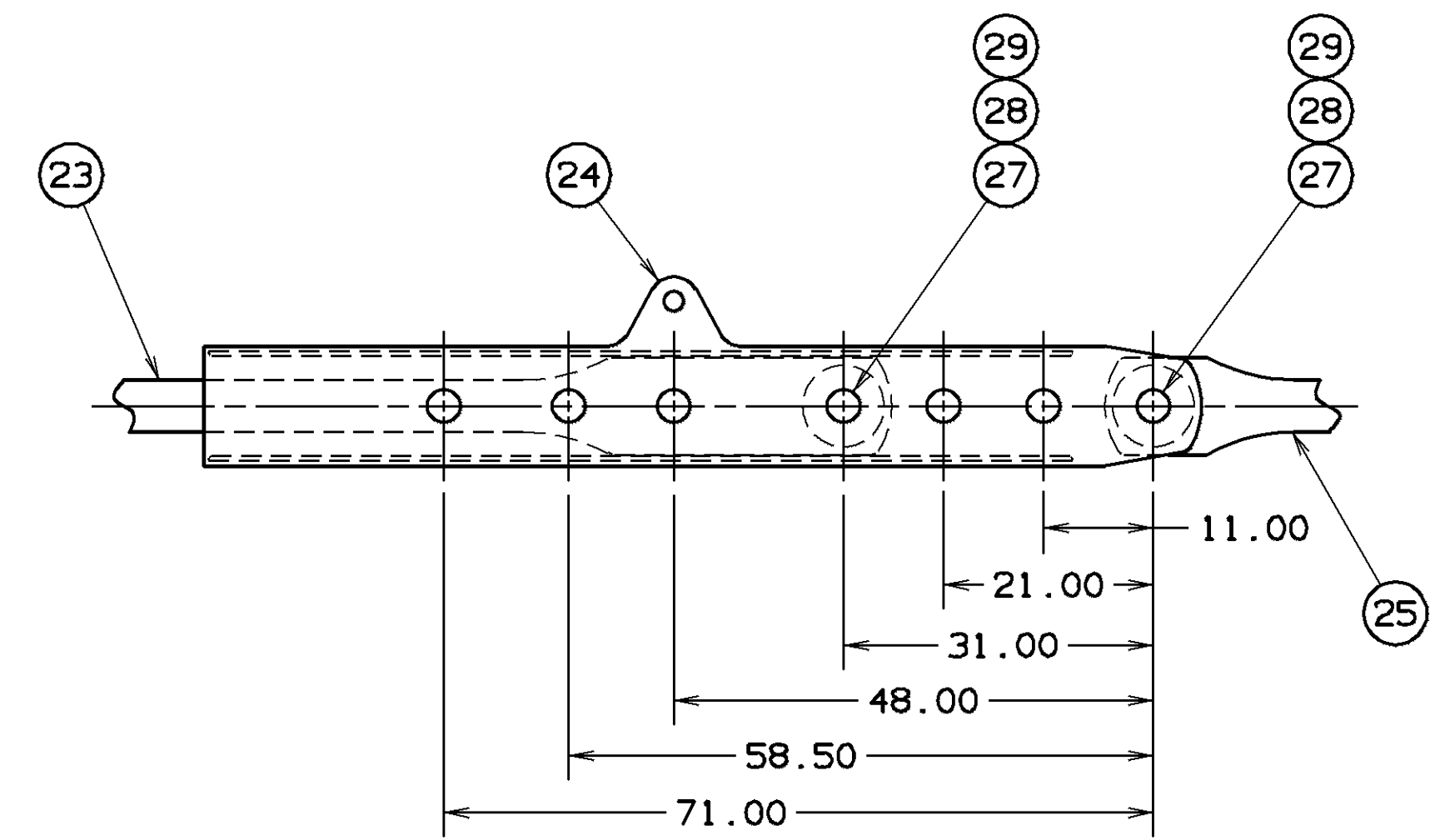
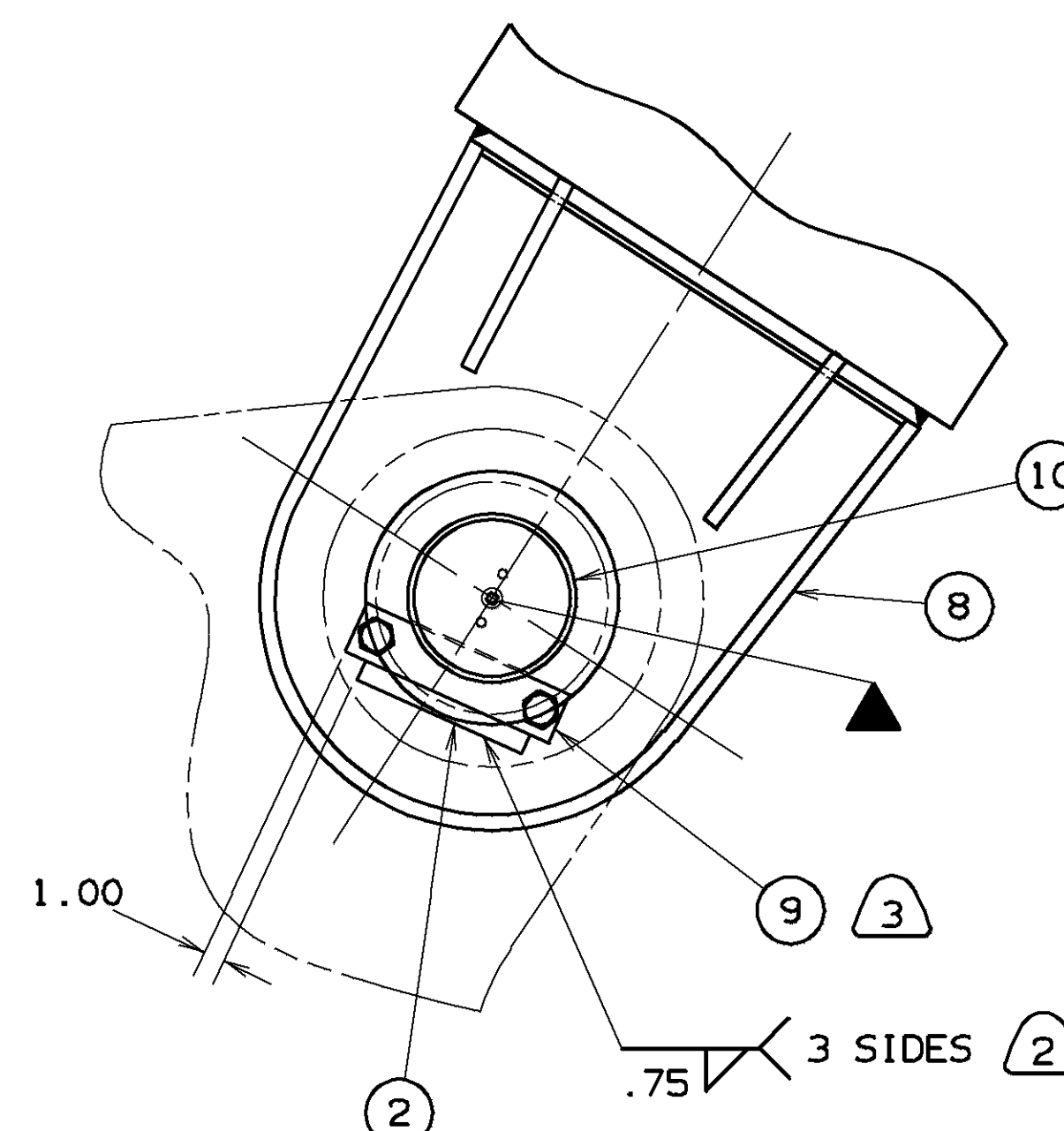
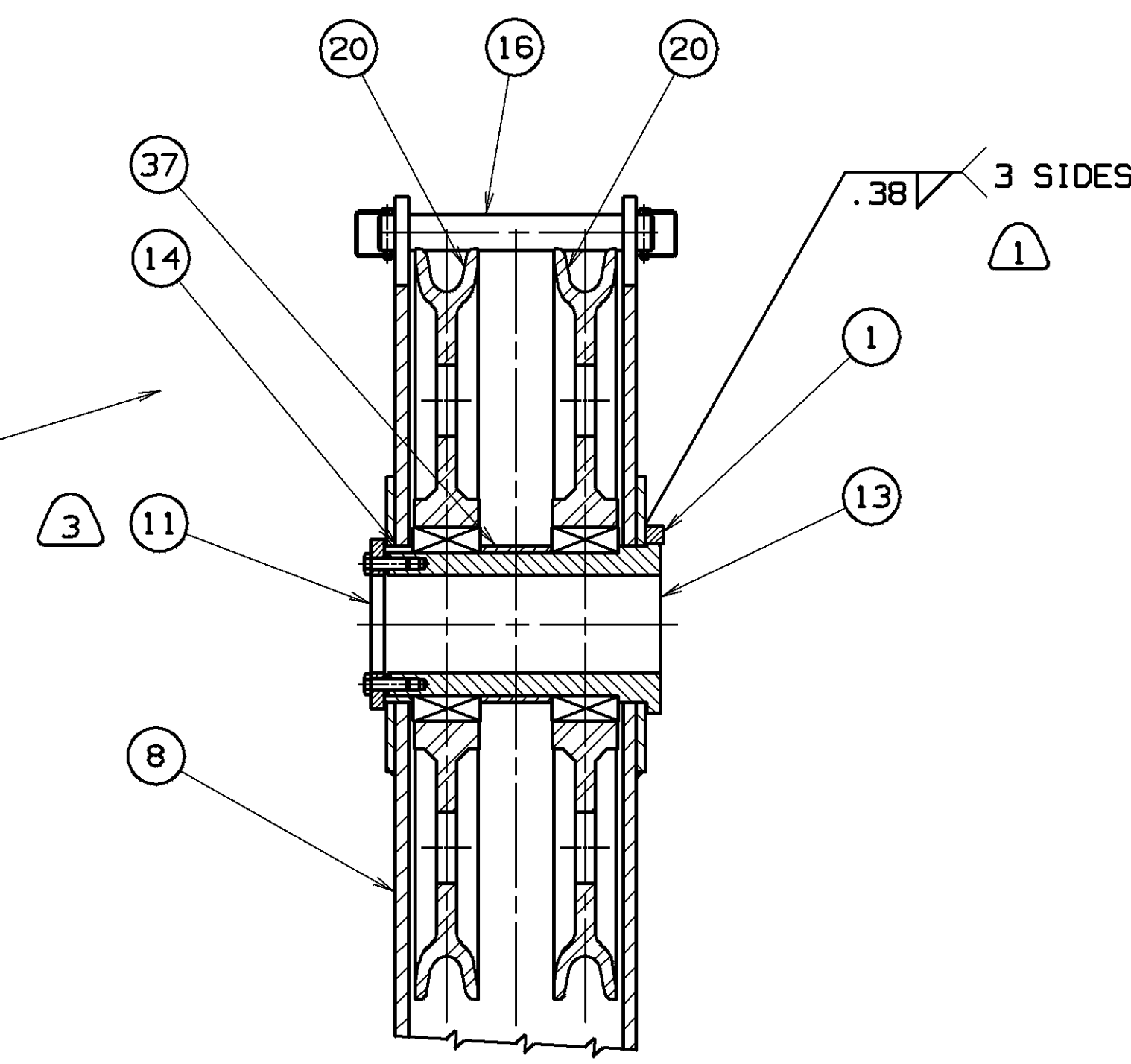
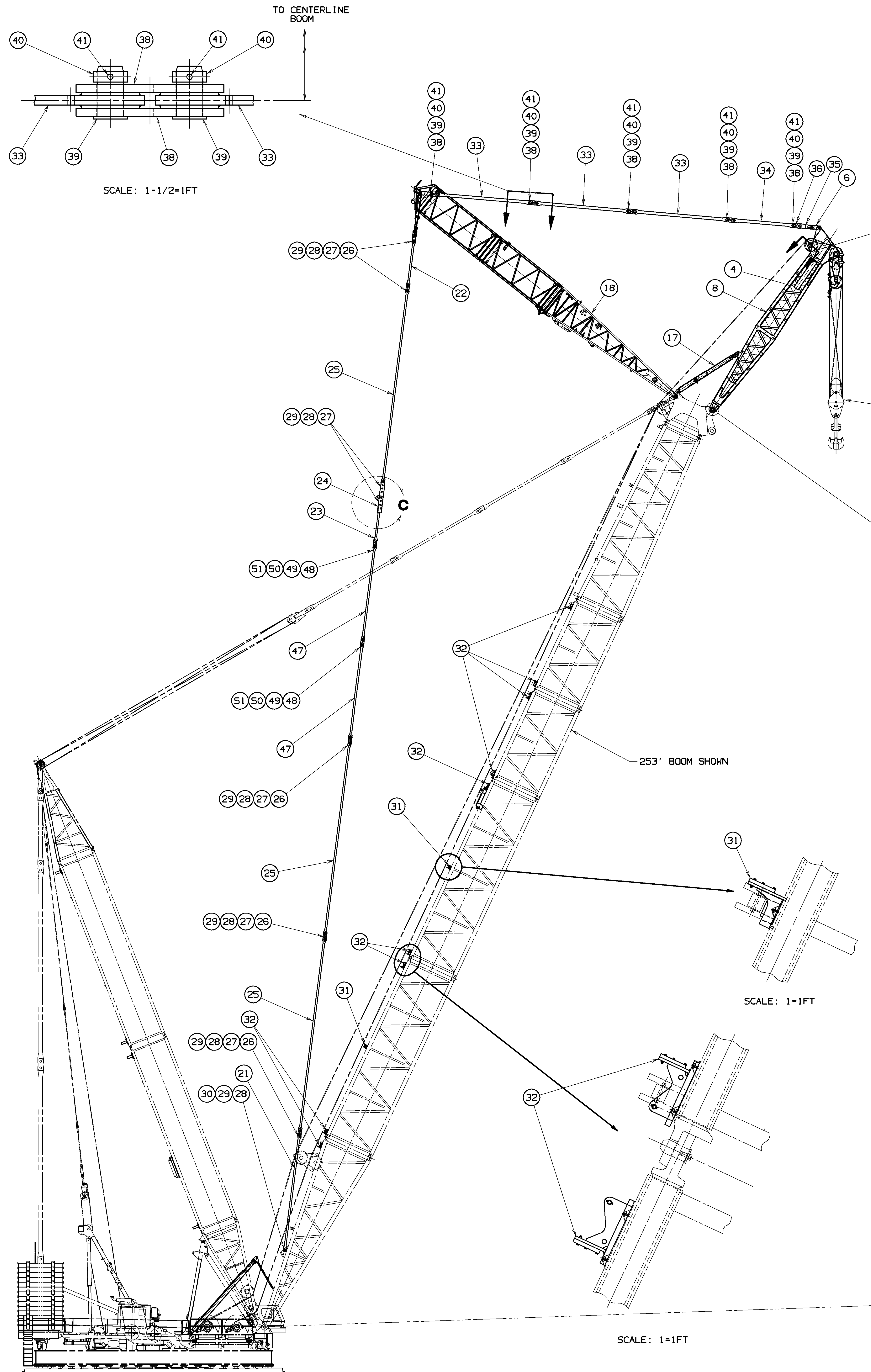




JIB POSITION FOR ENGAGING OR RETRACTING JIB STOP ASSEMBLY (ITEM 17) PIN

SCALE: 3/32=1FT

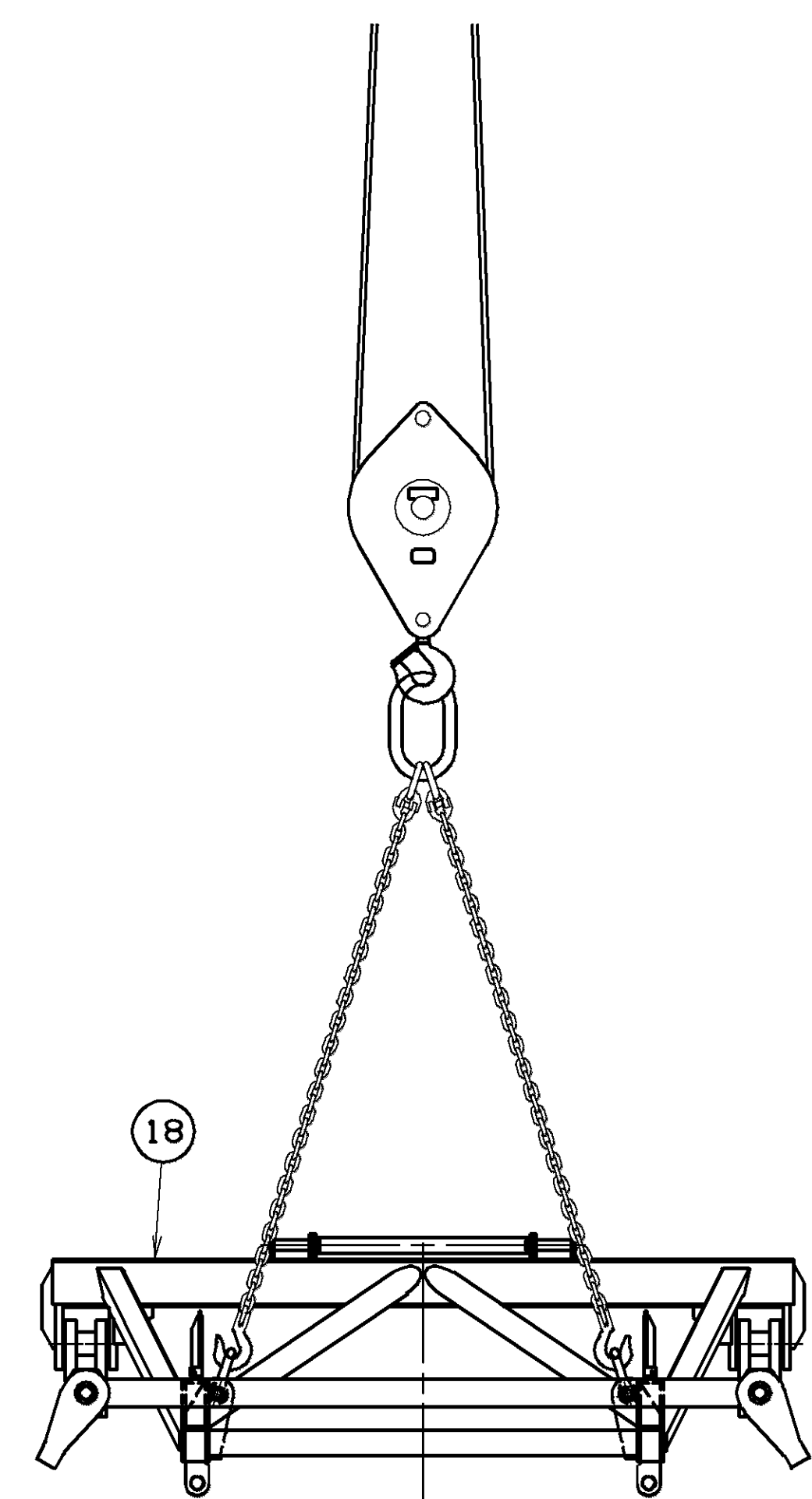
BILL OF MATERIAL				REVISIONS	
QTY	ITEM NO.	DESCRIPTION	MATERIAL	DATE	BY
1	1	BOOM	STEEL	1-9-97	
1	2	BOOM	STEEL		
1	3	BOOM	STEEL		
1	4	BOOM	STEEL		
1	5	BOOM	STEEL		
1	6	BOOM	STEEL		
1	7	BOOM	STEEL		
1	8	BOOM	STEEL		
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1	96	BOOM	STEEL		
1	97	BOOM	STEEL		
1	98	BOOM	STEEL		
1	99	BOOM	STEEL		
1	100	BOOM	STEEL		

BILL OF MATERIAL					ASSEMBLIES USED ON
ITEM NO.	DESCRIPTION	QTY	MATERIAL	DATE	NO.
XXXXXX					

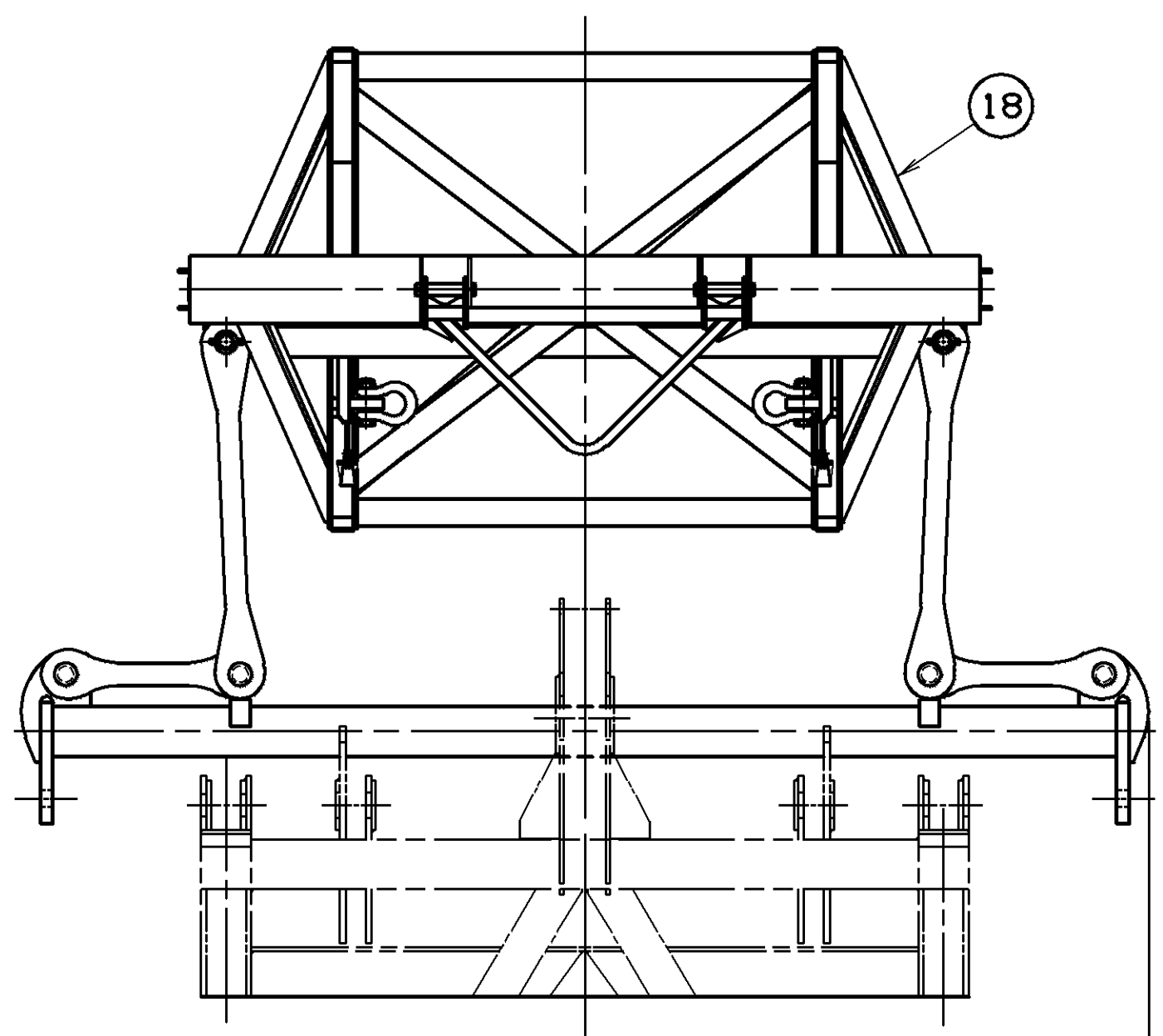
SIM TO 173400

REVISIONS

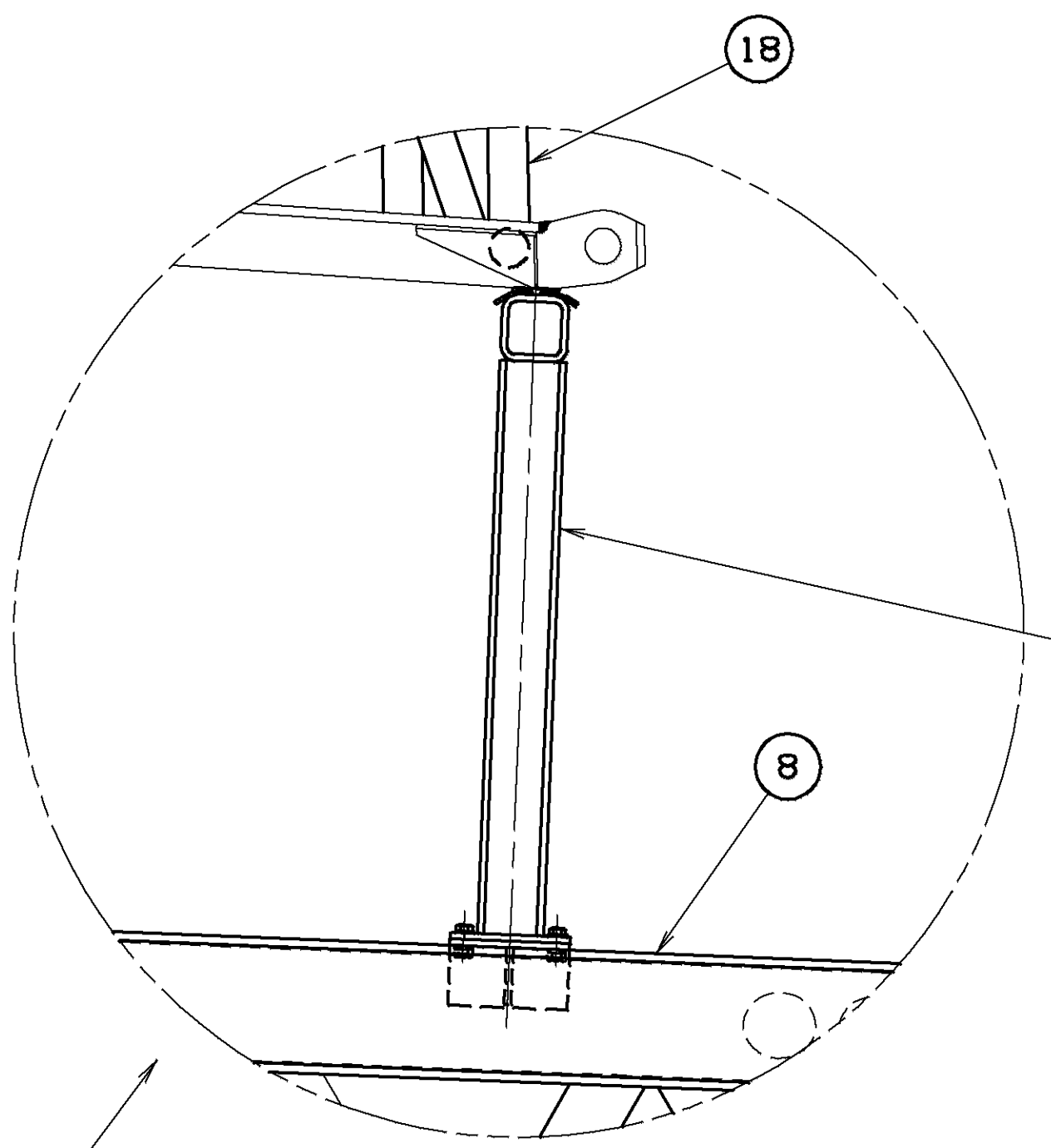
2-28-97 OES REVISE PRIOR TO MFG.



VIEW A-A
SCALE: 3/8=1FT

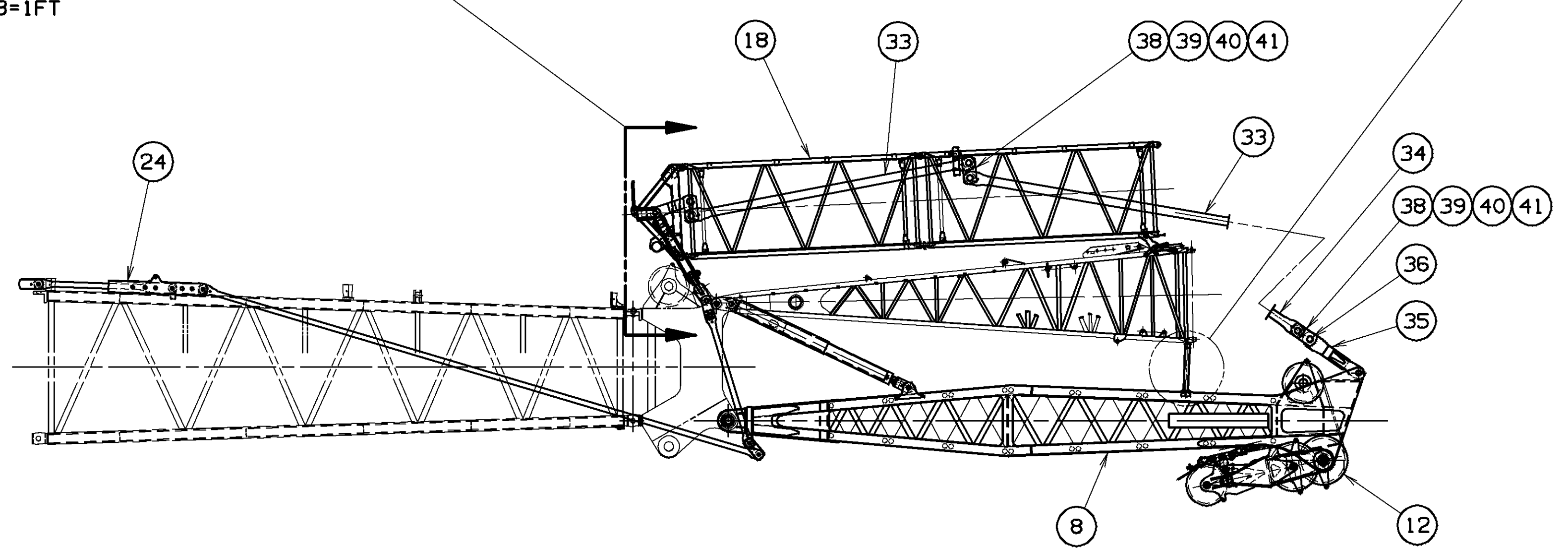


113.17 (REF)
SCALE: 3/8=1FT

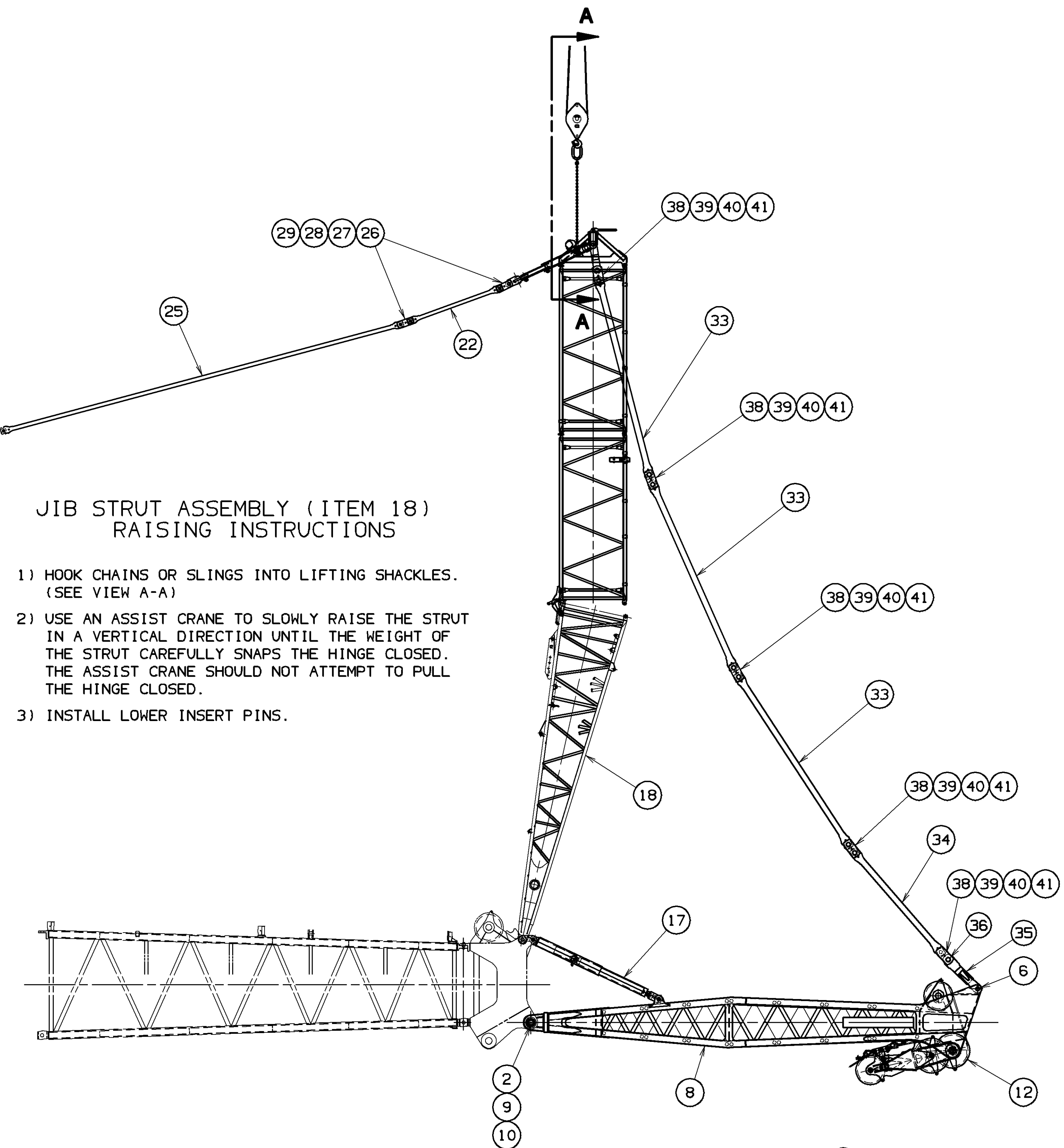


VIEW B
SCALE: 1=1FT

SUPPORT BEAM (REF)

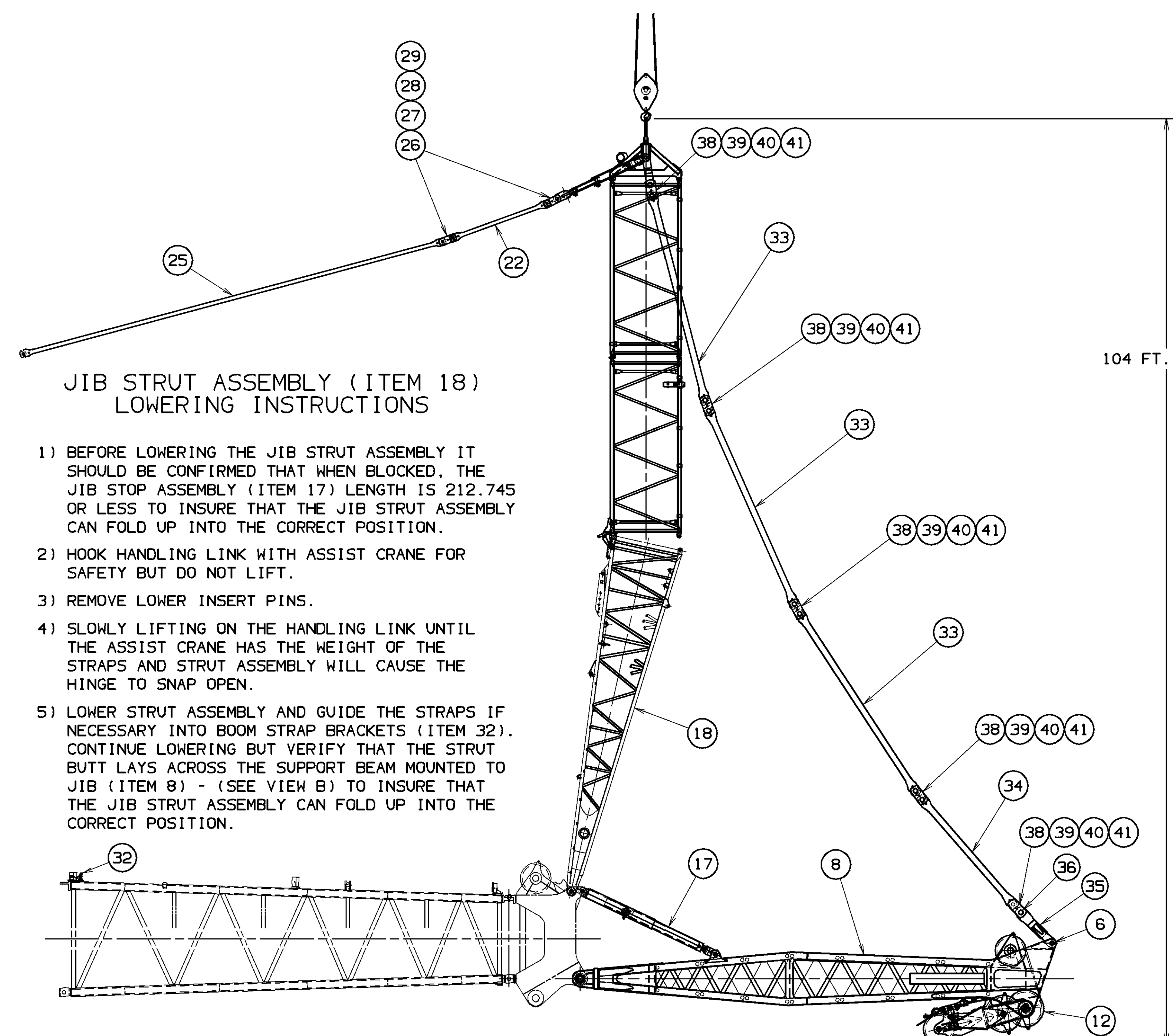


50 FT. JIB ARRANGEMENT AT 10° OFFSET
SCALE: 1/8=1FT



JIB STRUT RAISING (6)
SCALE: 1/8=1FT

- JIB STRUT ASSEMBLY (ITEM 18)
RAISING INSTRUCTIONS
- 1) HOOK CHAINS OR SLINGS INTO LIFTING SHACKLES. (SEE VIEW A-A)
 - 2) USE AN ASSIST CRANE TO SLOWLY RAISE THE STRUT IN A VERTICAL DIRECTION UNTIL THE WEIGHT OF THE STRUT CAREFULLY SNAPS THE HINGE CLOSED. THE ASSIST CRANE SHOULD NOT ATTEMPT TO PULL THE HINGE CLOSED.
 - 3) INSTALL LOWER INSERT PINS.



JIB STRUT LOWERING (6)
SCALE: 1/8=1FT

- JIB STRUT ASSEMBLY (ITEM 18)
LOWERING INSTRUCTIONS
- 1) BEFORE LOWERING THE JIB STRUT ASSEMBLY IT SHOULD BE CONFIRMED THAT WHEN BLOCKED, THE JIB STOP ASSEMBLY (ITEM 17) LENGTH IS 212.745 OR LESS TO INSURE THAT THE JIB STRUT ASSEMBLY CAN FOLD UP INTO THE CORRECT POSITION.
 - 2) HOOK HANDLING LINK WITH ASSIST CRANE FOR SAFETY BUT DO NOT LIFT.
 - 3) REMOVE LOWER INSERT PINS.
 - 4) SLOWLY LIFTING ON THE HANDLING LINK UNTIL THE ASSIST CRANE HAS THE WEIGHT OF THE STRAPS AND STRUT ASSEMBLY WILL CAUSE THE HINGE TO SNAP OPEN.
 - 5) LOWER STRUT ASSEMBLY AND GUIDE THE STRAPS IF NECESSARY INTO BOOM STRAP BRACKETS (ITEM 32). CONTINUE LOWERING BUT VERIFY THAT THE STRUT BUTT LAYS ACROSS THE SUPPORT BEAM MOUNTED TO JIB (ITEM 8) - (SEE VIEW B) TO INSURE THAT THE JIB STRUT ASSEMBLY CAN FOLD UP INTO THE CORRECT POSITION.

THIS PRINT REMAINS THE PROPERTY OF MANTOWOC CRANES, INC. IF IT IS LOST, SUBJECT TO RETURN UPON ORDER. AND ON EXPRESS CONDITION THAT IT IS NOT TO BE COPIED OR USED DIRECTLY OR INDIRECTLY IN ANY WAY WHATSOEVER DETRIMENTAL TO OUR INTERESTS.				DECIMAL PLACES	FABRICATION	MACHINING	NOTES	Mantowoc Cranes, Inc.	JIB ASSEMBLY
(1) PLACE 0.0	± 10 FEET	± 1.50	± 1.50	± 0.015	± 0.015	± 0.015	DR: OES	Mantowoc, Wisconsin	#182 JIB
(2) PLACE 0.00	± 1.00	± 1.00	± 1.00	± 0.015	± 0.015	± 0.015	DR: WHB	MODEL-M-1200R	ON #72A BOOM
(3) PLACE 0.000	± 0.10	± 0.10	± 0.10	± 0.005	± 0.005	± 0.005	APP: TLP		SEE /10/

DATE 1-9-97

PATTERN NO.

178341

JIB BACKSTAY ASSEMBLY															
ITEM NO.		31 OR 63	32, 52, OR 64	47	25 OR 58	26, 48, OR 59	27, 49, OR 60	28, 50, OR 61	29, 51, OR 62	30	22	23	21	24	
BOOM LENGTH		BOOM STRAP BRACKET ASSEMBLY	BOOM STRAP BRACKET ASSEMBLY	25 FT 7.62 M STRAP	50 FT 15.24 M STRAP	1.25 FT 0.38 M LINK	PIN	COLLAR	PIN	PIN	135 INCH 3429 CM STRAP	135 INCH 3429 CM STRAP	351.68 INCH 8933 CM STRAP	ADJUSTABLE LINK	
FEET	METERS													QTY	LENGTH
203	61.9	4	10	0	6	20	24	26	26	2	2	2	2	2	71.00 IN 1803 CM
228	69.5	4	14	2	6	24	28	30	30	2	2	2	2	2	58.50 IN 1486 CM
253	77.1	OR 4	18	4	6	28	32	34	34	2	2	2	2	2	48.00 IN 1219 CM
		6	14	0	8	24	28	30	30	2	2	2	2	2	48.00 IN 1219 CM
278	84.7	6	18	2	8	28	32	34	34	2	2	2	2	2	31.00 IN 784 CM
303	92.4	OR 6	22	4	8	32	36	38	38	2	2	2	2	2	21.00 IN 533 CM
		8	18	0	10	28	32	34	34	2	2	2	2	2	21.00 IN 533 CM

- 1

INSTALL SLEEVE AND END PLATE. THEN BUTT 1.00 SQ. BAR (ITEM 1) AGAINST FLAT ON SLEEVE AND WELD.
- 2

INSTALL PIN AND KEEPER PLATE. THEN BUTT 1.00 SQ. BAR (ITEM 2) AGAINST KEEPER AND WELD.
- 3

BOLT TORQUE: (WITH LOCTITE #271)

APPLY LOCTITE #271 (M.E.C. CODE NO. 622292) TO THREADS OF CAPSCREWS WITH KEEPER PLATE (ITEM 9) AND TORQUE TO 440 FT./LBS. AND TO THREADS OF CAPSCREWS WITH END PLATE (ITEM 11) AND TORQUE TO 145 FT./LBS.
- 4

GREASE FITTING LOCATIONS ARE MARKED WITH THE SYMBOL . USE MOBILUX E.P. #2 GREASE (M.E.C. CODE NO. 471197) OR EQUIVALENT.
- 5

SHOWN IS THE 31.00 PIN POSITION FOR THE 278 FT BOOM. REFER TO TABLE FOR CORRECT PIN POSITION OF THE STRAP TO THE ADJUSTABLE LINK FOR OTHER BOOM LENGTH.
- 6

ASSIST CRANE MUST HAVE SUFFICIENT BOOM LENGTH TO CLEAR JIB STRUT RIGGING ASSEMBLY (SEE REF. DIMENSIONS) AND ENOUGH CAPACITY TO LIFT APPROXIMATELY 35 TONS.
- 7

JIB RAISING - RAISE THE BOOM TO A POINT WHERE THE JIB IS JUST ABOVE THE BLOCKING AND ENGAGE THE JIB STOP ASSEMBLY PIN (SUPPLIED WITH MANUAL PIN PULLER SUB-ASSEMBLY) ON (ITEM 17) AND DISCONNECT THE HANGER FRAME ASSEMBLY (ITEM 12) FROM THE HANDLING POSITION BEFORE CONTINUING TO RAISE.
- 8

JIB LOWERING - LOWER THE BOOM TO A POINT WHERE THE JIB IS JUST ABOVE THE BLOCKING AND RETRACT THE JIB STOP ASSEMBLY PIN (SUPPLIED WITH MANUAL PIN PULLER SUB-ASSEMBLY) ON (ITEM 17) BEFORE CONTINUING TO LOWER.
- 9

(ITEMS 25 & 58) ARE THE SAME PART NO. (173631).
(ITEMS 26, 48 & 59) ARE THE SAME PART NO. (173632).
(ITEMS 27, 49 & 60) ARE THE SAME PART NO. (173633).
(ITEMS 28, 50 & 61) ARE THE SAME PART NO. (173678).
(ITEMS 29, 51 & 62) ARE THE SAME PART NO. (173678).
(ITEMS 31 & 63) ARE THE SAME PART NO. (175195).
(ITEMS 32, 52 & 64) ARE THE SAME PART NO. (175196).
- 10

CONSULT MANITOWOC ENGINEERING FOR WELD PROCEEDURE PRIOR TO DOING ANY WELDING ON THE JIB.
- F

11

INSTALL PIN AND END PLATE. THEN BUTT 1.00 X 1.25 BAR ITEM 15 AS SHOWN AGAINST FLAT ON PIN AND WELD.

BILL OF MATERIAL										ASSEMBLIES USED ON	
ITEM NO.	QTY	DESCRIPTION	UNIT	MATERIAL	QTY	UNIT	QTY	UNIT	QTY	UNIT	
2185-0000 BASIC BILL W/JIB PENDANTS, ETC.											
1	1	BAR 1.00 X 1.00		5.00CF 1018							
2	2	BAR 1.00 X 1.00		8.50CF 1018							
3	4	PLATE			178953						
4	2	BOOM SIGN			22656						
5	4	PIN			178951						
A	6	2PIN			160724						
7	4	WASHER			162803						
8	1	50 FT. #182 JIB			178340						
9	2	KEEPER BAR			173881						
10	2	BOOM HINGE PIN			174203						
11	1	END PLATE			174236						
12	1	LOWER BOOM POINT HANGER FRAME ASSY			175078						
13	1	SLEEVE			174345						
14	1	SPACER			174354						
E	15	2BAR 1.00 X 1.25		5.00A-36							
16	1	ROPE GUARD			175754						
17	1	#182 JIB STOP ASSEMBLY			178349						
18	1	JIB STRUT ASSEMBLY			178769						
19	2	LINK			178796						
20	2	SHEAVE ASSEMBLY			631086						
21	2	STRAP 351.68 INCH			174532						
22	2	STRAP 135 INCH			174511						
23	2	STRAP 135 INCH			174512						
24	2	LINK, ADJUSTABLE			174526						
25	6	STRAP 50 FT.			173631	9					
26	20	LINK 1.25 FT.			173632	9					
27	24	PIN			173633	9					
28	26	COLLAR			173676	9					
29	26	PIN			173678	9					
30	2	PIN			174447						
31	4	BOOM STRAP BRACKET ASSEMBLY			175195	9					
32	10	BOOM STRAP BRACKET ASSEMBLY			175196	9					
33	6	STRAP 25 FT.			175702						
34	2	STRAP 187 INCH			178771						
35	2	JIB LINK			178772						
36	2	BUSHING			178984						
37	1	SPACER			174356						
38	20	LINK			175701						
39	20	PIN			175713						
40	20	COLLAR			175714						
41	20	PIN			175715						
42	4	BRACKET			178952						
B	43	4SLEEVE			179421						
C	44	2PIN			175097						
D	45	2END PLATE			174363						
46											
2185-0010 25 FT STRAP W/BRACKETS COLLARS, PINS, ETC.											
47	2	STRAP 25 FT.			173630						
48	4	LINK 1.25 FT.			173632	9					
49	4	PIN			173633	9					
50	4	COLLAR			173676	9					
51	4	PIN			173678	9					
52	4	BOOM STRAP BRACKET ASSEMBLY			175196	9					
53											
54											
55											
56											
57											
2185-0020 50 FT STRAP W/BRACKETS COLLARS, PINS, ETC.											
58	2	STRAP 50 FT.			173631	9					
59	4	LINK 1.25 FT.			173632	9					
60	4	PIN			173633	9					
61	4	COLLAR			173676	9					
62	4	PIN			173678	9					
63	2	BOOM STRAP BRACKET ASSEMBLY			175195	9					
64	4	BOOM STRAP BRACKET ASSEMBLY			175196	9					
65											
66											
67											
68											
69											