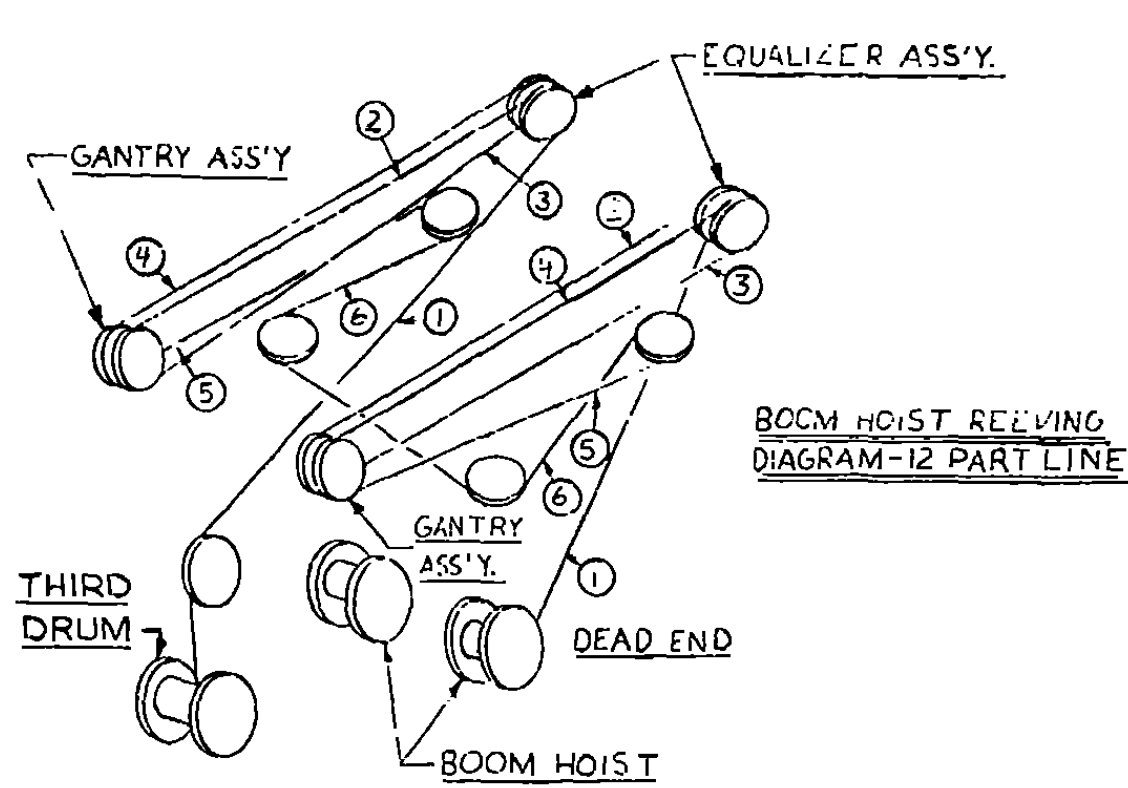


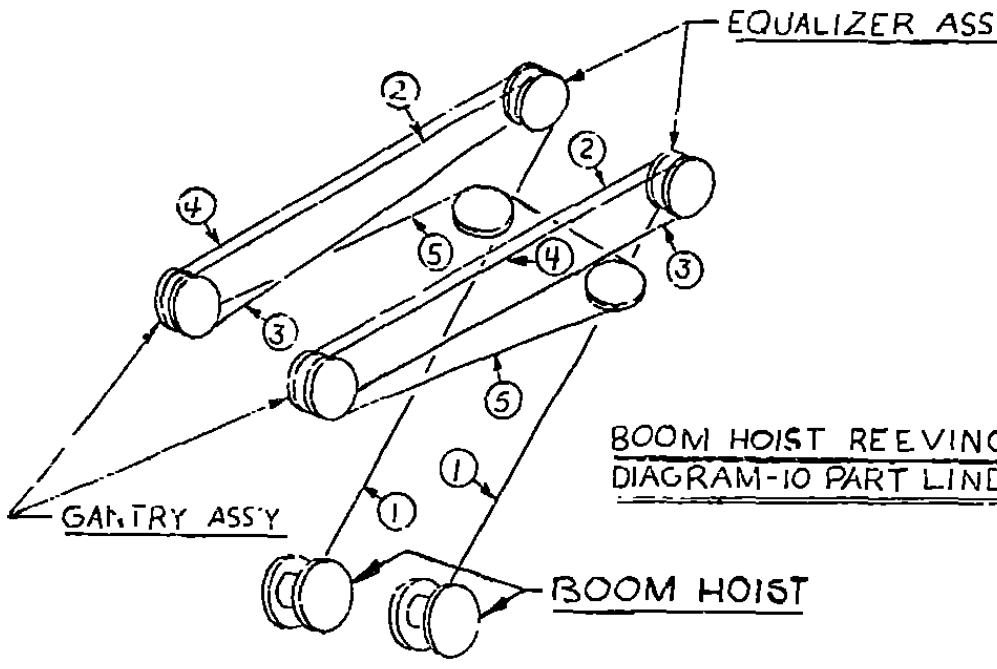
62084

NO.	32654-2	32653-2	42930-2	42937-2	276823	276825	276826	73649	181402
BOOM LENGTH	OFF. INSERT	20 FT. INSERT	30 FT. INSERT	30 FT. INSERT WITH BACKSTAY	PENDANT 20 FT. REF. 181402	PENDANT 20 FT. REF. 181402	PENDANT 20 FT. REF. 181402	WIRE ROPE ROLLER GUIDE ASSY.	SPREADER
70	1	0	0	0	2	0	0	1	0
80	1	0	0	0	2	0	0	1	0
90	1	0	0	0	2	0	0	1	0
100	1	0	0	0	2	0	0	2	0
110	1	0	0	0	2	0	0	2	0
120	1	0	0	0	2	0	0	2	0
130	1	0	0	0	2	0	0	3	0
140	1	0	0	0	2	0	0	3	0
150	1	0	0	0	2	0	0	4	0
160	1	0	0	0	2	0	0	4	0
170	1	0	0	0	2	0	0	4	0
180	1	0	0	0	2	0	0	5	0
190	1	0	0	0	2	0	0	5	0
200	1	0	0	0	2	0	0	5	0
210	1	0	0	0	2	0	0	6	0

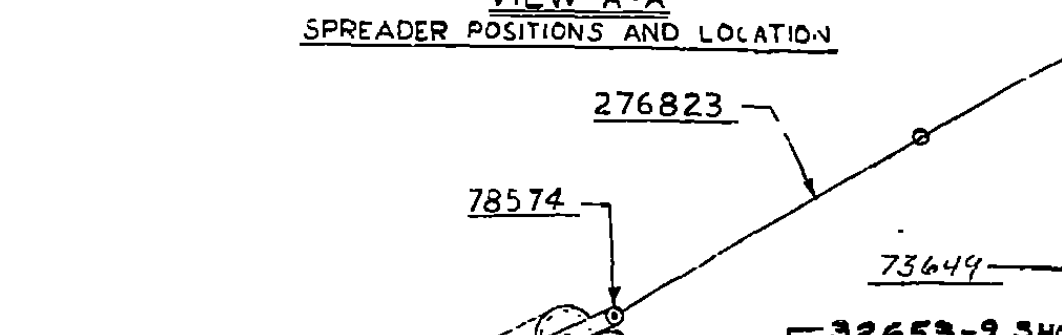
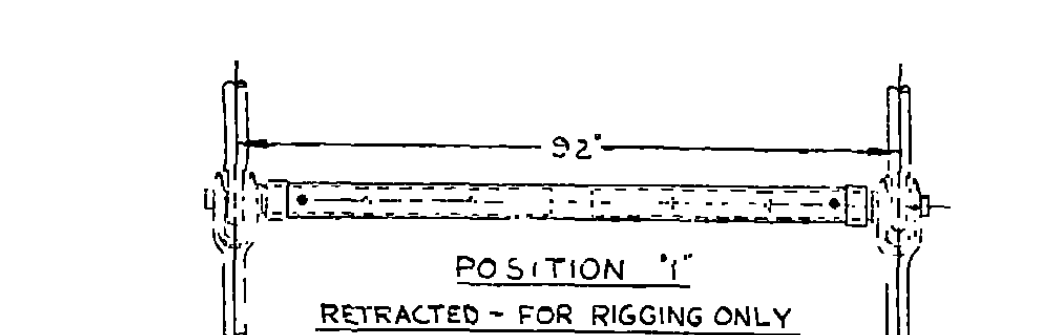
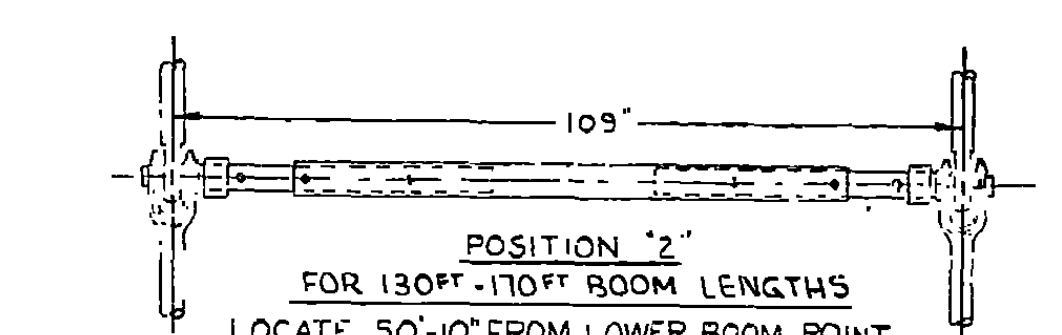
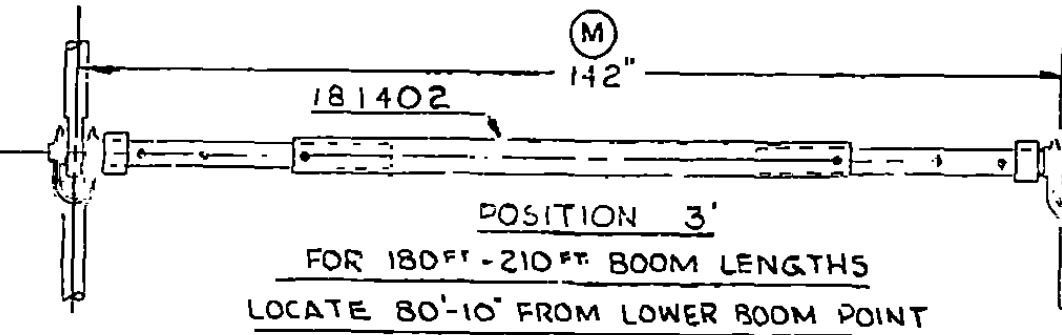
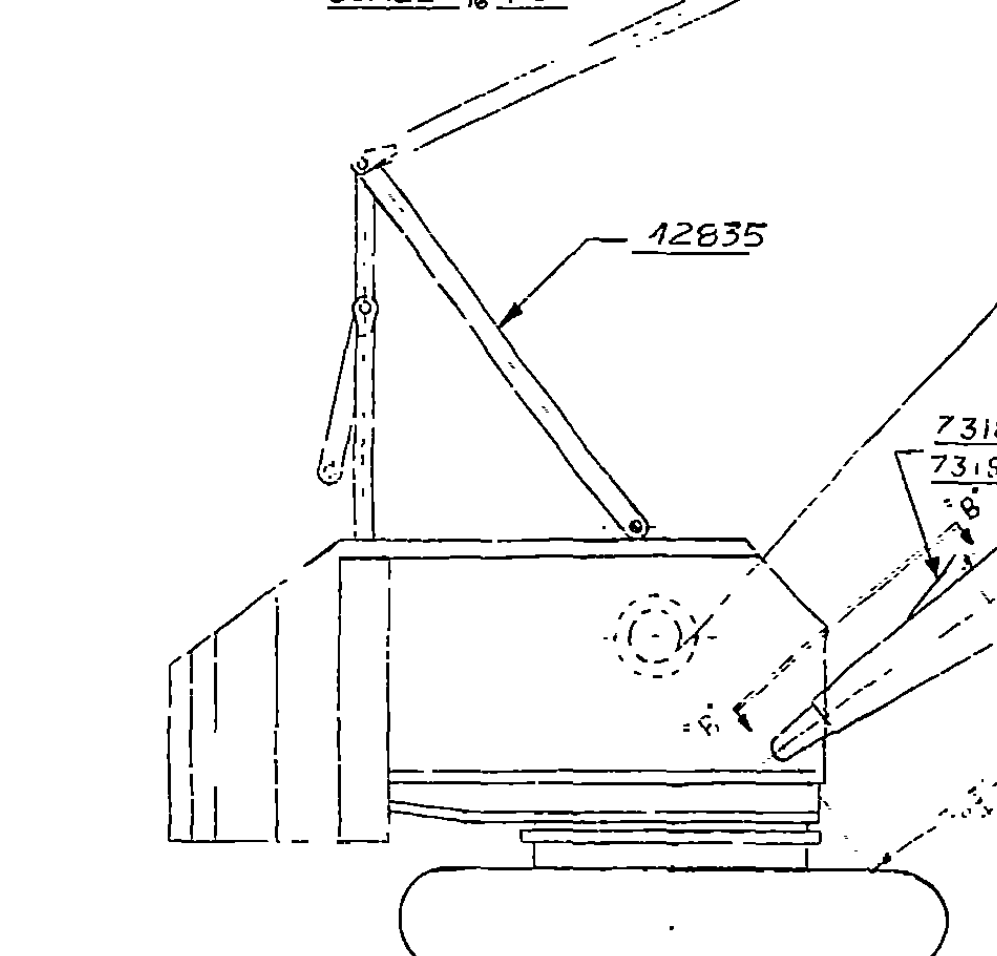
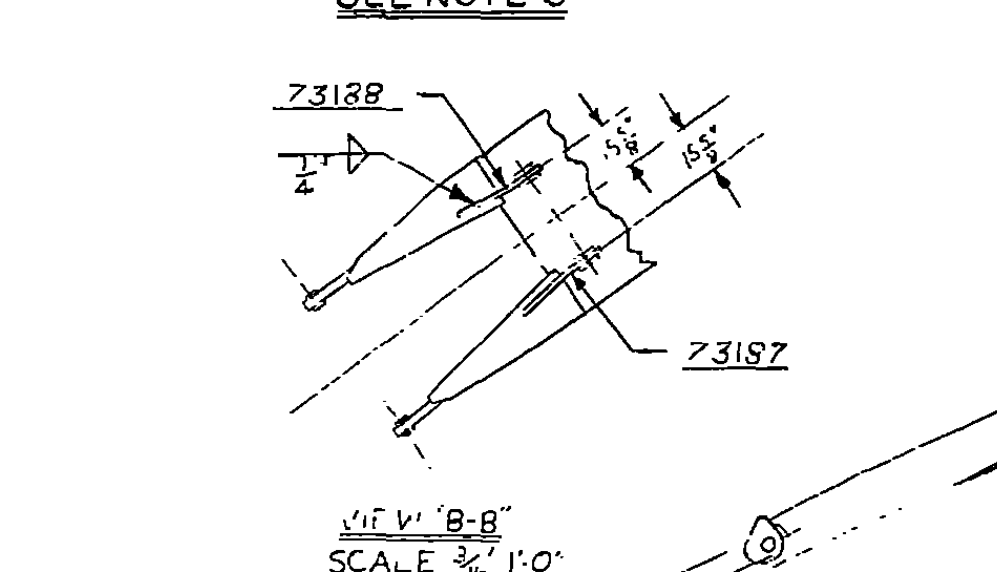
SEE VIEW "A-A"
(SPREADER POSITION AND LOCATION)



12 PART BOOM HOIST LINE:
560 FT. OF 3/4-6x26 WARRINGTON-SEALE,
IMPROVED PLOW STEEL, REGULAR LAY,
IWRC, BREAKING STRENGTH 51,200 LBS (719039)
ALTERNATE WIRE ROPE
560 FT. OF 3/4-6x26 WARRINGTON-SEALE,
EXTRA IMPROVED PLOW STEEL, ALTERNATE LAY,
IWRC, BREAKING STRENGTH 58,800 LBS (719096)



10 PART BOOM HOIST LINE:
470 FT. OF 3/4-6x26 WARRINGTON-SEALE,
IMPROVED PLOW STEEL, REGULAR LAY,
IWRC, BREAKING STRENGTH 69,200 LBS (719091)
ALTERNATE WIRE ROPE
470 FT. OF 3/4-6x26 WARRINGTON-SEALE,
EXTRA IMPROVED PLOW STEEL, ALTERNATE LAY,
IWRC, BREAKING STRENGTH 79,600 LBS (719094)
SEE NOTE 5



32653-2 WITHOUT LUGS.
32653-3 WITH 137000 JIB BACKSTAY LUGS.
32653-9 WITH COMBINATION EQU ATTACH JIB BACKSTAY LUGS.
32654-2 WITHOUT EQUALIZER ATTACH. LUGS.
32654-3 WITH EQUALIZER ATTACH. LUGS BOTH ENDS.
32654-9 WITH EQUALIZER ATTACH. LUGS FWD. END.
42930-2 WITHOUT LUGS.
42930-3 WITH 73927 PENDANT ATTACH. LUGS.
42930-9 WITH EQUALIZER ATTACH. LUGS.
42937-2 WITH JIB BACKSTAY ANCHOR.
42937-9 WITH EQUALIZER ATTACH. LUG.
SEE NOTE 3

NOTE 7-BOOM TOP 167258-2 IS
OPTIONAL FOR LIFT-CLAM-GRAPPLE
ONLY. JIB 123 WILL FIT TOPS 167258
MFR. AFTER JULY 1988 ONLY, USE TOP
167258-9 W/ 147820 & 147821 IF ADDI-
TIONAL WIRE ROPE ROLLER GUIDES ARE REQ'D.
NOTE 8-UPPER BOOM POINT ASSY. 16134 IS FOR
BOOM TOP 167258 ONLY. THE WIRE ROPE ROLLER
GUIDE MUST BE REMOVED WHEN THE JIB IS USED.
NOTE 9-TWO 20 FT. INSERTS MAY BE SUBSTITUTED
FOR ONE 10 FT. INSERT & ONE 30 FT. INSERT.

NOTE
JIB BACKSTAY LUGS ON THE BOOM BUTT ARE
OPTIONAL-TO BE USED FOR BOOM LENGTHS OF
60 FT. AND 70 FT. OF BOOM ONLY. MAXIMUM JIB
ANGLE TO BOOM-20°. SPECIAL STRUT MUST
BE USED-12 FT. MIN. MAX. LENGTH OF STRUT.
CAUTION: JIB BACKSTAY LINES MUST BE
DISCONNECTED BEFORE LOWERING EQUALIZER
TO BOOM BUTT.

NOTE 1-EQUALIZER ATTACHMENT LUGS
(A)-THE STANDARD IS AS SHOWN ON DRAWING WITH ONE 10-FT. INSERT,
#32654-9 AND ONE 20-FT. INSERT #32653-9.
(B)-WHEN TWO 10-FT. INSERTS ARE SPECIFIED AND USED TOGETHER
FURNISH #32654-9 AND #32654-3, LOCATE #32654-9, NEXT TO THE
BUTT SECTION AND #32654-3 AHEAD OF #32654-9, -IF ONLY ONE 10-
FT. INSERT IS BEING USED, EITHER MAY BE LOCATED NEXT TO BUTT SECTION
NOTE 2-JIB INFORMATION
(A)-IF INSERT #42937 IS NOT FURNISHED AND JIB BACKSTAY LUGS ARE
REQUIRED USE A 20-FT. INSERT #32653-3 WITH JIB BACKSTAY LUGS #137000.
(B)-WHEN JIB BACKSTAY LUG IS LOCATED ON A 20-FT. INSERT, A 10-FT. INSERT
MUST ALWAYS BE USED BETWEEN THE TOP SECTION 191065 AND THE 20-FT. INSERT.
NOTE 3-INSERT #42937-1 REQUIRED WHEN USED NEXT TO 10-FT. INSERT.
NOTE 4-ALTERNATION 418986 AND LOWER BOOM POINT SHAFT ASSEMBLY
418987 MUST BE USED TOGETHER AND PROVIDE FOR CLAMSHLL
DRAGLINE-LIMITED LIFTGRANE OPERATION. MAXIMUM BOOM ANGLE
IS 80°. FIRST USED ON S/N 39743-PENTZLEN INC.
NOTE 5-IF LIFT-DRAW COMBINATION WITH HINGED FAIRLEAD,
FURNISH 500 FT. OF BOOM HOIST LINE RATHER THAN 470 FT.
NOTE 6-WIRE ROPE BACKSTAYS REQUIRED WHEN USING BACKSTAY
LUGS ON BOOM BUTT OR COMBINATION EQU ATTACH JIB B'STAY LUGS

BOOM HANDLING INSTRUCTIONS

ATTACHMENT ARRANGEMENT	GANTRY POSITION	MAXIMUM LENGTH OF BOOM TO BE HANDLED	BOOM MAKEUP	BOOM CONDITIONS OR LIMITATIONS
EQUALIZER PINNED TO INSERT RAIL (EITHER RAIL, EITHER HOLE)	DOWN	40 FT.	BUTT & 10' INSERT	
EQUALIZER PINNED TO INSERT RAIL (EITHER RAIL, EITHER HOLE)	UP	60 FT.	BUTT, 10' INSERT AND 20' INSERT	
PENDANTS PINNED TO ATTACHMENT LUGS (73827) ON INSERTS	DOWN	90 FT.	BUTT AND INSERTS	POINT OF ATTACHMENT MUST NOT EXCEED 70' FROM HINGE PIN
PENDANTS PINNED TO ATTACHMENT LUGS (73827) ON INSERTS	UP	150 FT.	BUTT AND INSERTS	60' (230' INSERTS) IS THE MAXIMUM LENGTH TO BE CANTILEVERED FOR ANY LENGTH OF BOOM
PENDANTS ATTACHED TO BOOM POINT	DOWN	110 FT. 100 FT. 90 FT.	110' BOOM NO JIB 100' BOOM 30' JIB 90' BOOM 60' JIB OR 30' JIB	BOOM CARRIES IN HORIZONTAL POSITION
EQUALIZER PINNED TO INSERT RAIL (UPPER HOLE)				PROVIDES NECESSARY PENDANT SLACK FOR ASSEMBLING AND DISASSEMBLING
EQUALIZER PINNED TO INSERT RAIL (LOWER HOLE)				EQUALIZER WILL NORMALLY LAND AT THIS POSITION WHEN LOWERED ON TO THE INSERT
EQUALIZER PINNED TO INSERT RAIL (UPPER HOLE)				LOCATE EQUALIZER HERE FOR SHIPPING

UNLESS NOTED
FRAC. DIM.
HOLE DIA.
HOLE CENTER
APPROX.

NO.	DWG. NO.	DESCRIPTION
1	191065-2	BOOM TOP-30 FT.
2	78574	PENDANT PIN
2	276825	BASIC PENDANT 20' 0" (REF. DWG. 78175)
1	49696-9	BOOM BUTT-30 FT.
2	78232	LINK

NO.	DWG. NO.	DESCRIPTION
1	32659	WIRE ROPE GUIDE ASSY. (NON-FLOATING SHEAVES)
1	33880	EQUALIZER ASSEMBLY
1	42835	GANTRY ASSEMBLY
1	74530	WIRE ROPE ROLLER GUIDE ASSEMBLY
1	90512	LOWER BOOM POINT ASSEMBLY
1	24003	UPPER BOOM POINT ASSEMBLY ROLLER BEARING-2 SHEAVE

NO.	DWG. NO.	DESCRIPTION
1	24166	UPPER BOOM POINT SHAFT ASSEMBLY TAPERED ROLLER BEARING-2 SHEAVE
1	24488	UPPER BOOM POINT SHAFT ASSEMBLY TAPERED ROLLER BEARING-1 SHEAVE
1	73187	R.H. JIB BACKSTAY ANCHOR
1	73188	L.H. JIB BACKSTAY ANCHOR
1	33930	WIRE ROPE GUIDE ASSY. (FLOATING SHEAVES)
1	418986	ALTERNATION TO 276826 BOOM TOP (NOTE 4)
1	418987	LOWER BOOM POINT SHAFT ASSY. W/ 2" 21" WIDE FLANGE SHEAVES (NOTE 4)
1	91392	UNIVERSAL WIRE ROPE ANCHOR JOINT ASSY. (REQD FOR 2-PART LINE)
1	167258-2	BOOM TOP-30 FT. - SEE NOTE 7
1	96134	UPPER BOOM POINT ASSY. - SEE NOTE 8

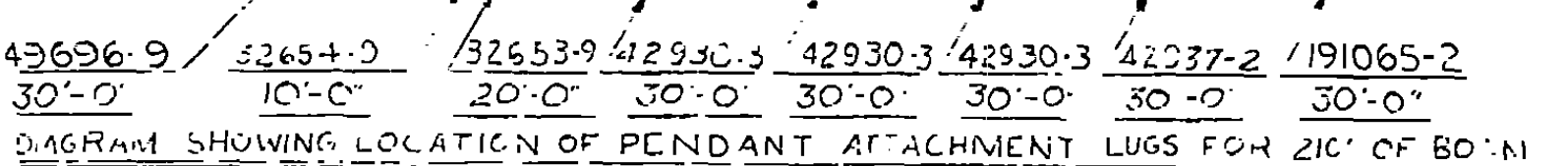


DIAGRAM SHOWING LOCATION OF PENDANT ATTACHMENT LUGS FOR 210' OF BOOM

DO NOT SCALE THIS DRAWING

MANITOWOC ENGINEERING CO.
MANITOWOC, WISCONSIN
MODEL 3900
DATE 7-19-67
PATTERN NO.
CODE NO.
DWG. NO. 48029