

PARTS REQ'D. FOR VARIOUS JIB LENGTHS - SEE SHEET 3 FOR JIB MAKE-UP																
ITEM NO.		106	100	107	101	105	103	104	102	119	112	113	114	118	108	120
JIB LENGTH		20 FT 6.10 M INSERT #79A	20 FT 6.10 M STRAP	40 FT 12.19 M INSERT #79A	40 FT 12.19 M STRAP	LINK	PIN	PIN	COLLAR	PIN COTTER	PIN 1 HOLE W/HD	PIN 2 HOLE	COLLAR	PIN COTTER	PIN 2 HOLE	PIN COTTER
FEET	METERS															
90	27.4	1	4	0	0	8	12	12	12	24	4	4	4	16	10	4
110	33.5	0	0	1	4	8	12	12	12	24	4	4	4	16	10	4
130	39.6	1	4	1	4	16	20	20	20	40	4	4	4	32	18	4
150	45.7	0	0	2	8	16	20	20	20	40	4	4	4	32	18	4
170	51.8	1	4	2	8	24	28	28	28	56	4	4	4	48	26	4
190	57.9	0	0	3	12	24	28	28	28	56	4	4	4	48	26	4
210	64.0	1	4	3	12	32	36	36	36	72	4	4	4	64	34	4
230	70.1	0	0	4	16	32	36	36	36	72	4	4	4	64	34	4
250	76.2	1	4	4	16	40	44	44	44	88	4	4	4	80	42	4
270	82.3	0	0	5	20	40	44	44	44	88	4	4	4	80	42	4
290	88.4	1	4	5	20	48	52	52	52	104	4	4	4	96	50	4
310	94.5	0	0	6	24	48	52	52	52	104	4	4	4	96	50	4

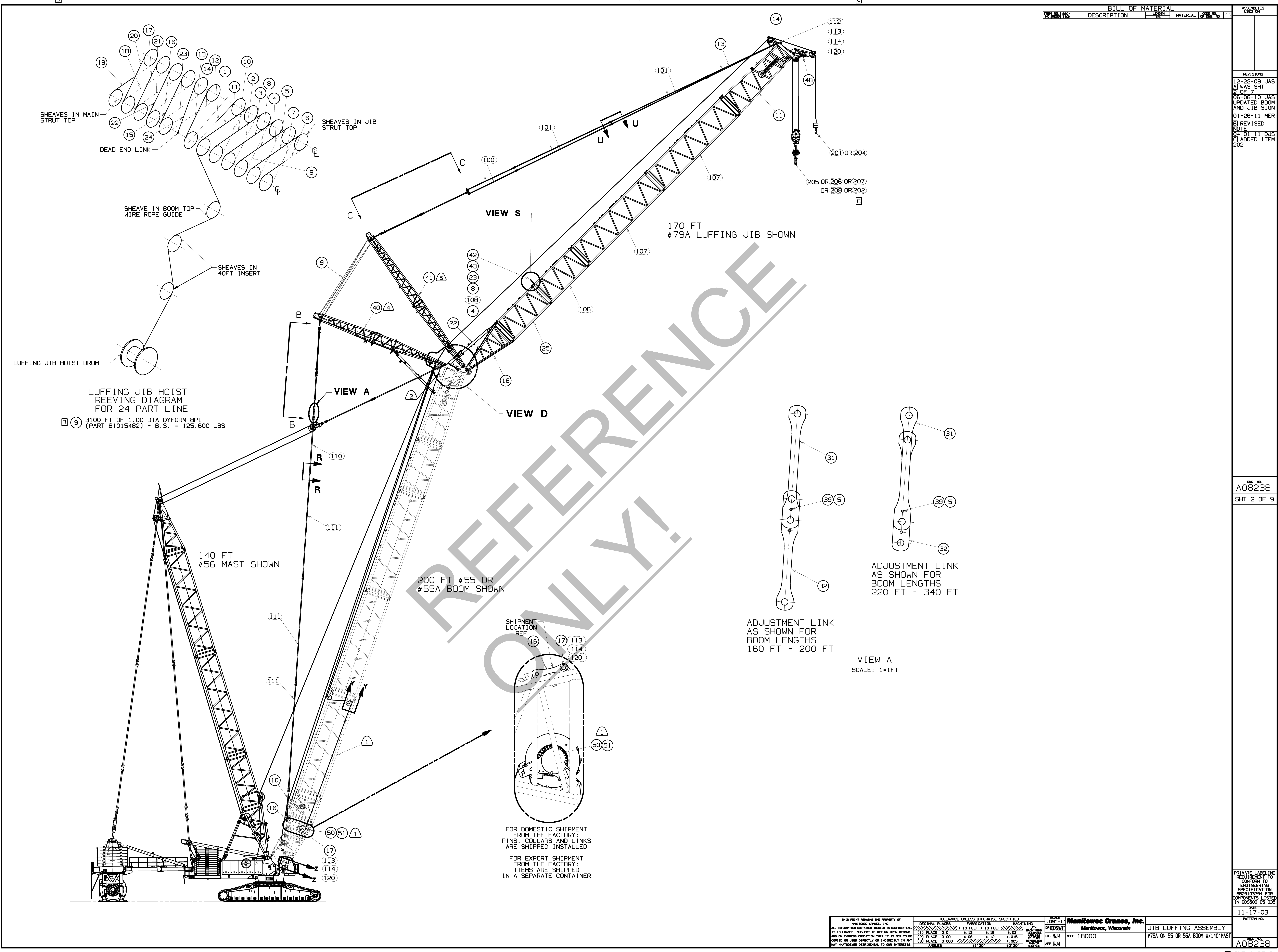
ITEM NO.		110	111	115	112	113	114	120	118	123	124
BOOM LENGTH		20 FT 6, 10 M STRAP	40 FT 12, 19 M STRAP	LINK	PIN	PIN	COLLAR	PIN COTTER	PIN COTTER	PIN 2 HOLE	PIN 2 HOLE
FEET	METERS										
160	48.8	2	4	20	26	30	30	60	28	6	6
180	54.9	0	6	20	26	30	30	60	28	6	6
200	60.9	2	6	24	30	34	34	68	36	8	8
220	67.1	4	6	28	34	38	38	76	36	8	8
		0	8	24	30	34	34	68	44	10	10
240	73.2	2	8	28	34	38	38	76	36	12	12
260	79.2	4	8	32	38	42	42	84	52	10	10
		0	10	28	34	38	38	76	44	12	12
280	85.3	2	10	32	38	42	42	84	60	14	14
300	91.4	4	10	36	42	46	46	92	52	12	12
		0	12	32	38	42	42	84	52	14	14
320	97.6	2	12	36	42	46	46	92	60	16	16
340	103.6	4	12	40	46	50	50	100	52	14	14
		0	14	36	42	46	46	92	60	16	16

BILL OF MATERIAL							
ITEM NO. NO. REQD.	SEC- FIGURE	DESCRIPTION	LENGTH (IN.)	MATERIAL	QTY. OR CMTS.	UNIT	REMARK
NO. REQD. FOR THE FOLLOWING ITEMS ARE IN TABLES						(3)	
100		STRAP 20 FT #79A			179838		
101		STRAP 40 FT #79A			179839		
102		COLLAR			179862		
103		PIN			179863		
104		PIN			179959		
105		LINK			192250		
106		INSERT 20 FT ASSEMBLY #79A			194086	8.24	
107		INSERT 40 FT ASSEMBLY #79A			194087	9.24	
108		PIN			78292		
109							
110		STRAP 20 FT #55 BOOM			A05196	10	
111		STRAP 40 FT #55 BOOM			A05197	10	
112		PIN 1 HOLE W/ HD			A06149	4	
113		PIN COTTER 2 HOLE			A06150	4.5	
114		COLLAR			A06151	4.5	
115		LINK #55 BOOM			A06457	4	
116							
117							
118		PIN COTTER .125 X 1.50			562045		
119		PIN COTTER .188 X 1.50			562085		
120		PIN COTTER .250 X 1.50			562105	4.5	
121							
122							
123		PIN 2 HOLE .63 X 6.75 LG			A07033		
124		PIN 2 HOLE .63 X 6.00 LG			A07034		
125							
126							
127							
OPTIONAL PARTS							
B	201	1	100 T HOOK ASSEMBLY			236505	13
	202	1	BLOCK 200 TON DUPLEX HOOK			81015924	
	204	1	30 T SWIVEL ASSEMBLY			A00816	
	205	1	350 T HOOK ASSEMBLY			A08833	
	206	1	450 T HOOK ASSEMBLY			A07752	
	207	1	500 T HOOK ASSEMBLY			A07773	
	209	1	250MT HOOK ASSEMBLY			A14753	
C	208		CAT WALK ASSY 30 FT #79A TOP			81016917	24
D	210		CAT WALK ASSY 20 FT #79A BUTT			81017344	24
E	211		CAT WALK ASSY 20 FT #79 INSERT			81016910	24
F	212		CAT WALK ASSY 40 FT #79 INSERT			81016911	24

- (4) ITEMS 112, 113, 114, AND 120 FROM MAIN STRUT BUTT AND TOP ARE INCLUDED IN THE BACKSTAY TABLE.
 (5) ITEMS 113, 114, AND 120 FROM JIB STRUT TOP ARE INCLUDED IN THE LUFFING JIB TABLE.
 (6) MAXIMUM NO. OF 20 FT (6.10M) INSERT ASSEMBLIES = 2
 (7) SEE SHT 3 AND 4 FOR BOOM/JIB MAKEUP
 (8) INSERT 20 FT I.D. TAG #193412 OR 81010353
 (9) INSERT 40 FT I.D. TAG #193413 OR 81010396
 (10) DWG A05195
 (11) SEE VIEW "A" FOR PROPER ADJUSTMENT
 (12) REQD FOR JIB RAISING
 (13) USE FOR 2 PART LINE ON UPPER BOOM POINT. ALSO USED FOR MACHINE ASSEMBLY WITH 30 FT LIVE MAST. FOR 28 MM ROPE ONLY.
 (14) 320 FT. AND 340 FT. BOOM LENGTH REQUIRES A 40 FT MEDIUM INSERT ADJACENT TO THE #55 OR #55A BOOM TOP.
 (15) REFER TO LUFFING JIB RAISING PROCEDURE FOR RAISING AND LOWERING BOOM AND JIB.
 (16) WIRE ROPE GUARD IN UPPER BOOM POINT IS TO BE TO BE REMOVED WHEN UPPER BOOM POINT IS IN BOOM DOLLY.
 (17) DWG A06572
 (18) INSERT 20 FT I.D. TAG #A08658
 (19) 81005706 CAN BE USED IN PLACE OF A05460. 81005693 CAN BE USED IN PLACE OF A16449.
 (20) TOP 30 FT I.D. TAG #A05460 OR A16449 OR 81005706 (SEE DELTA 18) OR 81005693 (SEE DETAIL 18)
 (21) BUTT 20 FT I.D. TAG #A07742
 (22) 81010650 CAN BE USED IN PLACE OF A16449. TOP 30 FT. I.D. TAG #81010650.
 (23) 81007957 TO BE SHIPPED AS A LOOSE ITEM TO STOW PARTS FOR THE LUFFING JIB WITH THE #55/55A BOOM #79A LUFFING JIB. REFER TO THE NAMEPLATE AND DECAL ASSEMBLY 81009455 FOR CORRECT LUFFING JIB CONFIGURATION DECALS.
 (24) OPTIONAL CAT WALK ASSEMBLY QTY 1 CAT WALK ASSY PER BOOM SECTION ASSY
- | BOOM SECTION ASSY | OPTIONAL CAT WALK ASSY |
|-------------------|------------------------|
| A05401 | 81016917 |
| A07741 | 81017344 |
| A08659, 194086 | 81016910 |
| 194087 | 81016911 |

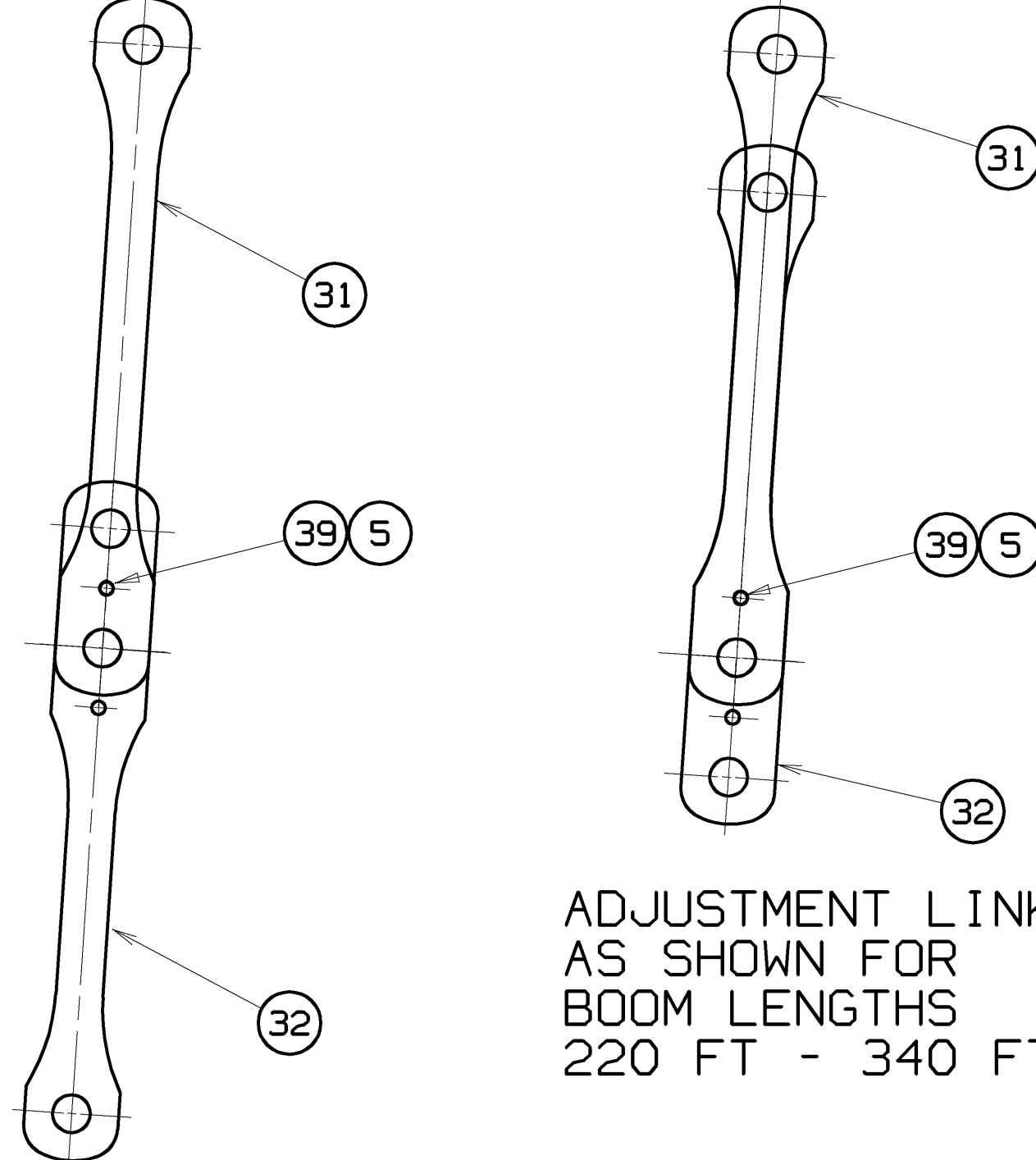
BILL OF MATERIAL						
ITEM NO. OR REQD.	SEC. ITEM	DESCRIPTION	QUANTITY IN	MATERIAL	QTY. OF THIS NO.	UNIT
LUFFING JIB ASSEMBLY #79A						
1	1	PIN 1 HOLE W/HD .50 DIX X 1.25 LG		143889		
2	16	COLLAR		173676		
3	16	PIN		173678		
4						
5	36	PIN COTTER		562149		
6	8	PIN COTTER		562152		
7	2	SPACER		166316		
8	4	PIN SNAP		563823		
A	1	WIRE ROPE 1.00 DIA W/ EYES		81015482		
10	2	STRAP 10 FT #55 BOOM		A05198	10	
11	1	TOP 30 FT ASSEMBLY		A05401	19.20, 22.24	
12	1	ELECTRIC CONTROL ASSY BOOM WIRING+LIMITS		A05580		
13	4	STRAP		A06348	17	
14	8	LINK		A06349		
15		PIN COTTER 2 HOLE		A07565		
16	2	LINK #55 BOOM		A07498		
17	4	PIN 1 HOLE W/HD		A07517		
18	1	BUTT 20 FT ASSEMBLY		A07741	21.24	
19	2	PIN		A07794		
20	2	EQUALIZER		A07877		
21	4	PIN		A07878		
22	1	JIB STOP ASSEMBLY		A08706		
23	2	PIN		A08211		
24						
25	1	INSERT 20 FT ASSEMBLY #79A		A08659	16.24	
26	4	PIN		A08916		
27	8	PIN		A08917		
28	4	LINK		A08918		
29	4	LINK		A08919		
30	8	STRAP		A08920		
31	4	LINK		A08921		
32	2	LINK		A08922	11	
33	1	SPREADER		A08924		
34	1	SPREADER		A08925		
35	2	LINK		A08926		
36	2	LINK		A08927		
37	2	STRAP		A08928	10	
38	2	STRAP		A08929	10	
39	2	PIN		A08944		
40	1	MAIN STRUT ASSEMBLY 50 FT		A09134		
41	1	JIB STRUT ASSEMBLY 59 FT		A09135		
42	1	BRACKET RH STRAP SUPPORT		A09167		
43	1	BRACKET LH STRAP SUPPORT		A09168		
44	2	PIN		177243	12	
45	1	BOOM DOLLY		394502	12	
46	2	PIN COTTER		562151	12	
47	1	ADAPTER FRAME		A04975	12	
48	1	UPPER BOOM POINT ASSEMBLY		A08516	12	
49						
50	1	DRUM ASSY LUFFING		A04331	1	
51	2	PAWL ASSEMBLY LUFFING DRUM		A06344	1	
52	1	GUARD WIRE ROPE ASSEMBLY LUFFING LINE		A06399	1	
53						
54						
55	1	PARTS BOX FOR PARTS STORAGE		81007957	23	
56						
57						
58						
59						
60	4	PIN COTTER .250 X 1.75		562106		
61	4	PIN COTTER .125 X 1.50		562045		
62						
63	3	NUT HEX .375-16UNC-2B		546054		
64	1	NUT LOCK .313-18UNC-2B		548343		
65	1	PIN COTTER .125 X 1.25		562044		
66						
67						
68	1	SCR CAP HEX HD .313-18UNC-2A X 2.00		612413		
69	3	SCR CAP HEX HD .375-16UNC-2A X 2.00		612454		
70	32	SCR CAP HEX HD .625-11UNC-2A X 1.75		612663		
71	1	SHEAVE WIRE ROPE .188 W.R.		631094		
72	2	WASHER FLAT .50		709460		
73	3	WASHER LOCK .375		710304		
74	32	WASHER LOCK .625		710307		
75						
76	1	WASHER FLAT .375		709703		
77	1	WINCH MOUNTING		A08712		
78						
79	2	PIN KEEPER 6.50 DIA X 9.25 LG		A07939		
80	2	PIN KEEPER 6.50 DIA X 12.19 LG		A07940		
81	8	PLATE KEEPER 20 MM		A07941		
82	8	PLATE END		A07942		
83	2	SPACER 8.50 OD X 6.53 ID X 1.50 LG		A07943		

SUPERSEDES A08238 SHT 1 OF 7 OF 11-12-09

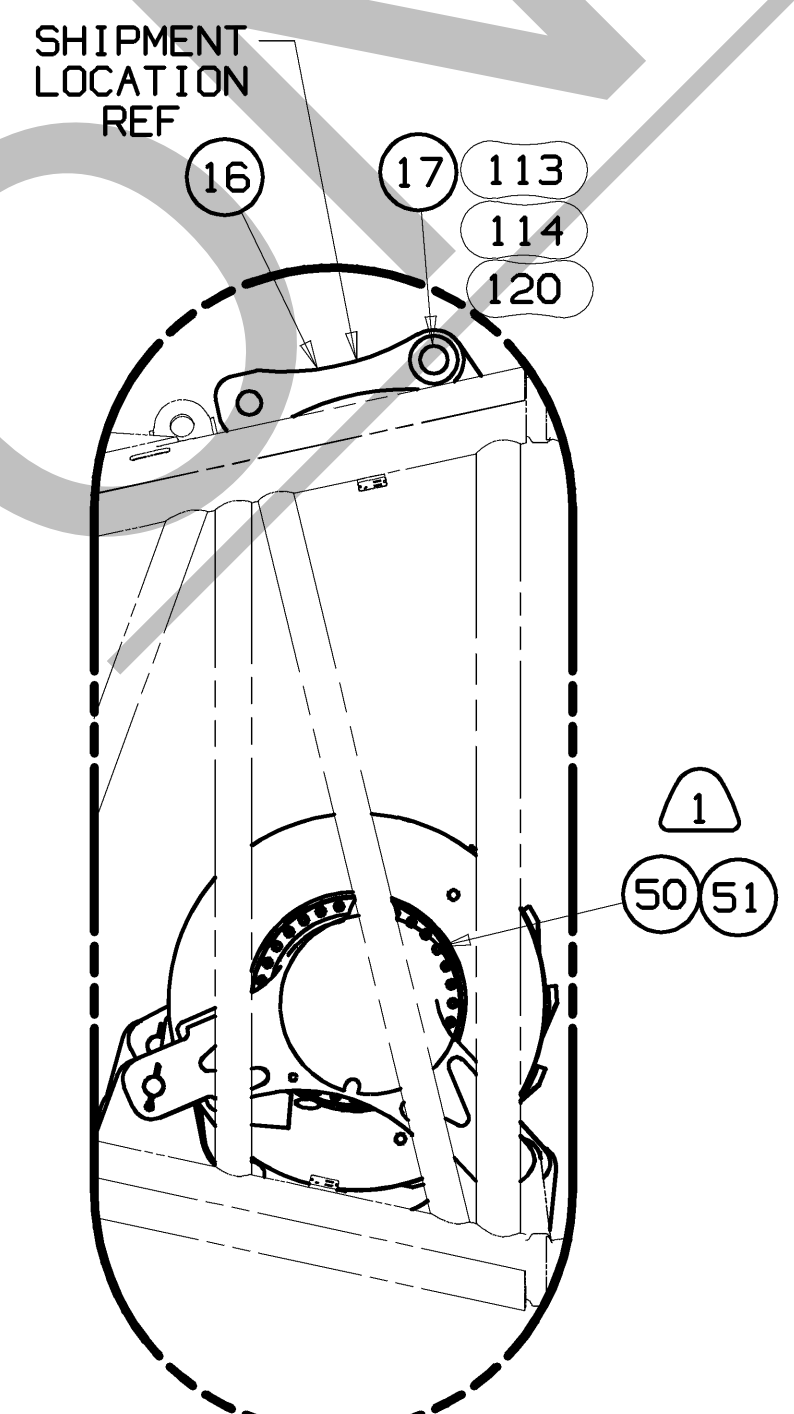


BILL OF MATERIAL					ASSEMBLIES USED ON
ITEM NO.	REV.	DESCRIPTION	QUANTITY	MATERIAL	DATE
REVISIONS					
12-22-09 JAS					
A) WAS SHT					
2 OF 7					
06-08-10 JAS					
UPDATED BOOM					
AND JIB SIGN					
01-26-11 MER					
B) REVISED					
NOTE					
04-01-11 DJS					
C) ADDED ITEM					
202					

LUFFING JIB HOIST
REEVING DIAGRAM
FOR 24 PART LINE
9 3100 FT OF 1.00 DIA DYFORM 8P1
(PART 61015482) - B.S. = 125,600 LBS

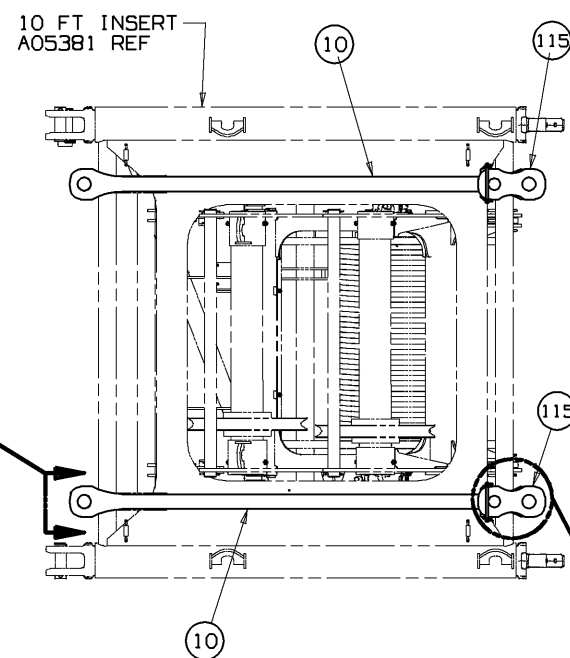
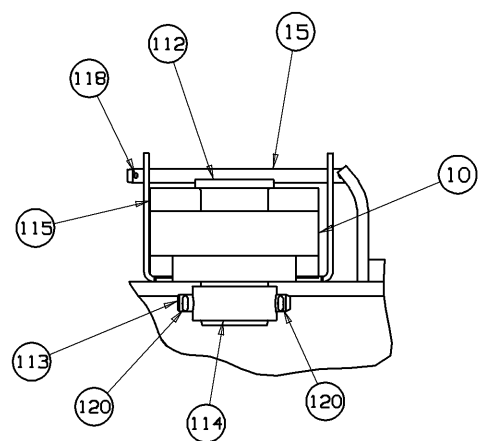


VIEW A
SCALE: 1=1FT

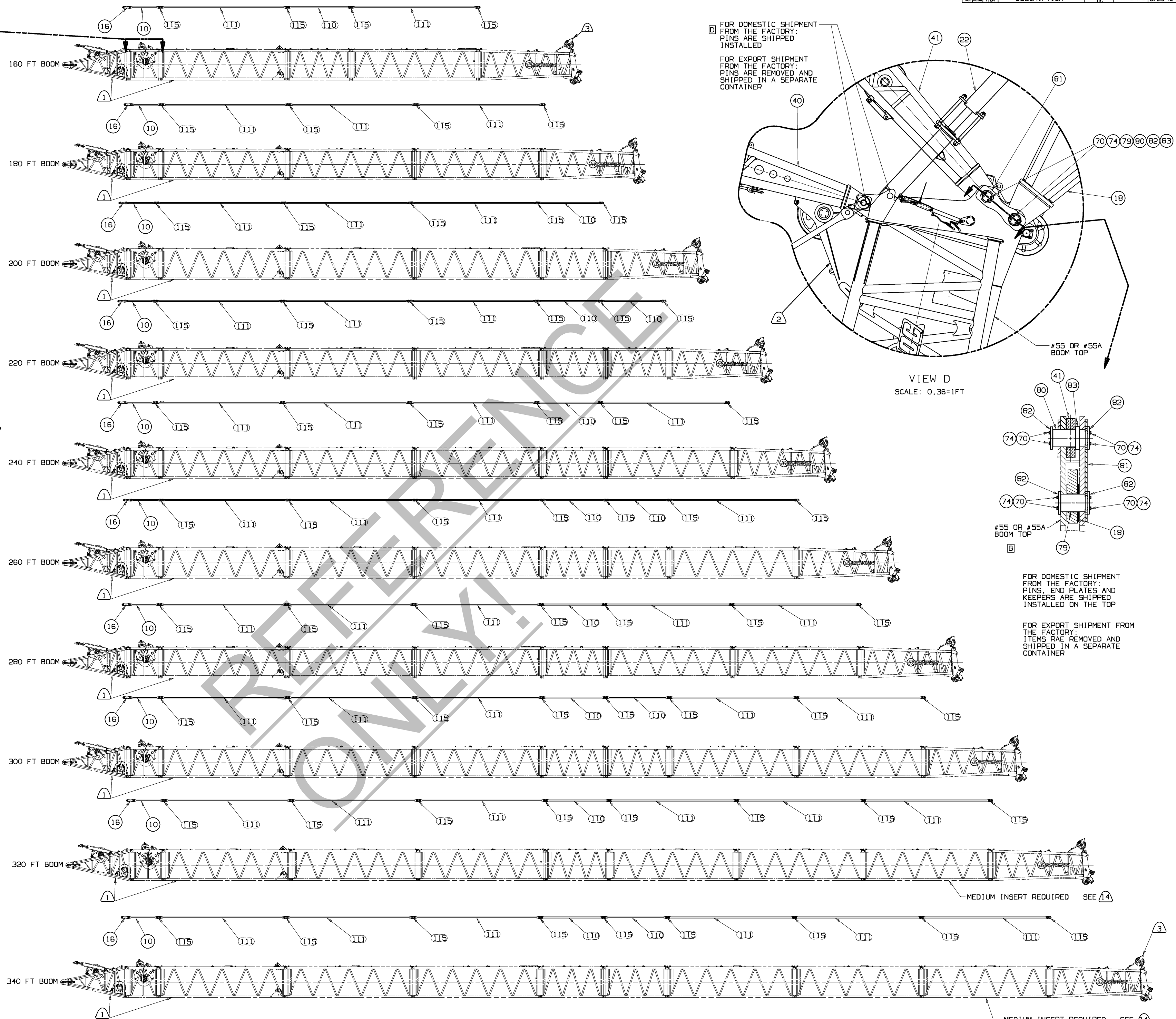
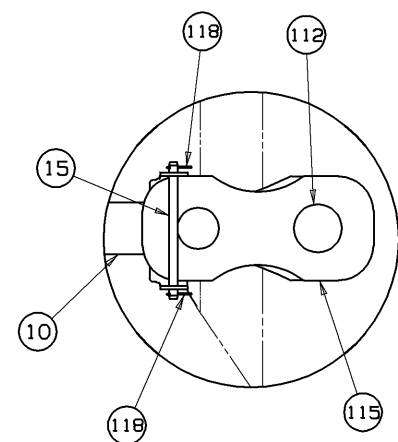


FOR DOMESTIC SHIPMENT
FROM THE FACTORY:
PINS, COLLARS AND LINKS
ARE SHIPPED INSTALLED
FOR EXPORT SHIPMENT
FROM THE FACTORY:
ITEMS ARE SHIPPED
IN A SEPARATE CONTAINER

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(1) PLACE	0.0	±.12	±.18	±.05	±.015	±.005	MODEL 18000	#79A ON 55 OR 55A BOOM W/140' MAST
(2) PLACE	0.00	±.06	±.12	±.015	±.005	±.005		
(3) PLACE	0.000	±.03	±.06	±.005	±.005	±.005		
ANGLES		±.1°	±.1°	±.1°	±.1°	±.1°		



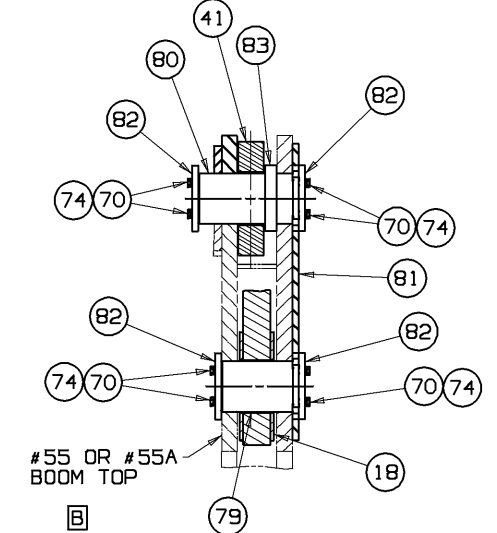
LINKS AND PINS SHOWN
STOWED AND SHIPPED
FROM THE FACTORY



FOR DOMESTIC SHIPMENT
FROM THE FACTORY:
PINS ARE SHIPPED
INSTALLED

FOR EXPORT SHIPMENT
FROM THE FACTORY:
PINS ARE REMOVED AND
SHIPPED IN A SEPARATE
CONTAINER

VIEW D
SCALE: 0.36=1FT



FOR DOMESTIC SHIPMENT
FROM THE FACTORY:
PINS, END PLATES AND
KEEPERS ARE SHIPPED
INSTALLED ON THE TOP

FOR EXPORT SHIPMENT FROM
THE FACTORY:
ITEMS RAE REMOVED AND
SHIPPED IN A SEPARATE
CONTAINER

RECOMMENDED #55 OR #55A BOOM/BACKSTAY STRAP ASSEMBLY
(REFERENCE)
SEE TABLE ON SHT. 1
SCALE: 0.096=1FT

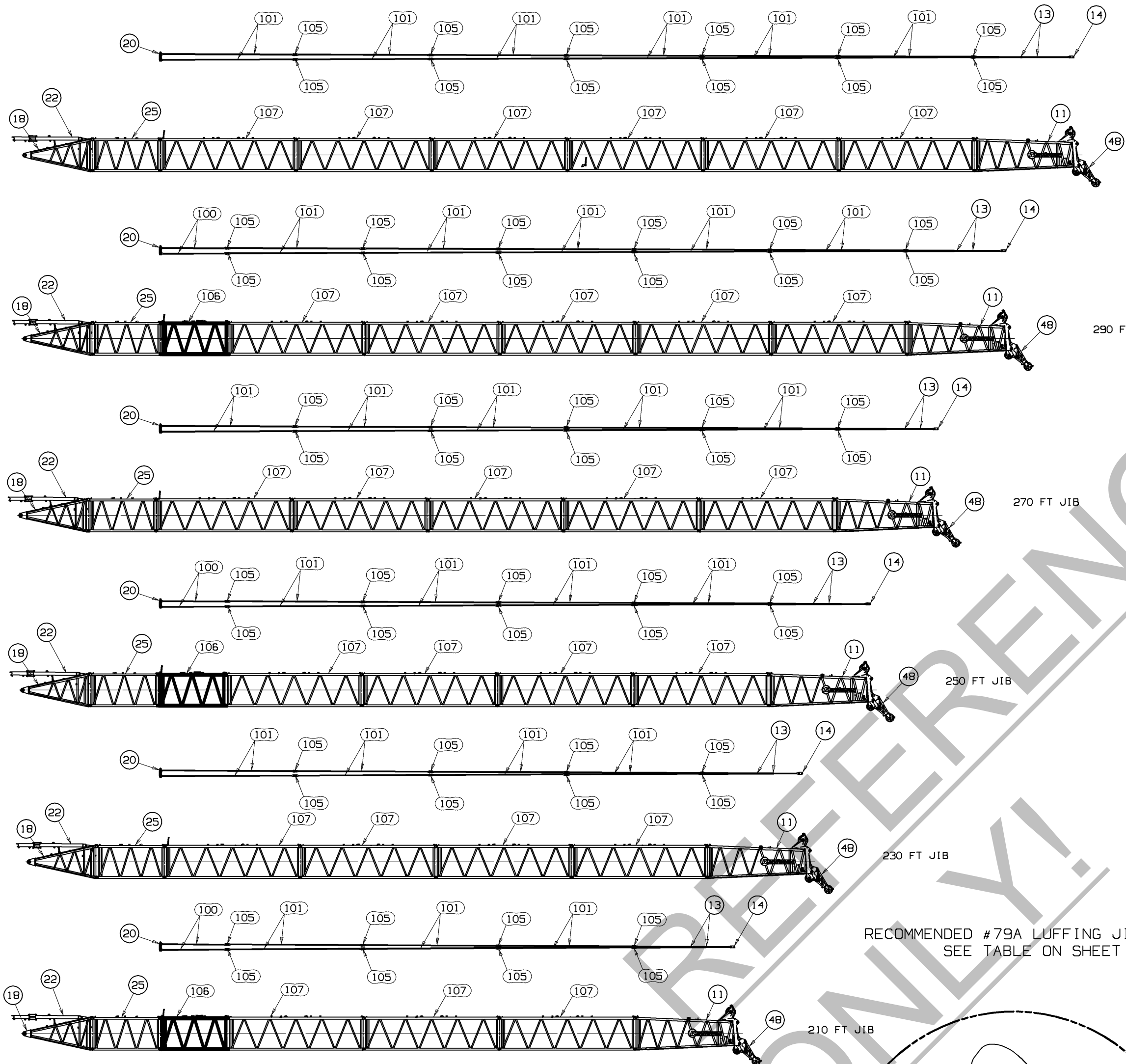
TOLERANCE UNLESS OTHERWISE SPECIFIED		FABRICATION		MACHINING		WELDING		ASSEMBLY	
DECIMAL PLACES		1/16" TO 1/8"	1/4" TO 1/2"	1/2" TO 1"	1" TO 2"	2" TO 4"	4" TO 6"	6" TO 12"	OVER 12"
(1) PLACE	0.00	±.015	±.010	±.008	±.006	±.005	±.004	±.003	±.002
(2) PLACE	0.00	±.006	±.005	±.004	±.003	±.002	±.001	±.001	±.001
(3) PLACE	0.000	±.002	±.001	±.001	±.001	±.001	±.001	±.001	±.001
ANGLES		±1°	±1°	±1°	±1°	±1°	±1°	±1°	±1°

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BILL OF MATERIAL				
ITEM NO.	QTY	DESCRIPTION	LENGTH	MATERIAL

ASSEMBLIES USED IN

REVISIONS
02-02-04 MJW ADDED VIEW 12-22-05 JAS B WAS SHEET 4 OF 7 ADDED VIEWS 06-08-10 JAS UPDATED JIB SIGN



310 FT JIB

290 FT JIB

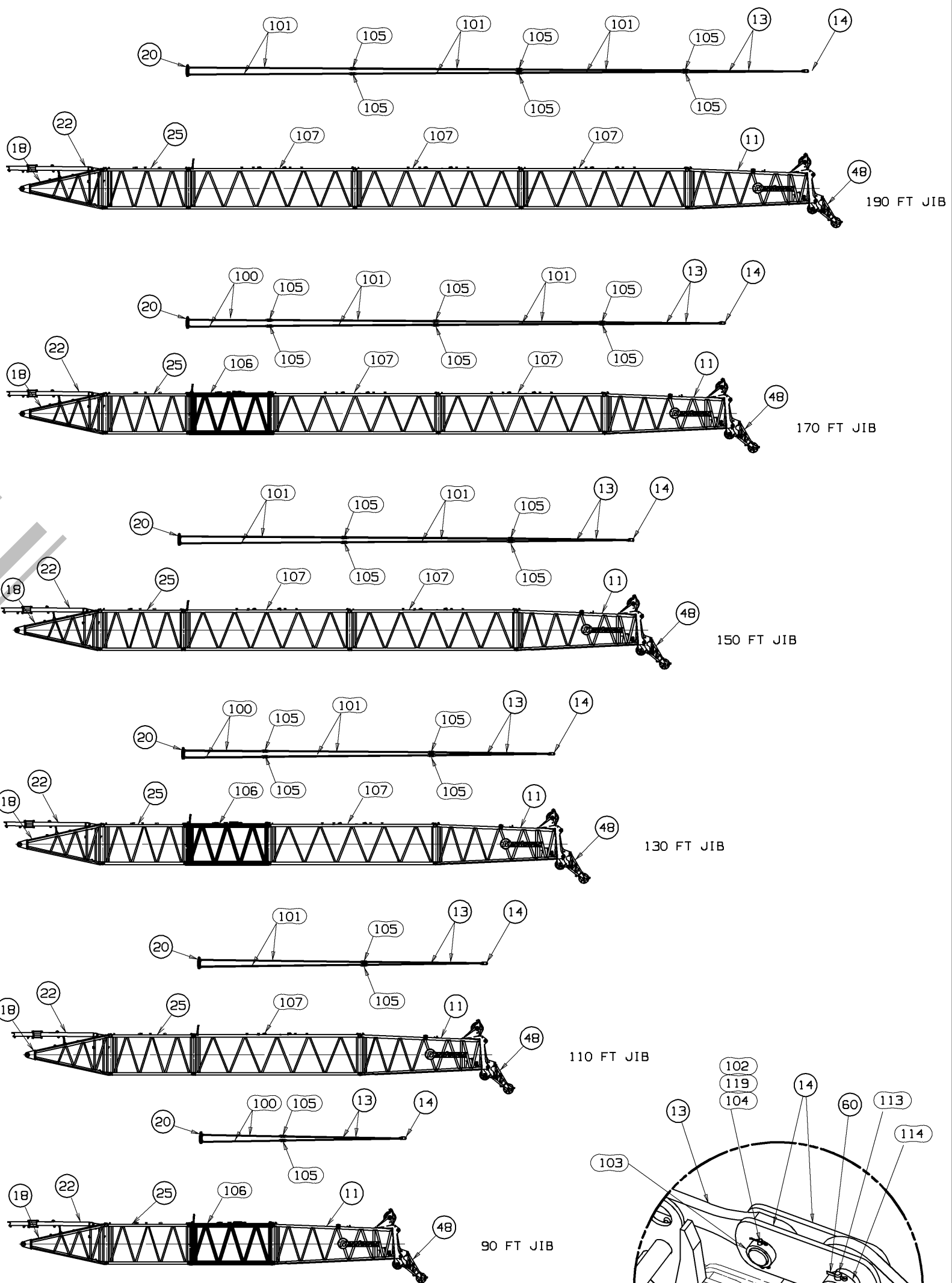
270 FT JIB

250 FT JIB

230 FT JIB

210 FT JIB

RECOMMENDED #79A LUFFING JIB ASSEMBLY
SEE TABLE ON SHEET 1



190 FT JIB

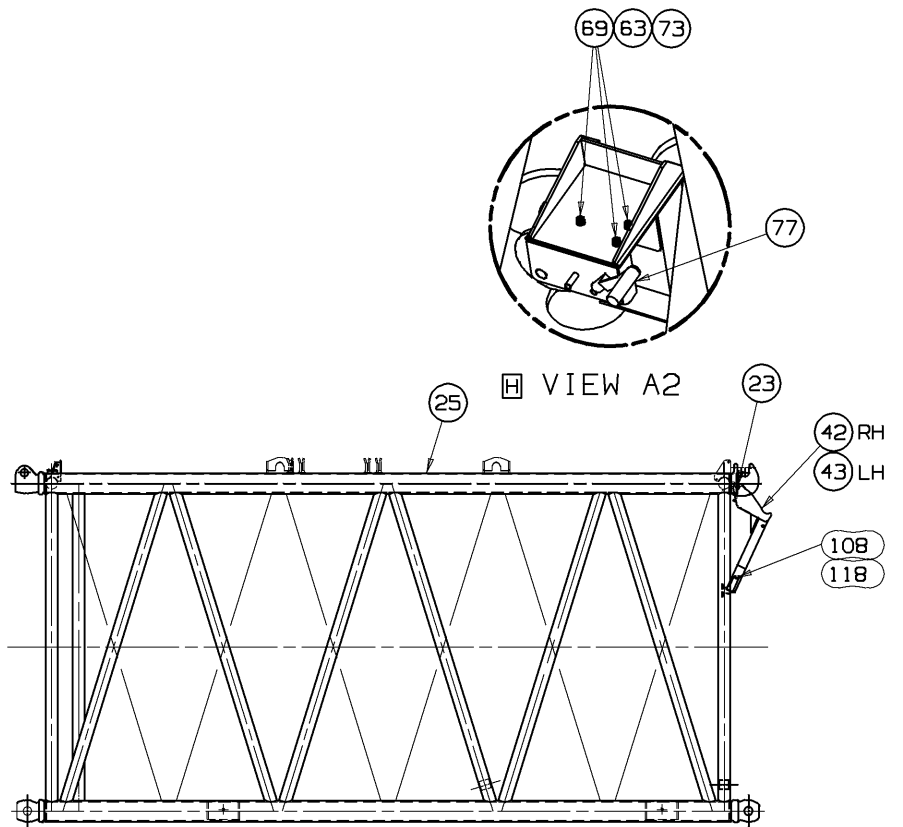
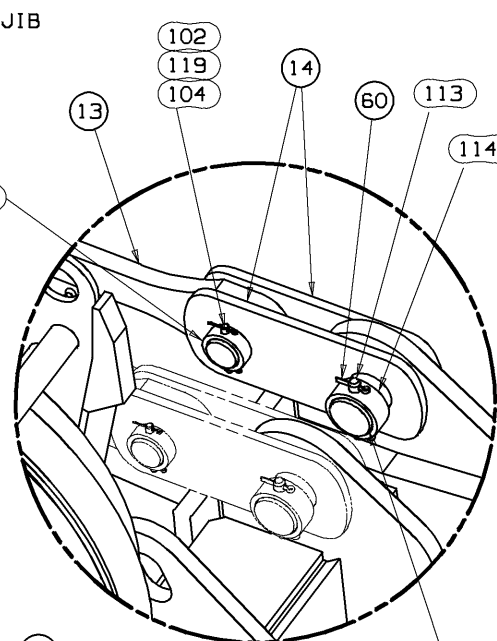
170 FT JIB

150 FT JIB

130 FT JIB

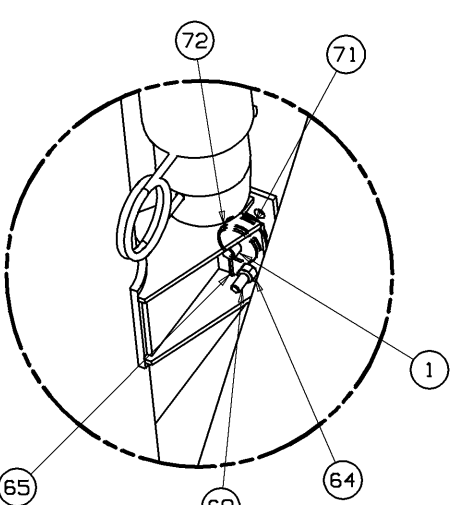
110 FT JIB

90 FT JIB

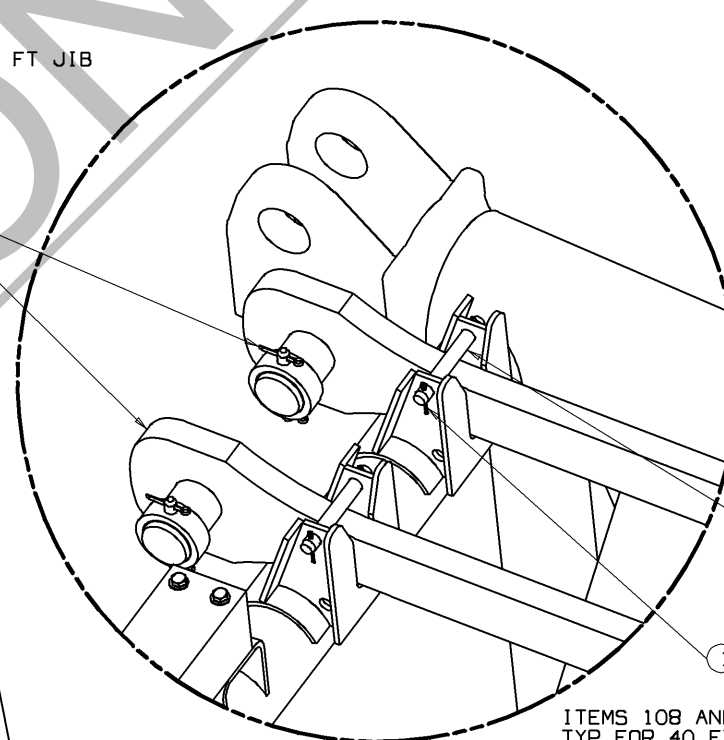


SHIPPING JIB INSERT WITH STRAP SUPPORT BRACKET

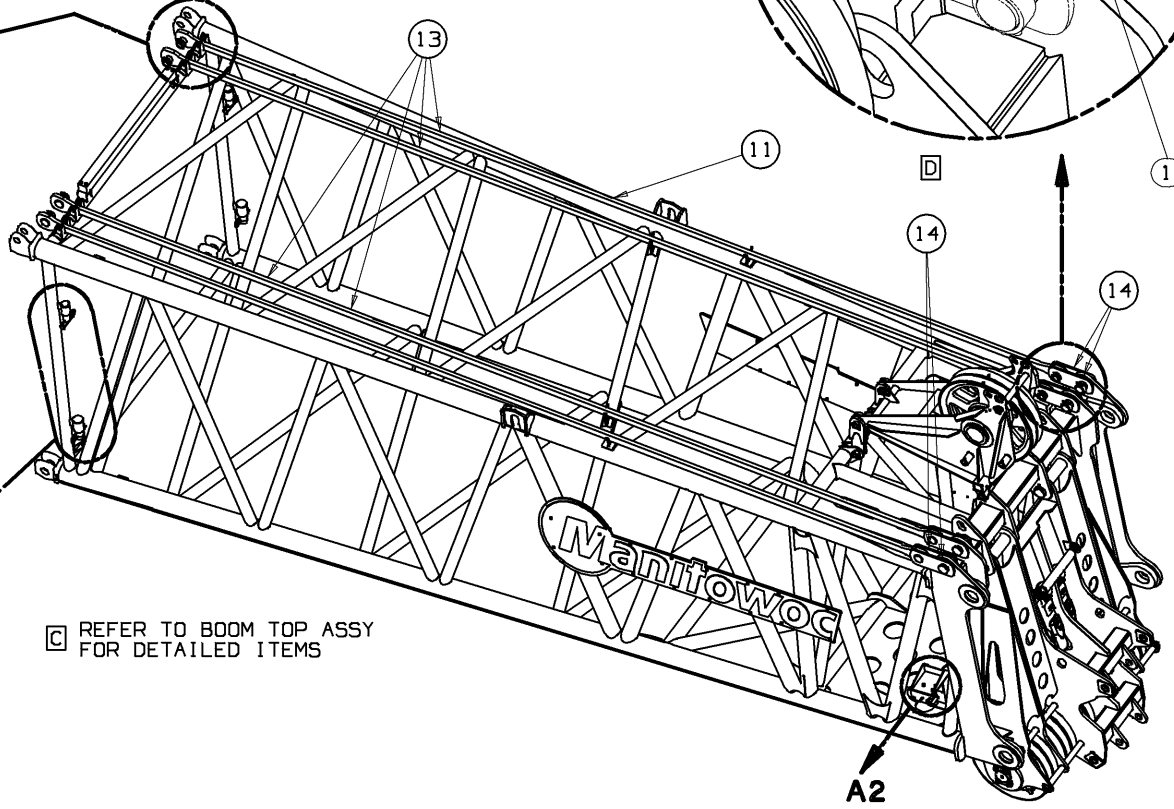
UNPIN STRAP SUPPORT BRACKET FROM INSERT. TURN BRACKET AROUND AND PIN TO INSERT AS SHOWN. PIVOT BRACKET DOWN TO ALIGN HOLES IN BRACKET WITH SLOTS IN LUG ON INSERT AND INSERT PIN ITEM 1.



CONNECTOR PIN STORAGE TYPE



ITEMS 108 AND 118 ARE
TYP FOR 40 FT BOOM SECTION
A05387. 20 FT BOOM SECTION
A05383. 20 FT BOOM SECTION
A07118. 40 FT BOOM SECTION
A07119. TO STOW BACKSTAY
STRAPS



REFER TO BOOM TOP ASSY
FOR DETAILED ITEMS

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BILL OF MATERIAL					ASSEMBLIES USED IN
NO.	QTY.	DESCRIPTION	UNIT	MATERIAL	

STRUT RAISING PROCEDURE

- STRUTS TO BE ASSEMBLED AND BLOCKED AS SHOWN IN VIEW "F". ASSEMBLE JIB STRUT HINGE PIN AND KEEPER PLATE IN PROPER ORIENTATION AND TEMPORARILY ATTACH END PLATES (SEE VIEW "D" ON SHT 2). TWO UPPER MACHINE COUNTERWEIGHTS TO BE POSITIONED UNDER JIB STRUT TOP AS SHOWN. COUNTERWEIGHT TIE LINKS TO BE DISCONNECTED. ATTACH COUNTERWEIGHT TO JIB STRUT TOP USING SUITABLE MEANS. CAPACITY OF ATTACHMENT HARDWARE MUST BE 25,000 POUNDS OR GREATER PER SIDE. REEVE STRUTS. PULLING AN ADDITIONAL 100 FT ON THE DEAD END AND PAYING OUT LUFFING HOIST WILL ALLOW MAIN STRUT TOP TO BE MOVED TO ERECTION POSITION VIEW "H". ASSEMBLE BACKSTAY STRAPS AND POSITION ITEMS 32 PER VIEW "A" SHT 1 FOR ASSEMBLED BOOM LENGTH. REMOVE ROPE GUARDS FROM WIRE ROPE GUIDE ON BOOM TOP (SEE VIEW "W").
- STRUT STOP ASSEMBLIES TO BE RETRACTED AND PINNED TO MAIN STRUT BUTT. STOP TUBE PRESSURES TO BE WITHIN 5 PSI OF EACH OTHER. PRESSURE GAGE TO BE:
260 PSI $\pm$ 5 PSI AT 90°F (32 DEG C)
250 PSI $\pm$ 5 PSI AT 70°F (21 DEG C)
240 PSI $\pm$ 5 PSI AT 50°F (10 DEG C)
230 PSI $\pm$ 5 PSI AT 30°F (-1 DEG C)
- ATTACH ASSIST CRANE (110 FT BOOM MIN. WITH 60,000# CAPACITY REDUCED TO LIFTING LINKS FROM MAIN STRUT ASSEMBLY WITH A 55 TON SHACKLE (SEE VIEW "T"-"T") CONNECT PENDANTS TO LINKS ON MAIN STRUT TOP. RUN LOAD LINE FROM DRUM 3 SHEAVE IN MAST OVER CENTER OF BOOM EQUALIZER TO LINK (SEE VIEW "G" AND "T"-"T"). RAISE MAIN STRUT WHILE PAYING OUT LUFFING HOIST LINE. DO NOT RAISE UPPER COUNTERWEIGHT BOX OFF OF LOWER BOX. CONTROL HOIST SPEED BY WATCHING UPPER COUNTERWEIGHT ROCK. AFTER RAISING MAIN STRUT TO 35-45 DEGREES USE LOAD LINE TO PULL STRUT WHILE FOLLOWING WITH ASSIST CRANE.
- CONTINUE TO PAY OUT LUFFING HOIST LINE WHILE EASING MAIN STRUT OVER CENTER AND LOWER STRUT UNTIL BACKSTAY STRAPS CAN BE CONNECTED. CONNECT BACKSTAY STRAPS.
- CONNECT TIE LINKS BETWEEN TWO COUNTERWEIGHT BOXES AT JIB STRUT TOP. SLOWLY RAISE MAIN STRUT BY TAKING UP LUFFING HOIST LINE UNTIL STOP ASSEMBLIES CAN BE POSITIONED. PIN STOP ASSEMBLIES TO BOOM TOP. (SEE VIEW "E")
- WITH STRUT STOP ASSEMBLIES PINNED TO LUGS ON BOOM, REMOVE STOWAGE AND SHIPPING PINS (CAUTION: DO NOT REMOVE CYLINDER ROD RETAINING PINS AT THIS TIME.) (SEE VIEW "H" AND "V").
- SLOWLY RAISE MAIN STRUT BY TAKING UP LUFFING HOIST LINE UNTIL INNER STOP TUBE END SLOT LINES UP WITH OUTER TUBE LOWER HOLE AND INSERT PINS. PAY OUT LUFFING HOIST LINE TO LOWER JIB STRUT BACK TO BLOCKING AND ALLOW A SMALL AMOUNT OF SLACK IN REEVING.
- USING HOIST LINE FROM DRUM 3, SLOWLY PULL MAIN STRUT BACK TO REMOVE LOAD IN CYLINDER ROD RETAINING PINS. CAUTION: PULL ONLY ENOUGH TO REMOVE LOAD ON PINS OR DAMAGE TO STRUT AND STOPS MAY OCCUR. STOW PINS IN HOLES PROVIDED. PAY OUT LOAD HOIST LINE. CYLINDERS WILL EXTEND ALLOWING STRUT TO ROTATE FORWARD. (SEE VIEW "V").
- REMOVE ASSIST CRANE FROM MAIN STRUT ERECTION PENDANTS AND POSITION LOAD LINE FROM DRUM 3 BEHIND EQUALIZER. CARE MUST BE TAKEN DURING ERECTION TO PREVENT DAMAGE TO LOAD LINE. STOW ERECTION LINKS AND PENDANTS IN PROPER LOCATION ON MAIN STRUT TO PREVENT DAMAGE TO STRUT AND STOPS. REPLACE ROPE GUARDS IN WIRE ROPE GUIDE ON BOOM TOP (SEE VIEW "W").
- DISCONNECT COUNTERWEIGHT FROM JIB STRUT TOP.
- LUFF UP ON LUFFING HOIST LINE TO BEGIN RAISING JIB STRUT.
- CONNECT JIB STRAPS, LINKS, SPREADER AND PINS AS REQUIRED WHILE RAISING JIB STRUT TO A MAXIMUM OF 70 DEGREES TO HORIZONTAL.
- ASSEMBLE JIB BUTT AND TWO INSERTS. USE A FOUR POINT HOOKUP WITH SLINGS AROUND CHORDS AND ATTACH TO BOOM TOP. APPLY TO THREADS LOCTITE #242 (MCC OBJECT NO. 822293) AND TORQUE CAPSCREWS ON JIB STRUT AND JIB BUTT END PLATES TO 100 FT/LBS. (SEE VIEW "D" SHT 2)
- PULL STRUT FORWARD AND CONNECT JIB STRAPS AT JIB STRAP EQUALIZER. FINISH ASSEMBLY OF JIB AND CONNECT STRAPS. (SEE VIEW "S", "C"-"C" AND "U" ON SHT 4).
- PLACE JIB WITH UPPER BOOM POINT IN ADAPTER ON DOLLY.
- PERFORM JIB STOP CHECKS AND PREPARATIONS FOR RAISING JIB. (SEE SHEET 6)
- LUFFING JIB IS READY FOR RAISING AND OPERATION. REFER TO LUFFING JIB RAISING PROCEDURE FOR RAISING AND LOWERING BOOM AND JIB.

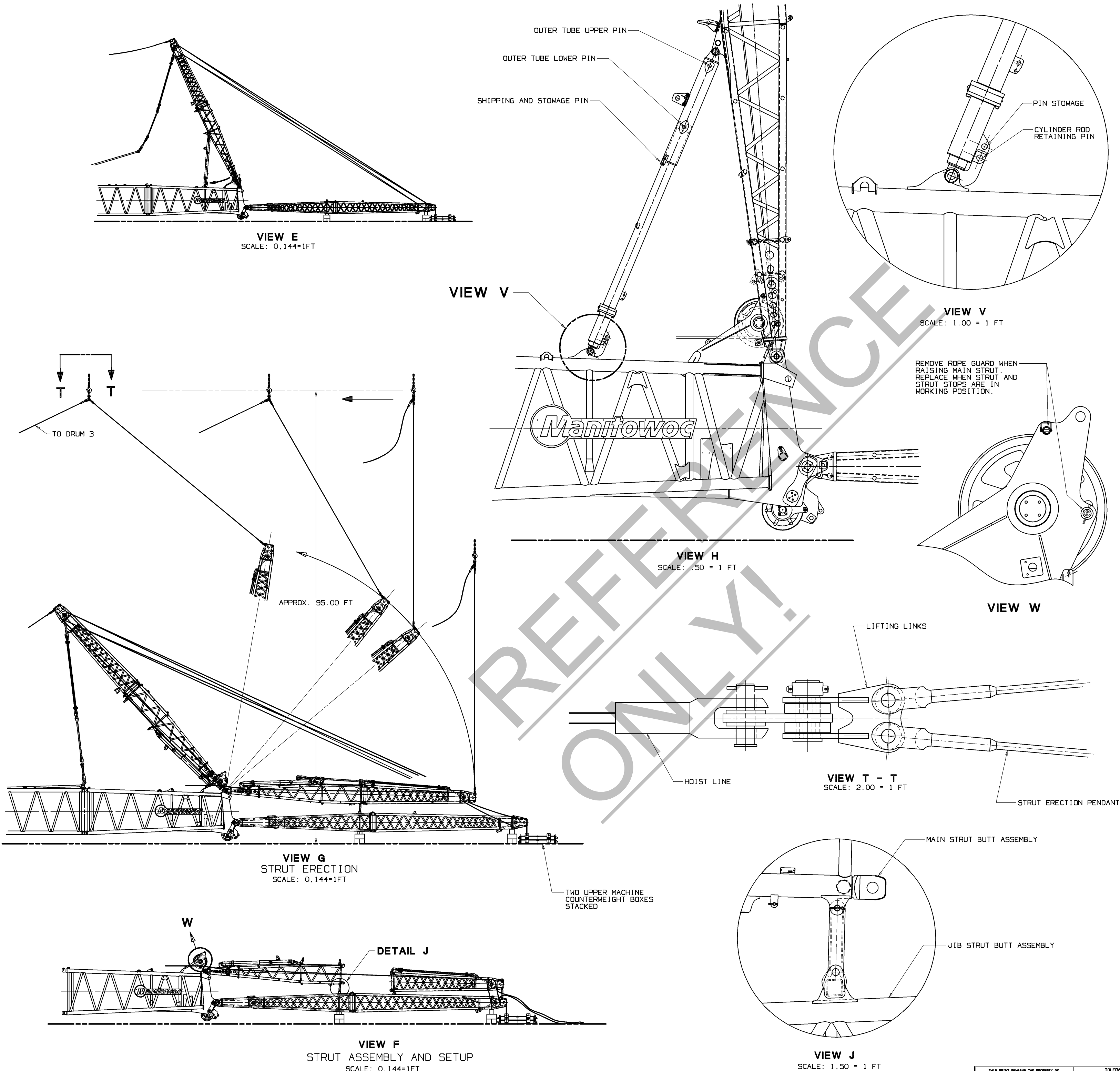
STRUT LOWERING PROCEDURE

- WITH JIB UPPER POINT IN ADAPTER ON DOLLY LOWER BOOM AND LUFFING JIB TO 140 DEGREES BETWEEN BOOM AND JIB
- PERFORM JIB STOP PROCEDURE FOR LOWERING BOOM AND JIB. (SEE SHT 6) THEN CONTINUE TO LOWER BOOM AND JIB TO BLOCKING.
- DISCONNECT JIB STRAPS AND REMOVE JIB.
- LOWER JIB STRUT WITH LUFFING HOIST AND REMOVE STRAPS, SPREADER, LINKS AND PINS. JIB STRUT MAY NEED TO BE PULLED FORWARD TO START LOWERING. SUPPORT JIB STRUT ON BLOCKING. AS SHOWN IN VIEW "F" AND "G".
- TIE OFF JIB STRUT TOP TO COUNTERWEIGHT BOXES AS SHOWN IN VIEW "G". BOXES MUST BE CONNECTED WITH LINKS.
- LUFF DOWN WITH LUFFING HOIST TO ALLOW SLACK IN REEVING. REMOVE ROPE GUARDS AS INDICATED IN VIEW "W".
- ATTACH ASSIST CRANE TO STRUT ERECTION PENDANTS. LINKS AND HOIST LINE FROM DRUM 3 ROPE GUIDE IN MAST. SLOWLY PULL MAIN STRUT BACK TO RETRACT CYLINDERS IN STRUT STOPS. (CAUTION: ONLY PULL BACK ENOUGH TO ALIGN CYLINDER ROD RETAINING PIN HOLES OR DAMAGE TO STRUT AND STRUT STOPS MAY OCCUR) INSERT PINS. (SEE VIEW "V").
- LUFF UP WITH LUFFING HOIST TO TAKE LOAD OFF OF OUTER TUBE LOWER PINS. REMOVE PINS AND PLACE THEM IN OUTER TUBE UPPER PIN HOLE. LUFF DOWN TO RETRACT STRUT STOP TUBES. INSERT STOWAGE AND SHIPPING PINS. LUFF UP SLIGHTLY TO REMOVE LOAD FROM STRUT STOP PINS TO BOOM TOP. REMOVE PINS AND LUFF UP UNTIL STOPS CAN BE SHUNG TO STRUT AND INSTALL STOWAGE PINS. LUFF DOWN UNTIL BACKSTAY STRAPS CAN BE DISCONNECTED. DISCONNECT BACKSTAY STRAPS.
- DISCONNECT TIE LINKS BETWEEN COUNTERWEIGHT BOXES AT JIB STRUT TOP. SLOWLY LUFF UP AND FOLLOW WITH ASSIST CRANE AND HOIST LINE TO MOVE MAIN STRUT OVER CENTER. LOWER MAIN STRUT TO JIB STRUT FOR DISASSEMBLY.

REVISED	DATE	BY	DESCRIPTION
01-23-04	MJM		REVISED STRUT RAISING PROCEDURE & ADDED VIEW W
12-28-09	JAS		ADDED SHT 6 OF 7
06-08-10	JAS		UPDATED BOOM SIGN

ENG. NO.	A08238
SHT	6 OF 9

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN 662920-06-026	DATE	10-17-03
PATTERN NO.		
ENG. NO.		A08238



JIB STOP POSITIONER SETUP AND OPERATION.

INITIAL SET UP

1. CYLINDERS BEGIN RETRACTED AND CONNECTED TO JIB STOPS.
2. VERIFY THAT THE ACCUMULATOR IS CHARGED TO 1730 PSI @ 70 DEG. F. THIS MUST APPEAR ON THE ACCUMULATOR NAMEPLATE.
3. PUT 2.5 GALLONS OF PREFILTERED HYD. OIL IN THE RESERVOIR. LEAVE THE FILL CAP OFF.
4. PRIME PUMP BY PRESSURING RESERVOIR SLIGHTLY.
5. BEGIN PUMPING HAND PUMP. BLEED CYLINDER AND ACCUMULATOR LINES. WHEN CLEAR FLUID FLOW RESULTS CLOSE LINES.
6. CONTINUE PUMPING AND CYLINDERS WILL EXTEND.
7. WHEN THE CYLINDER IS FULLY EXTENDED, ENERGIZE THE VALVES AND THE CYLINDERS WILL RETRACT BY THE WEIGHT OF THE JIB STOP.
8. REPEAT STEPS 6 AND 7 FOR 3 CYCLES TO EVACUATE ALL AIR FROM CYLINDERS AND LINES.
9. PUMP UNTIL CYLINDERS ARE FULLY EXTENDED.
10. ADJUST TANK OIL LEVEL TO TOP MARK ON THE DIPSTICK. THE DIPSTICK SHOULD REST ON THE TANK FITTING FOR PROPER OIL LEVEL CHECK.
11. PUMP UNTIL THE OIL LEVEL IS AT THE LOW MARK ON THE DIPSTICK. NOTE THE GAGE READING MUST BE BETWEEN 2450 PSI AND 2500 PSI. RECORD THE PRESSURE ON THE RECORD OF INSPECTION.
12. SEAL THE FILL AND DIPSTICK PORTS WITH HYDRAULIC SEALANT.

PROCEDURE FOR RAISING THE BOOM AND JIB.

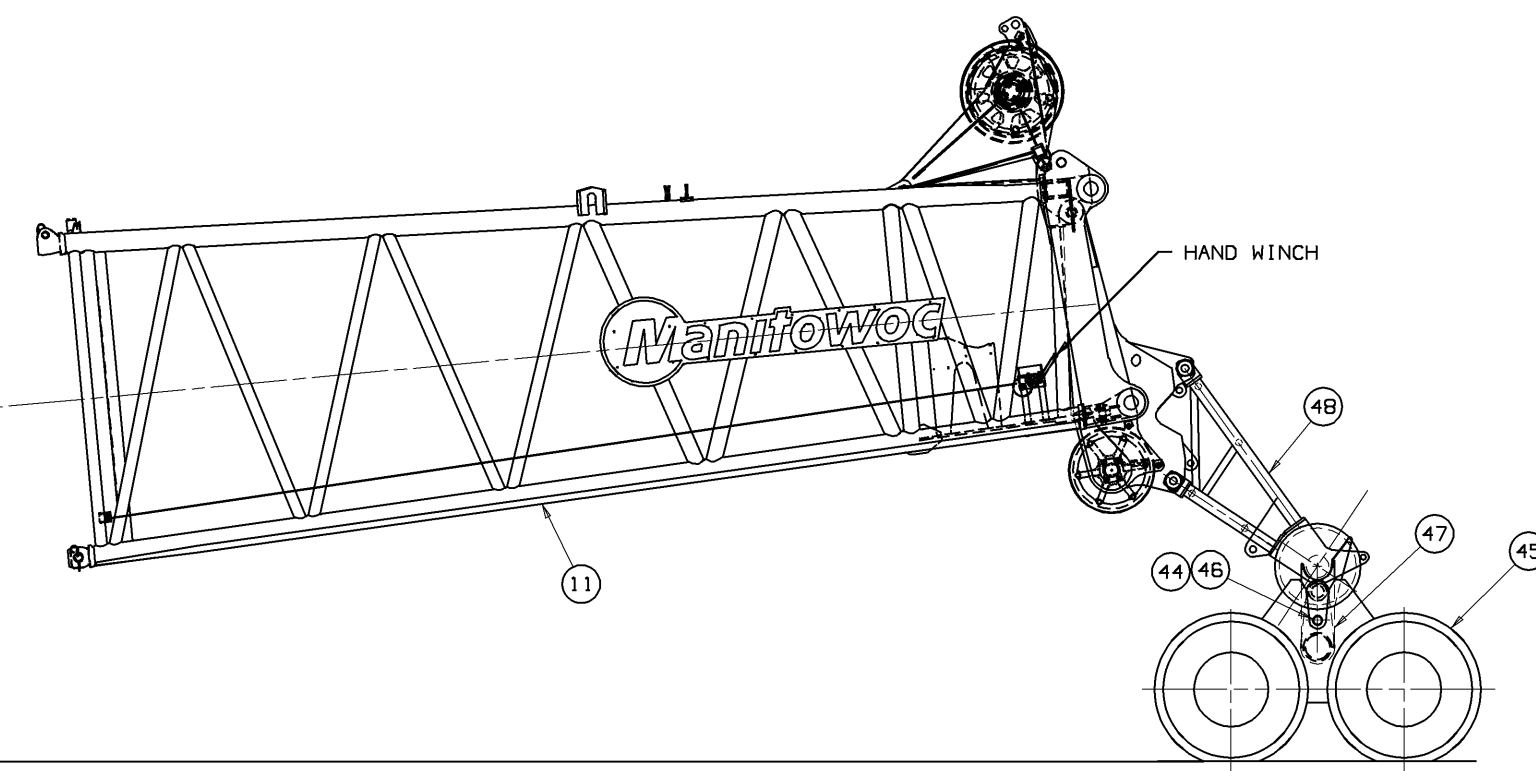
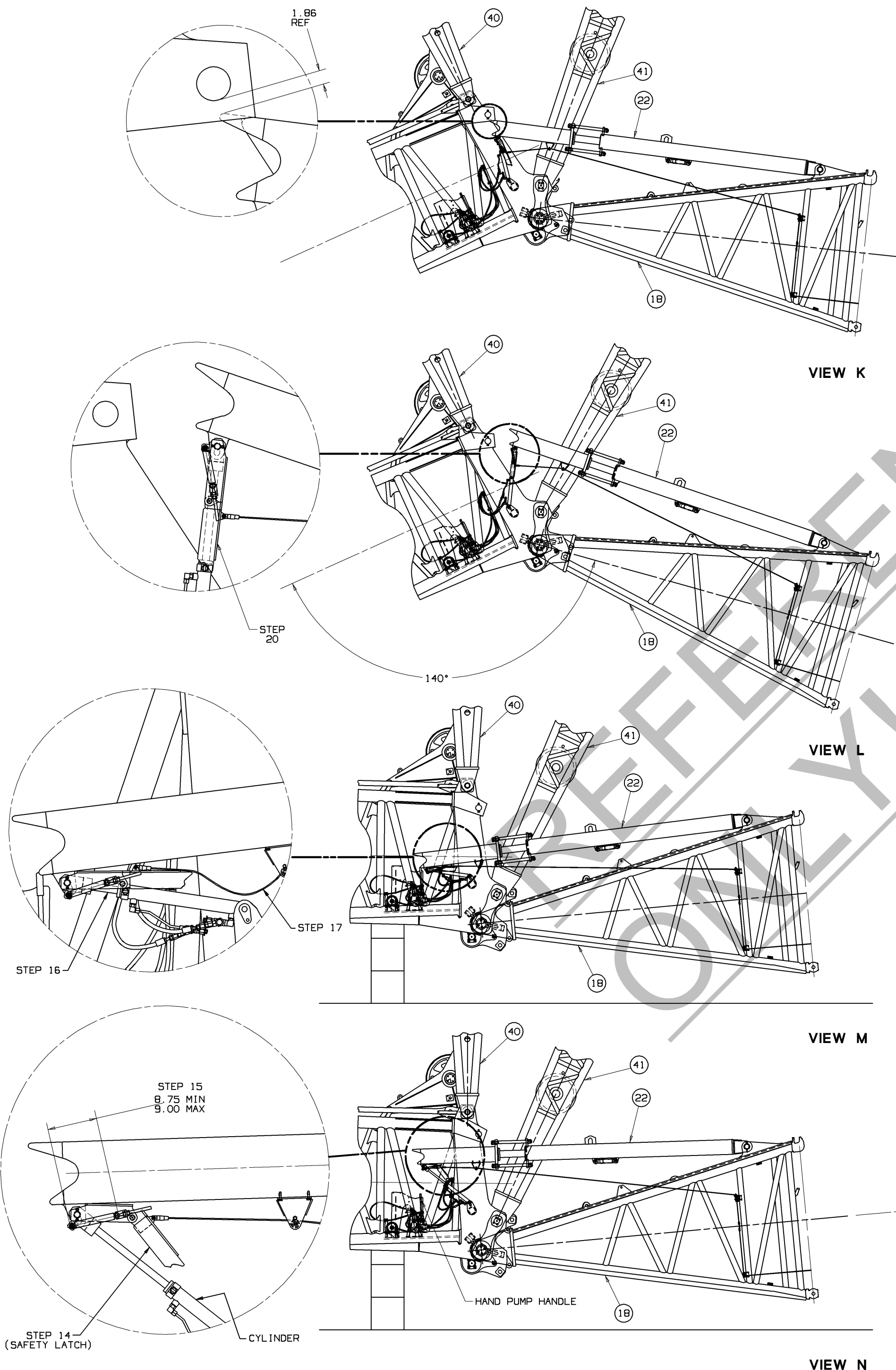
13. STROKE THE PUMP LEVER UNTIL THE PRESSURE GAGE READS 2500 PSI.
14. DISENGAGE SAFETY LATCH USING HAND WINCH IN JIB TOP.
15. SET SPRING TENSION ADJUSTMENT. MINIMUM 8.75 INCH (22.2 CM) MAXIMUM 9.00 INCH (22.9 CM)
16. ENERGIZE VALVE TO RETRACT THE CYLINDERS. (WARNING: FAILURE TO RETRACT CYLINDERS WILL CAUSE STRUCTURAL DAMAGE)
17. RELEASE TENSION ON SAFETY LATCH CABLE ALLOWING ENOUGH SLACK FOR ENGAGEMENT WHEN CYLINDERS ARE EXTENDED.
18. RAISE THE BOOM TO WHERE THE BOOM TO JIB ANGLE IS 140 DEGREES. SEE VIEW "L"
19. DEENERGIZE THE VALVE AND THE CYLINDERS WILL EXTEND. CYLINDERS ARE NOW OPEN TO ACCUMULATOR AND THEY WILL REMAIN PRESSURIZED.
20. VERIFY THE SAFETY LATCHES ARE IN POSITION TO PREVENT THE CYLINDERS FROM RETRACTING. (SEE VIEW "L")
21. CONTINUE RAISING BOOM AND JIB TO WORKING POSITION. (REFER TO LUFFING JIB RAISING PROCEDURE FOR RAISING AND LOWERING BOOM AND JIB.

PROCEDURE FOR LOWERING THE BOOM AND JIB.

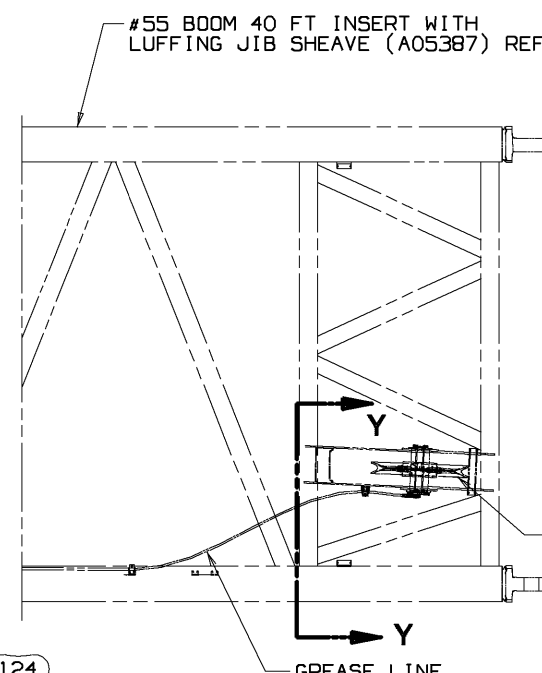
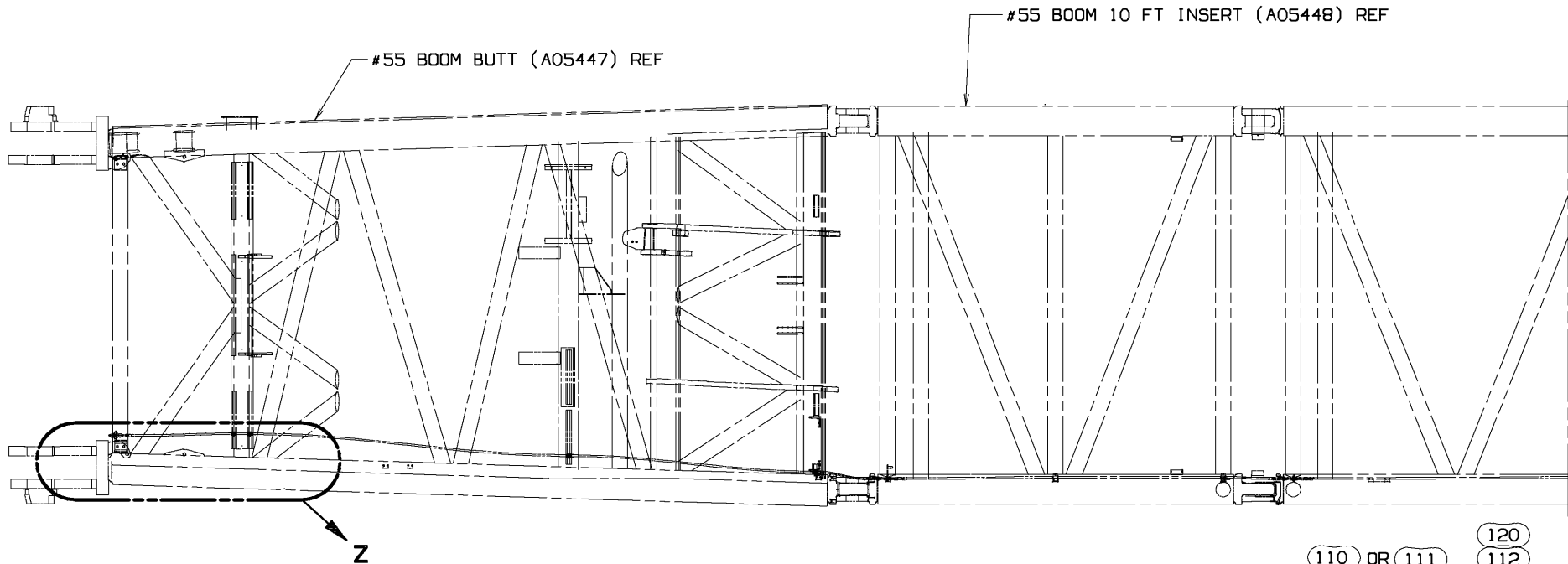
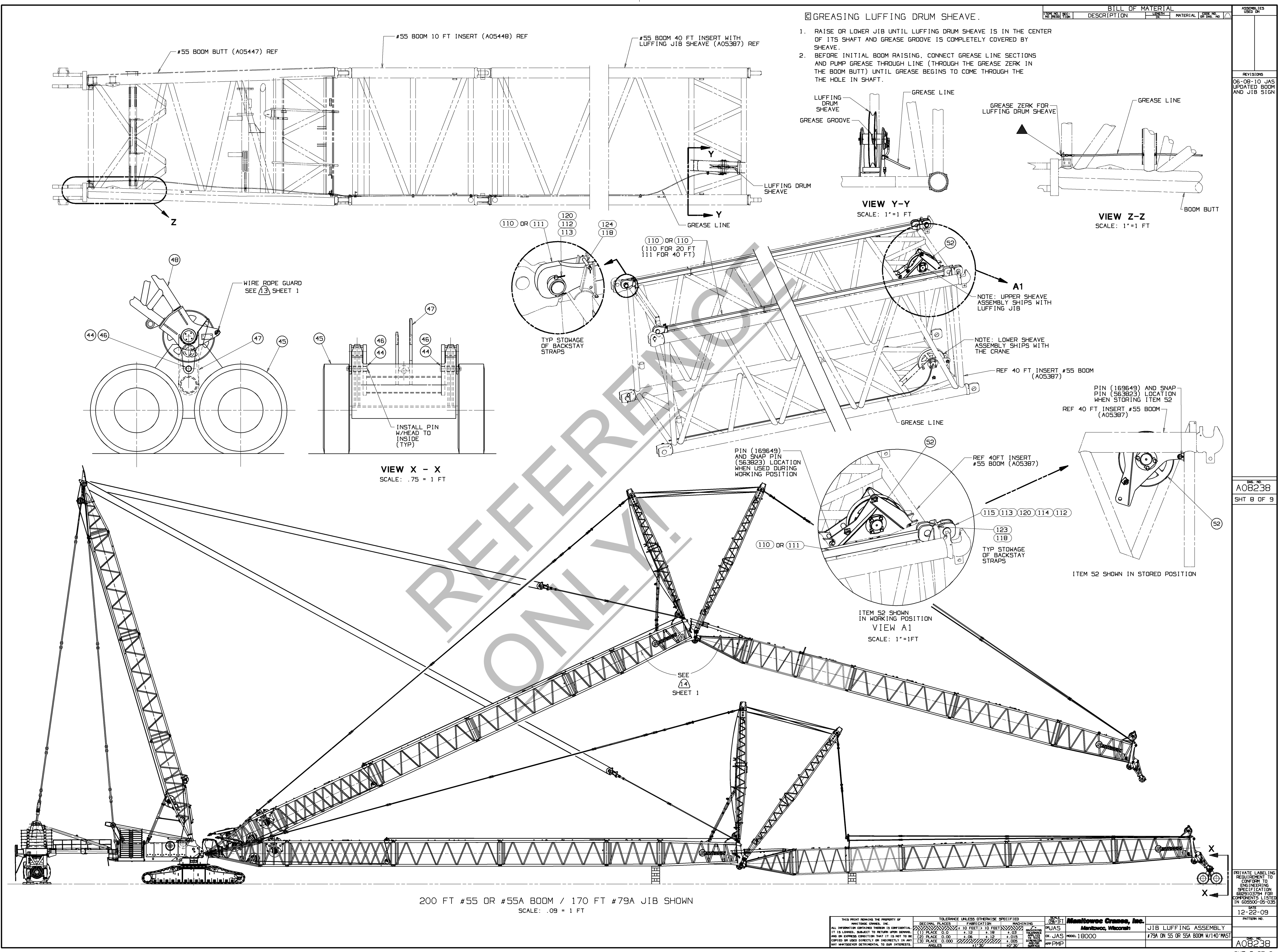
22. LOWER THE BOOM AND JIB. WITH JIB IN DOLLY, BOOM DOWN UNTIL BOOM TO JIB ANGLE IS 140 DEGREES.
24. RELEASE JIB SAFETY LATCH WITH HAND WINCH IN JIB TOP.
25. ENERGIZE THE VALVE TO RETRACT CYLINDERS.
26. RELEASE TENSION ON SAFETY LATCH CABLE ALLOWING ENOUGH SLACK FOR ENGAGEMENT WHEN CYLINDERS ARE EXTENDED.
27. CONTINUE LOWERING THE BOOM SLOWLY VERIFYING THAT THE STOPS DO NOT ENGAGE THE PIN IN BOOM TOP. (SEE VIEW "K")
28. CONTINUE TO LOWER BOOM AND JIB TO GROUND.
29. DEENERGIZE THE VALVE TO EXTEND CYLINDERS. IF THE CYLINDERS DO NOT EXTEND, AN OPERATORS ASSISTANT WILL NEED TO PUMP THE CYLINDERS TO THE EXTENDED POSITION.

PERIODIC CHECK OF OIL LEVEL AND ACCUMULATOR PRECHARGE.

29. OPEN AND CLOSE VALVE UNTIL ACCUMULATOR IS COMPLETELY DISCHARGED.
30. CHECK ACCUMULATOR PRECHARGE. PRECHARGE SHOULD BE:
 - 1796 PSI AT 90 DEG F (32 DEG C)
 - 1730 PSI AT 70 DEG F (21 DEG C)
 - 1665 PSI AT 50 DEG F (10 DEG C)
 - 1600 PSI AT 30 DEG F (-1 DEG C)
31. GO TO THE INITIAL SET UP PROCEDURE IN STEP 9 AND CONTINUE.

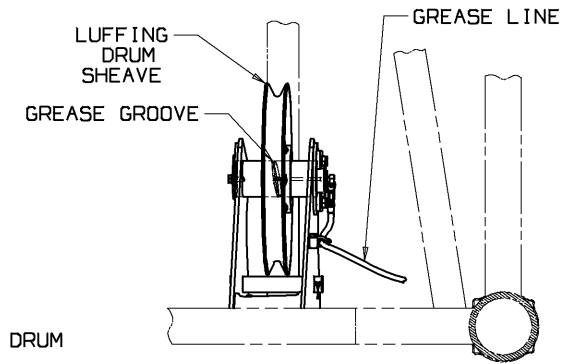


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APP. MJW		APP. MJW		MODEL 18000		

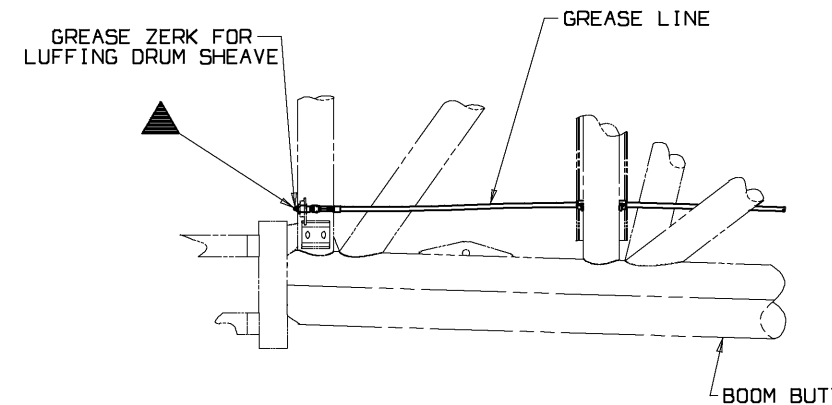


GREASING LUFFING DRUM SHEAVE.

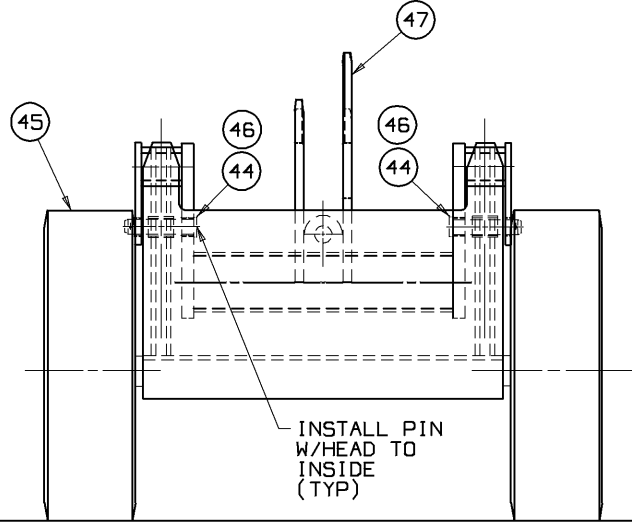
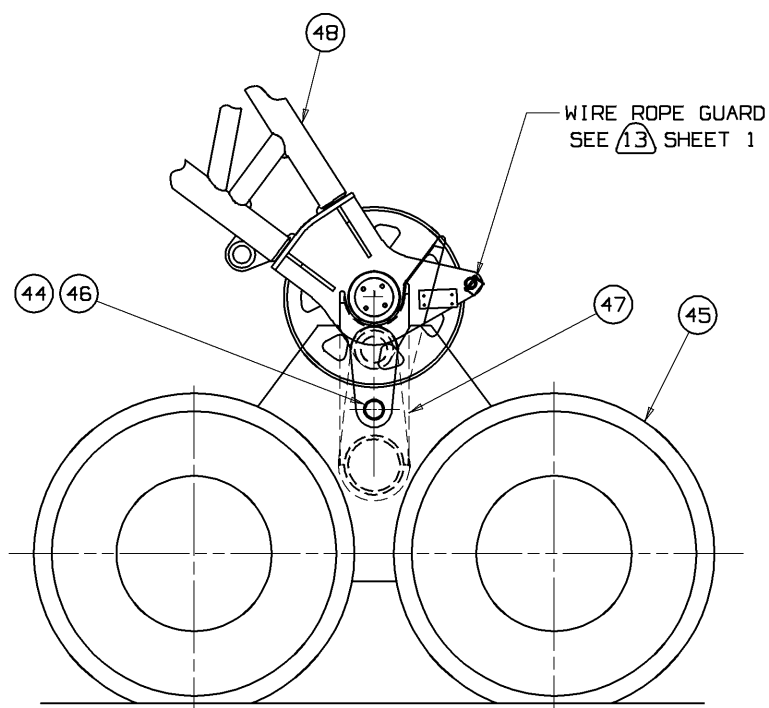
1. RAISE OR LOWER JIB UNTIL LUFFING DRUM SHEAVE IS IN THE CENTER OF ITS SHAFT AND GREASE GROOVE IS COMPLETELY COVERED BY SHEAVE.
2. BEFORE INITIAL BOOM RAISING, CONNECT GREASE LINE SECTIONS AND PUMP GREASE THROUGH LINE (THROUGH THE GREASE ZERK IN THE BOOM BUTT) UNTIL GREASE BEGINS TO COME THROUGH THE HOLE IN SHAFT.



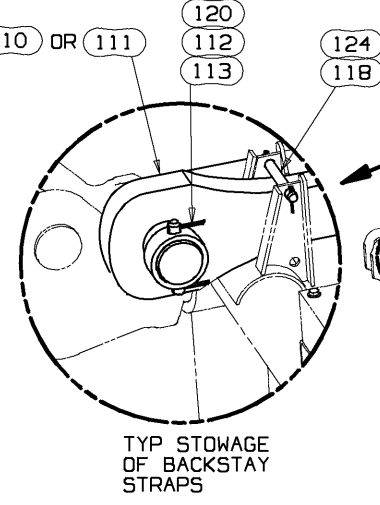
VIEW Y-Y
SCALE: 1"=1 FT



VIEW Z-Z
SCALE: 1"=1 FT

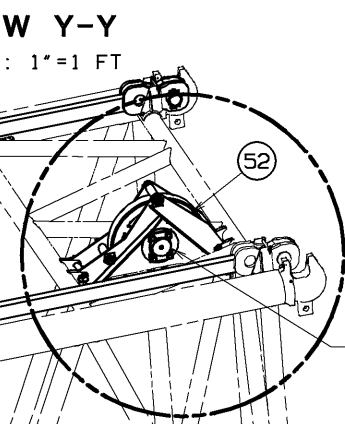


VIEW X - X
SCALE: .75 = 1 FT



TYP STORAGE OF BACKSTAY STRAPS

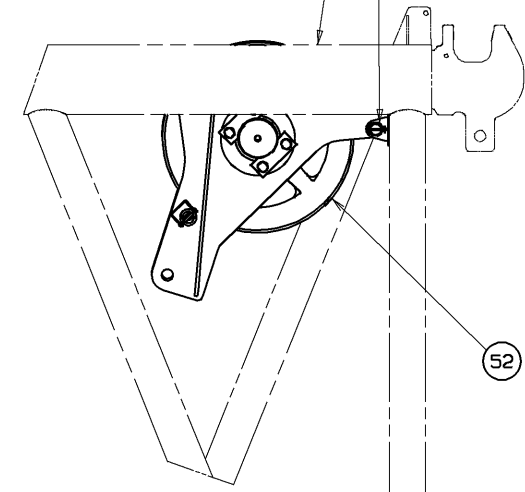
110 OR 110
(110 FOR 20 FT
111 FOR 40 FT)



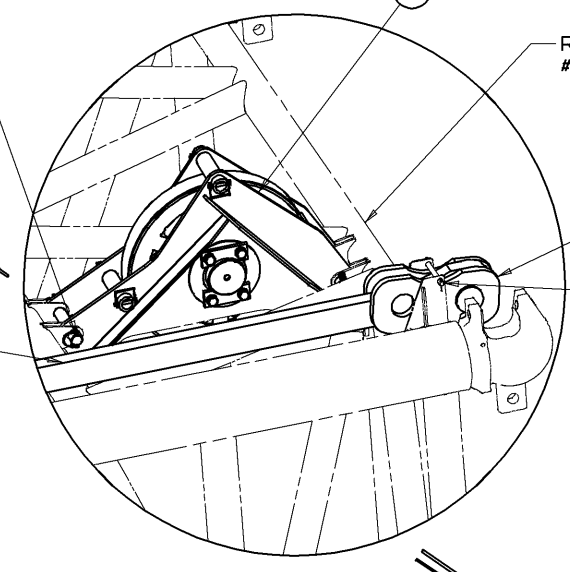
NOTE: UPPER SHEAVE ASSEMBLY SHIPS WITH LUFFING JIB
NOTE: LOWER SHEAVE ASSEMBLY SHIPS WITH THE CRANE

REF 40 FT INSERT #55 BOOM (A05387)

PIN (169649) AND SNAP PIN (563823) LOCATION WHEN STORING ITEM 52
REF 40 FT INSERT #55 BOOM (A05387)



PIN (169649) AND SNAP PIN (563823) LOCATION WHEN USED DURING WORKING POSITION



REF 40FT INSERT #55 BOOM (A05387)

115 113 120 114 112

TYP STORAGE OF BACKSTAY STRAPS

ITEM 52 SHOWN IN WORKING POSITION
VIEW A1
SCALE: 1"=1FT

SEE 14 SHEET 1

TOLERANCE UNLESS OTHERWISE SPECIFIED		FABRICATION		MACHINING	
DECIMAL PLACES		1/16" TO 1/8"	1/16" TO 1/8"	1/16" TO 1/8"	1/16" TO 1/8"
(1) PLACE 0.0	±.12	±.18	±.05	±.05	±.05
(2) PLACE 0.00	±.06	±.12	±.015	±.015	±.015
(3) PLACE 0.000	±.005	±.010	±.005	±.005	±.005
ANGLES	±1°	±1°	±1°	±1°	±1°

DATE	12-22-09	SCALE	1"=10' FT
DRAWN BY	JP/AS	CHECKED BY	CK/JAS
DESIGNED BY	CK/JAS	APPROVED BY	APP/PMP
MANITOWOC CRANES, INC.		JIB LUFFING ASSEMBLY	
MODEL 18000		#79A ON 55 OR 55A BOOM W/140' MAST	

BILL OF MATERIAL

ITEM NO.	QTY	DESCRIPTION	UNIT	MATERIAL	CODE NO.	DATE
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ASSEMBLIES USED BY

ITEM NO.	QTY	DESCRIPTION	UNIT	MATERIAL	CODE NO.	DATE
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REVISIONS

06-08-10 JAS
UPDATED BOOM
AND JIB SIGN

DWG. NO.

A08238

SHT 8 OF 9

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6629103794 FOR
COMPONENTS LISTED
IN 6629103794

DATE

12-22-09

PATTERN NO.

A08238

SHT 8 OF 9

C

D

- A**

C

A08238
SHT 9 OF 9