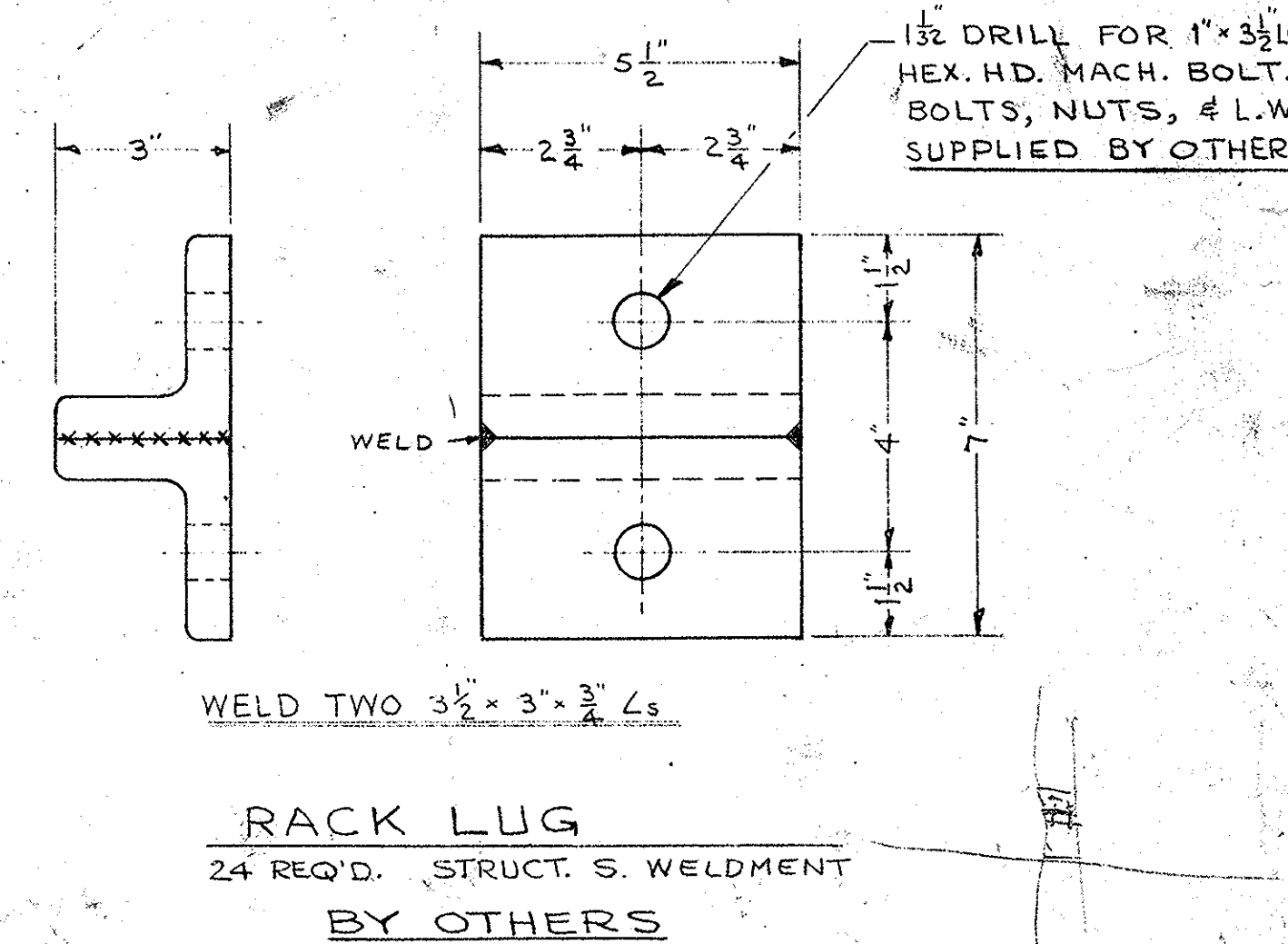
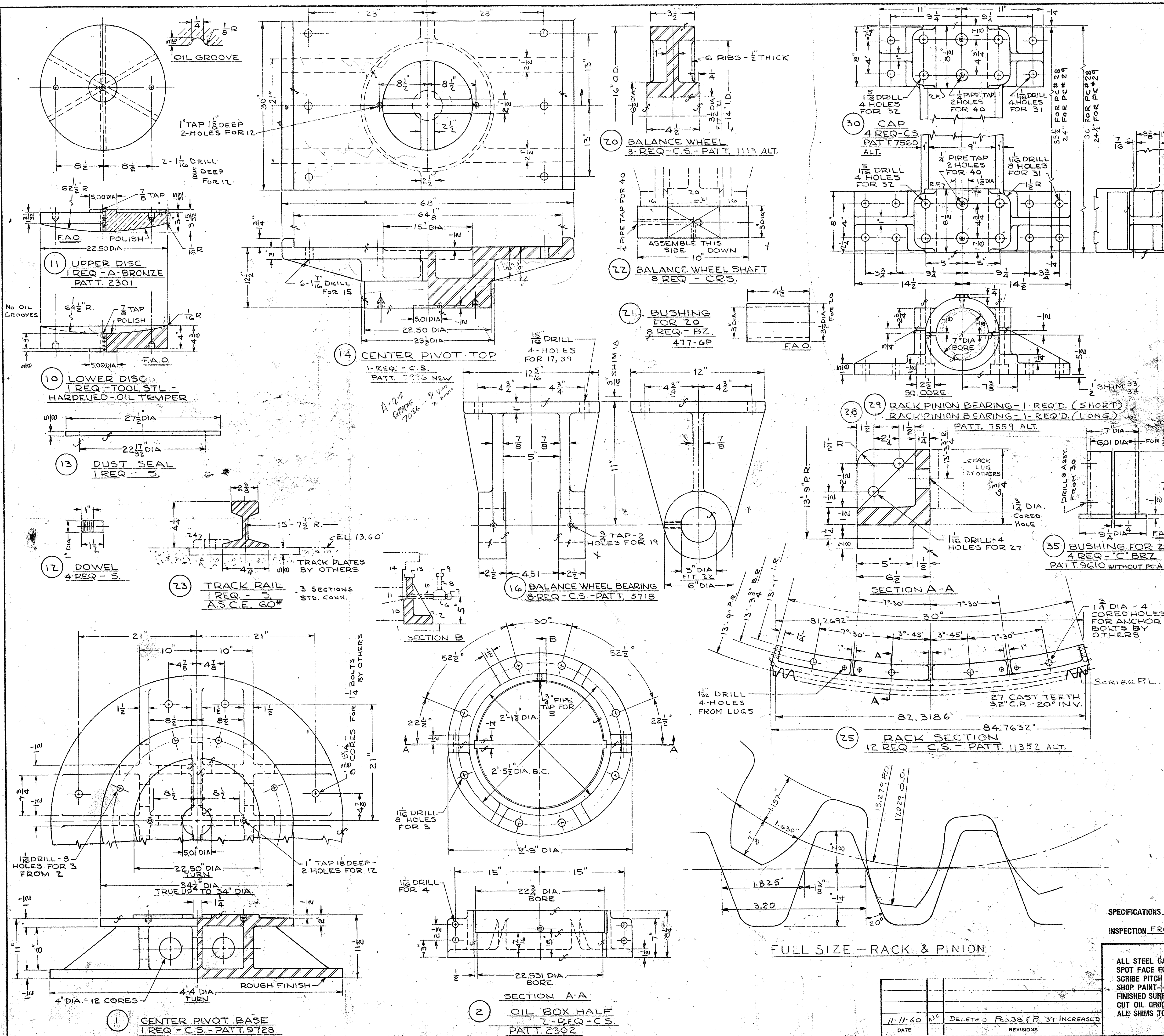


PC. No.	NAME	QTY.	MATL.	PATT.	REMARKS
1	CENTER PIVOT BASE	1	C.S.	9728	
2	OIL BOX HALF	2	C.S.	2302	
3	BOLT FOR 1 & 2	8	S.		T.B. LIST
4	BOLT FOR 2	4	S.		T.B. LIST
5	NIPPLE FOR 2	1	S.		3/4" x 6" STD. BLACK
6	TEE FOR 5	1	M.I.		3/4" STD.
7	PLUG FOR 6	1	M.I.		3/4" STD.
8	NIPPLE FOR 6	1	S.		3/4" x 3" STD. BLACK
9	CAP FOR 8	1	M.I.		3/4" STD.
10	LOWER DISC	1	SOFT STEEL	HARDEN	-OIL TEMP.
11	UPPER DISC	1	A.B.Z.	2301	
12	DOWEL PIN FOR 11-14	4	S.		SEE DETAIL
13	DUST SEAL	1	S.		
14	CENTER PIVOT TOP	1	C.S.	7996	NEW
15	BOLT FOR 14	6	S.		T.B. LIST
16	BALANCE WHEEL BRG.	8	C.S.	5718	
17	BOLT FOR 16	16	S.		T.B. LIST
18	SHIM FOR 16	sets	SHIM	125/16 x 12 x 1/8 - 1/16 - 1/32	
19	SET SCREW FOR 16	16	S.	HOLLOW	3/4" x 1/2" CUP POINT
20	BALANCE WHEEL	8	C.S.	1113	ALT.
21	BUSHING FOR 20	8	B.Z.		477-GP
22	BALANCE WH. SHAFT	8	C.R.S.		
23	TRACK RAIL	1	S.		A.S.C.E. 60#
24	RAIL CLIP FOR 23	18	S.		CARNEGIE No. 103
25	RACK SECTION	12	C.S.	11352	ALT.
26					
27	BOLT FOR 25	24	S.		T.B. LIST
28	RACK PINION BEG.	1	C.S.	7559	ALT.
29	RACK PINION BRG.	1	C.S.	7559	ALT.
30	CAP FOR 28 & 29	4	C.S.	7560	ALT.
31	BOLT FOR 28 & 29	24	S.		T.B. LIST
32	BOLT FOR 28, 29 & 30	16	S.		T.B. LIST
33	SHIM FOR 28 & 29	sets	SHIM	22" x 8" x 1/4" - 1/8" - 1/16" - 1/32"	
34	SHIM FOR 28 & 29	sets	SHIM	29" x 8" x 1/4" - 1/8" - 1/16" - 1/32"	
35	BUSHING FOR 28 & 29	4	C.B.Z.	9610	WITHOUT PC. A
36	LINER FOR 28-29-30-35	8	FIBER		9" x 1/4" x 2"
37					
38					
39	BOLT FOR 16	16	S.		T.B. LIST
40	LUB. FITTING	16			1/4" P.T. ALEMITE #1627A



GENERAL NOTES

ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS.)
FINISHED SURFACES COATED—NO. OX. ID
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED.

S.O. D-7935 CONTRACT 8.11907

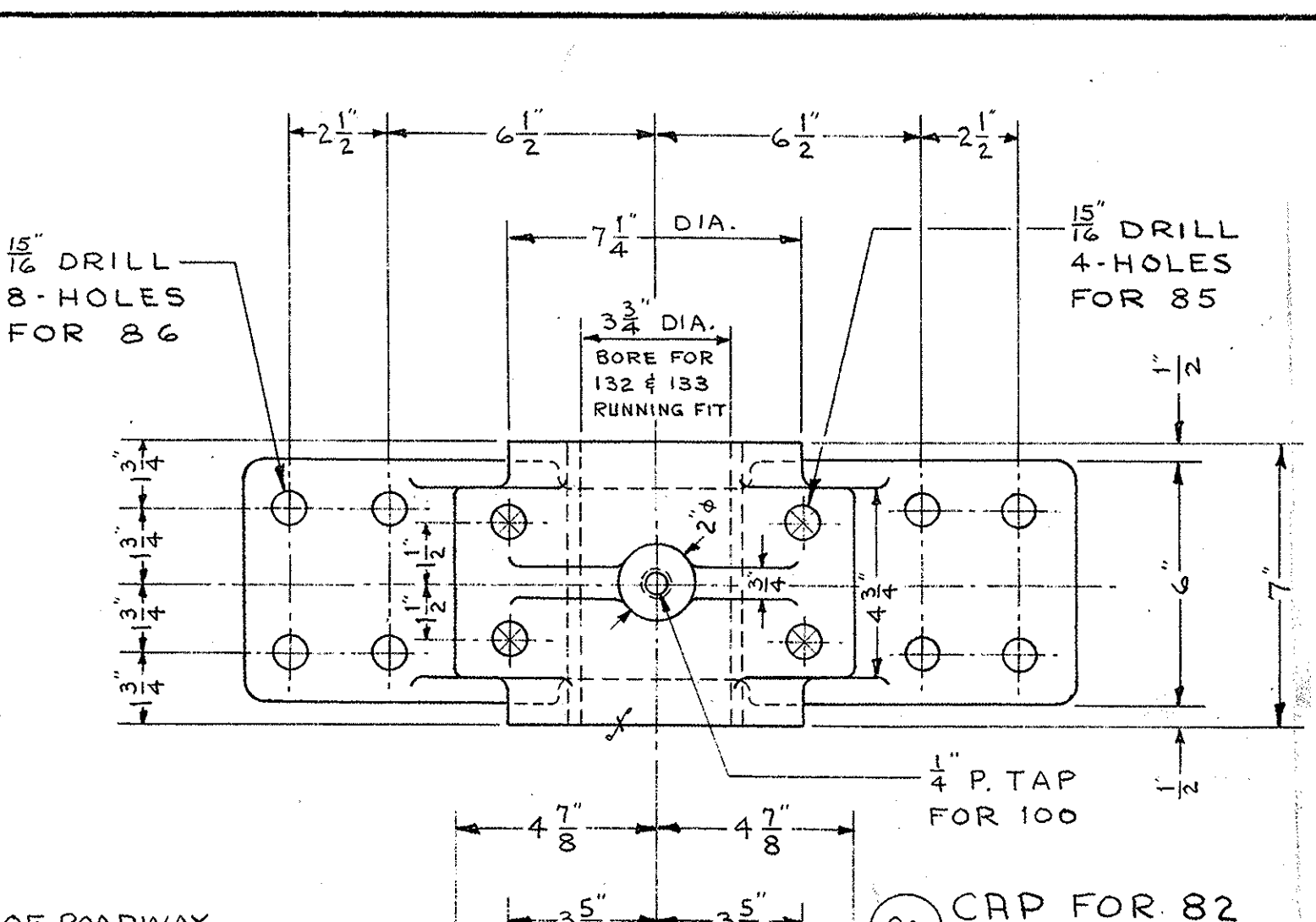
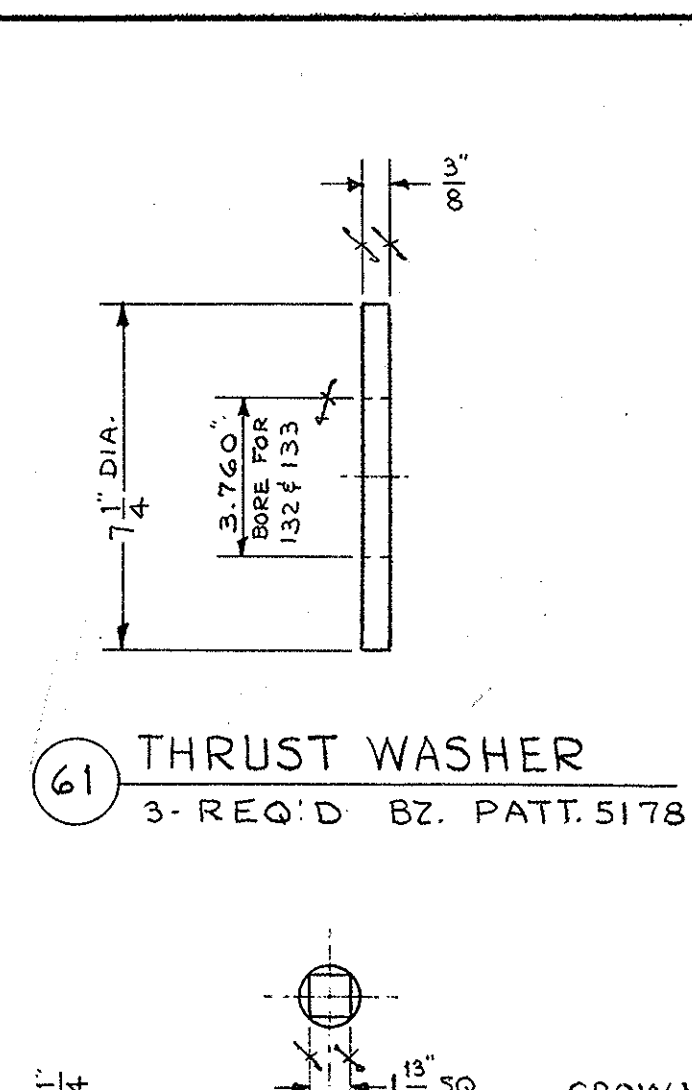
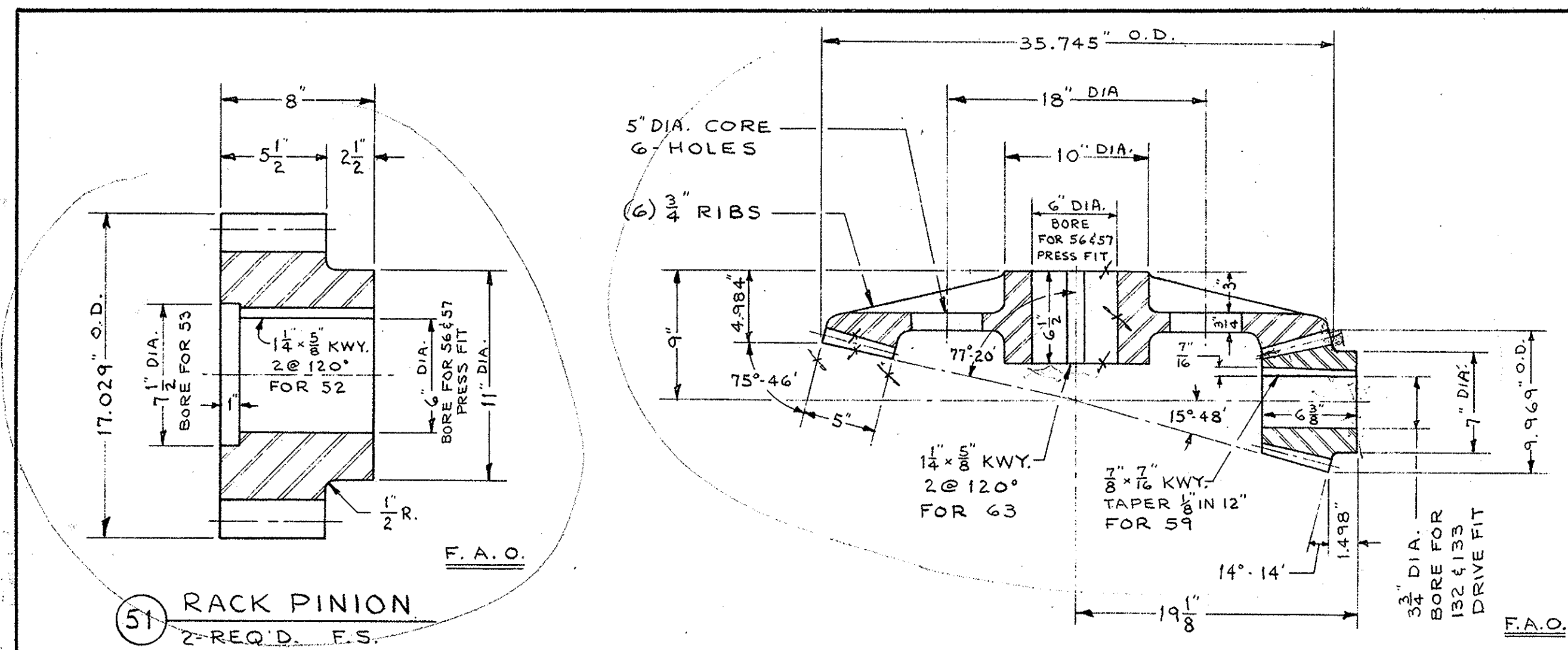
TURNING MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.

THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

APPROVED BY: S.H.C. 7-9-60
DRAWN BY: A.J.C. 3-21-60
CHECKED BY: G.P. 6-30-60
DATE: 11-11-60
REVISIONS: DELETED P. 38 & P. 39 INCREASED

SHEET 1 OF 11 DWG. NO. 6851E-30

PC.	NAME	QTY.	MTL.	PATT.	REMARKS
51	RACK PINION	2	F.S.		
52	KEY FOR 51	4	S.		KEY LIST
53	PLATE FOR 51, 56 & 57	4	S.		
54	SCREW FOR 53	12	S.	HEX. HD. CAP	5/8" x 1 1/2" LG. W/L.W. NO NUT
55					
56	RACK PINION SHAFT	1	T.F.P.S.		LONG
57	RACK PINION SHAFT	1	T.F.P.S.		SHORT
58	BEVEL PINION	2	F.S.		
59	KEY FOR 58	2	S.		KEY LIST (GIB)
61	THRUST WASHER	3	BZ.	5178	
62	BEVEL GEAR	2	C.S.	1890	
63	KEY FOR 62	4	S.		KEY LIST
64					
65	MITER GEAR	1	C.S.	5941	ALT. HUB L. & D.
66	KEY FOR 65	1	S.		KEY LIST
67	SET SCREW FOR 65	1	S.	HOLLOW	5/8" x 3/4" LG. CUP POINT
68	MITER GEAR	1	C.S.	5941	ALT. HUB L. & D.
69	KEY FOR 68	1	S.		KEY LIST
70	SET SCREW FOR 68	1	S.	HOLLOW	3/8" x 1/2" LG. CUP POINT
71					
72	CAPSTAN SHAFT	1	C.R.S.		
73	THRUST WASHER FOR 82	2	BZ.	2091	
74	CAPSTAN SHAFT BRG.	2	C.S.	7670	
75	CAP FOR 74	2	C.S.	3464	
76	LINER FOR 74 & 75	4	FIBER	1 1/2" x 5" x 1/4"	
77	CAP BOLT FOR 74 & 75	8	S.		T.B. LIST
78	BASE BOLT FOR 74	8	S.		T.B. LIST
79	SHIM FOR 74	sets	S.	6 1/2" x 12"	1/4" - 1/8" - 1/16" - 1/32"
80	COLLAR FOR 72	1	S.	2 1/2" SHAFT	L.B. ST'D. (SOLID)
81					
82	TURN SHAFT BRG.	2	C.S.	4427	
83	CAP FOR 82	2	C.S.	4428	1/2" P.A. - ALT. CORE
84	LINER FOR 82 & 83	4	FIBER	1 1/2" x 7" x 3/8"	
85	CAP BOLT FOR 82 & 83	8	S.		T.B. LIST
86	BASE BOLT FOR 82	16	S.		T.B. LIST
87	SHIM FOR 82	sets	S.	6" x 20"	1/4" - 1/8" - 1/16" - 1/32"
88					
89					
90	CAPSTAN	1	C.S.	6485	
91	PIN FOR 90	2	S.		1/2" x 3 1/2" LG.
92	CAPSTAN BAR	2	S.		1 1/2" EX. HVY. PIPE - GALV.
93	CAP FOR 92	2	M.I.	STD.	1 1/2" PIPE CAP - GALV.
94	CAPSTAN BOX	2	C.S.	7907	
95	COVER FOR 94	2	C.S.	7908	
96	LIFTER FOR 95	2	S.		
97	NUT FOR 96	4	S.	HEX.	7/16" AMER. STD. HEAVY
98					
99					
100	LUB. FITTING FOR 75	4		1/4" P.T.	ALEMITE # 1627A



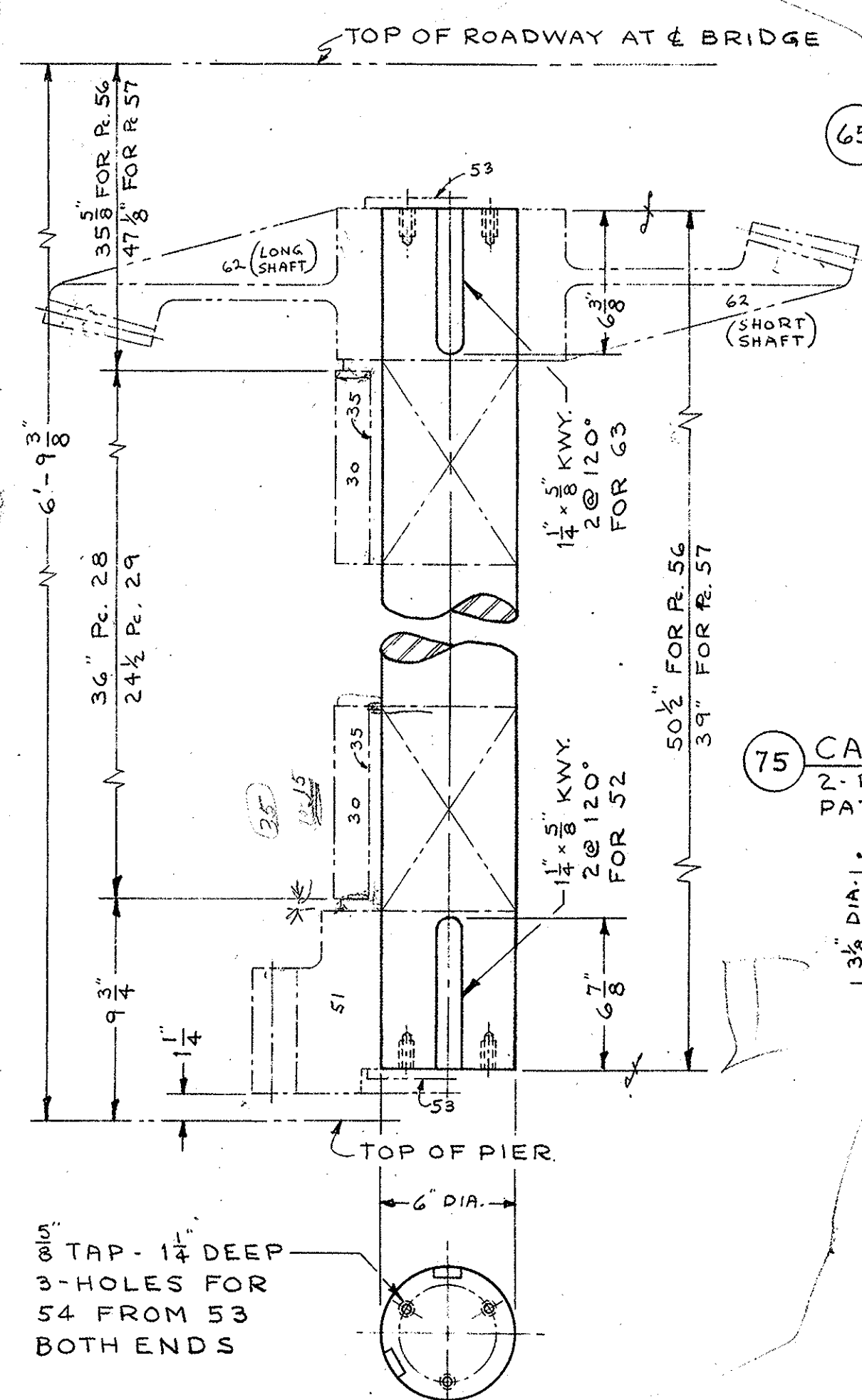
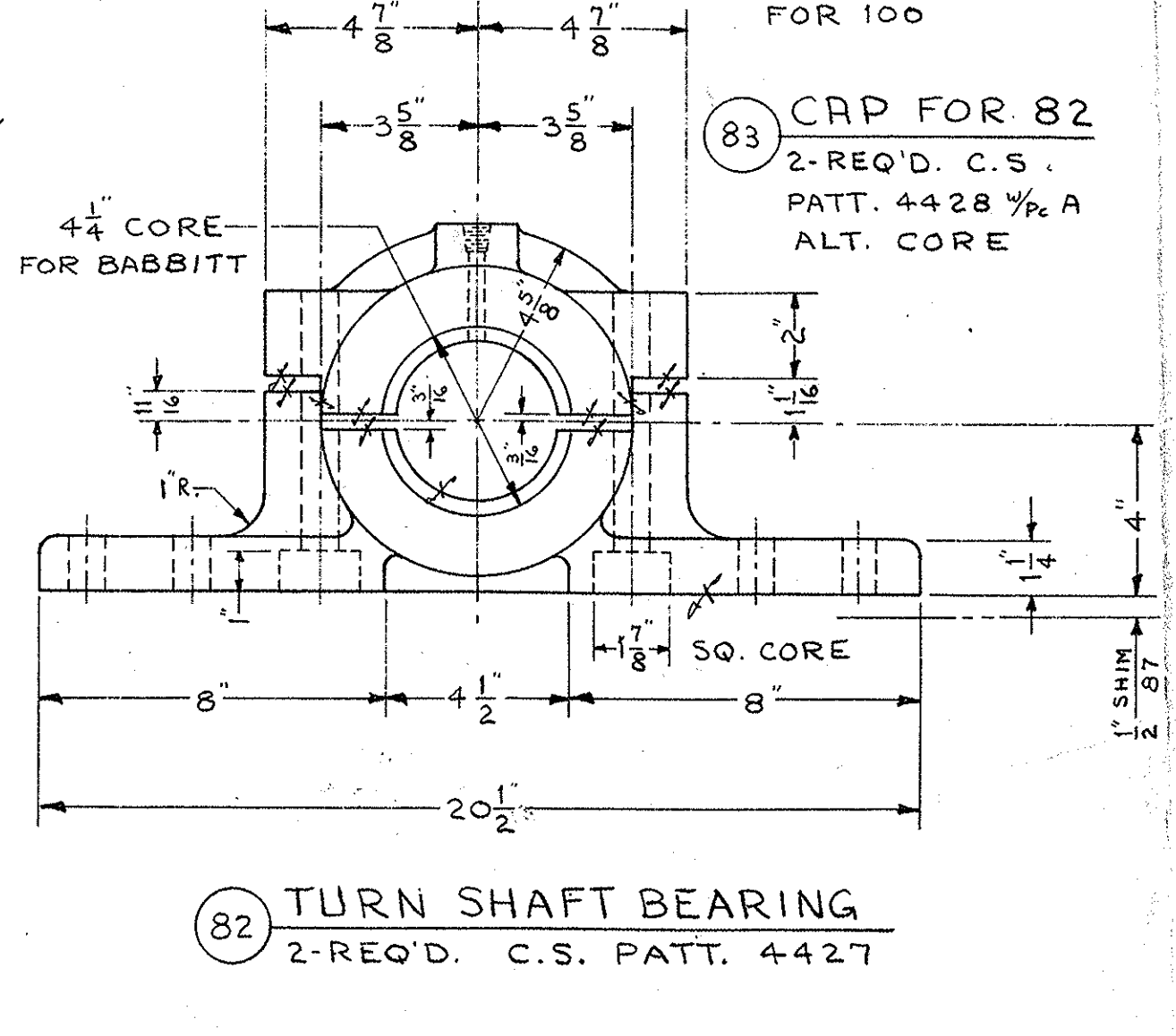
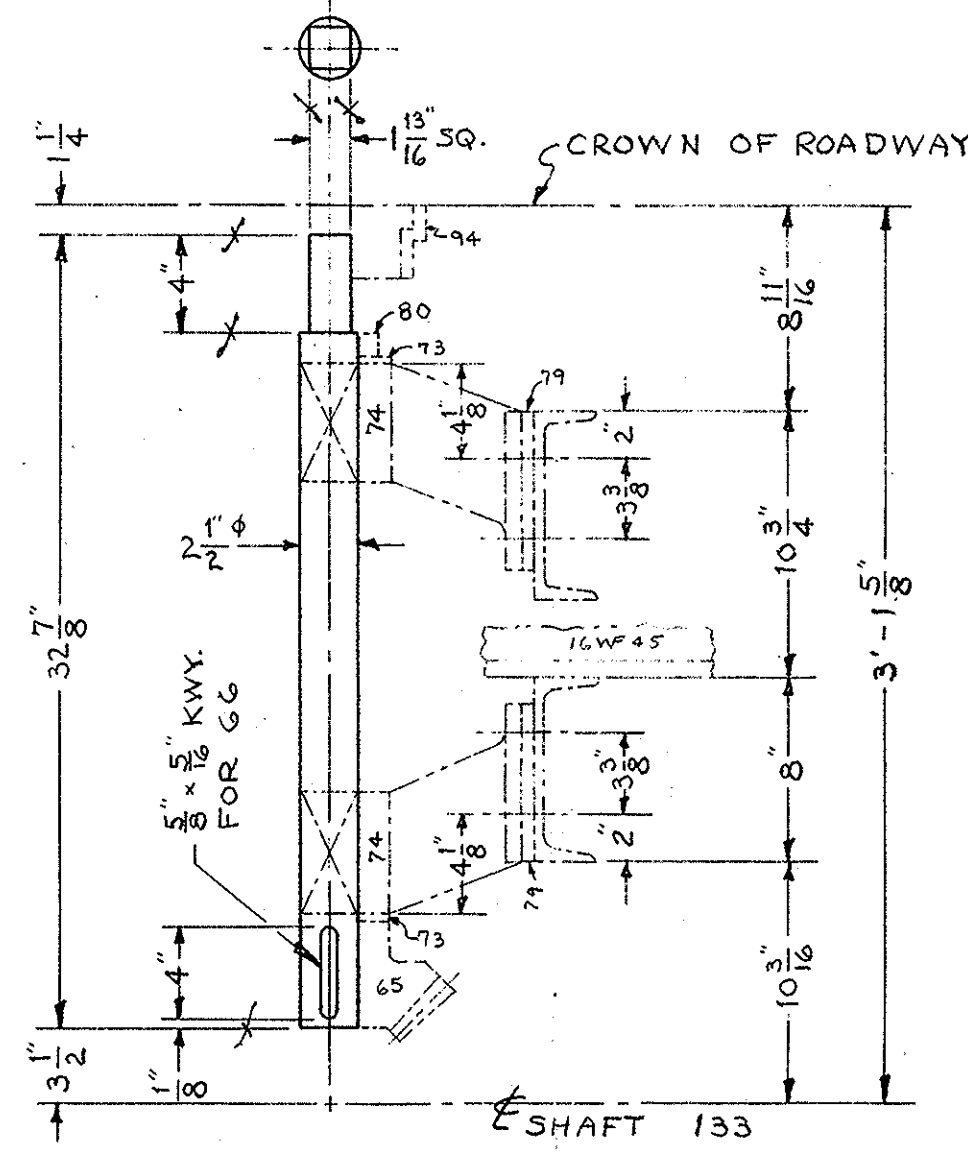
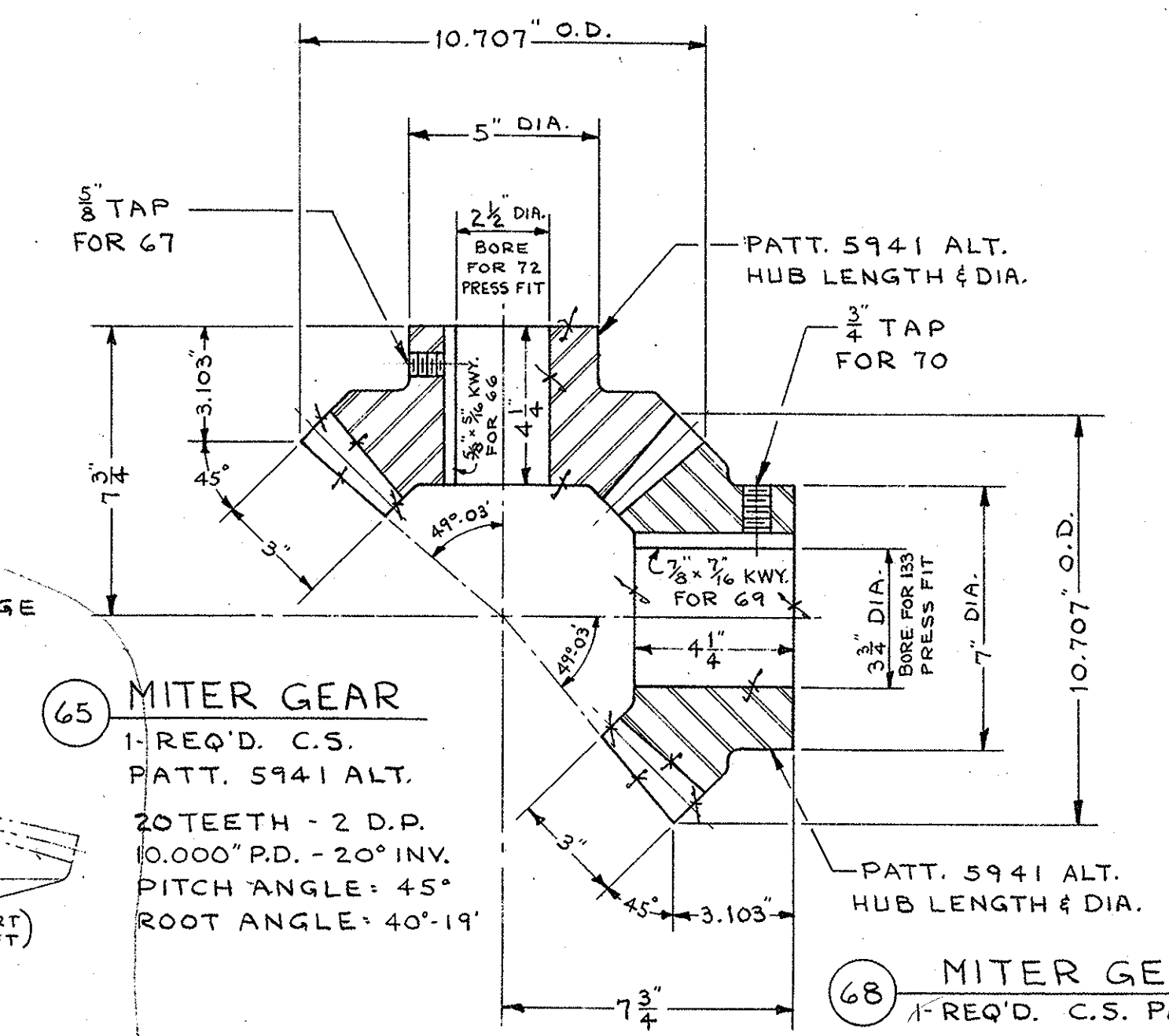
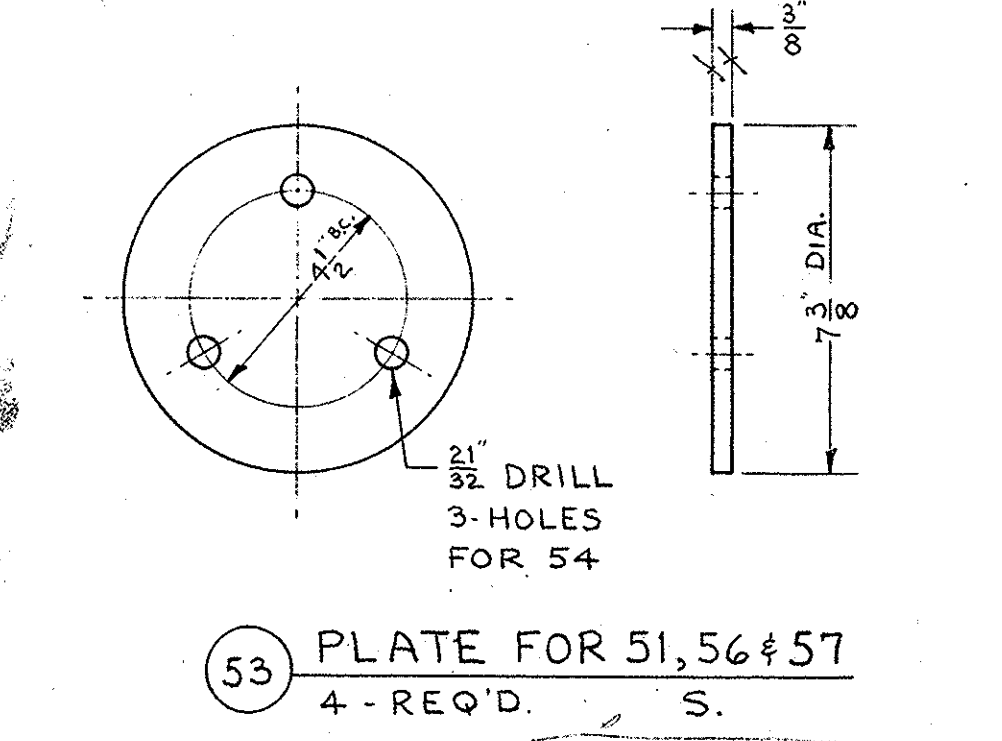
51 RACK PINION
2-REQ'D. F.S.
15 TEETH - 3.20" C.P. - 20° INV. - 15.279" P.D.
USE #7-1 D.P. 20° CUTTER - ADD. = .875"
W.D. = 2.032" - ARC THICKNESS = 1.630"

62 BEVEL GEAR
2-REQ'D. C.S. PATT. 1890
71 TEETH - 2 D.P.
35.500" P.D. - 20° INV.
PITCH ANGLE = 75° 46'
ROOT ANGLE = 73° 57'

58 BEVEL PINION
2-REQ'D. F.S.
18 TEETH - 2 D.P.
9.000" P.D. - 20° INV.
PITCH ANGLE = 14° 14'
ROOT ANGLE = 12° 25'

61 THRUST WASHER
3-REQ'D. BZ. PATT. 5178

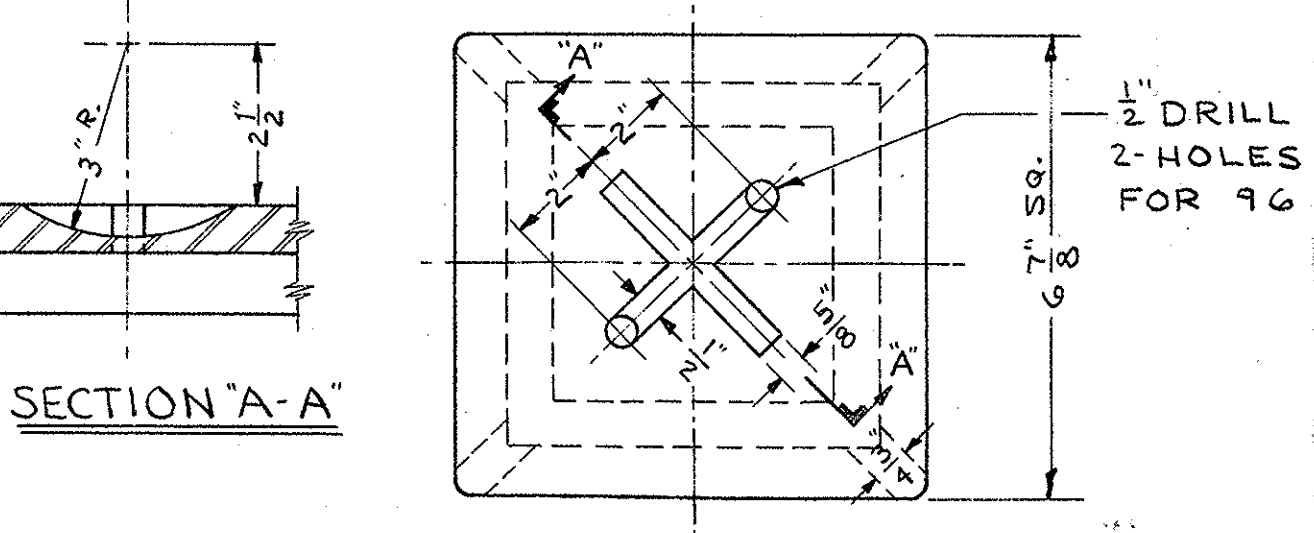
83 CAP FOR 82
2-REQ'D. C.S.
PATT. 4428 1/2" A
ALT. CORE



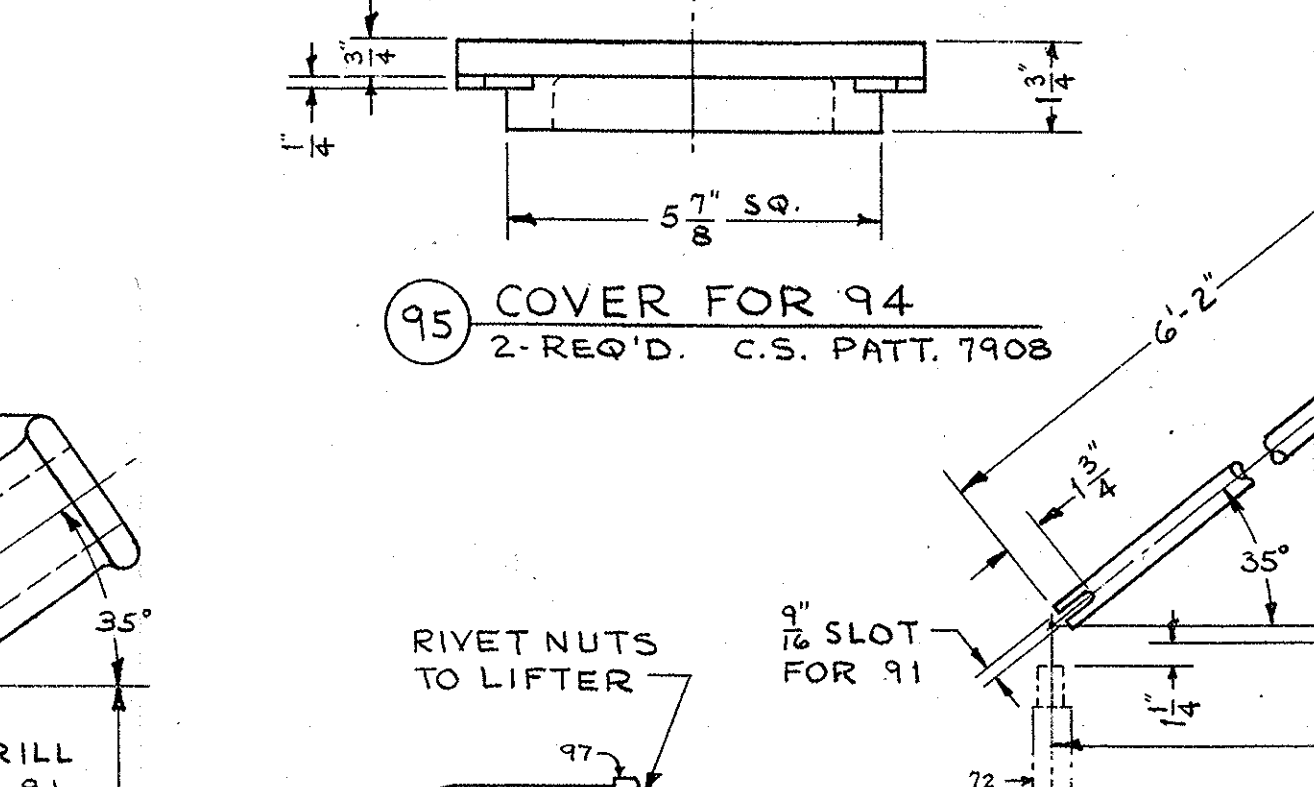
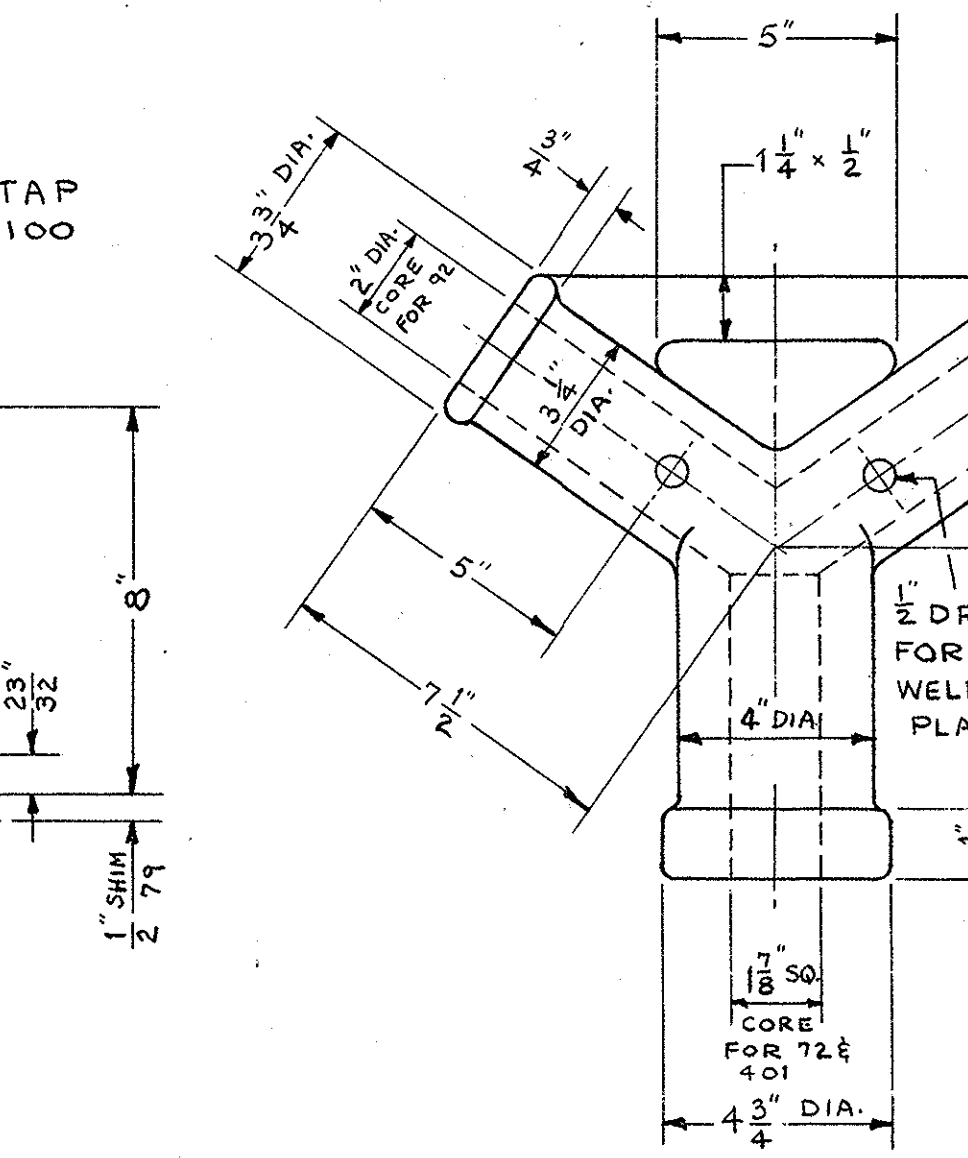
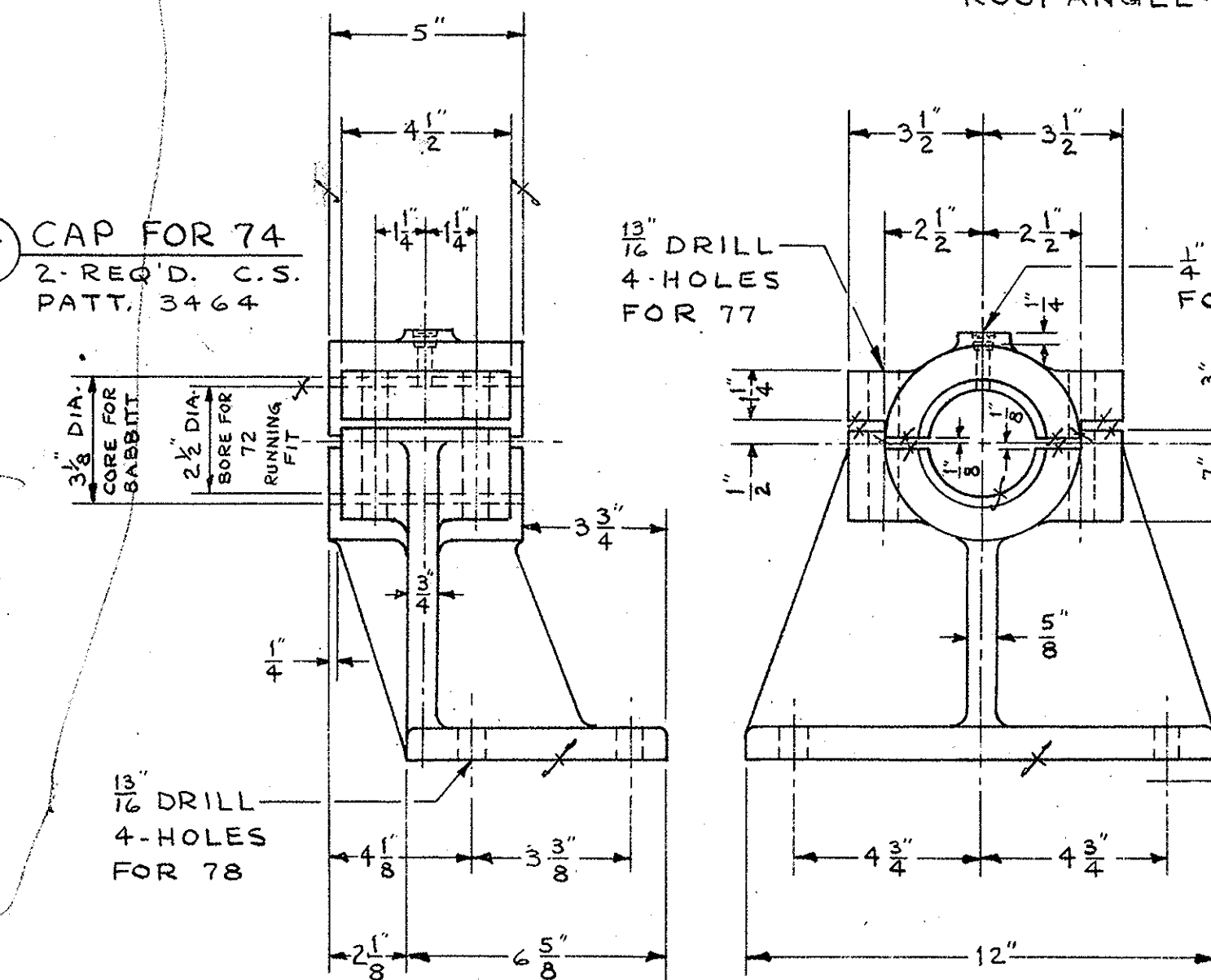
65 MITER GEAR
1-REQ'D. C.S.
PATT. 5941 ALT.
20 TEETH - 2 D.P.
10.000" P.D. - 20° INV.
PITCH ANGLE = 45°
ROOT ANGLE = 40° 19'

68 MITER GEAR
1-REQ'D. C.S. PATT. 5941 ALT.
20 TEETH - 2 D.P.
10.000" P.D. - 20° INV.
PITCH ANGLE = 45°
ROOT ANGLE = 40° 19'

72 CAPSTAN SHAFT
1-REQ'D. C.R.S.



73 THRUST WASHER
2-REQ'D. BZ. PATT. 2091



95 COVER FOR 94
2-REQ'D. C.S. PATT. 7908

92 CAPSTAN BAR
2-REQ'D. ST. PIPE (GALV.)

96 LIFTER FOR 95
2-REQ'D. S.

56 RACK PINION SHAFT (LONG)
1-REQ'D. T.F.P.S.

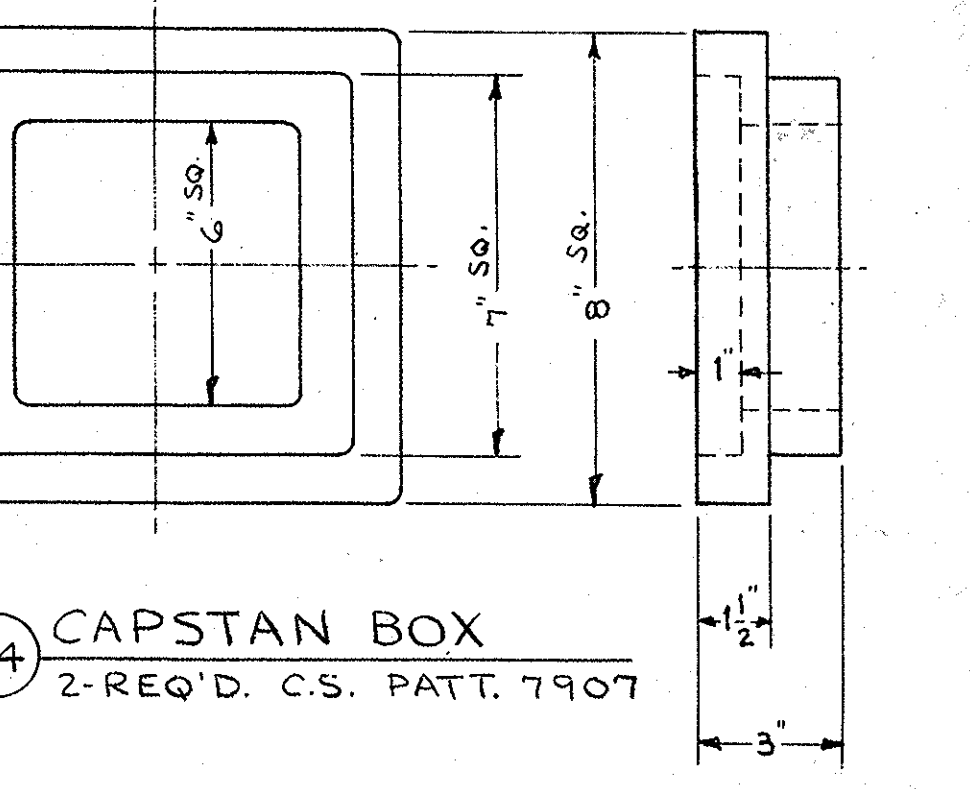
57 RACK PINION SHAFT (SHORT)
1-REQ'D. T.F.P.S.

74 CAPSTAN SHAFT BRG.
2-REQ'D. C.S. PATT. 7670

90 CAPSTAN
1-REQ'D. C.S. PATT. 6485

DATE	REVISIONS

GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS)
FINISHED SURFACES COATED—NO-OX-ID
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED



94 CAPSTAN BOX
2-REQ'D. C.S. PATT. 7907

S.O. D-7935 CONTRACT 8.11907

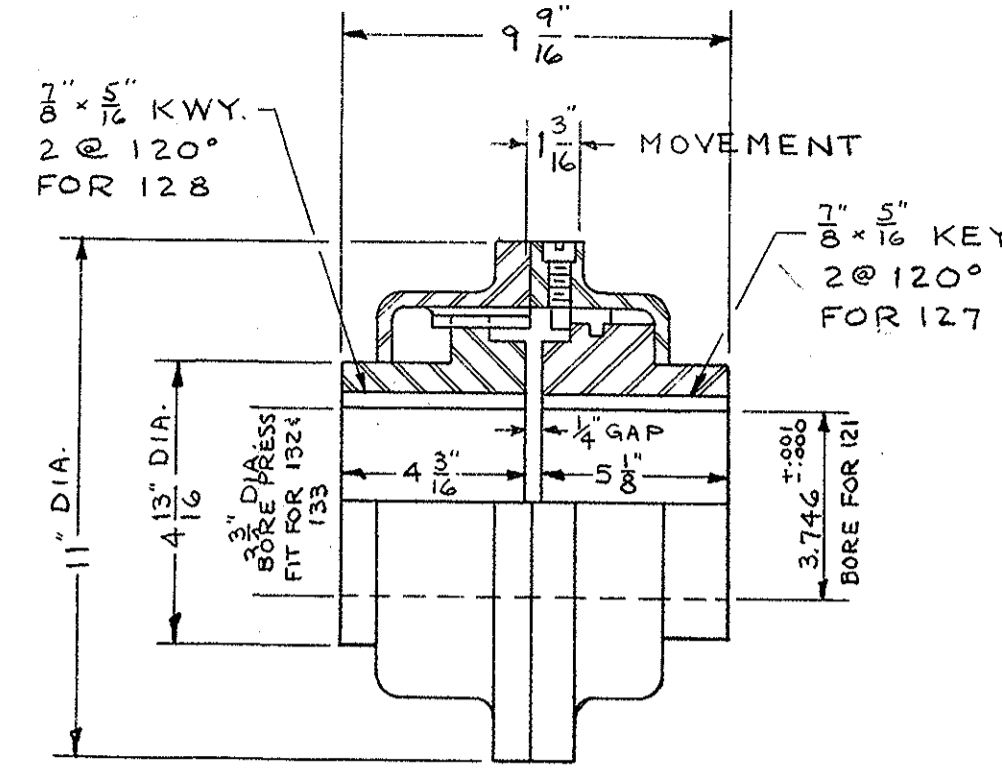
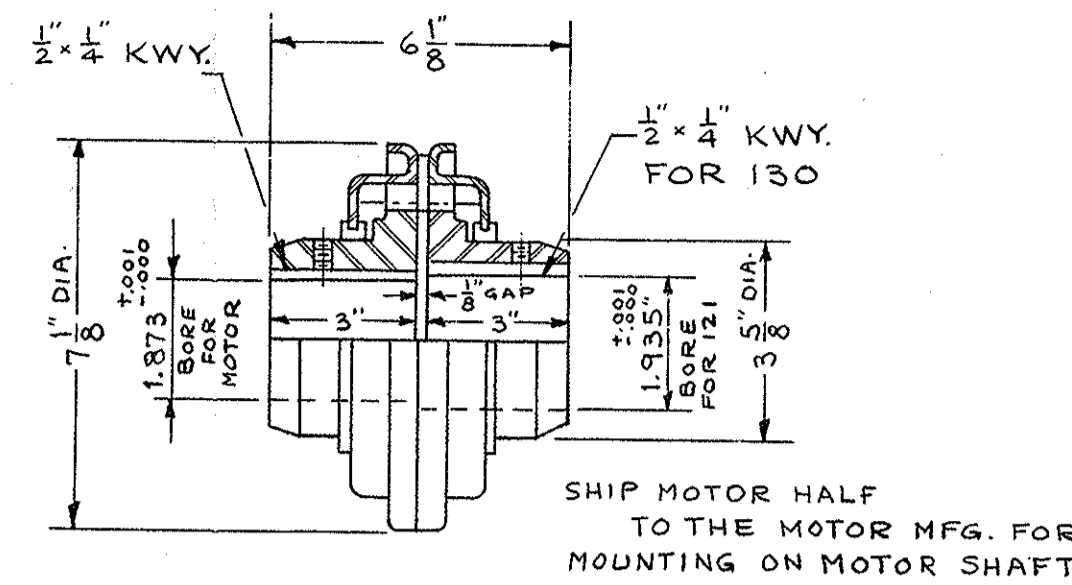
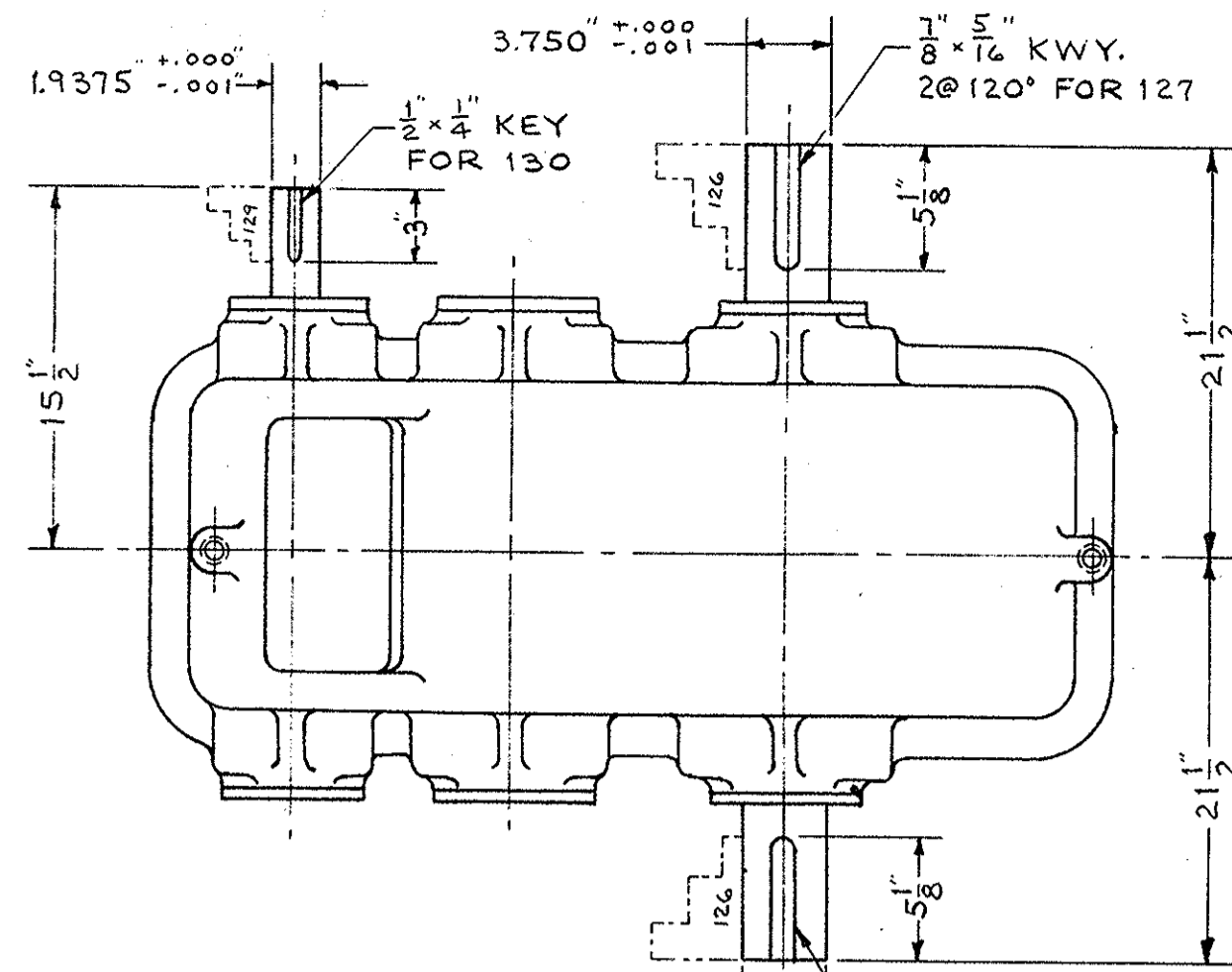
TURNING MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL - DARE COUNTY, N.C.

THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

DRAWN BY A.J.C. 3-18-60 APPROVED BY _____
CHECKED BY G.P. 7-1-60 REV. APPV. _____
DATE _____ REV. APPV. _____

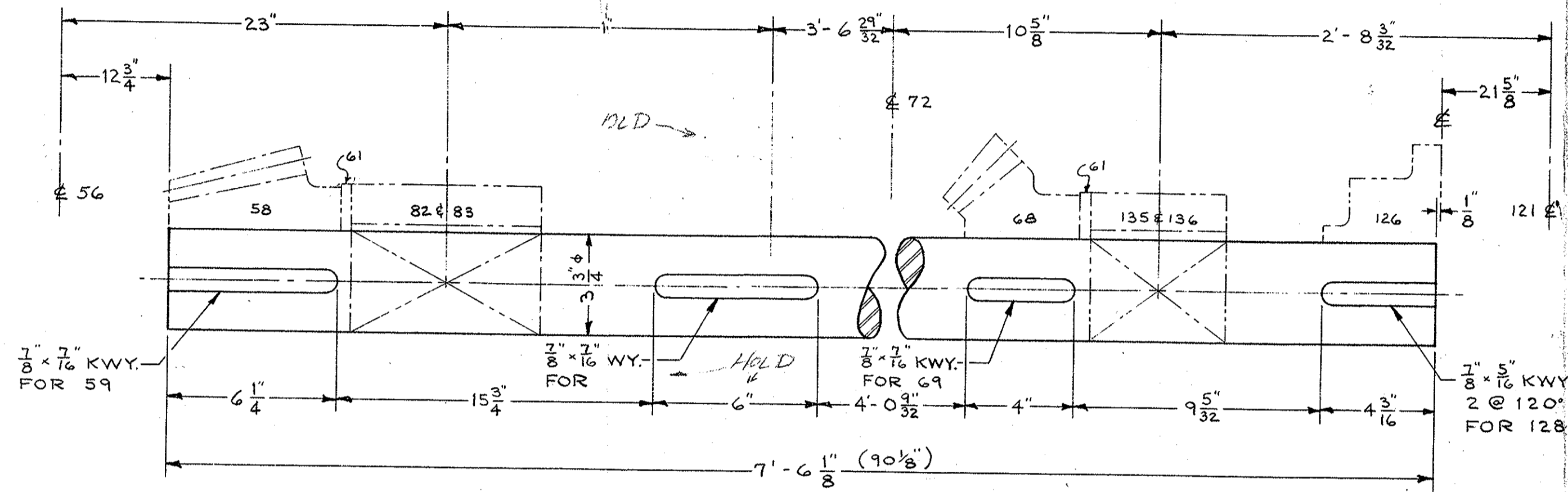
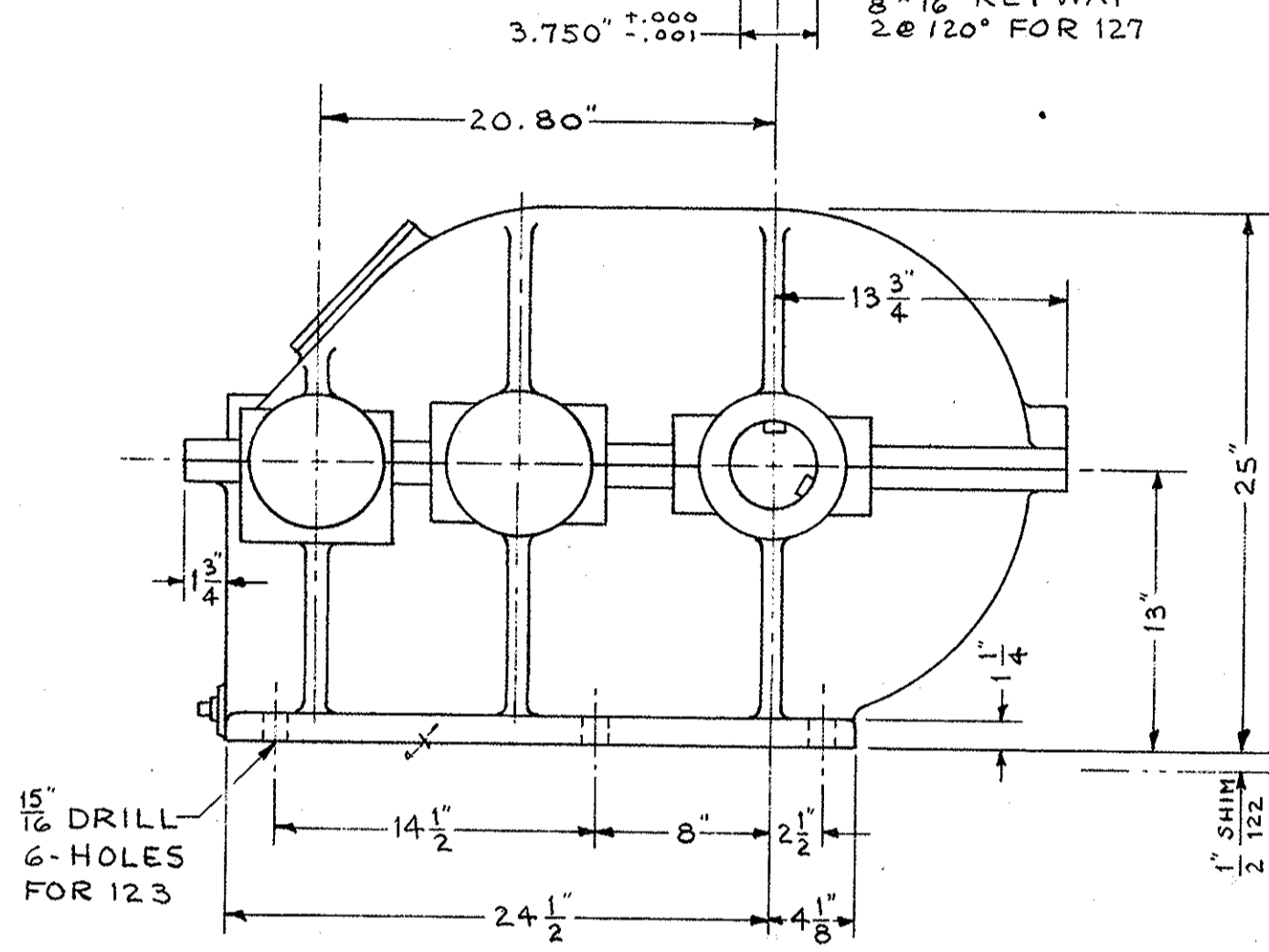
SHEET 2 OF 11 DWG. NO. 6852 E-30

PC.	NAME	QTY.	MTL.	PATT.	REMARKS
121	SPEED REDUCER	1			EARLE #6 DD
122	SHIM FOR 121	2	S.	3/8" x 2 1/8" x 1/4" - 1/32"	
123	BASE BOLT FOR 121	6	S.		T.B. LIST
124					
125					
126	FLEXIBLE COUPLING	2	S.		POOLE #3 1/2 SLIDING SLEEVE DISENGAGING
127	KEY FOR 126	4	S.		KEY LIST
128	KEY FOR 126	4	S.		KEY LIST
129	FLEXIBLE COUPLING	1	S.		FALK # 8F
130	KEY FOR 129	1	S.		KEY LIST
131					
132	TURNING SHAFT	1	T.&P.S.		LONG
133	TURNING SHAFT	1	T.&P.S.		SHORT
134					
135	TURN SHAFT BRG.	1	C.S.	7267	
136	CAP FOR 135	1	C.S.	7266	ALT. CORE
137	STUD BOLT FOR 135	2	S.		SEE DETAIL
138	NUT FOR 137	2	S.	HEX.	1" AMER. STD. HEAVY
139	COTTER PIN FOR 137	2	S.	STD.	1/8" DIA. x 2" LG.
140	BASE BOLT FOR 135	4	S.		T.B. LIST
141	SHIM FOR 135	2	S.	7/8" x 1 1/2" x 1/4" - 1/8" - 1/16" - 1/32"	
142	LINER FOR 135 & 136	2	FIBER	1 1/8" x 5" x 1/4"	
143	COLLAR BEARING	1	C.S.	343	
144	BASE BOLT FOR 143	4	S.		T.B. LIST
145					
146					
147					
148					
149					
150	LUB. FITTING FOR 135	2		1/4" P.T.	ALEMITE # 1627 A



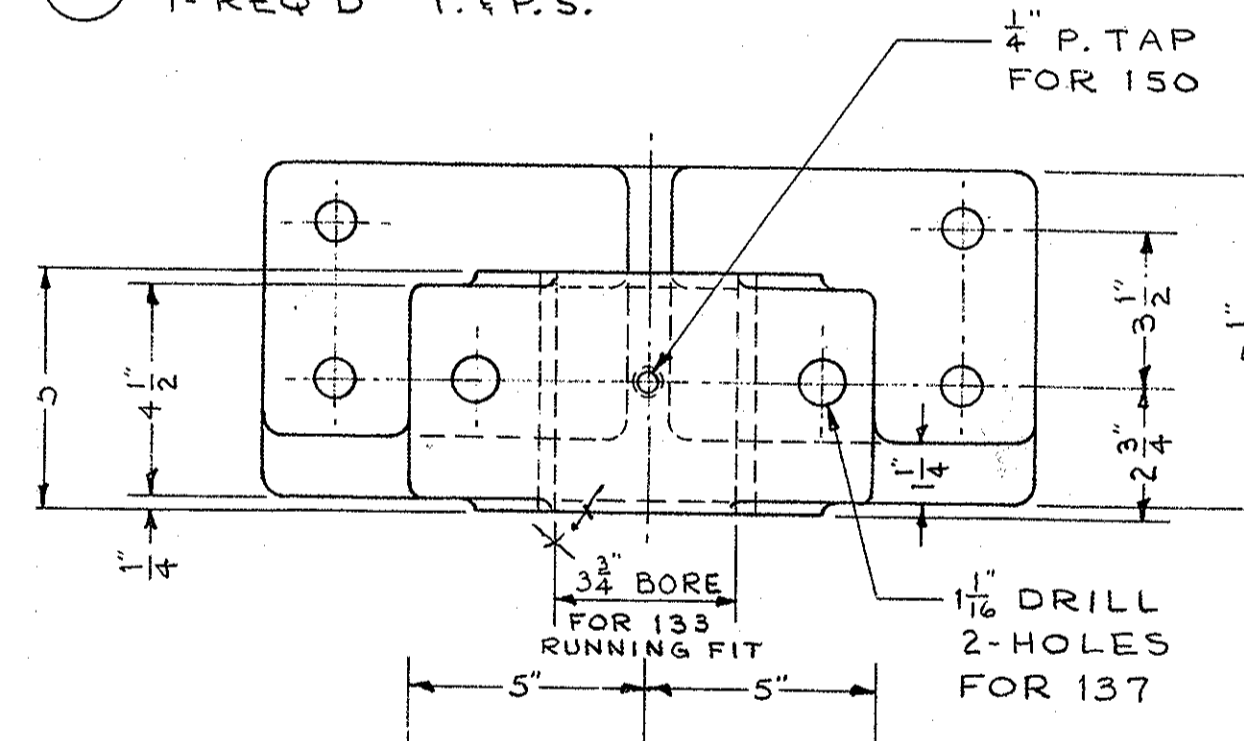
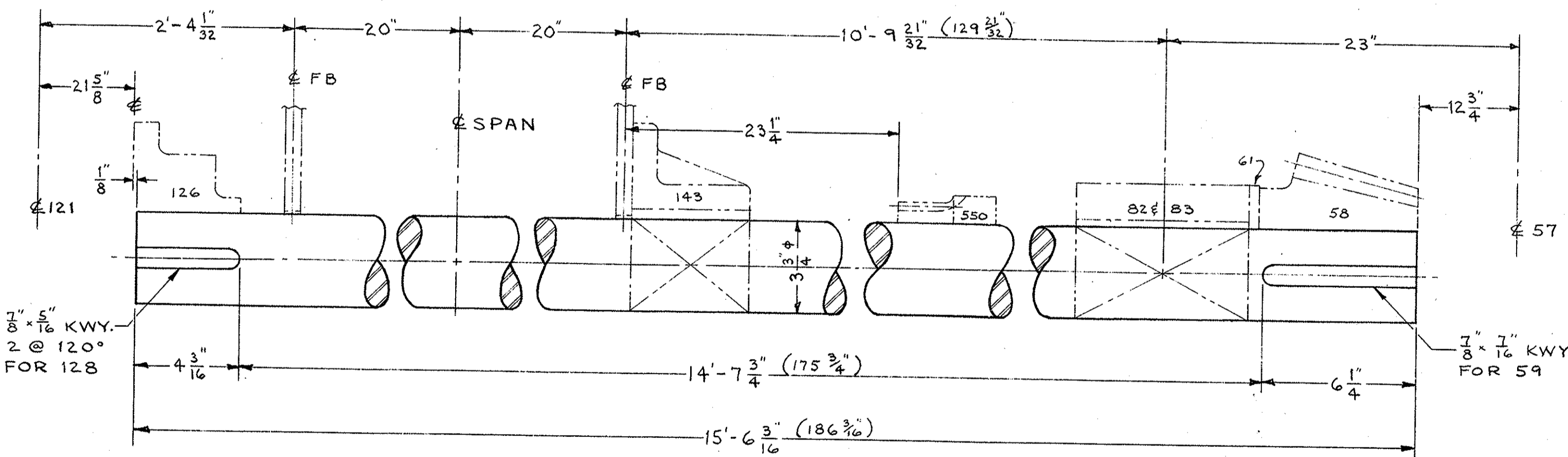
129 FLEXIBLE COUPLING
1-REQ'D. FALK # 8F

126 FLEXIBLE COUPLING
2-REQ'D. POOLE # 3 1/2
SLIDING SLEEVE DISENGAGING

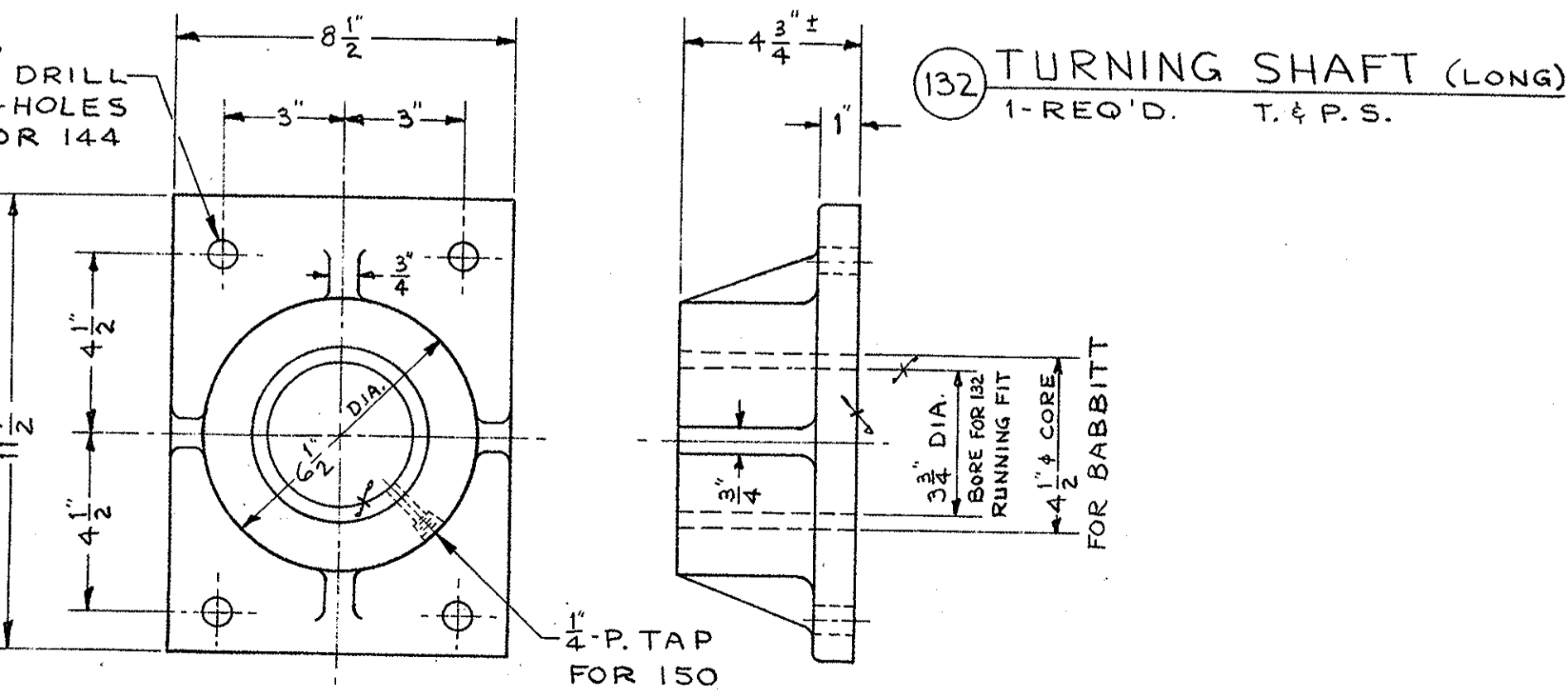


133 TURNING SHAFT (SHORT)
1-REQ'D. T.&P.S.

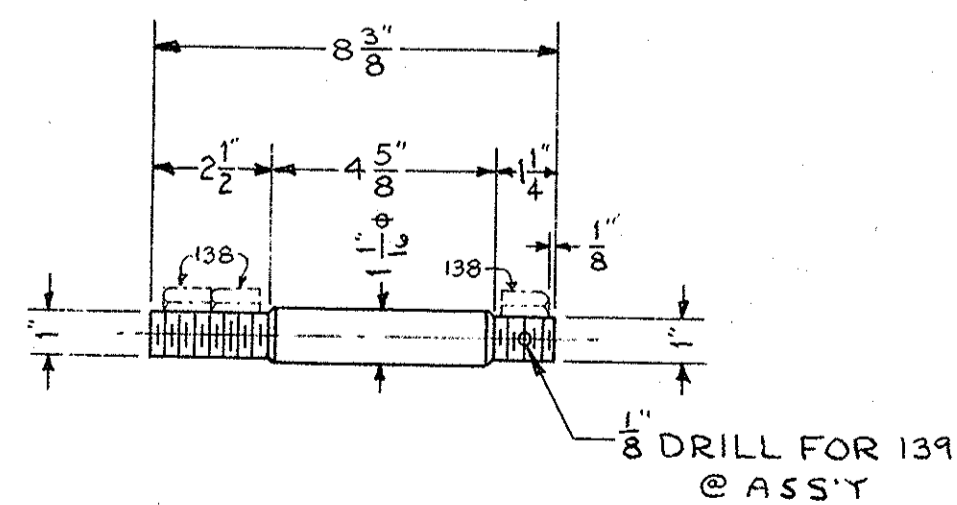
121 SPEED REDUCER
1-REQ'D. EARLE #6 DD
RATIO 30.41:1
25 H.P. @ 860 R.P.M.
S.O. D-7936



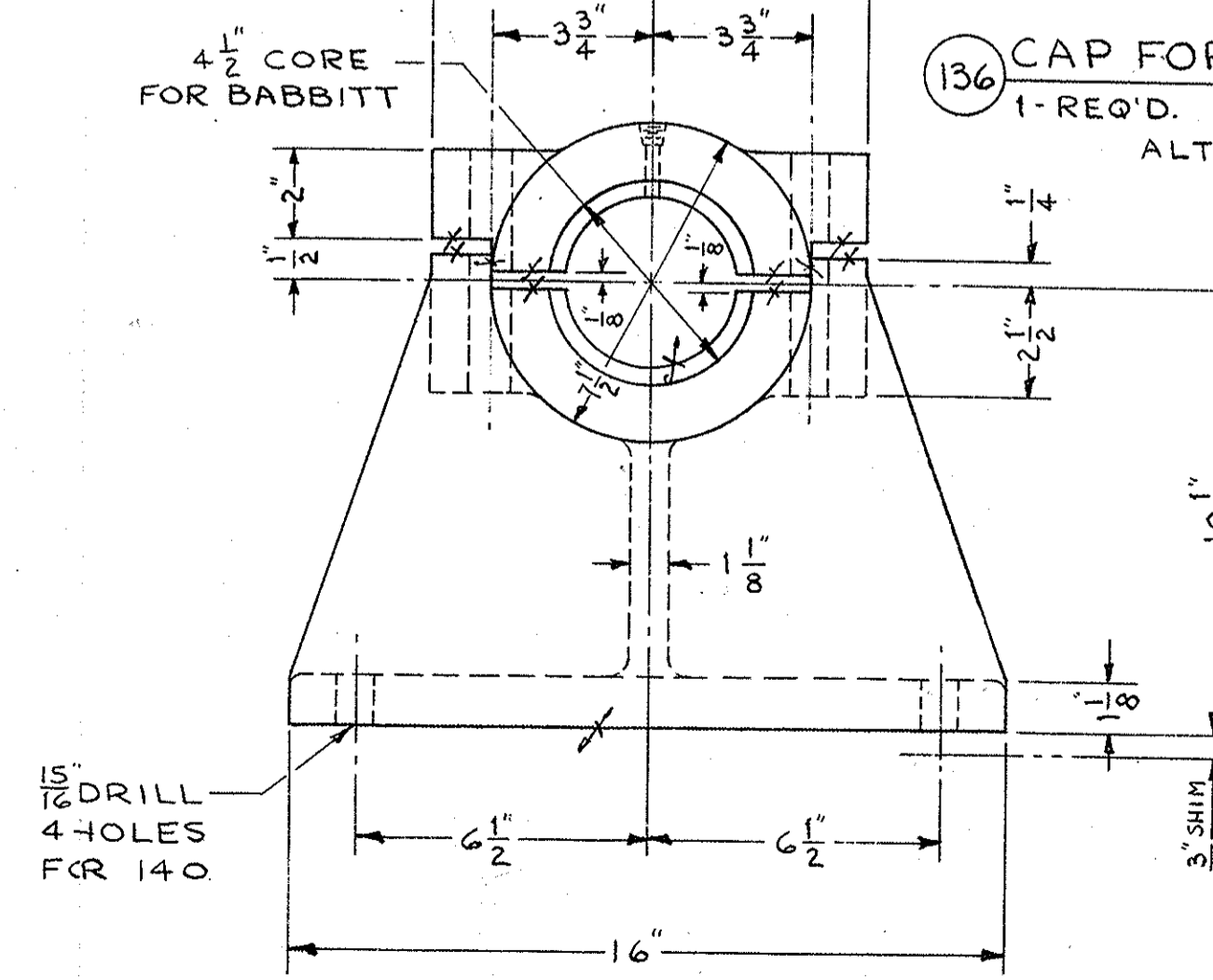
136 CAP FOR 135
1-REQ'D. C.S. PATT 7266
ALT. CORE



143 COLLAR BEARING
1-REQ'D. C.S. PATT. 343



137 STUD BOLT FOR 135 & 136
2-REQ'D. S.



135 TURN SHAFT BRG.
1-REQ'D. C.S. PATT. 7267

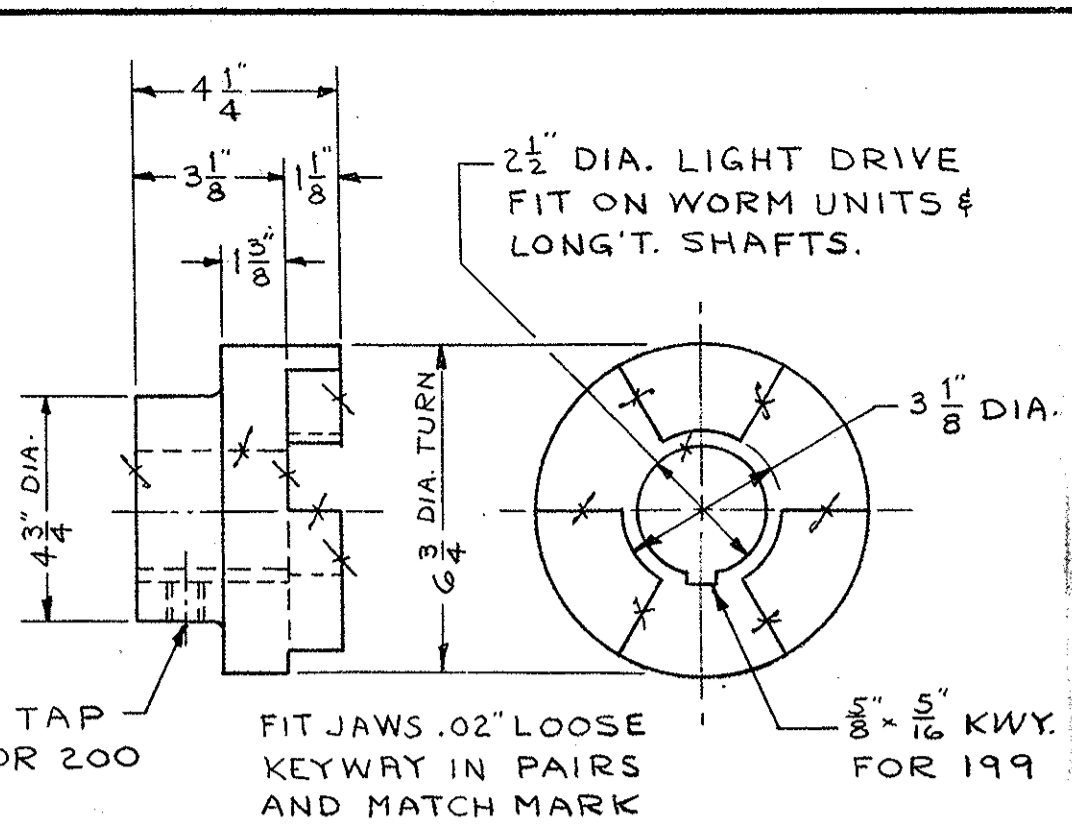
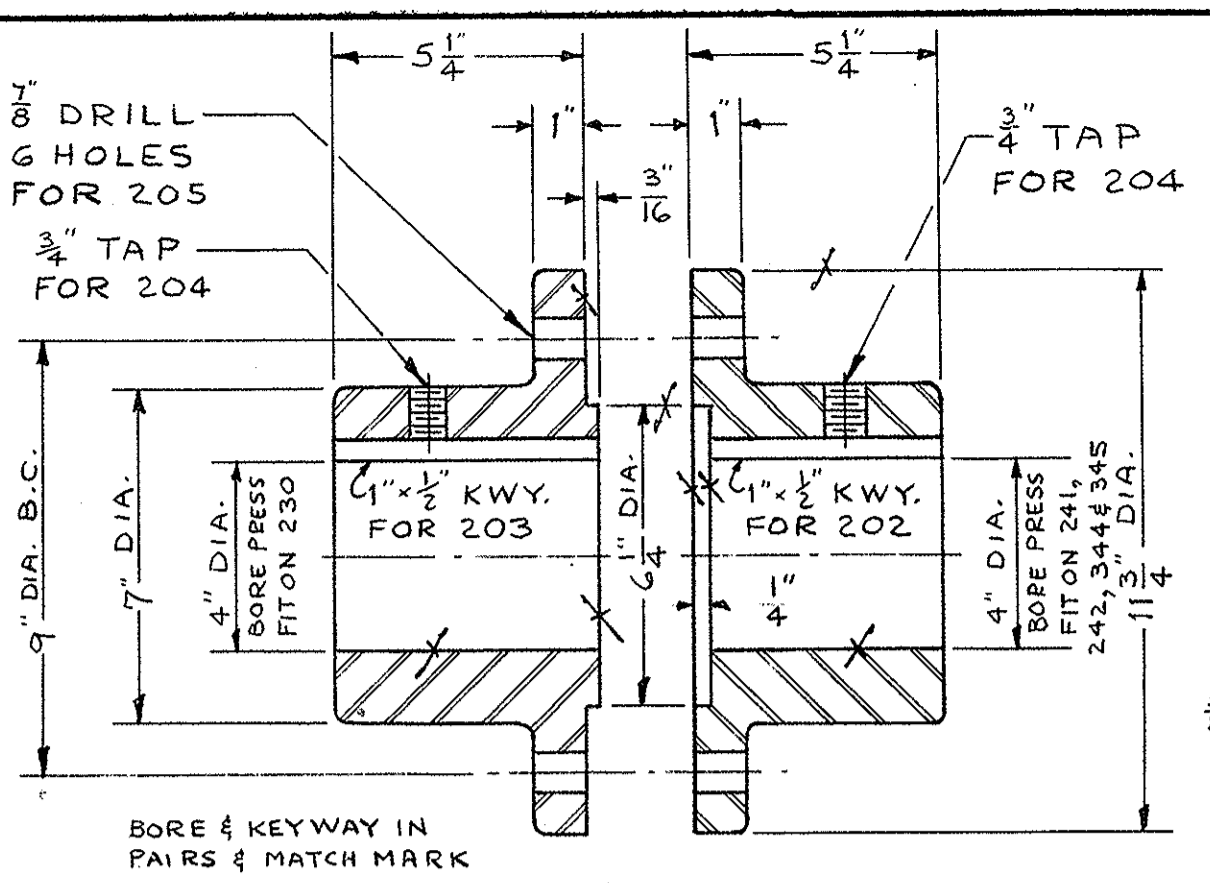
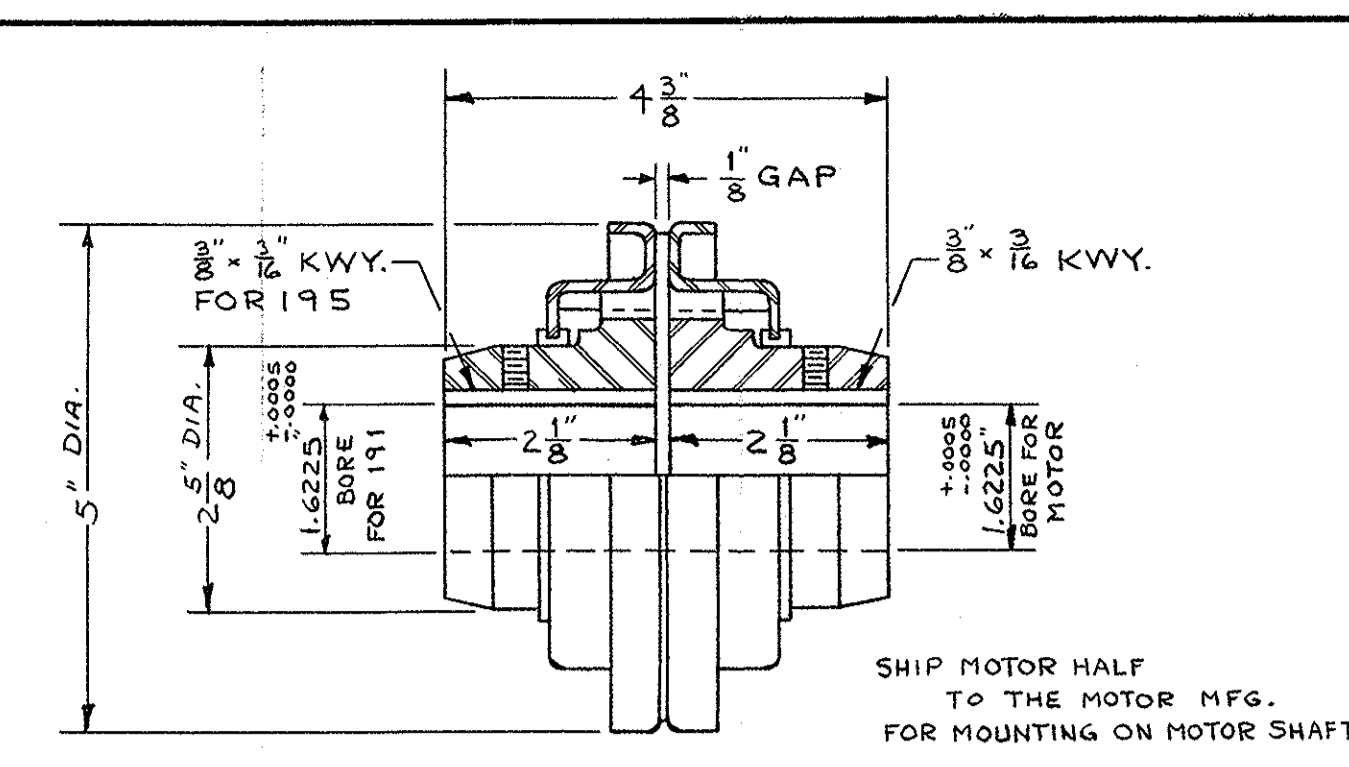
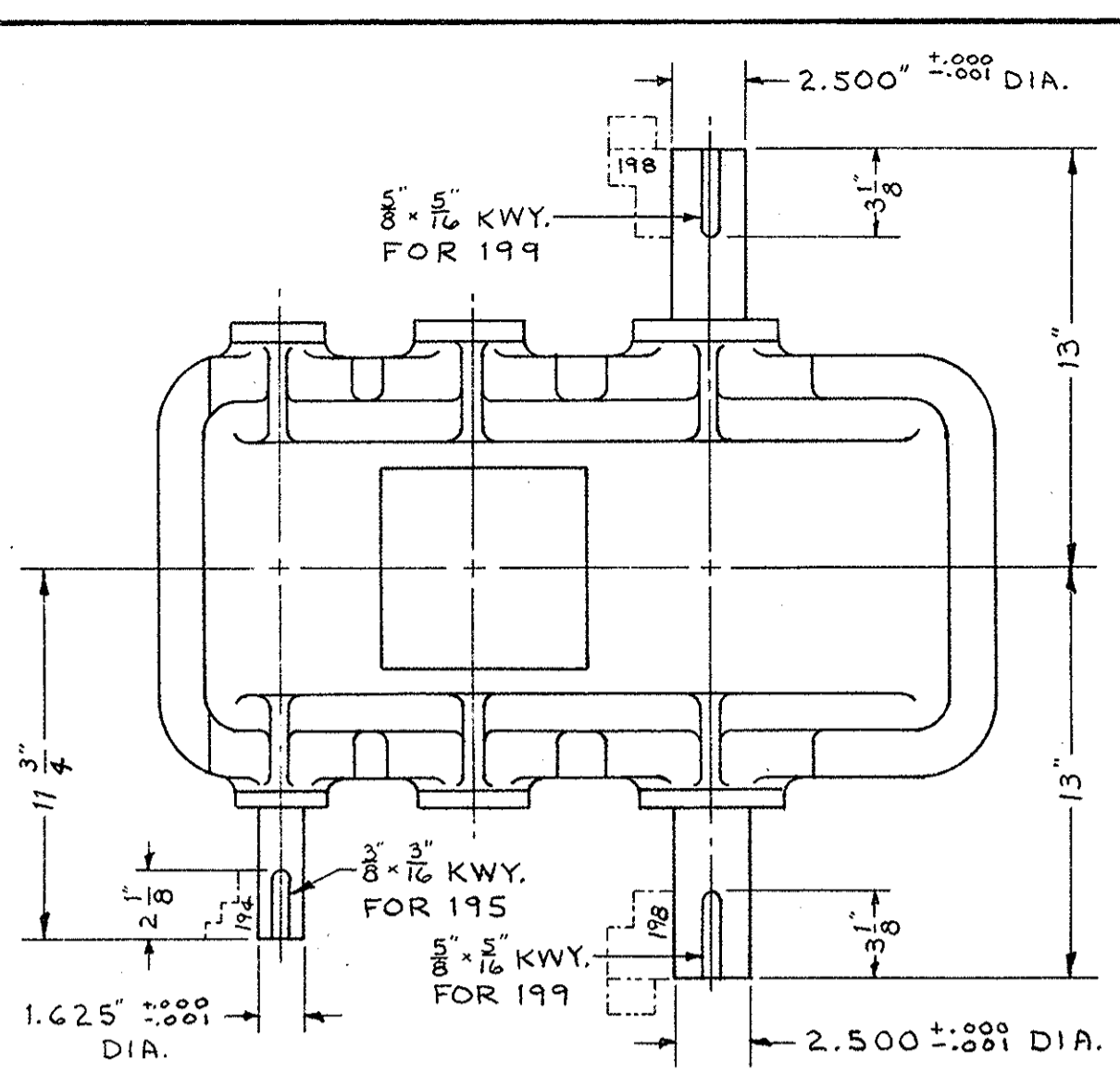
SPECIFICATIONS AASHO & SPECIAL PROVISIONS
INSPECTION FROEHLING & ROBERTSON, INC.

GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS)
FINISHED SURFACES COATED—NO OX-ID
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

S.O. D-7935 CONTRACT B.11907
TURNING MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.
THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.
DRAWN BY A.J.C. 3-24-60 APPROVED BY _____
CHECKED BY G.P. 7-1-60 REV. APPV. _____
DATE _____ REV. APPV. _____
SHEET 3 OF 11 DWG. NO. 6853 E-30

DATE	REVISIONS

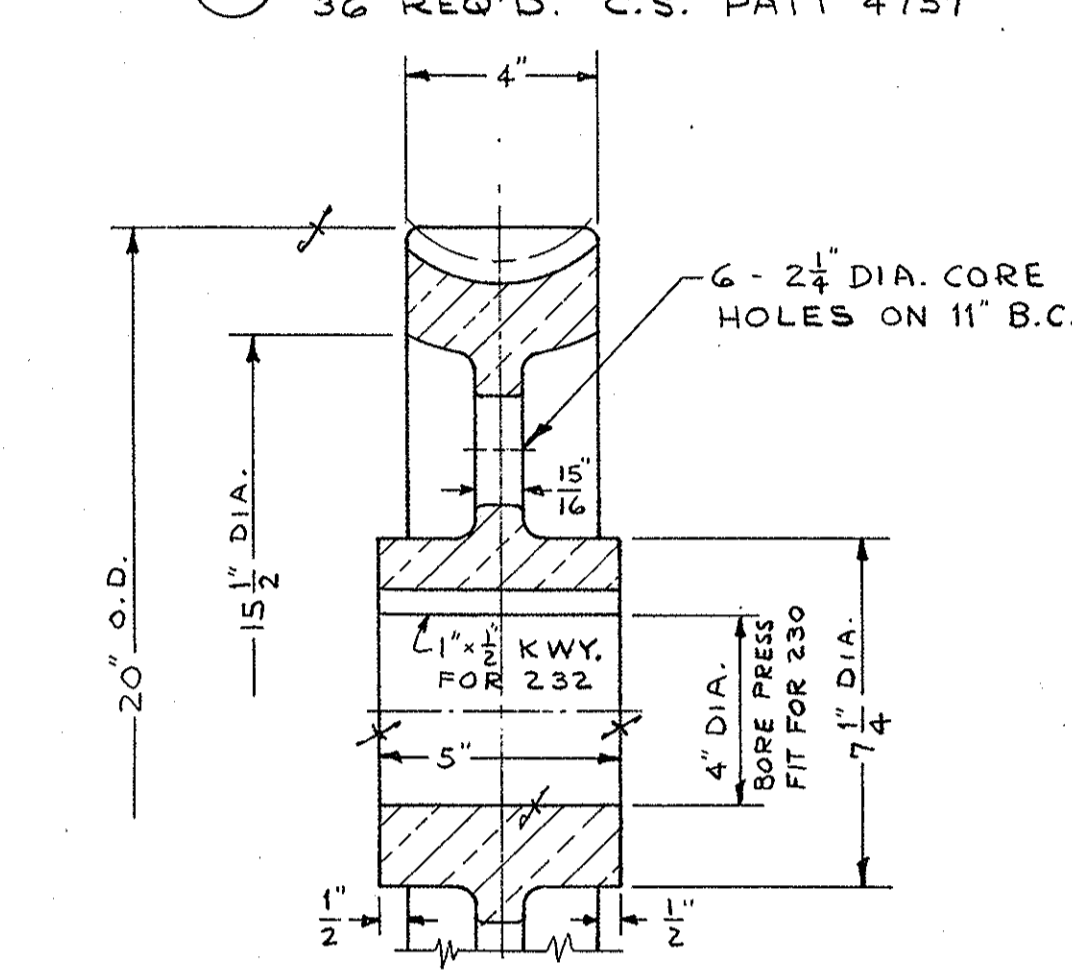
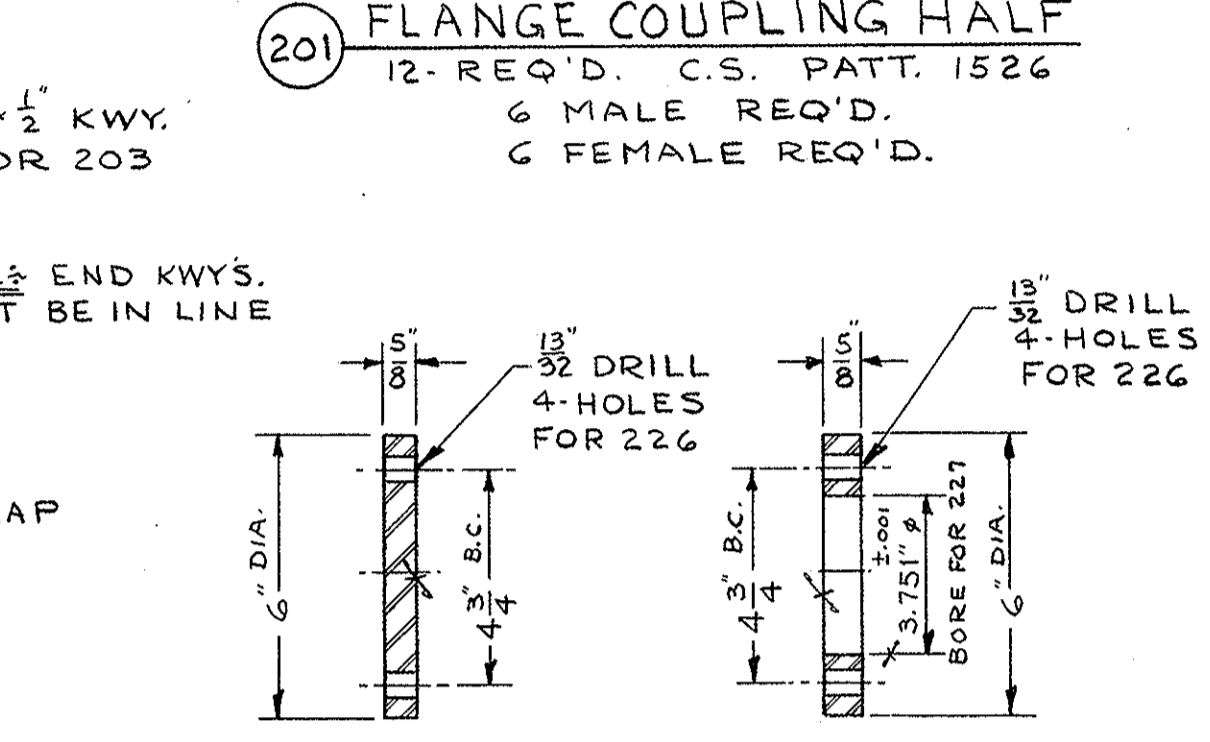
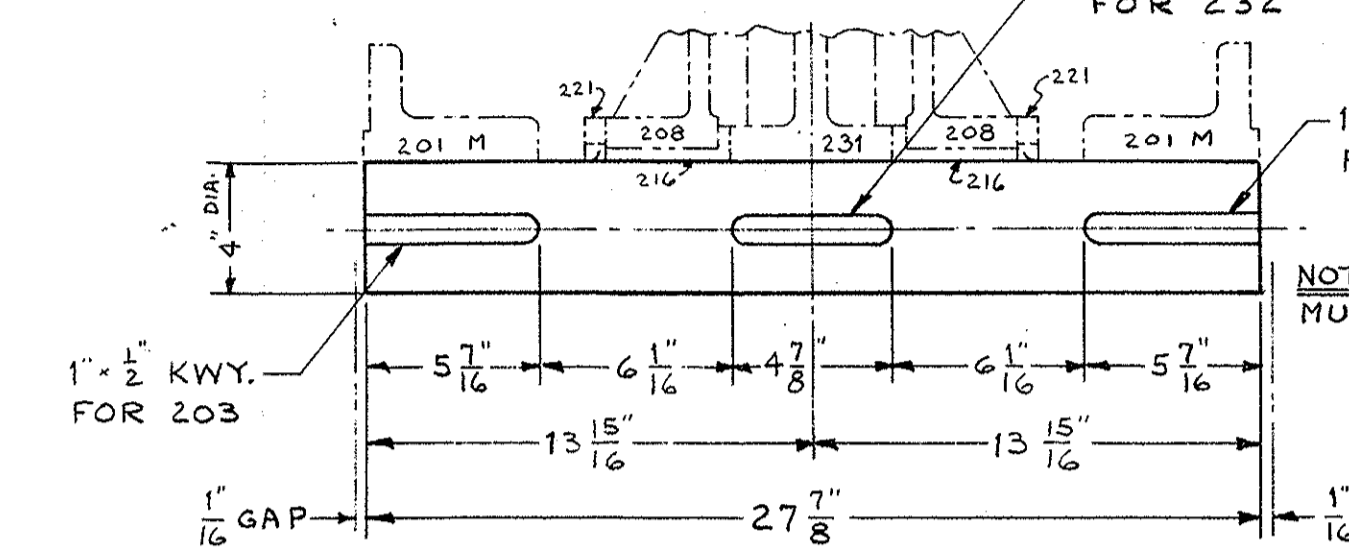
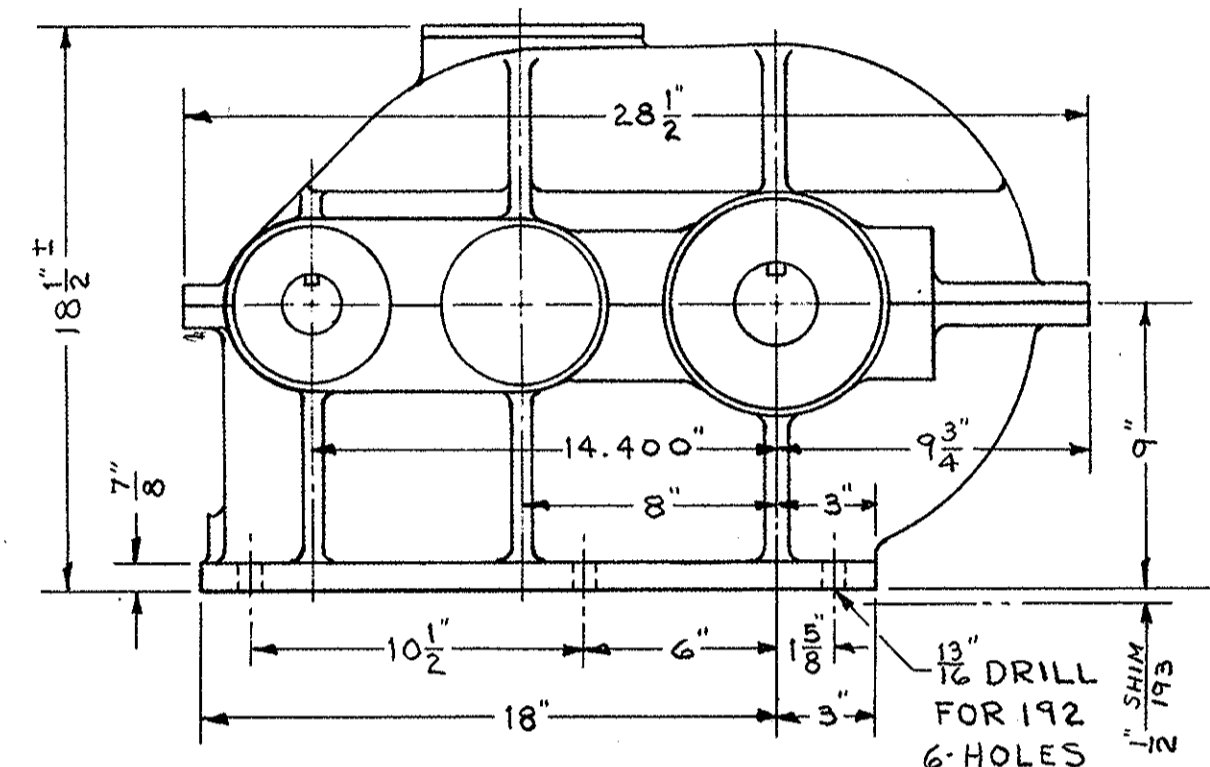
Pc.	NAME	QTY	MTL.	PATT.	REMARKS
191	SPEED REDUCER	1	S.		EARLE No. 4 D
192	BASE BOLT FOR 191	6	S.		T.B. LIST
193	SHIM FOR 191	5675	S.	21" x 2 9/16" x 1/4" x 3/8" - 1/8" - 1/16" - 1/32"	
194	FLEXIBLE COUPLING	1	S.		FALK No. G F
195	KEY FOR 194	1	S.		KEY LIST
196					
197					
198	JAW COUPLING HALF	36	C.S.	4757	
199	KEY FOR 198	36	S.		KEY LIST
200	SET SCREW FOR 198	36	S.	HOLLOW	5/8" x 3/4" LG. CUP-POINT
201	FLANGE COUPLING HALF	12	C.S.	1526	6 MALE & 6 FEMALE
202	KEY FOR 201	6	S.		KEY LIST
203	KEY FOR 201	6	S.		KEY LIST
204	SET SCREW FOR 201	12	S.	HOLLOW	3/4" x 1" LG. CUP-POINT
205	FLANGE BOLT FOR 201	36	S.	HEX. HD. CAP	7/8" x 3/4" LG. 1/2 L.W. & 1 NUT
206					
207					
208	WORM HOUSING TOP	3	C.I.	683	
209	WORM HOUSING CENTER	3	C.I.	1412	
210	WORM HOUSING BOTTOM	3	C.I.	1413	
211	BOLT FOR 208 & 209	12	S.		3/4" x 2 1/2" LG. W/L.W. & 1 NUT
212	BOLT FOR 208 & 209	12	S.	HEX. HD. MACH.	3/4" x 3" LG. W/L.W. & 1 NUT
213	BOLT FOR 209 & 210	18	S.	HEX. HD. MACH.	3/4" x 2 1/2" LG. W/L.W. & 1 NUT
214	BASE BOLT FOR 208 & 209	24	S.		T.B. LIST
215	SHIM FOR 208 & 209	5675	S.		12" x 3 1/2" x 1/4" - 1/8" - 1/16" - 1/32"
216	OUTPUT BUSHING	6	BZ.	7271	
217	INPUT BUSHING	6	BZ.	8132	
218	NIPPLE FOR 216 & 217	12	B.		1/2" x 2 1/2" LG. STD. I.P.S.
219	COUPLING FOR 218	12	M.I.		1/2" STD. I.P.S.
220	LUB. FITTING FOR 219	12			1/2" P.T. ALEMITE # 1627-A
221	OUTPUT SEAL RING	6	S.		
222	BOLT FOR 221	24	S.	HEX. HD. CAP	3/8" x 1 1/2" LG. NO NUT
223	OIL SEAL FOR 221	6	S.		GARLOCK # 53 x 2539
224	INPUT SEAL RING	4	S.		
225	INPUT COVER PLATE	2	S.		
226	BOLT FOR 224 & 225	24	S.	HEX. HD. CAP	3/8" x 1 1/2" LG. NO NUT
227	OIL SEAL FOR 224	4	S.		GARLOCK # 63 x 2170
228	WORM SHAFT	2	1045 S.		1-R.H. & 1-L.H. THREAD
229	WORM SHAFT	1	1045 S.		R.H. THREAD
230	WORM WHEEL SHAFT	3	T.&P.S.		
231	WORM WHEEL	3	BZ.	5083	
232	KEY FOR 231	3	S.		KEY LIST
233					
234	PIPE PLUG FOR 232	9	M.I.		3/4" STD. I.P.S.
235	NIPPLE FOR 210	3	S.		3/4" x 1 1/2" LG. I.P.S. GALV.
236	ELL FOR 235	3	M.I.		3/4" STD. I.P.S. GALV.
237	NIPPLE FOR 236	3	S.		3/4" x 8" LG. I.P.S. GALV.
238	TEE FOR 237	3	M.I.		3/4" STD. I.P.S. GALV.
239	NIPPLE FOR 238	3	S.		3/4" x 5" LG. I.P.S. GALV.
240	COUPLING FOR 239	3	M.I.		3/4" STD. I.P.S. GALV.
241	C.W. CRANK SHAFT	1	T.&P.S.		SHORT
242	C.W. CRANK SHAFT	1	T.&P.S.		LONG
243					
244					



194 FLEXIBLE COUPLING
1-REQ'D. FALK No. G F

201 FLANGE COUPLING HALF
12-REQ'D. C.S. PATT. 1526
6 MALE REQ'D.
6 FEMALE REQ'D.

198 JAW COUPLING HALF
36 REQ'D. C.S. PATT 4757

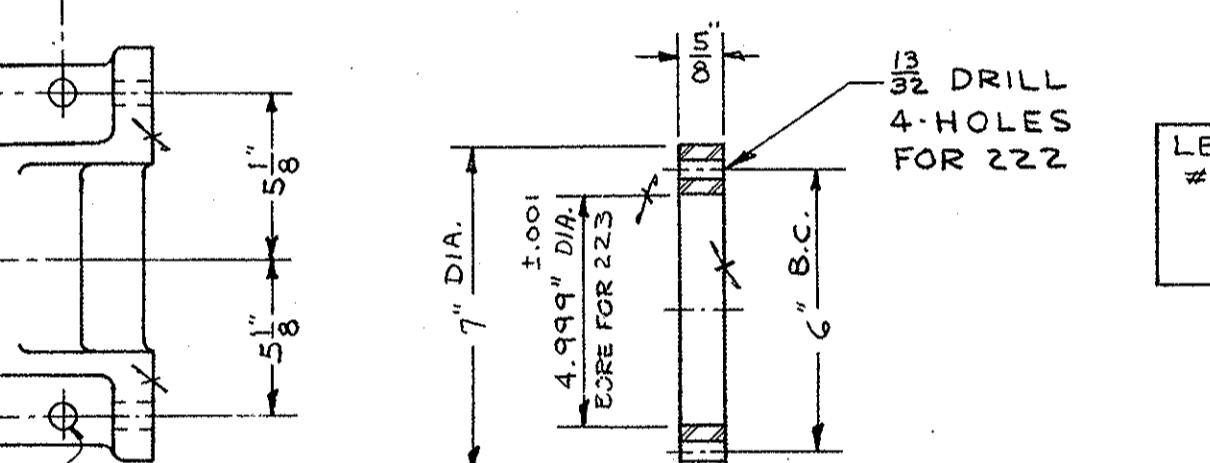
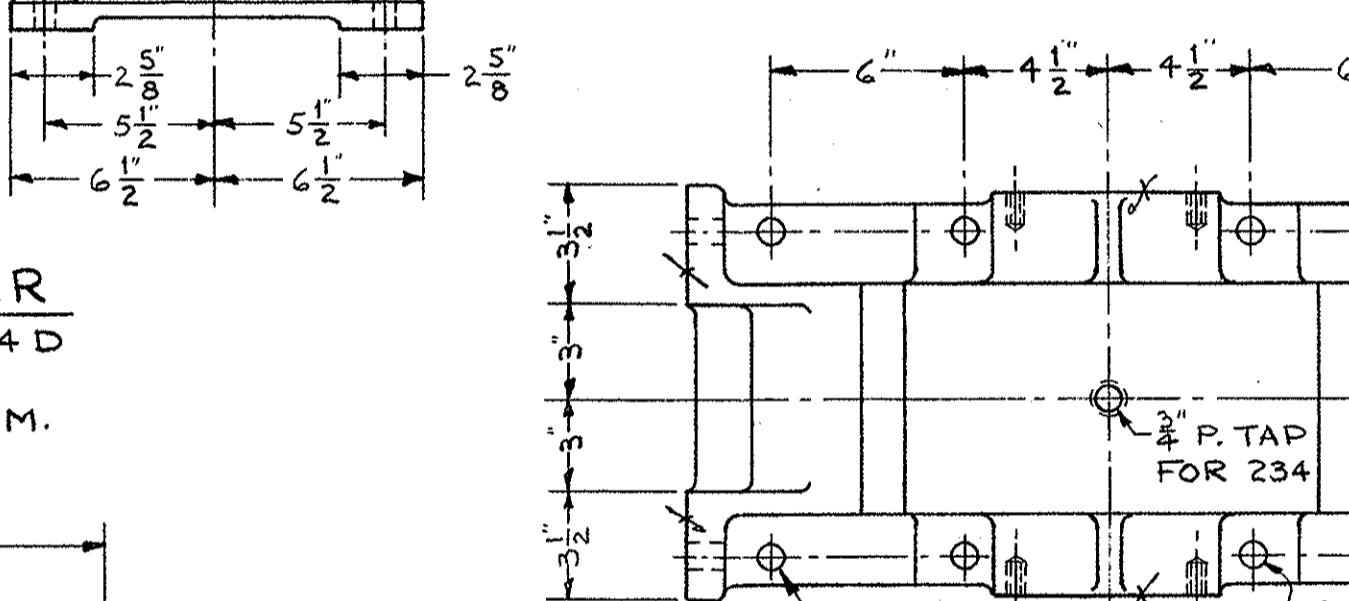
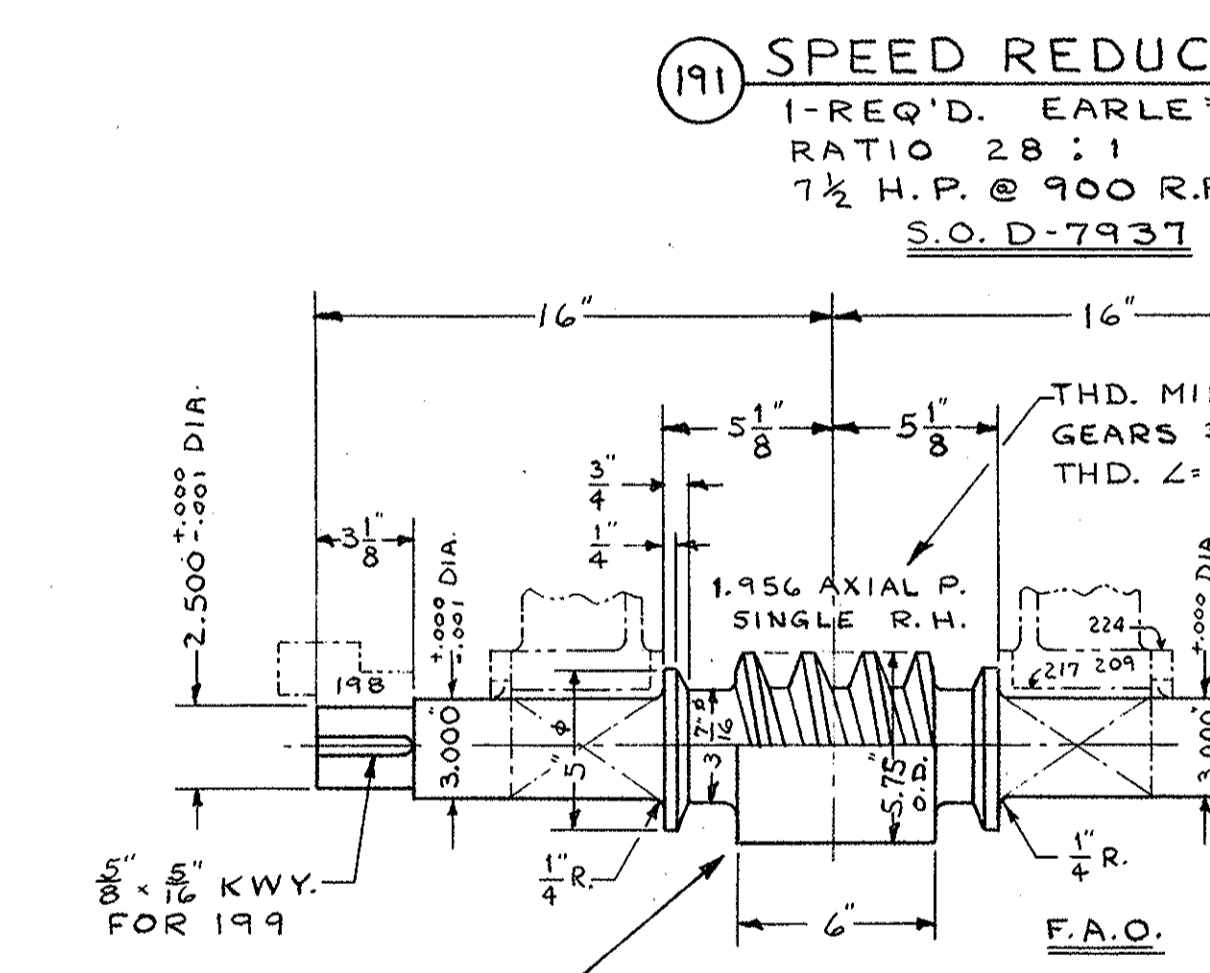


230 WORM WHEEL SHAFT
3-REQ'D. T. & P.S.

225 INPUT COVER PLATE
2-REQ'D. S.

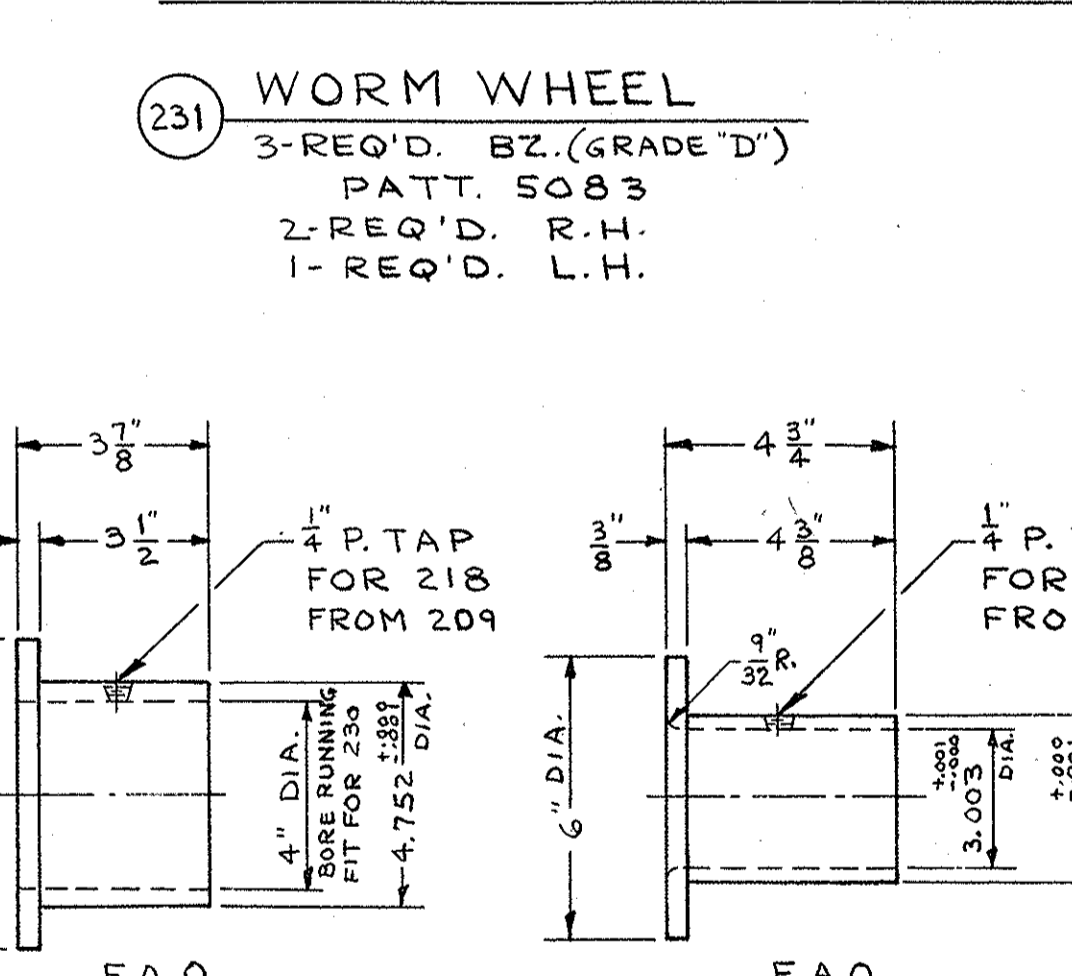
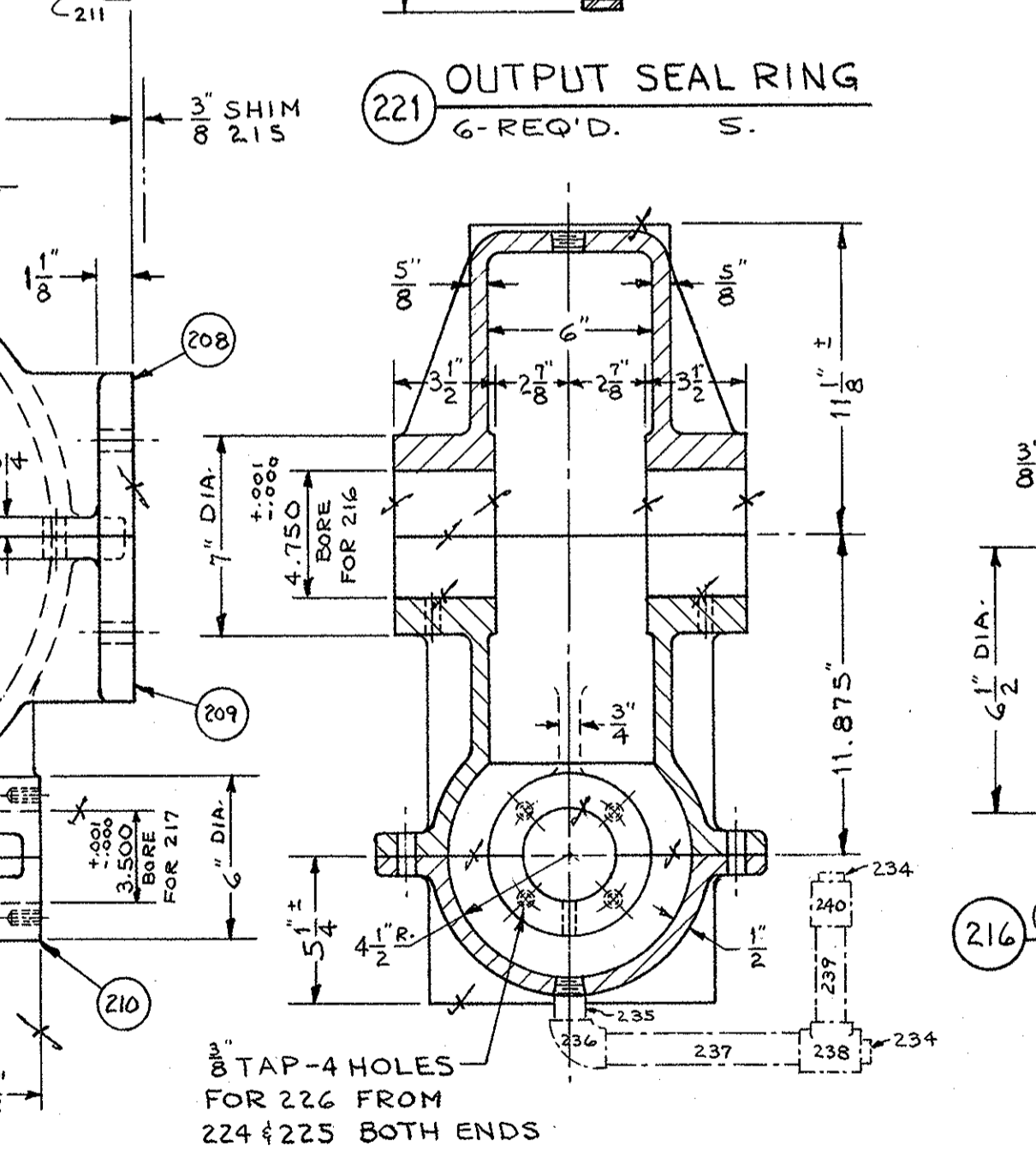
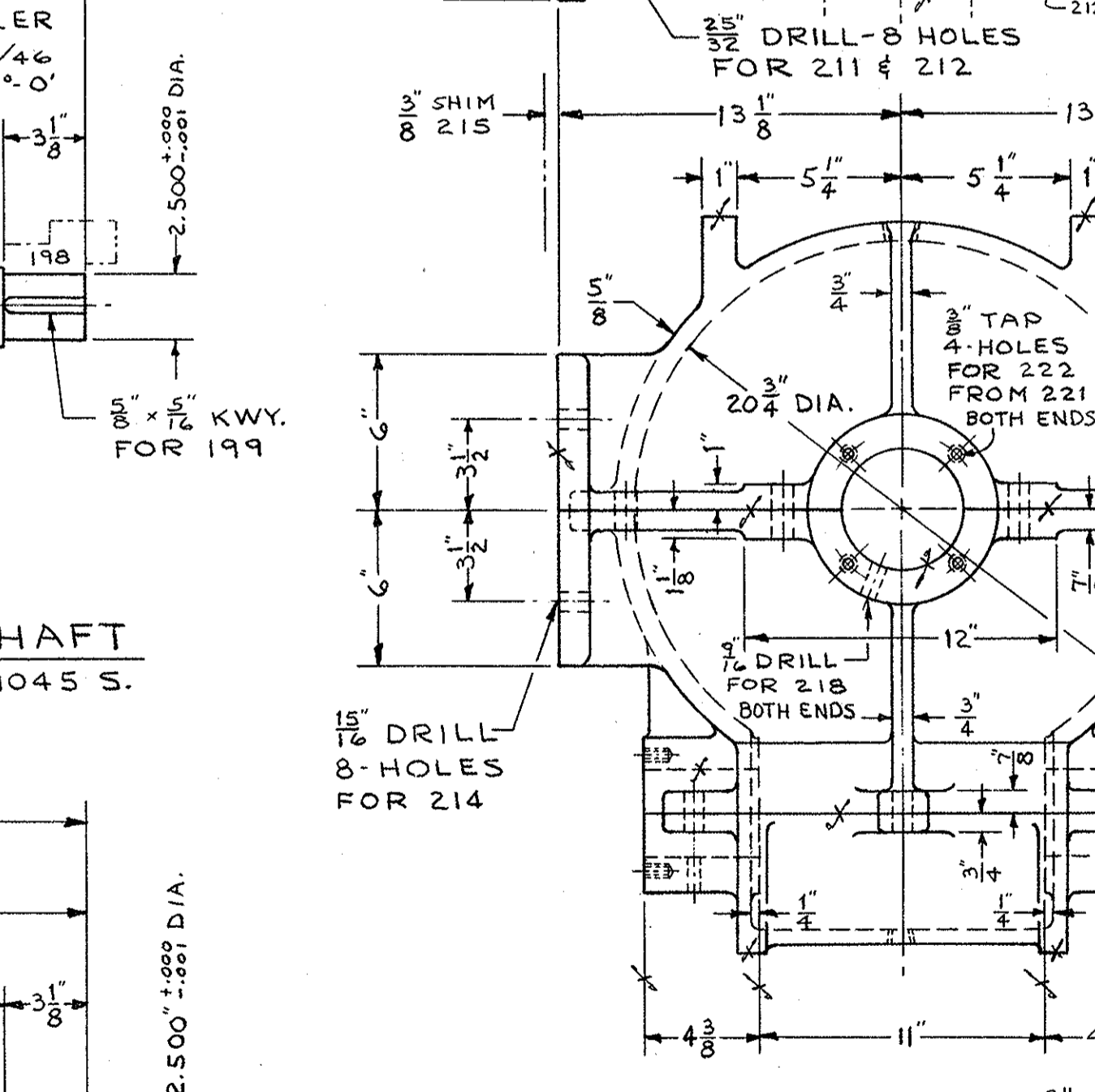
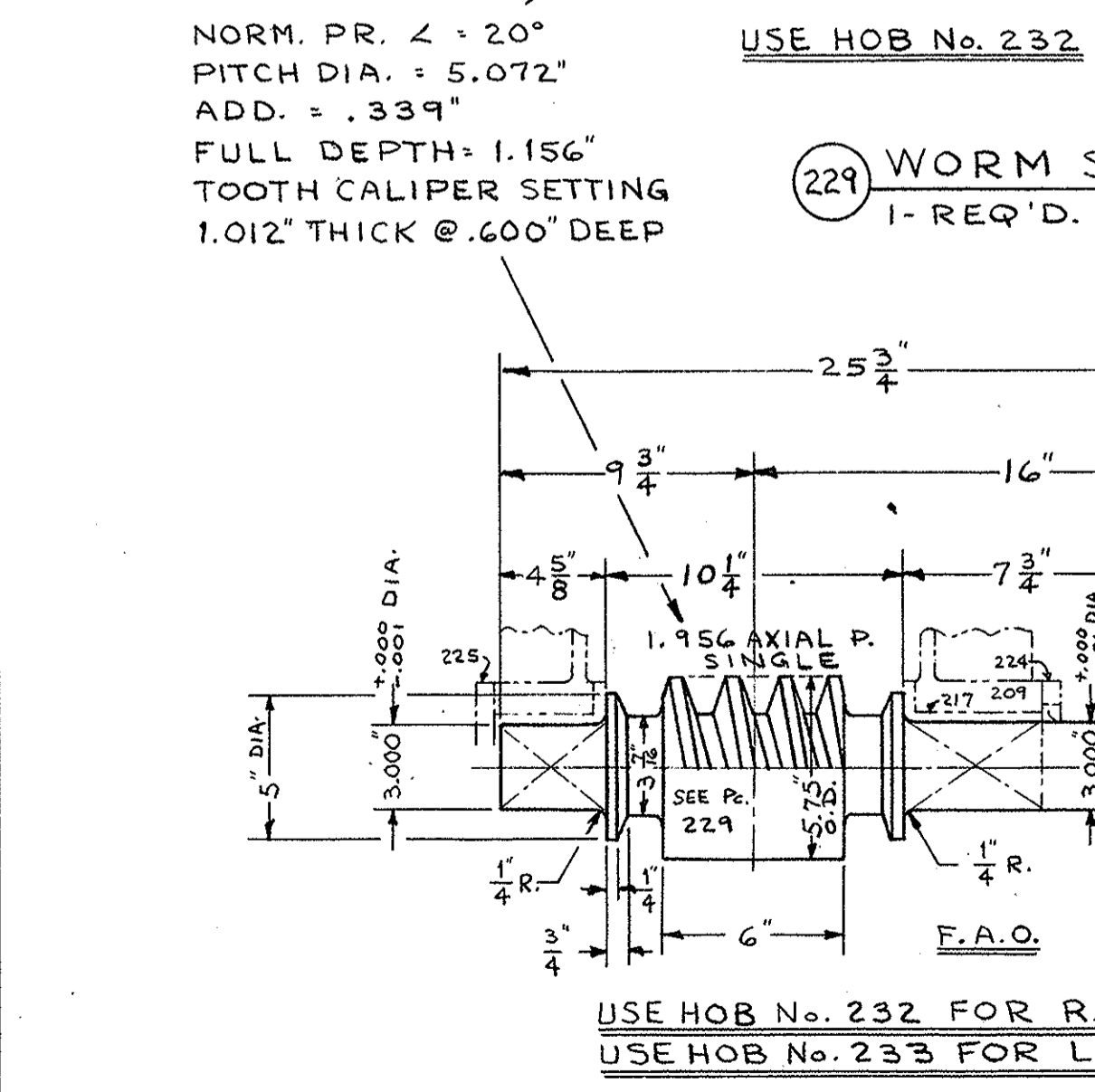
224 INPUT SEAL RING
4-REQ'D. S.

218 NIPPLE FOR 216 & 217
12 B.
219 COUPLING FOR 218
12 M.I.
220 LUB. FITTING FOR 219
12 1/2" P.T. ALEMITE # 1627-A



30T., 1.956 AXIAL PITCH, 20° INV.
7°-00' ANGLE
18.678" PITCH DIA.
1.661" ADD., 1.156" DEPTH
TOOTH CALIPER SETTING
1.008" THICK @ .538" DEEP

231 WORM WHEEL
3-REQ'D. BZ. (GRADE 'D')
PATT. 5083
2-REQ'D. R.H.
1-REQ'D. L.H.



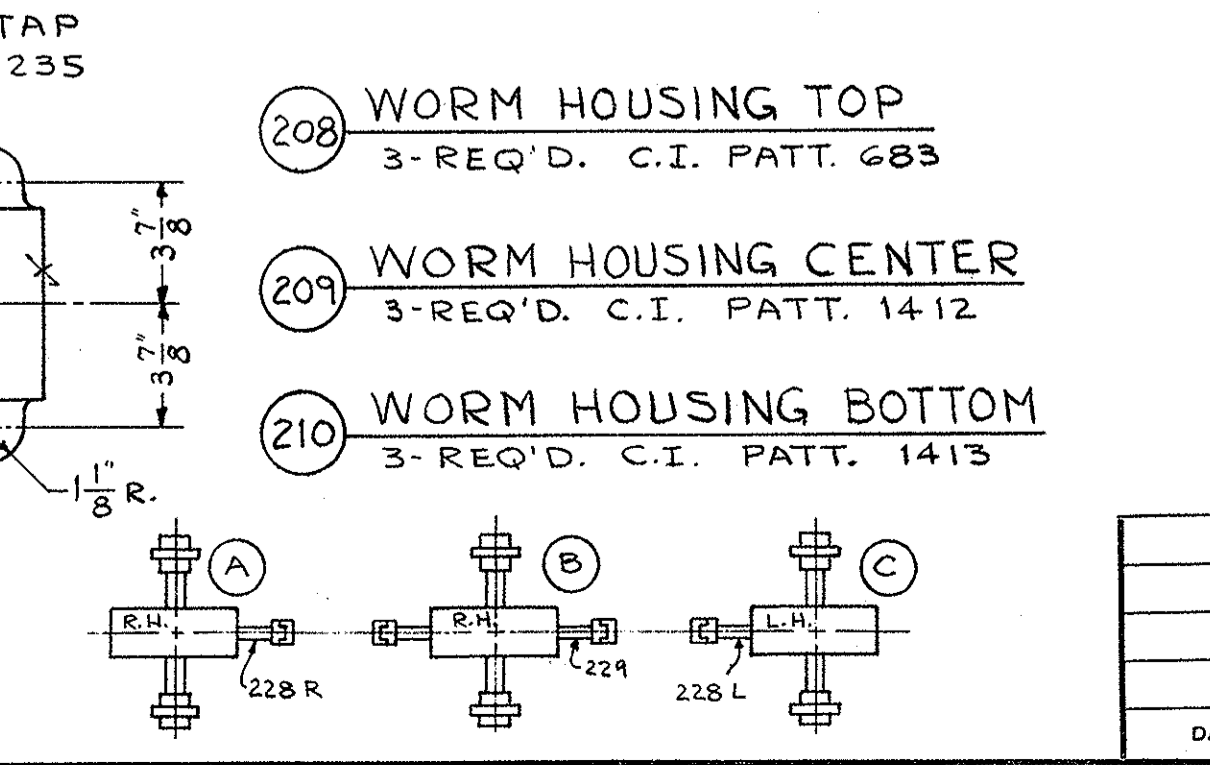
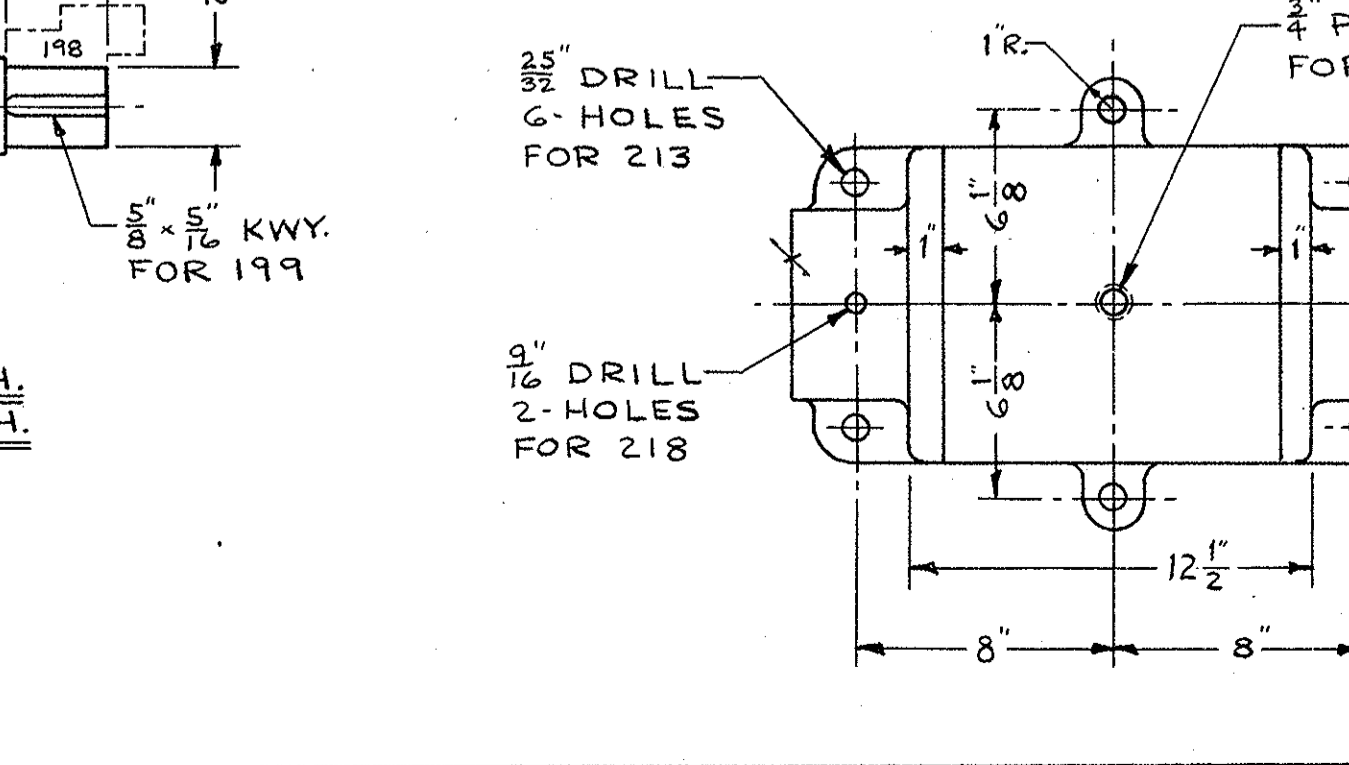
208 WORM HOUSING TOP
3-REQ'D. C.I. PATT. 683

209 WORM HOUSING CENTER
3-REQ'D. C.I. PATT. 1412

216 OUTPUT BUSHING
6-REQ'D. BZ. PATT. 7271

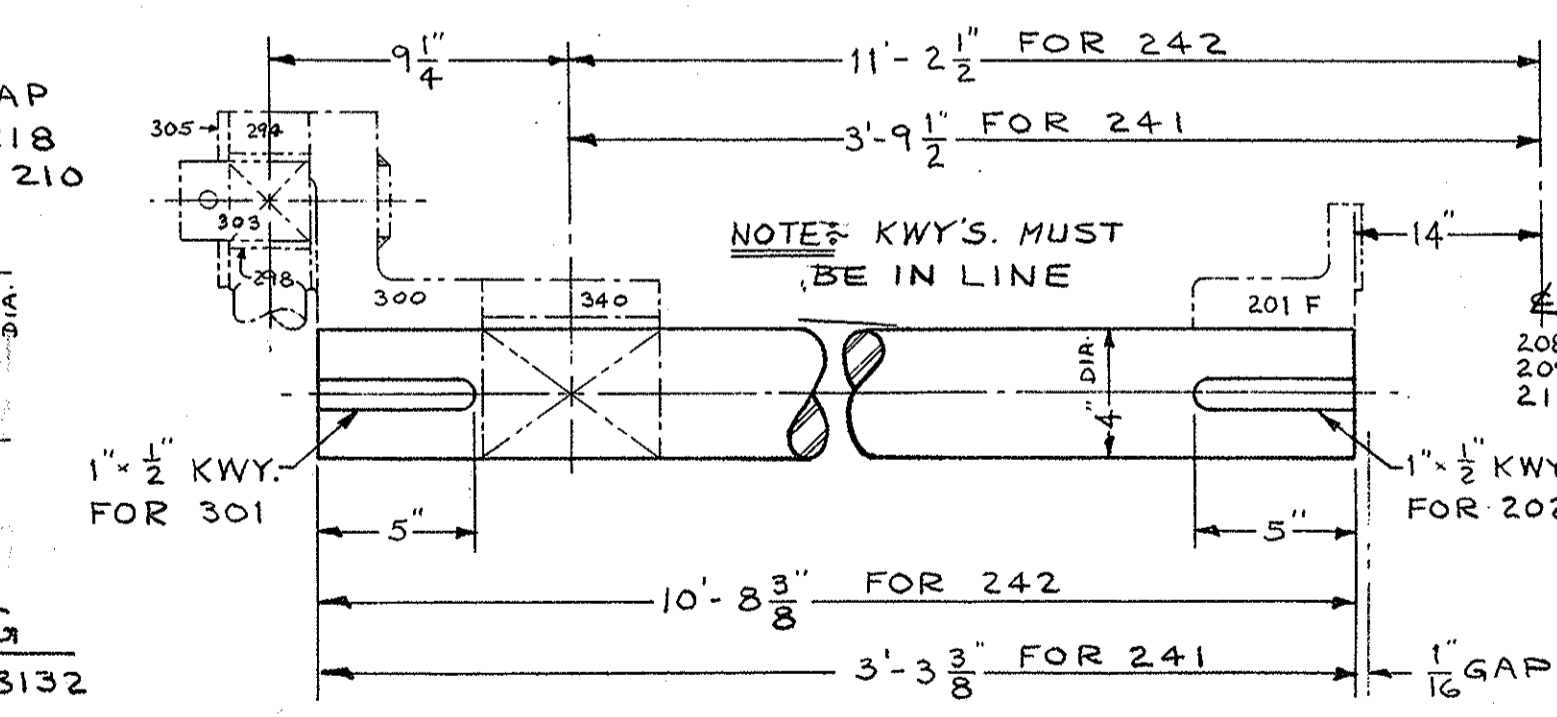
217 INPUT BUSHING
6-REQ'D. BZ. PATT. 8132

228 WORM SHAFT
2-REQ'D. 1045 S.
1-R.H. THREAD
1-L.H. THREAD



241 C.W. CRANK SHAFT
1-REQ'D. T. & P.S.

242 C.W. CRANK SHAFT
1-REQ'D. T. & P.S.



SPECIFICATIONS AASHO & SPECIAL PROVISIONS
INSPECTION FROEHLING & ROBERTSON, INC.

GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS)
FINISHED SURFACES COATED—NO-OX-1D
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

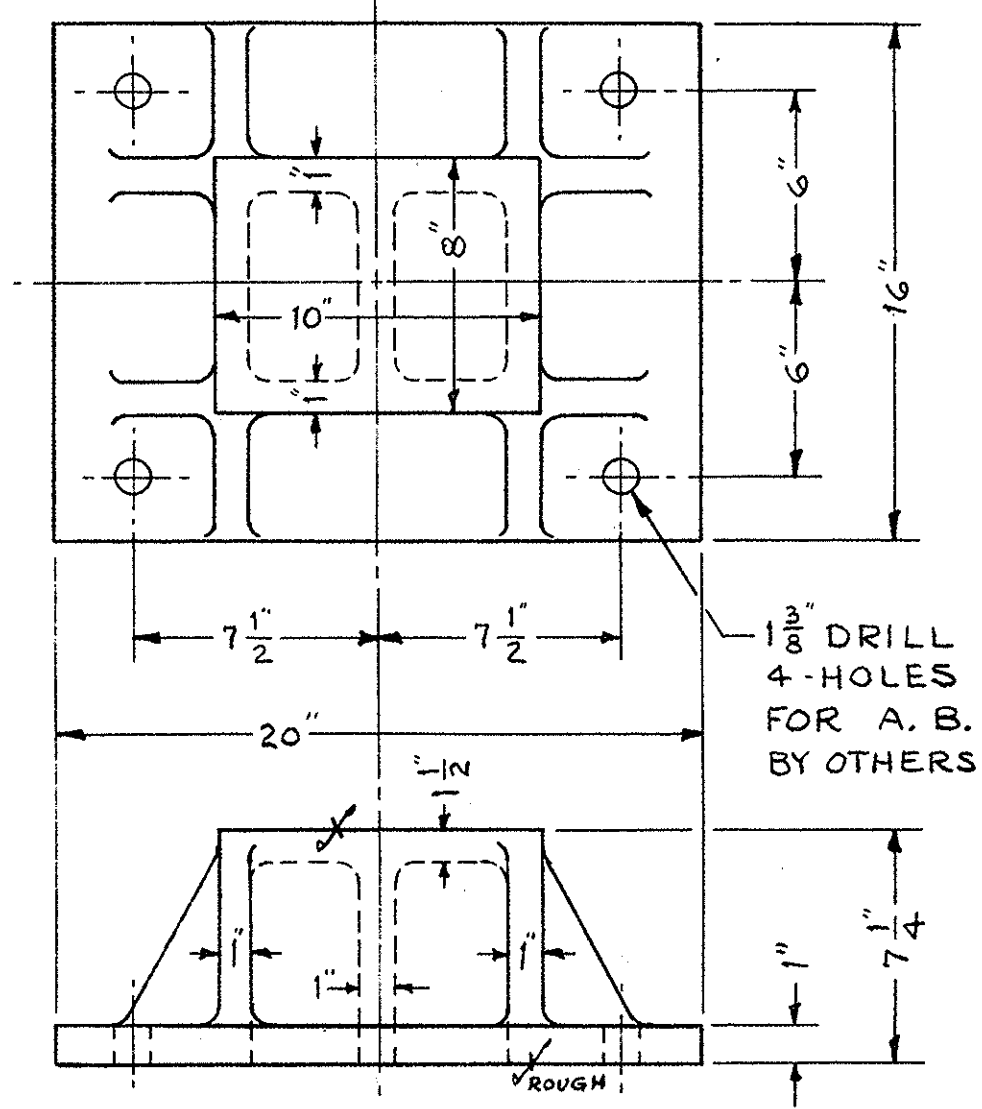
S.O.D-7935 CONTRACT 8.11907

WEDGE MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.

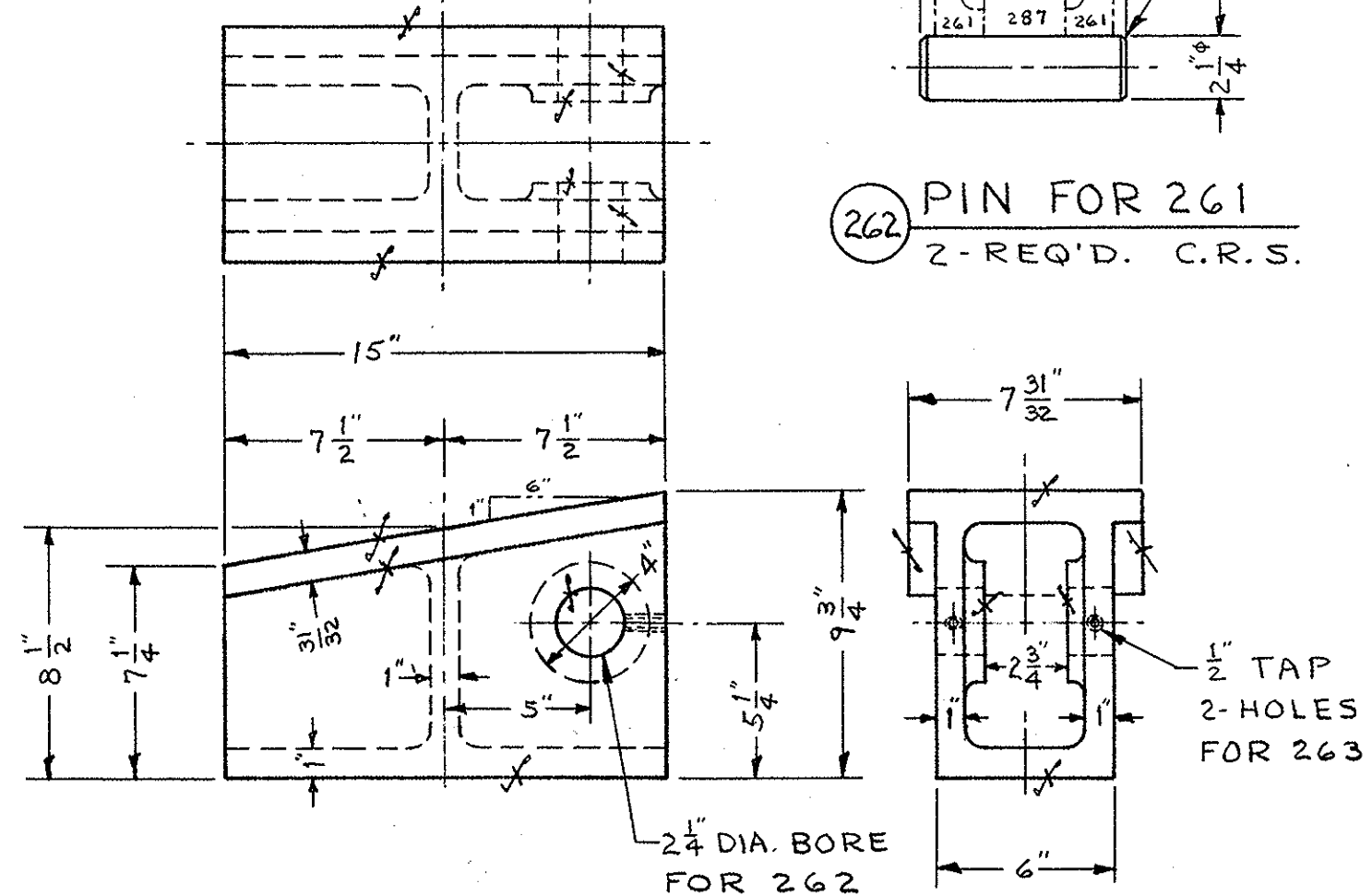
THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

DRAWN BY A.J.C. 5-16-60 APPROVED BY
CHECKED BY G.P. 7-5-60 REV. APPV.
DATE REV. APPV.
SHEET 4 OF 11 DWG. No. 6854 E-30

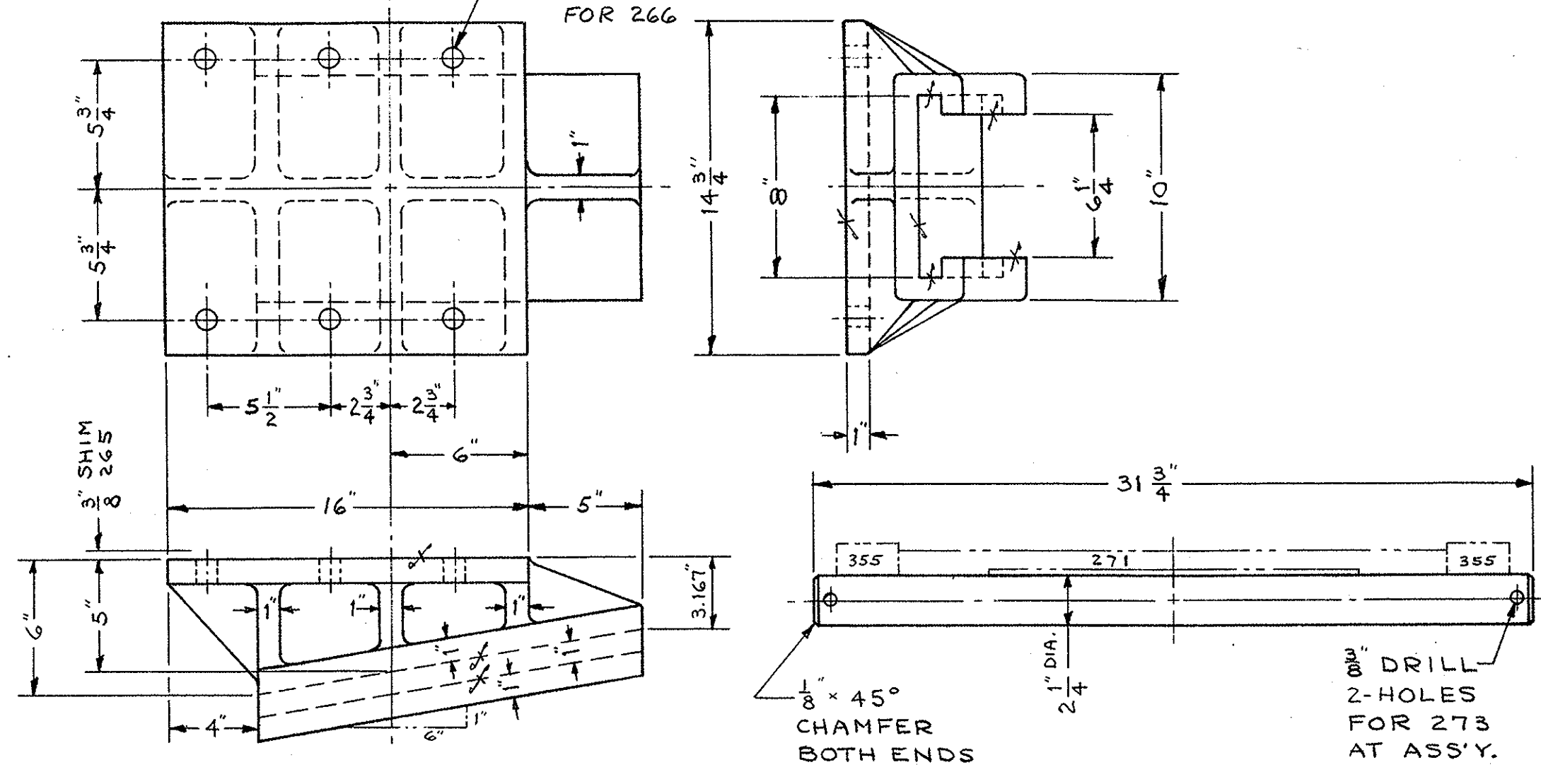
PC.	NAME	QTY.	MTL.	PATT.	REMARKS
260	CENTER WEDGE SEAT	2	C.S.	1558	ALT. HIGHT
261	CENTER WEDGE	2	C.S.	1518	ALT. 1/2 PIECE "A"
262	PIN FOR 261	2	C.R.S.		
263	SET SCREW FOR 261	4	S.	HOLLOW	1/2" φ × 1 1/2" LG. CUP-POINT
264	CENTER WEDGE GUIDE	2	C.S.	3549	ALT.
265	SHIM FOR 264	sets	S.	16" × 14 1/2" × 1/4" - 1/8" - 1/16" - 1/32"	
266	BASE BOLT FOR 264	12	S.		T.B. LIST
267					
268					
269					
270	END WEDGE SEAT	4	C.S.	11353	
271	END WEDGE	4	C.S.	11354	ALT.
272	PIN FOR 271	4	C.R.S.		
273	COTTER PIN FOR 272	8	S.	STD.	3/8" φ × 3 1/2" LG.
274	END WEDGE GUIDE	4	C.S.	2874	ALT.
275	SHIM FOR 274	sets	S.	17 1/2" × 15 1/2" × 1/4" - 1/8" - 1/16" - 1/32"	
276	BASE BOLT FOR 274	12	S.		T.B. LIST
277	BASE BOLT FOR 274	4	S.		T.B. LIST
278	SHIM FOR 270	4	S.	16" × 16" × 1" R.	
279					
280					
281	EWEDGE ANGLE FOR 274	4	S.		AS SHOWN
282	EWEDGE ANGLE FOR 274	4	S.		OPP. SHOWN
283	BOLT FOR 281 & 282	24	S.	HEX. HD. 3/4" φ × 1 3/4" LG. 1/2" W. No Nut	
284	TIE BAR FOR 281 & 282	4	S.		
285	BOLT FOR 281, 282 & 284	8	S.	HEX. HD. CAP 3/4" φ × 2" LG. 1/2" W. & 1 Nut	
286					
287	C.W. EYE BAR	2	F.S.		R.H. THREADS
288	C.W. EYE BAR	2	F.S.		L.H. THREADS
289	SLEEVE NUT FOR 287 & 288	2	F.S.	HEX. 2 1/2" A.B. STYLE R.&L. THDS.	
290	NUT FOR 287	2	S.	HEX. 2 1/2" R.H. AMER. STD. HVY.	
291	NUT FOR 288	2	S.	HEX. 2 1/2" L.H. AMER. STD. HVY.	
292					
293	C.W. CONN. ROD	2	F.S.		R.H. THREADS
294	C.W. CONN. ROD	2	F.S.		L.H. THREADS
295	SLEEVE NUT FOR 293 & 294	2	F.S.	HEX. 2 1/2" A.B. STYLE R.&L. THDS.	
296	NUT FOR 293	2	S.	HEX. 2 1/2" R.H. AMER. STD. HVY.	
297	NUT FOR 294	2	S.	HEX. 2 1/2" L.H. AMER. STD. HVY.	
298	BUSHING FOR 294	2	BZ.	STD. BUNTING # I-5734 MAKES 2	
299					
300	C.W. CRANK	2	C.S.	7210	
301	KEY FOR 300	2	S.		KEY LIST
302	SET SCREW FOR 300	2	S.	HOLLOW	3/4" φ × 2" LG. CUP-POINT
303	C.W. CRANK PIN	2	1040 S.		
304	COTTER PIN FOR 303	2	S.	STD.	1/2" φ × 4" LG.
305	WASHER FOR 303 & 352	6	S.		
306					
307					
308					
309	LUB FITTING FOR 294	2	S.		ALEMITE # 1627-A



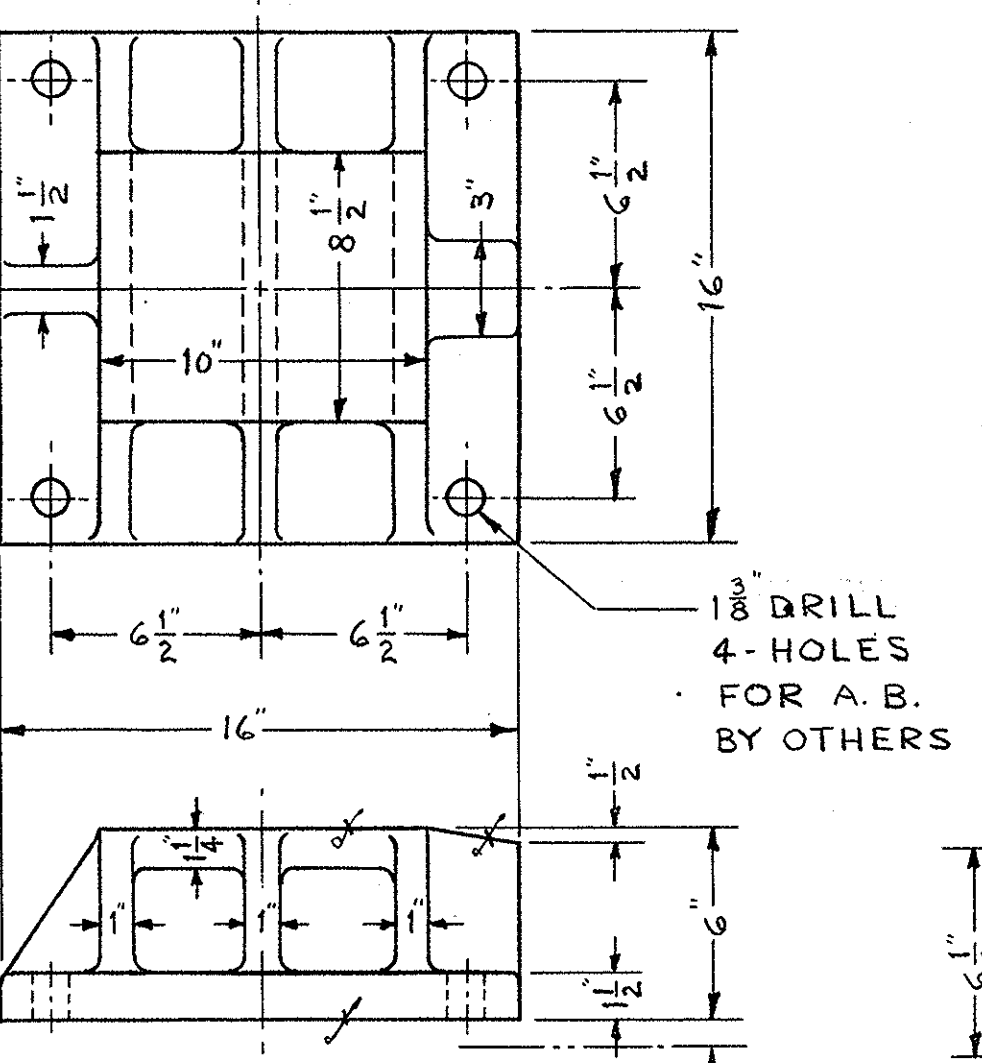
260 CENTER WEDGE SEAT
2-REQ'D. C.S. PATT. 1558 ALT.



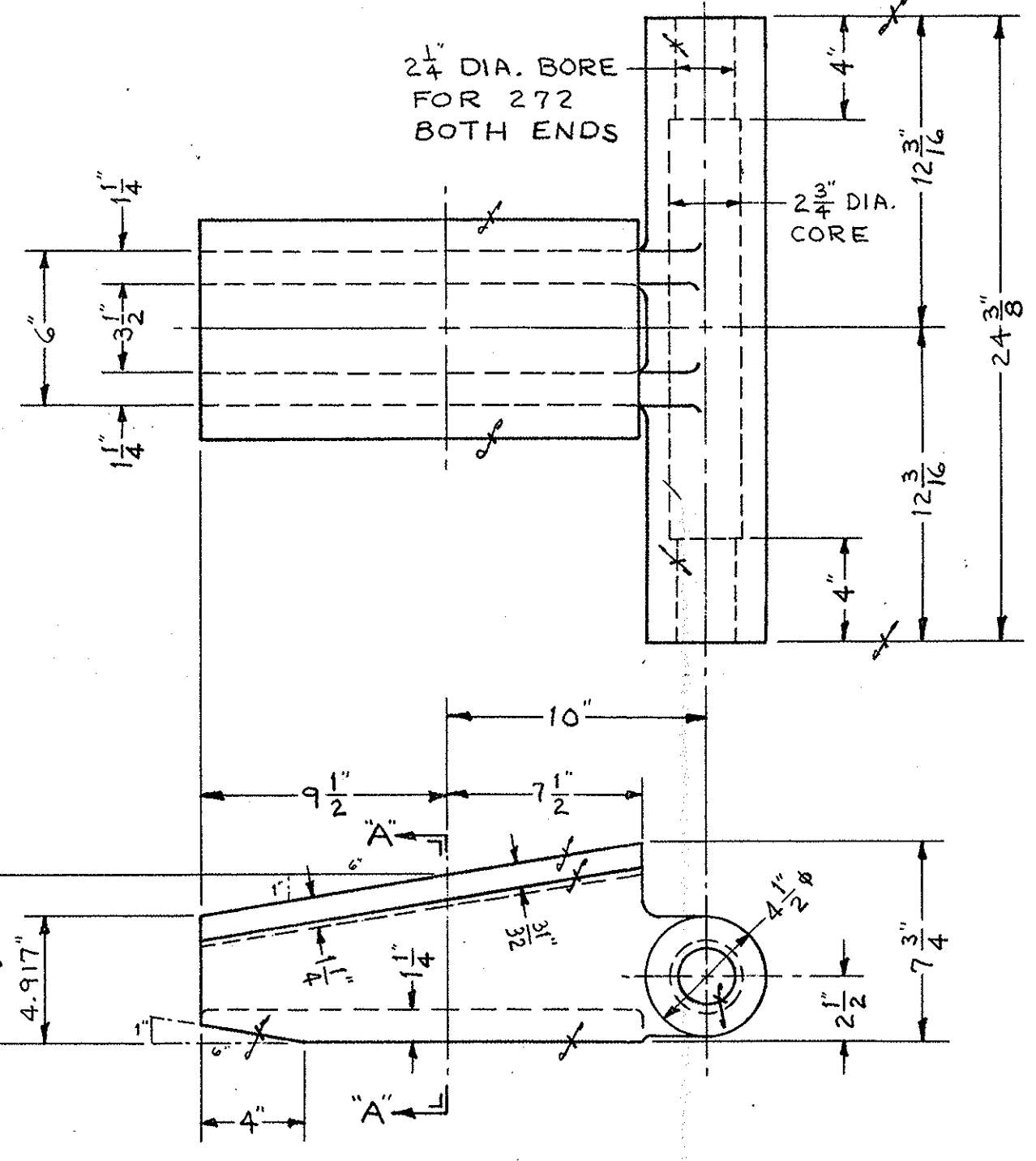
261 CENTER WEDGE
2-REQ'D. C.S. PATT. 1518 ALT. WITHOUT P.C. A



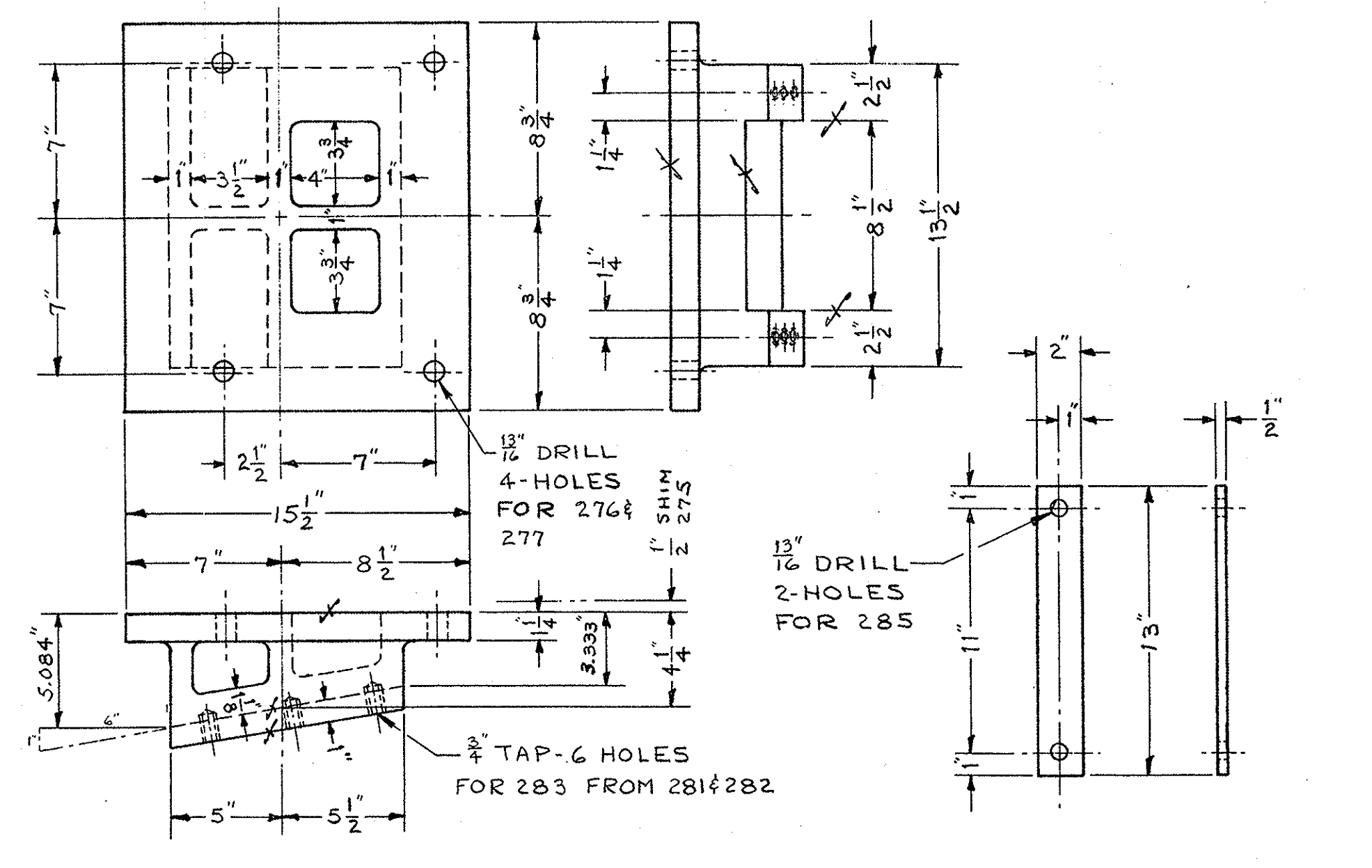
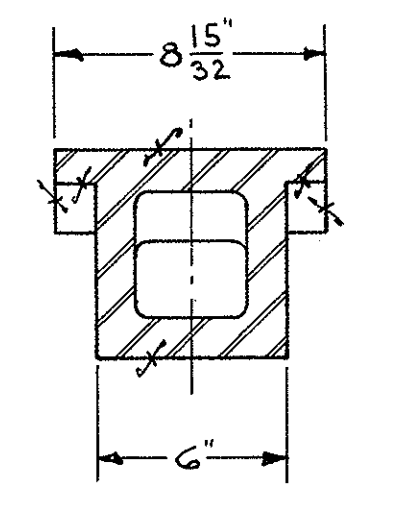
264 CENTER WEDGE GUIDE
2-REQ'D. C.S. PATT. 3549 ALT.



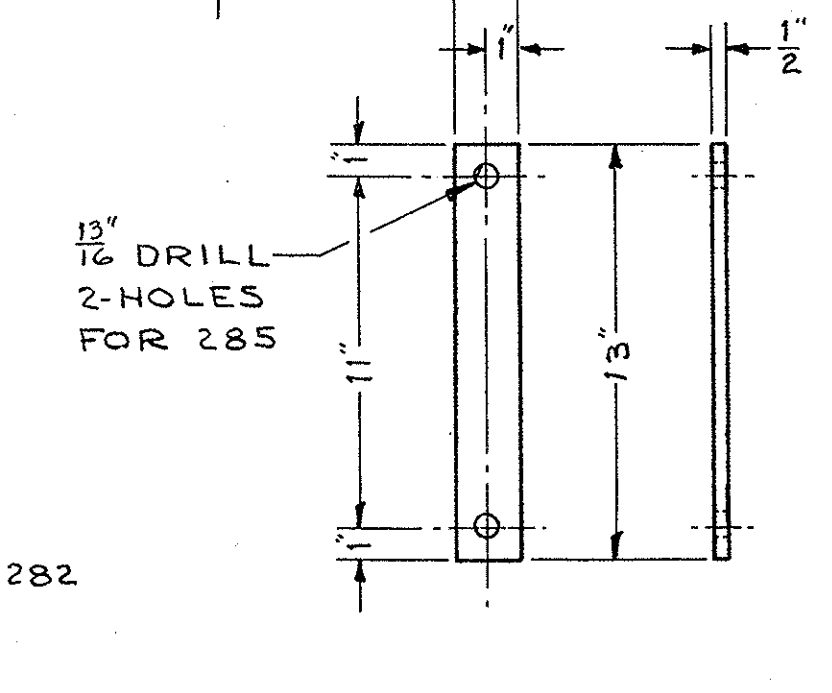
270 END WEDGE SEAT
4-REQ'D. C.S. PATT. 11353



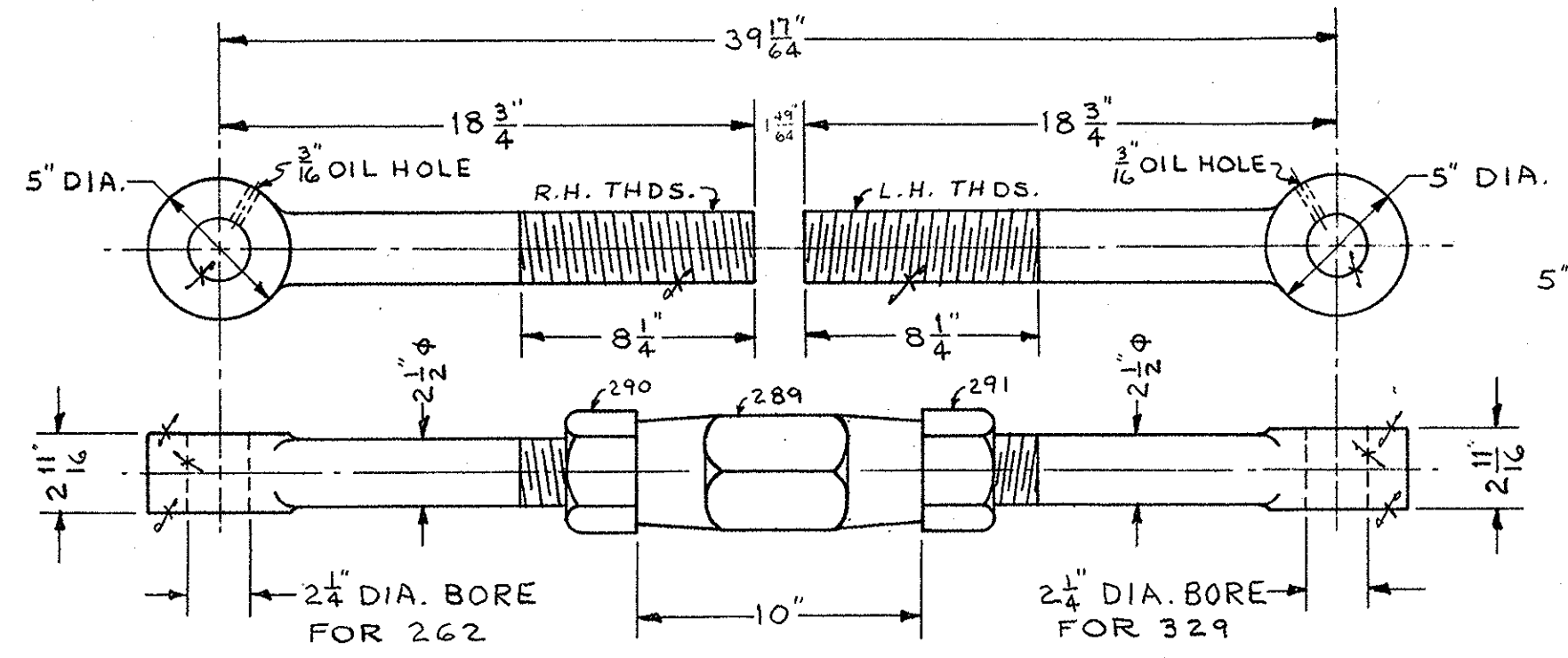
271 END WEDGE
4-REQ'D. C.S. PATT. 11354 ALT.



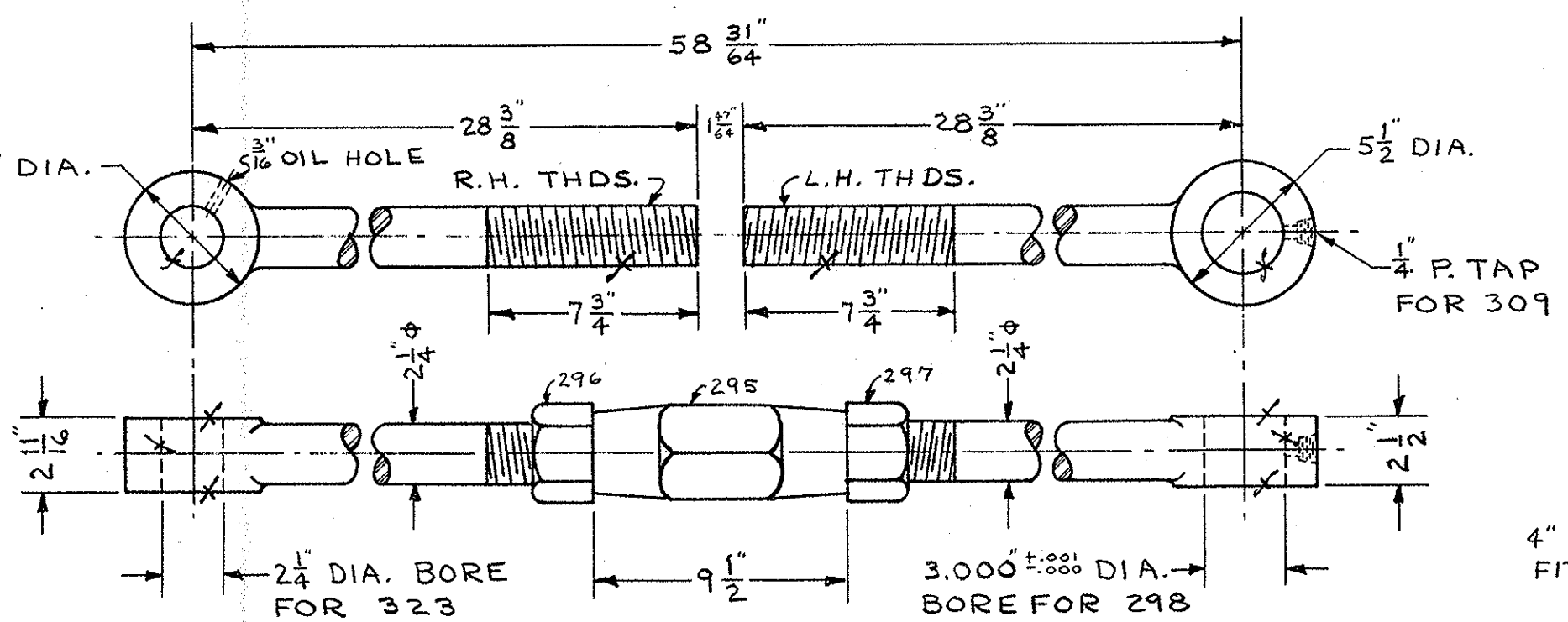
274 END WEDGE GUIDE
4-REQ'D. C.S. PATT. 2874 ALT.



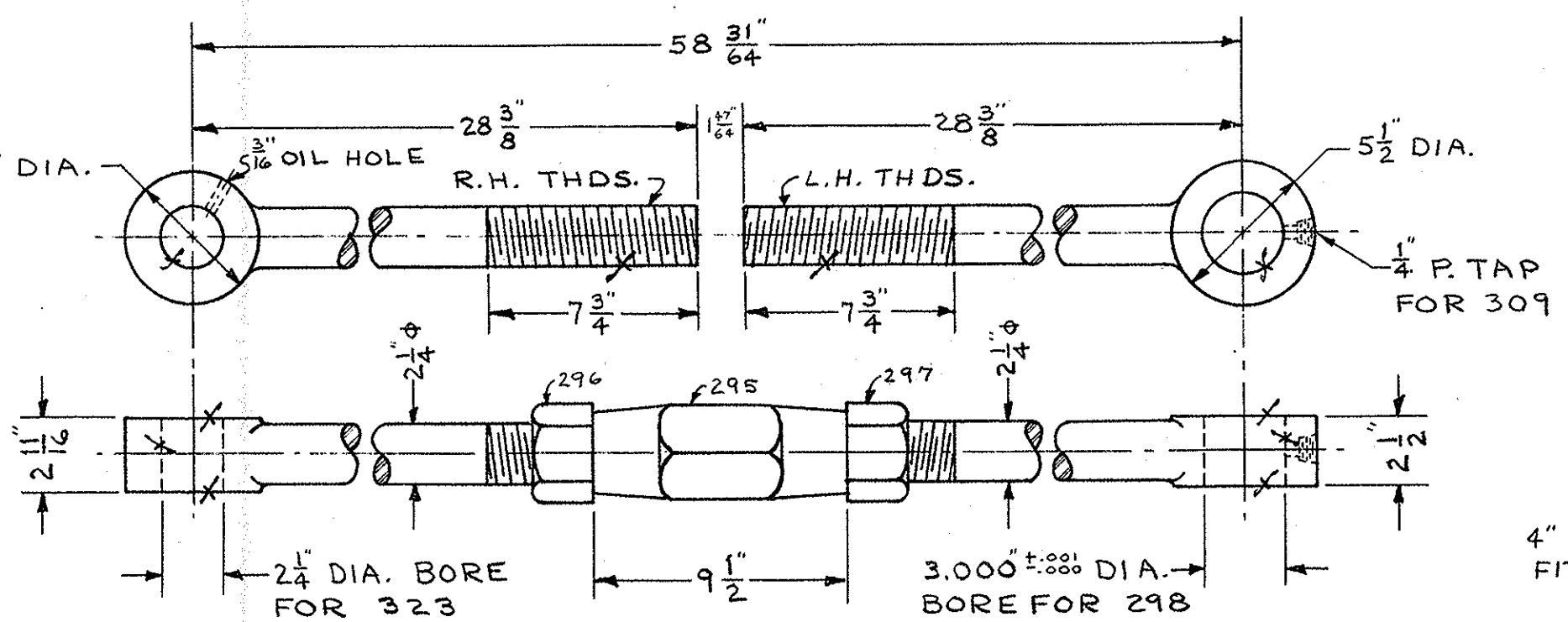
284 TIE BAR FOR 281 & 282
4-REQ'D. S.



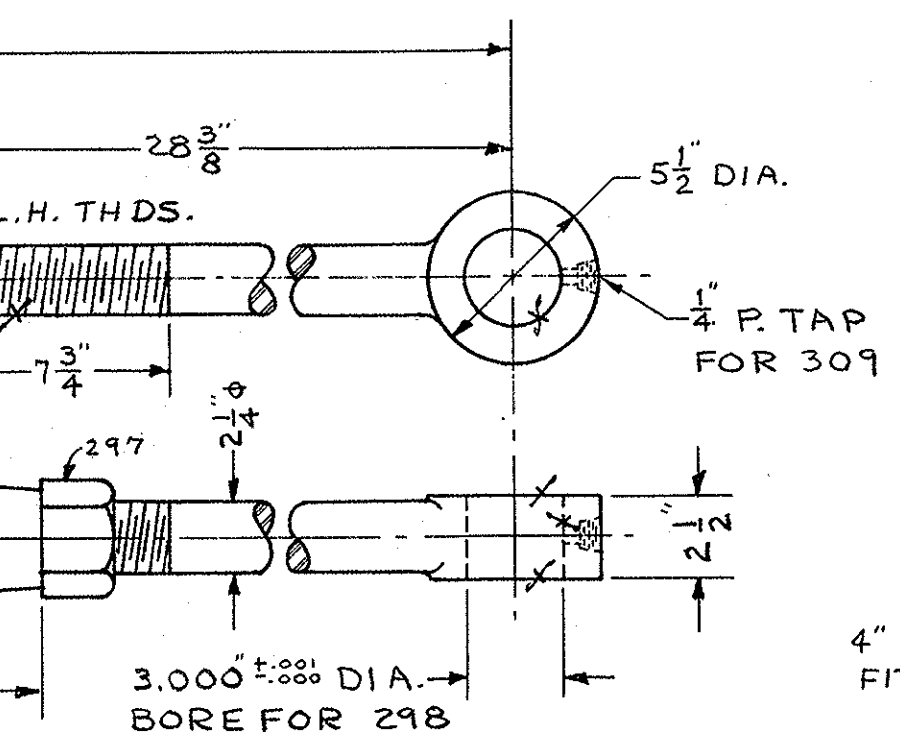
287 C.W. EYE BAR
2-REQ'D. F.S.



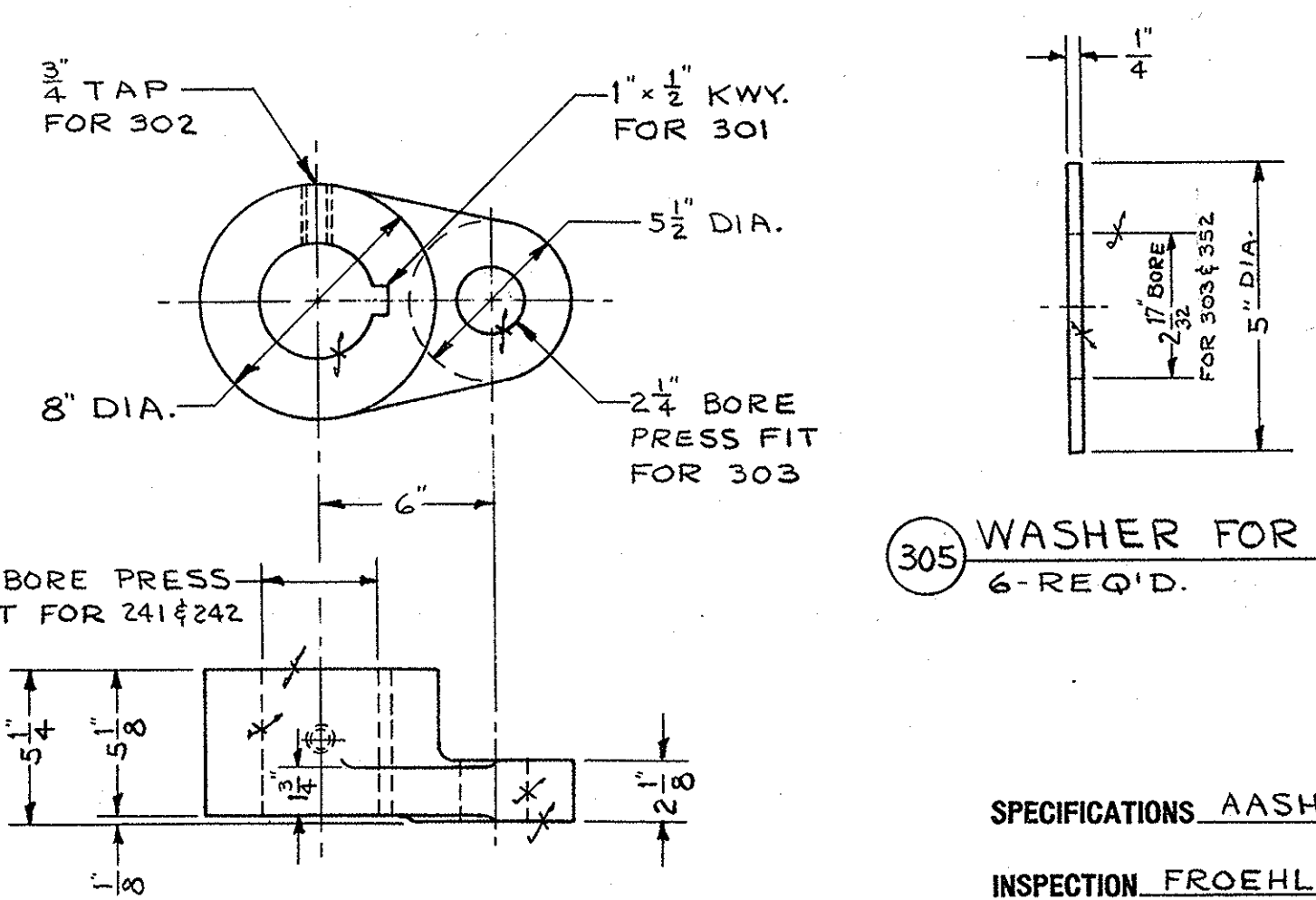
288 C.W. EYE BAR
2-REQ'D. F.S.



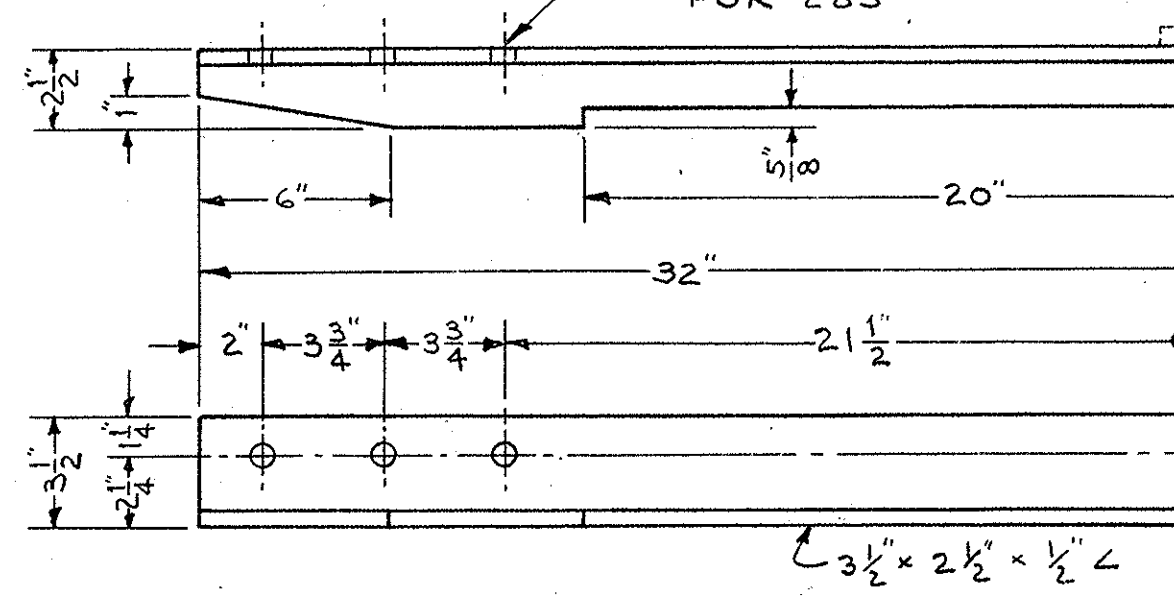
293 C.W. CONNECTING ROD
2-REQ'D. F.S.



294 C.W. CONNECTING ROD
2-REQ'D. F.S.

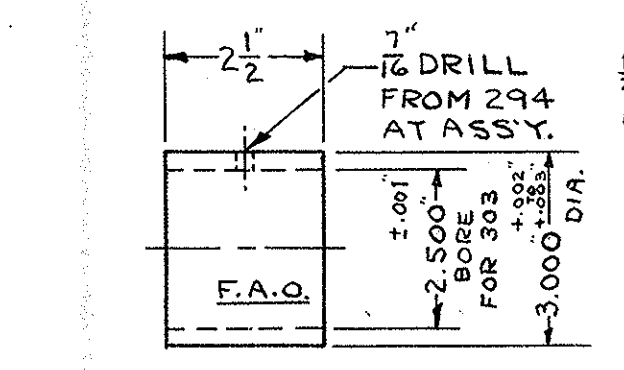


300 C.W. CRANK
2-REQ'D. C.S. PATT. 7210

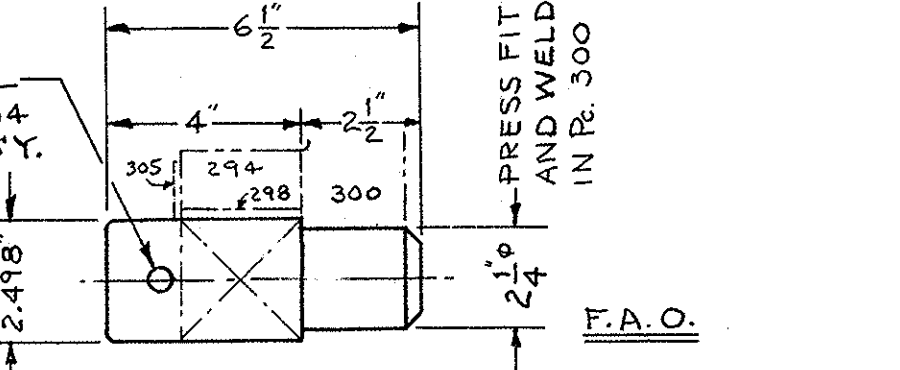


281 E.W. ANGLE
4-REQ'D. S.S. AS SHOWN

282 E.W. ANGLE
4-REQ'D. S.S. OPP. SHOWN



298 BUSHING FOR 294
2-REQ'D. BZ. BUNTING # I-5734 MAKES 2



303 C.W. CRANK PIN
2-REQ'D. 1040 S.

305 WASHER FOR 303 & 352
6-REQ'D. S.

SPECIFICATIONS AASHTO & SPECIAL PROVISIONS
INSPECTION FROEHLING & ROBERTSON, INC

GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS)
FINISHED SURFACES COATED—NO-OX-ID
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

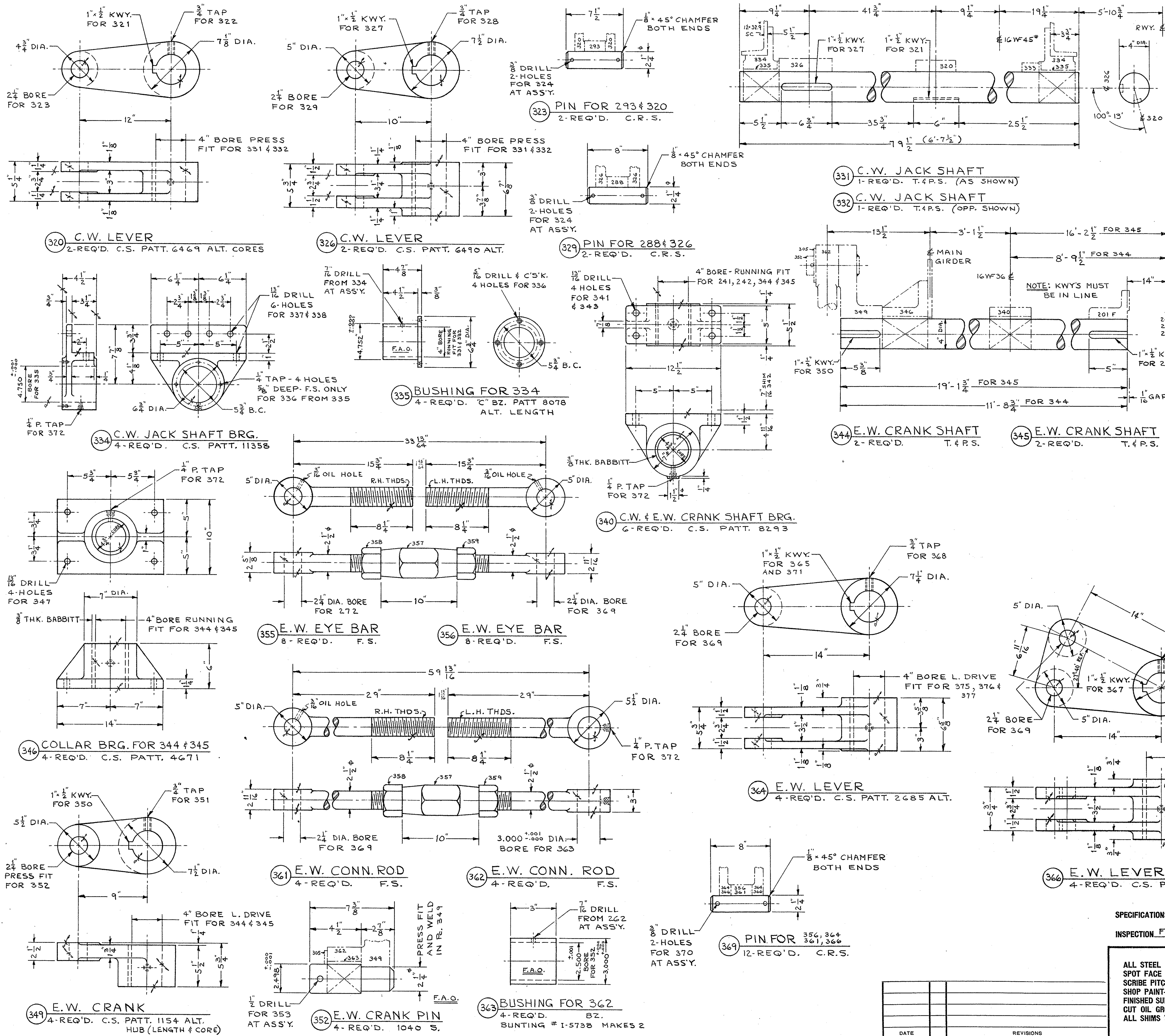
S.O.D-7935 CONTRACT 8.11907

WEDGE MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.

THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

DRAWN BY A.J.C. 6-3-60 APPROVED BY
CHECKED BY G.P. 7-11-60 REV. APPROV.
DATE REV. APPROV.
SHEET 5 OF 11 DWG. No 6855 E-30

QTY.	NAME	MTL.	PATT.	REMARKS
2	C.W. LEVER	C.S.	6469	ALT. CORES
2	KEY FOR 320	S.		KEY LIST
2	SET SCREW FOR 320	S.	HOLLOW	$\frac{3}{8}$ " ϕ x 1 $\frac{1}{2}$ " LG. CUP-POINT
2	PIN FOR 293 & 320	C.R.S.		
8	COTTER FOR 323 & 329	S.	STD.	$\frac{3}{8}$ " ϕ x 3 $\frac{1}{2}$ " LG.
2	C.W. LEVER	C.S.	6490	ALT
2	KEY FOR 326	S.		KEY LIST
2	SET SCREW FOR 326	S.	HOLLOW	$\frac{3}{8}$ " ϕ x 1 $\frac{1}{2}$ " LG. CUP-POINT
2	PIN FOR 288 & 326	C.R.S.		
1	C.W. JACK SHAFT	T.&P.S.		AS SHOWN
1	C.W. JACK SHAFT	T.&P.S.		OPR SHOWN
2	COLLAR FOR 331 & 332	M.I.	4" SHAFT	L.B. STD. (SOLID)
4	C.W. JACK SHAFT BRG.	C.S.	11358	
4	BUSHING FOR 334	C' BZ.	8078	ALT LENGTH
16	SCREW FOR 335	S.	FLAT HD. MACH.	$\frac{1}{4}$ " ϕ x $\frac{3}{4}$ " LG. NO NUT
8	BASE BOLT FOR 334	S.		T.B. LIST
16	BASE BOLT FOR 334	S.		T.B. LIST
6	C.W. & E.W. CRANK SHFT BRG.	C.S.	8293	
8	BASE BOLT FOR 340	S.		T.B. LIST
8	SHIM FOR 340	S.	12 $\frac{1}{2}$ x 5 $\frac{1}{2}$	$\frac{1}{4}$ " - $\frac{1}{8}$ " - $\frac{1}{16}$ " - $\frac{1}{16}$ " - $\frac{1}{32}$ "
16	BASE BOLT FOR 340	S.		T.B. LIST
2	E.W. CRANK SHAFT	T.&P.S.		SHORT
2	E.W. CRANK SHAFT	T.&P.S.		LONG
4	COLLAR BRG. FOR 344	C.S.	4671	
16	BASE BOLT FOR 346	S.		T.B. LIST
4	E.W. CRANK	C.S.	1154	ALT HUB (LENGTH & CORE)
4	KEY FOR 349	S.		KEY LIST
4	SET SCREW FOR 349	S.	HOLLOW	$\frac{3}{8}$ " ϕ x 1 $\frac{1}{2}$ " LG. CUP-POINT
4	E.W. CRANK PIN	S.	1849	
4	COTTER PIN FOR 352	S.	STD.	$\frac{1}{2}$ " ϕ x 4" LG.
8	E.W. EYE BAR	F.S.		R.H. THREADS
8	E.W. EYE BAR	F.S.		L.H. THREADS
12	SLEEVE NUT FOR 355, 356, 361, 362	F.S.	HEX.	2 $\frac{1}{2}$ " A.B. STYLE R.&L. THDS.
12	NUT FOR 355 & 361	S.	HEX.	2 $\frac{1}{2}$ " R.H. AMER. STD. HVY.
12	NUT FOR 356 & 362	S.	HEX.	2 $\frac{1}{2}$ " L.H. AMER. STD. HVY.
4	E.W. CONN. ROD	F.S.		R.H. THREADS
4	E.W. CONN. ROD	F.S.		L.H. THREADS
4	BUSHING FOR 362	BZ.		BUNTING # I-5738 MAKES 2
4	E.W. LEVER	C.S.	2685	ALT.
2	KEY FOR 364	S.		KEY LIST
4	E.W. LEVER	C.S.		NEW
4	KEY FOR 366	S.		KEY LIST
8	SET SCREW FOR 366	S.	HOLLOW	$\frac{3}{8}$ " ϕ x 1 $\frac{1}{2}$ " LG. CUP-POINT
12	PIN FOR 364, 366	C.R.S.		
24	COTTER PIN FOR 369	S.	STD.	$\frac{3}{8}$ " ϕ x 3 $\frac{1}{2}$ " LG.
2	KEY FOR 364	S.		KEY LIST
18	LUB. FITTING FOR 361, 362, 366	P.T.		ALEMITE # 1627-A



SPECIFICATIONS AASHTO & SPECIAL PROVISIONS
 INSPECTION FROEHLING & ROBERTSON, INC.

GENERAL NOTES
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 SPOT FACE FOR ALL BOLT HEADS & NUTS
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 FINISHED SURFACES COATED—NO-OX-ID
 CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
 ALL SHIMS TO BE DRILLED

S.O. D-7935 CONTRACT 8-11907

WEDGE MACHINERY
 ALLIGATOR RIVER SWING SPAN
 OVER ALLIGATOR RIVER
 TYRRELL-DARE COUNTY, N.C.

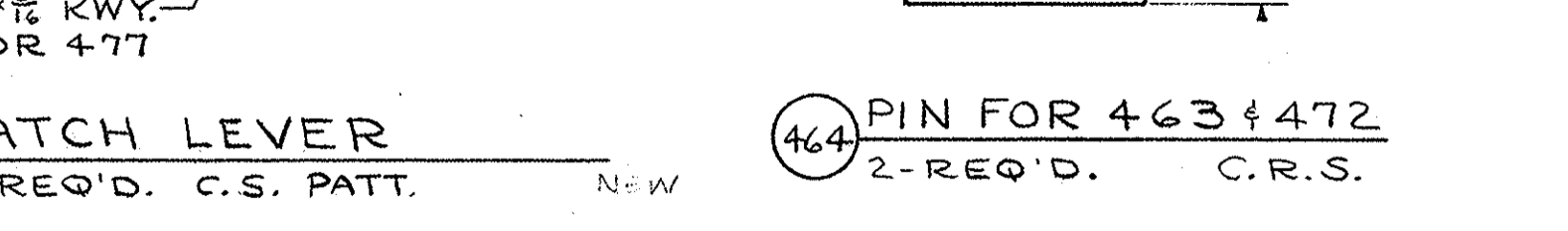
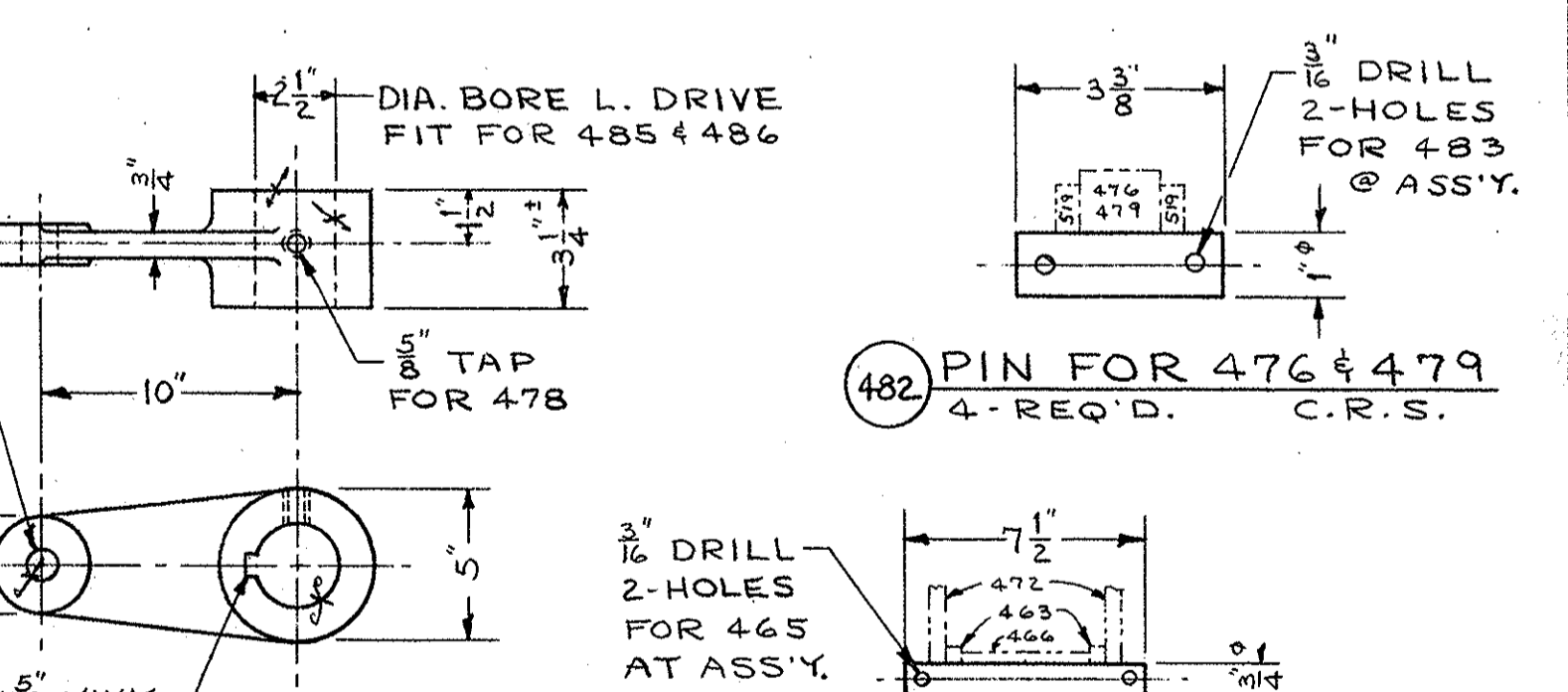
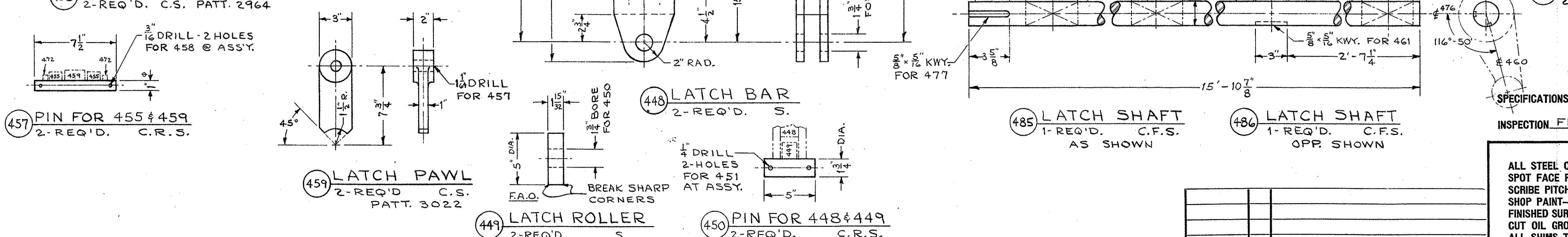
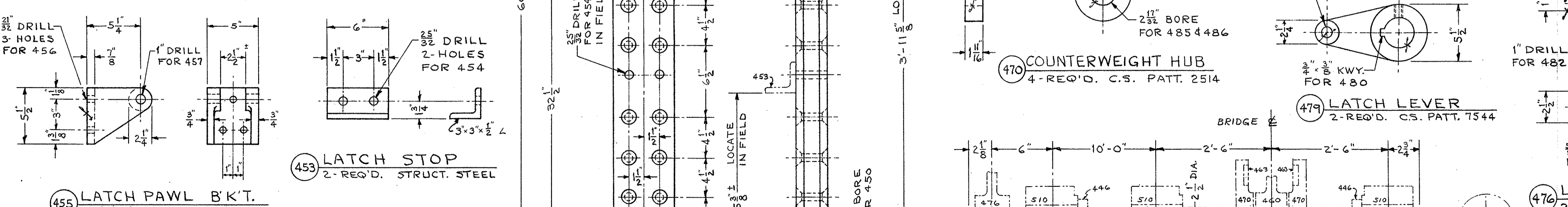
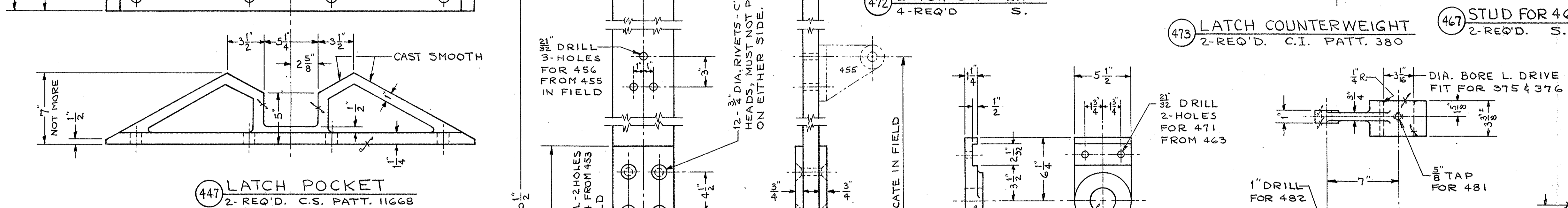
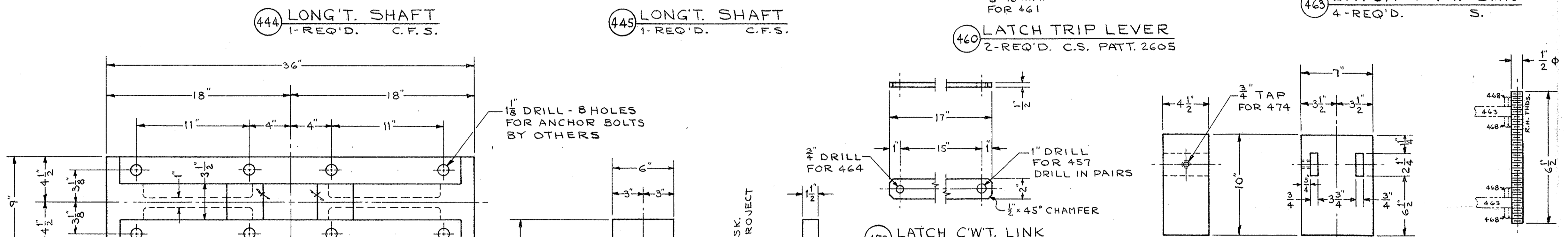
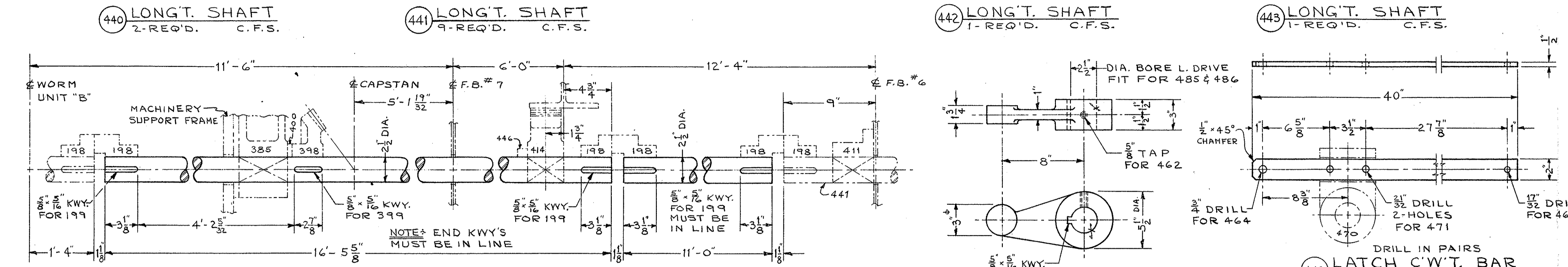
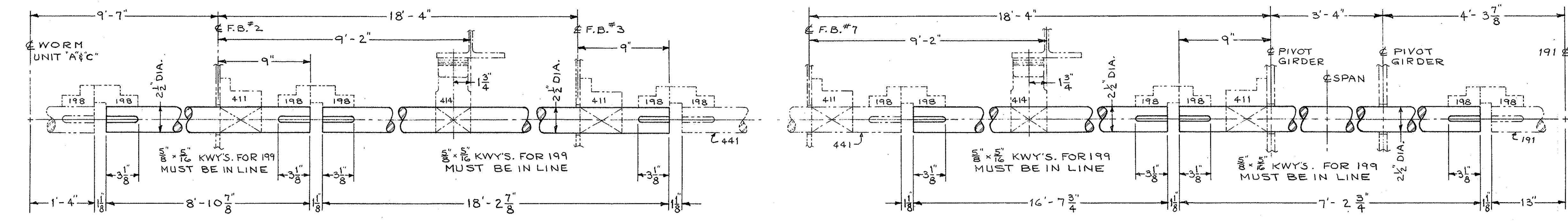
THE EARLE GEAR AND MACHINE COMPANY
 4707 TO 4715 STENTON AVENUE
 PHILADELPHIA 44, PA.

DRAWN BY A.J.C. 6-14-60 APPROVED BY _____
 CHECKED BY G.P. 7-13-60 REV. APPVD. _____
 DATE _____ REV. APPVD. _____

SHEET 6 OF 11 DWG. NO. 6856 E-30

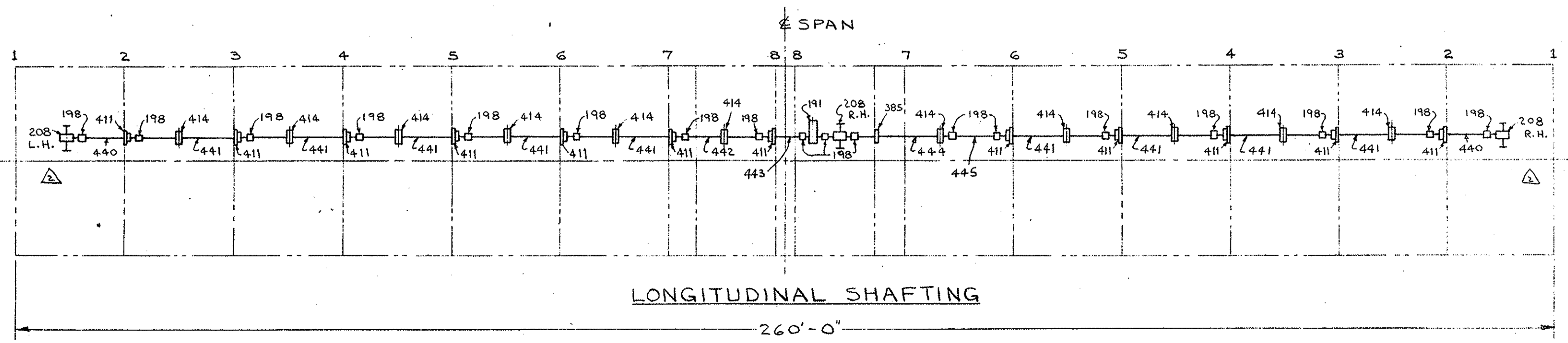
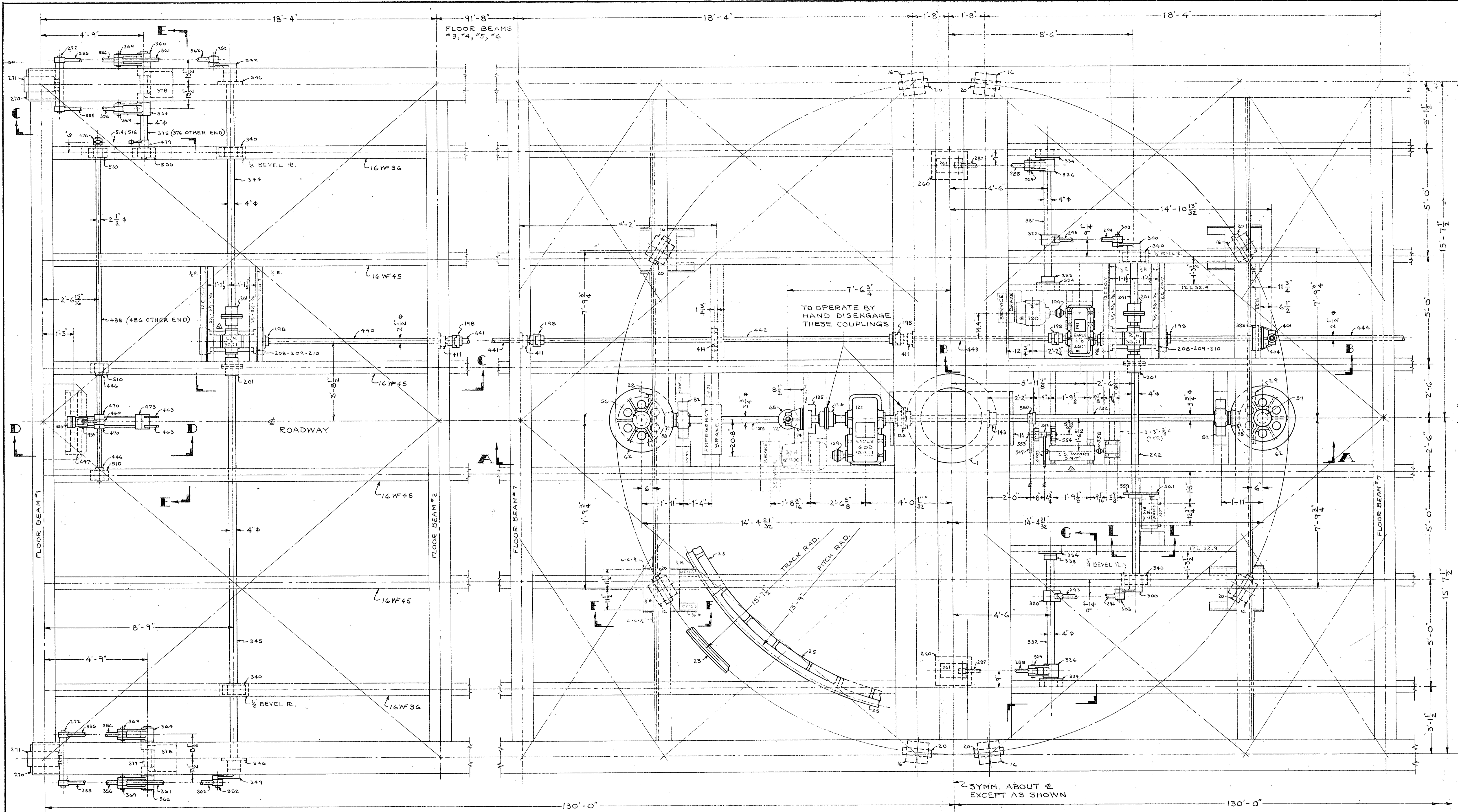
DATE	REVISIONS

PC.	NAME	QTY.	MTL.	PATT.	REMARKS
440	LONGITUDINAL SHAFT	2	C.F.S.		
441	LONGITUDINAL SHAFT	9	C.F.S.		
442	LONGITUDINAL SHAFT	1	C.F.S.		
443	LONGITUDINAL SHAFT	1	C.F.S.		
444	LONGITUDINAL SHAFT	1	C.F.S.		
445	LONGITUDINAL SHAFT	1	C.F.S.		
446	COLLAR FOR 444	5	S.	2 1/2" SHAFT	L.B. STD. (SOLID)
447	LATCH POCKET	2	C.S.	11668	
448	LATCH BAR	2	S.		
449	LATCH ROLLER	2	S.		
450	PIN FOR 448 & 449	2	C.R.S.		
451	COTTER PIN FOR 450	4	S.	STD.	1/4" x 2 1/2" LG.
452					
453	LATCH STOP	2	STRUCT. STEEL		
454	BOLT FOR 453	4	S.	HEX. HD. MACH.	3/4" x 5" LG. 1/4" N. & L.W.
455	LATCH PAWL B'K.T.	2	C.S.	2964	
456	BOLT FOR 455	6	S.	HEX. HD. MACH.	5/8" x 3 1/2" LG. 1/4" N. & L.W.
457	PIN FOR 455 & 459	2	C.R.S.		
458	COTTER PIN FOR 457	4	S.	STD.	3/16" x 1 1/2" LG.
459	LATCH PAWL	2	C.S.	3022	
460	LATCH TRIP LEVER	2	C.S.	2605	
461	KEY FOR 460	2	S.		KEY LIST
462	SET SCREW FOR 460	2	S.	HOLLOW	5/8" x 1 1/2" LG. CUP-POINT
463	LATCH C'W.T. BAR	4	S.		
464	PIN FOR 463 & 472	2	C.R.S.		
465	COTTER PIN FOR 464	4	S.	STD.	3/16" x 1 1/2" LG.
466	SPACER FOR 464	2	S.	STD.	3/4" PIPE x 4" LG. (NO THDS. FACED ENDS)
467	STUD FOR 463	2	S.	THREADED BAR	SEE DETAIL
468	NUT FOR 467	8	S.	HEX.	1/2" R.H. AMER. STD. HEAVY
469					
470	COUNTERWEIGHT HUB	4	C.S.	2514	
471	BOLT FOR 470	8	S.	HEX. HD. MACH.	5/8" x 2 1/2" LG. 1/4" N. & L.W.
472	LATCH C'W.T. LINK	4	S.		
473	LATCH C'WEIGHT	2	C.I.	380	
474	SET SCREW FOR 473	2	S.	HOLLOW	3/4" x 1" LG. CUP-POINT
475					
476	LATCH LEVER	2	C.S.		
477	KEY FOR 476	2	S.		KEY LIST
478	SET SCREW FOR 476	2	S.	HOLLOW	5/8" x 1 1/4" LG. CUP-POINT
479	LATCH LEVER	2	C.S.	7544	
480	KEY FOR 479	2	S.		KEY LIST
481	SET SCREW FOR 479	2	S.	HOLLOW	5/8" x 1 1/4" LG. CUP-POINT
482	PIN FOR 476, 479 & 519	4	C.R.S.		
483	COTTER PIN FOR 482	8	S.	STD.	3/16" x 1 1/2" LG.
484					
485	LATCH SHAFT	1	C.F.S.		AS SHOWN
486	LATCH SHAFT	1	C.F.S.		OPP. SHOWN
487					
488					
489					



S.O. D-7935 CONTRACT B.11907
 LATCH & LONG'T. SHAFTING
 ALLIGATOR RIVER SWING SPAN
 OVER ALLIGATOR RIVER
 TYRRELL-DARE COUNTY, N.C.

INSPECTION FROEHLING & ROBERTSON, INC.
 GENERAL NOTES
 ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
 SPOT FACE FOR ALL BOLT HEADS & NUTS
 SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
 SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS)
 FINISHED SURFACES COATED—NO OX-ID
 CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
 ALL SHIMS TO BE DRILLED



DATE	BY	REVISIONS
2-1-61	AJC	RELOCATED R.H. & L.H. WORM UNITS
9-1-60	AJC	LOCATED WEDGE LIMIT SWITCH

SPECIFICATIONS AASHO & SPECIAL PROVISIONS
 INSPECTION FROEHLING & ROBERTSON, INC.

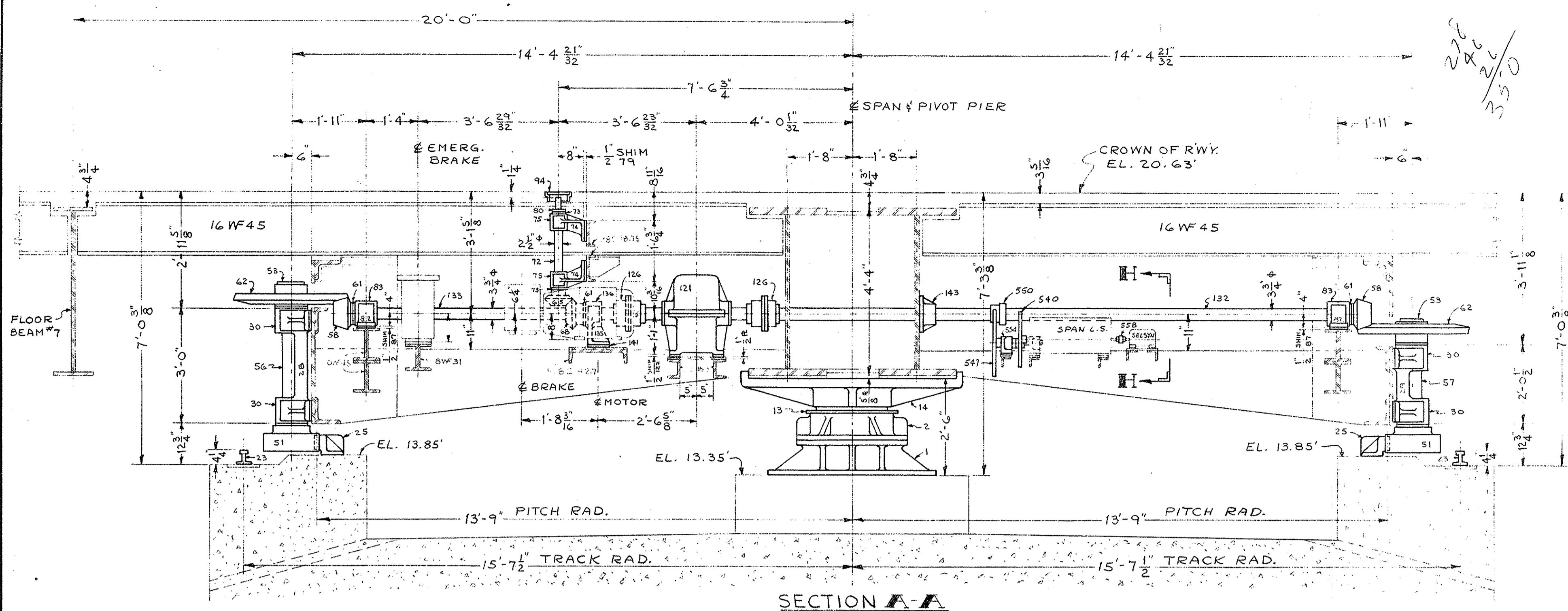
GENERAL NOTES
 ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
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 ALL SHIMS TO BE DRILLED

S.O. D-7935 CONTRACT 8.11907

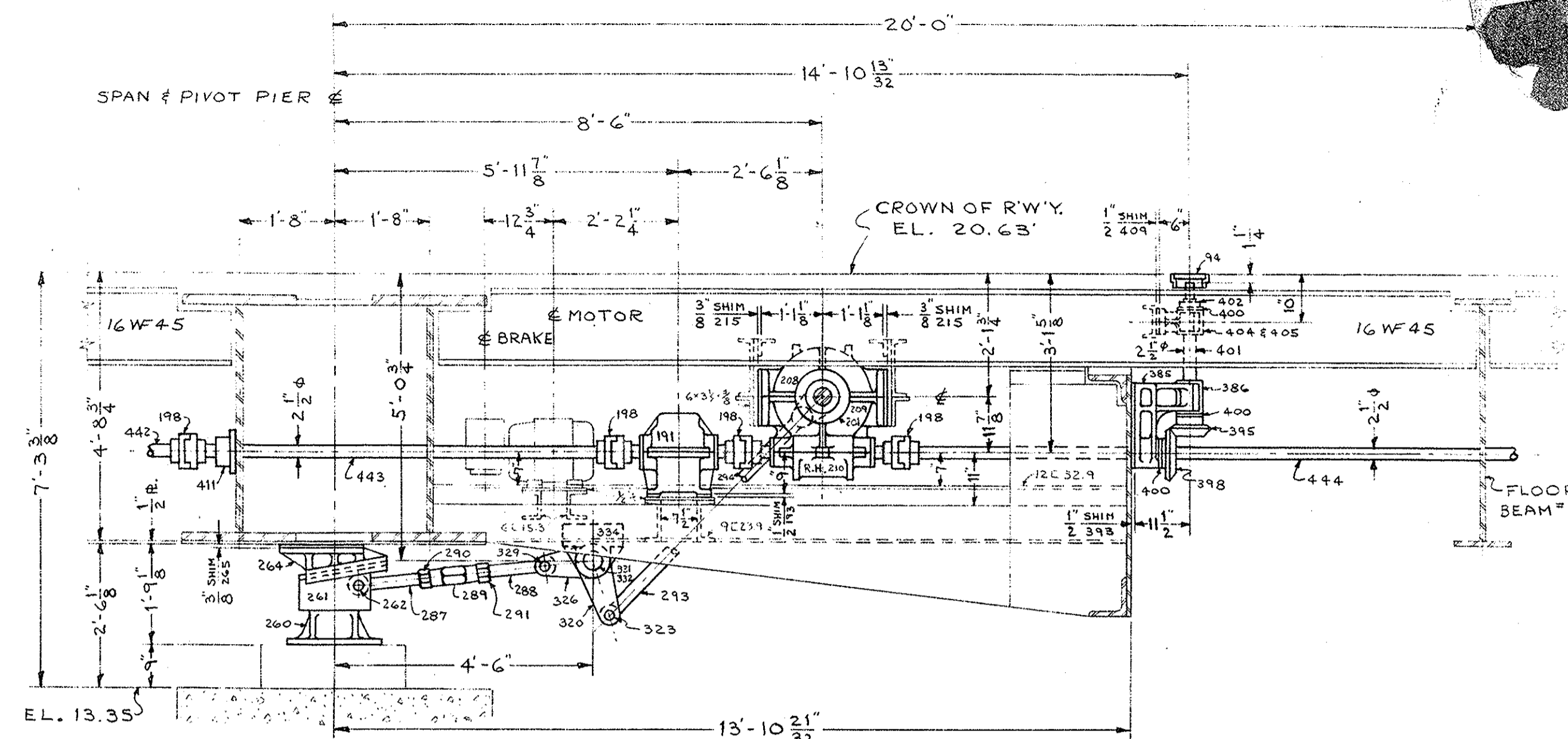
MACHINERY ASSEMBLY
 ALLIGATOR RIVER SWING SPAN
 OVER ALLIGATOR RIVER
 TYRRELL-DARE COUNTY, N.C.

THE EARLE GEAR AND MACHINE COMPANY
 4707 TO 4715 STENTON AVENUE
 PHILADELPHIA 44, PA.

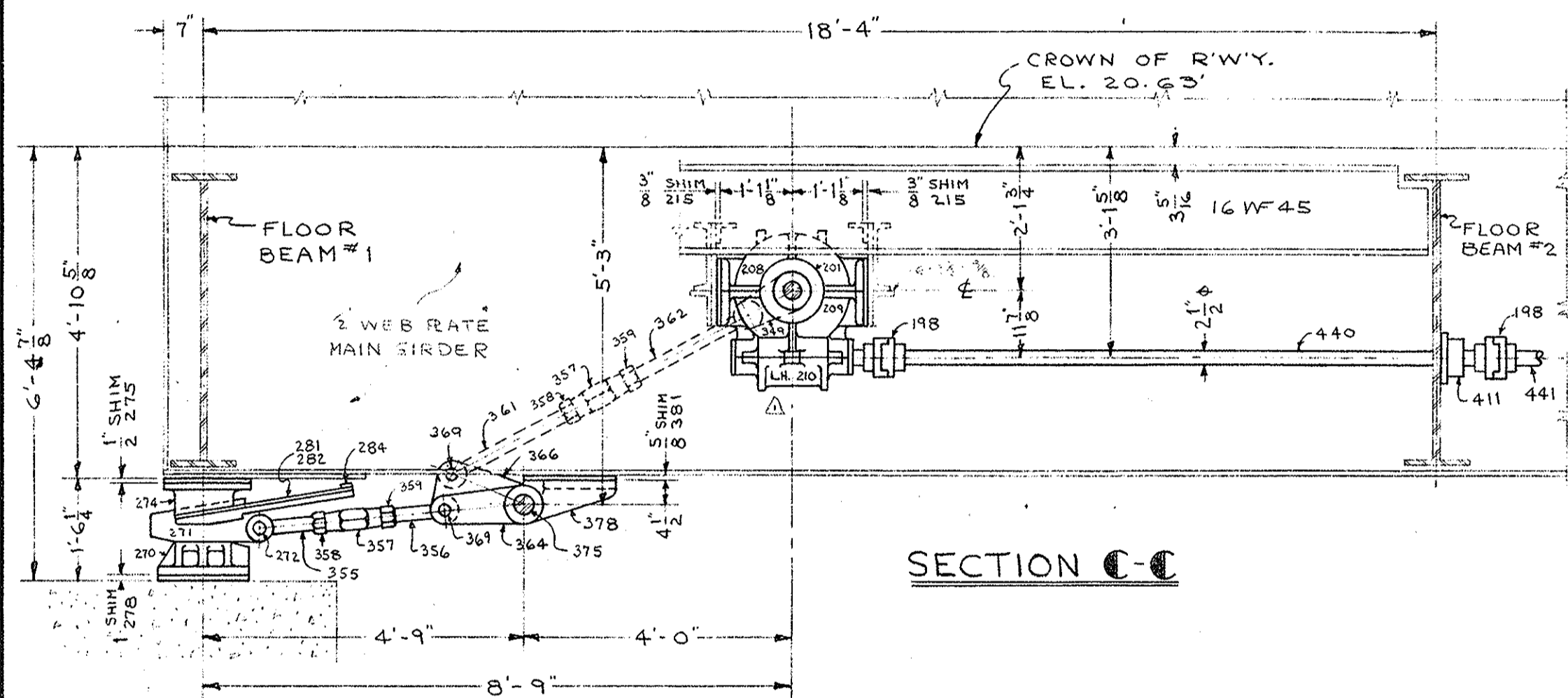
DRAWN BY A.J.C. 8-15-60 APPROVED BY S.H.C. 9-9-60
 CHECKED BY T.B. 8-23-60 REV. APPVD.
 DATE REV. APPVD.
 SHEET 10 OF 11 DWG. NO. 6860 E-30



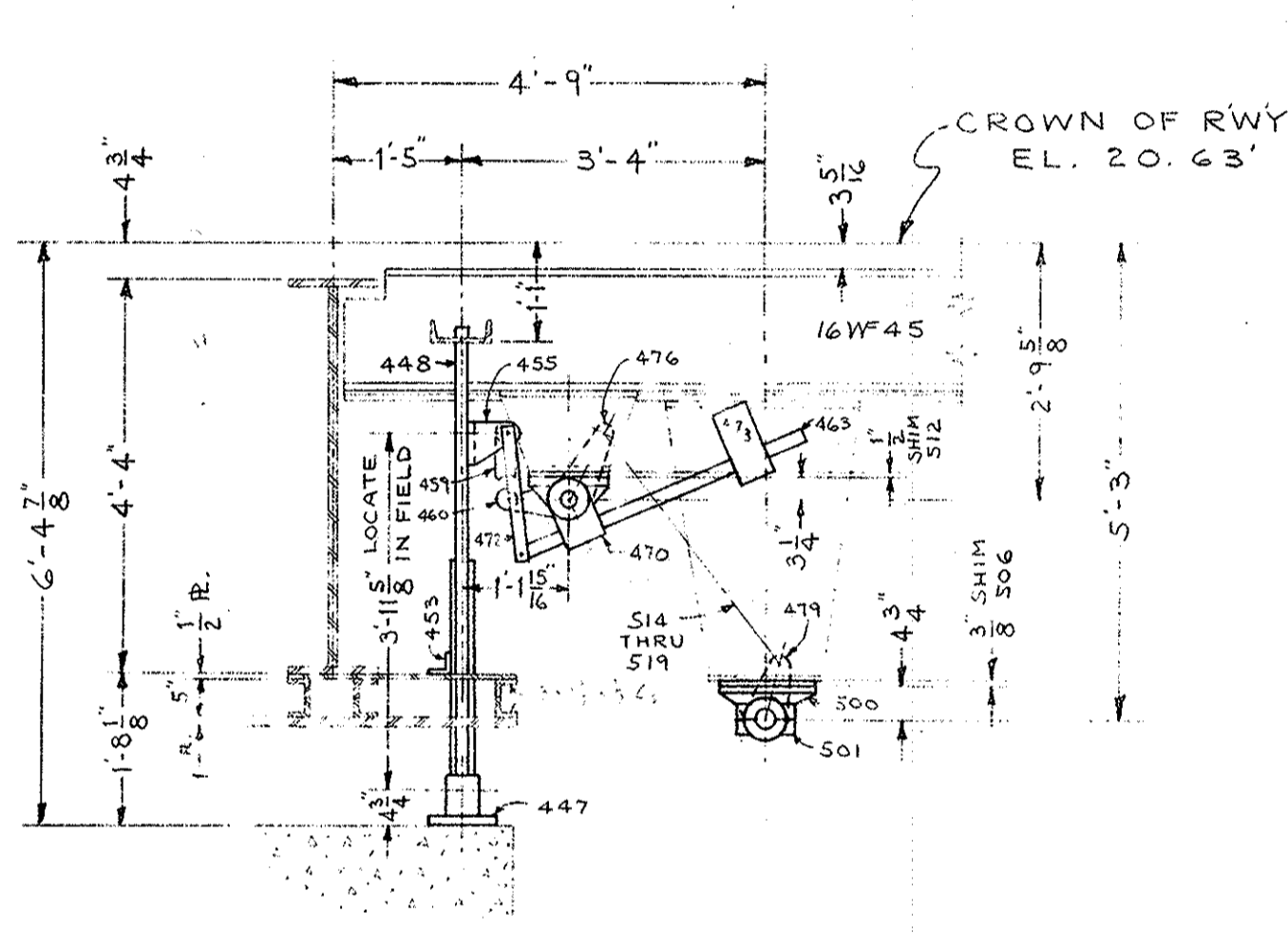
SECTION A-A



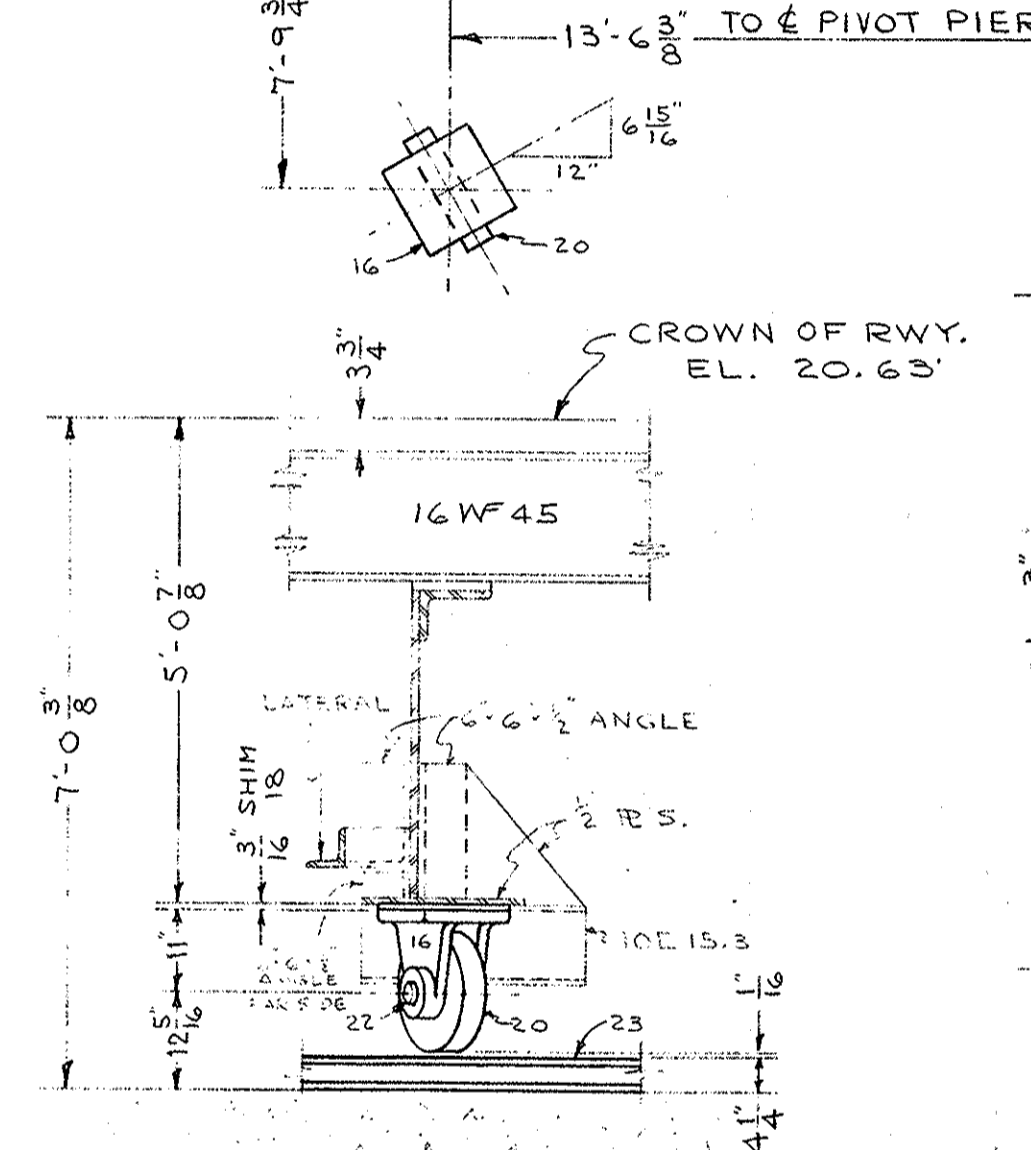
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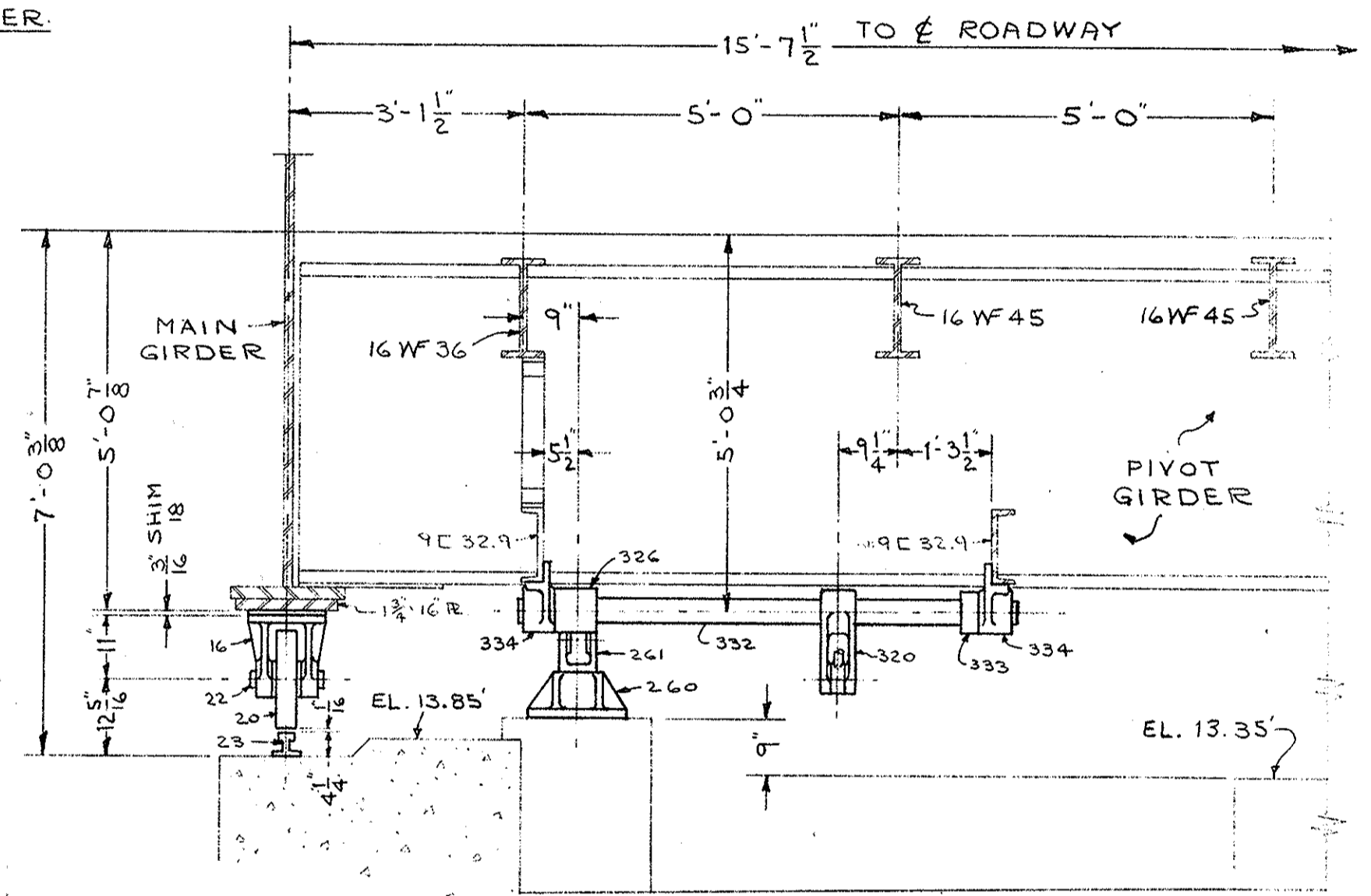
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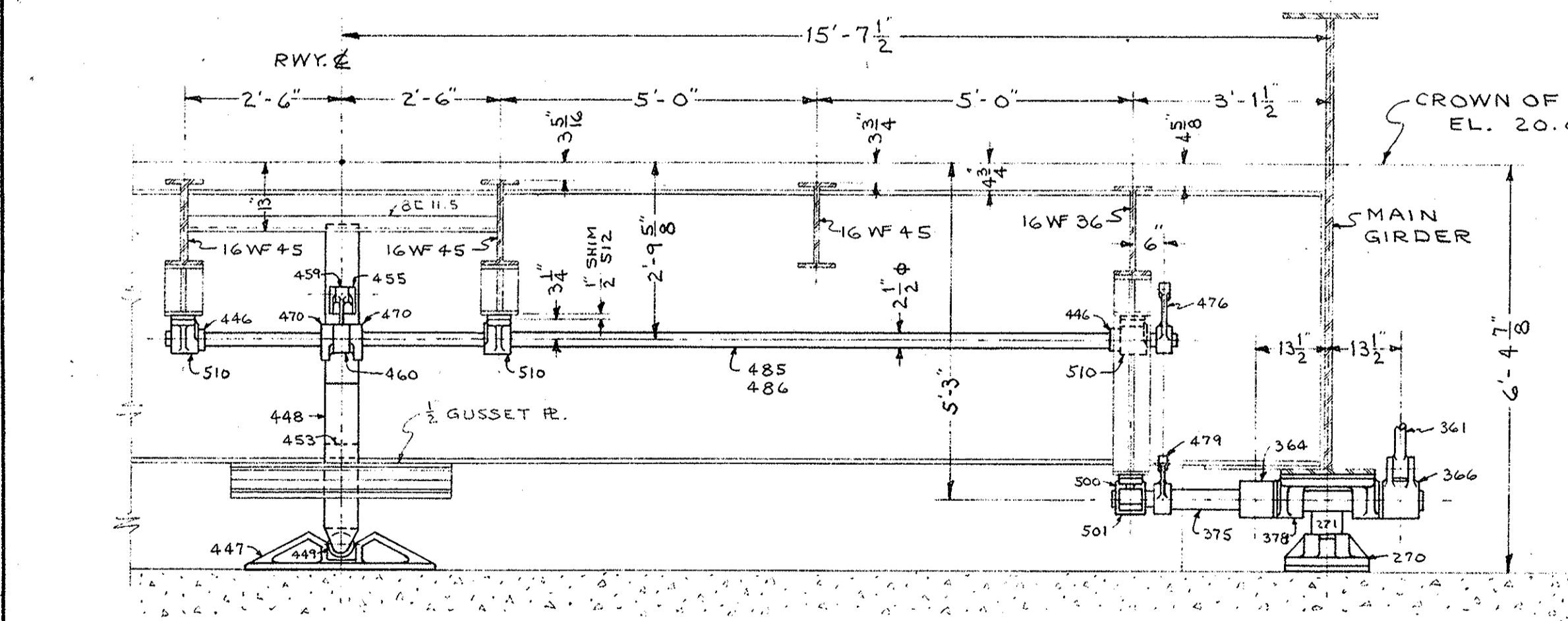
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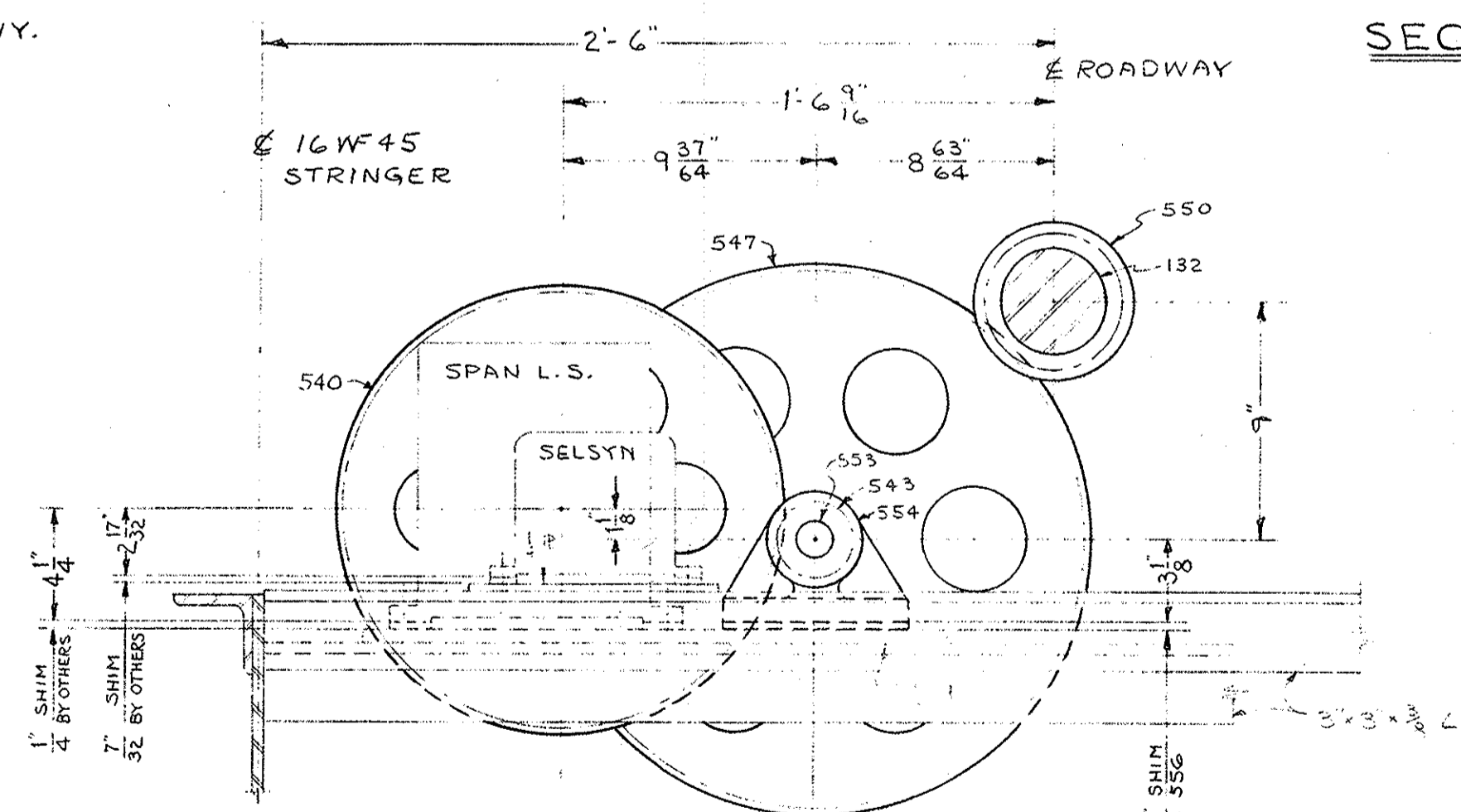
SECTION E-E



SECTION F-F

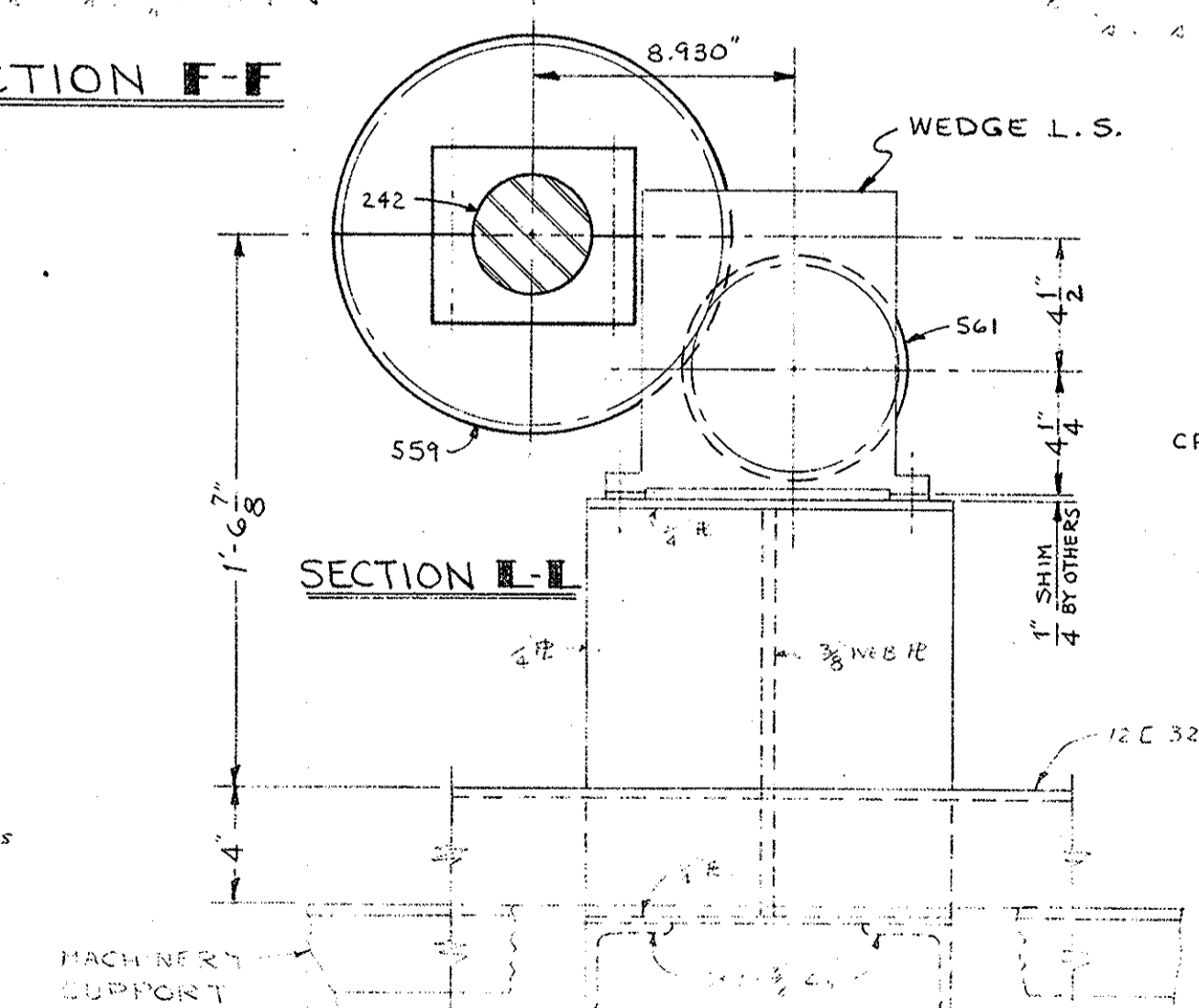


SECTION G-G



SECTION H-H

$86.6 \times \frac{324}{15} \times \frac{71}{18} \times \frac{36}{142} \times \frac{20}{117} = 319.7^\circ$ ROTATION FOR SWING SPAN L.S. & SELSYN



SECTION I-I

$180^\circ \times \frac{64}{36} = 320^\circ$ ROTATION FOR WEDGE L.S.

SPECIFICATIONS AASHTO & SPECIAL PROVISIONS
INSPECTION FROEHLING & ROBERTSON, INC.

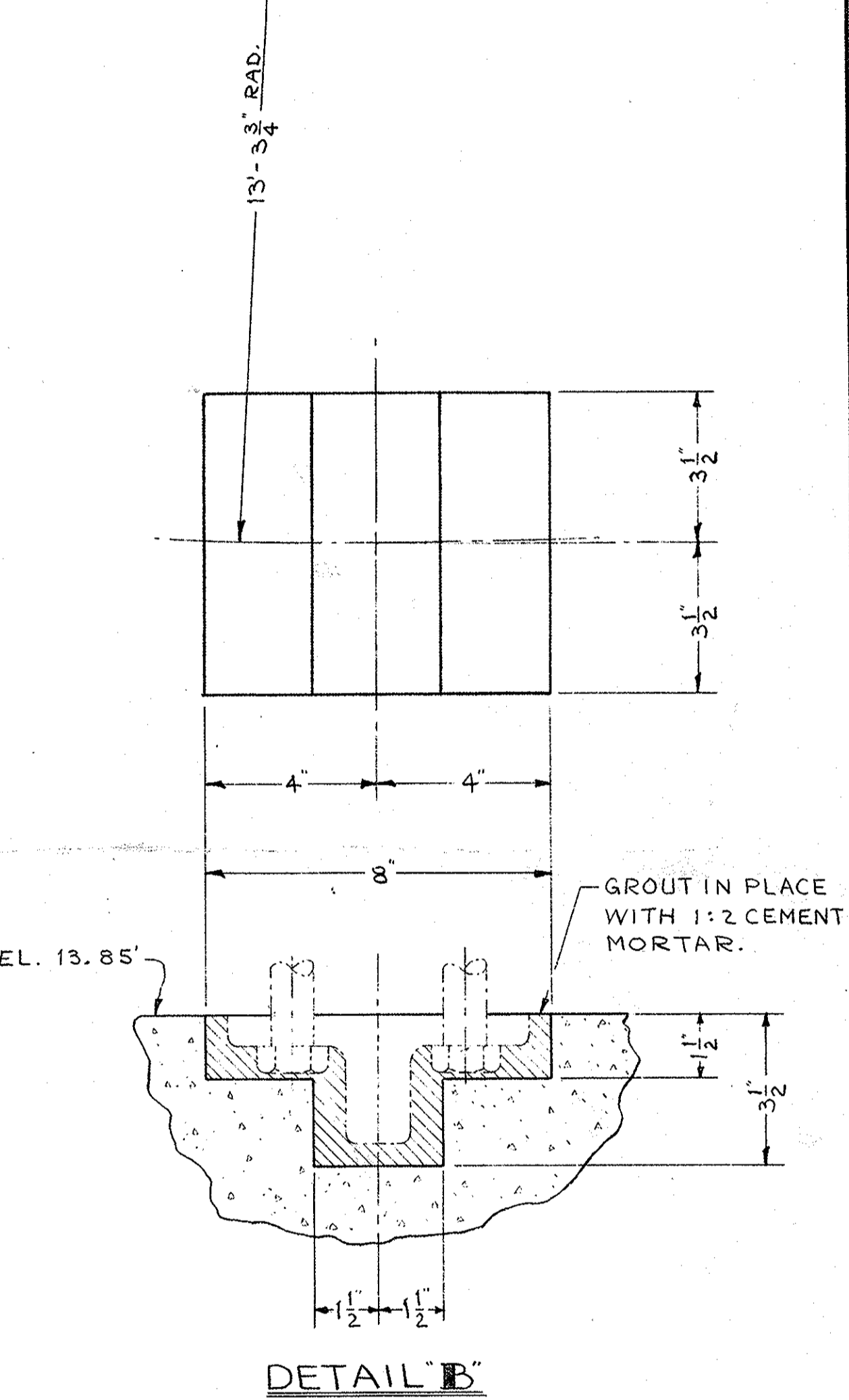
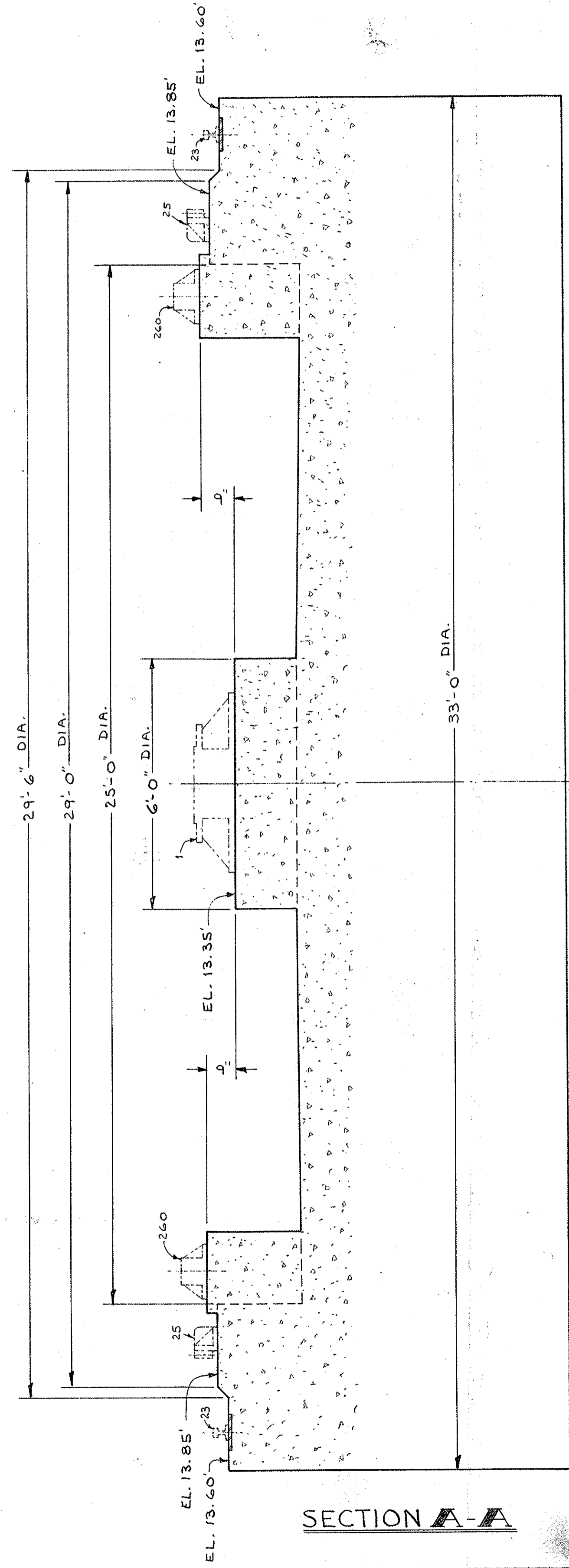
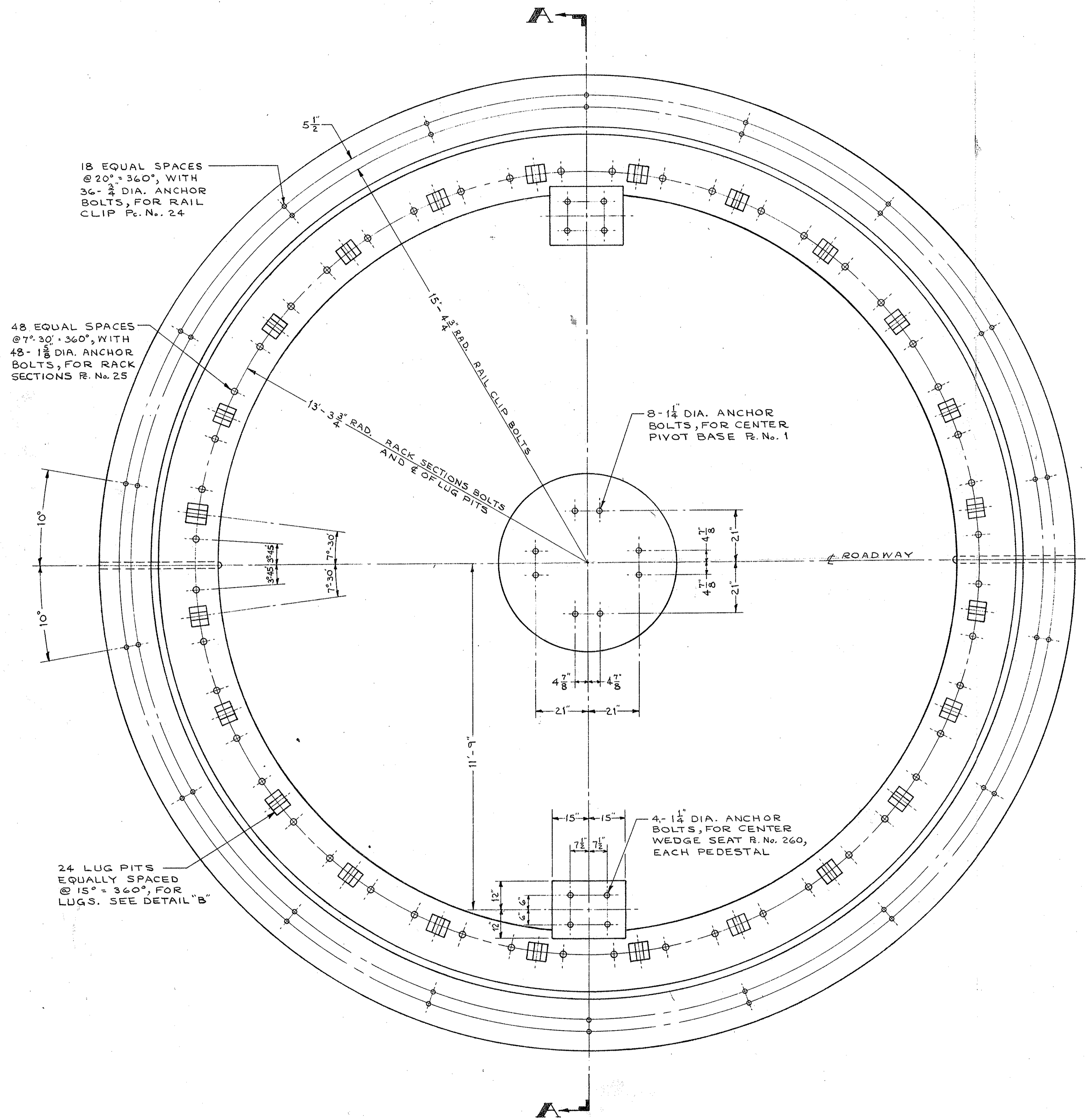
GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
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SHOP PAINT—ONE COAT—
FINISHED SURFACES COATED—
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

DATE	BY	REVISIONS
2-1-61	AJC	L.H. WORM UNIT WAS R.H.

S. O. D-7935 CONTRACT 8-11907
MACHINERY ASSEMBLY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.

THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

DRAWN BY A.J.C. 8-23-60 APPROVED BY S.H.C. 9-9-60
CHECKED BY J.P. 8-23-60 REV. APPVD.
DATE: REV. APPVD.
SHEET 11 OF 11 DWG. NO. 6861 E-30



DATE	REVISIONS

GENERAL NOTES
 ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
 SPOT FACE FOR ALL BOLT HEADS & NUTS
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S. O. D-7935 CONTRACT 8.11907

PIVOT PIER LAYOUT
 ALLIGATOR RIVER SWING SPAN
 OVER ALLIGATOR RIVER
 TYRRELL-DARE COUNTY, N.C.

THE EARLE GEAR AND MACHINE COMPANY
 4707 TO 4715 STENTON AVENUE
 PHILADELPHIA 44, PA.

DRAWN BY A.J.C. 8-26-60 APPROVED BY _____
 CHECKED BY T.B. 8-26-60 REV. APPVD. _____
 DATE _____ REV. APPVD. _____

SHEET 1 OF 1 DWG. No. 6862 E-30