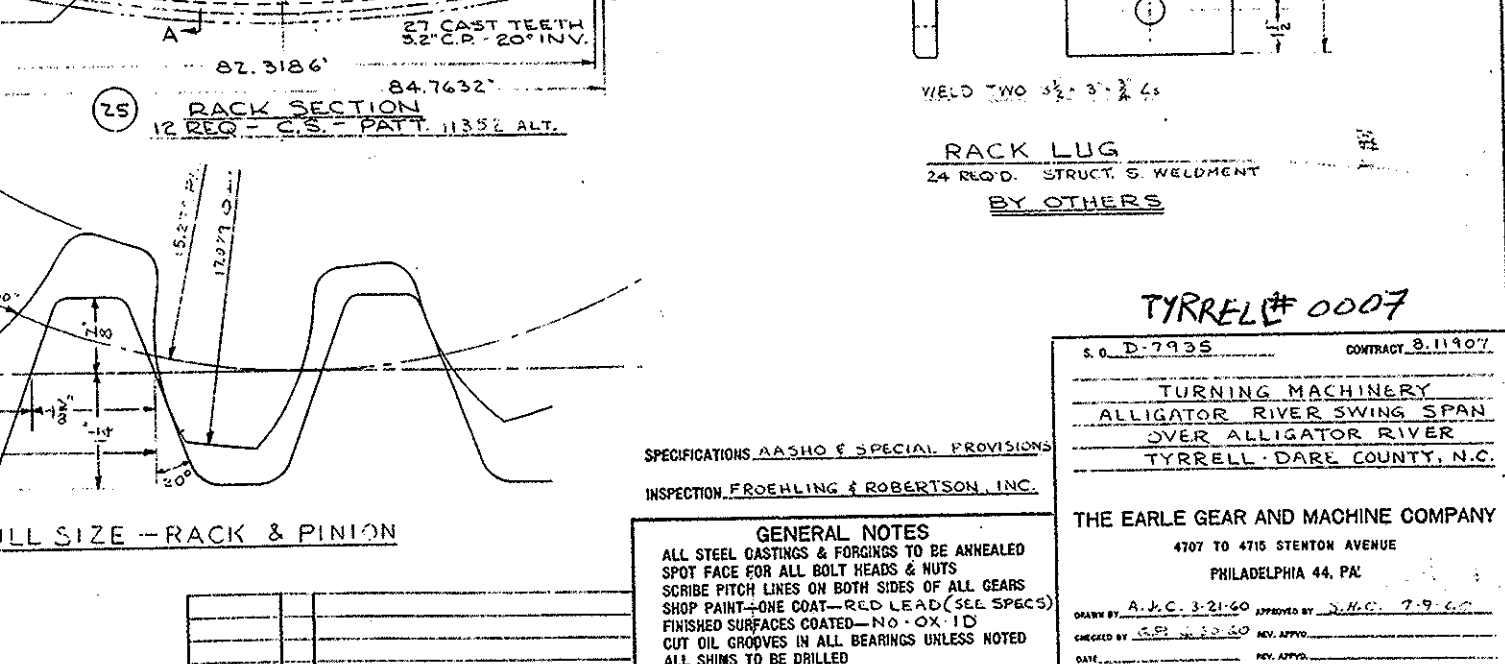
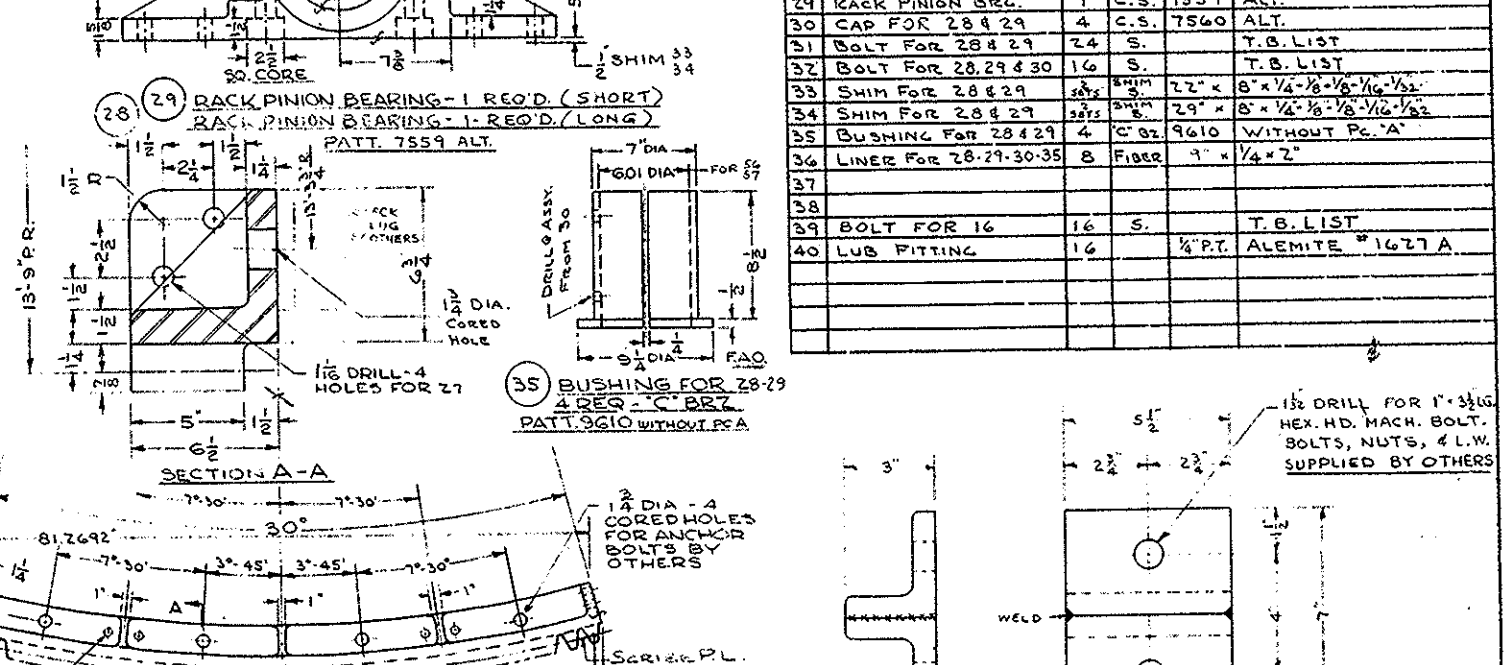
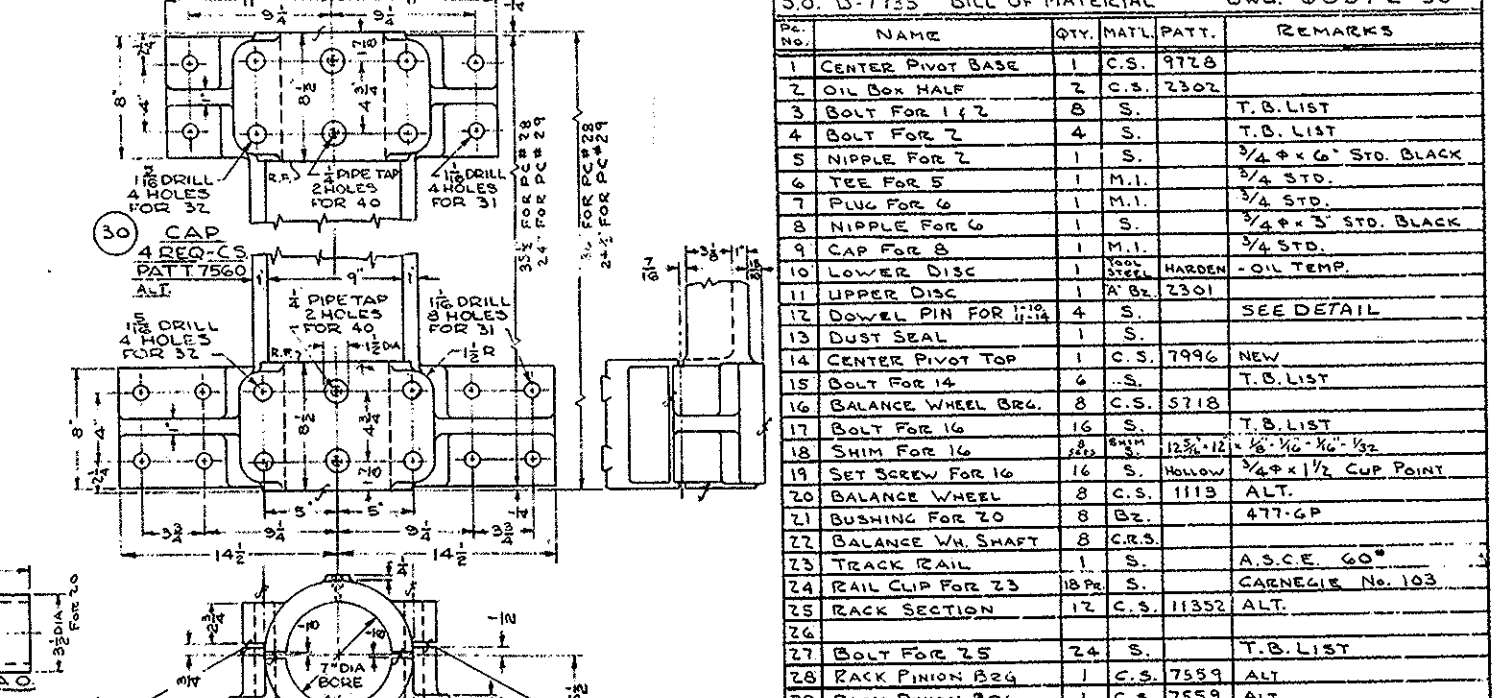
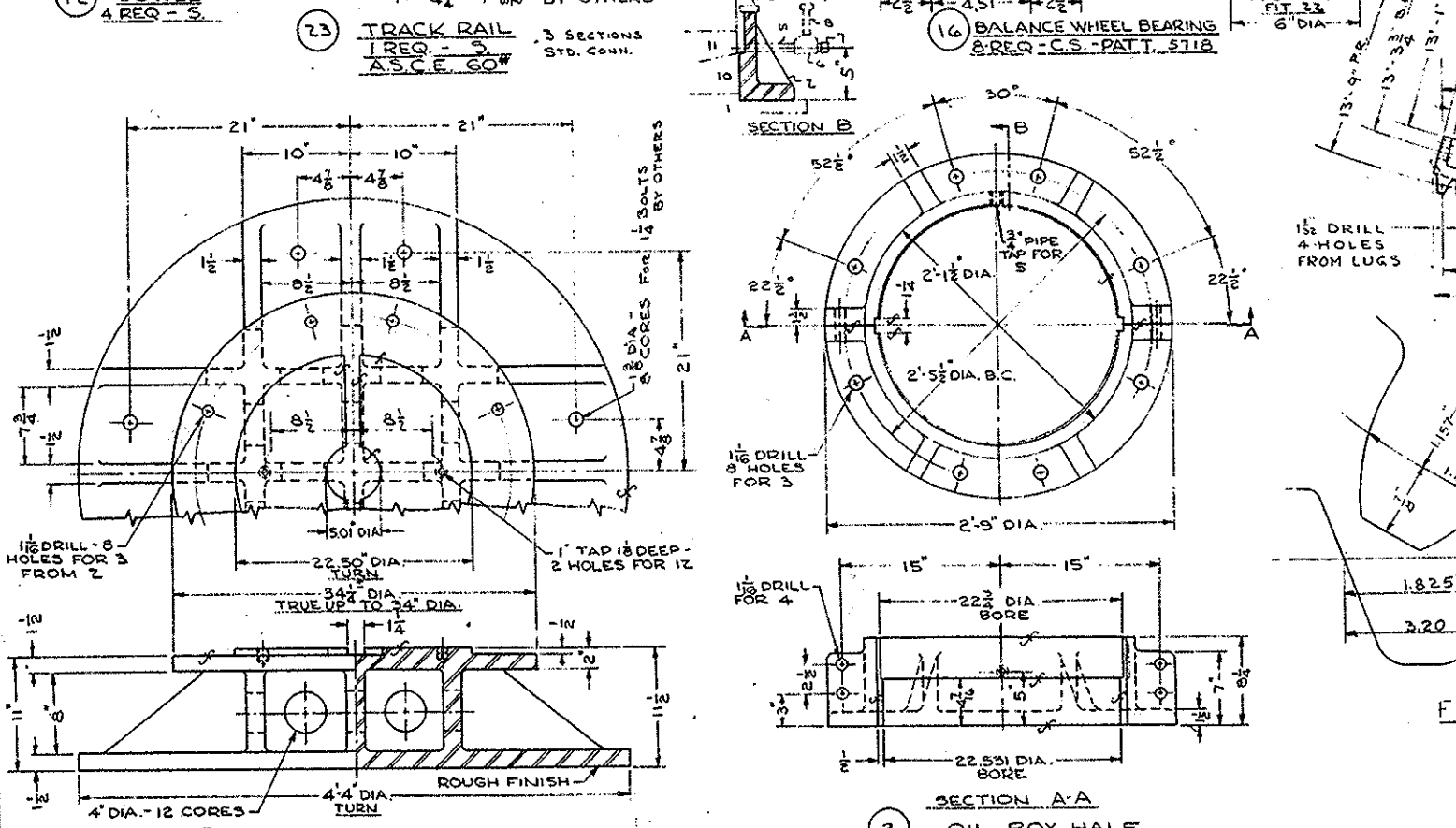
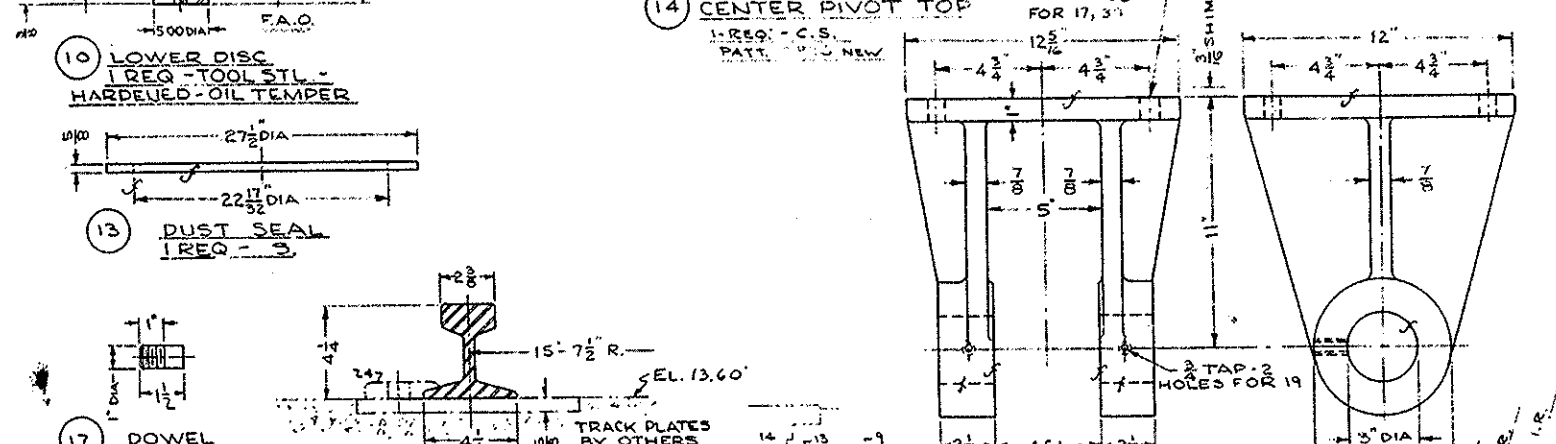
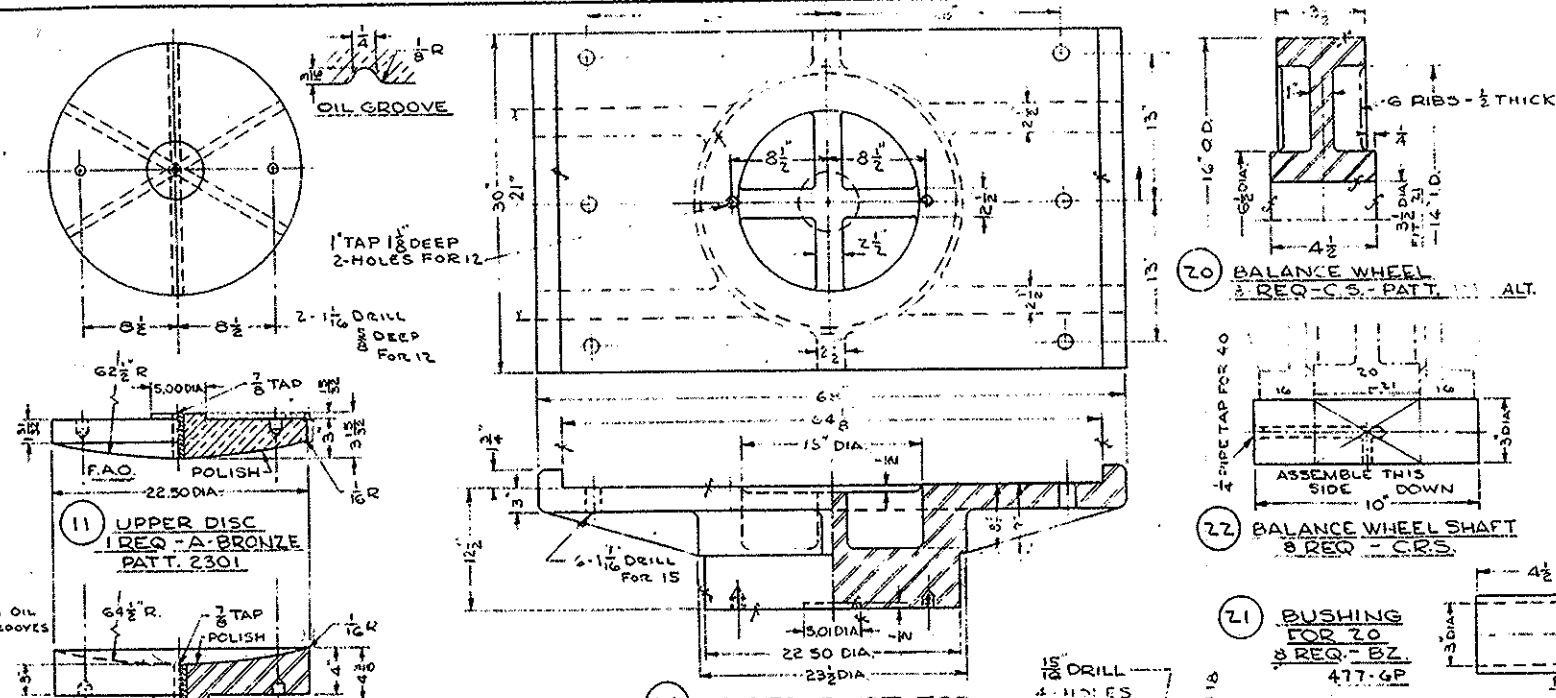


S.O. D-7735 BILL OF MATERIAL DWG. 6851E-30

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	VAL. STEEL		HARDEN - OIL TEMP.
11	UPPER DISC	1	A.B.	2301	
12	LOWER PIN FOR 10	4	S.		SEE DETAIL
13	DUST SEAL	1	S.		
14	CENTER PIVOT TOP	1	C.S.	7996	NEW
15	BOLT FOR 14	4	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	16	S.	125-12	1/8 x 1/8 x 1/32
19	SET SCREW FOR 16	16	S.	HOLLOW	3/4 x 1 1/2 CUP POINT
20	BALANCE WHEEL	8	C.S.	1119	ALT.
21	BUSHING FOR 20	8	Bz.		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 BRG.	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	24	S.	22" x 8" x 1/4" x 1/8" x 1/16" x 1/32"	
34	SHIM FOR 28 & 29	24	S.	29" x 8" x 1/4" x 1/8" x 1/16" x 1/32"	
35	BUSHING FOR 28 & 29	4	C.Bz.	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			1/8" PT. ALEMITE #1627A



SPECIFICATIONS A.A.S.H.O. & 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

TYRRELL # 0007

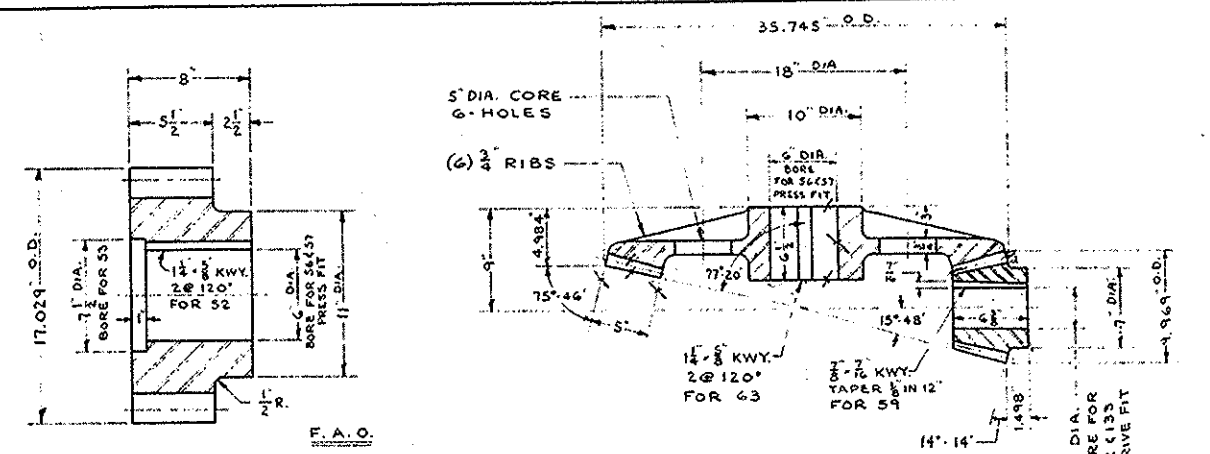
S.O. D-7735 CONTRACT B.11907

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

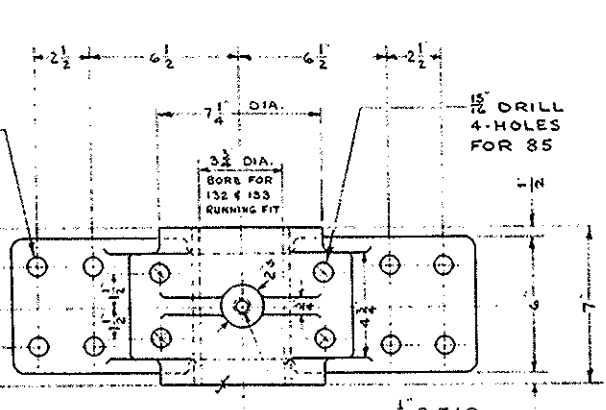
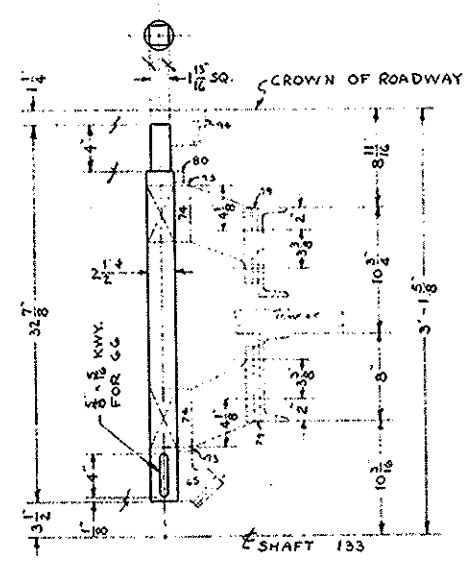
THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

DRAWN BY: A.J.C. 3-21-60 APPROVED BY: S.M.C. 7-9-60
CHECKED BY: C.P. 3-30-60 REV. APPROV.
DATE: REV. APPROV.

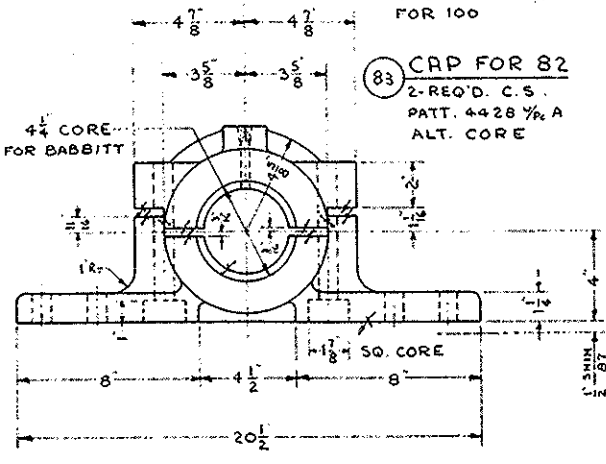
SHEET 1 OF 11 DWG. NO. 6851E-30



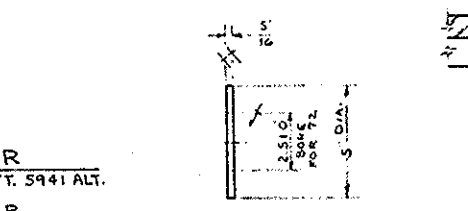
61 THRUST WASHER
3-REQ'D BZ. PATT. 5178



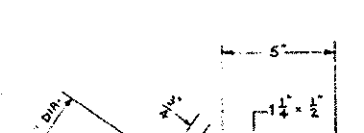
82 TURN SHAFT BEARING
2-REQ'D. C.S. PATT. 4427



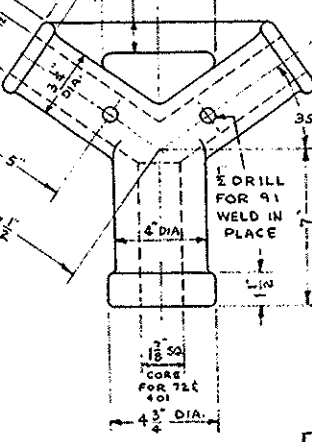
72 CAPSTAN SHAFT
1-REQ'D. C.R.S.



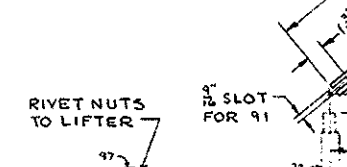
73 THRUST WASHER
2-REQ'D. BZ. PATT. 2091



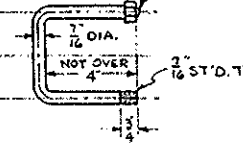
90 CAPSTAN
1-REQ'D C.S. PATT. 6485



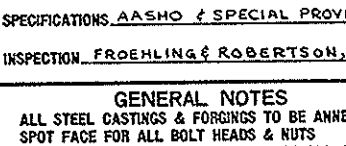
95 COVER FOR 94
2-REQ'D. C.S. PATT. 7908



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

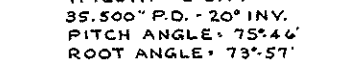


92 CAPSTAN BAR
2-REQ'D. ST. PIPE (GALV)

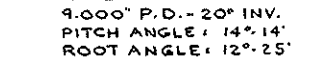


GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT - ONE COAT - RED LEAD (SEE SPECS)
FINISHED SURFACES COATED - NO OX-1D
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

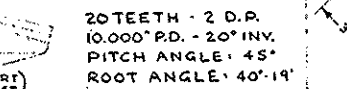
62 BEVEL GEAR
2-REQ'D. C.S. PATT. 1890



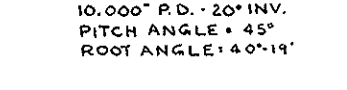
58 BEVEL PINION
2-REQ'D. F.S.



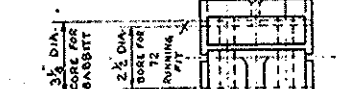
65 MITER GEAR
1-REQ'D. C.S. PATT. 5941 ALT.



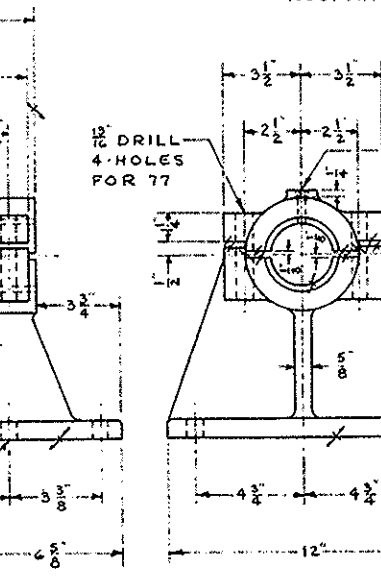
68 MITER GEAR
1-REQ'D. C.S. PATT. 5941 ALT.



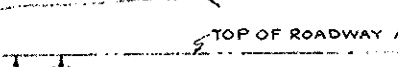
75 CAP FOR 74
2-REQ'D. C.S. PATT. 3464



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

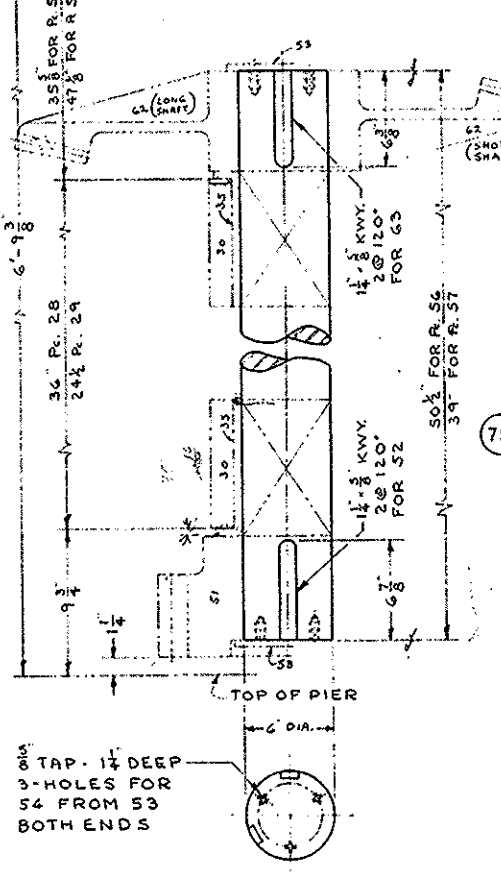


55 PLATE FOR 51, 56 & 57
4-REQ'D. S.

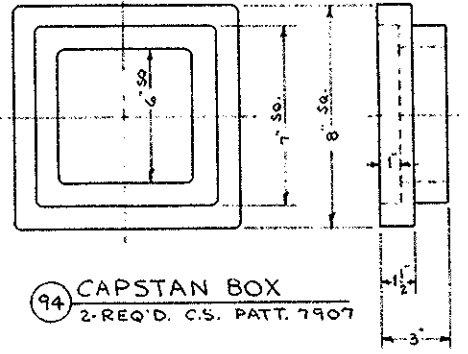


56 RACK PINION SHAFT (LONG)
1-REQ'D. T.F.S.

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



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. NO. 4-40	5/8" x 1 1/2" LG. 1/2" W. NO NUT
55					
56	RACK PINION SHAFT	1	T.F.S.		LONG
57	RACK PINION SHAFT	1	T.F.S.		SHORT
58	BEVEL PINION	2	F.S.		
59	KEY FOR 58	2	S.		KEY LIST (GIB)
60					
61	THRUST WASHER FOR 51	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	3/8" 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 3/4" LG. CUP POINT
71					
72	CAPSTAN SHAFT	1	C.R.S.		
73	THRUST WASHER FOR 72	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 1/2"	
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	8	S.	6/16" x 12" x 1/8" x 1/8" x 1/2"	
80	COLLAR FOR 72	1	S.	2 1/2" SHAF	L.B. ST'D. (SOLID)
81					
82	TURN SHAFT BRG.	2	C.S.	4427	
83	CAP FOR 82	2	C.S.	4428	1/2" 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	16	S.	6" x 20" x 1/2" x 1/8" x 1/2"	
88					
89					
90	CAPSTAN	1	C.S.	6485	
91	PIN FOR 90	2	S.		3/8" x 3 1/2" LG.
92	CAPSTAN BAR	2	S.		1 1/2" EX. H.V.Y. PIPE - GALV.
93	CAP FOR 92	2	M.I.	ST'D.	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.	3/8" AMER. STD. HEAVY
98					
99					
100	LUB. FITTING FOR 98	4			1/2" PT. ALEMITE # 1627A



S.O. D-7935 CONTRACT 8-11907

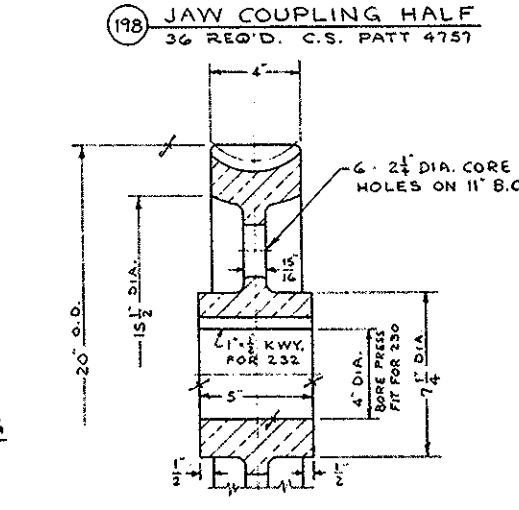
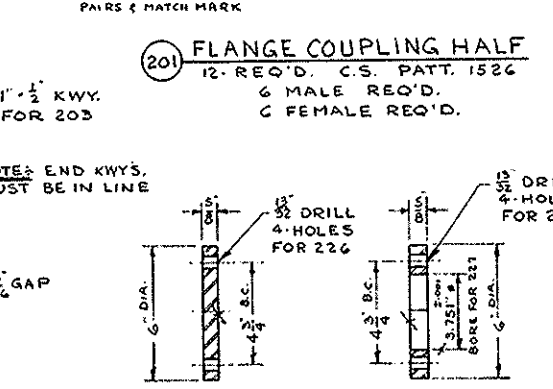
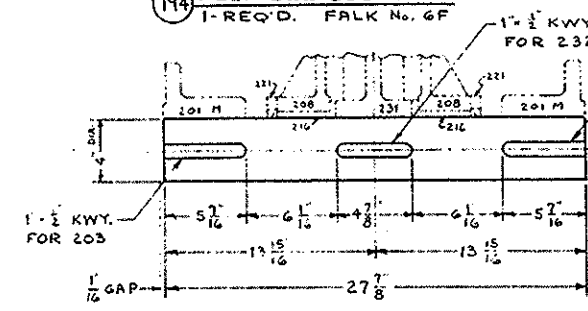
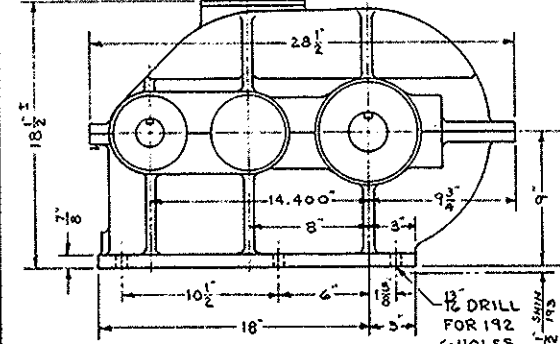
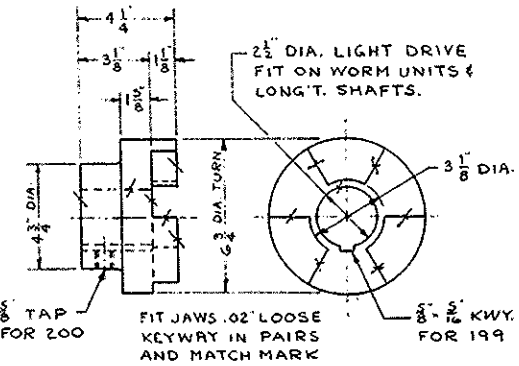
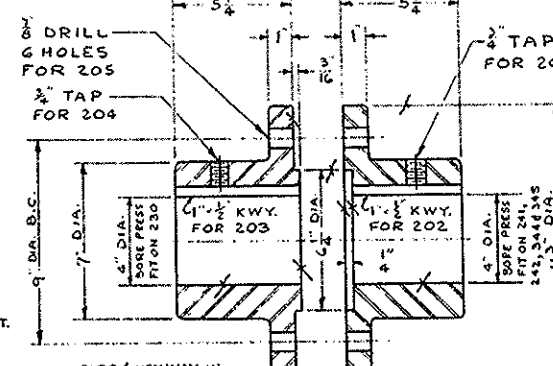
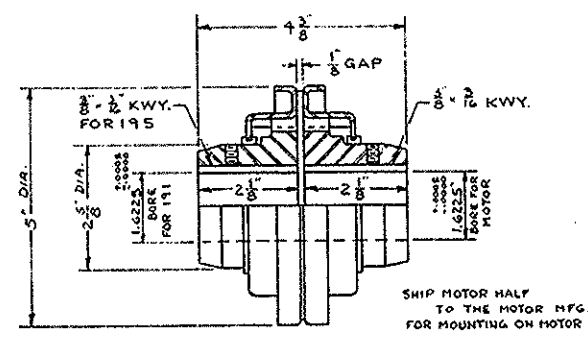
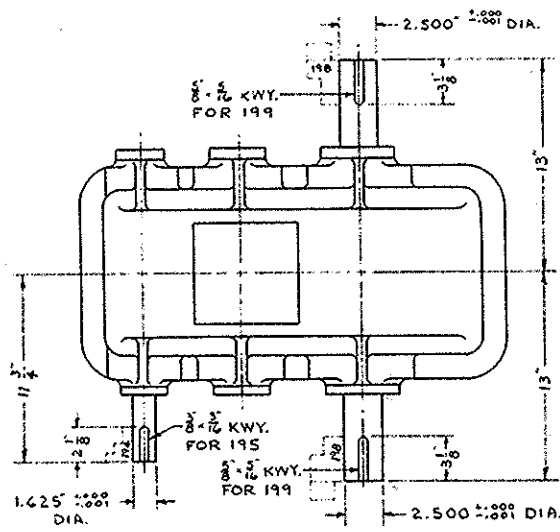
TURNING MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL - DARE COUNTY, N.C.

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

DRAWN BY A.J.C. 3-10-60 APPROVED BY
CHECKED BY G.P. 7-1-60 REV. APP'D.
DATE _____ REV. APP'D. _____
SHEET 2 OF 11 DWG. NO 6852 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	3	S.	21-258	3/4" x 3/8" x 1/4" x 1/2"
194	FLEXIBLE COUPLING	1	S.		FALK No. 6 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.		3/8" x 3/4" LG. W/L.W. & 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.	HEX. NO. MACH.	3/4" x 2 1/2" LG. W/L.W. & INUT
212	BOLT FOR 208 & 209	12	S.	HEX. NO. MACH.	3/4" x 3" LG. W/L.W. & INUT
213	BOLT FOR 209 & 210	18	S.	HEX. NO. MACH.	3/4" x 2 1/2" LG. W/L.W. & INUT
214	BASE BOLT FOR 208 & 209	24	S.		T.B. LIST
215	SHIM FOR 208 & 209	3	S.	12-238	1/2" x 3/8" x 1/4" x 1/2"
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.		3/4" 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. NO. CAP	3/8" x 1 1/2" LG. NO NUT
223	OIL SEAL FOR 221	6	S.		GARLOCK # 53-2539
224	INPUT SEAL RING	4	S.		
225	INPUT COVER PLATE	2	S.		
226	BOLT FOR 224 & 225	24	S.	HEX. NO. CAP	3/8" x 1 1/2" LG. NO NUT
227	OIL SEAL FOR 224	4	S.		GARLOCK # 63-2170
228	WORM SHAFT	2	1045 S.		I.R.H. & L.H. THREAD
229	WORM SHAFT	1	1045 S.		R.H. THREAD
230	WORM WHEEL SHAFT	3	T.FRS.		
231	WORM WHEEL	3	D.BZ.	5083	
232	KEY FOR 231	3	S.		KEY LIST
233					
234	PIPE PLUG FOR 233	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.FRS.		SHORT
242	C.W. CRANK SHAFT	1	T.FRS.		LONG
243					
244					



191 SPEED REDUCER
1-REQ'D. EARLE #4 D
RATIO 28 : 1
1 1/2 H.P. @ 900 R.P.M.
S.O. D-7937

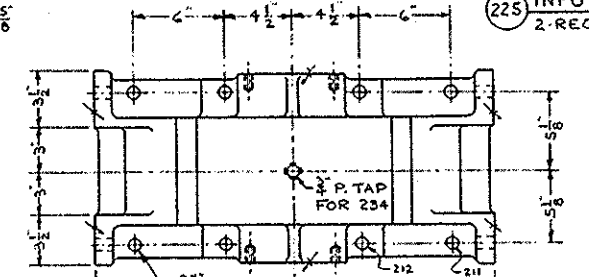
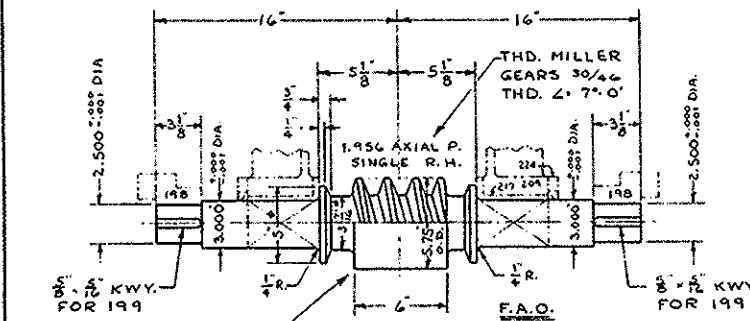
230 WORM WHEEL SHAFT
3-REQ'D. T. & P.S.

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

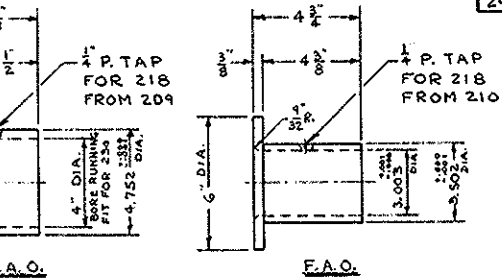
224 INPUT SEAL RING
4-REQ'D. S.

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

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

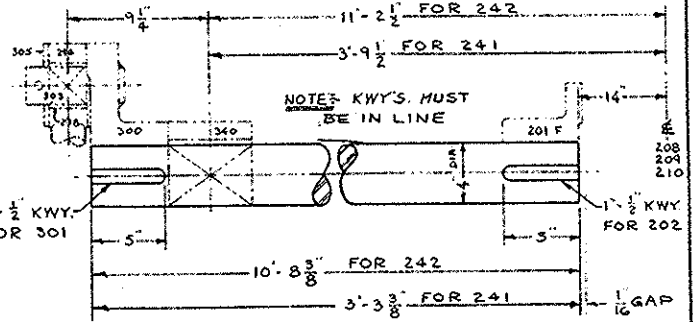


221 OUTPUT SEAL RING
6-REQ'D. S.



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

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

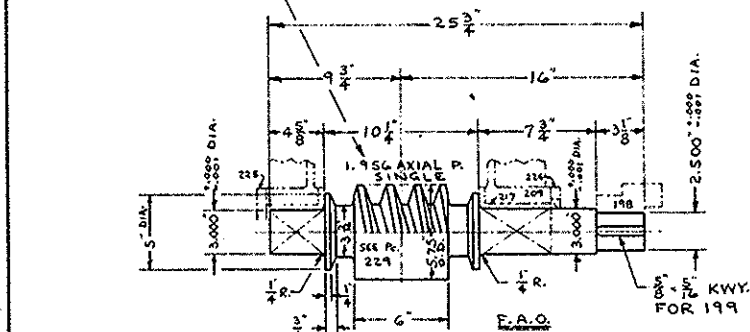


241 C.W. CRANK SHAFT
1-REQ'D. T. & P.S.

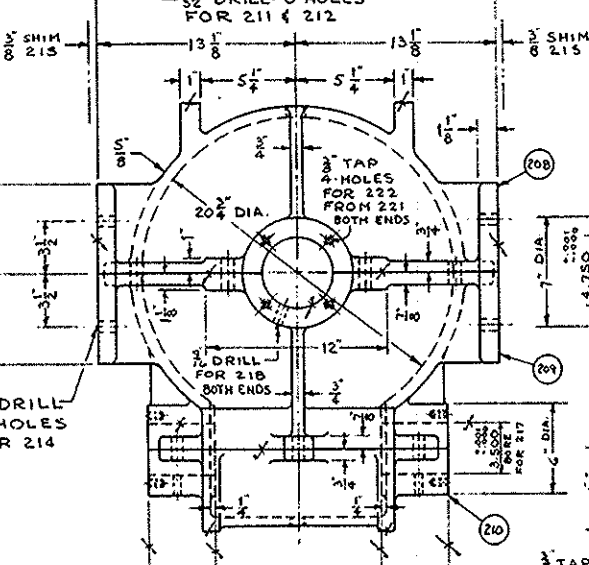
242 C.W. CRANK SHAFT
1-REQ'D. T. & P.S.

NORM. PR. 2 x 20° PITCH DIA. = 5.072" ADD. = .339" FULL DEPTH: 1.156" TOOTH CALIPER SETTING 1.012" THICK @ .600" DEEP

229 WORM SHAFT
1-REQ'D. 1045 S.



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



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

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

210 WORM HOUSING BOTTOM
3-REQ'D. C.I. PATT. 1413

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-10
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

S.O. D-7935 CONTRACT 8.11907

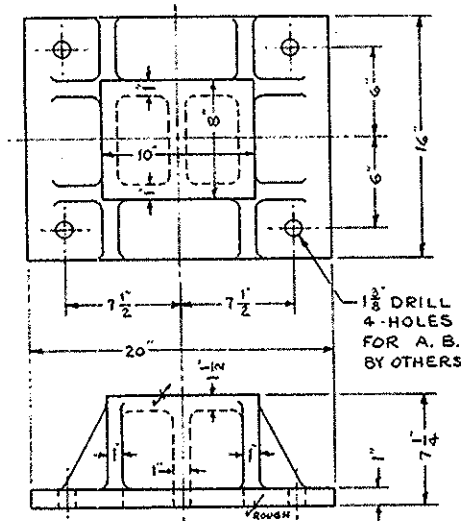
WEDGE MACHINERY
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.

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

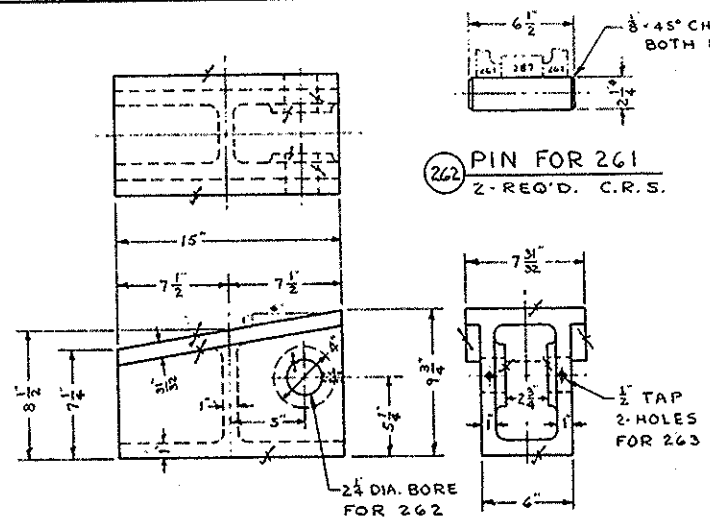
DRAWN BY A.J.C. 5-16-60 APPROVED BY _____
CHECKED BY G.P. 7-5-60 REV. APPR. _____
DATE _____ REV. APPR. _____

SHEET 4 OF 11 DWG. NO. 6854 E-30

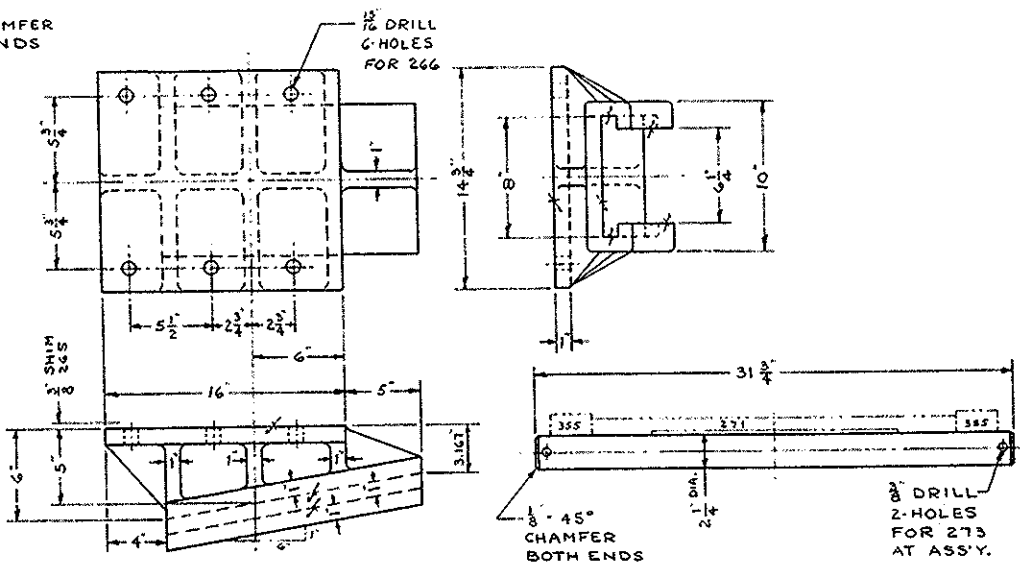
DATE	REVISIONS



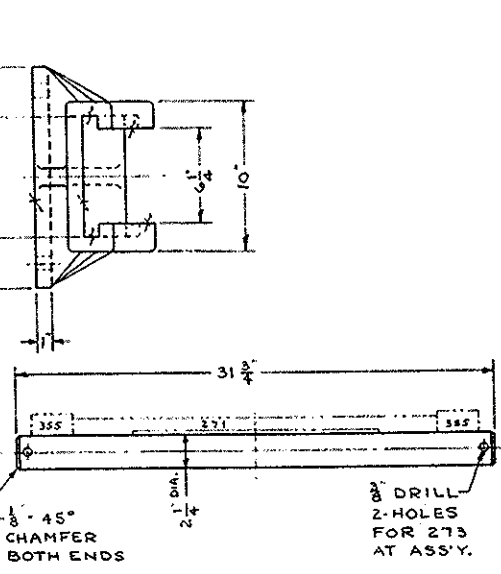
260 CENTER WEDGE SEAT
2-REQ'D. C.S. PATT. 1558 ALT.



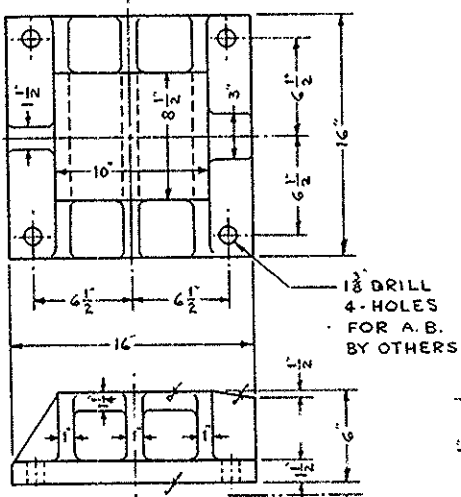
261 CENTER WEDGE
2-REQ'D. C.S. PATT. 1518 ALT. WITHOUT P. A



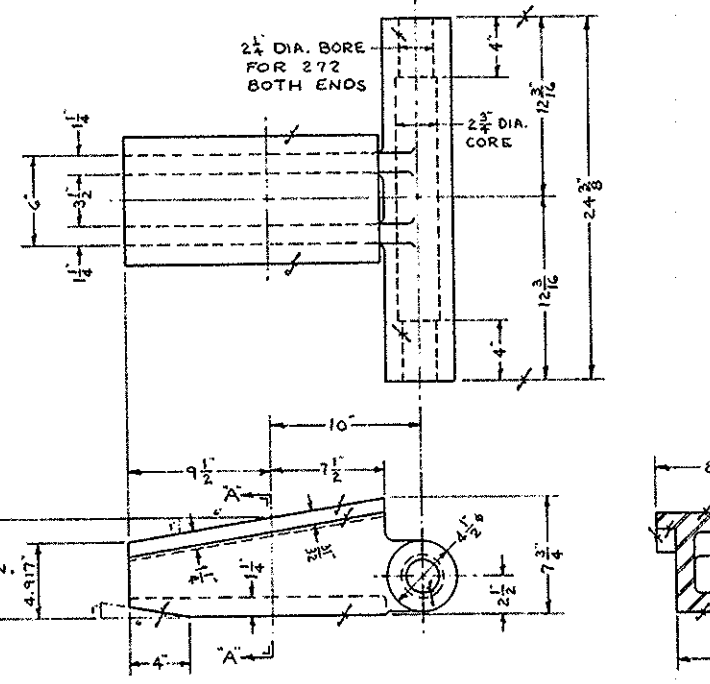
264 CENTER WEDGE GUIDE
2-REQ'D. C.S. PATT. 3549 ALT.



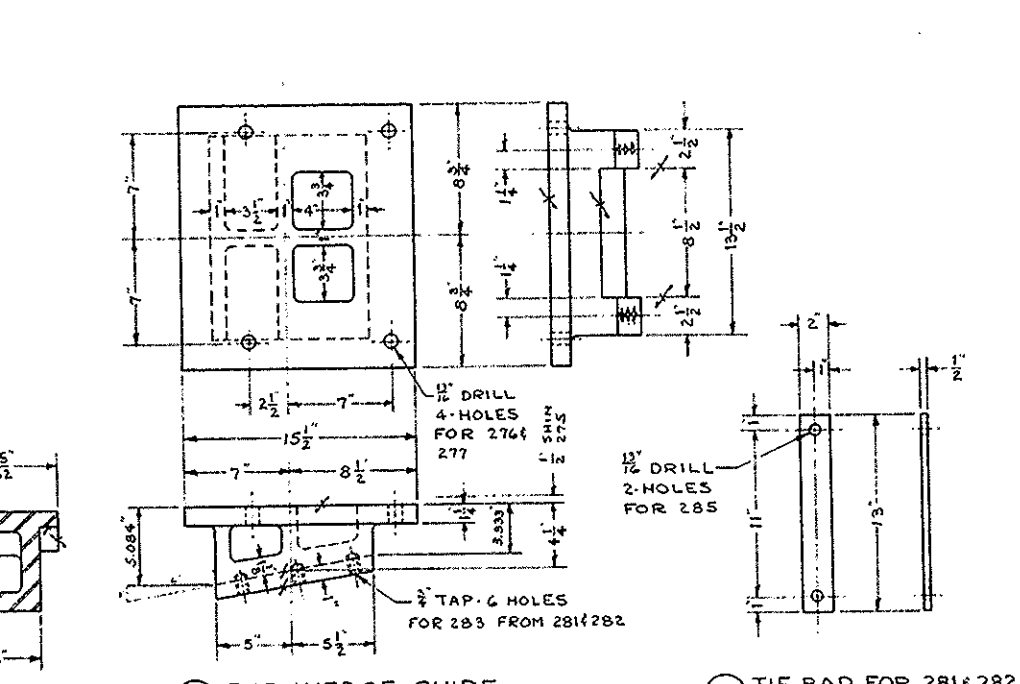
271 PIN FOR 271
4-REQ'D. C.R.S.



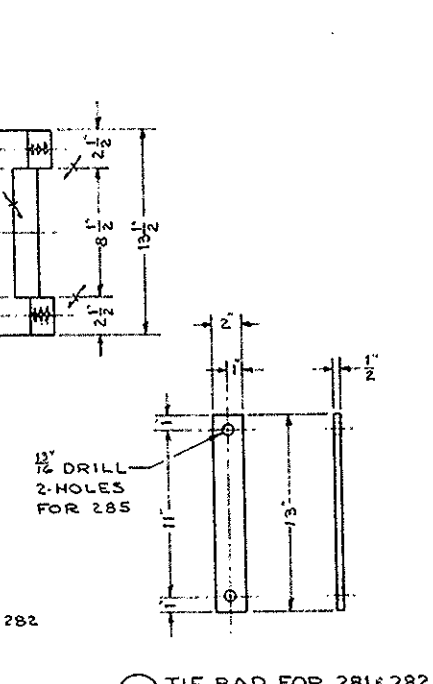
270 END WEDGE SEAT
4-REQ'D. C.S. PATT. 11353



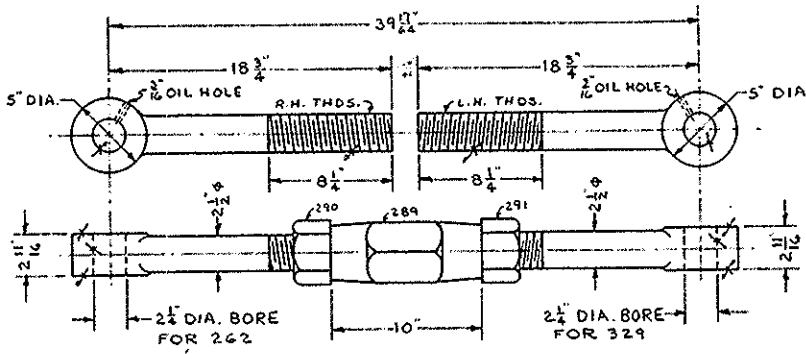
271 END WEDGE
4-REQ'D. C.S. PATT. 11354 ALT.



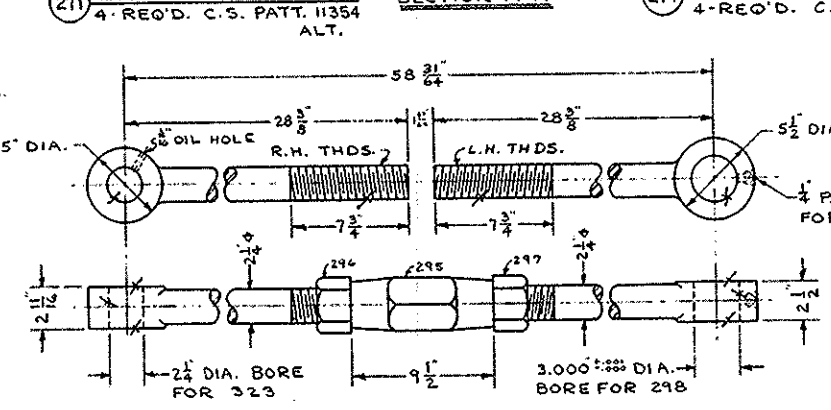
274 END WEDGE GUIDE
4-REQ'D. C.S. PATT. 2874 ALT.



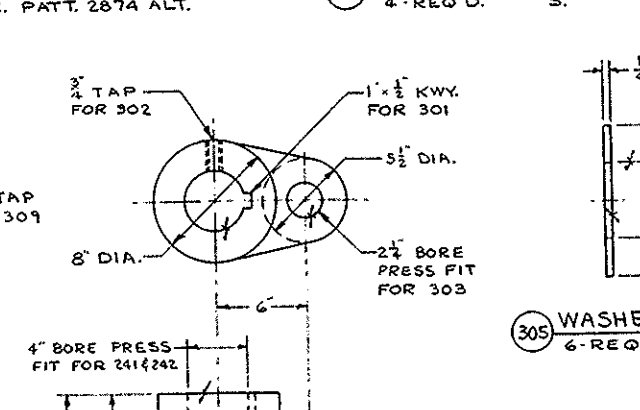
284 TIE BAR FOR 281 & 282
4-REQ'D. S.



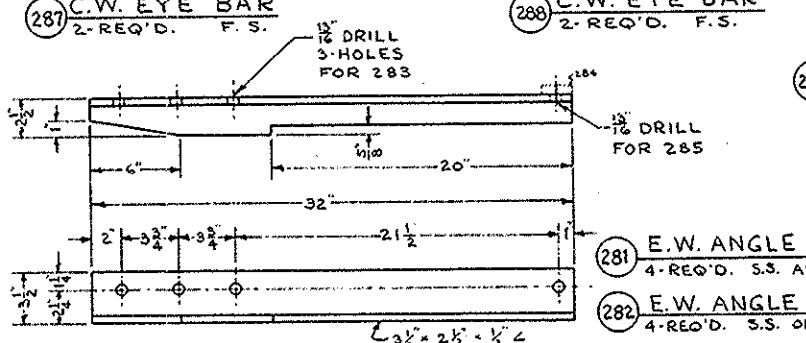
287 C.W. EYE BAR
2-REQ'D. F.S.



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

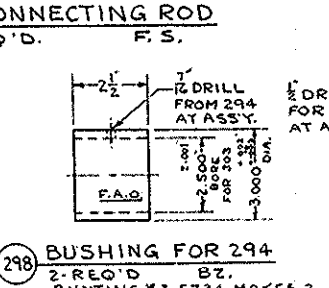


300 C.W. CRANK
2-REQ'D. C.S. PATT. 7210

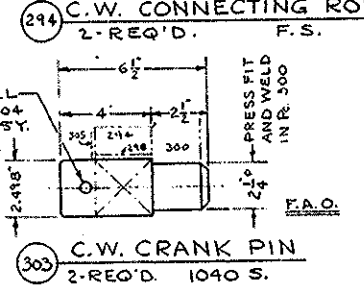


281 E.W. ANGLE
4-REQ'D. S.S. AS SHOWN

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.

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	3073	S.	16 × 14 1/2 × 1/4	1/2" φ × 1/4" - 3/8"
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	3073	S.	17 1/2 × 15 1/2 × 1/4	1/2" φ × 1/4" - 3/8"
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 × 1/4	1" R.
279					
280					
281	E.WEDGE ANGLE FOR 274	4	S.		AS SHOWN
282	E.WEDGE ANGLE FOR 274	4	S.		OPP. SHOWN
283	BOLT FOR 281 & 282	24	S.	HEX. HD. CAP	3/8" 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	2	F.S.	HEX.	2 1/2" A.B. STYLE R.H. THDS.
290	NUT FOR 287	2	S.	HEX.	2 1/2" R.H. AMER. STD. HYY.
291	NUT FOR 288	2	S.	HEX.	2 1/2" L.H. AMER. STD. HYY.
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	2	F.S.	HEX.	2 1/2" A.B. STYLE R.H. THDS.
296	NUT FOR 293	2	S.	HEX.	2 1/2" R.H. AMER. STD. HYY.
297	NUT FOR 294	2	S.	HEX.	2 1/2" L.H. AMER. STD. HYY.
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		
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

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

SPECIFICATIONS AASHO & SPECIAL PROVISIONS
INSPECTION FROEHLING & ROBERTSON, INC

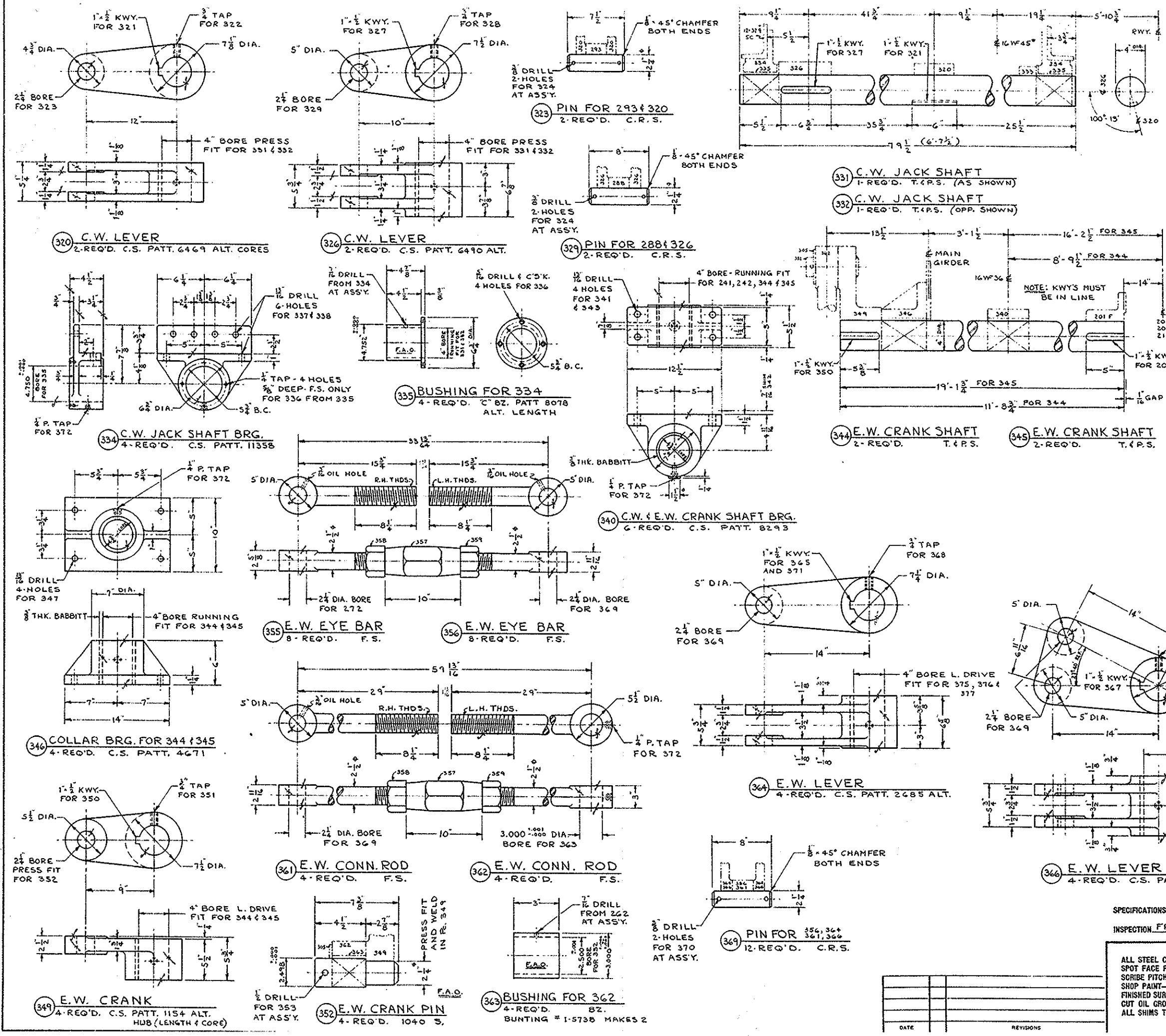
GENERAL NOTES
ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
SPOT FACE FOR ALL BOLT HEADS & NUTS
SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
SHOP PAINT—ONE COAT—RED LEAD (SEE SPECS)
FINISHED SURFACES COATED—NO OX-ID
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
ALL SHIMS TO BE DRILLED

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. G-360 APPROVED BY: _____
CHECKED BY: G.P. 7-11-60 REV. APPROV: _____
DATE: _____ REV. APPROV: _____
SHEET 5 OF 11 DWG. NO 6855 E-30



S.O. D-7935 BILL OF MATERIAL DWG. 6856 E-30				
FR.	NAME	QTY.	MTL. PATT.	REMARKS
320	C.W. LEVER	2	C.S. 6469	ALT. CORES
321	KEY FOR 320	2	S.	KEY LIST
322	SET SCREW FOR 320	2	S. HOLLOW	3/8" x 1 1/2" LG. CUP-POINT
323	PIN FOR 293 & 320	2	C.R.S.	
324	COTTER FOR 323 & 329	8	S. STD.	3/8" x 3 1/2" LG.
325				
326	C.W. LEVER	2	C.S. 6490	ALT.
327	KEY FOR 326	2	S.	KEY LIST
328	SET SCREW FOR 326	2	S. HOLLOW	3/8" x 1 1/2" LG. CUP-POINT
329	PIN FOR 288 & 326	2	C.R.S.	
330				
331	C.W. JACK SHAFT	1	T.F.P.S.	AS SHOWN
332	C.W. JACK SHAFT	1	T.F.P.S.	OPP. SHOWN
333	COLLAR FOR 331 & 332	2	M.I. 4" SHAFT	L.B. STD. (SOLID)
334	C.W. JACK SHAFT BRG.	4	C.S. 11358	
335	BUSHING FOR 334	4	C.BZ. 8078	ALT. LENGTH
336	SCREW FOR 335	16	S. 1/2" x 3/4" LG.	NO NUT
337	BASE BOLT FOR 334	8	S.	T.B. LIST
338	BASE BOLT FOR 334	16	S.	T.B. LIST
339				
340	C.W. & E.W. CRANK SMT. BRG.	6	C.S. 8293	
341	BASE BOLT FOR 340	8	S.	T.B. LIST
342	SHIM FOR 340	36	S. 1 1/2" x 5" x 1/8"	1/2" x 5/8" x 1/2" - 1/8"
343	BASE BOLT FOR 340	16	S.	T.B. LIST
344	E.W. CRANK SHAFT	2	T.F.P.S.	SHORT
345	E.W. CRANK SHAFT	2	T.F.P.S.	LONG
346	COLLAR BRG. FOR 344 & 345	4	C.S. 4671	
347	BASE BOLT FOR 346	16	S.	T.B. LIST
348				
349	E.W. CRANK	4	C.S. 1154	ALT. HUB (LENGTH & CORE)
350	KEY FOR 349	4	S.	KEY LIST
351	SET SCREW FOR 349	4	S. HOLLOW	3/8" x 1 1/2" LG. CUP-POINT
352	E.W. CRANK PIN	4	C.S.	
353	COTTER PIN FOR 352	4	S. STD.	3/8" x 4" LG.
354				
355	E.W. EYE BAR	8	F.S.	R.H. THREADS
356	E.W. EYE BAR	8	F.S.	L.H. THREADS
357	SLEEVE NUT FOR 355, 356	12	F.S. HEX.	2 1/2" A.B. STYLE R.H. THDS.
358	NUT FOR 355 & 361	12	S. HEX.	2 1/2" R.H. AMER. STD. HVY.
359	NUT FOR 356 & 362	12	S. HEX.	2 1/2" L.H. AMER. STD. HVY.
360				
361	E.W. CONN. ROD	4	F.S.	R.H. THREADS
362	E.W. CONN. ROD	4	F.S.	L.H. THREADS
363	BUSHING FOR 362	4	BZ.	BUNTING # I-5738 MAKES 2
364	E.W. LEVER	4	C.S. 2685	ALT.
365	KEY FOR 364	2	S.	KEY LIST
366	E.W. LEVER	4	C.S.	NEW
367	KEY FOR 366	4	S.	KEY LIST
368	SET SCREW FOR 366	8	S. HOLLOW	3/8" x 1 1/2" LG. CUP-POINT
369	PIN FOR 356, 364, 361, 366	12	C.R.S.	
370	COTTER PIN FOR 369	24	S. STD.	3/8" x 3 1/2" LG.
371	KEY FOR 364	2	S.	KEY LIST
372	LUB. FITTING FOR 344, 345	18	1/2" PT.	ALEMITE # 1627-A

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

GENERAL NOTES
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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

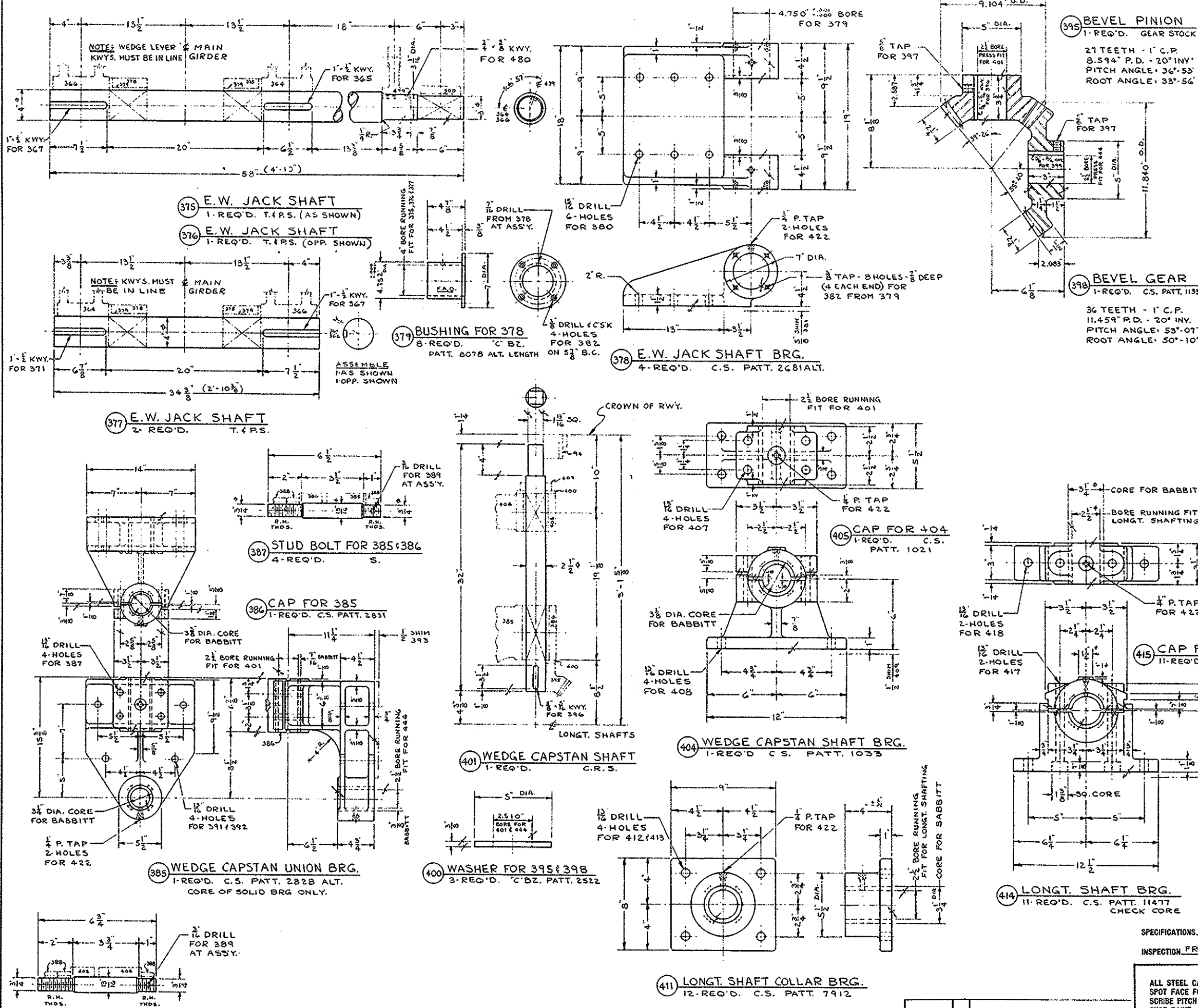
S.O. D-7935 CONTRACT 8-11907

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. 6-19-60 APPROVED BY: _____
CHECKED BY: G.P. 7-13-60 REV. APPROV.: _____
DATE: _____ REV. APPROV.: _____

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



PC.	NAME	QTY.	MTL.	PATT.	REMARKS
375	E.W. JACK SHAFT	1	T.F.R.S.		AS SHOWN
376	E.W. JACK SHAFT	1	T.F.R.S.		OPP. SHOWN
377	E.W. JACK SHAFT	2	T.F.R.S.		
378	E.W. JACK SH'T. BRG.	4	C.S.	2681	ALT.
379	BUSHING FOR 378	8	BZ.	8078	ALT. LENGTH
380	BASE BOLT FOR 378	24	S.		T.B. LIST
381	SHIM FOR 378	SET	S.	18" x 12" x 1/2" x 1/8" x 1/4" x 1/2"	
382	SCREW FOR 379	32	S.		3/8" x 1" LG. NO NUT
383					
384					
385	WEDGE CAPSTAN UN. BRG.	1	C.S.	2828	ALT. CORE (SOLID ONLY)
386	CAP FOR 385	1	C.S.	2831	
387	STUD BOLT FOR 385	4	S.		SEE DETAIL
388	NUT FOR 387 & 407	24	S.	HEX.	3/8" R.H. AMER. STD. HEAVY
389	COTTER PIN FOR 387	8	S.	STD.	3/16" x 2" LG.
390	LINER FOR 385 & 386	2	FIBER	6 3/4" x 1 1/2" x 1/4"	
391	BASE BOLT FOR 385	2	S.		T.B. LIST
392	BASE BOLT FOR 385	2	S.		T.B. LIST
393	SHIM FOR 385	SET	S.	12" x 14" x 1/2" x 1/8" x 1/4" x 1/2"	
394					
395	BEVEL PINION	1	GEAR STOCK		
396	KEY FOR 395	1	S.		KEY LIST
397	SET SCREW FOR 395	2	S.	HOLLOW	3/8" x 1" LG. CUP POINT
398	BEVEL GEAR	1	C.S.	11355	
399	KEY FOR 398	1	S.		KEY LIST
400	WASHER FOR 395 & 398	3	BZ.	2522	
401	WEDGE CAPSTAN SH'T.	1	C.R.S.		
402	COLLAR FOR 401	1	S.	2 1/2" SWFT	L.B. STD. (SOLID)
403					
404	W. CAPSTAN SH'T. BRG.	1	C.S.	1033	
405	CAP FOR 404	1	C.S.	1021	
406	LINER FOR 404 & 405	2	FIBER	5" x 1 1/2" x 1/4"	
407	STUD BOLT FOR 405	4	S.		SEE DETAIL
408	BASE BOLT FOR 404	4	S.		T.B. LIST
409	SHIM FOR 404	SET	S.	12" x 5 1/2" x 1/2" x 1/8" x 1/4" x 1/2"	
410					
411	LONGT. SH'T. COLLAR BRG.	12	C.S.	7912	
412	BASE BOLT FOR 411	44	S.		T.B. LIST
413	BASE BOLT FOR 411	4	S.		T.B. LIST
414	LONGT. SHAFT BRG.	11	C.S.	11477	CHECK CORE
415	CAP FOR 414	11	C.S.	9858	CHECK CORE
416	LINER FOR 414 & 415	22	FIBER	3/4" x 2" x 1/4"	
417	CAP BOLT FOR 414	22	S.		T.B. LIST
418	BASE BOLT FOR 414	22	S.		T.B. LIST
419	SHIM FOR 414	SET	S.	12" x 3" x 1/2" x 1/8" x 1/4" x 1/2"	
420					
421					
422	LUB. FITTING FOR 414	34		1/2" PT.	ALEMITE #1627 A

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

GENERAL NOTES
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SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
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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

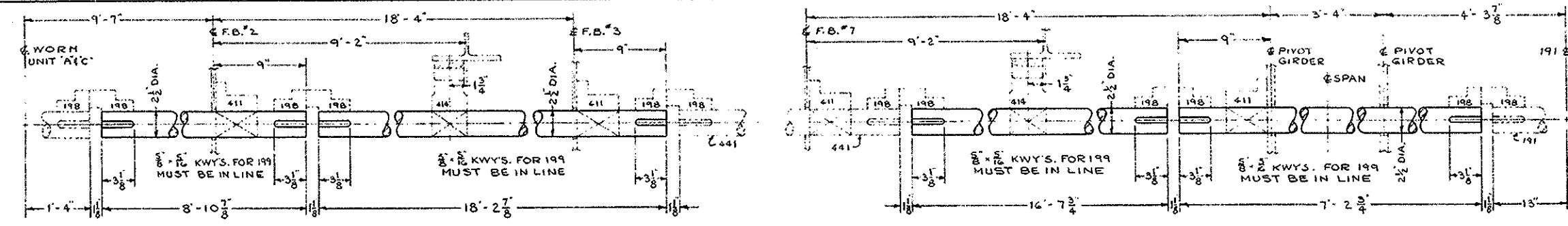
WEDGE MACHINERY
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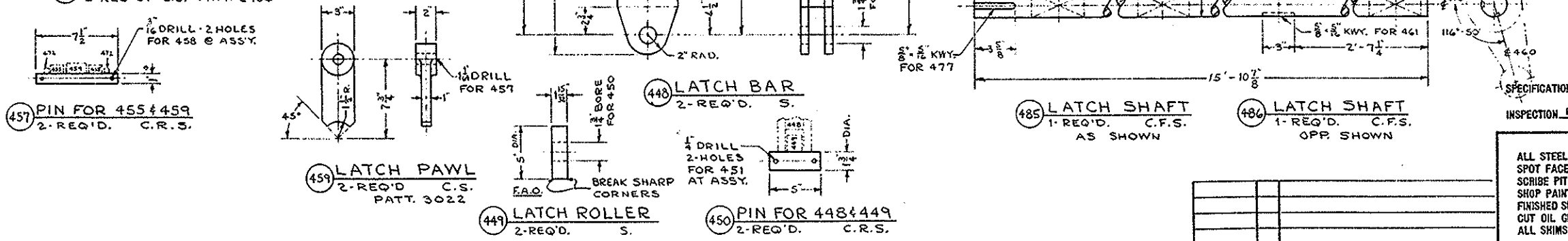
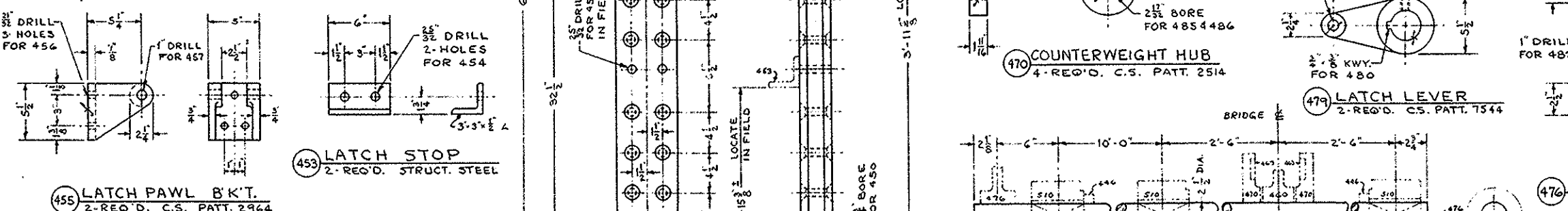
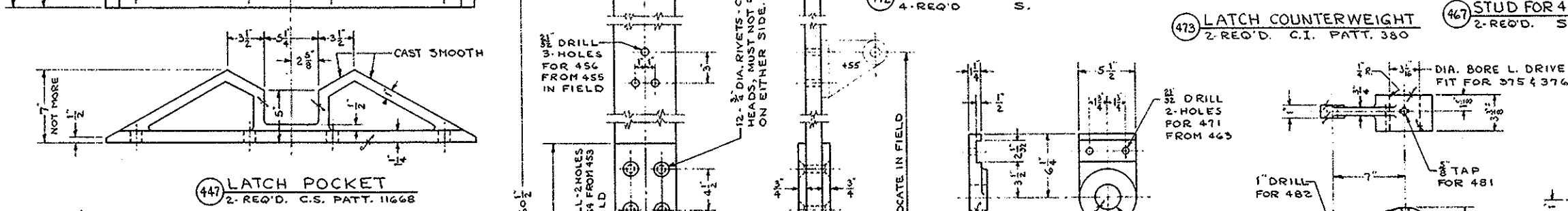
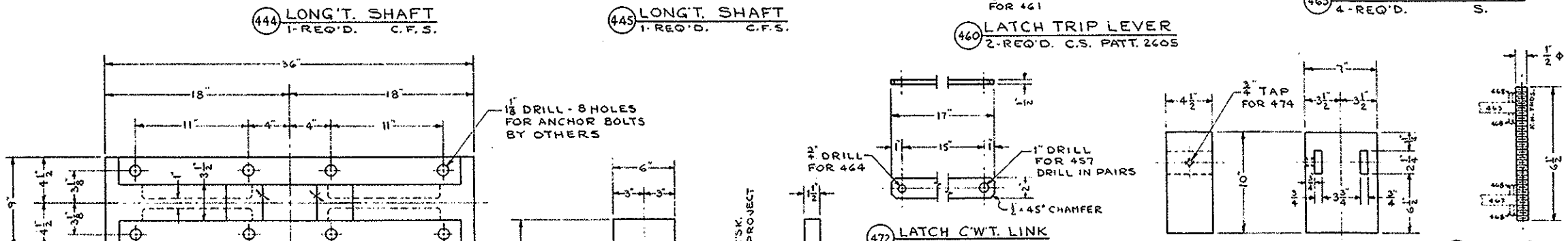
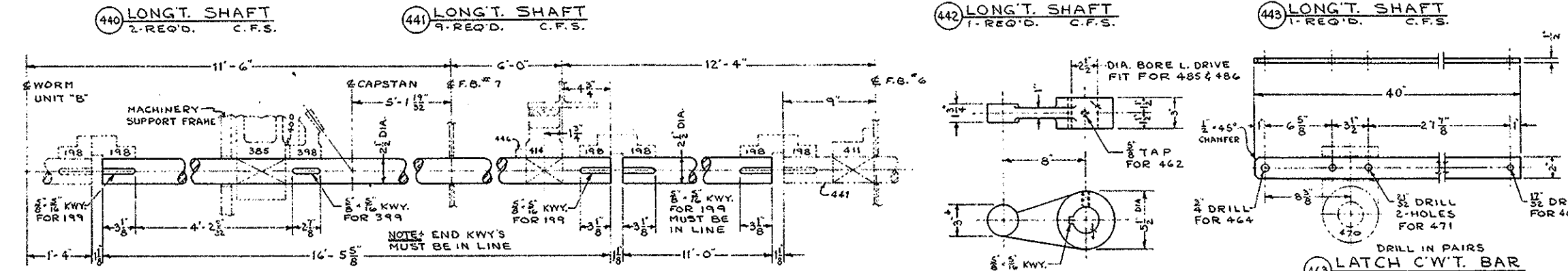
DRAWN BY: A.J.C. 4-21-60 APPROVED BY: _____
CHECKED BY: R.P. 8-2-60 REV. APPROV: _____
DATE: _____ REV. APPROV: _____

SHEET 7 OF 11 DWG. NO. 6857E-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 & 445	5	S.	2 1/2" SWMT	L.B. STD. (SOLID)
447	LATCH POCKET	2	C.S.	11268	
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.	1/2" φ × 2 1/2" LG.
452					
453	LATCH STOP	2	STRUCT. STEEL		
454	BOLT FOR 453	4	S.	HEX. HD. MACH.	3/4" φ × 5" LG. 1/4" N. & L.W.
455	LATCH PAWL B'R.K.	2	C.S.	2964	
456	BOLT FOR 455	4	S.	HEX. HD. MACH.	5/8" φ × 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.	3/8" φ × 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" φ × 1 1/2" LG. CUP. POINT
463	LATCH C'WT. BAR	4	S.		
464	PIN FOR 463 & 472	2	C.R.S.		
465	COTTER PIN FOR 464	4	S.	STD.	3/8" φ × 1 1/2" LG.
466	SPACER FOR 464	2	S.	STD.	3/4" PIPE × 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.	3/8" φ × 2 1/2" LG. 1/4" N. & L.W.
472	LATCH C'WT. LINK	4	S.		
473	LATCH C'WEIGHT	2	C.I.	380	
474	SET SCREW FOR 473	2	S.	HOLLOW	3/4" φ × 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" φ × 1 1/2" 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" φ × 1 1/2" LG. CUP. POINT
482	PIN FOR 476, 479 & 519	4	C.R.S.		
483	COTTER PIN FOR 482	8	S.	STD.	3/8" φ × 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					



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

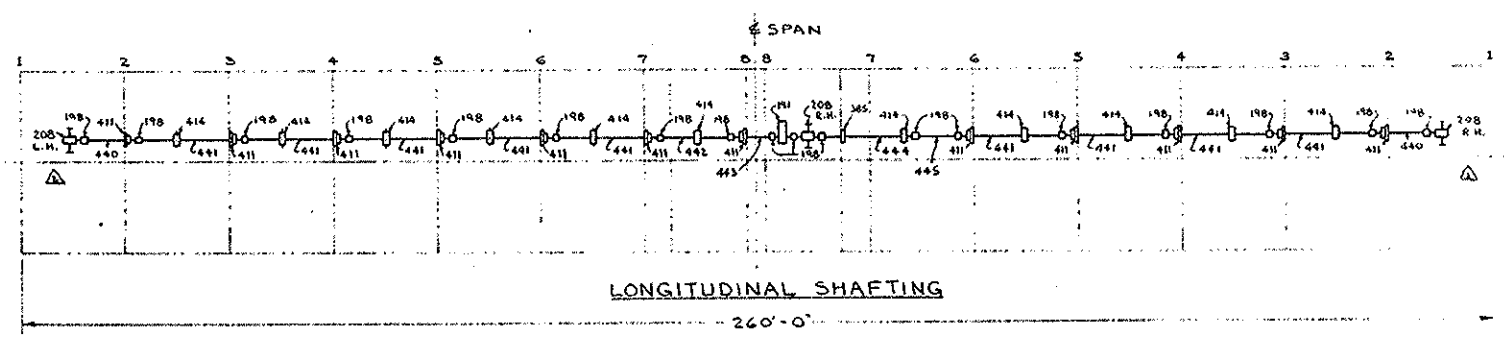
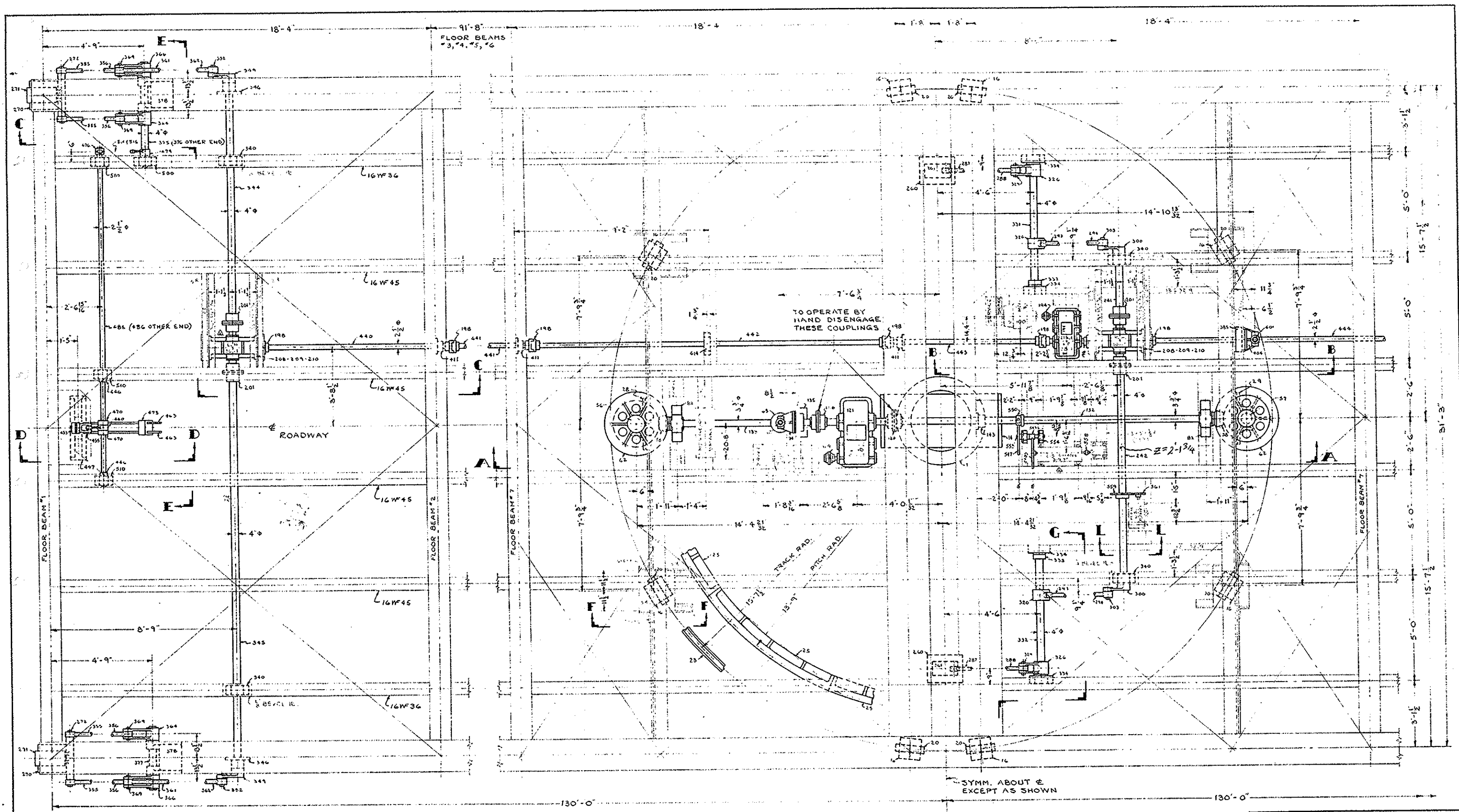
S.O. D-7935 CONTRACT 8.11907

LATCH & LONG T. SHAFTING
ALLIGATOR RIVER SWING SPAN
OVER ALLIGATOR RIVER
TYRELL-DARE COUNTY, N.C.

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

DATE: 5.17.50
SHEET 8 OF 11 DWG. NO. 6858E-30

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—
 FINISHED SURFACES COATED—
 CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
 ALL SHIMS TO BE DRILLED

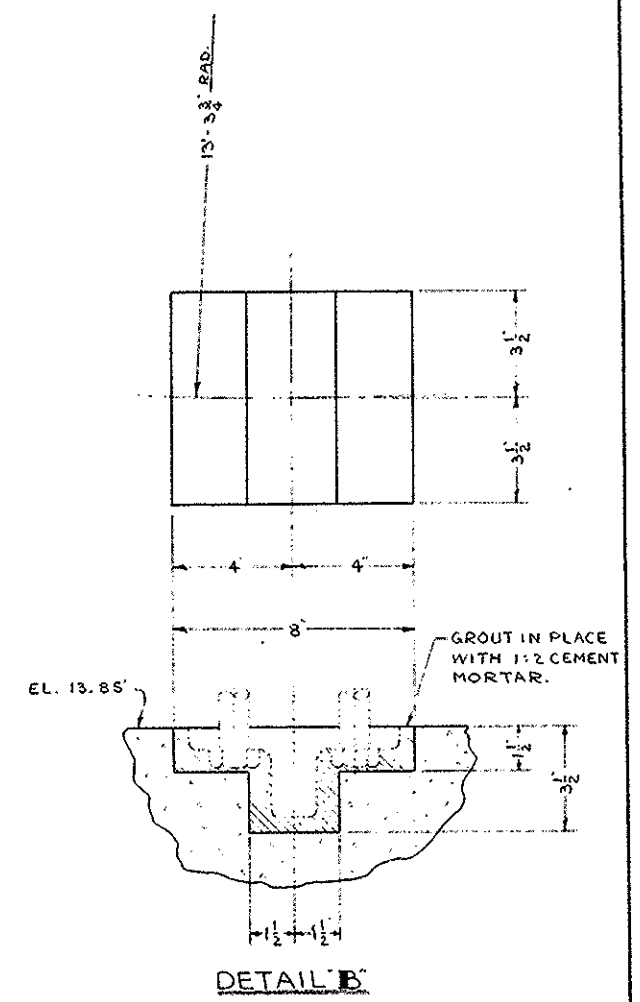
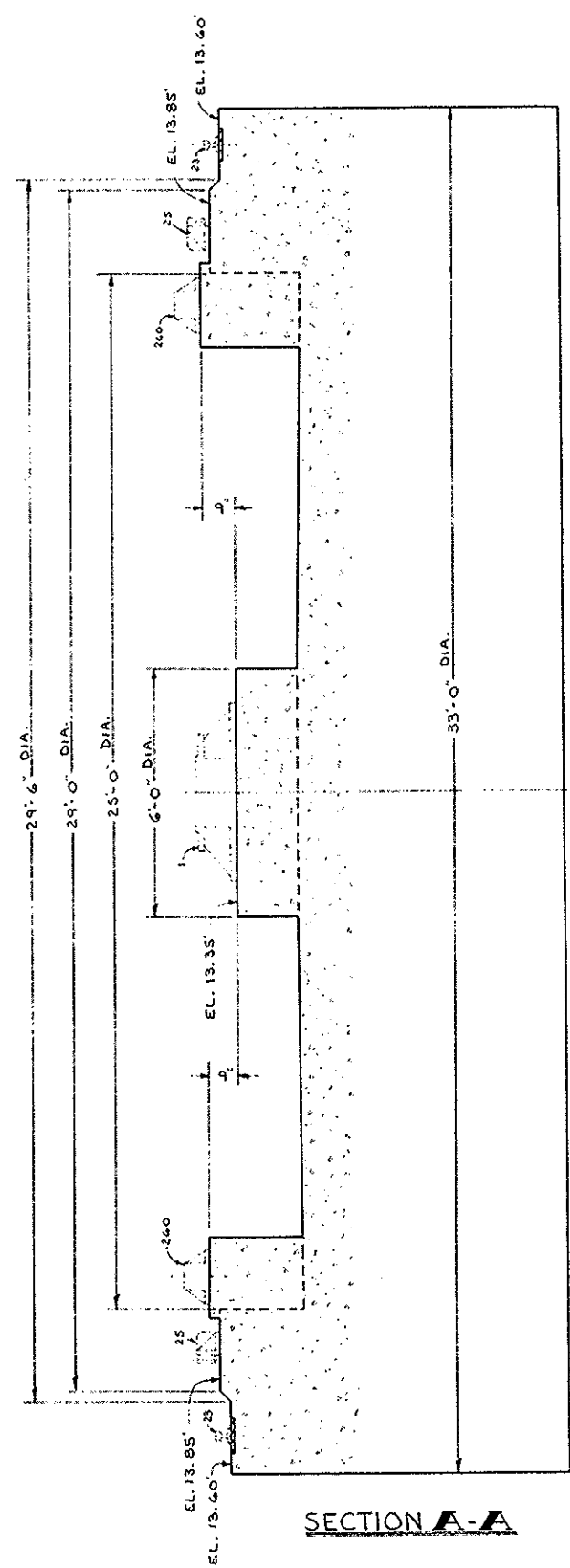
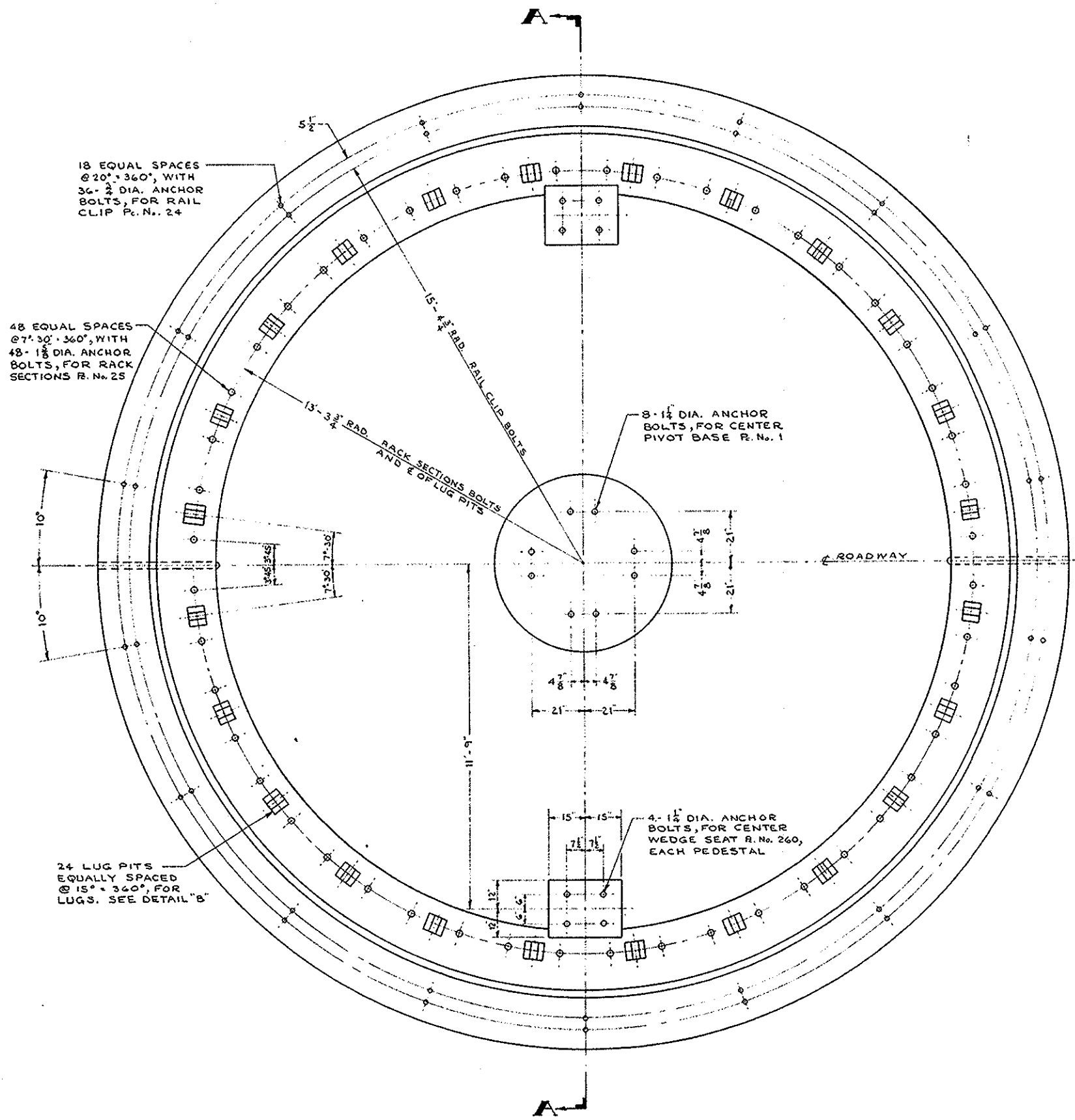
NO.	DATE	BY	REVISIONS
2-1-61	AJC	RELOCATED R.H. C.L.H. WORM UNITS	
3-1-60	AK	LOCATED WEDGE LIMIT SWITCH	

S.O. D-7935 CONTRACT B.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 S.B. 2-23-60 REV. APPROV.
 DATE REV. APPROV.
 SHEET 10 OF 11 DWG. NO. 6860 E-30



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—
 FINISHED SURFACES COATED—
 CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
 ALL SHIMS TO BE DRILLED

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. 9-26-60 APPROVED BY: _____
 CHECKED BY: J.W. 8-26-60 REV. APPROV: _____
 DATE: _____ REV. APPROV: _____

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