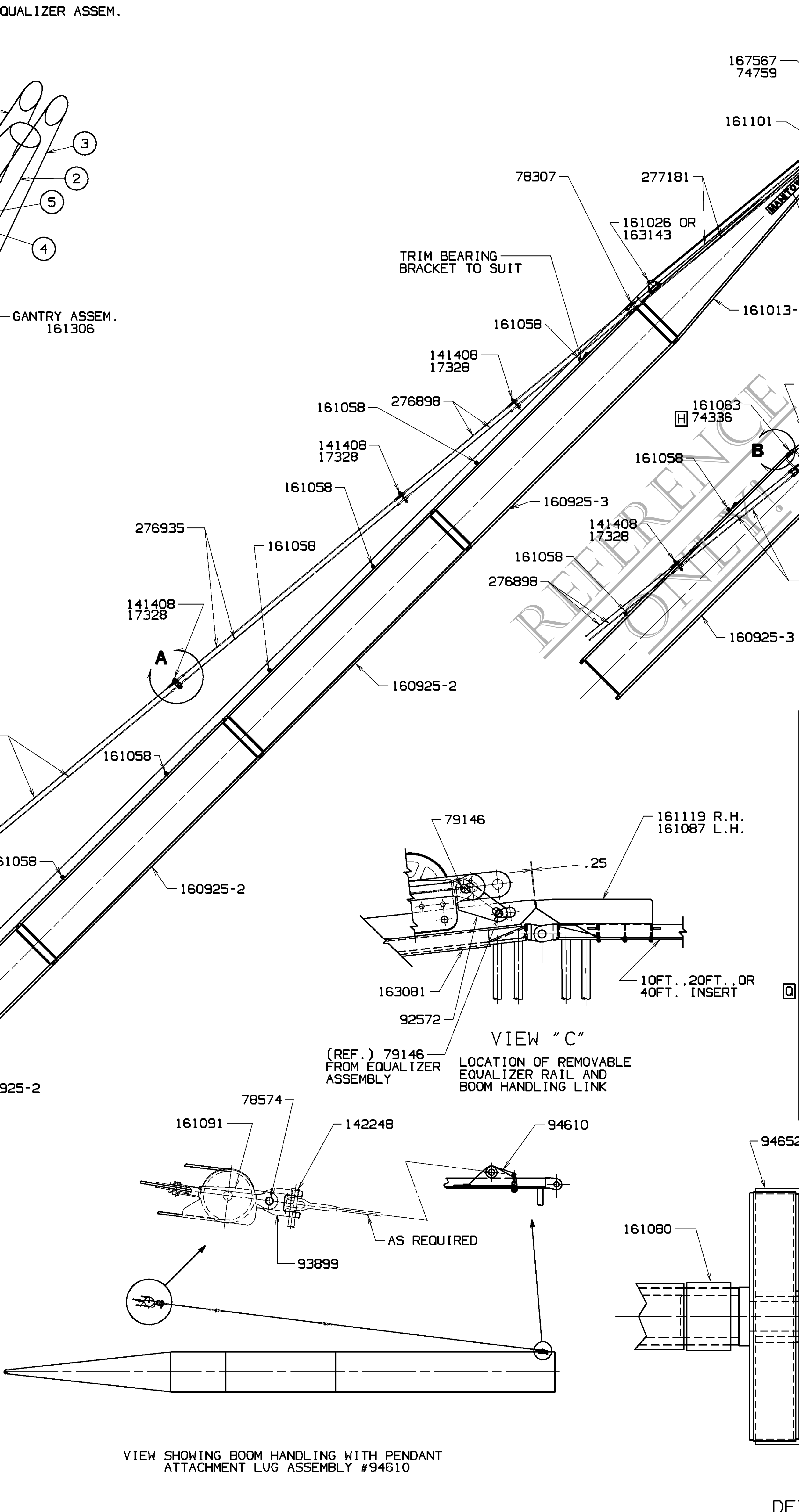
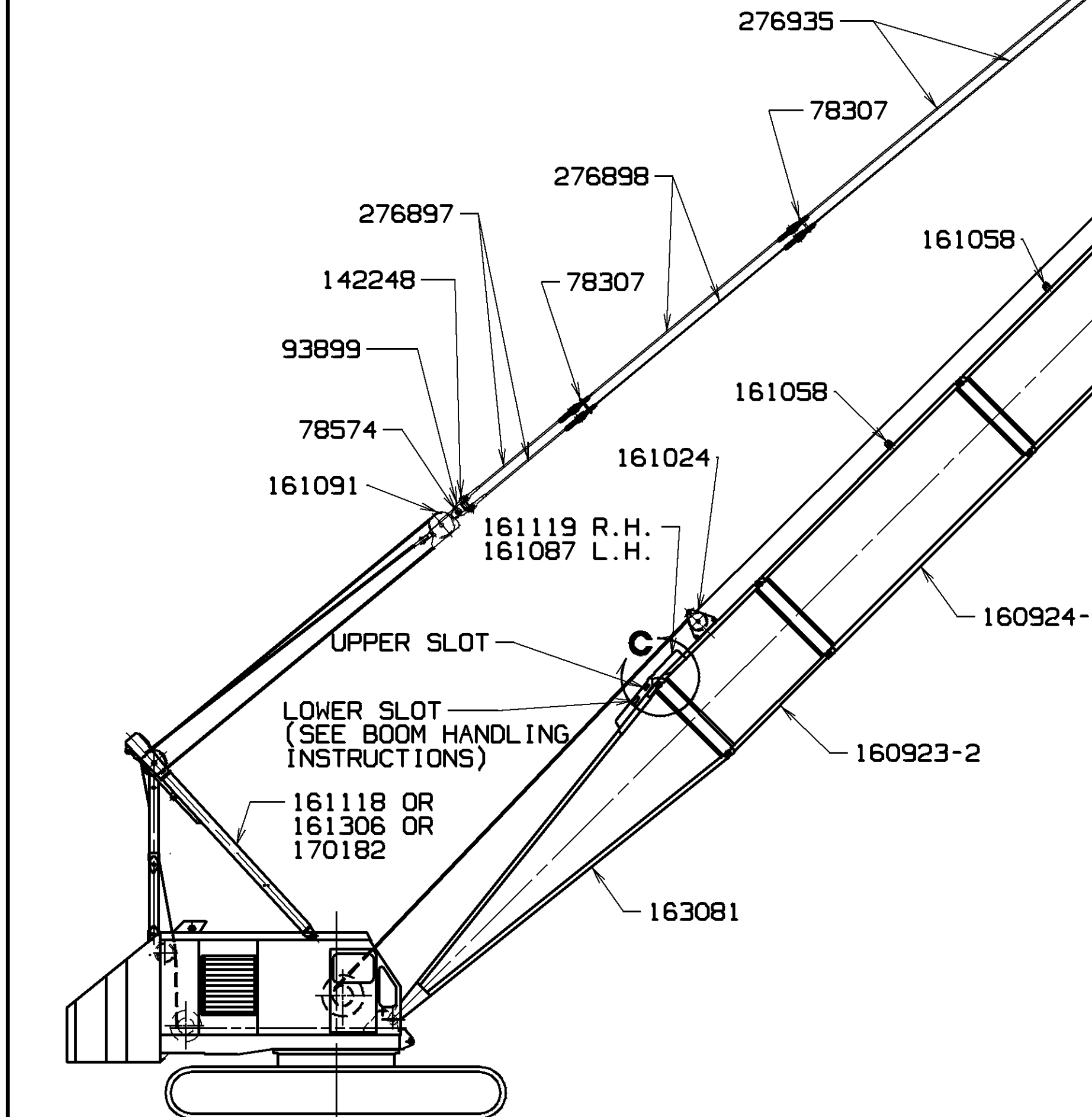
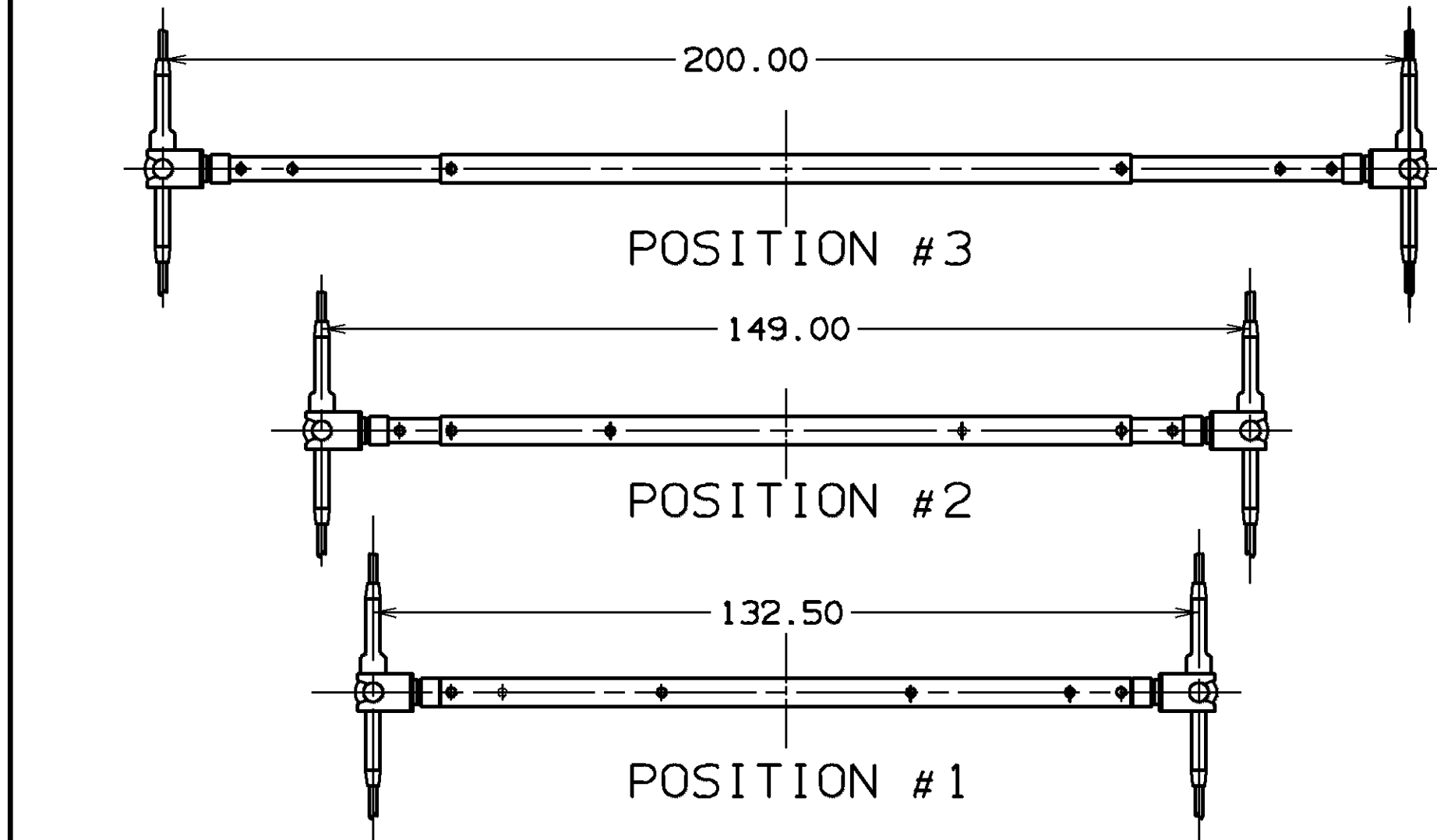
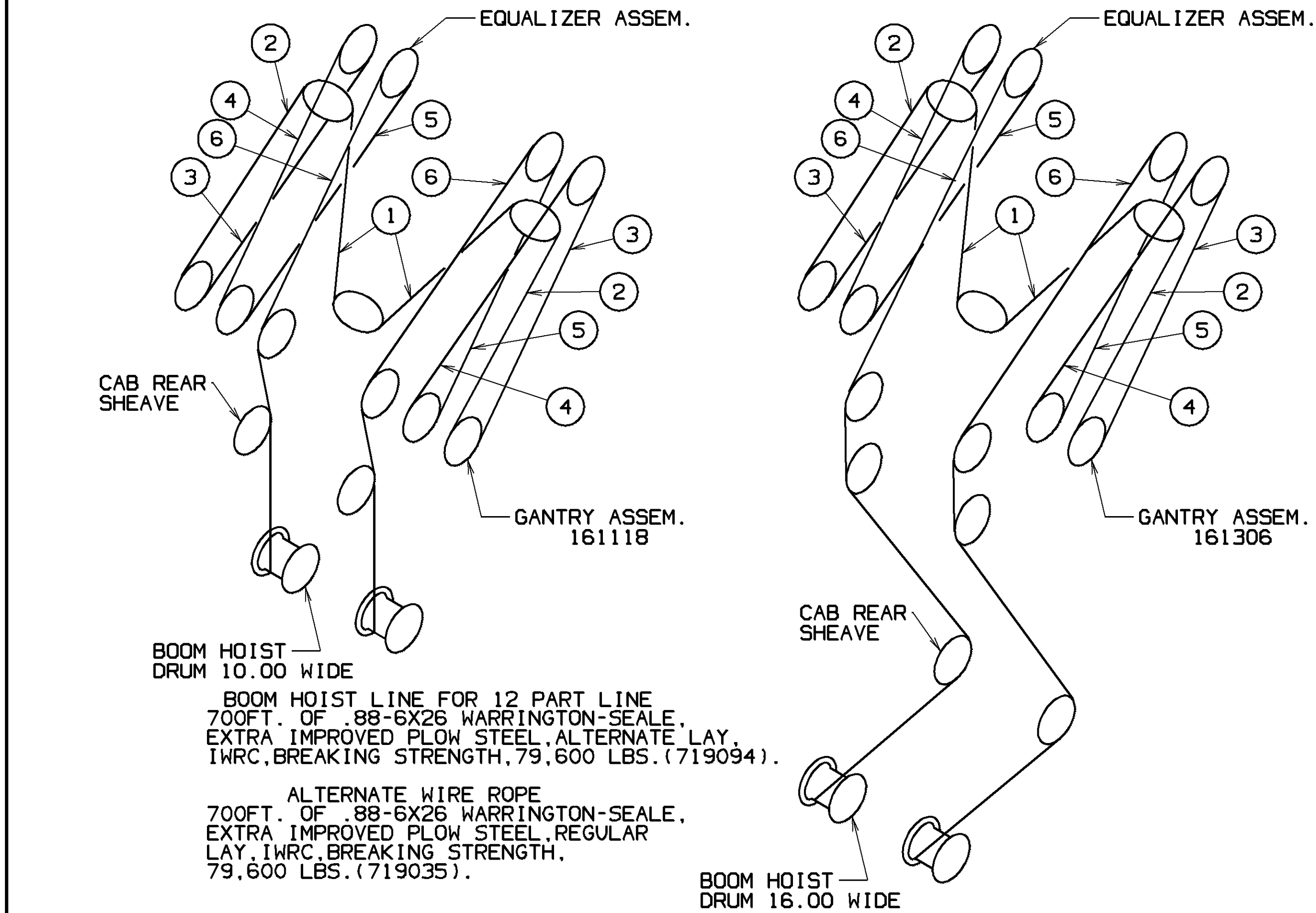


DWG. NO.	160923-2	160924-2	160924-3	174220-2	174220-3	160925-2	160925-3	276897 DWG. # 77535	276898 DWG. # 77535	276899 DWG. # 77535	276935 DWG. # 77535	161058	161080		78307	161024
BOOM LENGTH	10FT. INSERT	20FT. INSERT	20FT. INSERT WITH JIB BACKSTAY	30FT. INSERT	30FT. INSERT WITH JIB BACKSTAY	40FT. INSERT	40FT. INSERT WITH JIB BACKSTAY	PENDANT 10 FT.	PENDANT 20 FT.	PENDANT 30 FT.	PENDANT 40 FT.	WIRE ROPE ROLLER GUIDE ASSEM.	SPREADER BOOM TOP IN LINE	SPREADER BOOM TOP OFFSET 4 1/2"	PENDANT TIE BAR	WIRE ROPE GUIDE ASSEM. (LOWER)
	(SEE INSERT NOTES)	(SEE INSERT NOTES)														
80 FT.		10 FT. OF INSERT						10 FT. OF PENDANT SETS				0	0	0	2	1
90 FT.		20 FT. OF INSERT						20 FT. OF PENDANT SETS				1	0	0	2	1
100 FT.		30 FT. OF INSERT						30 FT. OF PENDANT SETS				1	0	1	4	1
110 FT.		40 FT. OF INSERT						40 FT. OF PENDANT SETS				2	0	1	2	1
120 FT.		50 FT. OF INSERT						50 FT. OF PENDANT SETS				2	1	1	4	1
130 FT.		60 FT. OF INSERT						60 FT. OF PENDANT SETS				3	1	1	4	1
140 FT.		70 FT. OF INSERT						70 FT. OF PENDANT SETS				3	1	1	6	1
150 FT.		80 FT. OF INSERT						80 FT. OF PENDANT SETS				4	1	1	2	1
160 FT.		90 FT. OF INSERT						90 FT. OF PENDANT SETS				4	1	1	4	1
170 FT.		100 FT. OF INSERT						100 FT. OF PENDANT SETS				5	1	1	4	1
180 FT.		110 FT. OF INSERT						110 FT. OF PENDANT SETS				5	1	1	6	1
190 FT.		120 FT. OF INSERT						120 FT. OF PENDANT SETS				6	1	1	2	1
200 FT.		130 FT. OF INSERT						130 FT. OF PENDANT SETS				6	1	1	4	1
210 FT.		140 FT. OF INSERT						140 FT. OF PENDANT SETS				7	1	1	4	1
220 FT.		150 FT. OF INSERT						150 FT. OF PENDANT SETS				7	1	1	6	1
230 FT.		160 FT. OF INSERT						160 FT. OF PENDANT SETS				8	1	1	4	1
240 FT.		170 FT. OF INSERT						170 FT. OF PENDANT SETS				8	1	1	6	1
250 FT.		180 FT. OF INSERT						180 FT. OF PENDANT SETS				9	1	1	6	1
260 FT.		190 FT. OF INSERT						190 FT. OF PENDANT SETS				9	1	1	8	1

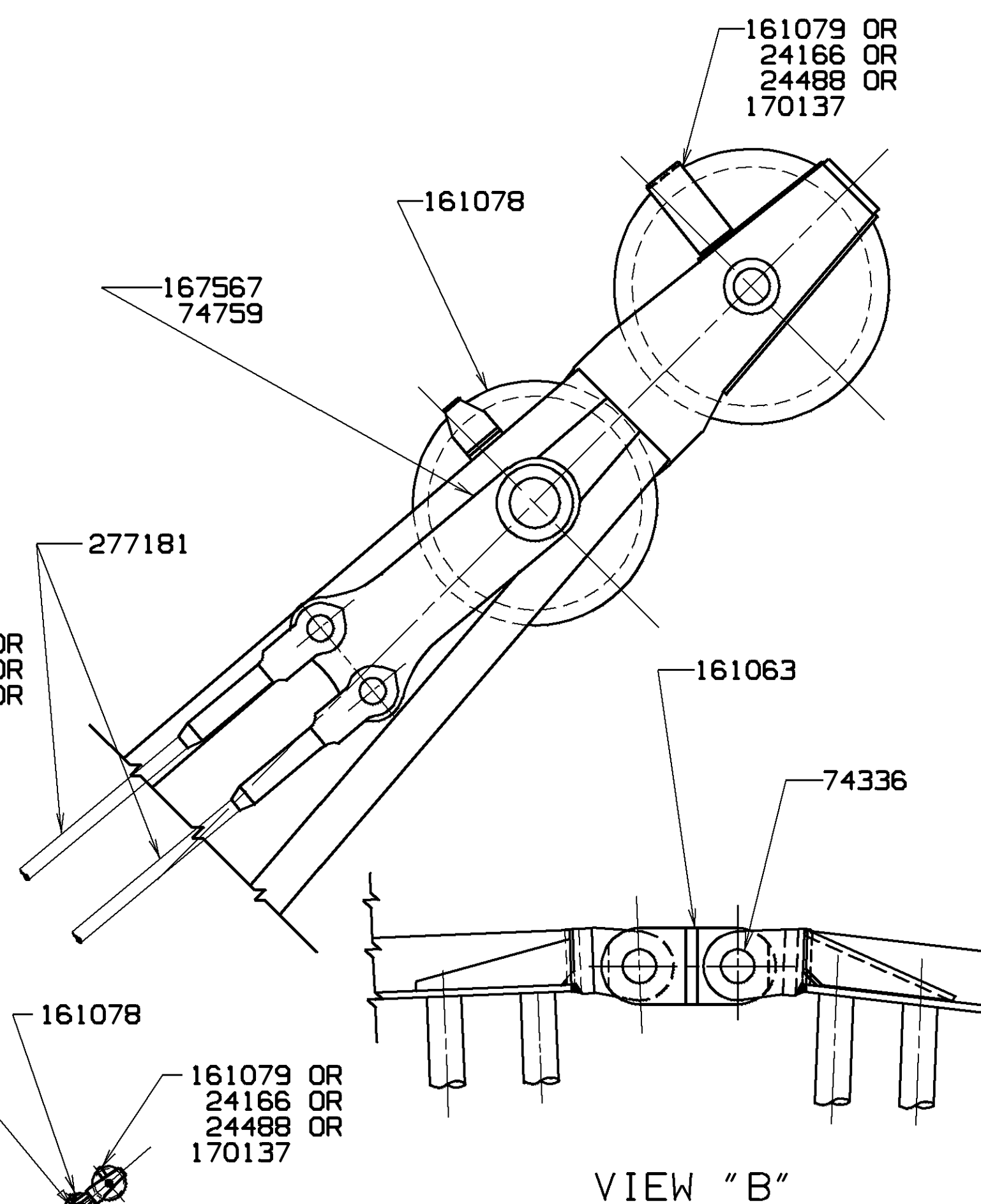


BOOM HANDLING INSTRUCTIONS			
ATTACHMENT ARRANGEMENT	GANTRY POSITION	MAX. LG. OF BOOM HANDLED	BOOM LENGTH
EQUALIZER PINNED TO RAIL W/BOOM HANDLING LINK	UP	70 FT.	BUTT & INSERTS ONLY
EQUALIZER PINNED TO RAIL W/BOOM HANDLING LINK	DOWN	50 FT.	BUTT & INSERTS ONLY
PENDANTS PINNED TO ATTACHMENT LUG (#94610) ON INSERTS.	UP	160 FT.	BUTT & INSERTS ONLY
PENDANTS ATTACHED TO BOOM POINT SHAFT (IN LINE TOP)	DOWN	110 FT.	BUTT, INSERTS & TOP-30FT. #124 JIB
PENDANTS ATTACHED TO BOOM POINT SHAFT (IN LINE TOP)	DOWN	100 FT.	BUTT, INSERTS & TOP-30FT. #123 OR 60FT. #124 JIB
PENDANTS PINNED TO RAIL (FORWARD HOLE ON EQUALIZER AT LOWER HOLE ON RAIL)	INTER-MEDIATE	130 FT.	BUTT, INSERTS & TOP
EQUALIZER PINNED TO RAIL (REAR HOLE ON EQUALIZER AT UPPER HOLE ON RAIL)			

SPREADER INSTRUCTIONS FOR BOOM TOP IN LINE			
BOOM LENGTH	SPREADER REQUIRED	SPREADER POSITION	LOCATION FROM LOWER BOOM POINT
70'-110'	NO		
120'-170'	YES	"1"	60FT.-7.00
180'-220'	YES	"2"	80FT.-7.00
230'-260'	YES	"3"	120FT.-7.00

SPREADER INSTRUCTIONS FOR BOOM TOP OFFSET 4 1/2"			
BOOM LENGTH	SPREADER REQUIRED	SPREADER POSITION	LOCATION FROM LOWER BOOM POINT
70'-90'	NO		
100'-130'	YES	"1"	60FT.-7.00
140'-180'	YES	"2"	80FT.-7.00
190'-260'	YES	"3"	120FT.-7.00

DETAIL "A"			
161080	161080	161080	161080



- 1 FOR 1.00 DIA. WIRE ROPE
- 2 SEE NOTE GENERAL NOTE 1
- 3 DWG. #161164
- 4 USE WITH SPREADER 161080
- 5 STR. ROLLER BRG. - 1 SHEAVE
- 6 REQ'D. FOR 2 PART LINE
- 7 NOT SHOWN
- 8 SEE NOTE GENERAL NOTE 2
- 9 FOR BOOM HANDLING
- 10 TAPERED ROLLER BEARING - 2 SHEAVE
- 11 TAPERED ROLLER BEARING - 1 SHEAVE
- 12 FOR MACHINES WITH 10.00 WIDE BOOM HOIST DRUMS.
- 13 FOR MACHINES WITH 16.00 WIDE BOOM HOIST DRUMS.
- 14 FOR MACHINES WITH REAR DRUM-SPLIT OR FULL WIDTH
- 15 TAPERED ROLLER BEARING - PERMA-SEALED - 2 SHEAVE

GENERAL NOTES:
1-REMOVABLE EQUALIZER RAIL - EQUALIZER MAY BE SLID FORWARD FROM BUTT ONTO THIS RAIL TO PROVIDE SLACK FOR CHANGING PENDANTS OR ASSEMBLING AND DISASSEMBLING BOOM.
2-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=2
2-MAXIMUM NUMBER OF 20FT. INSERTS=2
3-COMBINATION OF 10 FT. AND 20 FT. INSERTS CANNOT EXCEED 2-10 FT.+ 1-20 FT. OR 1-10 FT.+ 2-20 FT.
4-THE SHORTER INSERTS MUST BE CLOSEST TO THE BUTT. (10 FT. INSERTS FIRST, THEN THE 20 FT. INSERTS)
5-90 FT. & 100 FT. BOOM WITH A JIB REQUIRES THE 20 FT. INSERT WITH THE JIB BACKSTAY LUGS.

PENDANT NOTES:
1-"PENDANT SETS" TO NOT INCLUDE BASIC PENDANTS #277181.
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 & BOOM POINT OFFSET 4 1/2", PENDANT PIN #141408 MUST BE LOCATED IN RIGGING 60 FT.-7.00, 80 FT.-7.00 & 120 FT.-7.00 FROM LOWER BOOM POINT TO ALLOW INSERTION OF SPREADER IN PROPER LOCATION.

BILL OF MATERIAL				ASSEMBLIES USED ON	
QTY	DESCRIPTION	UNIT	MATERIAL	QTY	DESCRIPTION
70 FT. BASIC BOOM PARTS					
2	BOOM SIGN		22656		
2	BUSHING		74759		
2	PENDANT PIN		78574		
2	PIN		79146		
2	LINK		167567		
2	LINK		93899		
2	BOOM HANDLING LINK		92572		
2	PIN		142248		
1	BOOM BUTT (30 FT.)		163081		
1	BOOM TOP (40 FT.)		161013		
1	WIRE ROPE GUIDE ASSEMBLY (UPPER)		161026		
1	LOWER BOOM POINT ASSEMBLY		161078		
1	UPPER BOOM POINT ASSEMBLY		161079		
1	REMOVABLE EQUALIZER RAIL (L.H.)		161087		
1	EQUALIZER ASSEMBLY		161091		
1	GANTRY ASSEMBLY		161118		
1	REMOVABLE EQUALIZER RAIL (R.H.)		161119		
1	GANTRY ASSEMBLY		161306		
4	BASIC PENDANT (39 FT.-9.00 LG.)		277181		
OPTIONAL PARTS					
6	END PLATE		17328		
1	UPPER BOOM POINT ASSEM.		24166		
1	UPPER BOOM POINT ASSEM.		24488		
1	PENDANT ATTACHMENT LUG ASSEM.		94610		
2	SPREADER BRACKET		94652-24		
1	GANTRY ASSEMBLY (FIXED BACKHITCH)		170182		
6	PIN - SEE PENDANT NOTE 5		141408		
1	UPPER BOOM POINT ASSEM.		170137		
1	UNIV. WIRE ROPE ANCHOR JOINT ASSEM.		161101		
1	PLATFORM FOR BOOM BUTT		161118		
1	PENDANT RUBBING FRAME ASSEM.		161117		
1	WIRE ROPE GUIDE ASSEMBLY (UPPER)		163143		
OPTIONAL PARTS FOR 4 1/2" OFFSET TOP					
2	BOOM JOINT PIN		74336		
2	LINK		161063		