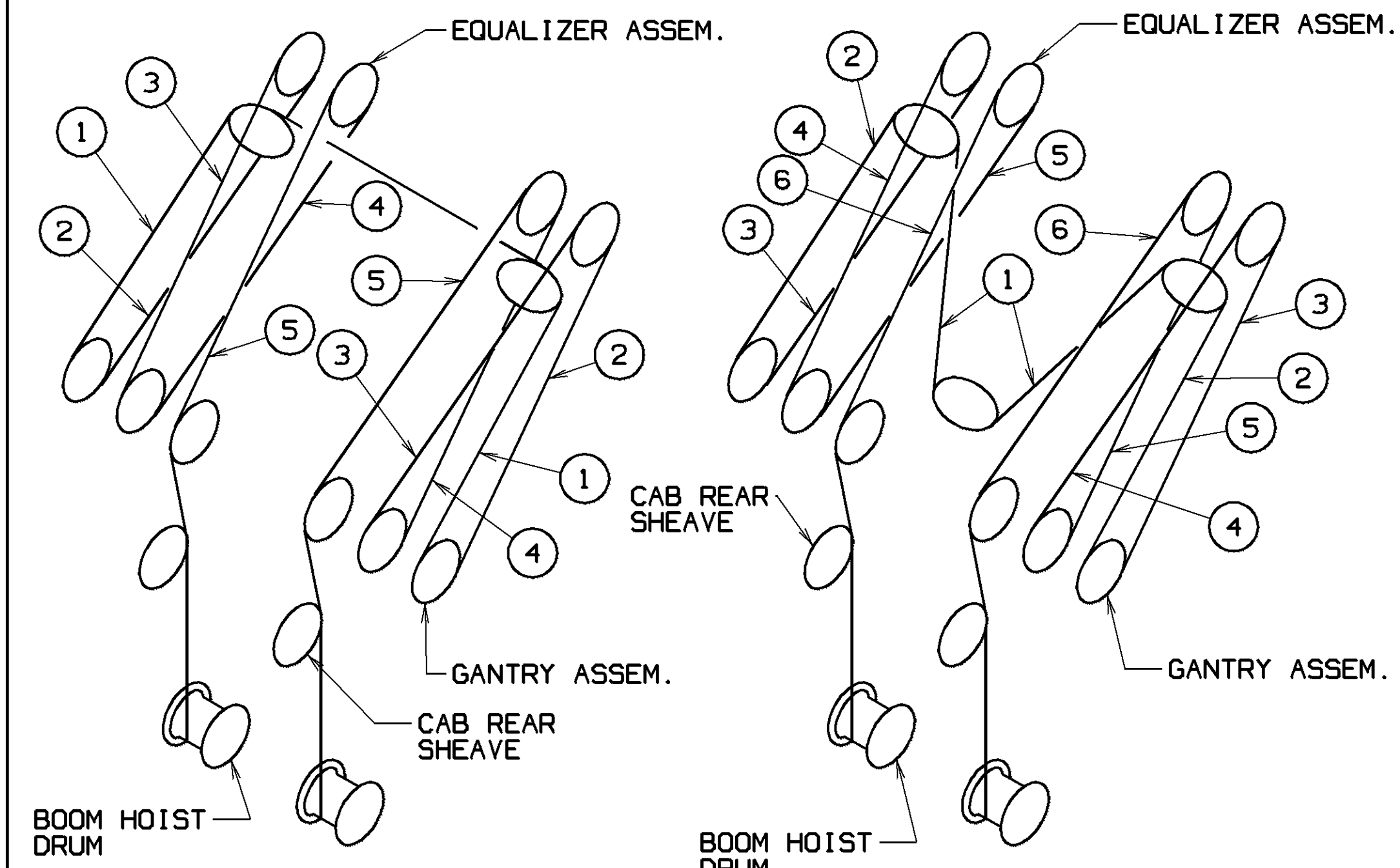


DWG. NO.	181394-2	181429-2	48570-2	48570-3	276897 DWG. # 77535	276898 DWG. # 77535	276935 DWG. # 77535	73649	181402-7	78307
BOOM LENGTH	10FT. HEAVY DUTY INSERT	20FT. HEAVY DUTY INSERT	40FT. INSERT	40FT. INSERT WITH JIB BACKSTAY	PENDANT 10 FT.	PENDANT 20 FT.	PENDANT 40 FT.	WIRE ROPE ROLLER GUIDE ASSEM.	SPREADER BOOM TOP IN LINE	SPREADER BOOM TOP OFFSET 4 1/2"
70 FT.	10 FT. OF INSERT				10 FT. OF PENDANT SETS			1	0	0
80 FT.	20 FT. OF INSERT				20 FT. OF PENDANT SETS			1	0	0
90 FT.	30 FT. OF INSERT				30 FT. OF PENDANT SETS			2	0	1
100 FT.	40 FT. OF INSERT				40 FT. OF PENDANT SETS			2	0	1
110 FT.	50 FT. OF INSERT				50 FT. OF PENDANT SETS			3	0	1
120 FT.	60 FT. OF INSERT				60 FT. OF PENDANT SETS			3	0	1
130 FT.	70 FT. OF INSERT				70 FT. OF PENDANT SETS			4	1	1
140 FT.	80 FT. OF INSERT				80 FT. OF PENDANT SETS			4	1	1
150 FT.	90 FT. OF INSERT				90 FT. OF PENDANT SETS			5	1	1
160 FT.	100 FT. OF INSERT				100 FT. OF PENDANT SETS			5	1	1
170 FT.	110 FT. OF INSERT				110 FT. OF PENDANT SETS			6	1	1
180 FT.	120 FT. OF INSERT				120 FT. OF PENDANT SETS			6	1	1
190 FT.	130 FT. OF INSERT				130 FT. OF PENDANT SETS			7	1	1
200 FT.	140 FT. OF INSERT				140 FT. OF PENDANT SETS			7	1	1
210 FT.	150 FT. OF INSERT				150 FT. OF PENDANT SETS			8	1	1
220 FT.	160 FT. OF INSERT				160 FT. OF PENDANT SETS			8	1	1
230 FT.	170 FT. OF INSERT				170 FT. OF PENDANT SETS			9	1	1
240 FT.	180 FT. OF INSERT				180 FT. OF PENDANT SETS			9	1	1
250 FT.	190 FT. OF INSERT				190 FT. OF PENDANT SETS			10	1	1

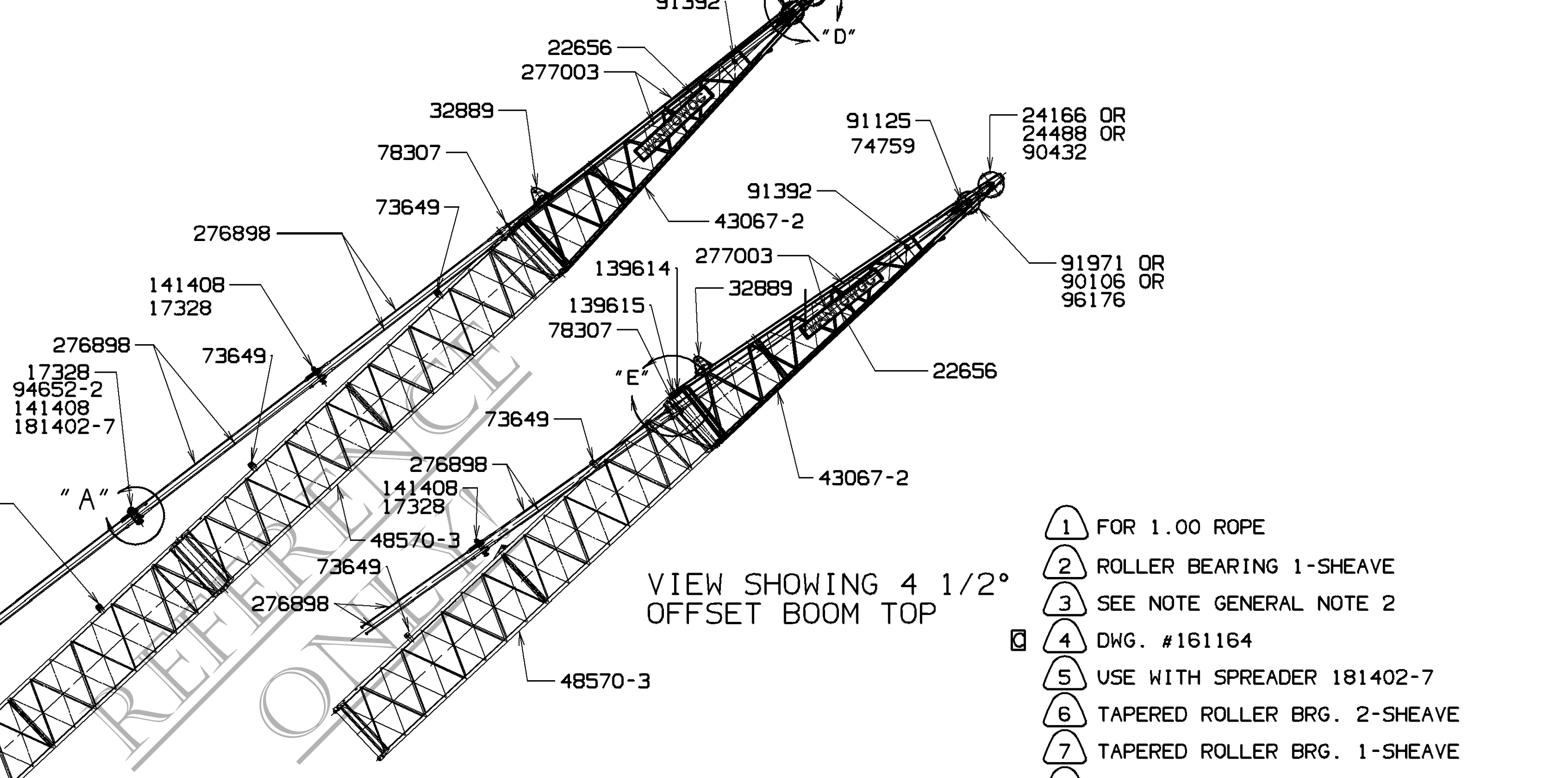
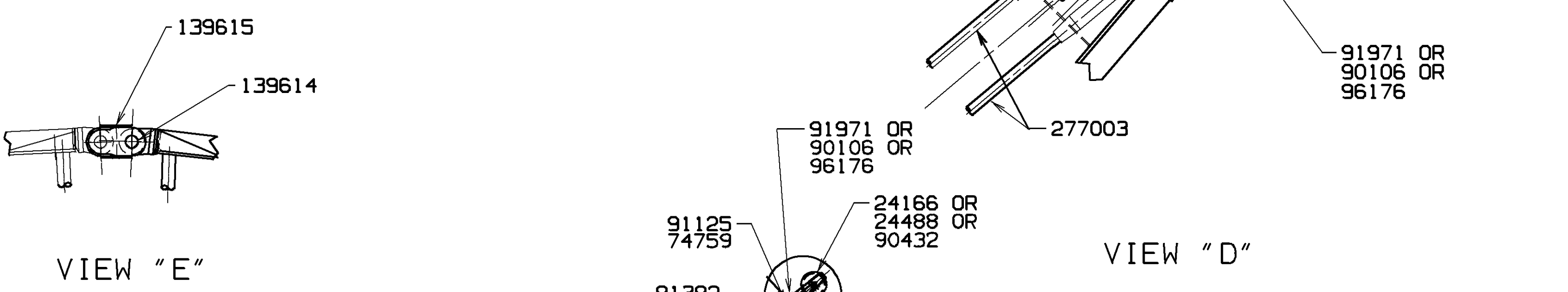
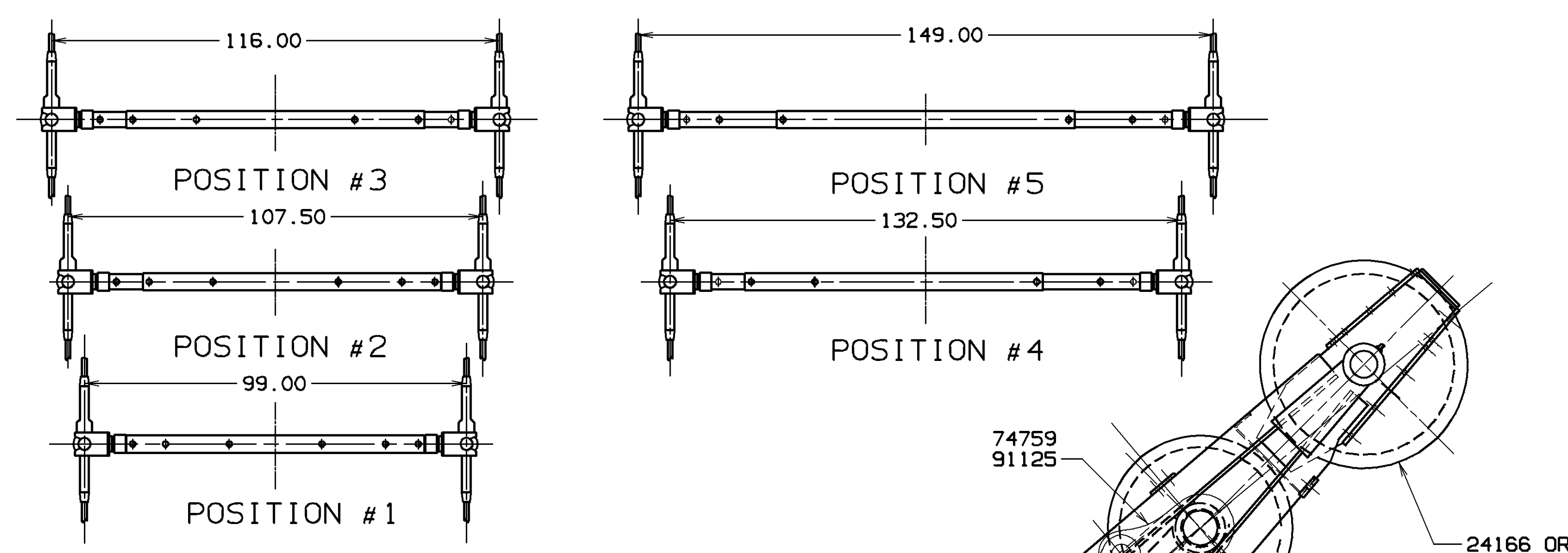


BOOM HOIST LINE FOR 10 PART LINE
580FT. OF 1.00-6X26 HARRINGTON-SEALE,
IMPROVED PLOW STEEL, REGULAR LAY, IWRC,
BREAKING STRENGTH 89,800 LBS. (719033).

BOOM HOIST LINE FOR 12 PART LINE
725FT. OF .88-6X26 HARRINGTON-SEALE,
IMPROVED PLOW STEEL, REGULAR LAY, IWRC,
BREAKING STRENGTH 69,200 LBS. (719091).

ALTERNATE WIRE ROPE
580FT. OF 1.00-6X26 HARRINGTON-SEALE,
EXTRA IMPROVED PLOW STEEL, ALTERNATE
LAY, IWRC, BREAKING STRENGTH,
103,400 LBS. (719095).

ALTERNATE WIRE ROPE
725FT. OF .88-6X26 HARRINGTON-SEALE,
EXTRA IMPROVED PLOW STEEL, ALTERNATE
LAY, IWRC, BREAKING STRENGTH,
79,600 LBS. (719094).



VIEW SHOWING 4 1/2" OFFSET BOOM TOP

- 1 FOR 1.00 ROPE
- 2 ROLLER BEARING 1-SHEAVE
- 3 SEE NOTE GENERAL NOTE 2
- 4 DWG. #161164
- 5 USE WITH SPREADER 181402-7
- 6 TAPERED ROLLER BRG. 2-SHEAVE
- 7 TAPERED ROLLER BRG. 1-SHEAVE
- 8 SEE NOTE GENERAL NOTE 1
- 9 REQ'D. FOR 2 PART LINE
- 10 FOR 1.125 ROPE
- 11 NOT SHOWN
- 12 SEE NOTE GENERAL NOTE 4
- 13 FOR BOOM HANDLING
- 14 FOR CONTAINER HANDLING
- 15 DWG. #50974

BOOM HANDLING INSTRUCTIONS			
ATTACHMENT ARRANGEMENT	GANTRY MAX. LG. OF POSITION BOOM HANDLED	BOOM LENGTH	BOOM CONDITIONS OR LIMITATIONS
EQUALIZER PINNED AT LOWER SLOT	UP	50 FT.	BUTT & INSERTS ONLY
EQUALIZER PINNED AT LOWER SLOT	DOWN	40 FT.	BUTT & ONE 10FT. INSERT ONLY
EQUALIZER PINNED AT UPPER SLOT	UP	70 FT.	BUTT & INSERTS ONLY
EQUALIZER PINNED AT UPPER SLOT	DOWN	50 FT.	BUTT & INSERTS ONLY
PENDANTS PINNED TO ATTACHMENT LUG (#94610) ON INSERTS.	UP	160 FT.	BUTT & INSERTS ONLY
PENDANTS ATTACHED TO BOOM POINT SHAFT.	DOWN	120 FT.	BUTT, INSERTS & TOP-NO JIB
		110 FT.	BUTT, INSERTS & TOP-30FT. #124 JIB
		100 FT.	BUTT, INSERTS & TOP-30FT. #123 OR 60FT. #124 JIB

SPREADER INSTRUCTIONS FOR BOOM TOP IN LINE			
BOOM LENGTH	SPREADER REQUIRED	SPREADER POSITION	LOCATION FROM LOWER BOOM POINT
60'-120'	NO		
130'	YES	"2"	51'-8"
140'-250'	YES	"4"	71'-8"

SPREADER INSTRUCTIONS FOR BOOM TOP OFFSET 4 1/2"			
BOOM LENGTH	SPREADER REQUIRED	SPREADER POSITION	LOCATION FROM LOWER BOOM POINT
60'-80'	NO		
90'	YES	"1"	41'-8"
100'-130'	YES	"2"	51'-8"
140'	YES	"3"	51'-8"
150'-190'	YES	"4"	71'-8"
200'-250'	YES	"5"	91'-8"

DETAIL "A"

BILL OF MATERIAL				
ITEM NO.	QTY.	DESCRIPTION	MATERIAL	CODE NO. OR DWG. NO.
60 FT. BASIC BOOM PARTS				
2		BOOM SIGN		22656
1		WIRE ROPE GUIDE ASSEM.		32889
1		BOOM BUTT - 30 FT.		623561 15
1		WIRE ROPE ROLLER GUIDE ASSEM.		74530
2		BUSHING		74759
2		PENDANT PIN		78574
1		LOWER BOOM POINT ASSEM.		90106 1
1		UPPER BOOM POINT ASSEM.		90432 2
2		LINK		91125
2		REMOVABLE EQUALIZER RAIL		92999 3
2		LINK		93899
2		PIN		142248
1		EQUALIZER ASSEM.		182471
1		GANTRY ASSEM.		190126
1		BOOM TOP - 30 FT.		43067-2
4		BASIC PENDANT 30 FT. - 10.00 LG.		277003 4

OPTIONAL PARTS				
4		END PLATE		17328 5
1		UPPER BOOM POINT ASSEM.		24166 6
1		UPPER BOOM POINT ASSEM.		24488 7
1		R. H. JIB BACKSTAY ANCHOR		73187 8
1		L. H. JIB BACKSTAY ANCHOR		73188 8
1		UNIV. WIRE ROPE ANCHOR JOINT ASSEM.		91392 9
1		LOWER BOOM POINT ASSEM.		91971 10
1		PLATFORM FOR BOOM BUTT		93113 11
1		PENDANT RUBBING FRAME ASSEM. NOT SHOWN		93940 12
1		PENDANT ATTACHMENT LUG ASSEM.		94610 13
2		SPREADER BRACKET		94652-25
1		LOWER BOOM POINT ASSEM.		96176 14
4		PIN - SEE PENDANT NOTE 5		141408 5

OPTIONAL PARTS FOR 4 1/2" OFFSET TOP				
4		BOOM JOINT PIN		139614
2		LINK		139615

GENERAL NOTES:

- 1 JIB BACKSTAY LUGS ON THE BOOM BUTT ARE OPTIONAL AND ARE TO BE USED ONLY WITH BOOM LENGTHS OF 60 FT., 70 FT. AND 80 FT. THE FOLLOWING CONDITIONS APPLY:
 - A MAXIMUM JIB ANGLE TO BOOM IS 20° WITH #123 JIB AND 30° WITH #124 JIB.
 - B MAXIMUM JIB STRUT LENGTH IS 12 FT. 6.00.
 - C JIB BACKSTAY LINES MUST BE DISCONNECTED BEFORE LOWERING EQUALIZER TO BOOM BUTT.
 - D PENDANT BACKSTAYS CANNOT BE USED WITH LUGS ON BUTT.
- 2 REMOVABLE EQUALIZER RAIL - EQUALIZER MAY BE SLID FORWARD FROM BUTT ONTO THIS RAIL TO PROVIDE SLACK FOR CHANGING PENDANTS OR ASSEMBLING AND DISASSEMBLING BOOM.
- 3 SEE GANTRY ASSEM. FOR INSTRUCTIONS ON PINNING GANTRY IN THE INTERMEDIATE POSITION.
- 4 PENDANT RUBBING FRAMES REQUIRED WHEN TRAVELING WITH GANTRY DOWN ON BOOM LENGTHS OF 70 FT. & OVER WHERE SPREADER IS NOT REQUIRED. REMOVE FRAMES FOR LENGTHS REQUIRING SPREADER ASSEMBLY.

INSERT NOTES:

- 1 MAXIMUM NUMBER OF 10FT. INSERTS=1
- 2 MAXIMUM NUMBER OF 20FT. INSERTS=1
- 3 INSERTS, DWG. #181394 & #181429, MUST BE INSTALLED WITH HEAVY CHORDS AS THE LOWER CHORDS OF THE BOOM & LOCATED ADJACENT TO THE BUTT SECTION.
- 4 INSERTS SHALL BE INSTALLED IN ORDER OF ASCENDING LENGTH.

PENDANT NOTES:

- 1 "PENDANT SETS" DO NOT INCLUDE BASIC PENDANTS #277003.
- 2 PENDANTS FURNISHED IN SETS OF FOUR.
- 3 MATCH LENGTHS OF PENDANT SETS TO LENGTHS OF INSERTS FURNISHED.
- 4 PENDANTS CALLED FOR ARE ARRANGED TO LOCATE SPREADER IN PROPER POSITION. ONE 40 FT. INSERT MUST BE FURNISHED WITH EIGHT 20 FT. PENDANTS. FURNISH ALL 20 FT. INSERTS WITH MATCHING 20 FT. PENDANTS.
- 5 FOR BOOM TOP IN LINE, PENDANT PIN #141408 MUST BE LOCATED IN RIGGING 51 FT.-8.00 & 71 FT.-8.00 FROM LOWER BOOM POINT TO ALLOW INSERTION OF SPREADER IN PROPER LOCATION. SEE SPREADER INSTRUCTION TABLE TO LOCATE PINS FOR BOOM TOP OFFSET 4 1/2".

SUPERSEDES 49501 OF 3-18-81

178=	Mentoway Cranes, Inc.	BOOM RIGGING ASSEM. -
DR. DWD	Mentoway, Wisconsin	#9A BOOM WITH OPEN
LS	MOD. 3900W	THROAT TOP-DOUBLE
PPWR		1.25 SHAGED PENDANTS

1-26-82
49501