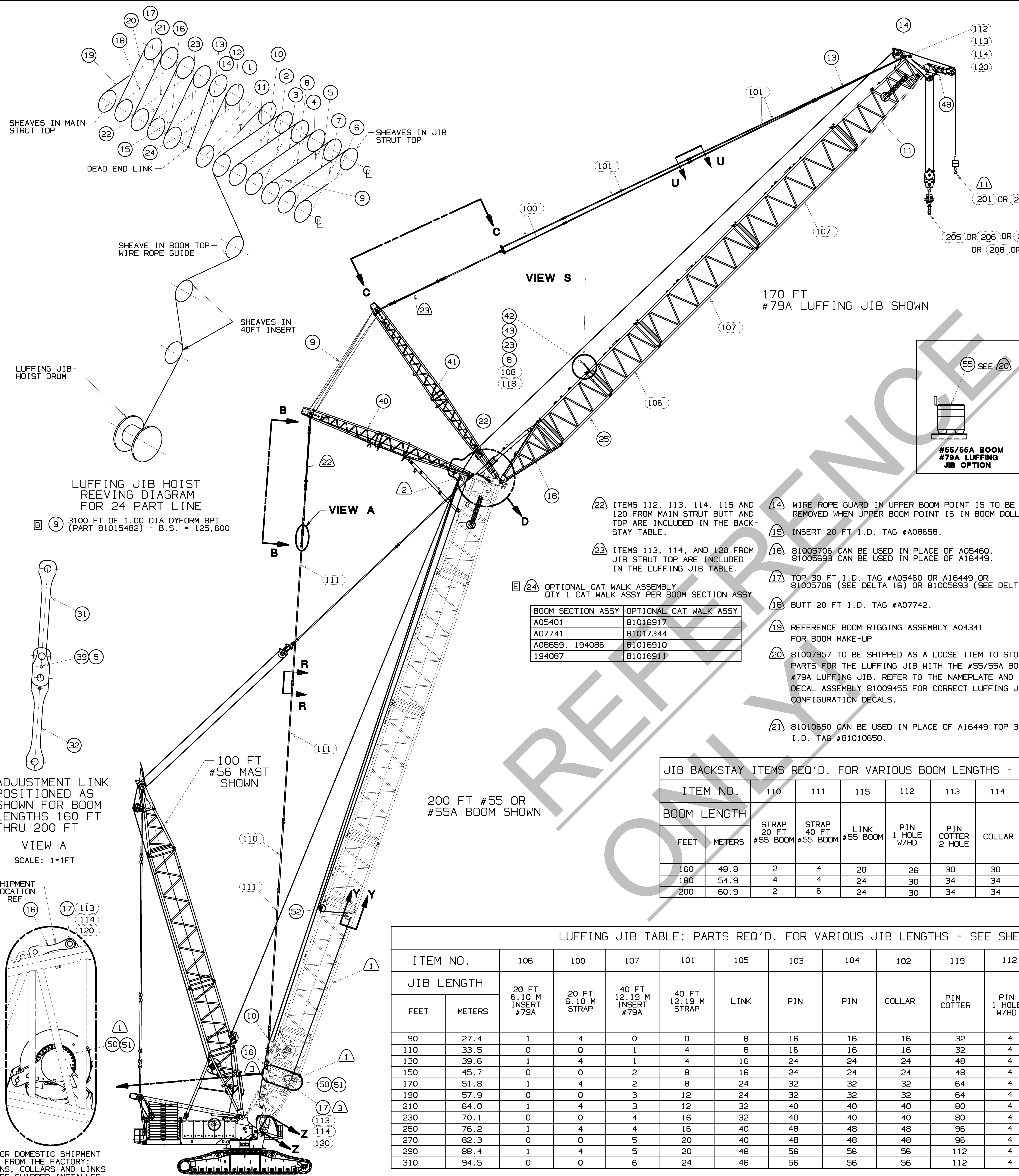




BILL OF MATERIAL			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
NO. REQ'D. FOR THE FOLLOWING ITEMS ARE IN TABLES 3			
100	STRAP 20 FT #79A	179838	
101	STRAP 40 FT #79A	179839	
102	COLLAR	179862	
103	PIN	179863	
104	PIN	179959	
105	LINK	192250	
106	INSERT 20 FT ASSEMBLY #79A	194086	6.24
107	INSERT 40 FT ASSEMBLY #79A	194087	7.24
108	PIN	78292	
109			
110	STRAP 20 FT #55 BOOM	A05196	8
111	STRAP 40 FT #55 BOOM	A05197	8
112	PIN 1 HOLE W/ HD	A06149	22
113	PIN COTTER 2 HOLE	A06150	22, 23
114	COLLAR	A06151	22, 23
115	LINK #55 BOOM	A06457	22
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	22, 23
121			
122			
123	PIN 2 HOLE .63 X 6.75 LG	A07033	
124	PIN 2 HOLE .63 X 6.00 LG	A07034	
OPTIONAL PARTS			
201	100 T HOOK ASSEMBLY	236505	11
202	BLOCK 200 TON DUPLEX HOOK	8101592	
203			
204	30 T SWIVEL ASSEMBLY	A00816	
205	350 T HOOK ASSEMBLY	A08833	
206	450 T HOOK ASSEMBLY	A07752	
207	500 T HOOK ASSEMBLY	A07773	
208	250MT HOOK ASSEMBLY	A14753	
209	CAT WALK ASSY 30FT #79A TOP	8101691	24
210	CAT WALK ASSY 20FT #79A BUTT	8101734	24
211	CAT WALK ASSY 20FT #79 INSERT	8101691	24
212	CAT WALK ASSY 40FT #79 INSERT	8101691	24

- 4 MAXIMUM NO. OF 20 FT (6.10M) INSERT ASSEMBLIES = 2
- 5 SEE SHT 2 AND 3 FOR BOOM/JIB MAKEUP
- 6 INSERT 20 FT I.D. TAG #193412 OR 81010353.
- 7 INSERT 40 FT I.D. TAG #193413 OR 81010396.
- 8 DWG A05195
- 9 SEE VIEW "A" FOR PROPER ADJUSTMENT
- 10 REQUIRED FOR JIB RAISING
- 11 USE FOR 2 PART LINE ON UPPER BOOM POINT. ALSO USED FOR MACHINE ASSEMBLY WITH 30 FT LIVE MAST. FOR 28 MM WIRE ROPE ONLY.
- 12 DWG A06572
- 13 REFER TO LUFFING JIB RAISING PROCEDURE FOR RAISING AND LOWERING BOOM AND JIB.

JIB BACKSTAY ITEMS REQ'D. FOR VARIOUS BOOM LENGTHS - SEE SHT 2 FOR BOOM MAKE-UP											
ITEM NO.	110	111	115	112	113	114	120	118	123	124	
BOOM LENGTH		STRAP 20 FT #55 BOOM	STRAP 40 FT #55 BOOM	LINK #55 BOOM	PIN 1 HOLE W/HD	PIN COTTER 2 HOLE	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	4	4	24	30	34	34	68	36	8	8
200	60.9	2	6	24	30	34	34	68	36	8	8

LUFFING JIB TABLE: 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	16	16	16	32	4	6	6	16	12	4
110	33.5	0	0	1	4	8	16	16	16	32	4	6	6	16	12	4
130	39.6	1	4	1	4	16	24	24	24	48	4	6	6	32	20	4
150	45.7	0	0	2	8	16	24	24	24	48	4	6	6	32	20	4
170	51.8	1	4	2	8	24	32	32	32	64	4	6	6	48	28	4
190	57.9	0	0	3	12	24	32	32	32	64	4	6	6	48	28	4
210	64.0	1	4	3	12	32	40	40	40	80	4	6	6	64	36	4
230	70.1	0	0	4	16	32	40	40	40	80	4	6	6	64	36	4
250	76.2	1	4	4	16	40	48	48	48	96	4	6	6	80	44	4
270	82.3	0	0	5	20	40	48	48	48	96	4	6	6	80	44	4
290	88.4	1	4	5	20	48	56	56	56	112	4	6	6	96	52	4
310	94.5	0	0	6	24	48	56	56	56	112	4	6	6	96	52	4

BILL OF MATERIAL			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
LUFFING JIB ASSEMBLY #79A STANDARD			
1	PIN 1 HOLE W/HD .50 DIX X 1.25 LG	143889	
2	COLLAR	173676	
3	PIN	173678	
4			
5	PIN COTTER	562149	
6	PIN COTTER	562152	
7	SPACER	166316	
8	PIN SNAP	563823	
9	WIRE ROPE 1.00 DIA W/ EYE	81015482	
10	STRAP 10 FT #55 BOOM	A05198	3.8
11	TOP 30 FT ASSEMBLY	A05401	16.17, 20.2
12	ELECTRIC CONTROL ASSY BOOM WIRING-LIMITS	A05580	
13	STRAP	A06348	12
14	LINK	A06349	12
15	PIN COTTER 2 HOLE	A07565	
16	LINK #55 BOOM	A07498	3
17	PIN 1 HOLE W/HD	A07517	3
18	BUTT 20 FT ASSEMBLY	A07741	18.24
19	PIN	A07794	
20	EQUALIZER	A07877	
21	PIN	A07878	
22	JIB STOP ASSEMBLY	A08706	
23	PIN	81013524	
24			
25	INSERT 20 FT ASSEMBLY #79A	A08659	15.24
26	PIN	A08916	
27	PIN	A08917	
28	LINK	A08918	
29	LINK	A08919	
30	STRAP	A08920	
31	LINK	A08921	
32	LINK	A08922	9
33	SPREADER	A08924	
34	SPREADER	A08925	
35	LINK	A08926	
36	LINK	A08927	
37	STRAP	A08928	8
38	STRAP	A08929	8
39	PIN	A08944	
40	MAIN STRUT ASSEMBLY 50 FT	A09134	
41	JIB STRUT ASSEMBLY 59 FT	A09135	
42	BRACKET RH STRAP SUPPORT	A09167	
43	BRACKET LH STRAP SUPPORT	A09168	
44	PIN	177243	10
45	BOOM DOLLY	394502	10
46	PIN COTTER	562151	10
47	ADAPTER FRAME	A04975	10
48	UPPER BOOM POINT ASSEMBLY	A08516	10
49			
50	DRUM ASSY LUFFING	A04331	1
51	PAWL ASSEMBLY LUFFING DRUM	A06344	1
52	GUARD WIRE ROPE ASSEMBLY LUFFING LINE	A06399	1
53			
54			
55	PARTS BOX FOR PARTS STORAGE	81007957	20
56			
57			
58			
59			
60	PIN COTTER .250 X 1.75	562106	
61	PIN COTTER .125 X 1.50	562045	
62			
63	NUT HEX .375-16UNC-2B	546054	
64	NUT LOCK .313-18UNC-2B	548343	
65	PIN COTTER .125 X 1.25	562044	
66			
67			
68	SCR CAP HEX HD .313-18UNC-2A X 2.00	612413	
69	SCR CAP HEX HD .375-16UNC-2A X 2.00	612454	
70	SCR CAP HEX HD .625-11UNC-2A X 1.75	612663	
71	SHEAVE WIRE ROPE .188 W.R.	631094	
72	WASHER FLAT .50	709460	
73	WASHER LOCK .375	710304	
74	WASHER LOCK .625	710307	
75			
76	WASHER FLAT .375	709703	
77	WINCH MOUNTING	A08712	
78			
79	PIN KEEPER 6.50 DIA X 9.25 LG	A07939	
80	PIN KEEPER 6.50 DIA X 12.19 LG	A07940	
81	PLATE KEEPER 20 MM	A07941	
82	PLATE END	A07942	
83	SPACER 8.50 OD X 6.53 ID X 1.50 LG	A07943	

- 1 BOOM BUTT WITH LUFFING DRUM, PAWL ASSY AND 40 FOOT INSERT WITH LUFFING DRUM SHEAVES REQUIRED FOR LUFFING JIB
- 2 REQUIRES WIRE ROPE GUIDE EQUIPPED FOR LUFFING JIB
- 3 SEE TABLES FOR NO. REQ'D (NOTE: BACKSTAY STRAPS, LINKS AND PINS FOR BOOM BUTT AND INSERTS ARE CALLED FOR AND SHIPPED WITH THOSE SECTIONS. JIB SUPPORT STRAPS, LINKS AND PINS FOR JIB ITEMS 106, 107 AND 11 ARE CALLED FOR AND SHIPPED WITH THOSE SECTIONS.)

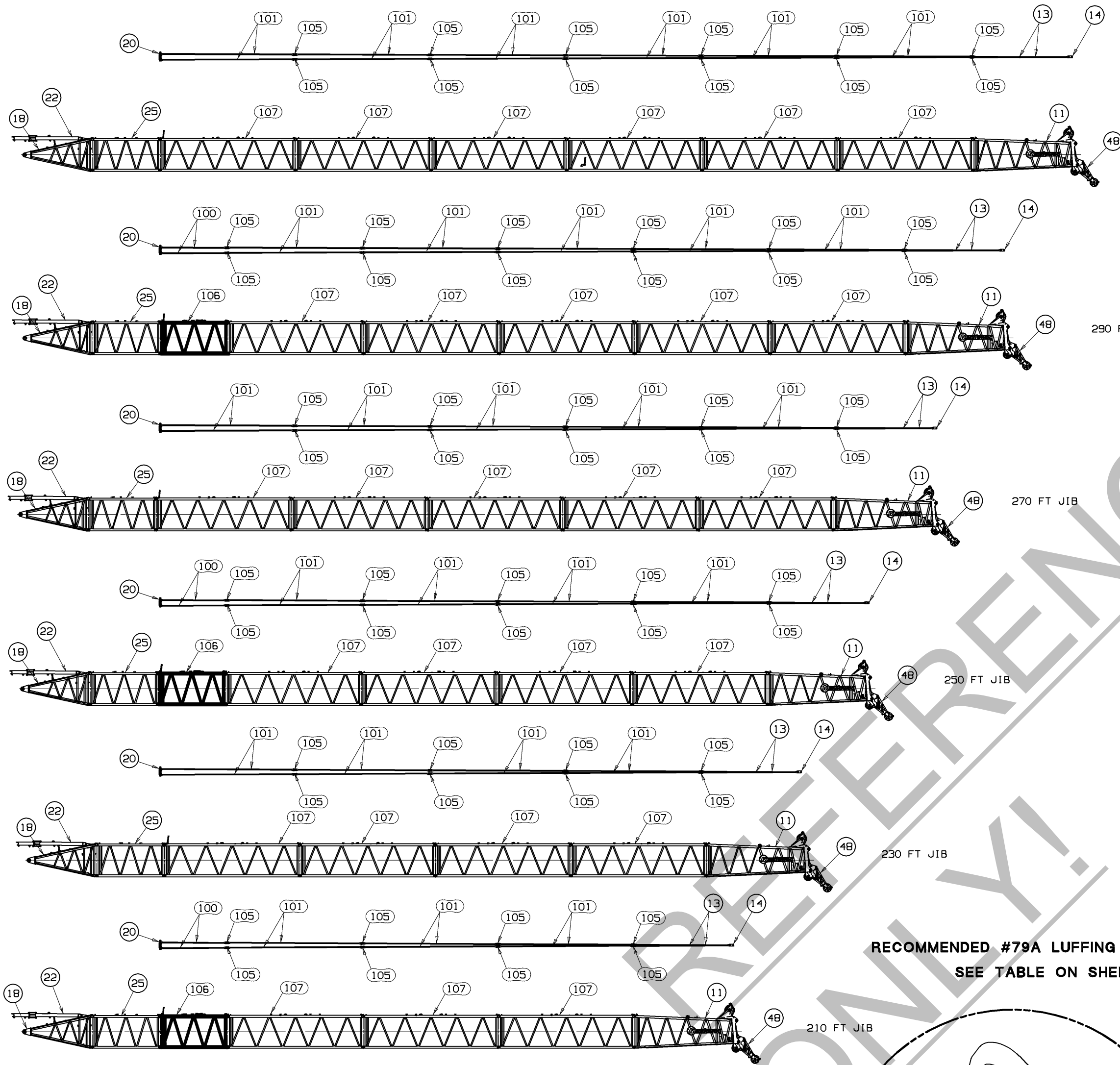
SUPERSEDED A08237 SHT 1 OF 7 OF 10-29-09

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BILL OF MATERIAL				
ITEM NO.	QTY	DESCRIPTION	LENGTH	MATERIAL

ASSEMBLIES USED IN

REVISIONS
02-02-04 MJW ADDED VIEW 11-12-05 JAS B WAS SHEET 4 OF 7 ADDED VIEWS 06-08-10 JAS UPDATED JIB SIGN



310 FT JIB

290 FT JIB

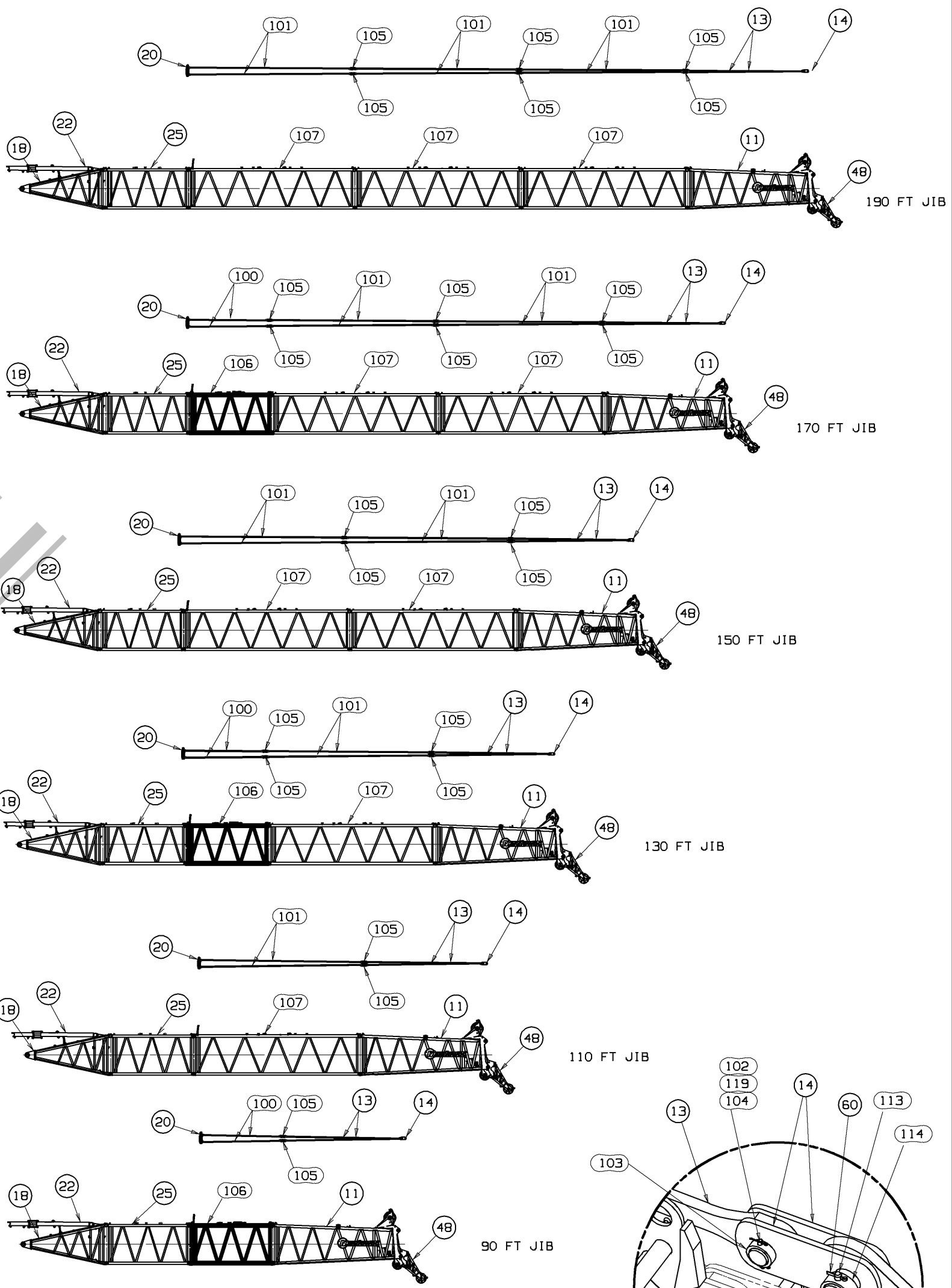
270 FT JIB

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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DECIMAL PLACES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(1) PLACE	0.05	0.02	0.01	0.005	0.002	0.001	0.0005	0.0002	0.0001	0.00005	0.00002	0.00001	0.000005	0.000002	0.000001
(2) PLACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(3) PLACE	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ANGLE	1°	15'	30'	45'	1°	15'	30'	45'	1°	15'	30'	45'	1°	15'	30'

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6629103794 FOR COMPONENTS LISTED IN 6629103794-06-025

DATE 11-17-03

PATTERN NO.

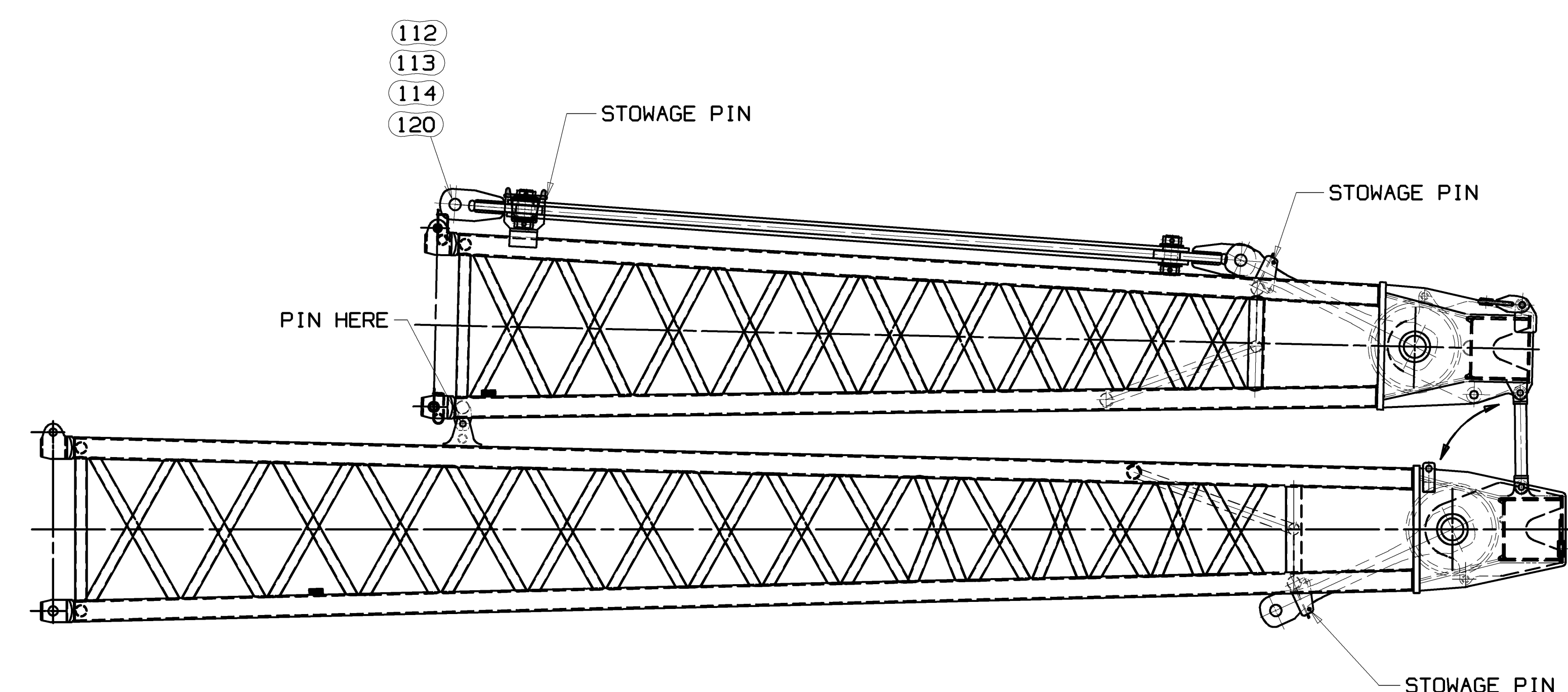
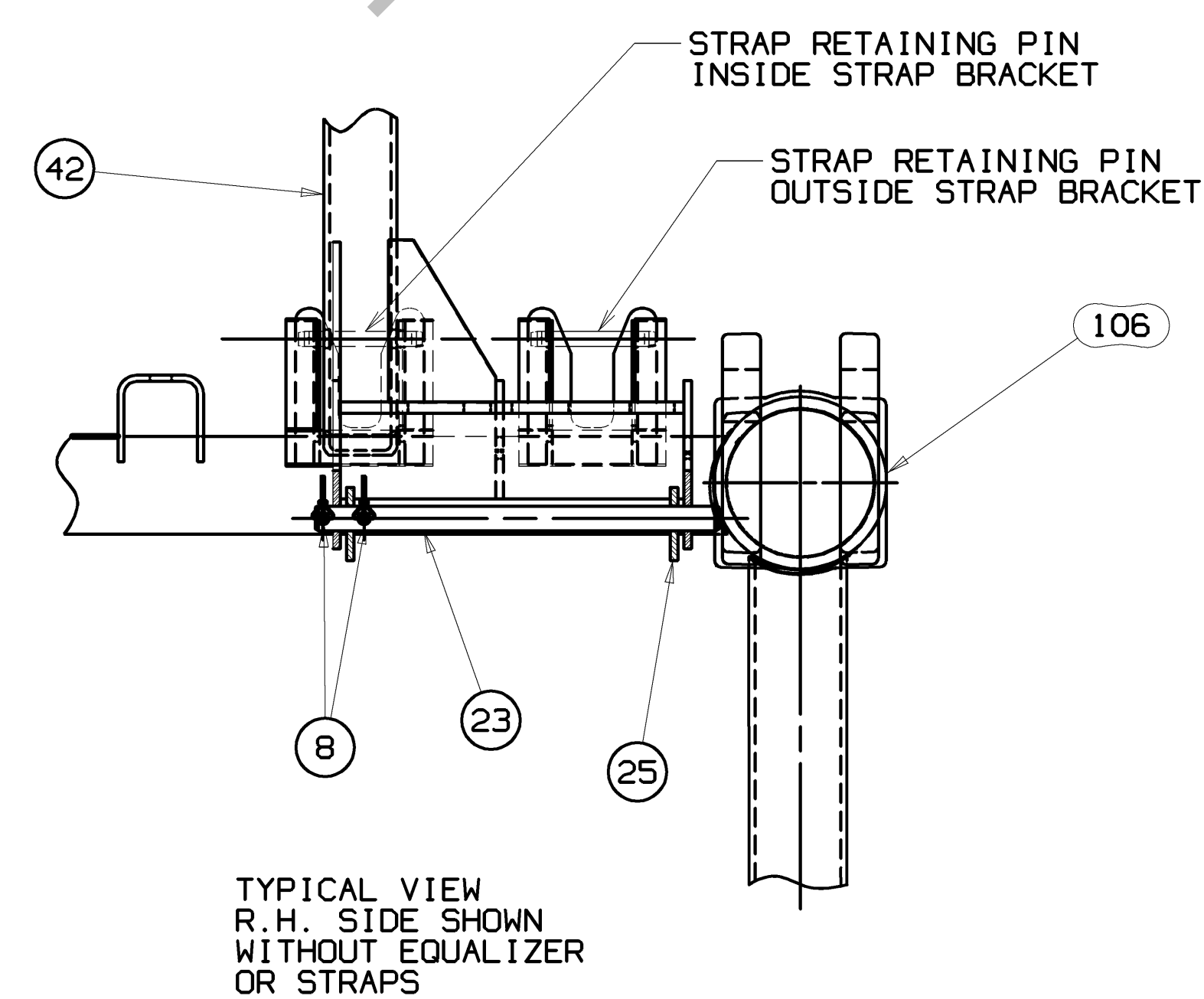
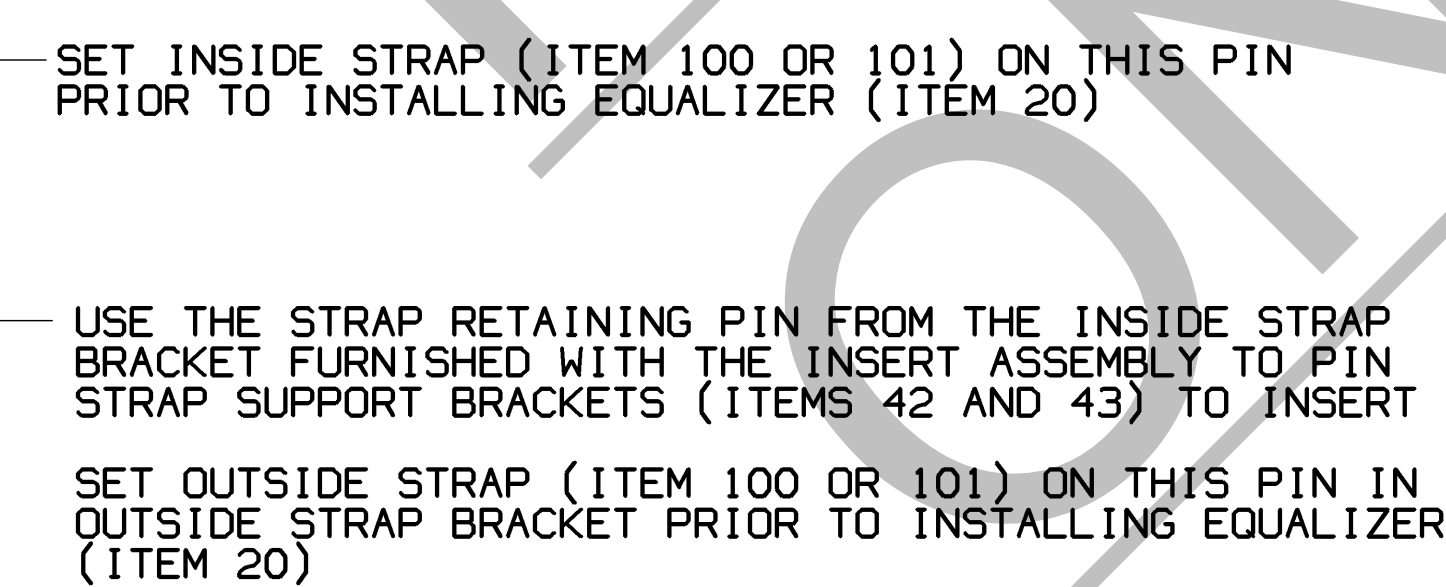
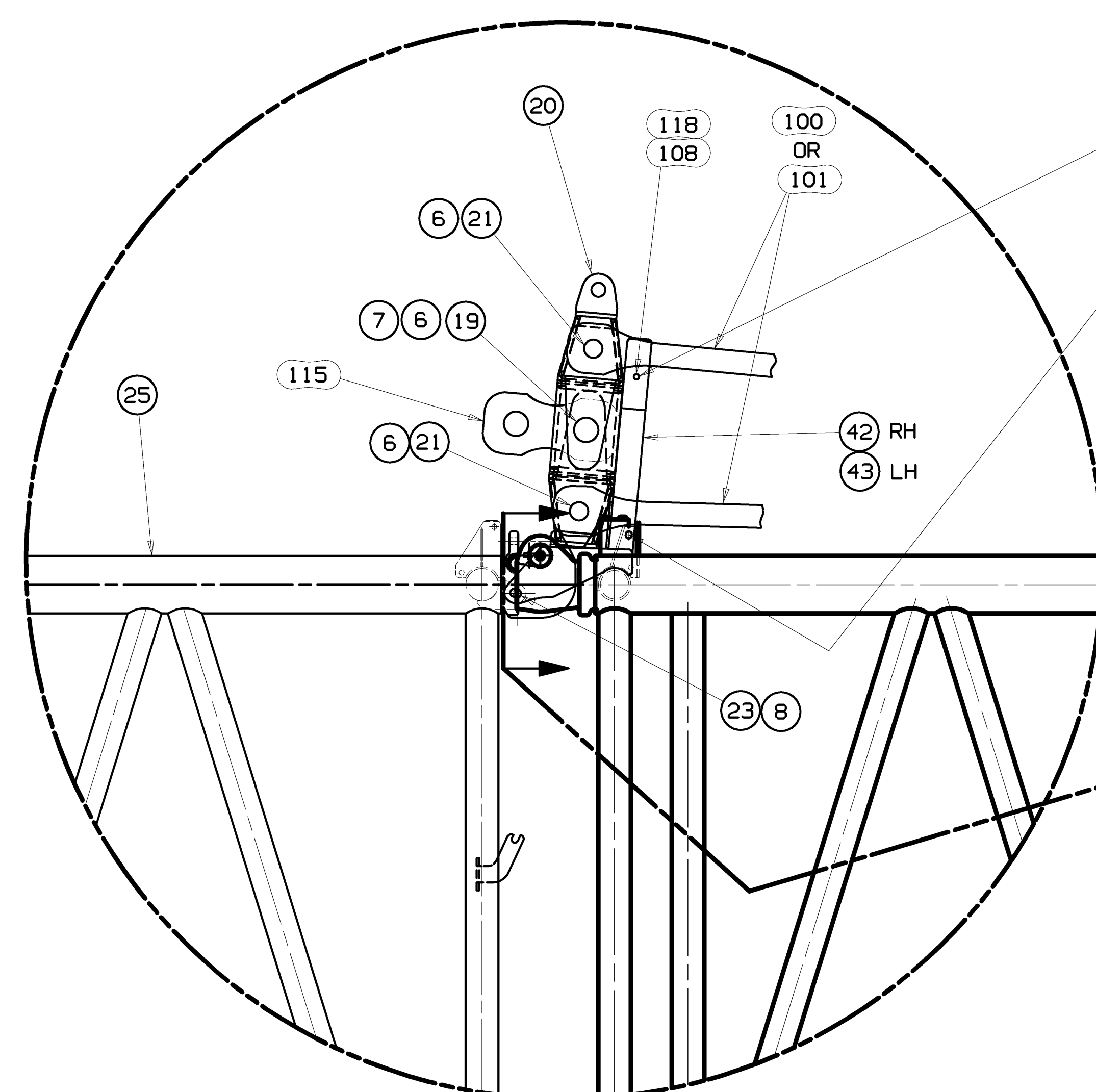
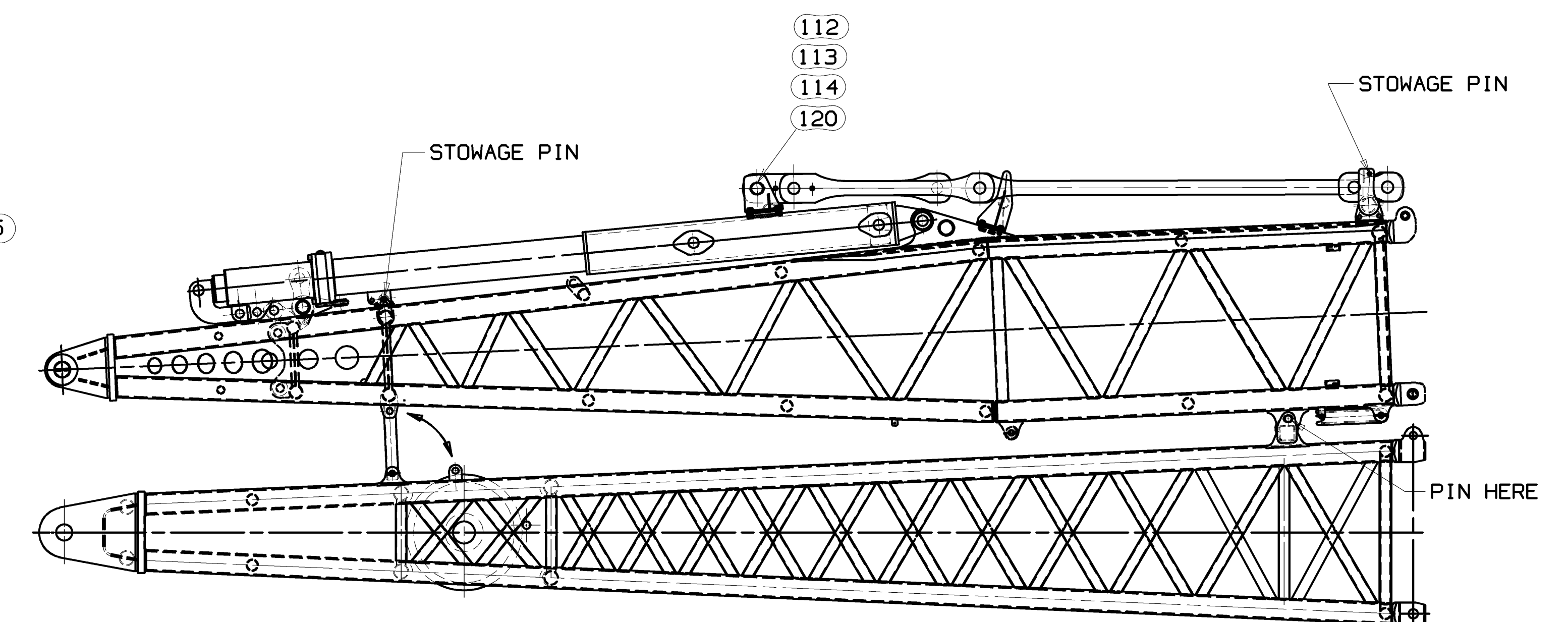
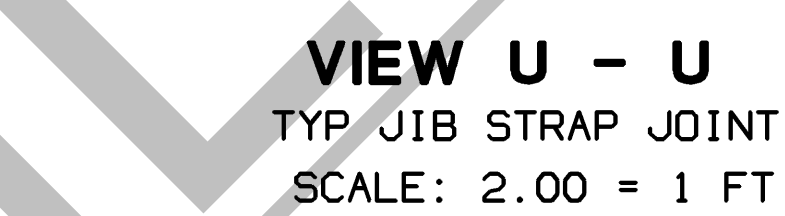
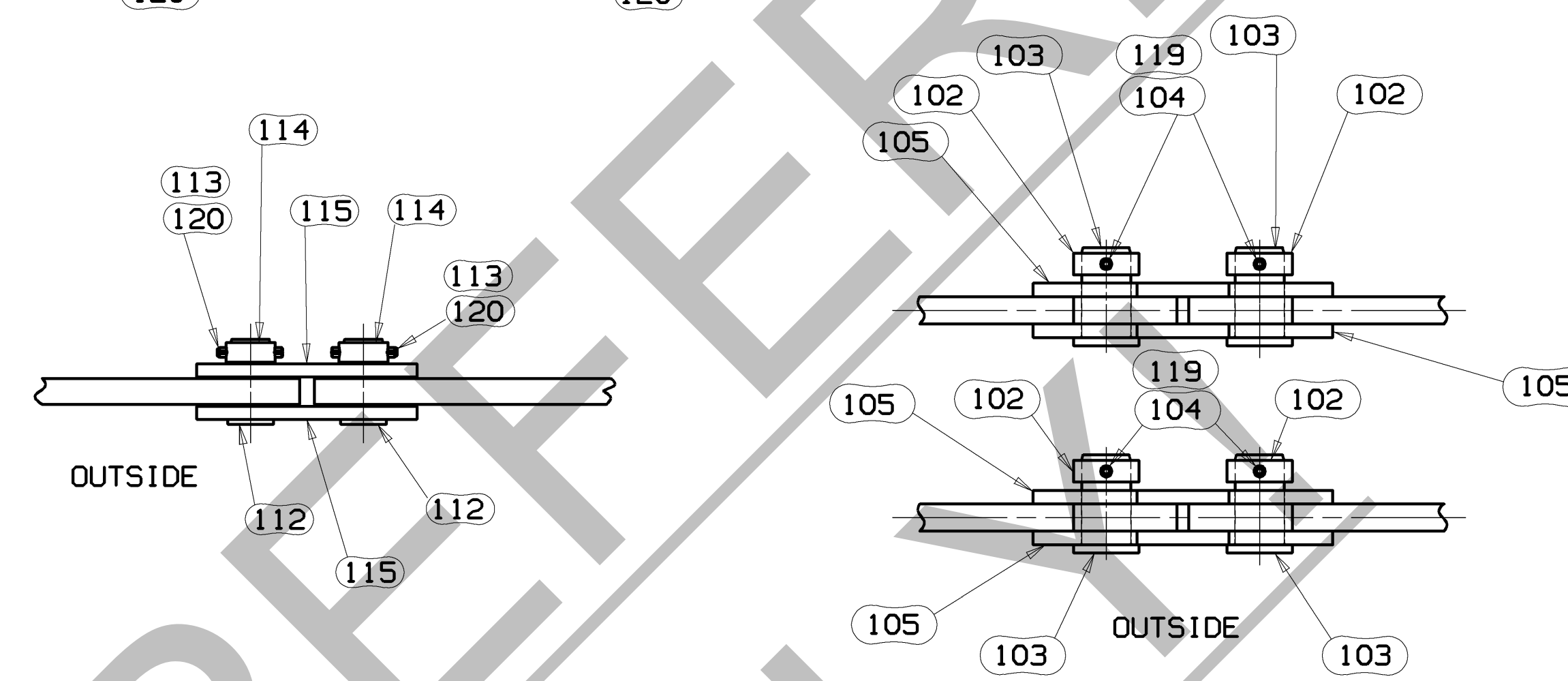
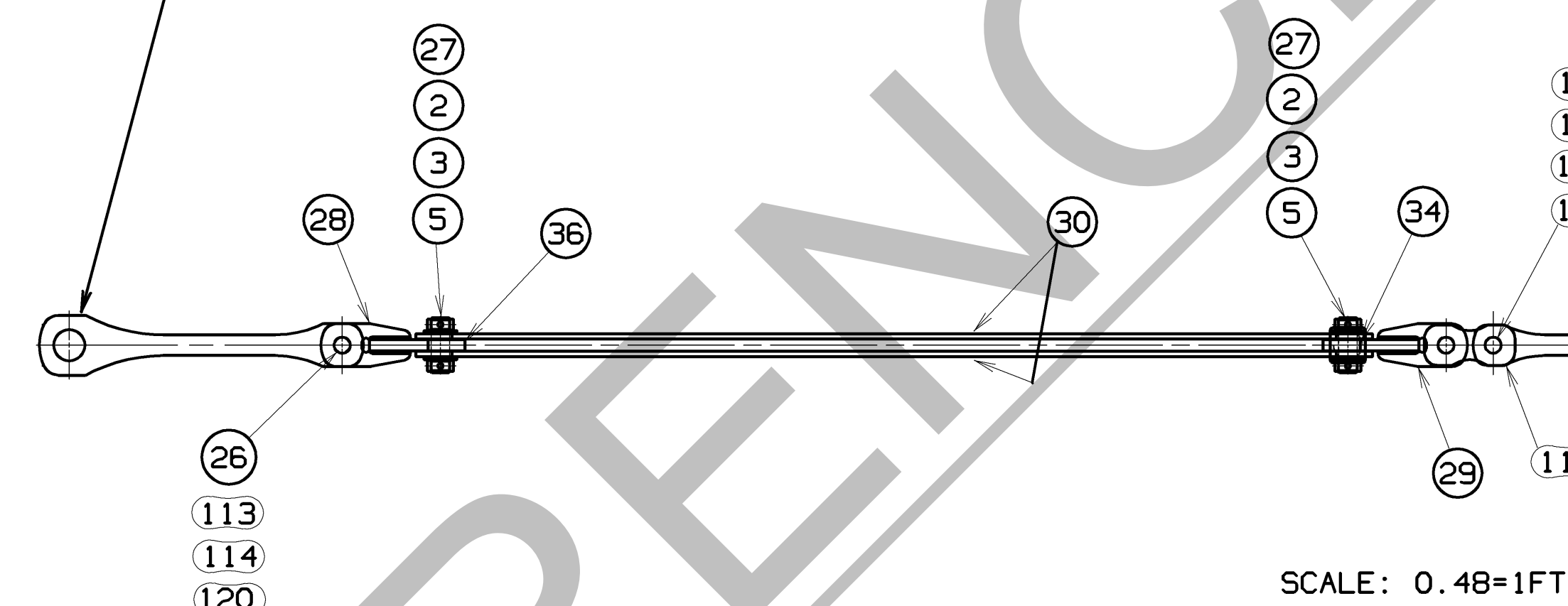
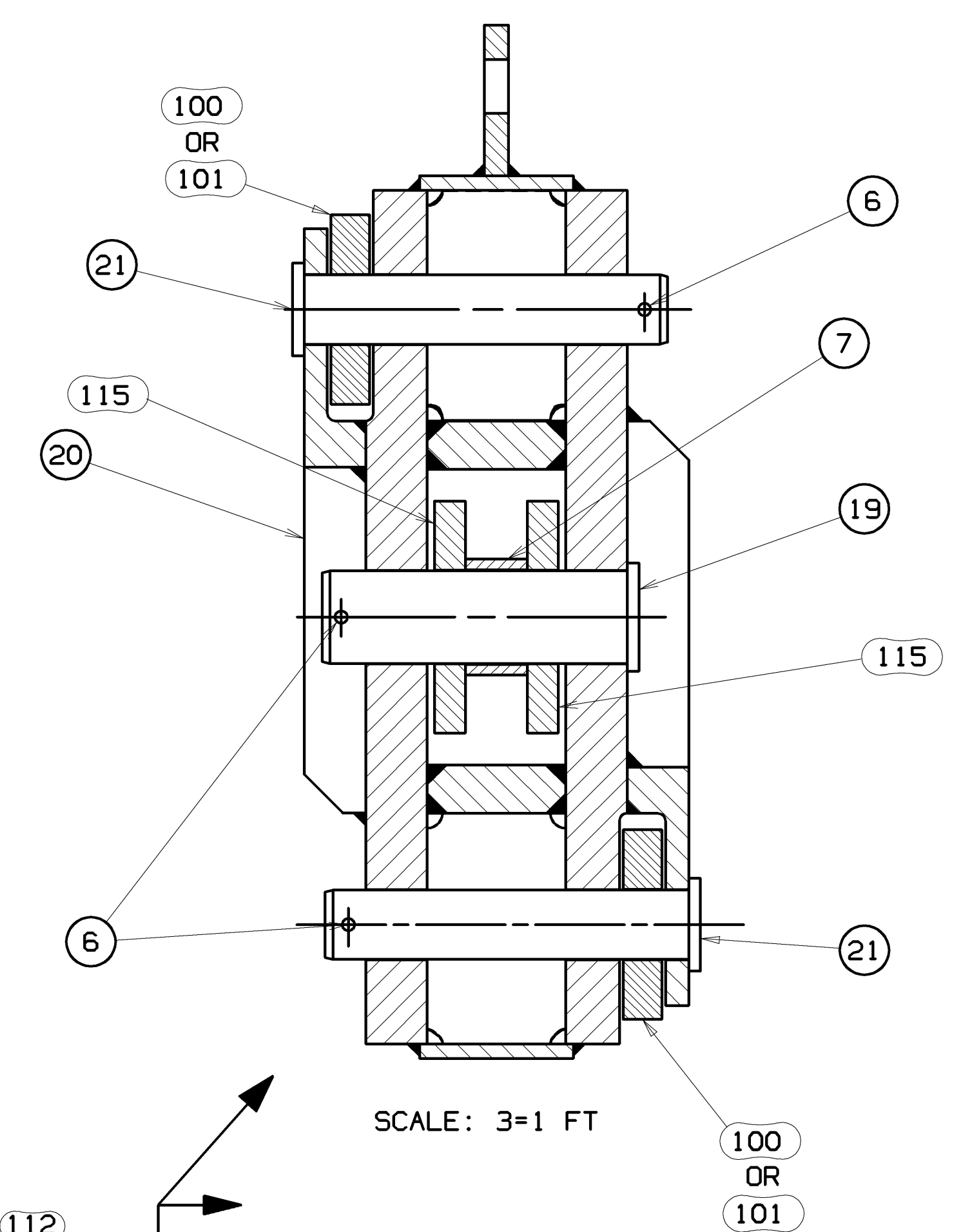
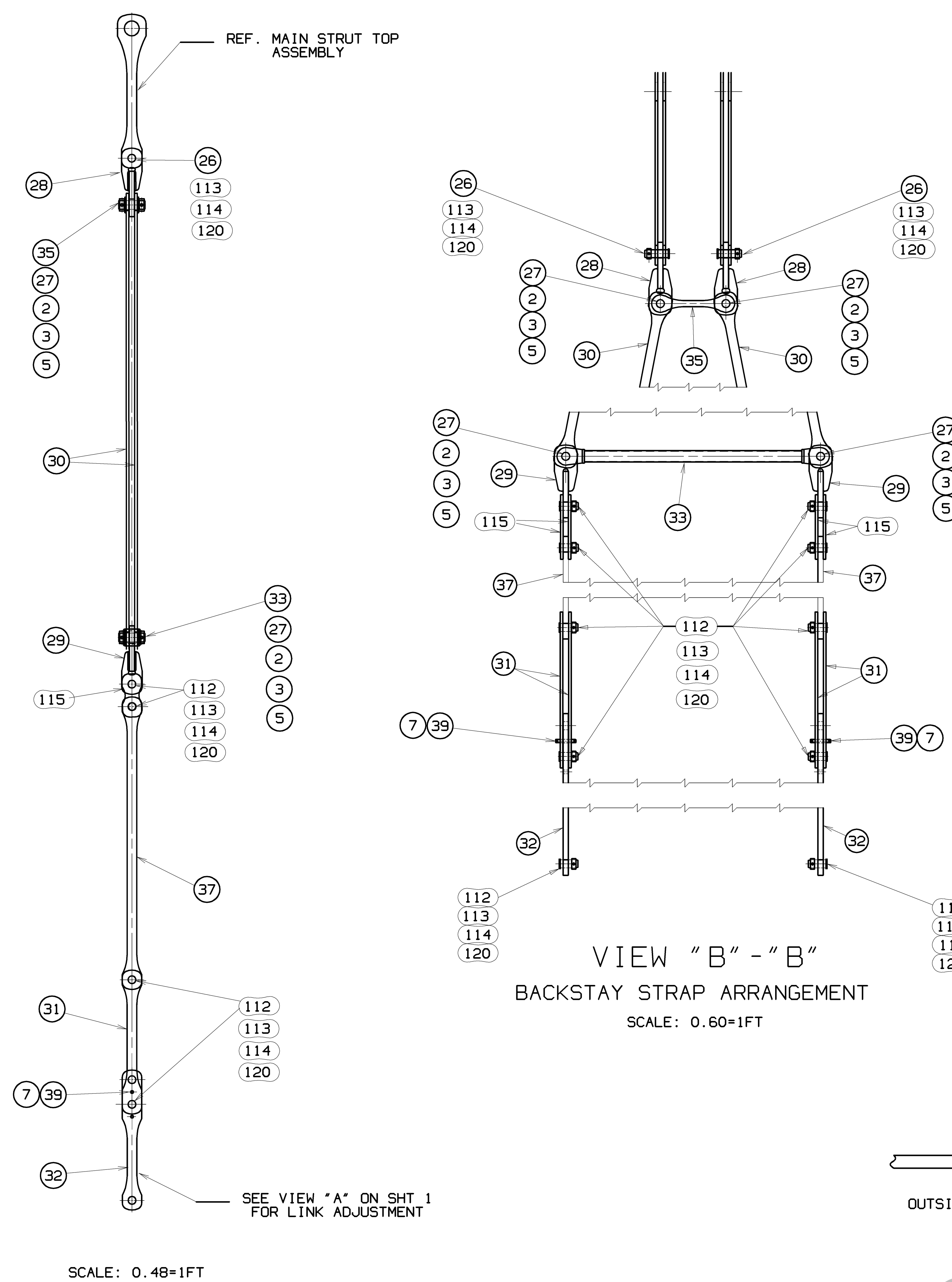
MANITOWOC CRANES, INC. Manitowoc, Wisconsin

JIB LUFFING ASSEMBLY

#79A ON 55 OR 55A BOOM W/100' MAST

A08237

SHT 3 OF 8



BILL OF MATERIAL						
ITEM NO.	NO. RECD	SECTION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. OR DWS. NO

ASSEMBLIES USED ON	

REVISIONS
1-12-09 JAS
UPDATED BAL-
DONS WITH
/M CHANGE
WAS SHEET
OF 7

DMG. NO.
A08237
GHT 4 OF 8

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
1. 6829103794 05 035

DATE
11-17-03

1000

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

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 "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	±5 PSI	AT 90°F (32 DEG C)
250 PSI	±5 PSI	AT 70°F (21 DEG C)
240 PSI	±5 PSI	AT 50°F (10 DEG C)
230 PSI	±5 PSI	AT 30°F (-1 DEG C)
- ATTACH ASSIST CRANE (110 FT BOOM MIN. WITH 60,000# CAPACITY) READY 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. AND REMOVE 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 STRUT 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.

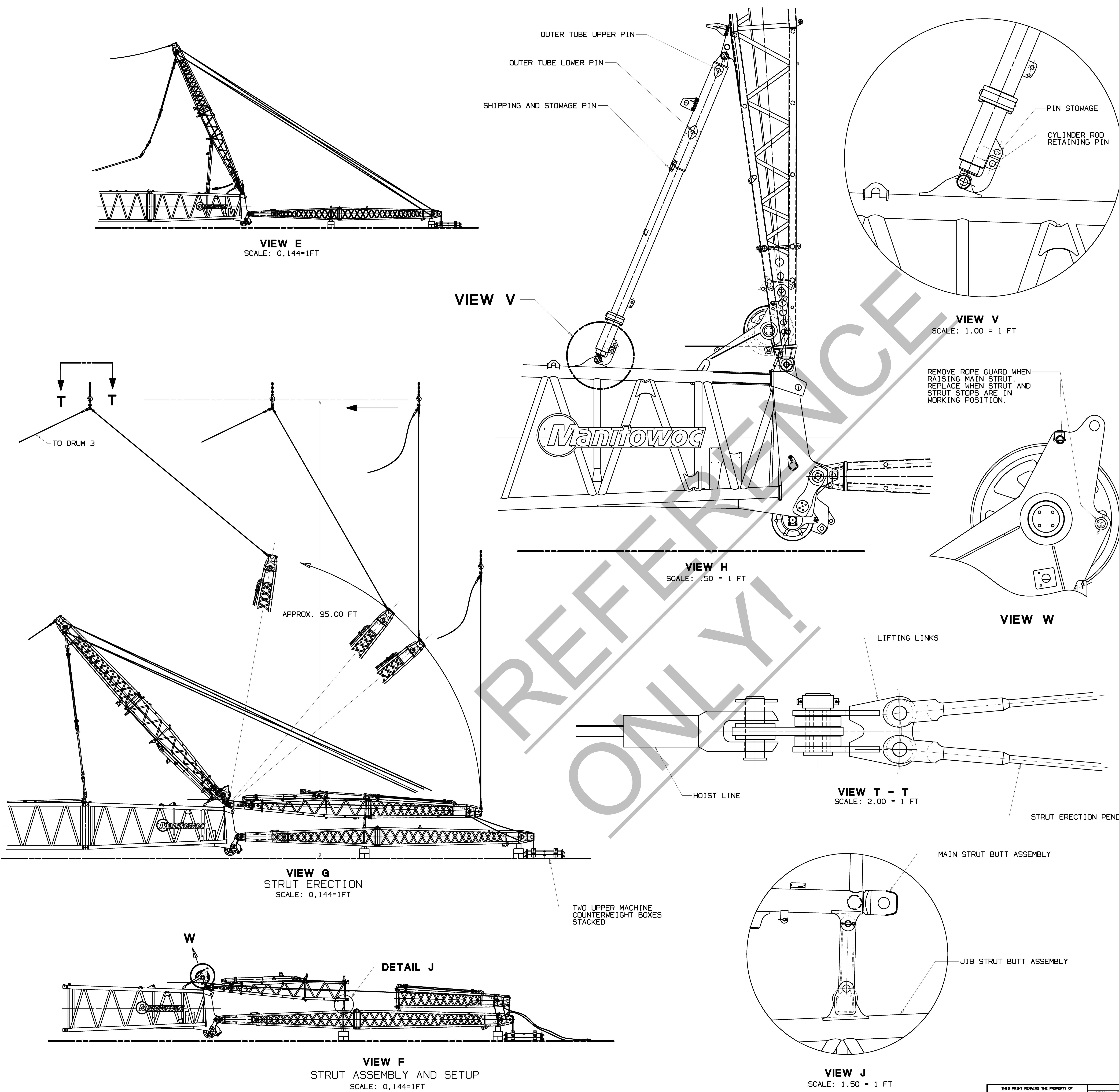
STRUT LOWERING PROCEDURE

- 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 SWUNG 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.

REVISIONS
01-23-04 M.W. REVISED STRUT RAISING PROCEDURE & ADDED VIEW W
11-12-09 JAS
2 OF 7
06-08-10 JAS
UPDATED BOOM SIGN

ENG. NO.
A08237
SHT 5 OF 8

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 8829103794 FOR COMPONENTS LISTED IN 05500-05-026
DATE
10-17-03
PATTERN NO.
ENG. NO.
A08237



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DECIMAL PLACES	± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET	± 10 FEET
(1) PLACE 0.0	± 0.06	± 0.06	± 0.06	± 0.06	± 0.06	± 0.06	± 0.06	± 0.06	± 0.06
(2) PLACE 0.00	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005
(3) PLACE 0.000	± 0.0005	± 0.0005	± 0.0005	± 0.0005	± 0.0005	± 0.0005	± 0.0005	± 0.0005	± 0.0005
ANGLES	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
MANITOWOC CRANES, INC.		MANITOWOC, WISCONSIN		JIB LUFFING ASSEMBLY		79A ON 55 OR 55A BOOM W/100' MAST		A08237	

REVISIONS

01-23-04 MJW
REVISED
PROCEDURE 16
11-12-09 JAS
AT HAS SHT
6 OF 7
06-08-10 JAS
UPDATED JIB
SIGN

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.

DWG. NO.
A08237

SHT 6 OF 8

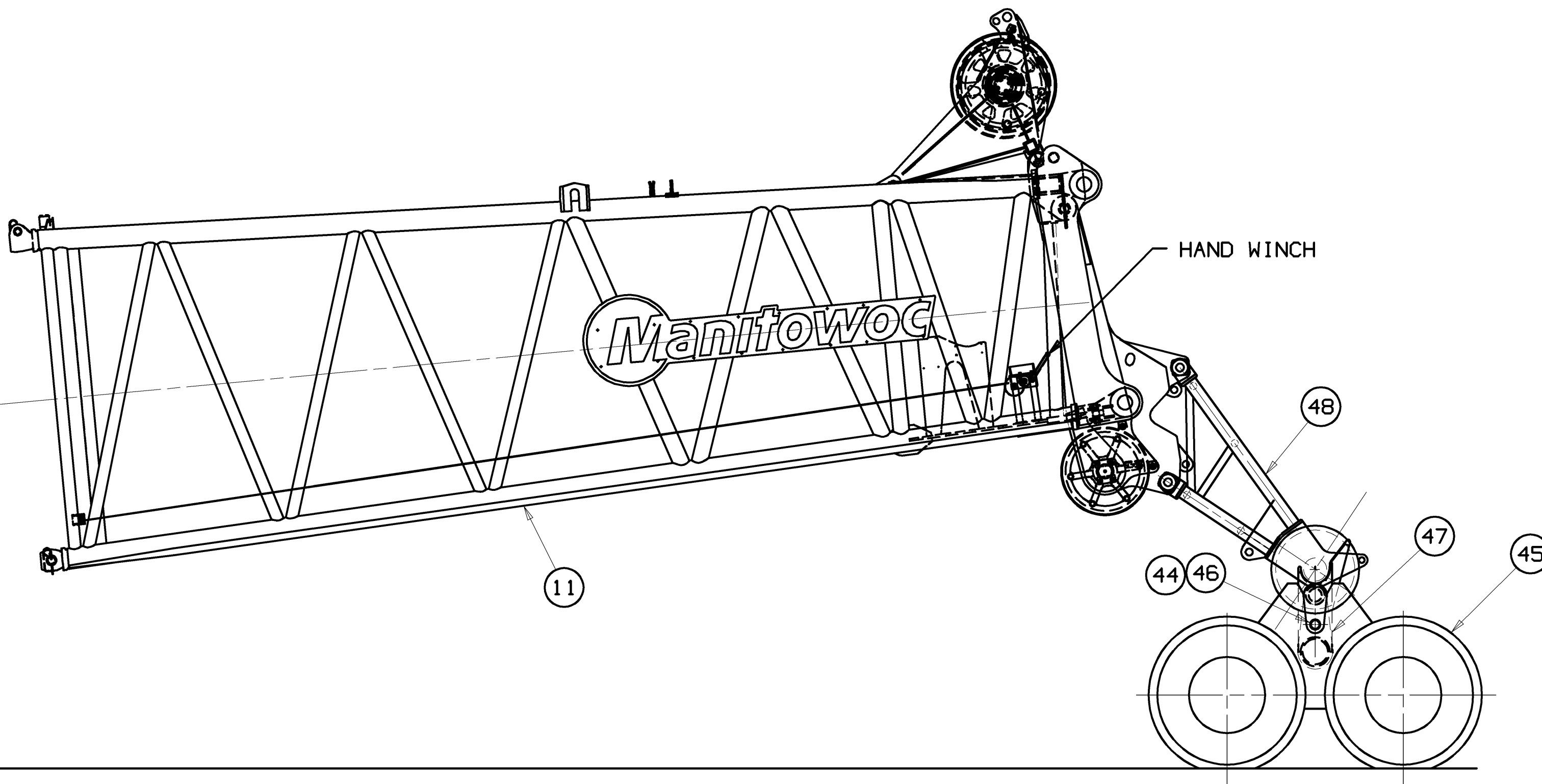
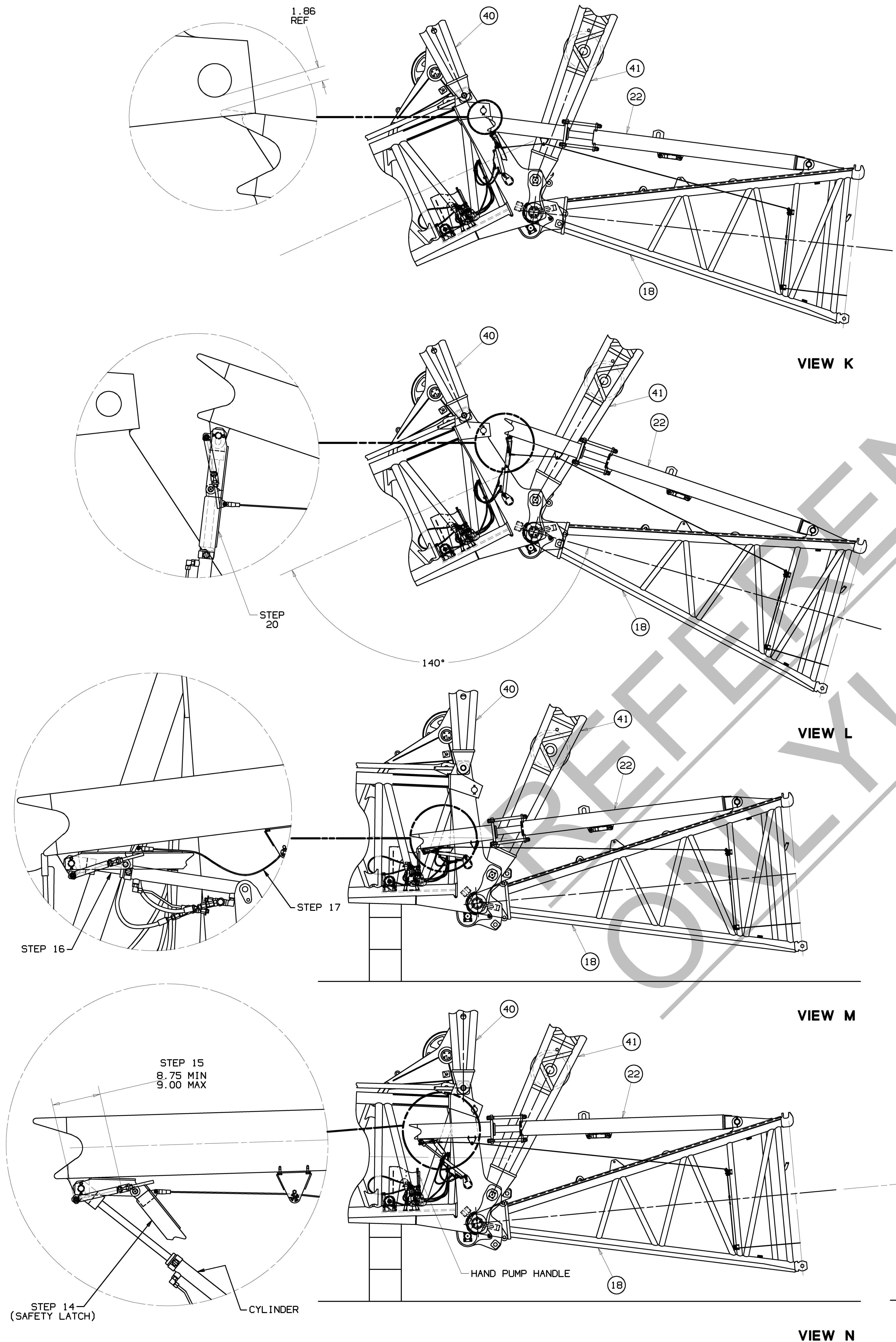
PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6829103794 FOR
COMPONENTS LISTED
IN 6829103794

DATE
11-17-03

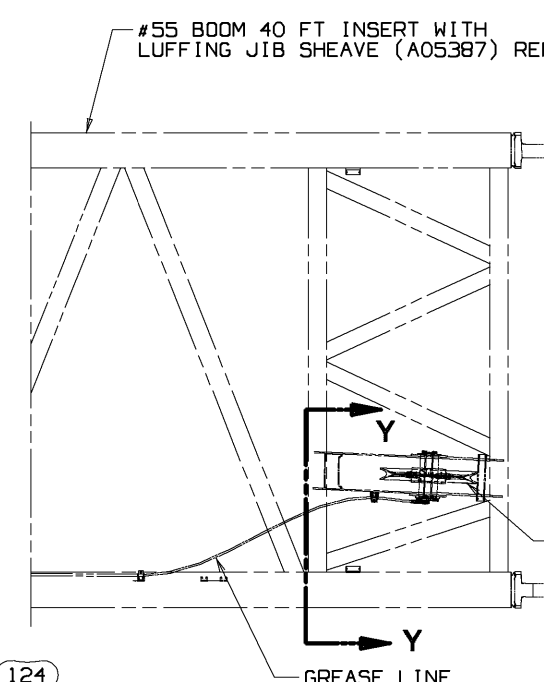
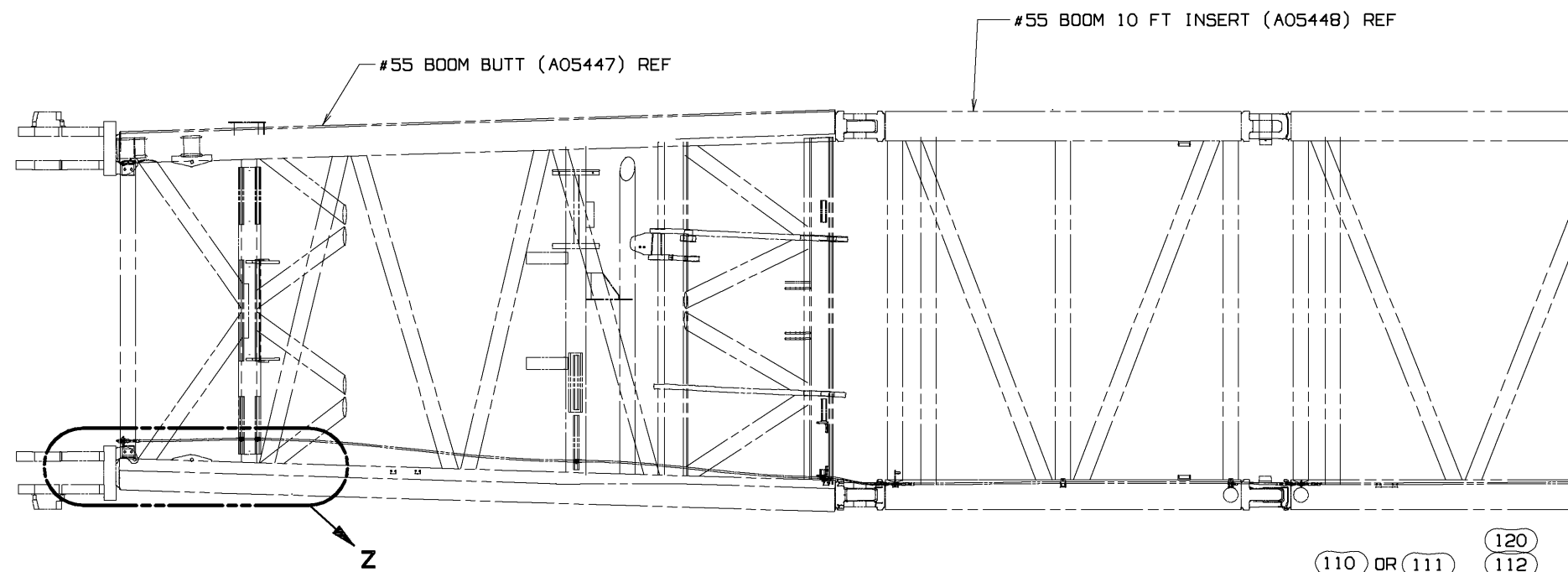
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DWG. NO.
A08237

SHT 6 OF 8

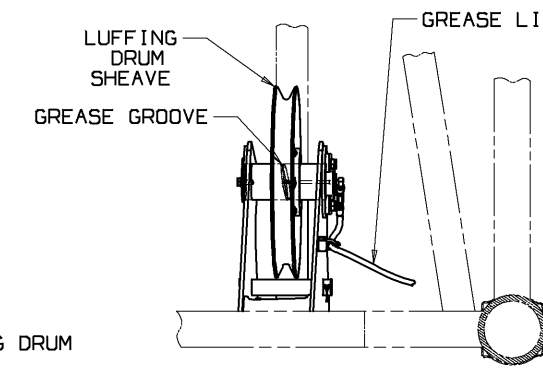


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APP. RLM		APP. RLM		MODEL 18000		



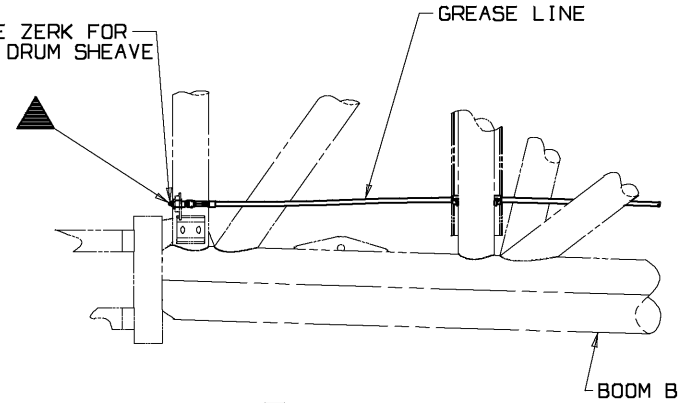
GREASING LUFFING DRUM SHEAVE.

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.

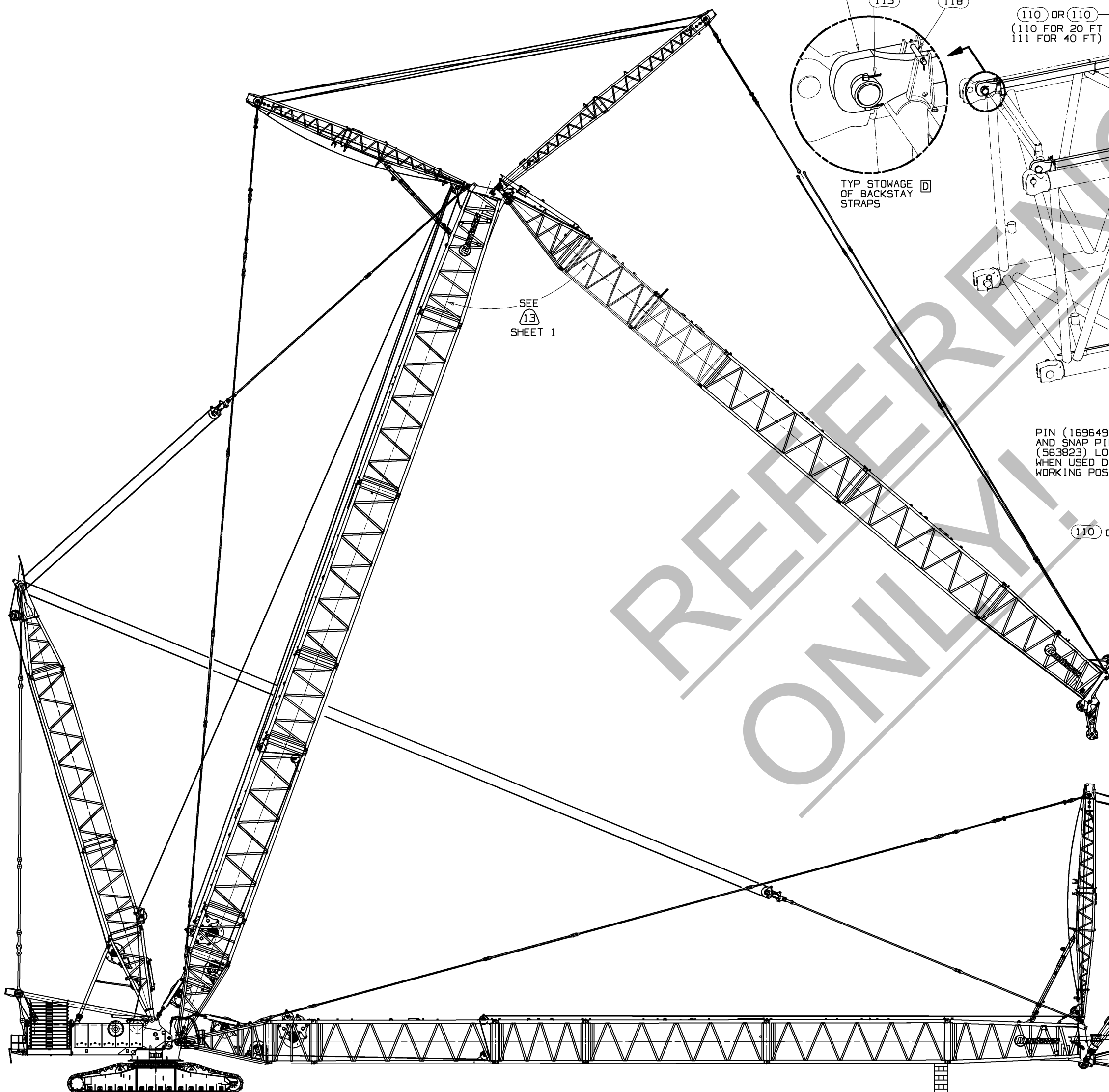


A VIEW Y-Y
SCALE: 1"=1 FT

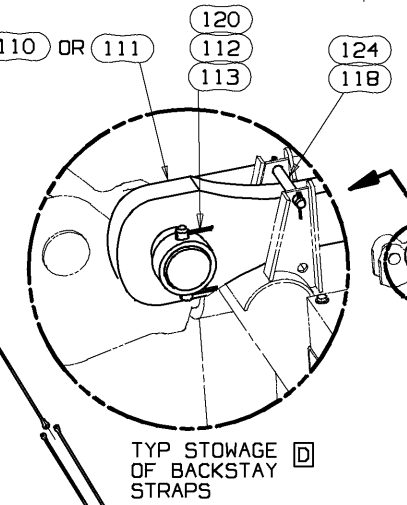
GREASE ZERK FOR LUFFING DRUM SHEAVE



B VIEW Z-Z
SCALE: 1"=1 FT

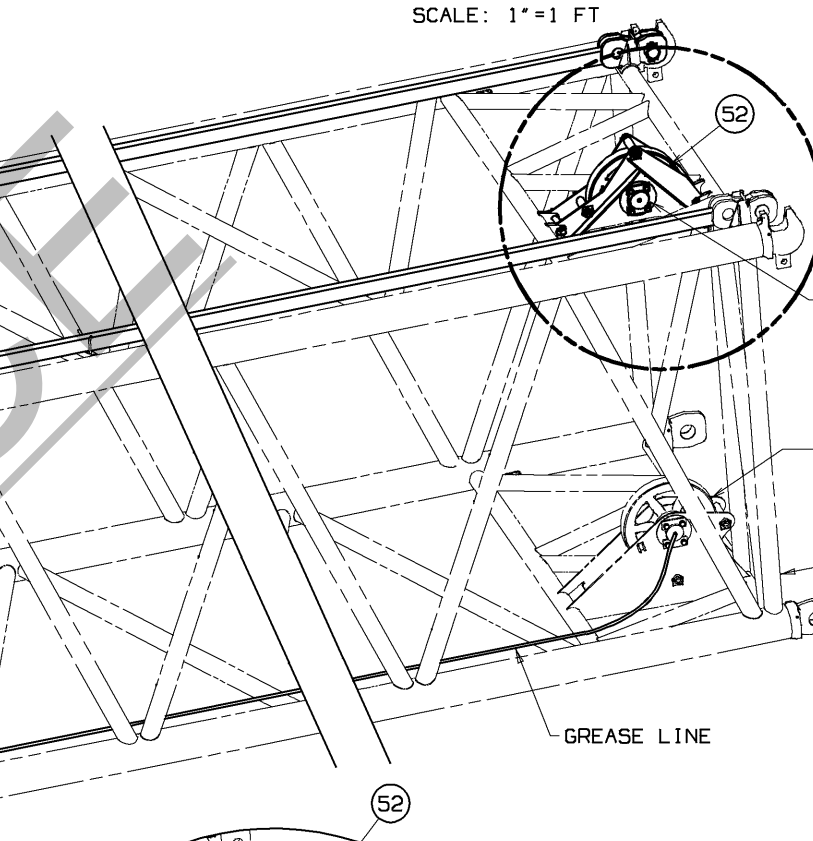


200 FT #55 OR #55A BOOM / 170 FT #79A JIB SHOWN
SCALE: .09 = 1 FT



TYP STORAGE OF BACKSTAY STRAPS

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



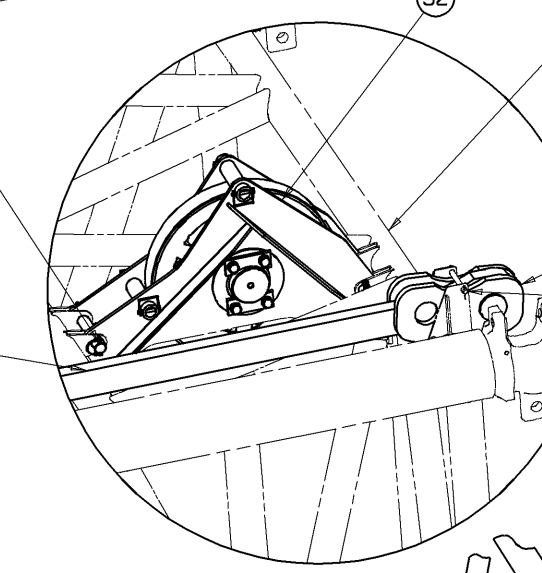
NOTE: UPPER SHEAVE ASSEMBLY SHIPS WITH LUFFING JIB

NOTE: LOWER SHEAVE ASSEMBLY SHIPS WITH THE CRANE

REF 40 FT INSERT #55 BOOM (A05387)

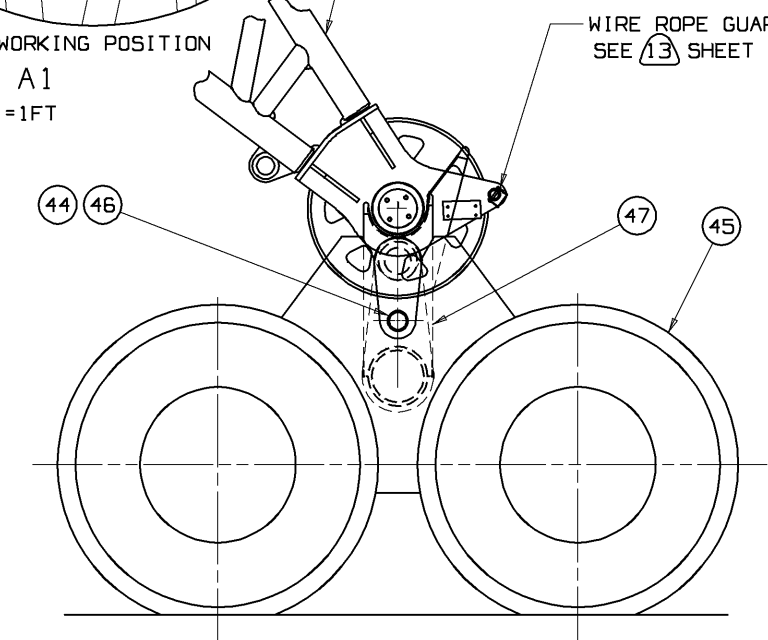
REF 40 FT INSERT #55 BOOM (A05387)

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

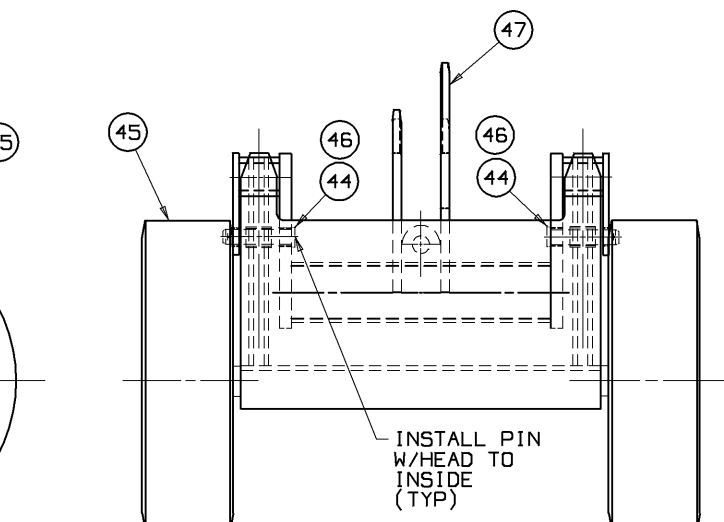


ITEM 52 SHOWN IN WORKING POSITION

F VIEW A1
SCALE: 1"=1 FT



WIRE ROPE GUARD SEE 13 SHEET 1



VIEW X - X
SCALE: .75 = 1 FT

INSTALL PIN W/HEAD TO INSIDE (TYP)

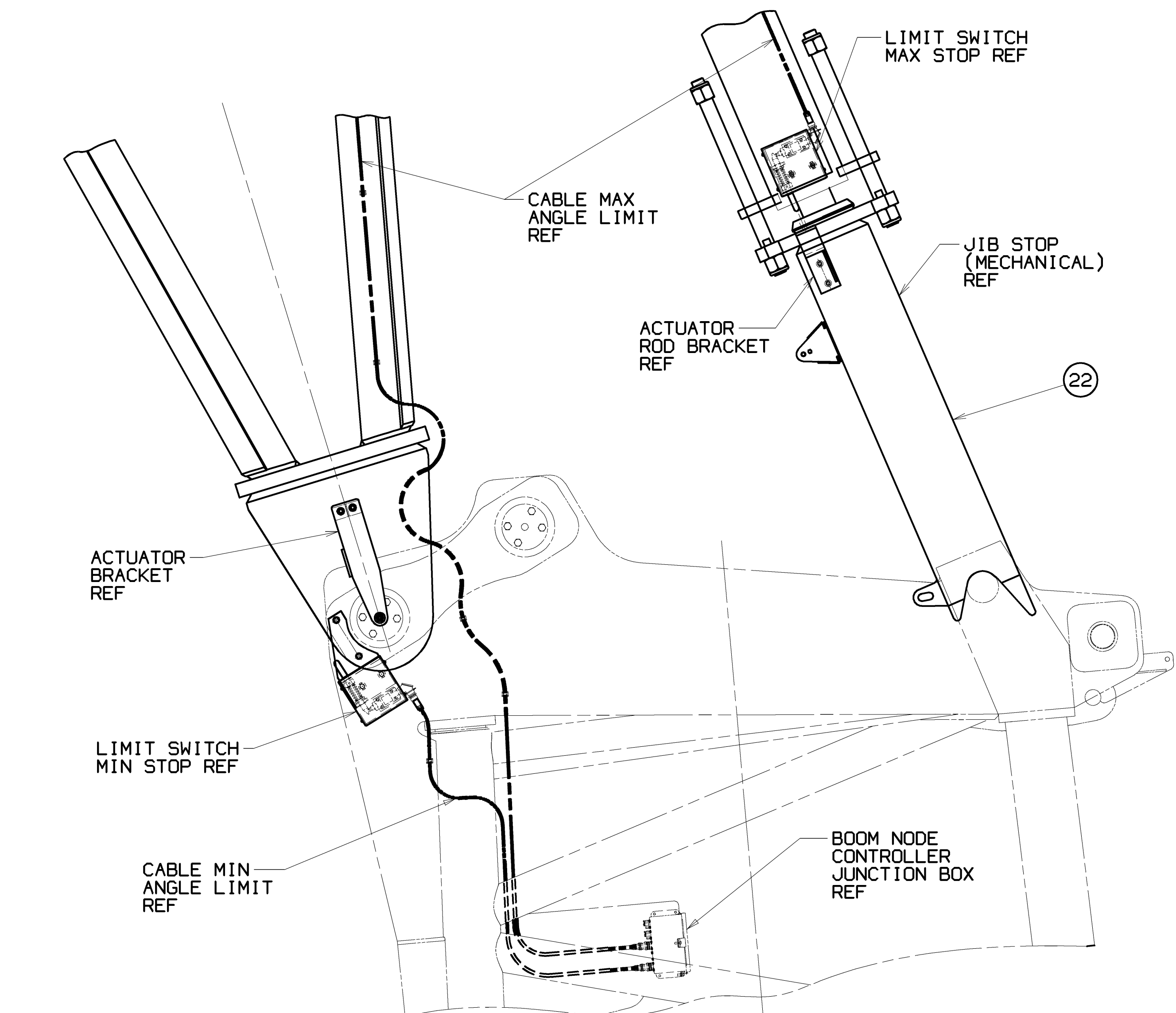
BILL OF MATERIAL				ASSEMBLIES USED BY	
ITEM NO.	QTY	DESCRIPTION	UNIT	MATERIAL	DATE
1	1	200 FT #55 OR #55A BOOM / 170 FT #79A JIB	BOOM	STEEL	01-30-07 TRO
2	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
3	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
4	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
5	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
6	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
7	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
8	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
9	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
10	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
11	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
12	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
13	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
14	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
15	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
16	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
17	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
18	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
19	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
20	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
21	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
22	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
23	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
24	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
25	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
26	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
27	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
28	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
29	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
30	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
31	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
32	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
33	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
34	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
35	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
36	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
37	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
38	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
39	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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41	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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64	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
65	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
66	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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68	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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73	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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86	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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88	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
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93	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
94	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
95	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
96	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
97	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
98	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
99	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO
100	1	170 FT #79A JIB	JIB	STEEL	01-30-07 TRO

PRIVATE LABELING
REQUIREMENT TO
CONFORM TO
ENGINEERING
SPECIFICATION
6629103794 FOR
COMPONENTS LISTED
IN 6629103794-01-005
DATE
11-17-03
PATTERN NO.
A08237

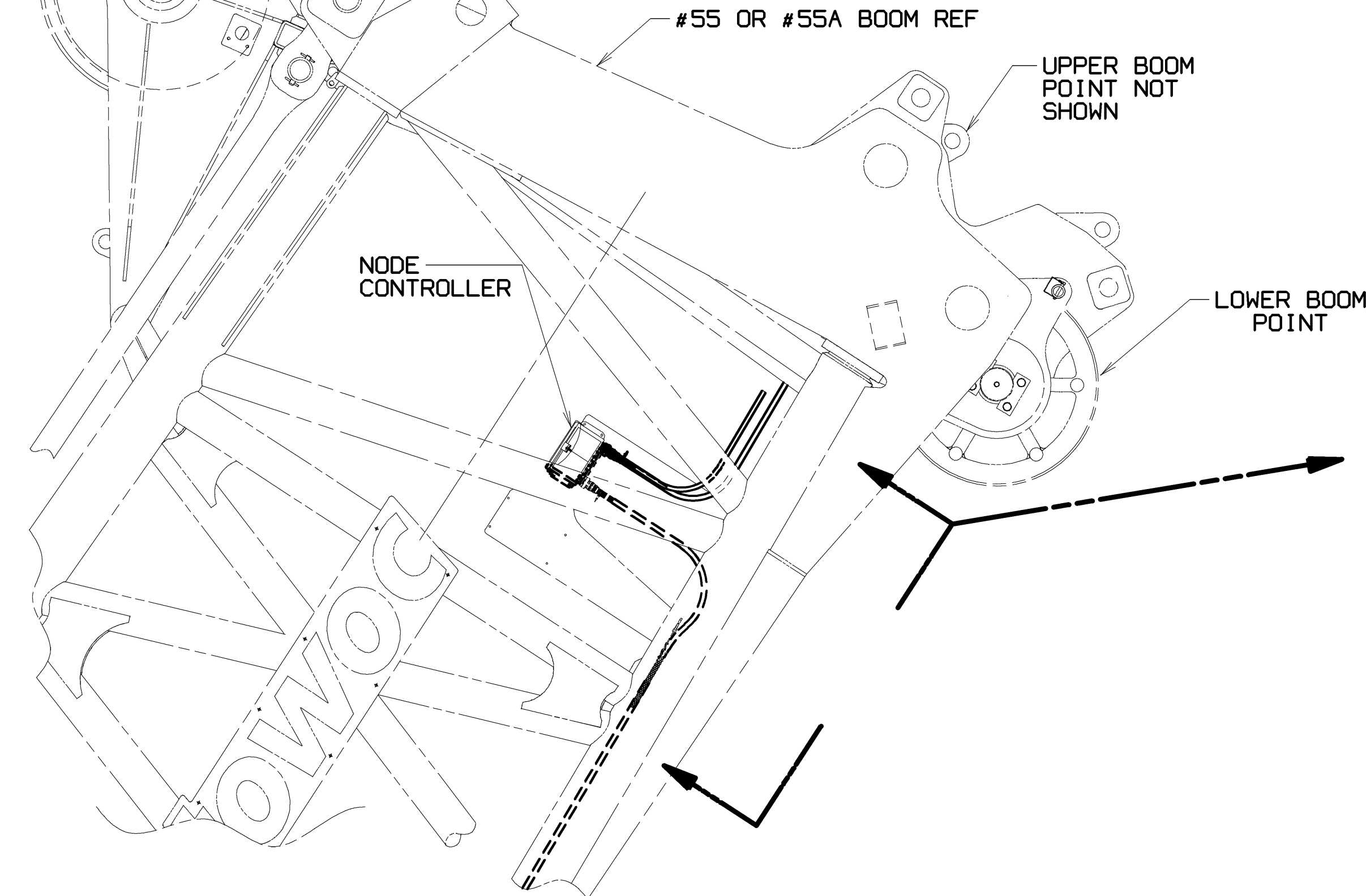
LUFFING JIB LIMIT SHIPPING/WORKING INSTRUCTIONS

- FOR OPERATION WITH #79A LUFFING JIB ON #55/55A BOOM:**
1. MOUNT SWITCHES AND ACTUATOR BRACKETS TO CYLINDER AND LUFFING JIB BUTT AS SHOWN IN VIEW 7 AND OPERATOR'S MANUAL.
 2. CONNECT ELECTRIC CABLES BETWEEN BOOM AND LUFFING JIB POINTS AS SHOWN IN WIRING DIAGRAM VIEW 2

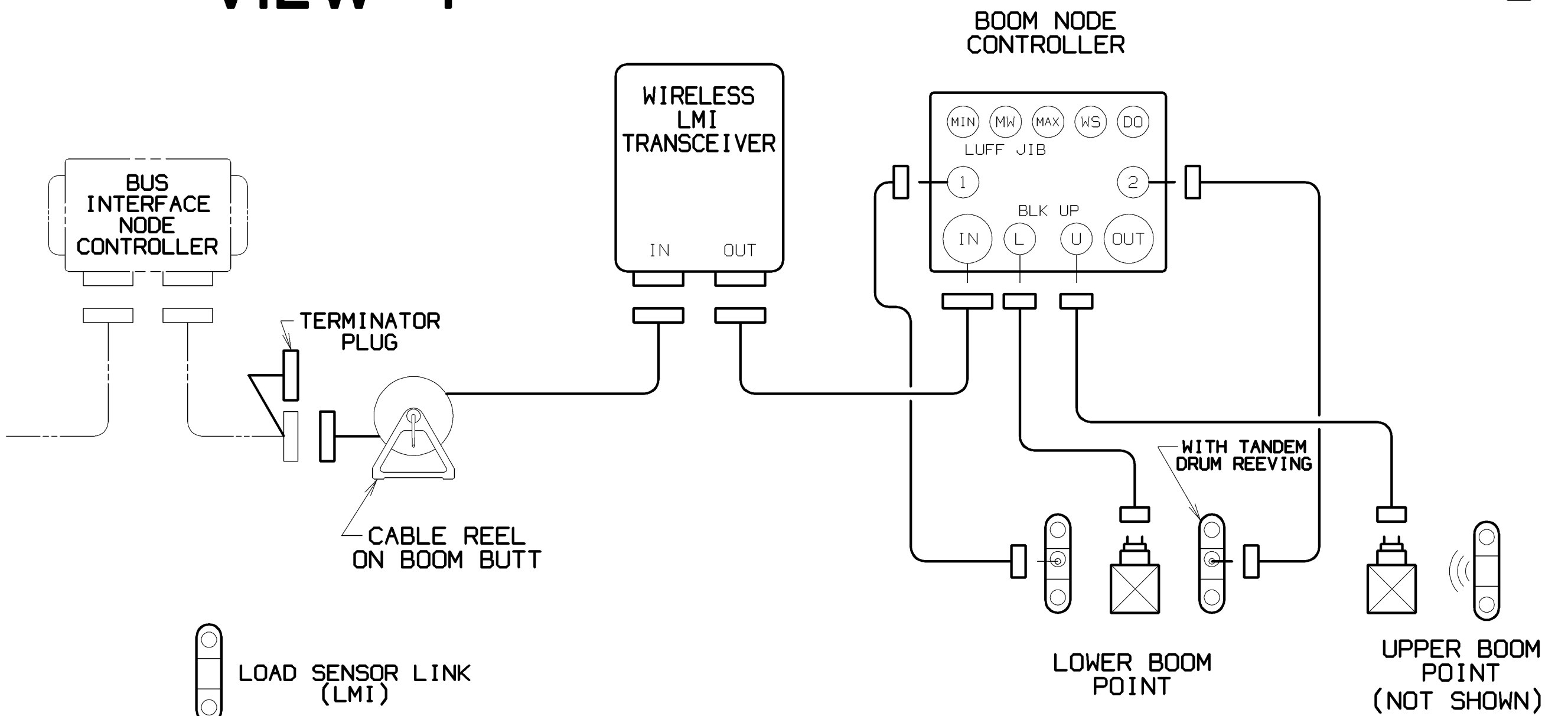
- FOR SHIPPING #79A LUFFING JIB WITH #55/55A BOOM:**
1. REMOVE ACTUATOR BRACKETS AND ELECTRICAL CABLES FROM LIMIT SWITCHES. AND LIMIT SWITCHES. THESE ITEMS MAY BE STOWED IN HTE LUFFING JIB PARTS BOX FOR SHIPPING.



LEFT SIDE OF BOOM TOP
VIEW 7



VIEW 4



WIRING INTERCONNECT DIAGRAM

#55, #55A, OR #79A BOOM TOP WITH (UPPER BOOM POINT - NOT SHOWN)

VIEW 6

TRANSCEIVER SHIPPING/WORKING INSTRUCTIONS

ONLY ONE TRANSCEIVER PROVIDED WITH EACH 18000

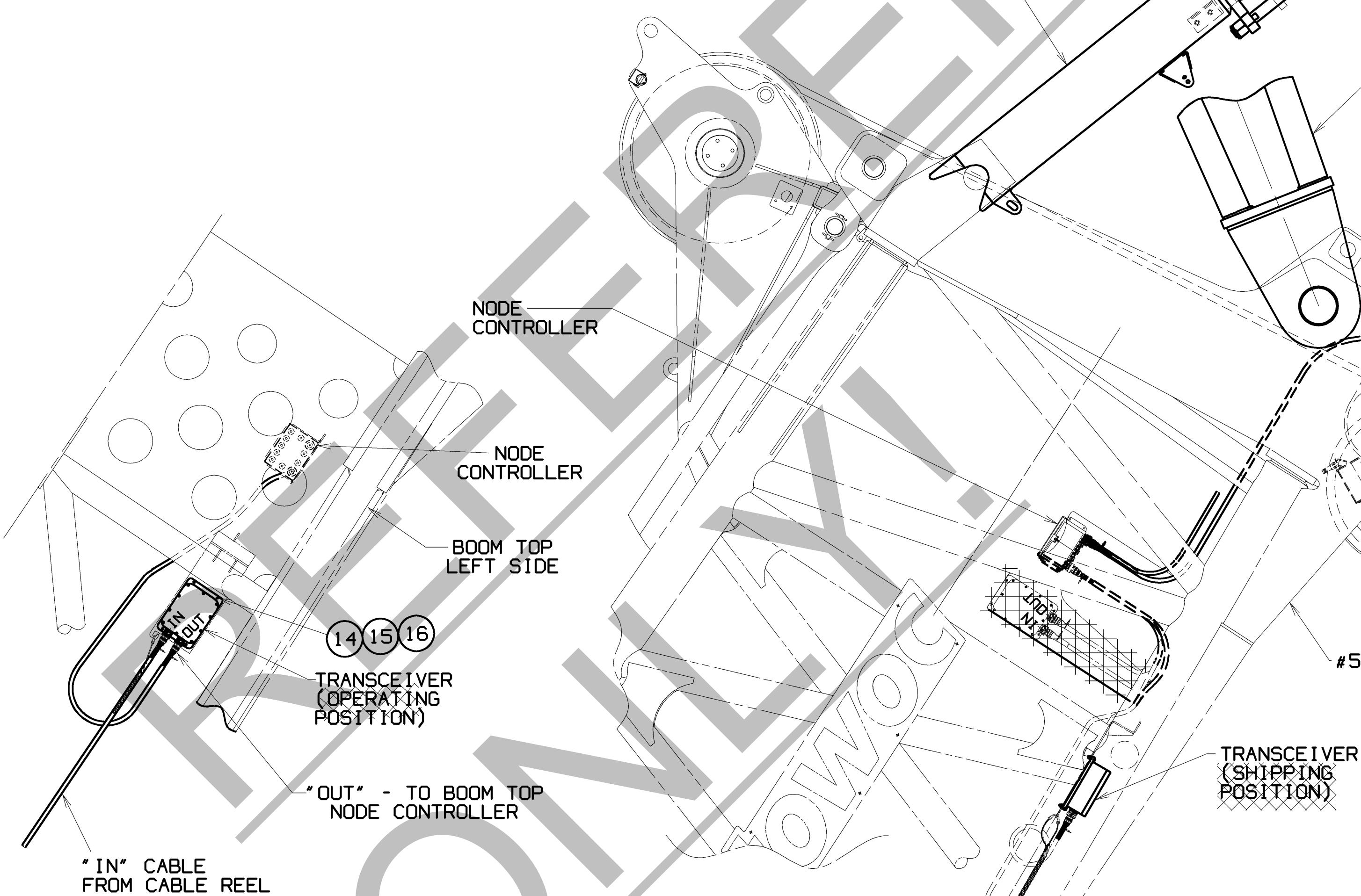
- FOR OPERATION OF #79A LUFFING JIB WITH #55/55A BOOM:**
1. MOUNT TRANSCEIVER ON UNDERSIDE OF LUFFING JIB TOP AS SHOWN IN VIEW 1
 2. CONNECT ELECTRIC CABLES BETWEEN BOOM AND LUFFING JIB POINTS AS SHOWN IN WIRING DIAGRAM VIEW 2

- FOR SHIPPING OF #79A LUFFING JIB WITH #55/55A BOOM:**
1. MOUNT TRANSCEIVER ON STORAGE BRACKET IN LUFFING JIB TOP SHOWN IN VIEW 3
 2. COIL CABLE FROM TRANSCEIVER "IN" CONNECTOR ON CABLE REEL.
 3. CABLE FROM TRANSCEIVER "OUT" CONNECTOR CAN REMAIN CONNECTED TO LUFFING JIB NODE.

- FOR OPERATION WITHOUT #79A LUFFING JIB**
1. REMOVE TRANSCEIVER FROM LUFFING JIB TOP AND INSTALL ON UNDERSIDE OF #55/55A BOOM TOP AS SHOWN IN VIEW 5.
 2. CONNECT ELECTRIC CABLES IN BOOM POINT AS SHOWN IN WIRING DIAGRAM, VIEW 6

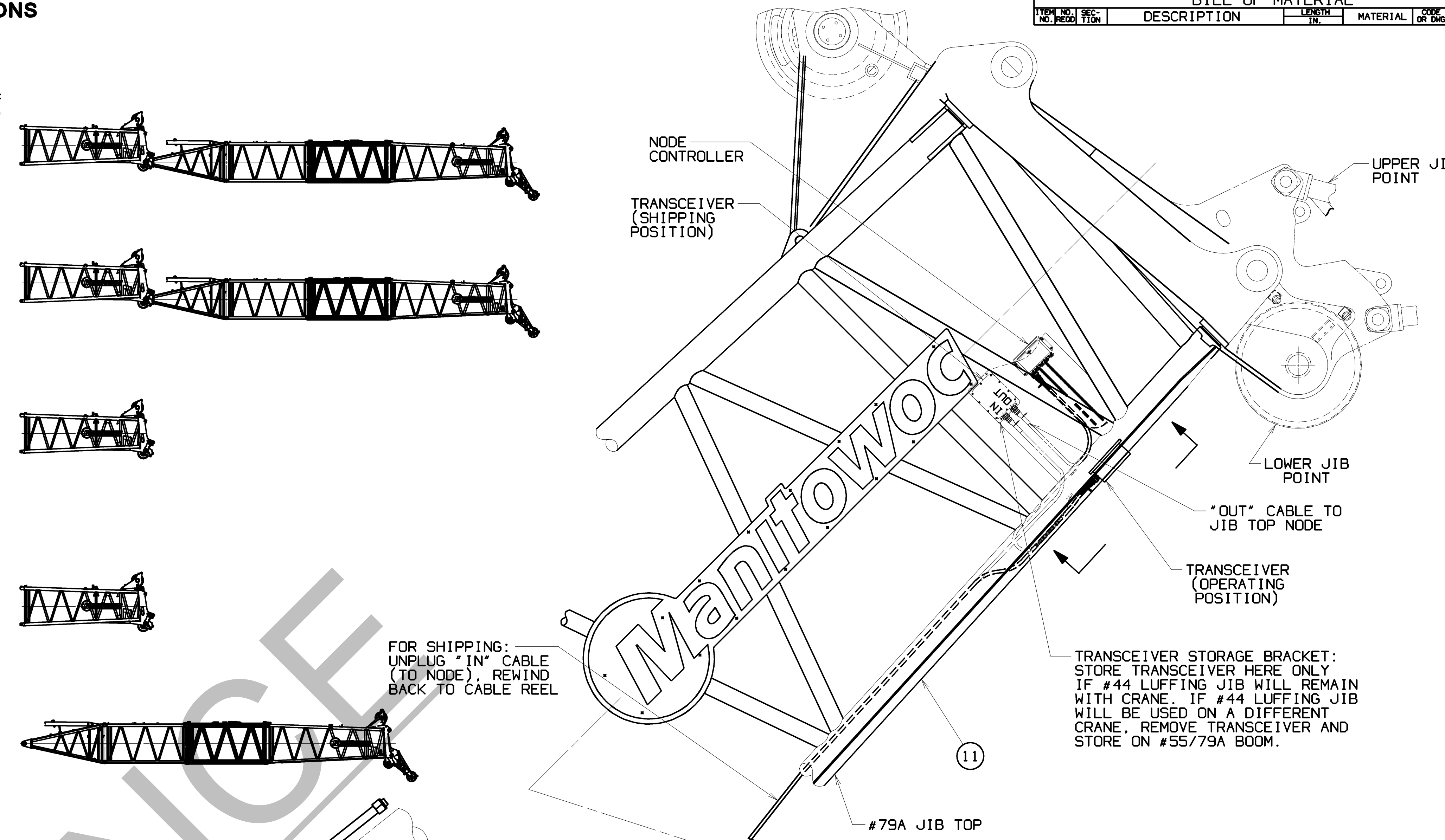
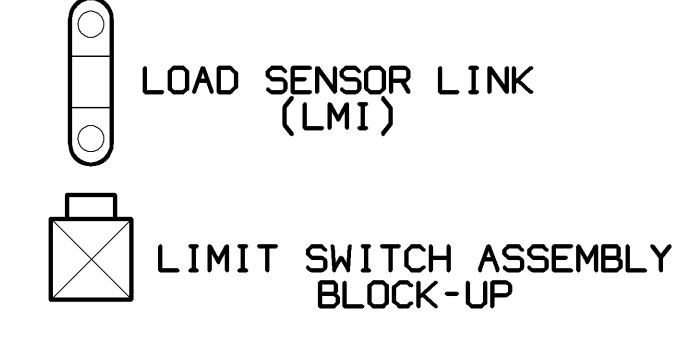
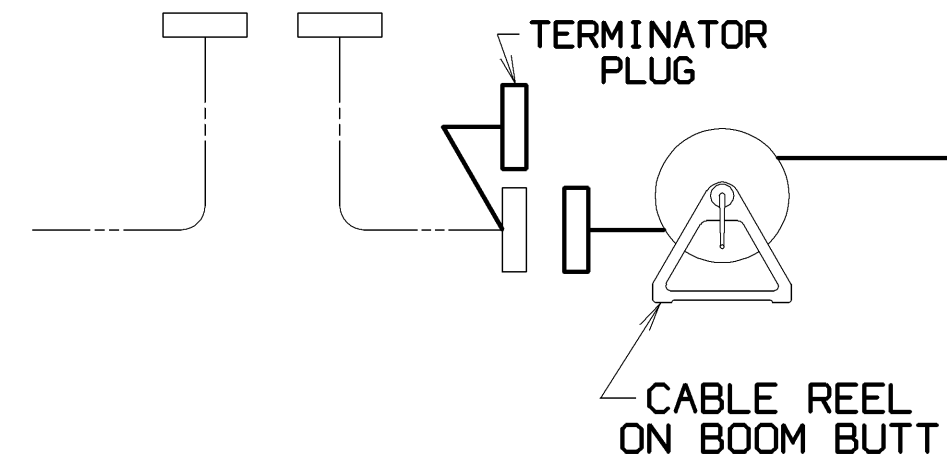
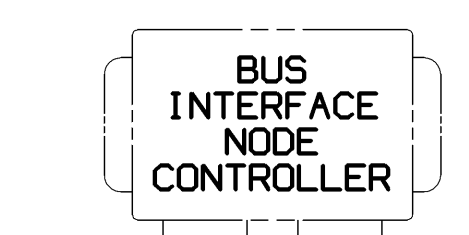
- FOR SHIPPING #55/55A BOOM WITHOUT #79A LUFFING JIB**
1. MOUNT TRANSCEIVER ON STORAGE BRACKET ON BOOM TOP AS SHOWN IN VIEW 4.
 2. COIL CABLE FROM TRANSCEIVER "IN" CONNECTOR ON CABLE REEL.
 3. CABLE FROM TRANSCEIVER "OUT" CONNECTOR CAN REMAIN CONNECTED TO LUFFING JIB NODE.

- FOR SHIPPING #79A LUFFING JIB WITHOUT #55/55A BOOM:**
1. MOUNT TRANSCEIVER ON STORAGE BRACKET IN LUFFING JIB TOP SHOWN IN VIEW 3
 2. COIL CABLE FROM TRANSCEIVER "IN" CONNECTOR ON CABLE REEL.
 3. CABLE FROM TRANSCEIVER "OUT" CONNECTOR CAN REMAIN CONNECTED TO LUFFING JIB NODE.

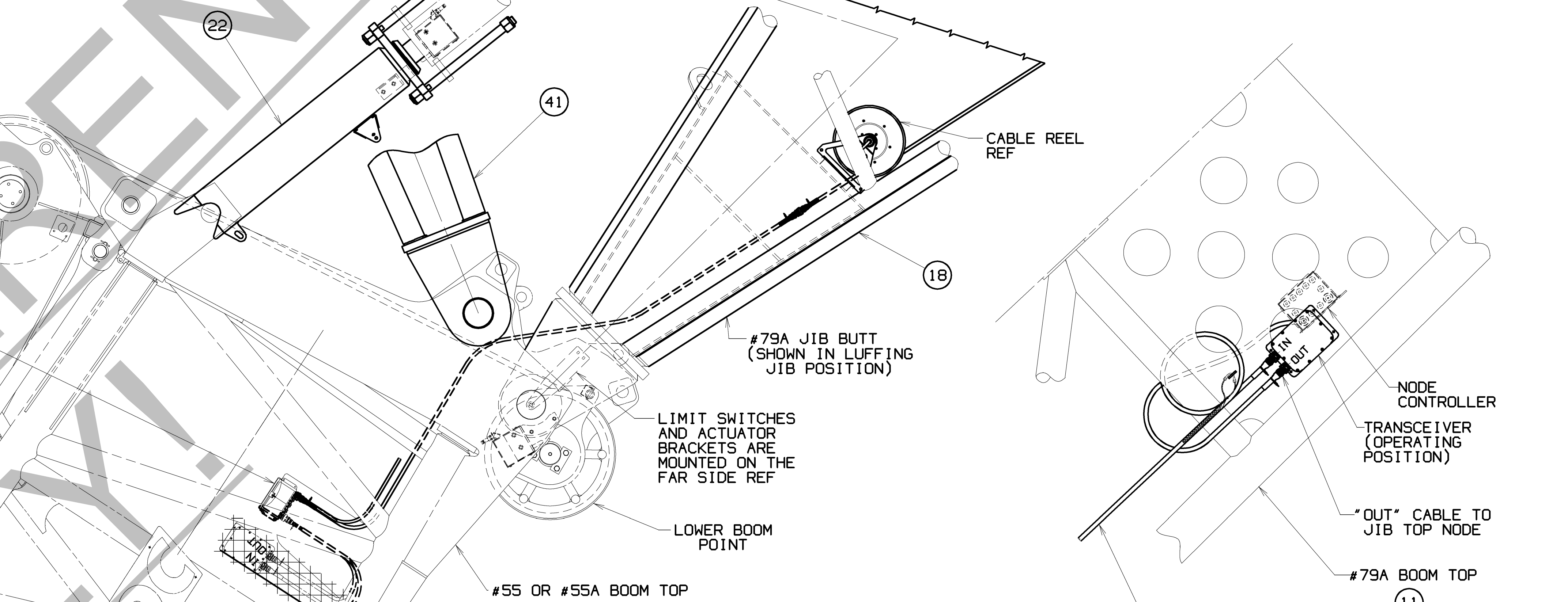


VIEW 5

VIEW 3



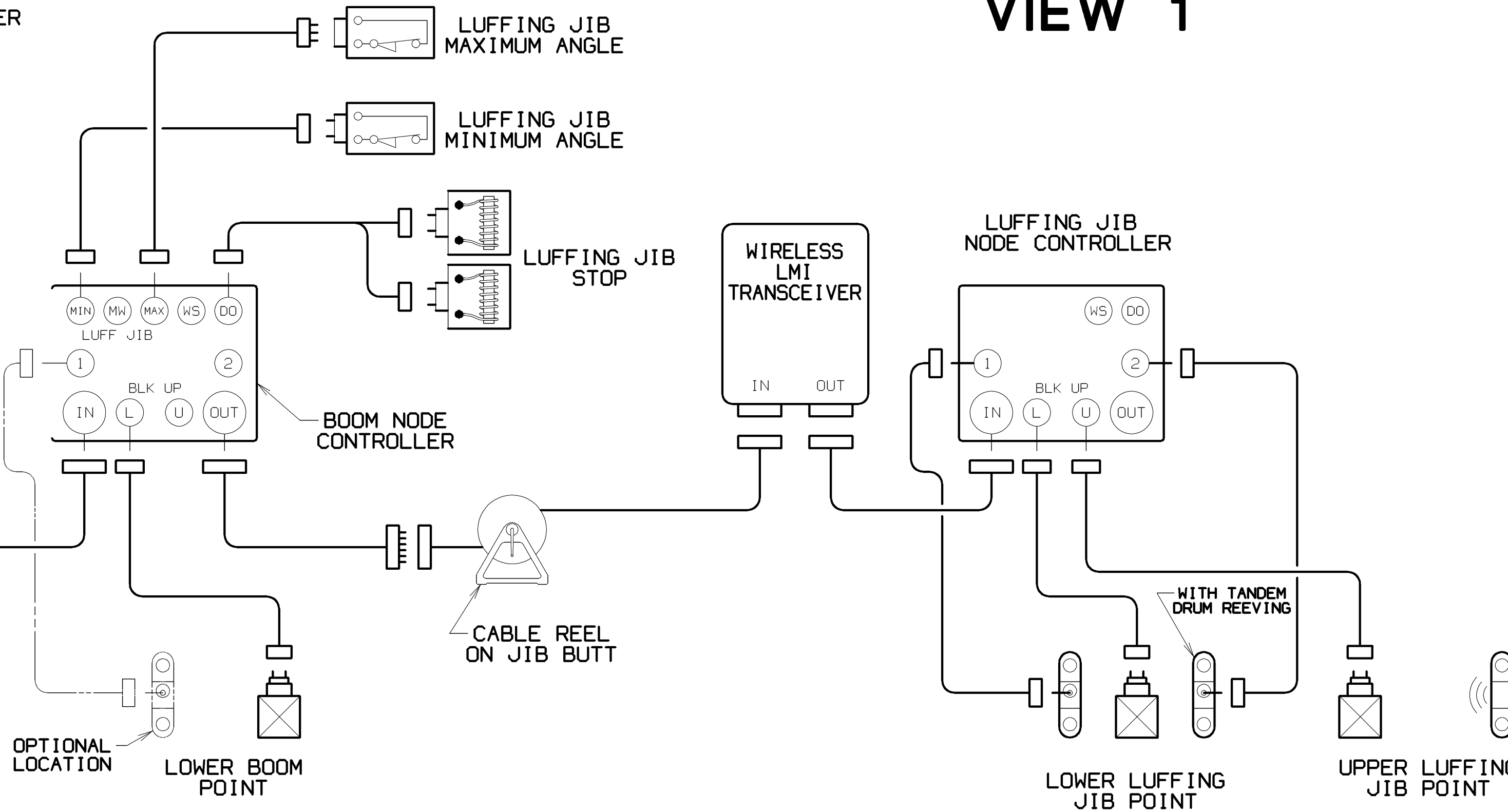
VIEW 1



WIRING INTERCONNECT DIAGRAM

#55 OR #55A BOOM TOP WITH #79A LUFFING JIB AND UPPER LUFFING JIB POINT

VIEW 2



TOLERANCE UNLESS OTHERWISE SPECIFIED		MACHINING		WELDING	
DECIMAL PLACES	FRACTIONS	10 FEET > 10 FEET	10 FEET > 10 FEET	10 FEET > 10 FEET	10 FEET > 10 FEET
(1) PLACE 0.0	±.12	±.18	±.05	±.05	±.05
(2) PLACE 0.00	±.06	±.12	±.015	±.015	±.015
(3) PLACE 0.000	±.006	±.006	±.0005	±.0005	±.0005
ANGLES	±.1°	±.1°	±.1°	±.1°	±.1°

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PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 5829103794 FOR COMPONENTS LISTED IN 5829103794-05-058
DATE: 11-12-09
PATTERN NO.
DATE: 06-08-10 BY: JAS CHK: JAS APP: PMP
MANITOWOC CRANES, INC. Manitowoc, Wisconsin MODEL 18000
JIB LUFFING ASSEMBLY #79A ON 55 OR 55A BOOM W/100' MAST