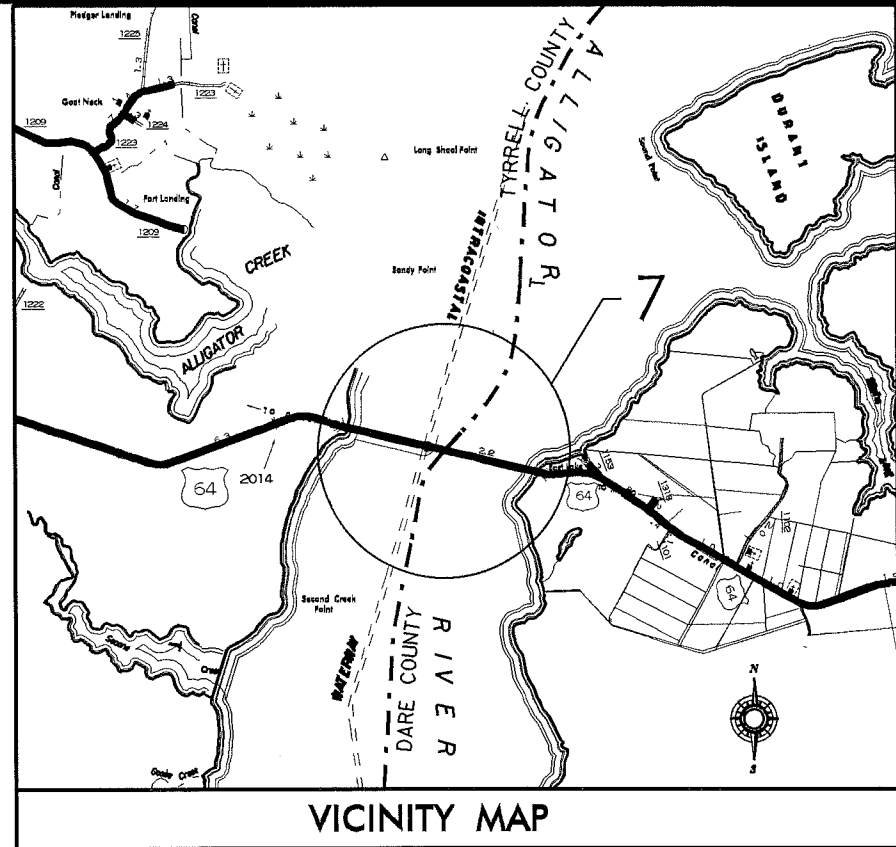


PROJECT: 15B.13.24

CONTRACT: DA00143



VICINITY MAP



END BENT #1

TO COLUMBIA

TO MANTEO

END BENT #2

| INDEX OF SHEETS | |
|-----------------|--------------------------|
| 1 | TITLE SHEET |
| S1 THRU S4 | STRUCTURE SHEETS |
| TMP1 THRU TMP-8 | TRAFFIC MANAGEMENT PLANS |

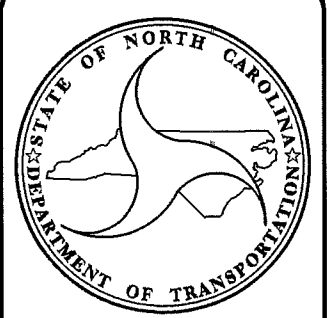
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TYRRELL COUNTY

LOCATION: BRIDGE #7, ON US 64, OVER THE ALLIGATOR RIVER.

TYPE OF WORK: MECHANICAL AND STRUCTURAL REPAIRS AND METAL JOINT REPLACEMENT

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | 15B.13.24 | 1 | 13 |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| | | | |
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DESIGN DATA
TYRELL #7 ADT 2011 = 3200

PROJECT LENGTH
BRIDGE TYRELL #7 = .05 MILE

Prepared in the Office of:
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
1000 BIRCH RIDGE DR. RALEIGH, N.C. 27610
RICK NELSON, P.E.
2012 STANDARD SPECIFICATIONS
LETTING DATE:
JANUARY 16, 2013

DANIEL MULLER, P.E.
PROJECT DESIGN ENGINEER
1/8/2013

GENERAL NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

SWING SPAN IS TO BE JACKED IN THE OPEN POSITION. SEE THE SPECIAL PROVISIONS FOR JACKING AND SECURING OF SWING SPAN.

THE CONTRACTOR IS REQUIRED TO MAINTAIN PROPER BALANCE OF THE SWING SPAN AS TO ENSURE SAFE AND PROPER OPERATION.

FOR U.S. COAST GUARD NOTIFICATION, SEE SPECIAL PROVISION FOR "COORDINATION WITH THE U.S. COAST GUARD".

FOR SECURING OF VESSELS, SEE SPECIAL PROVISIONS.

FOR NAVIGATIONAL LIGHTS, SEE SPECIAL PROVISIONS.

FOR WORK IN THE NAVIGABLE WATERWAY, SEE SPECIAL PROVISIONS.

FOR REPLACEMENT OF CENTER PIVOT ASSEMBLY, SEE SPECIAL PROVISIONS.

FOR REPLACEMENT OF BALANCE WHEEL ASSEMBLIES, SEE SPECIAL PROVISIONS.

FOR ADJUSTMENT OF WEDGES AND WEDGE GUIDES, SEE SPECIAL PROVISIONS.

FOR REMOVAL AND REPOSITIONING OF RACK SEGMENTS, SEE SPECIAL PROVISIONS.

FOR REPAIRS AND REALIGNMENT OF RACK AND PINION, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE OF JAW COUPLERS, SEE SPECIAL PROVISIONS.

FOR TEST OPENING REQUIREMENTS, SEE SPECIAL PROVISIONS.

FOR REQUIREMENTS OF DEMOLITION AND REMOVAL OF EXISTING METAL JOINT HARDWARE AND ADJACENT DECK CONCRETE SEE THE SPECIAL PROVISION ENTITLED "PARTIAL REMOVAL OF EXISTING STRUCTURE".

REMOVAL OF PORTIONS OF THE STRUCTURE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL CONDUCT DEMOLITION AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

FOR "SUBMITTAL OF WORKING DRAWINGS", SEE SPECIAL PROVISIONS.

FOR "FALSEWORK AND FORMWORK", SEE SPECIAL PROVISIONS.

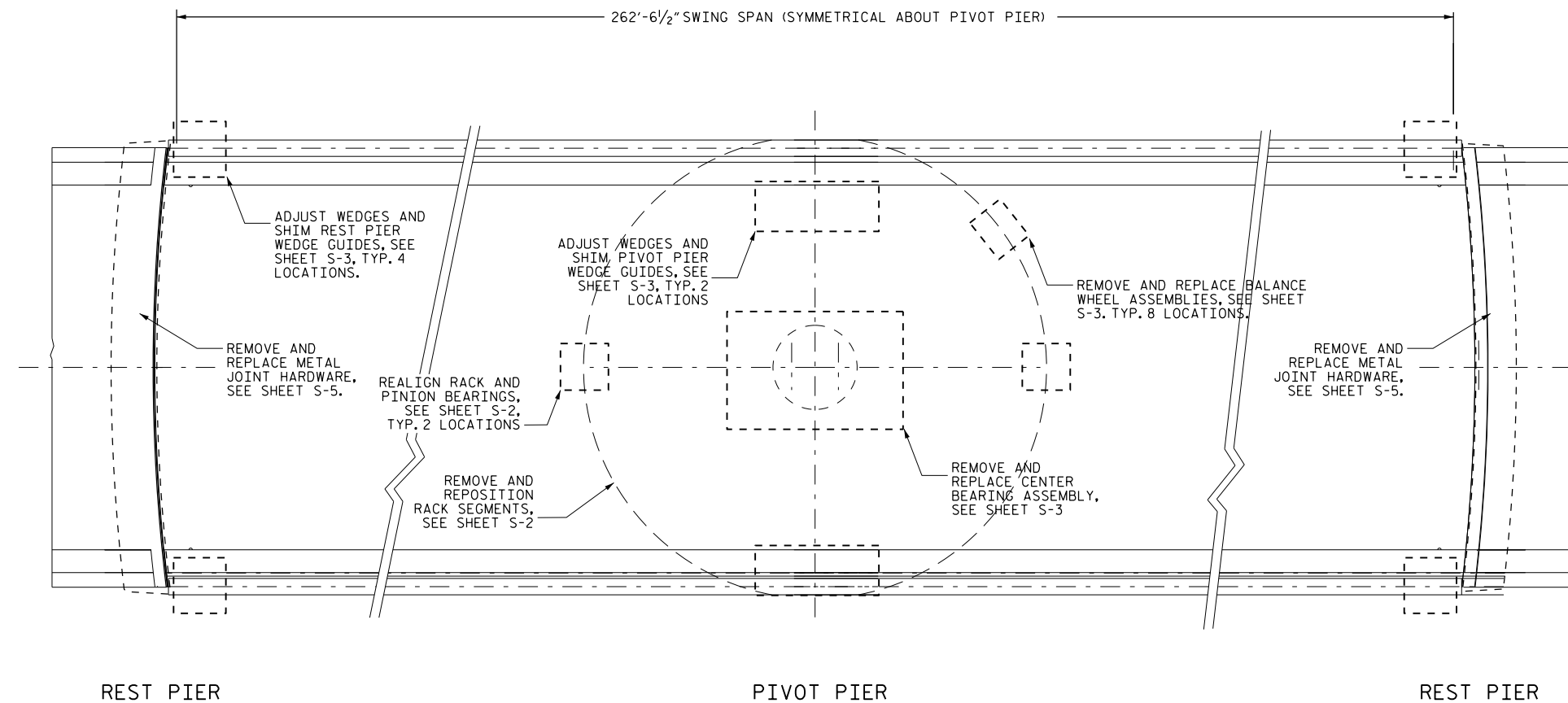
FOR "CRANE SAFETY", SEE SPECIAL PROVISIONS.

FOR "GROUT FOR STRUCTURES", SEE SPECIAL PROVISIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

FOR THE CONTRACTOR'S CONVENIENCE, AS BUILT BRIDGE PLANS AND THE ORIGINAL MACHINERY SHOP DRAWINGS ARE INCLUDED.

STRUCTURAL STEEL PAY ITEM IS INCLUDED TO COVER THE COST OF FURNISHING AND INSTALLING NEW METAL JOINTS, SEE THE STANDARD SPECIFICATIONS.



SCOPE OF WORK:

1. REMOVE AND REPLACE THE CENTER PIVOT ASSEMBLY.
2. REMOVE AND REPLACE THE BALANCE WHEELS AND BALANCE WHEEL SHAFTS.
3. ADJUST WEDGES AND SHIM AND ALIGN THE WEDGE GUIDES AT THE PIVOT PIER AND REST PIERS.
4. REMOVE AND REPOSITION THE RACK SEGMENTS.
5. REPLACE THE BOLTS, BUSHINGS AND REALIGN THE RACK AND PINION BEARINGS.
6. PERFORM REQUIRED MAINTENANCE AT JAW COUPLING ALONG WEDGE DRIVE LONGITUDINAL SHAFTS.
7. REMOVE AND REPLACE BOTH JOINTS AT EACH END OF THE SWING SPAN.

SEQUENCE OF CONSTRUCTION:

1. CLOSE THE BRIDGE TO VEHICULAR TRAFFIC PER THE TRAFFIC MANAGEMENT PLANS.
2. FULLY OPEN THE SWING SPAN.
3. JACK THE SWING SPAN AND SECURE IT TO THE FENDER SYSTEM IN ACCORDANCE WITH THE PREVIOUSLY APPROVED SUBMITTALS.
4. REMOVE THE CENTER BEARING ASSEMBLY, THE BALANCE WHEELS, BALANCE WHEEL SHAFTS, RACK SEGMENTS AND REMOVE METAL JOINTS AT EACH END OF SWING SPAN.
5. INSTALL THE REPLACEMENT CENTER BEARING ASSEMBLY.
6. INSTALL THE REPLACEMENT BALANCE WHEEL ASSEMBLIES.
7. REPOSITION THE RACK SEGMENTS AND SET TO RACK TO LEVEL. INSTALL NEW BOLTS AT RACK PINION BEARINGS.
8. INSTALL NEW METAL JOINTS AT ENDS OF SWING SPAN AND REPAIR ADJACENT BRIDGE DECK.

9. PERFORM JAW COUPLING MAINTENANCE.

10. VERIFY AND ADJUST INITIAL BALANCE WHEEL CLEARANCES AND RACK AND RACK PINION ALIGNMENT.
11. LOWER THE SWING SPAN.
12. CLOSE THE SPAN.
13. SHIM AND ALIGN PIVOT PIER WEDGES.
14. SHIM AND ALIGN REST PIER WEDGES.
15. SHIM AND ALIGN THE RACK, RACK PINION, AND RACK AND PINION BEARINGS. REPLACE BUSHINGS AT THE RACK AND PINION BEARINGS.
16. PROVIDE 12 TEST OPENINGS AND PERFORM NECESSARY SHIMMING AND ALIGNMENT ADJUSTMENTS. FINAL TEST OPENING SHALL REQUIRE NO ADJUSTMENTS.
17. GROUT REPOSITIONED RACK IN PLACE AND VERIFY NO MOVEMENT IN RACK.

PROJECT NO. 15B.13.24

TYRELL COUNTY

BRIDGE #: 7

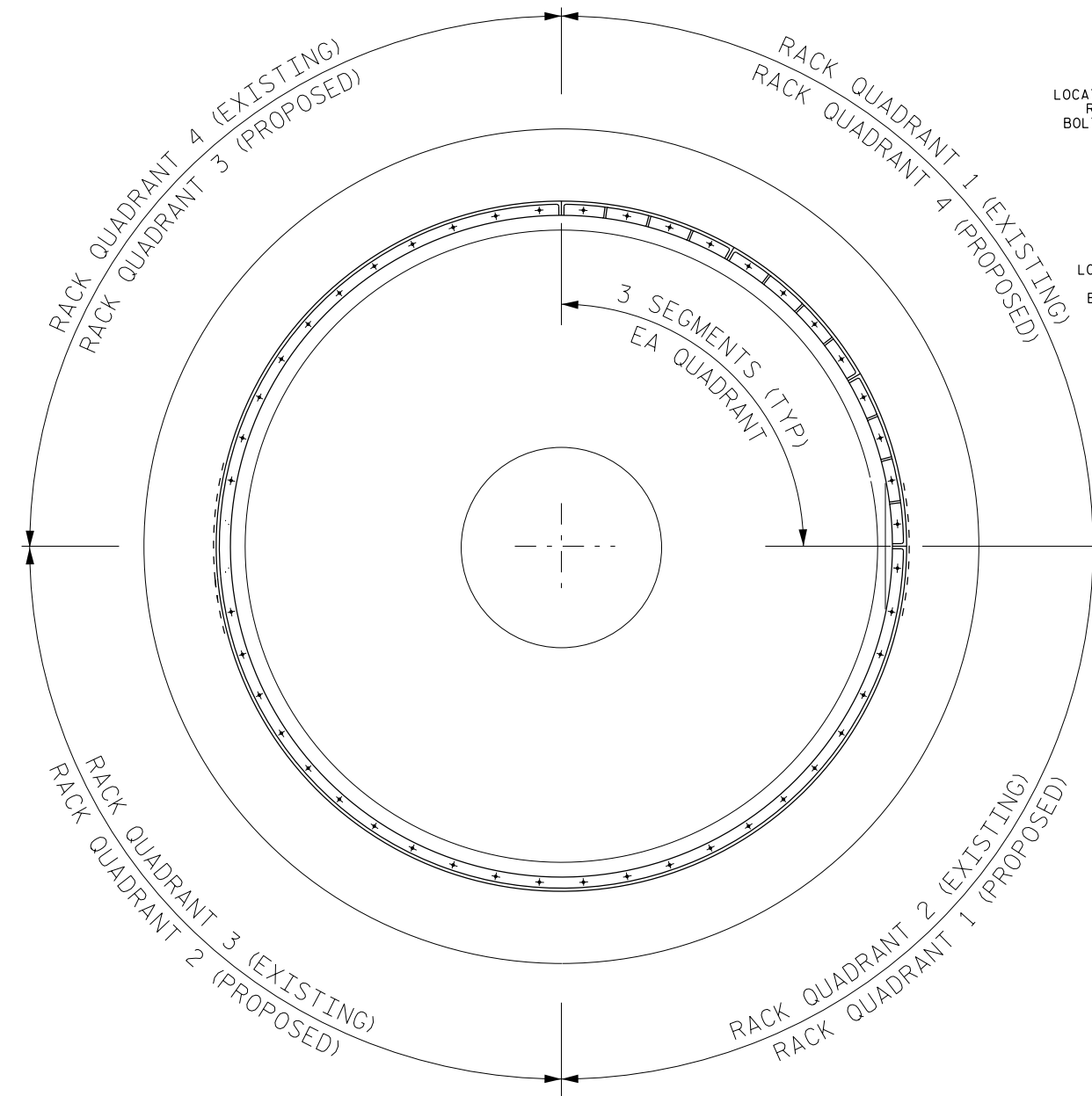
SHEET OF

| TOTAL BILL OF MATERIAL | | | | | | | | | |
|------------------------------------|--|---|---------------------------------------|--|--|-----------------------------|---------------------------------------|--------------------------|-----------------------------------|
| JACKING AND SECURING OF SWING SPAN | REMOVE AND REPLACE CENTER BEARING ASSEMBLY | REMOVE AND REPLACE BALANCE WHEEL ASSEMBLIES | ADJUSTMENT OF WEDGES AND WEDGE GUIDES | REMOVAL AND REPOSITIONING OF RACK SEGMENTS | REPAIR AND REALIGNMENT OF RACK AND PINION BEARINGS | MAINTENANCE OF JAW COUPLERS | PARTIAL REMOVAL OF EXISTING STRUCTURE | CONCRETE FOR DECK REPAIR | APPROX. 4420 LBS STRUCTURAL STEEL |
| LUMP SUM | LUMP SUM | LUMP SUM | LUMP SUM | LUMP SUM | LUMP SUM | EA | LUMP SUM | C.Y. | LUMP SUM |
| LUMP SUM | LUMP SUM | LUMP SUM | LUMP SUM | LUMP SUM | LUMP SUM | 18 | LUMP SUM | 4.8 | LUMP SUM |

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 GENERAL NOTES
 SCOPE OF WORK

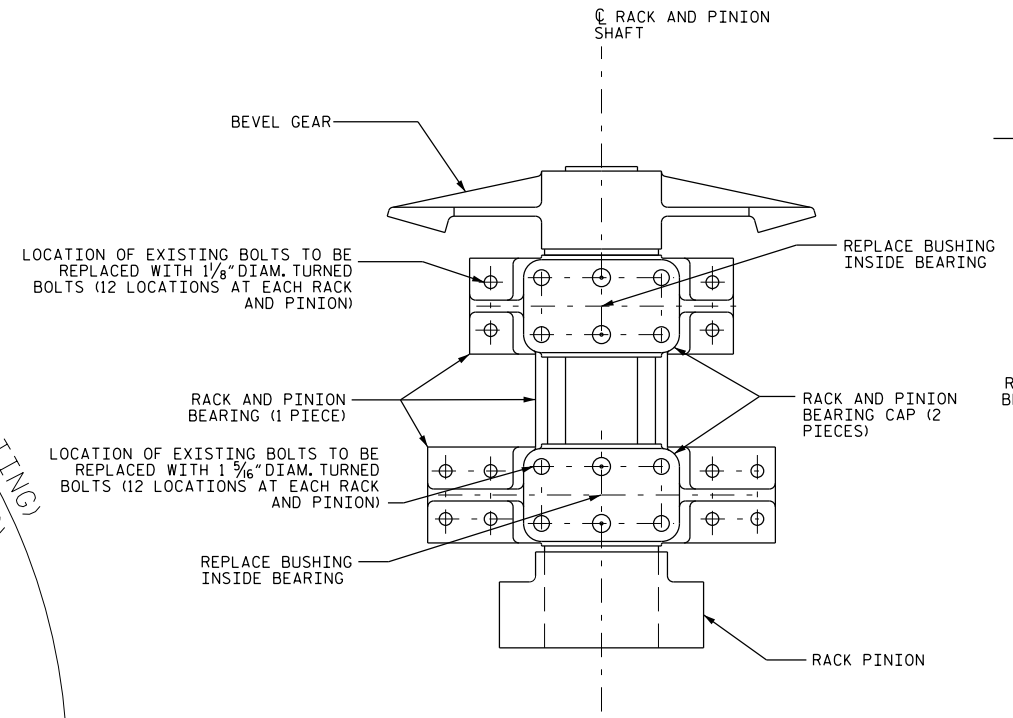
DRAWN BY : D. MULLER DATE : 11/12
 CHECKED BY : E. NELSON DATE : 11/12
 DESIGN ENGINEER OF RECORD: D. MULLER DATE : 11/12

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-1 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 5 |

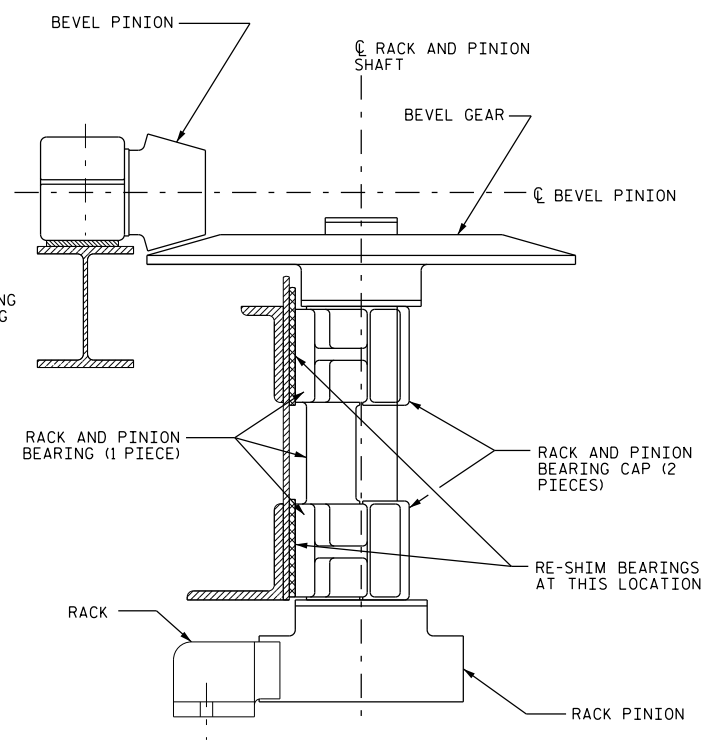


PLAN FOR REPOSITION OF RACK

NOTES:
 SET RACK LEVEL PRIOR TO ADJUSTMENT OF WEDGES AND RACK AND PINION BEARINGS.



ELEVATION



SECTION

REPAIR & REALIGNMENT OF RACK AND PINION

NOTES:
 SHIM BEARINGS SO THAT CONTACT BETWEEN GEAR AND PINION TEETH IS NO LESS THAN 60% OF FULL FACE CONTACT.
 SHIM BEARINGS SUCH THAT ANGLE BETWEEN &Circ; OF BEVEL PINION SHAFT AND RACK AND RACK AND PINION SHAFT IS 90 DEGREES.

PROJECT NO. 15B.13.24
TYRELL COUNTY
 BRIDGE #: 7

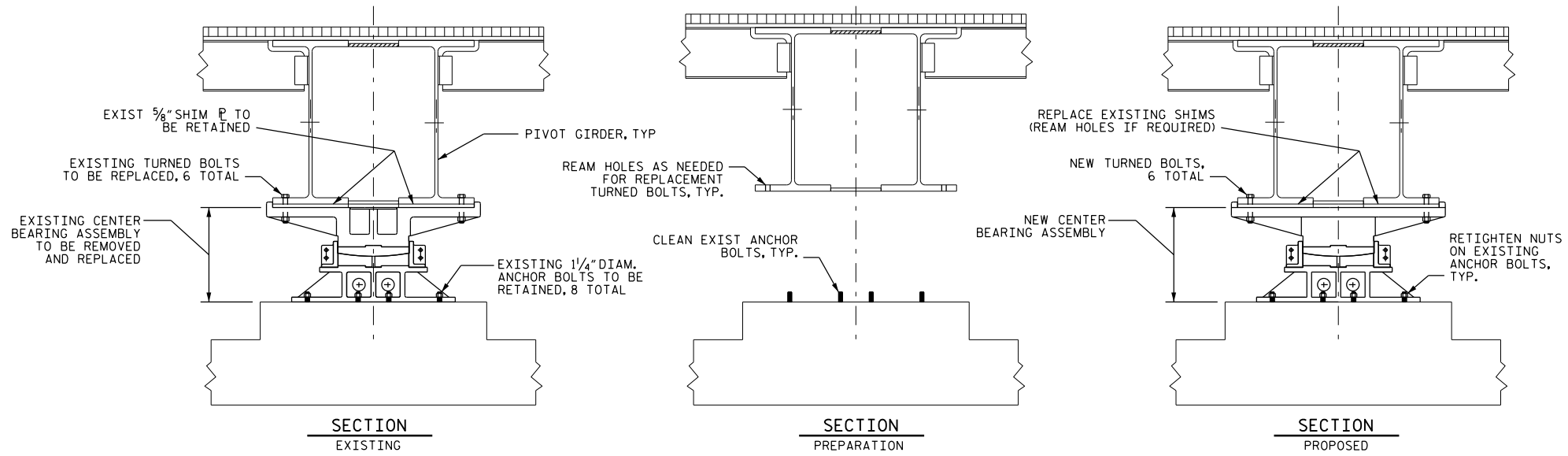
SHEET OF

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PIVOT PIER
 PLAN AND SECTION

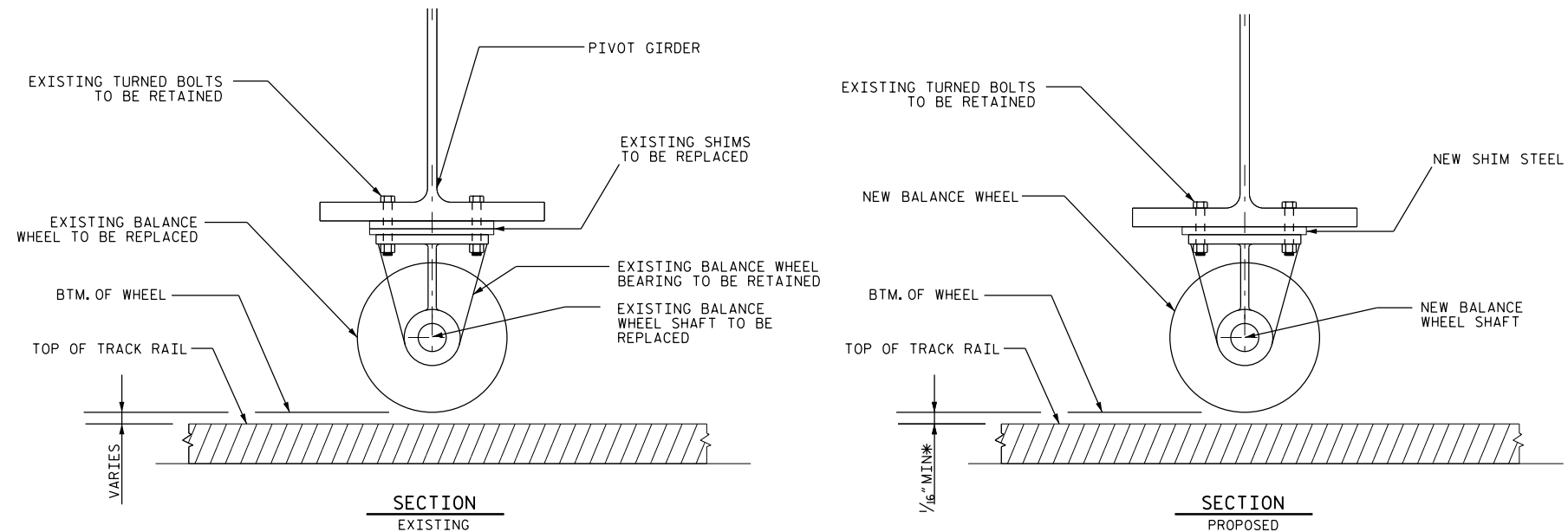
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|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-2 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 5 |

DRAWN BY : _____ DATE : - -
 CHECKED BY : _____ DATE : - -
 DESIGN ENGINEER OF RECORD: _____ DATE : - -



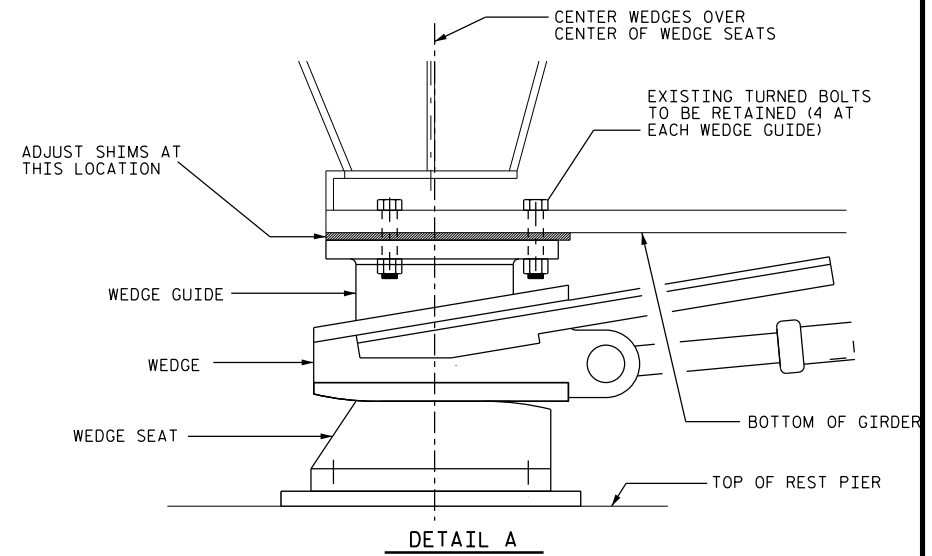
CENTER BEARING REPLACEMENT

NOTES:
 LUBRICATION AND GASKETS TO BE INSTALLED PRIOR TO OPERATION OF BRIDGE
 CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING ANCHOR BOLTS DURING REMOVAL.
 FIELD PAINT THE REPLACEMENT BEARING ASSEMBLY IN ACCORDANCE WITH THE SPECIAL PROVISION.

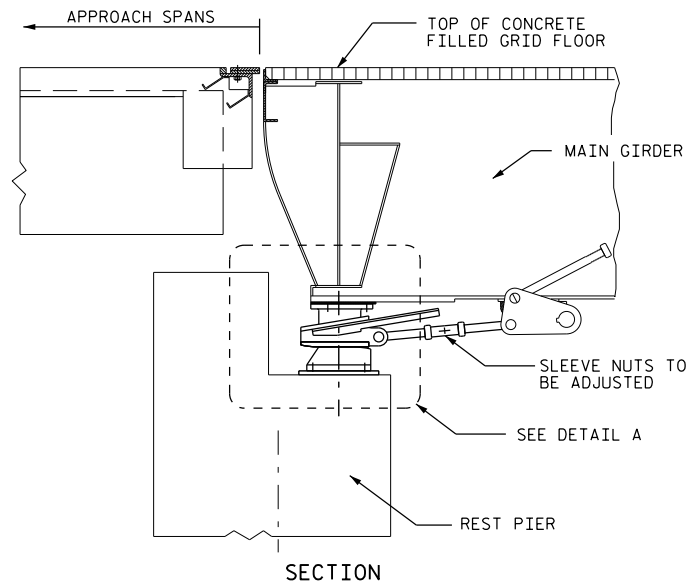


BALANCE WHEEL ASSEMBLY REPLACEMENT

NOTES:
 EXISTING AND REPLACEMENT SET SCREWS NOT SHOWN FOR CLARITY, SET SCREW SHALL BE INSTALLED PRIOR TO OPERATION OF BRIDGE.
 FIELD PAINT THE REPLACEMENT BALANCE WHEELS AND ENDS OF SHAFTS IN ACCORDANCE WITH THE SPECIAL PROVISION.



DETAIL A



WEDGE GUIDE ADJUSTMENT DETAIL

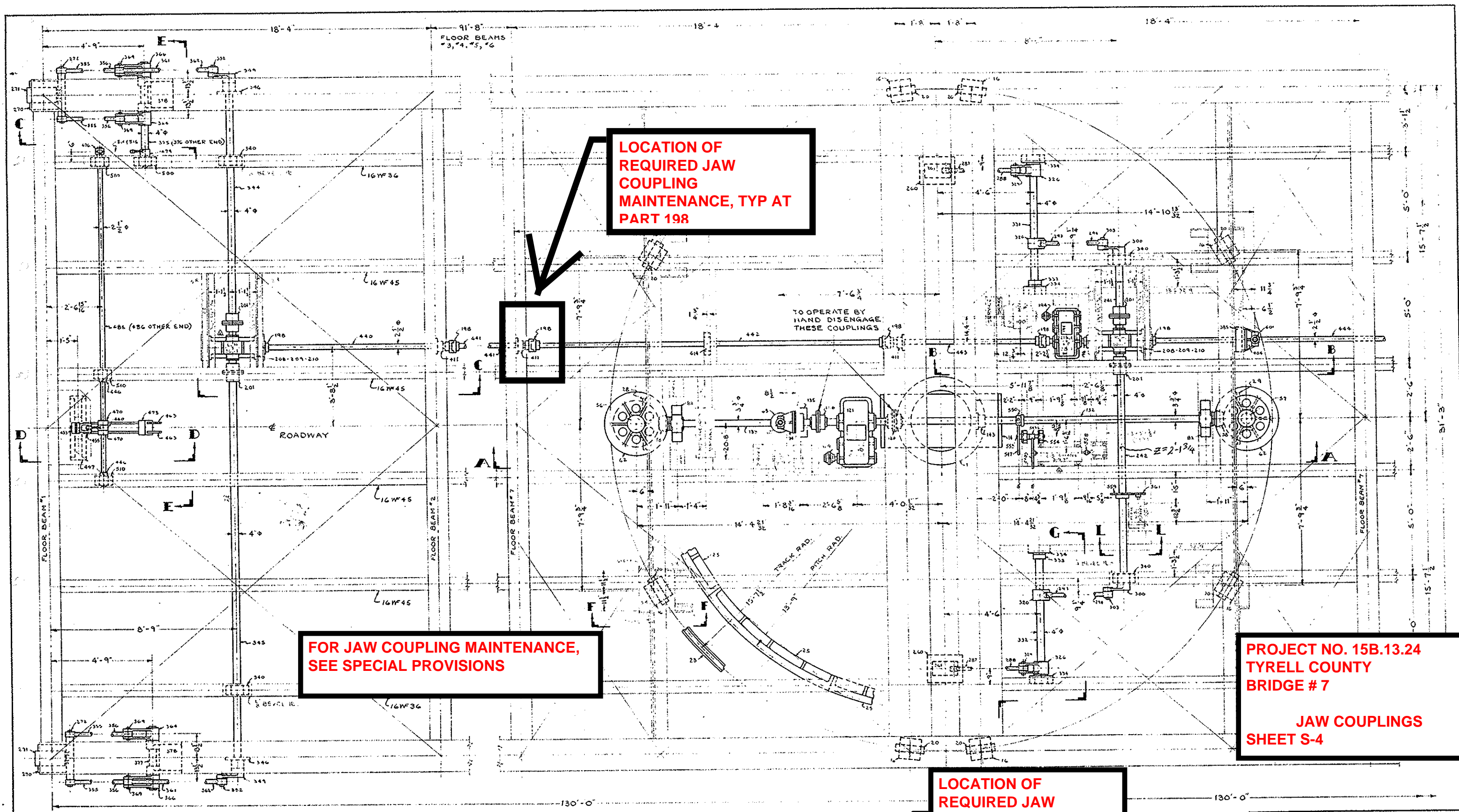
REST PIER SHOWN, PIVOT PIER SIMILAR
 NOTES:
 WEDGE GUIDES AT REST PIERS SHALL BE SHIMMED SO THAT DRIVING OF THE WEDGES LIFTS GIRDERS ENDS NO LESS THAN 1/4".
 WEDGE GUIDES AT PIVOT PIER SHALL BE SHIMMED TO THAT DRIVEN WEDGES ARE IN FIRM CONTACT WITH BOTTOM OF GIRDERS BUT DO NOT RAISE THE GIRDERS.
 THE EXISTING CONDITION OF THE SLEEVE NUTS IS SUCH THAT STATE MAINTENANCE FORCES HAVE BEEN UNABLE TO TURN THE NUTS.

PROJECT NO. 15B.13.24
TYRELL COUNTY
 BRIDGE #: 7

SHEET OF

| | | | | | | |
|------------------------------|-----|-------|-----|-----|-------|--------------|
| STATE OF NORTH CAROLINA | | | | | | SHEET NO. |
| DEPARTMENT OF TRANSPORTATION | | | | | | |
| RALEIGH | | | | | | TOTAL SHEETS |
| DETAILS | | | | | | |
| REVISIONS | | | | | | NO. |
| NO. | BY: | DATE: | NO. | BY: | DATE: | |
| 1 | | | 3 | | | 5 |
| 2 | | | 4 | | | |

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| DRAWN BY : | - | DATE : | - |
| CHECKED BY : | - | DATE : | - |
| DESIGN ENGINEER OF RECORD : | - | DATE : | - |



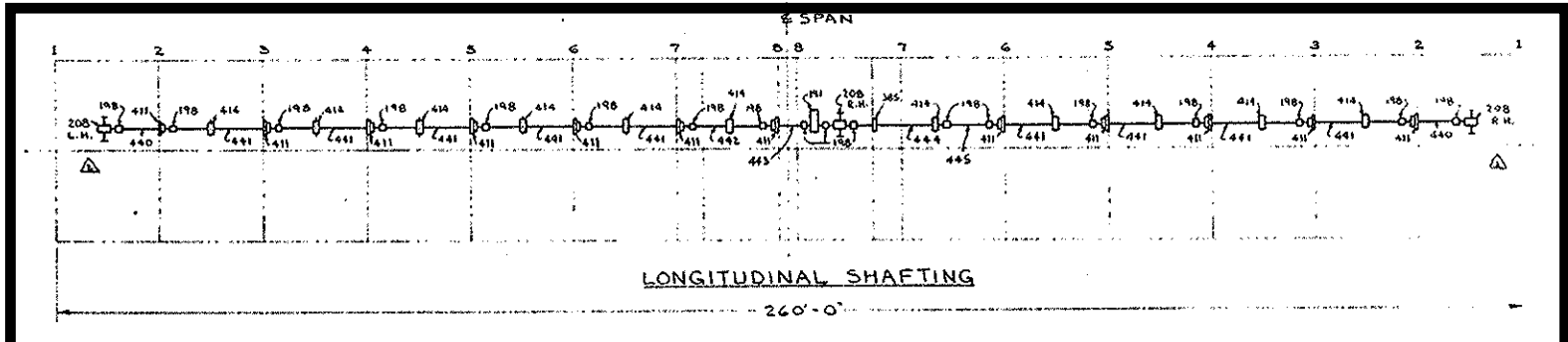
**LOCATION OF
REQUIRED JAW
COUPLING
MAINTENANCE, TYP AT
PART 198**

**FOR JAW COUPLING MAINTENANCE,
SEE SPECIAL PROVISIONS**

**PROJECT NO. 15B.13.24
TYRELL COUNTY
BRIDGE # 7

JAW COUPLINGS
SHEET S-4**

**LOCATION OF
REQUIRED JAW
COUPLING
MAINTENANCE, TYP AT
PART 198**



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 | DESCRIPTION |
|--------|------|----------------------------------|-------------|
| 2-1-61 | AJC | RELOCATED R.H. C.L.H. WORM UNITS | |
| 3-1-60 | AK | LOCATED WEDGE LIMIT SWITCH | |

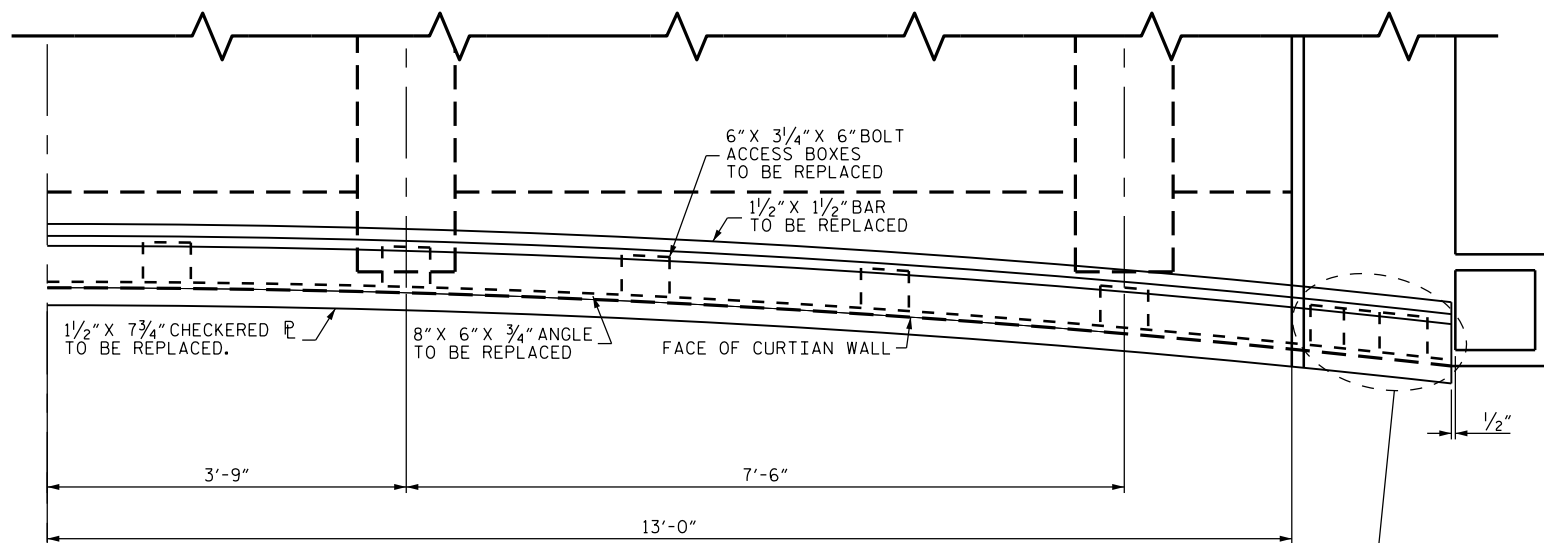
S. D. 7925 CONTRACT 8.11907

MACHINERY ASSEMBLY
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.

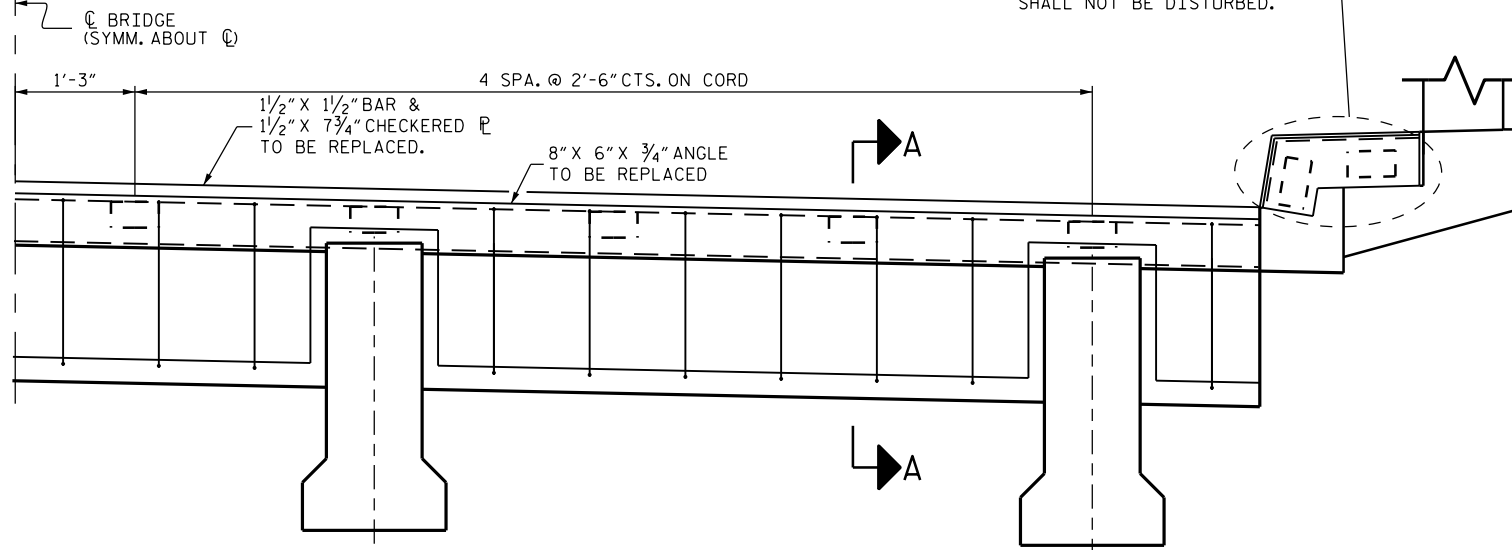
INSPECTION PROENLING & ROBERTSON, INC.

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

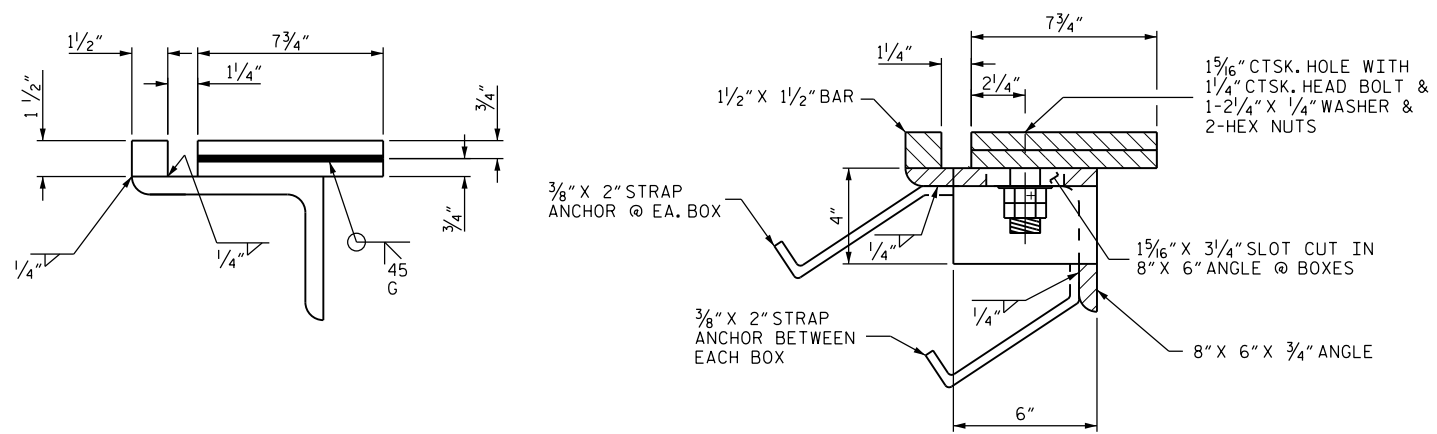


PLAN - SHOWING EXP. PLATE

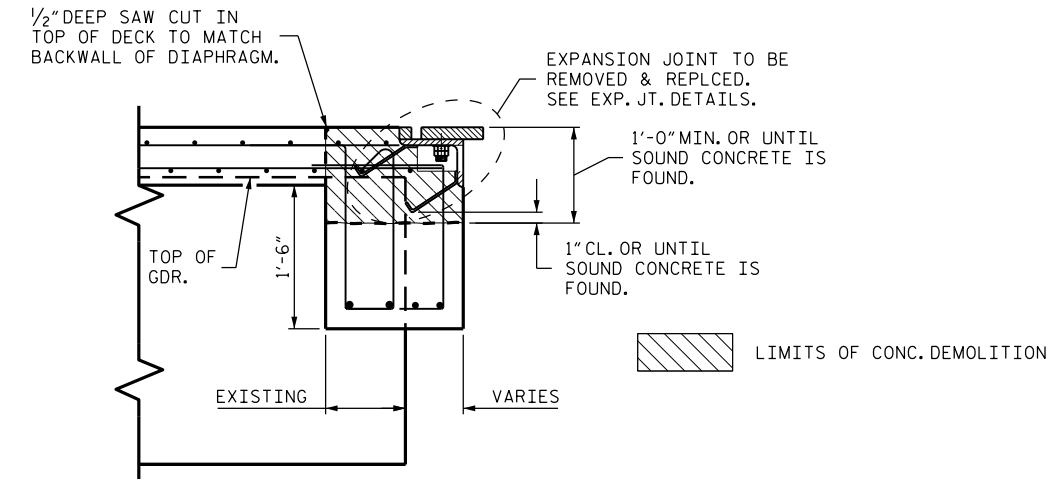
JT. STEEL @ THE CURB FACE AND TOP OF CURB. SHALL NOT BE DISTURBED.



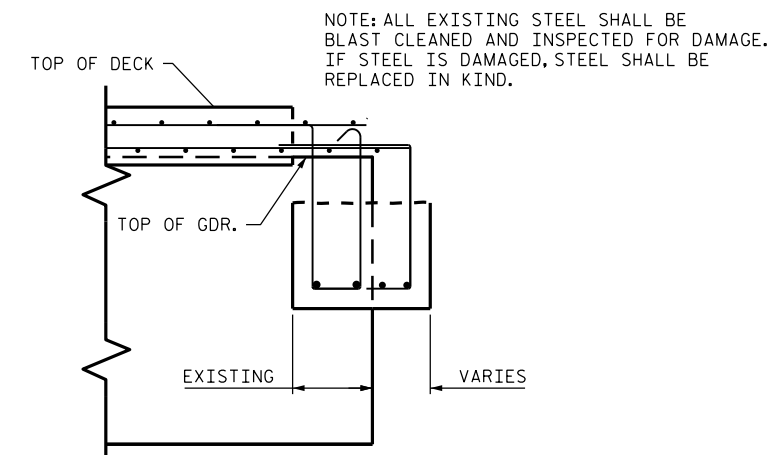
ELEVATION - SHOWING EXP. PLATE



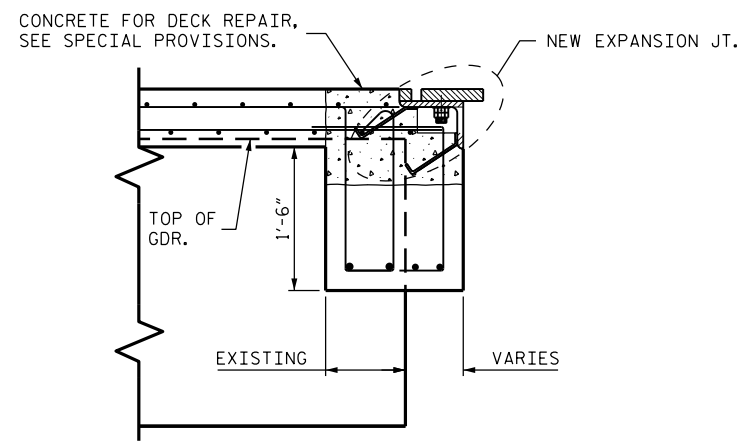
EXPANSION PLATE DETAIL



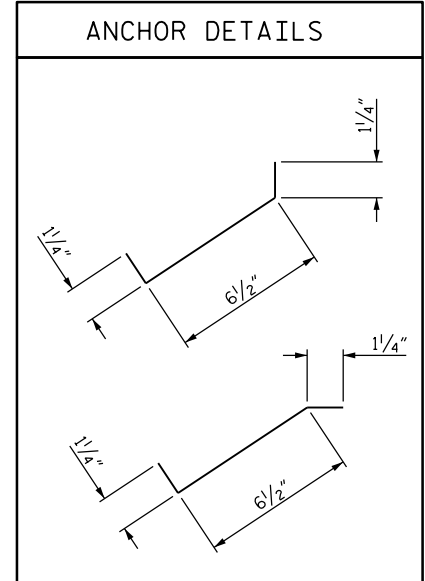
SECTION A-A (EXISTING)



SECTION A-A (MIN. DEMOLITION)



SECTION A-A (COMPLETED REPAIR)

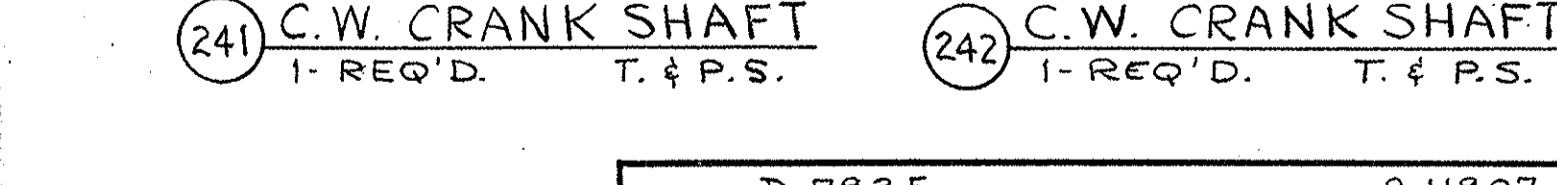
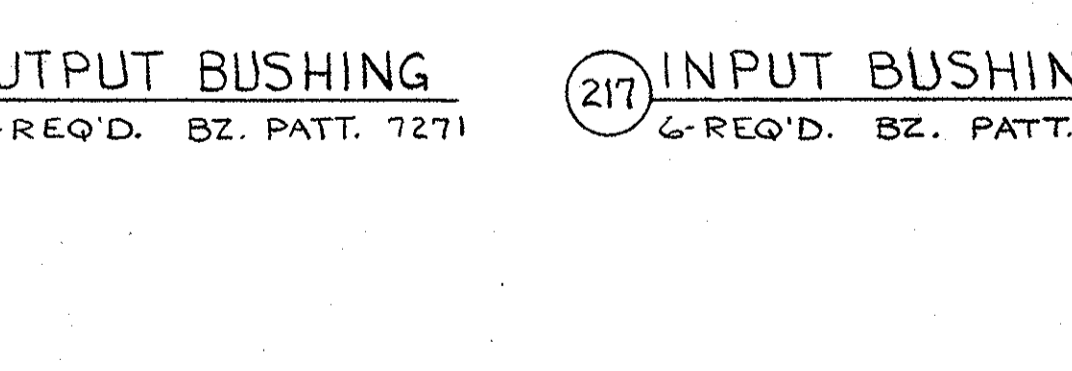
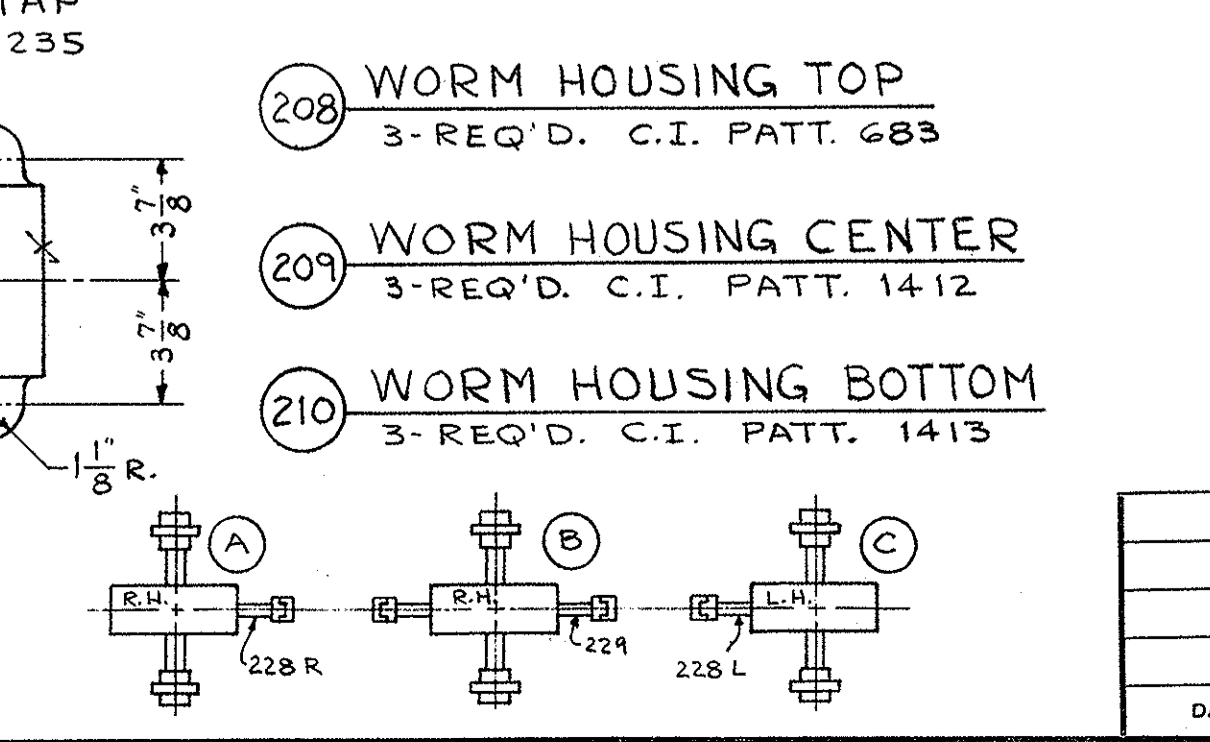
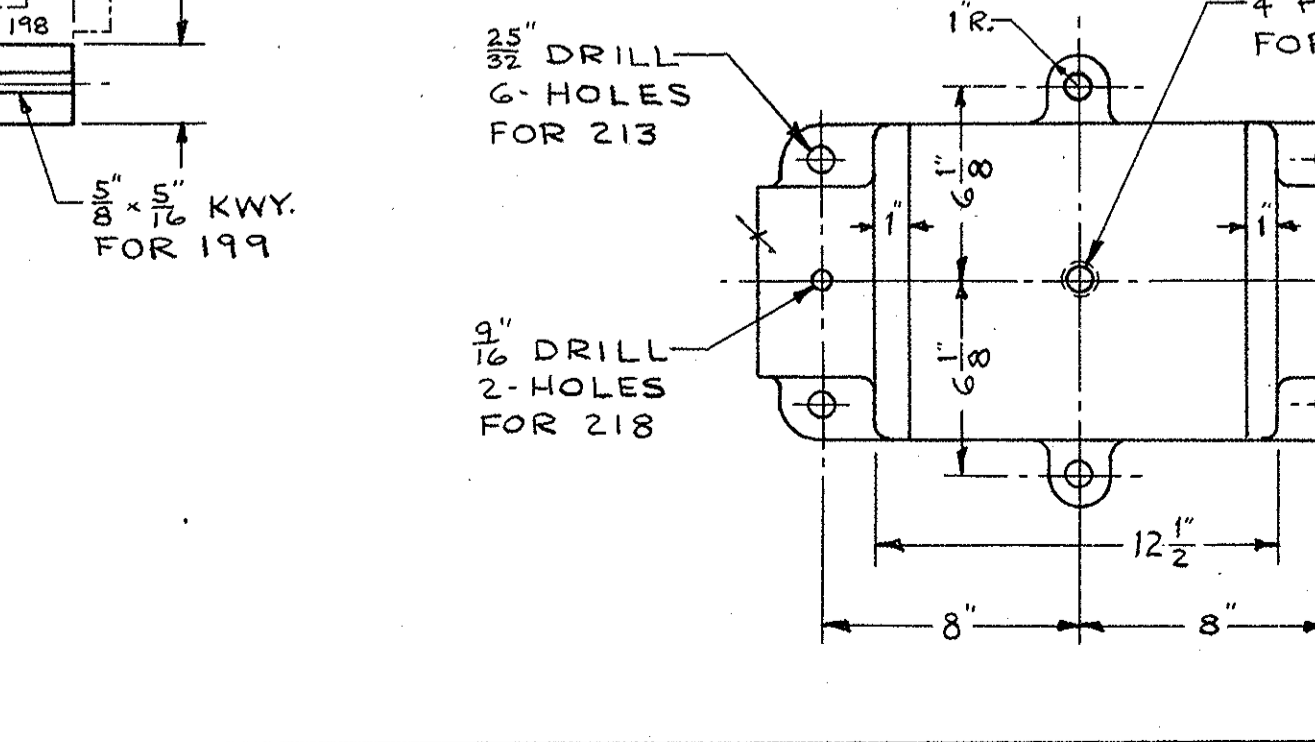
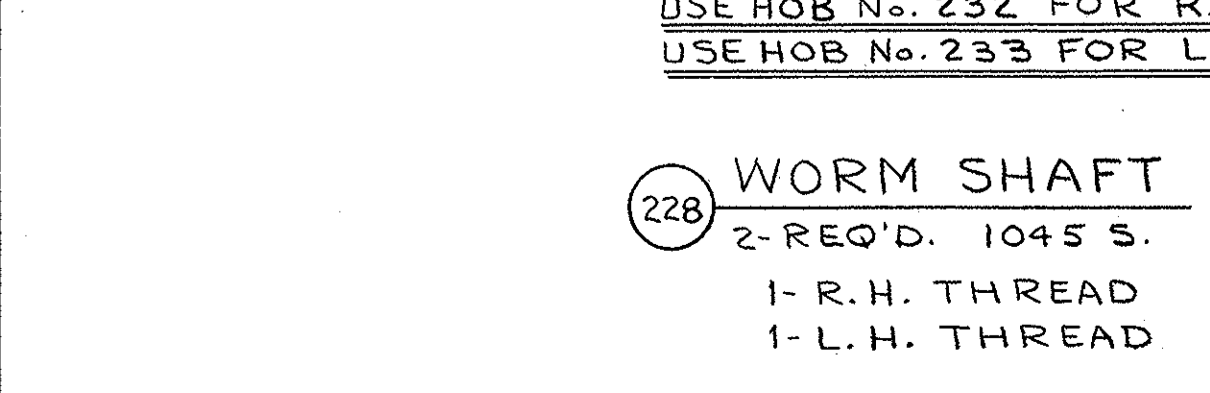
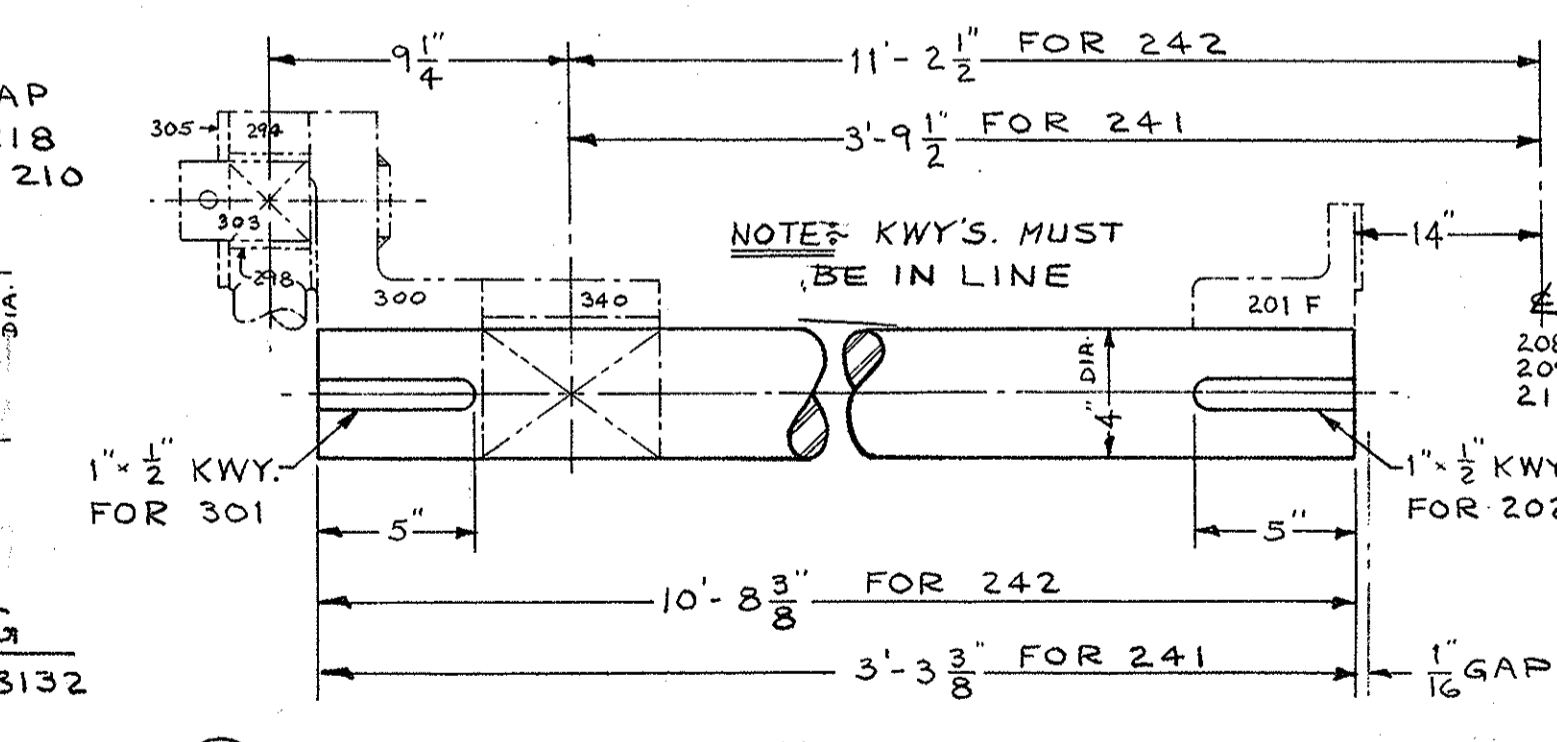
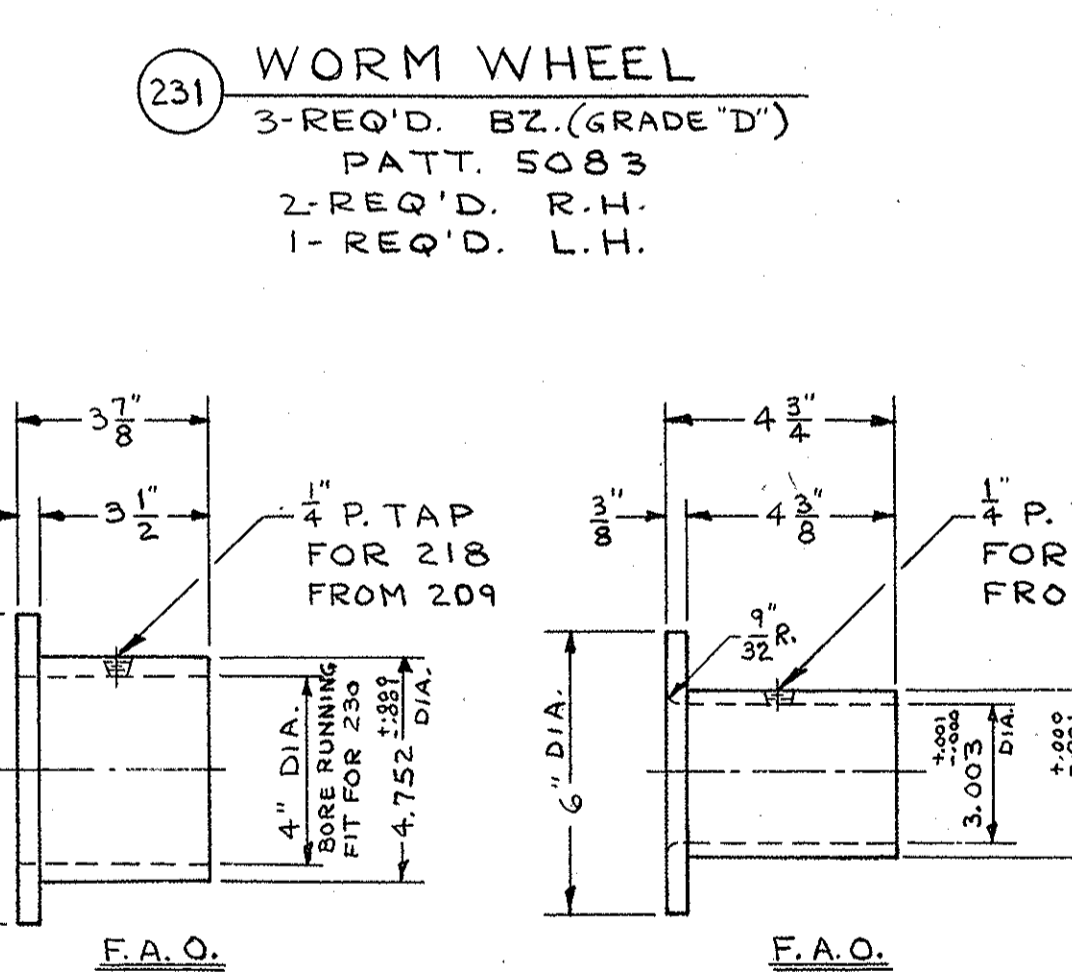
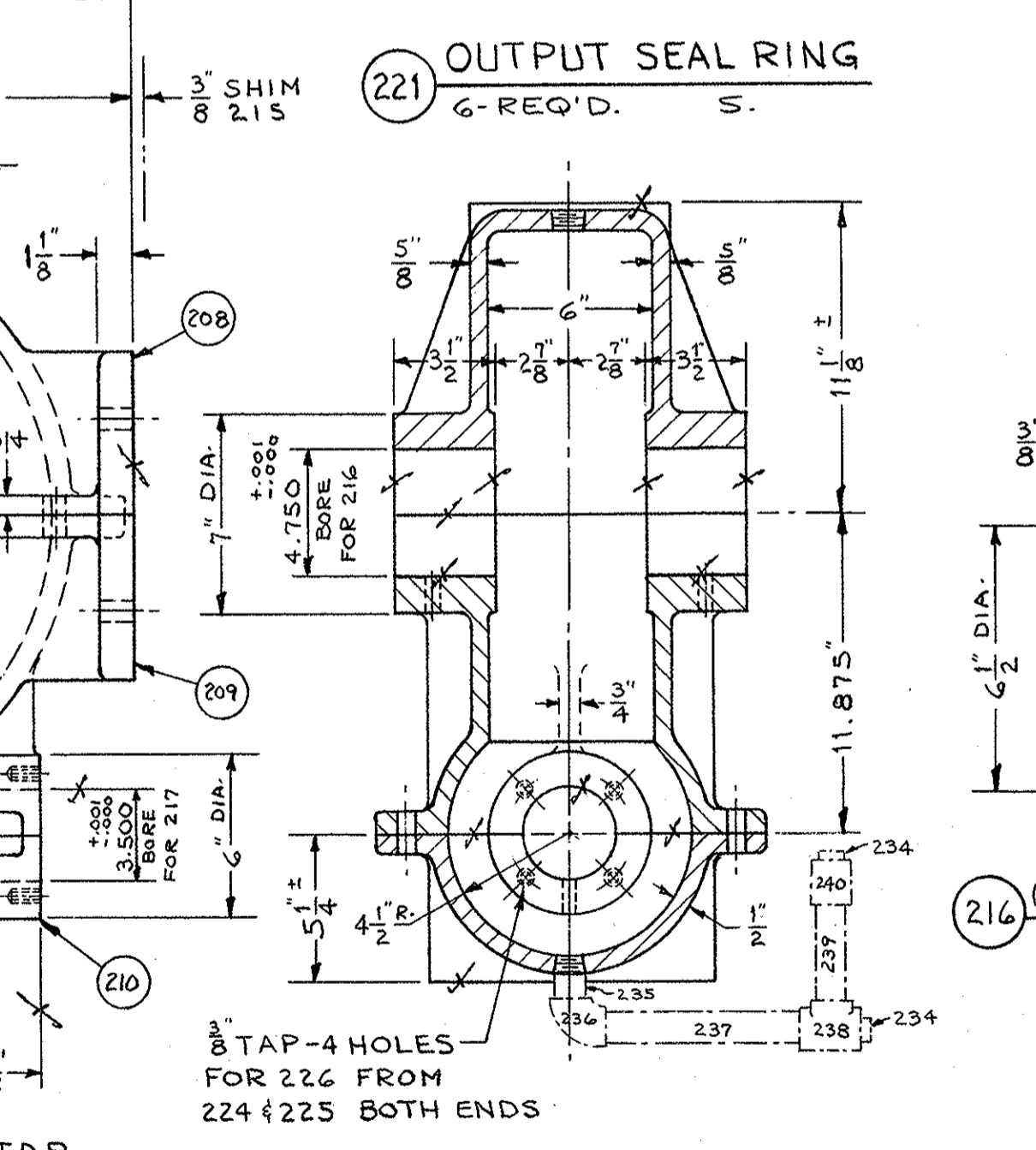
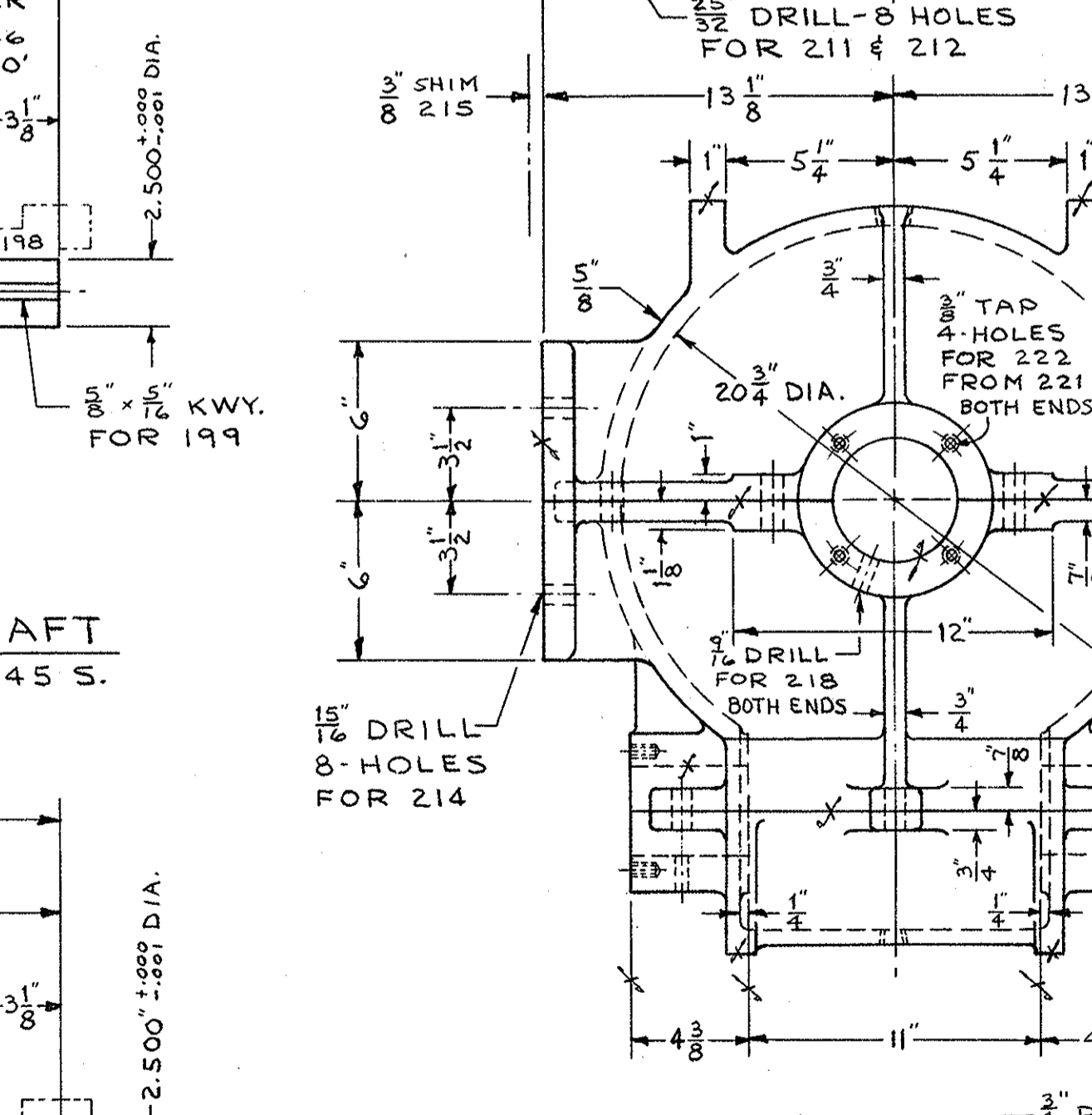
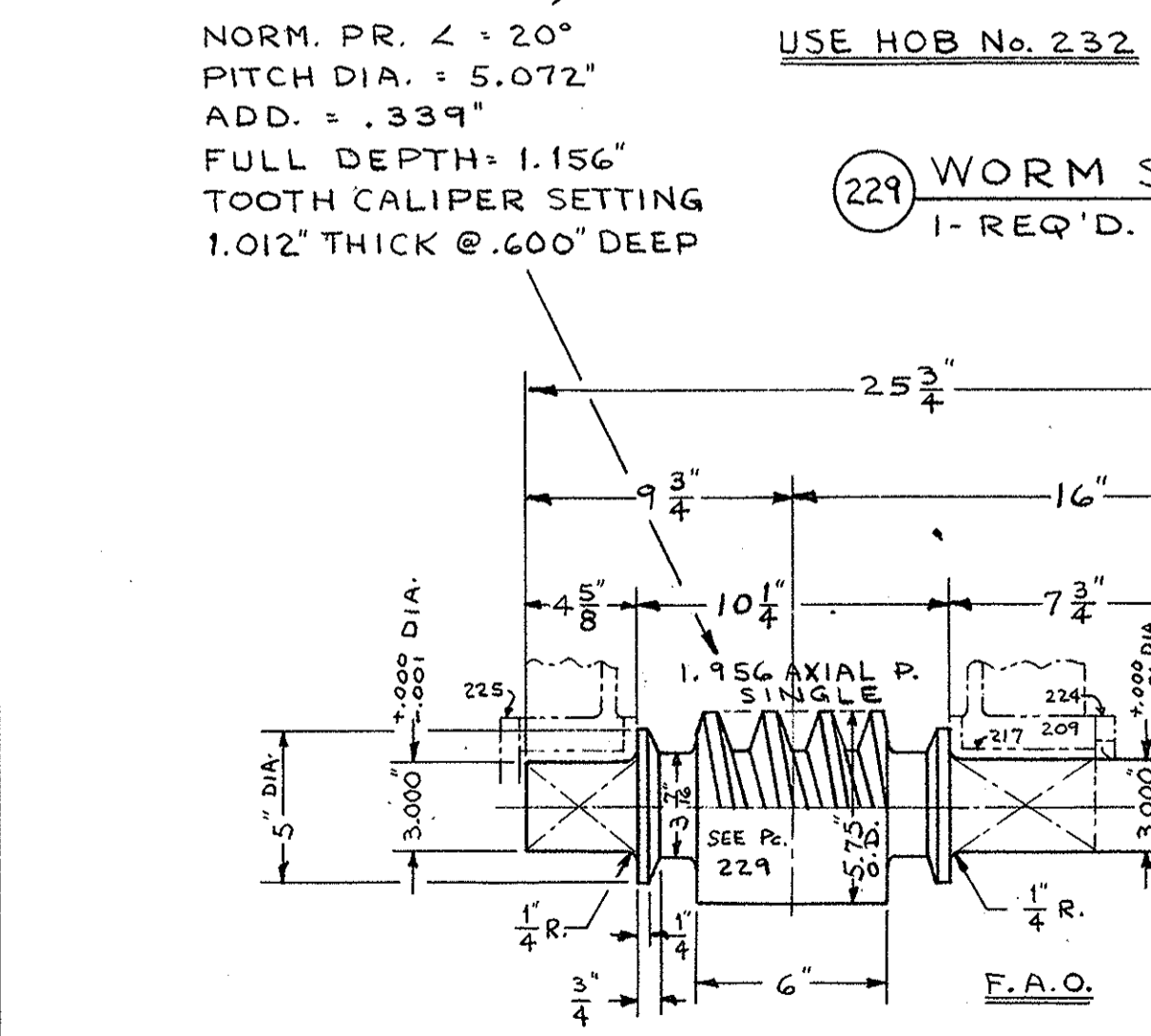
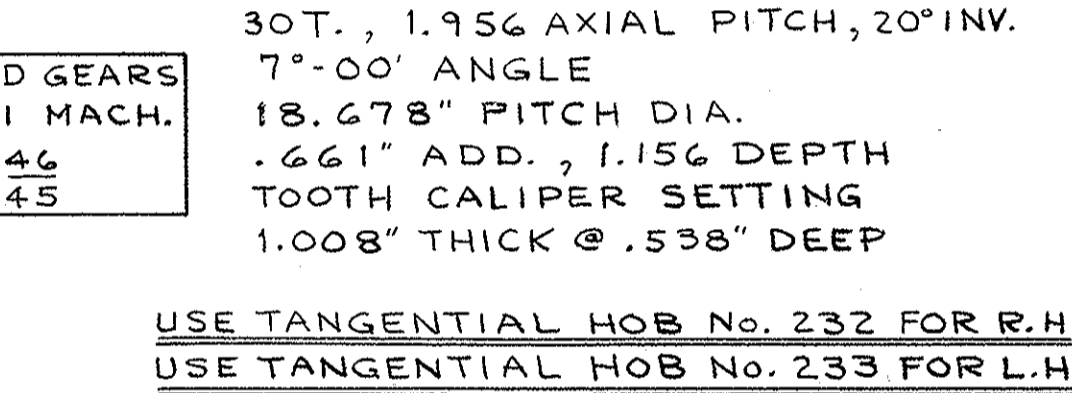
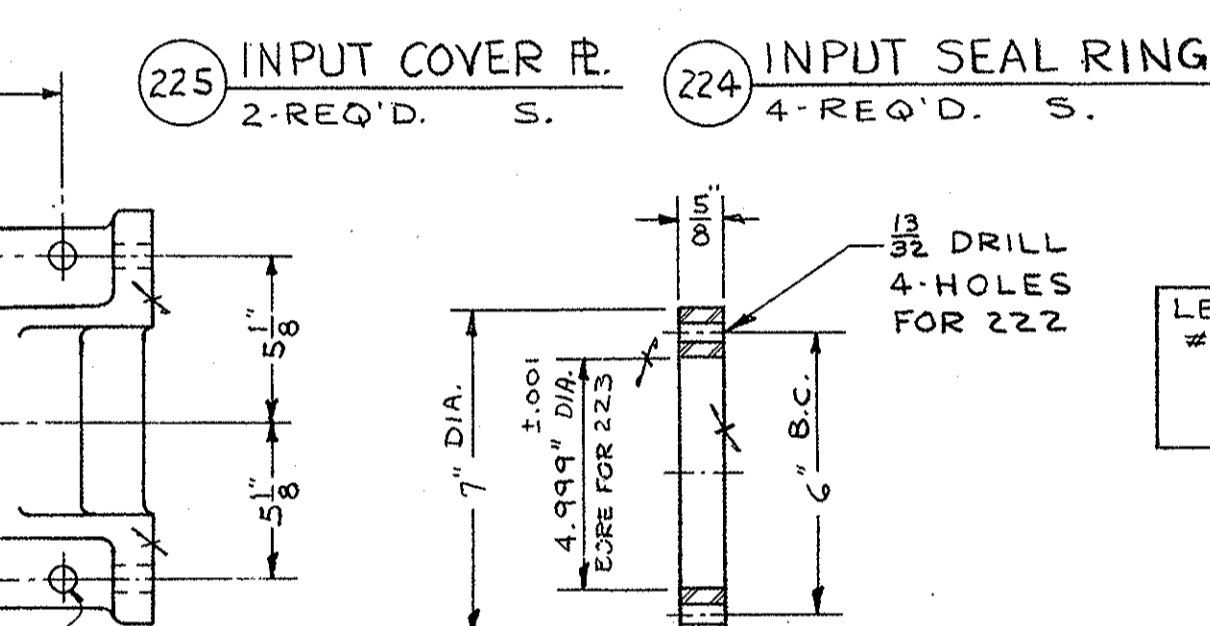
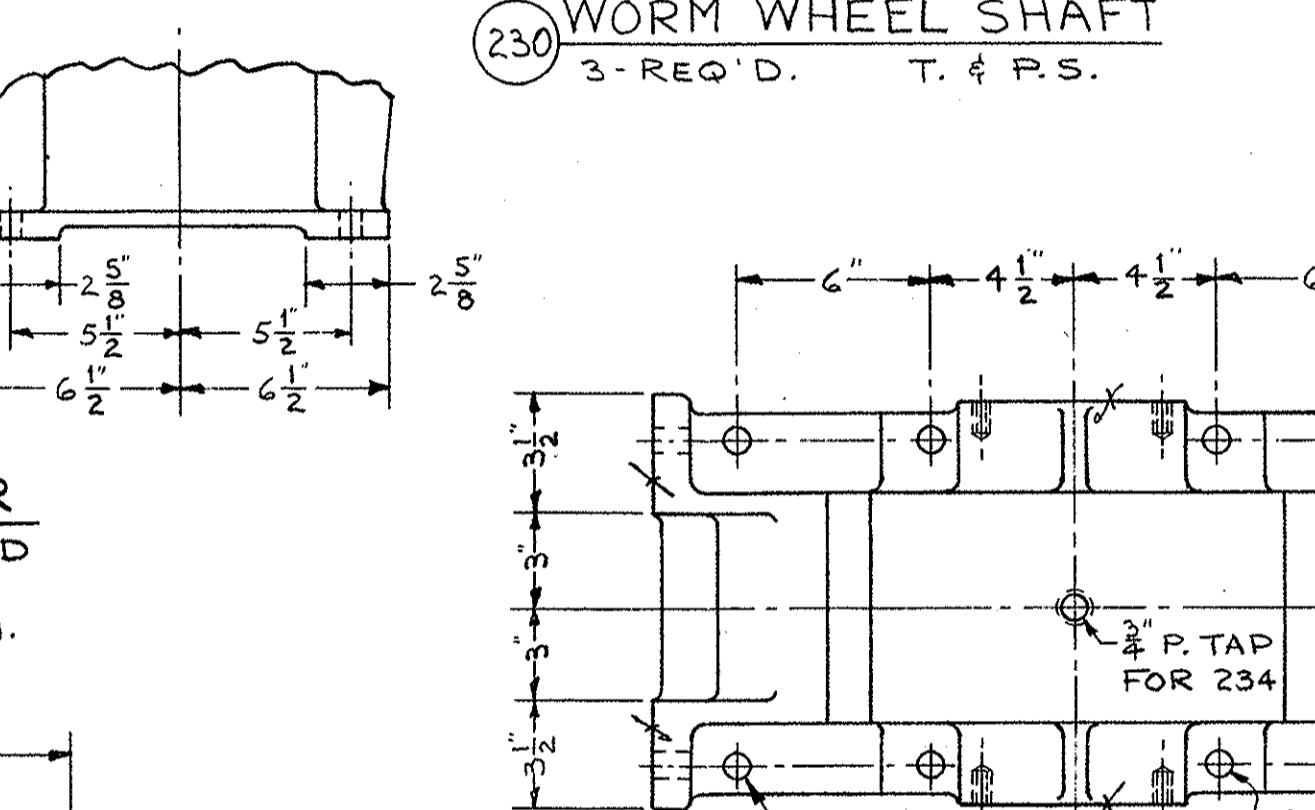
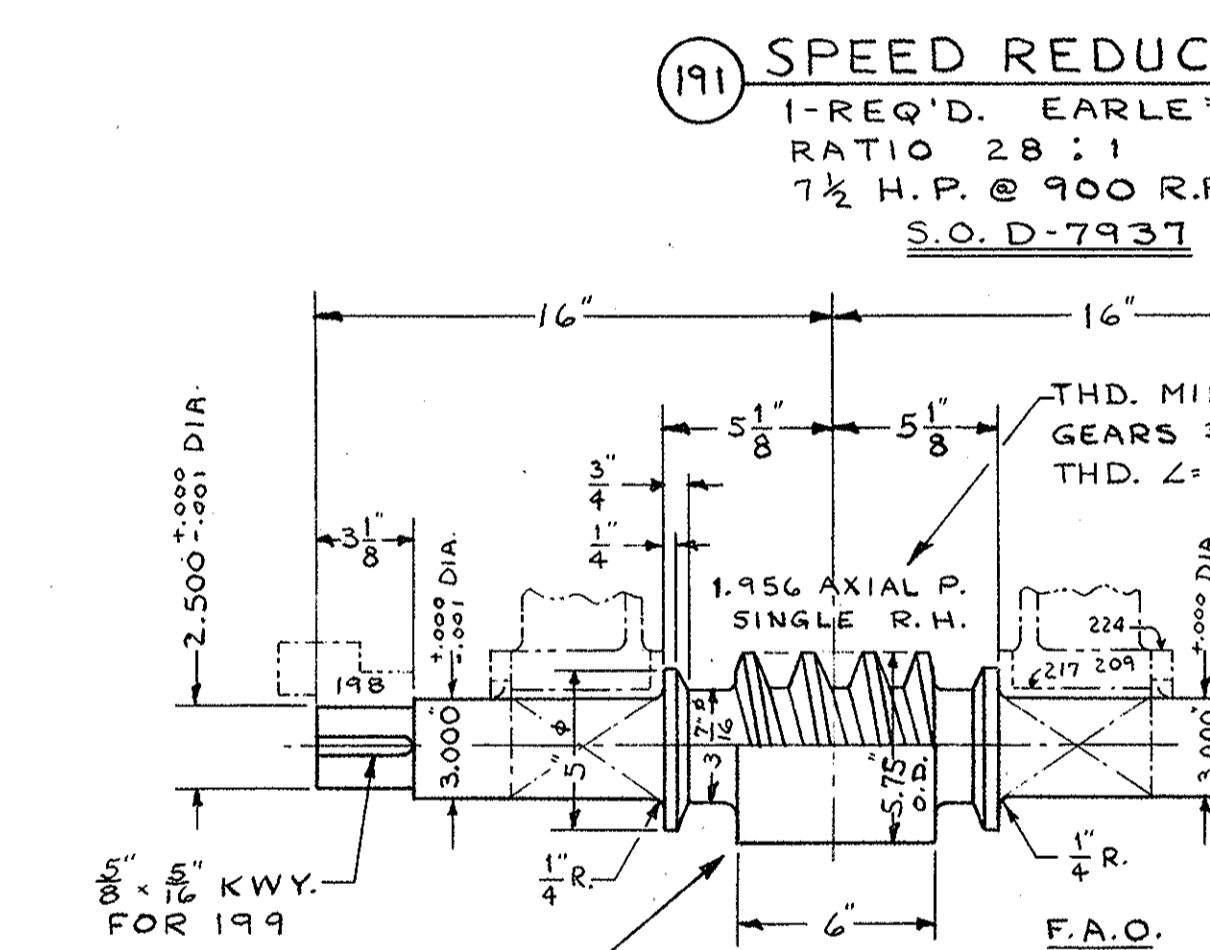
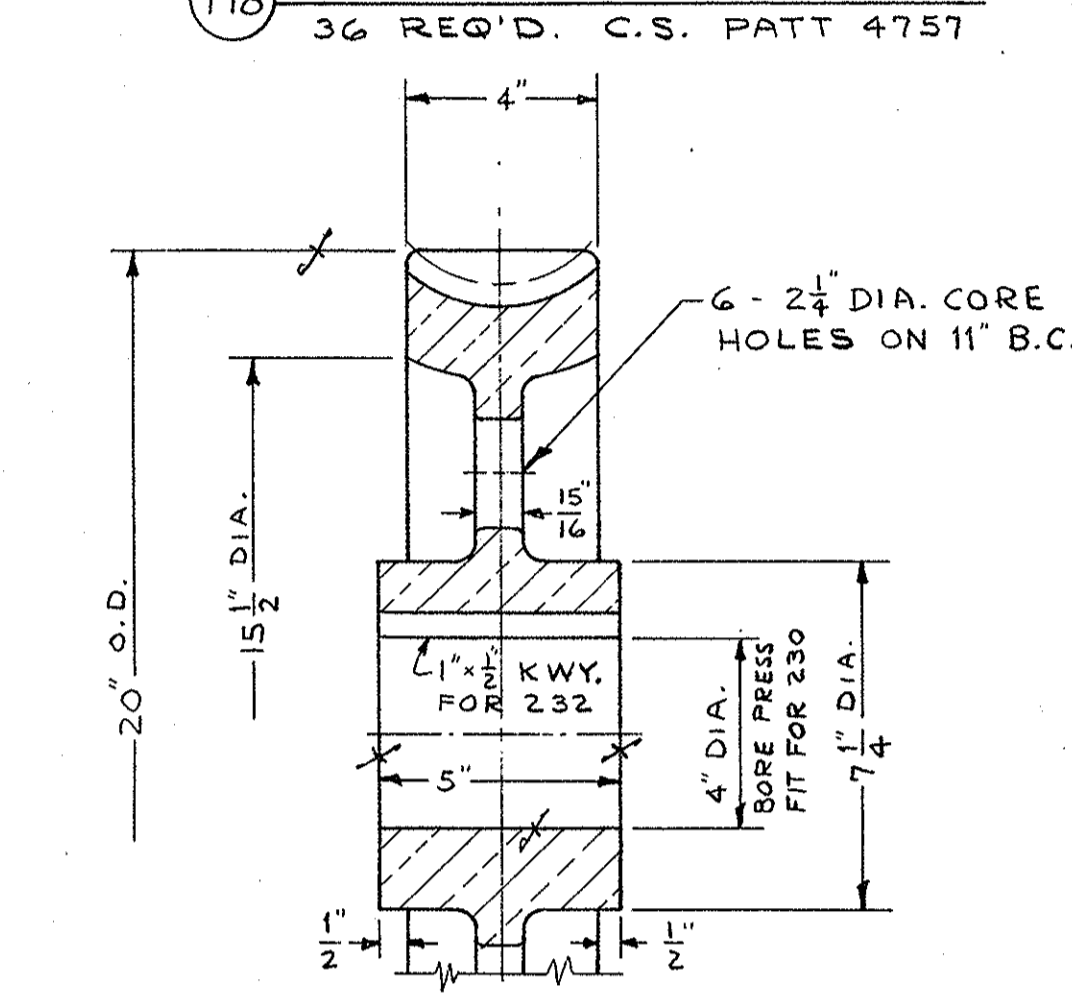
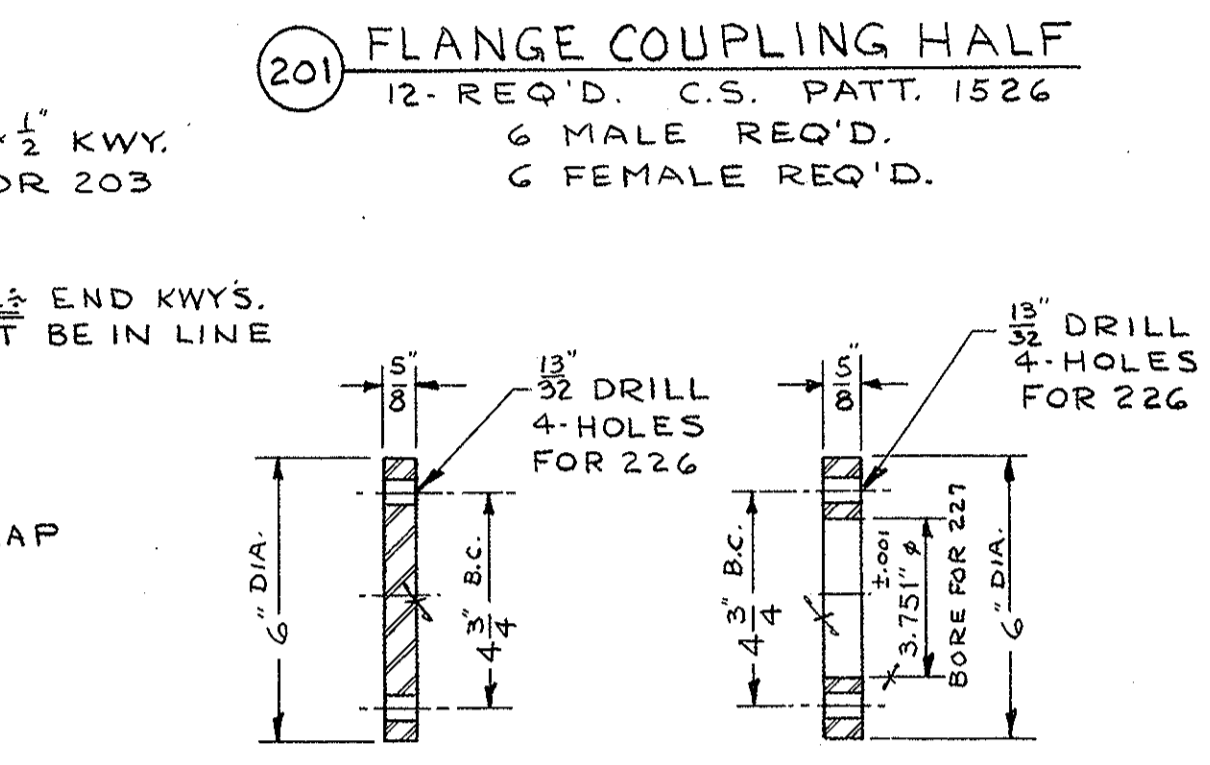
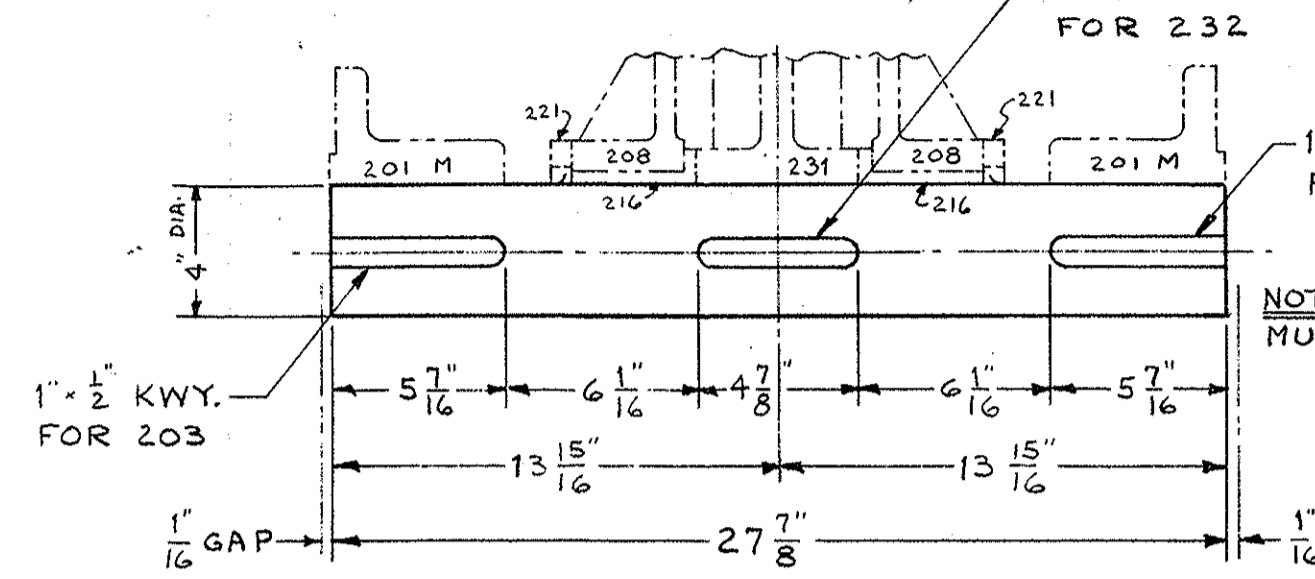
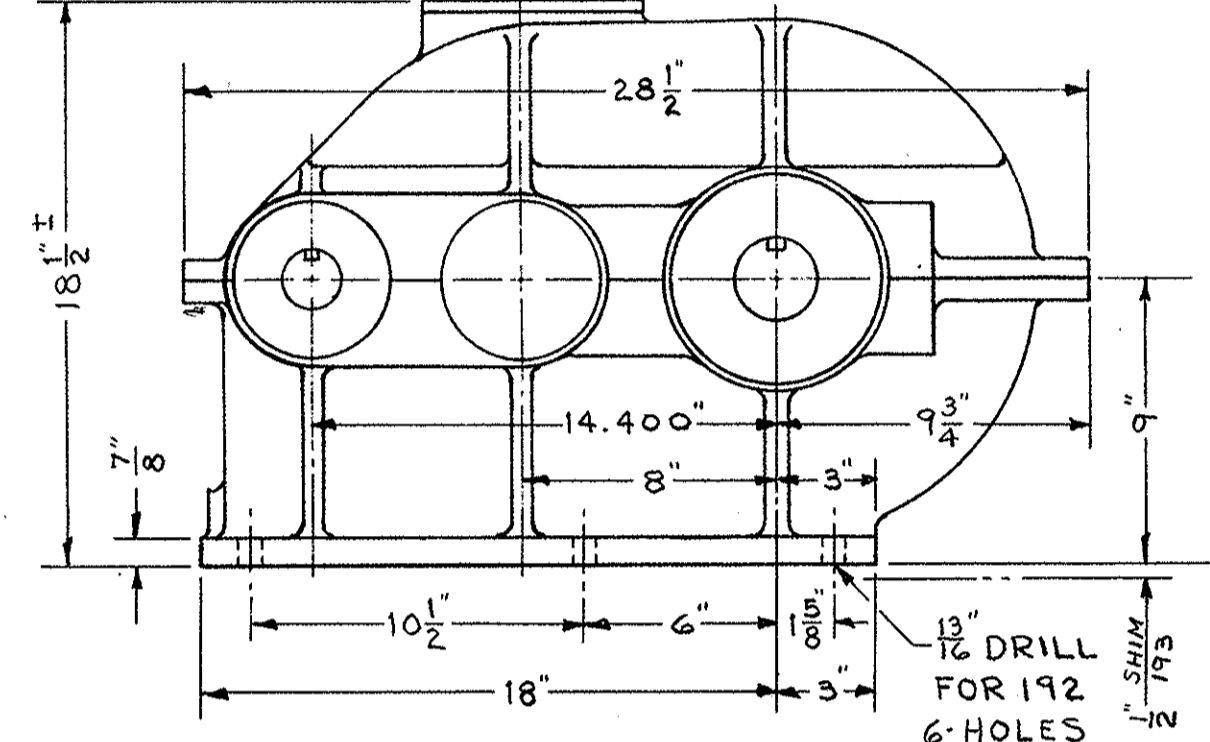
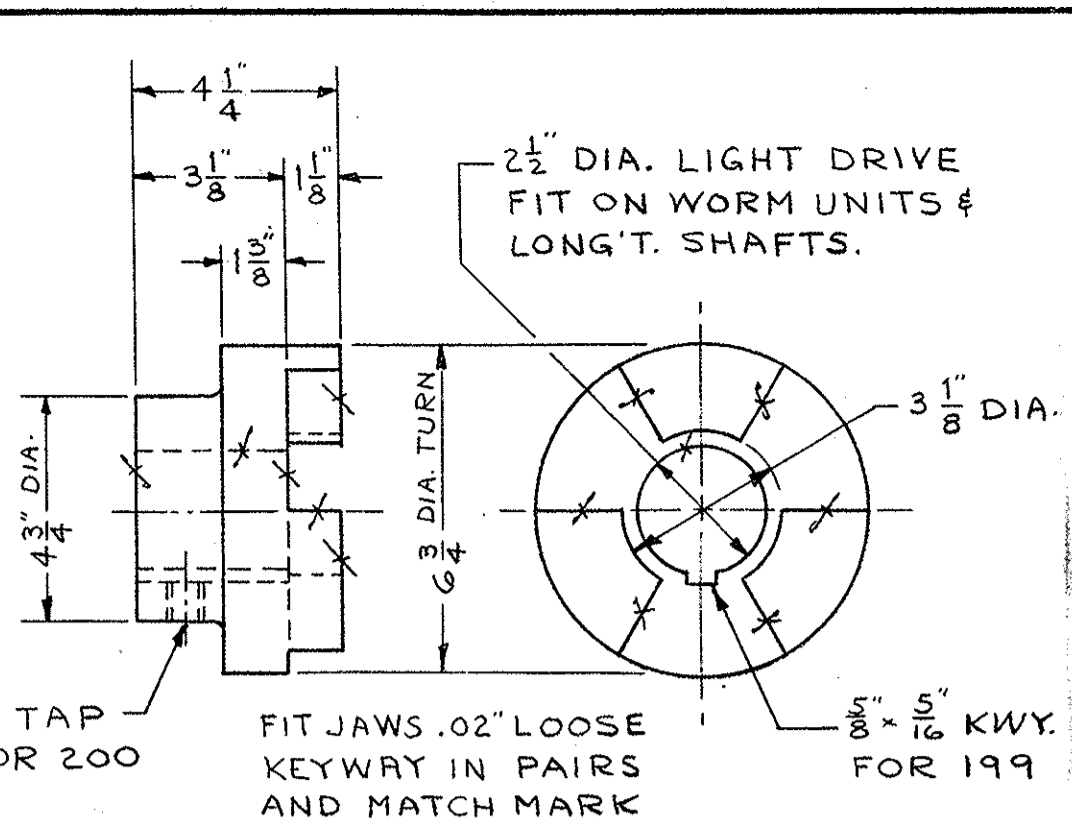
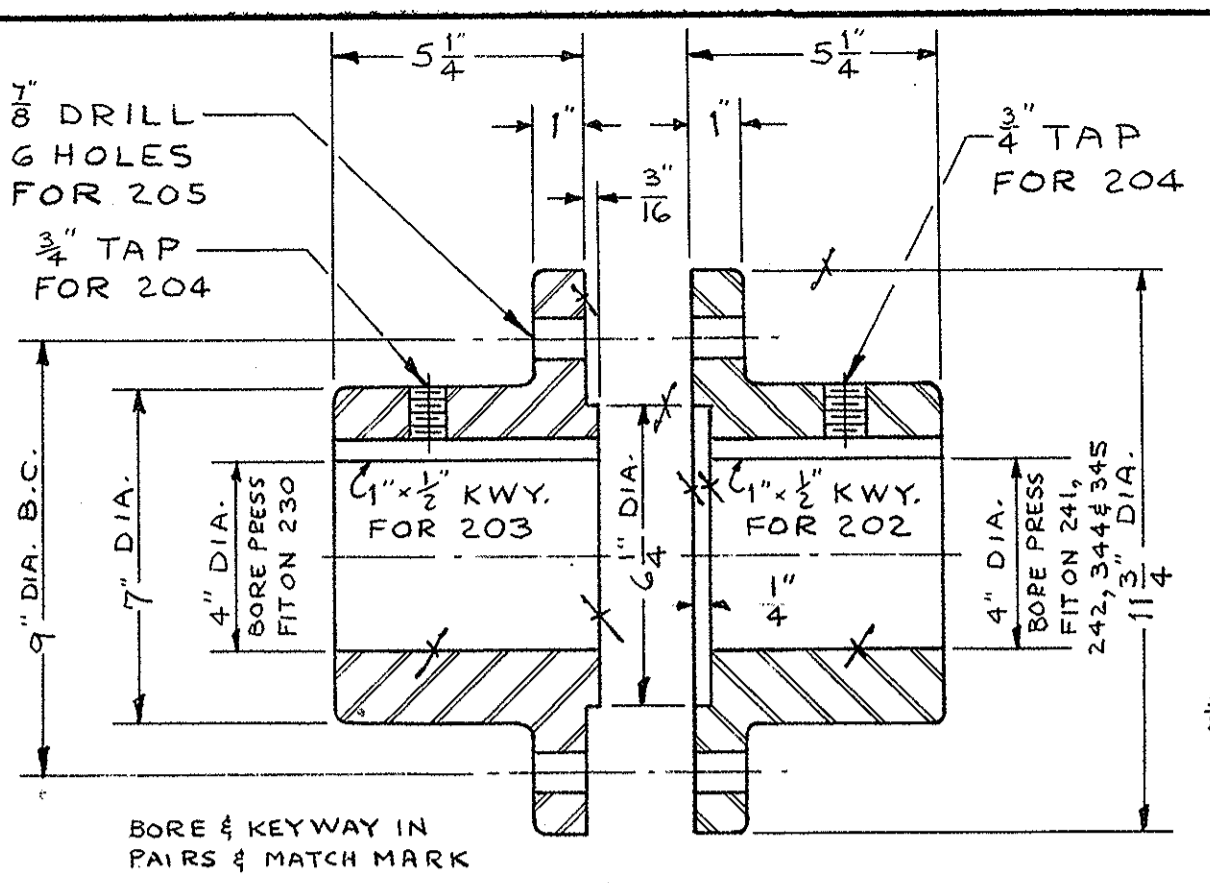
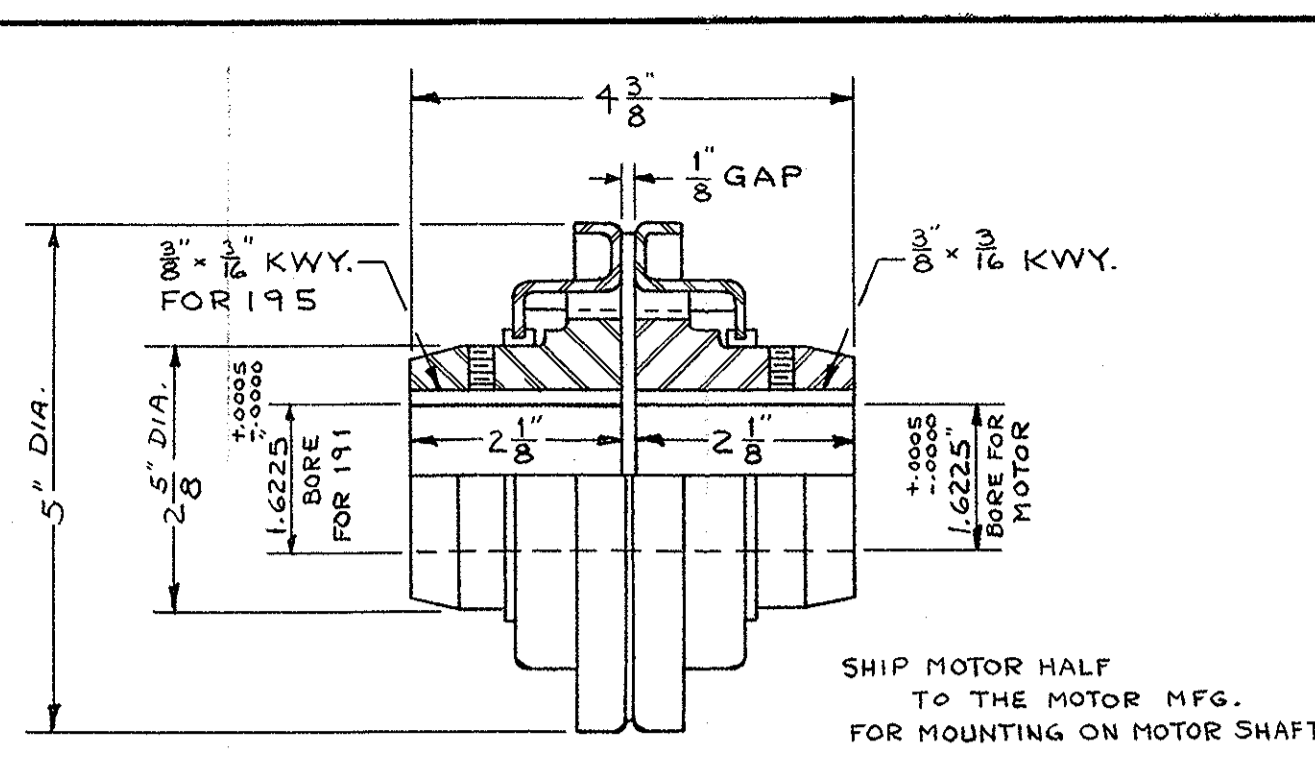
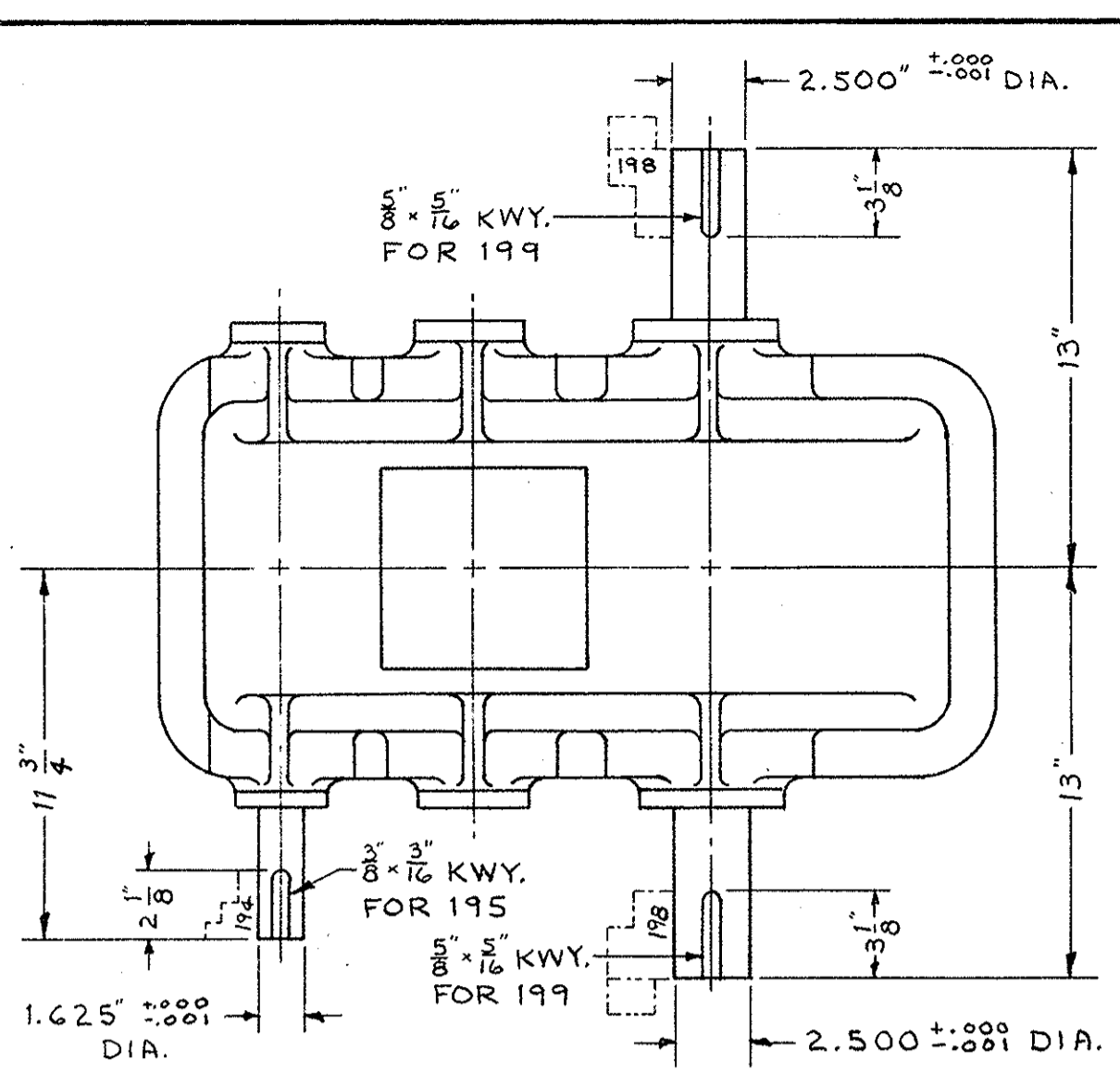


PROJECT NO. 15B.13.24
 TYRELL COUNTY
 BRIDGE #: 7
 SHEET OF

| | | | | | |
|--|-----|-------|-----|-----|-------------------|
| STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH | | | | | |
| REPAIR OF METAL JOINTS | | | | | |
| REVISIONS | | | | | |
| NO. | BY: | DATE: | NO. | BY: | DATE: |
| 1 | | | 3 | | |
| 2 | | | 4 | | |
| | | | | | SHEET NO. S-5 |
| | | | | | TOTAL SHEETS 5 |

DRAWN BY: CL BRIGHT DATE: 01/13
 CHECKED BY: D. MULLER DATE: 01/13
 DESIGN ENGINEER OF RECORD: D. MULLER DATE: 01/13

| 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" x 1/8" x 1/2" | |
| 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" x 1/8" x 1/8" 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. | | 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 | | | | | |



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

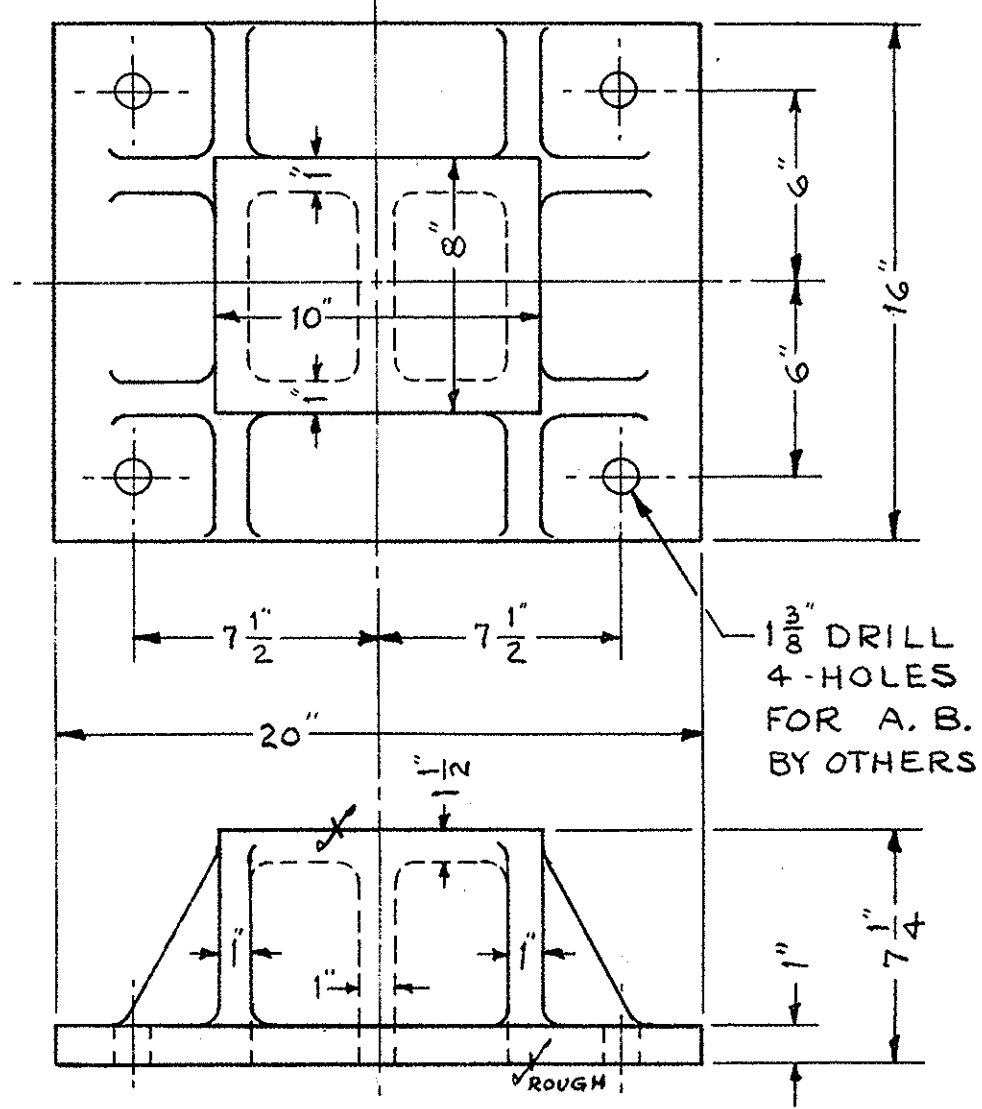
S.O.D-7935 CONTRACT 8.11907

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

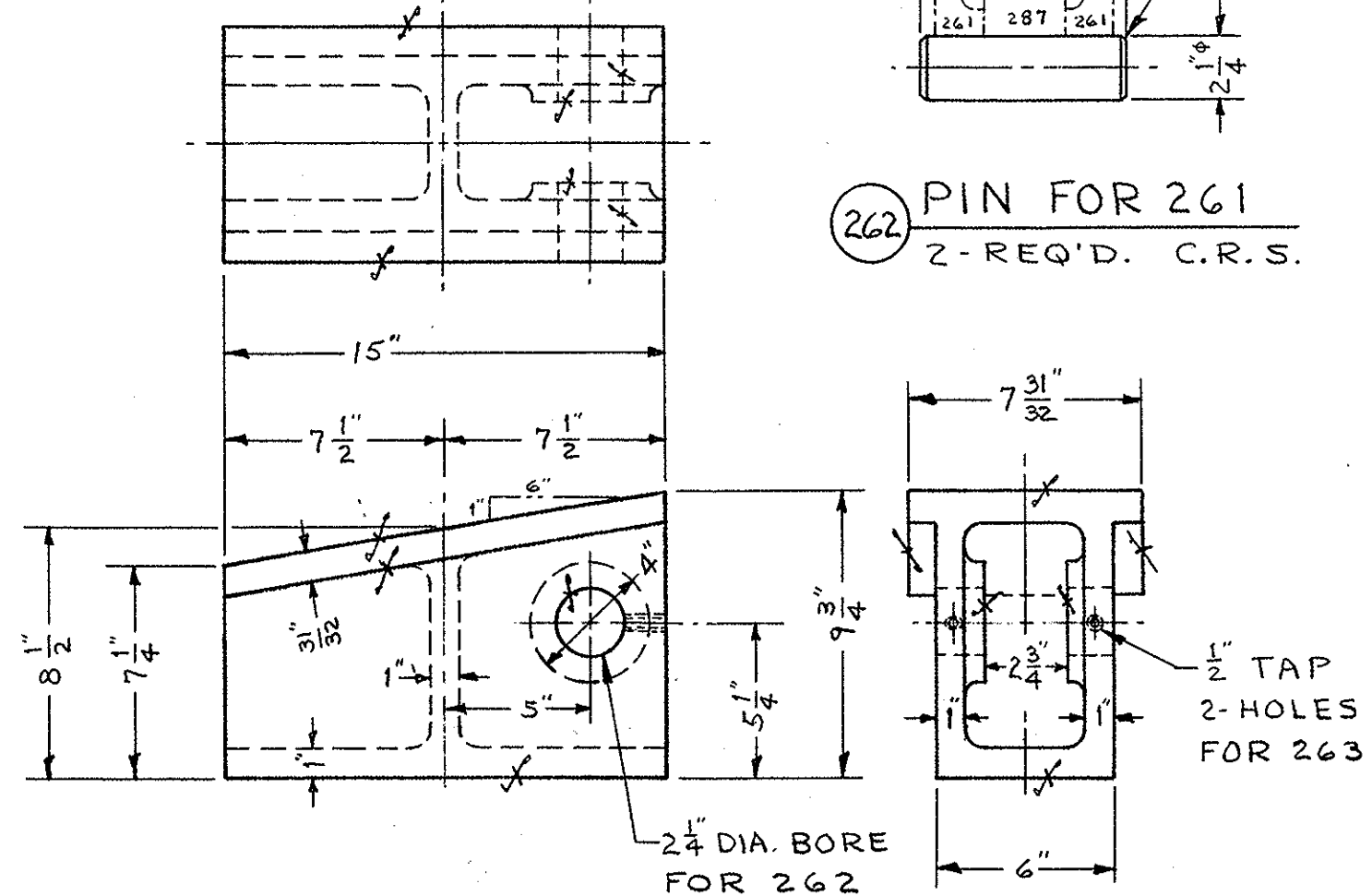
THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

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

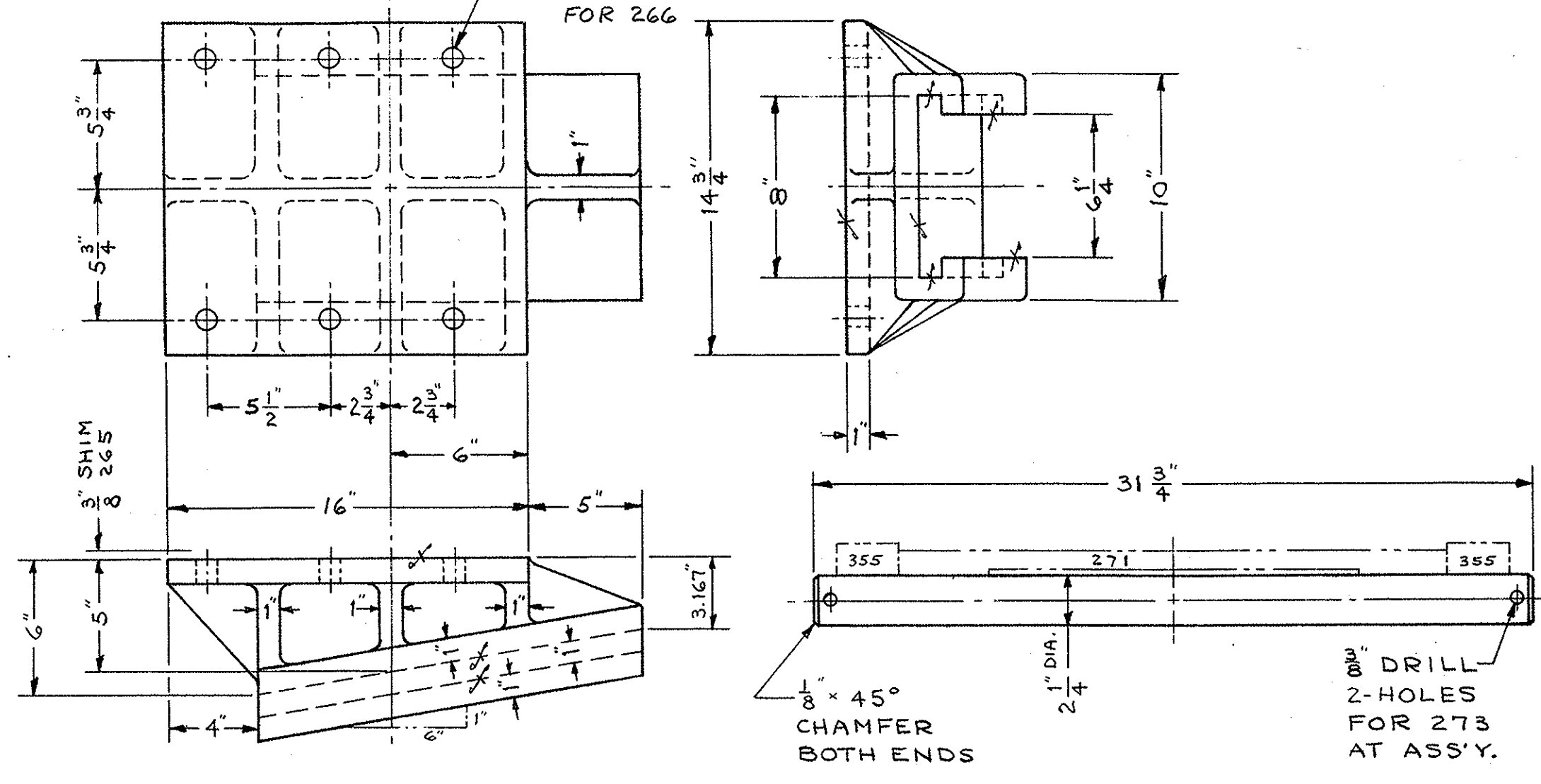
| PC. | NAME | QTY. | MTL. | PATT. | REMARKS |
|-----|--------------------------|------|--------|---|-------------------------------|
| 260 | CENTER WEDGE SEAT | 2 | C.S. | 1558 | ALT. HIGHT |
| 261 | CENTER WEDGE | 2 | C.S. | 1518 | ALT. 1/2 PIECE "A" |
| 262 | PIN FOR 261 | 2 | C.R.S. | | |
| 263 | 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 | S. | 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 |



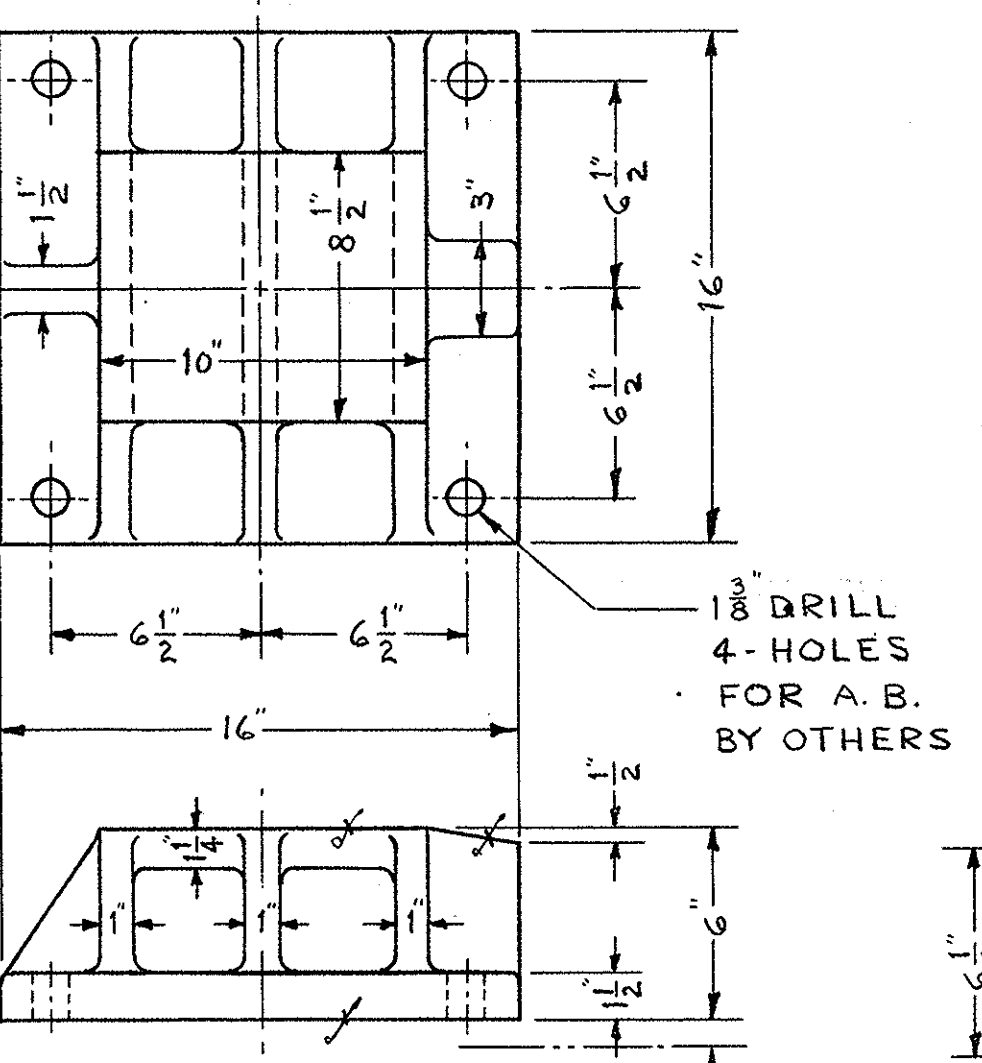
260 CENTER WEDGE SEAT
2-REQ'D. C.S. PATT. 1558 ALT.



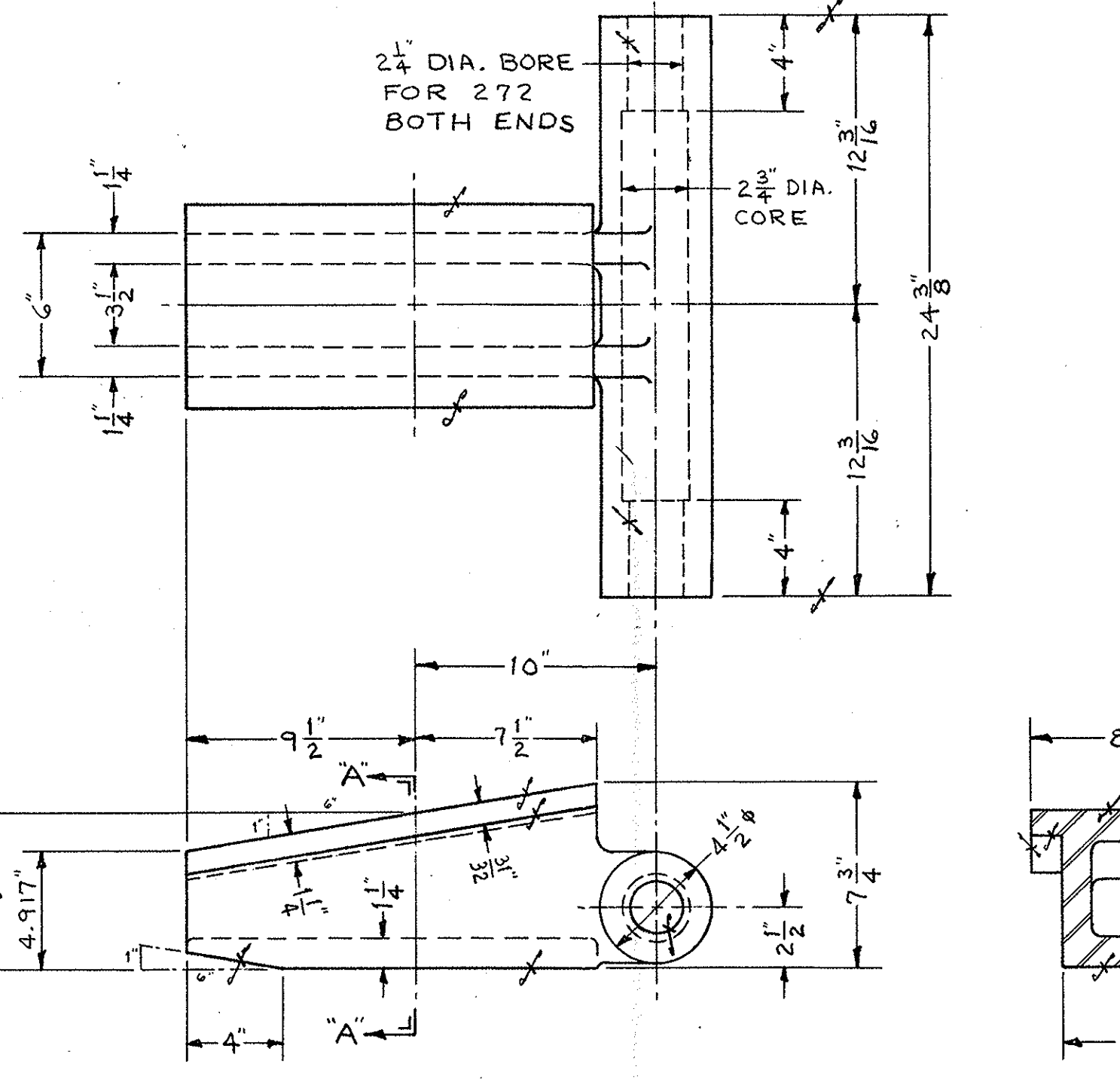
261 CENTER WEDGE
2-REQ'D. C.S. PATT. 1518 ALT. WITHOUT P.C. A



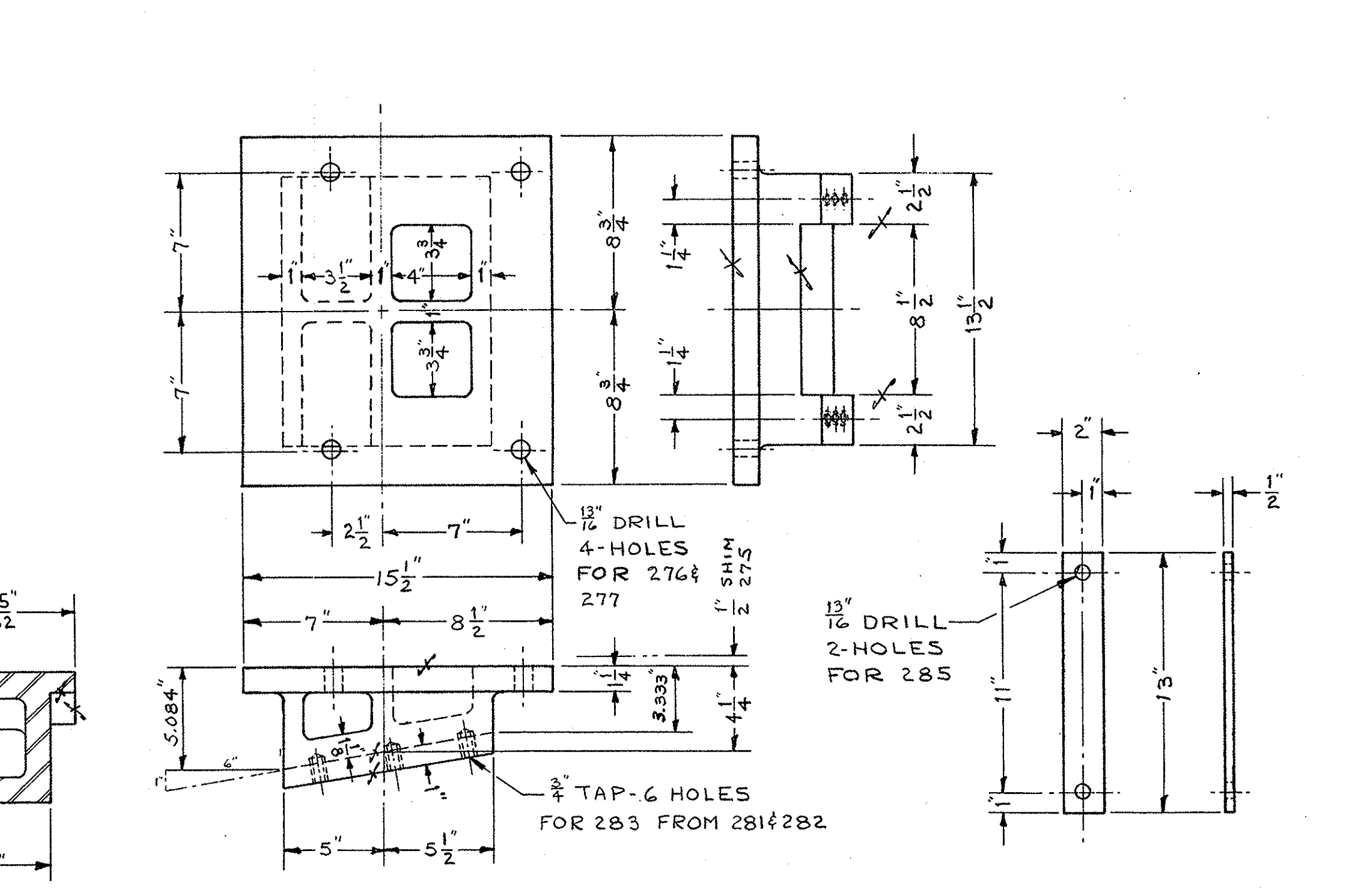
264 CENTER WEDGE GUIDE
2-REQ'D. C.S. PATT. 3549 ALT.



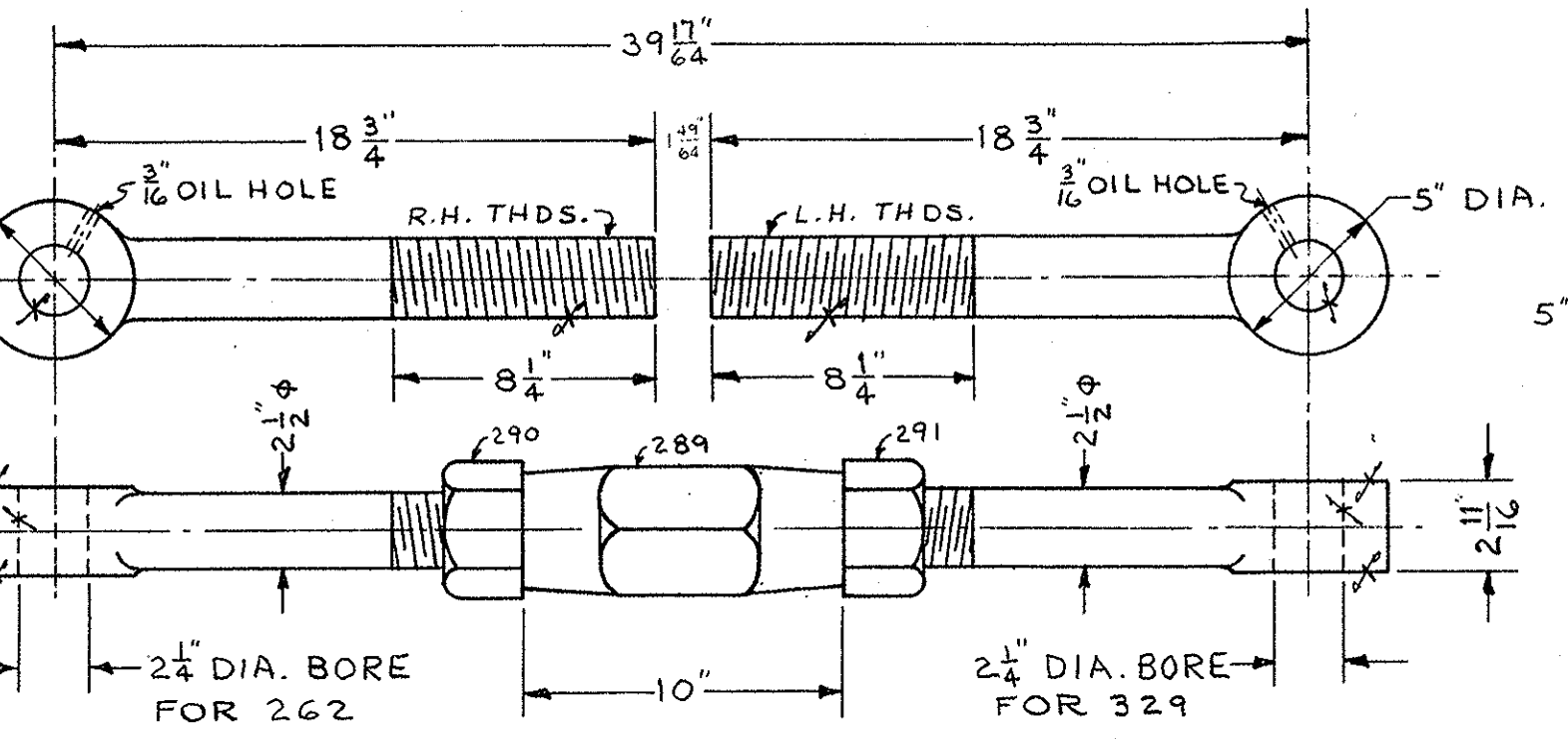
270 END WEDGE SEAT
4-REQ'D. C.S. PATT. 11353



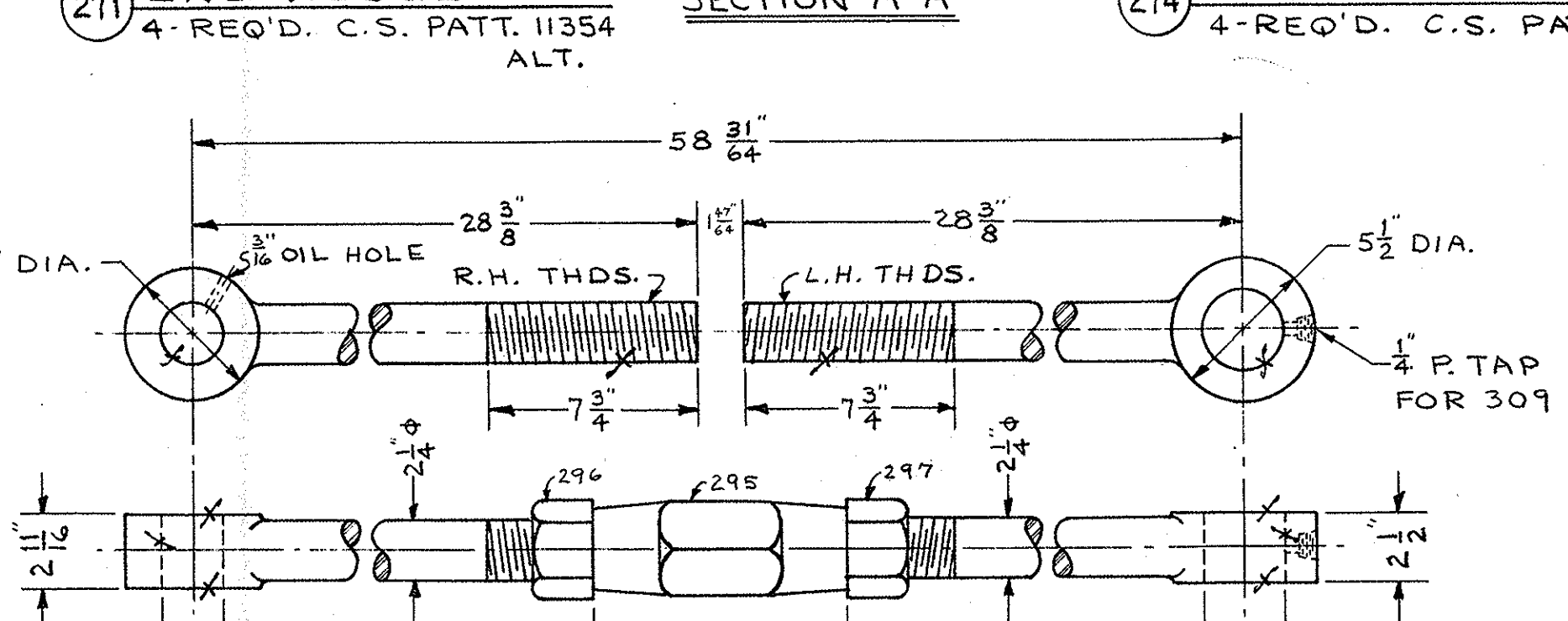
271 END WEDGE
4-REQ'D. C.S. PATT. 11354 ALT.



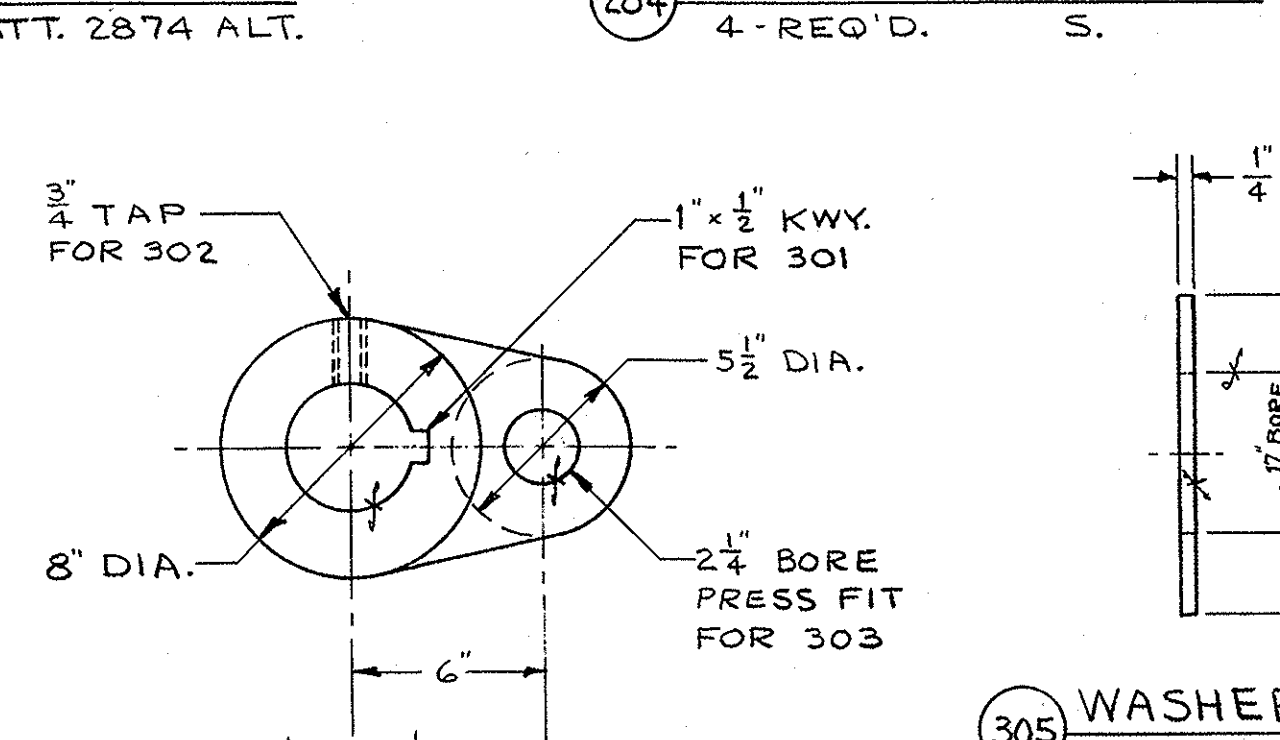
274 END WEDGE GUIDE
4-REQ'D. C.S. PATT. 2874 ALT.



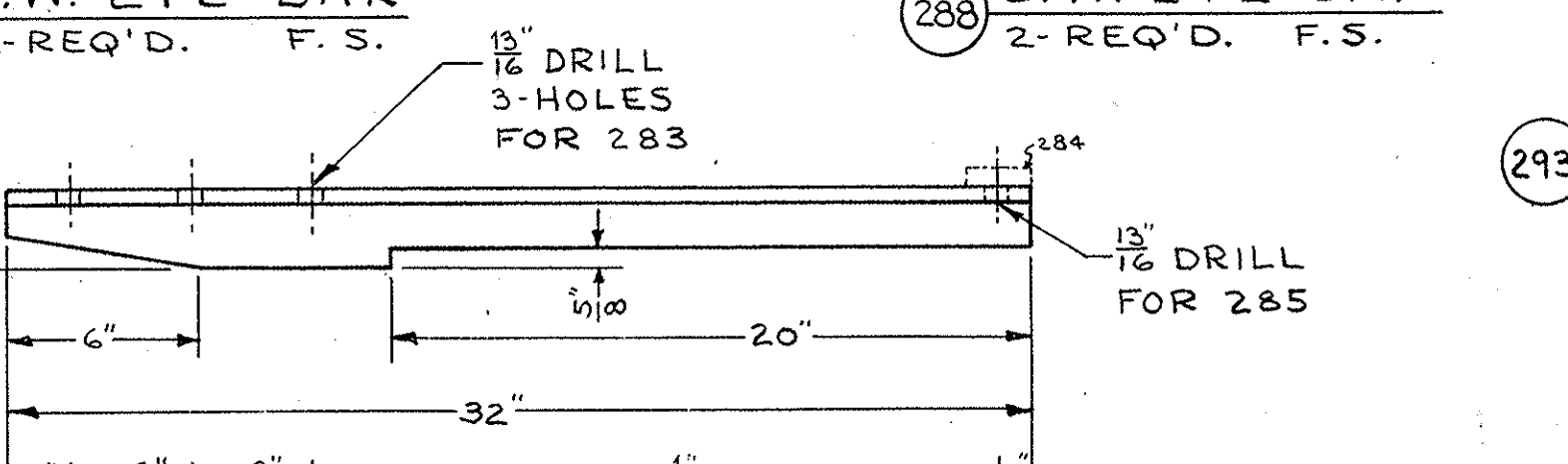
287 C.W. EYE BAR
2-REQ'D. F.S.



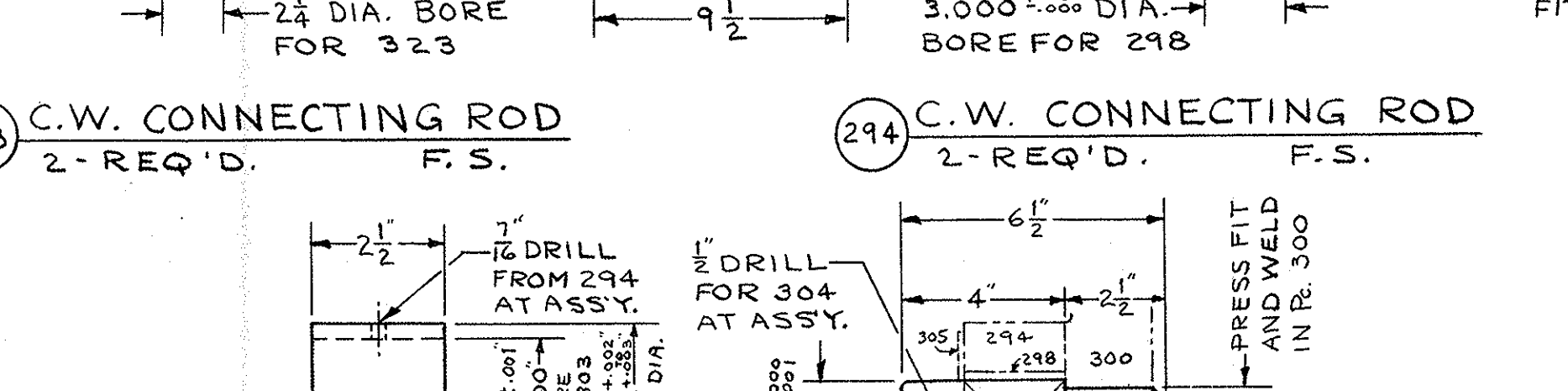
288 C.W. EYE BAR
2-REQ'D. F.S.



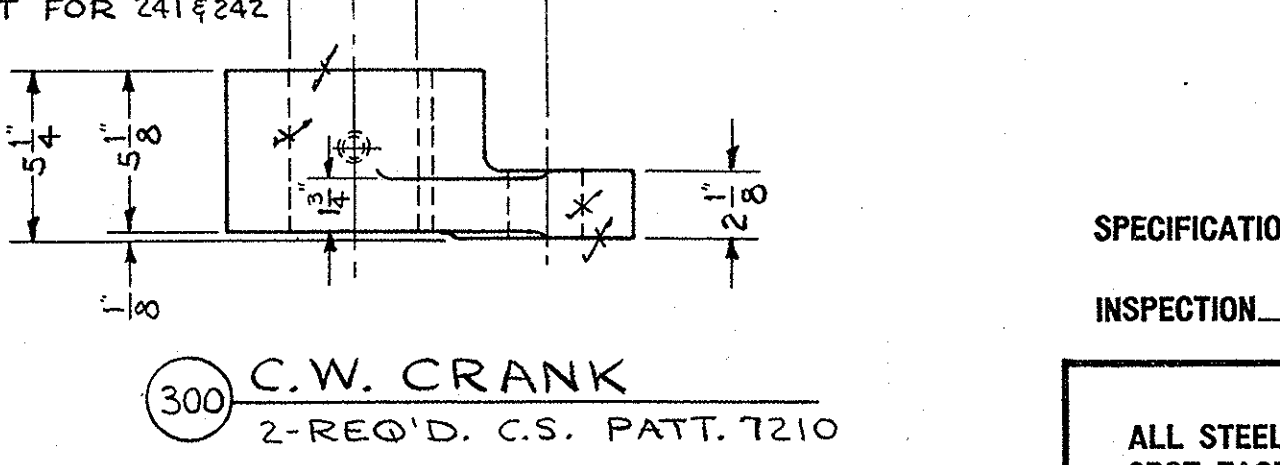
284 TIE BAR FOR 281 & 282
4-REQ'D. S.



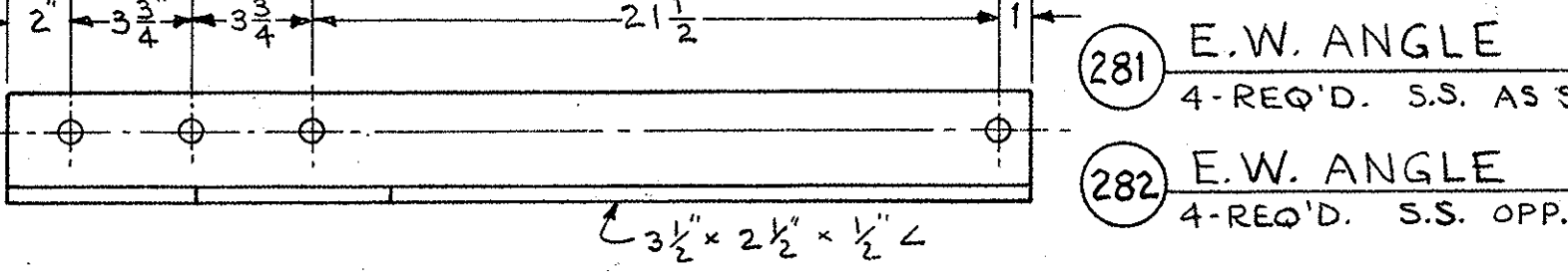
293 C.W. CONNECTING ROD
2-REQ'D. F.S.



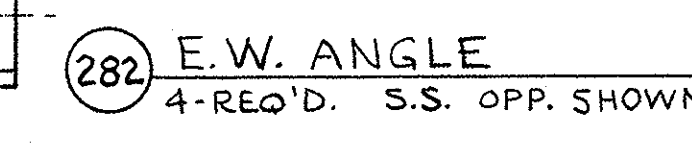
294 C.W. CONNECTING ROD
2-REQ'D. F.S.



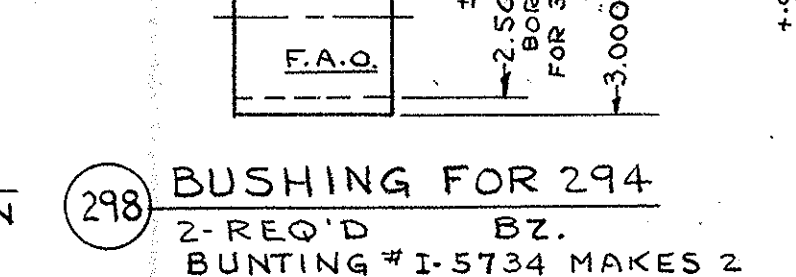
300 C.W. CRANK
2-REQ'D. C.S. PATT. 7210



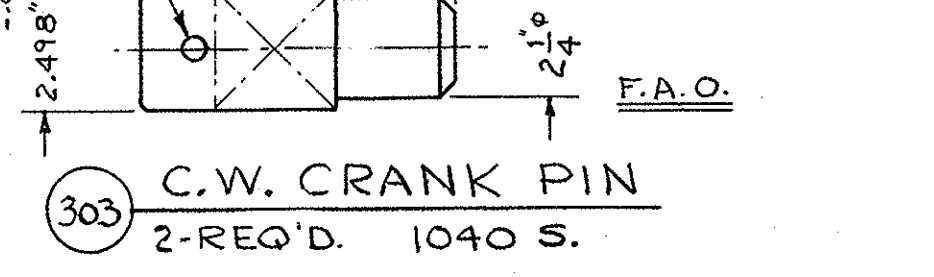
281 E.W. ANGLE
4-REQ'D. S.S. AS SHOWN



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

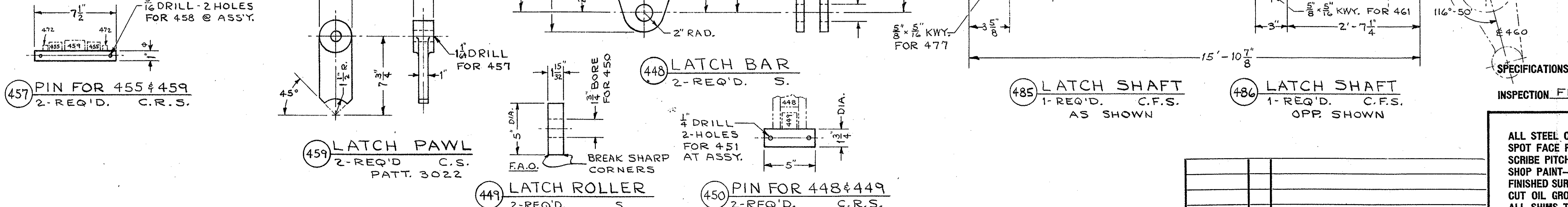
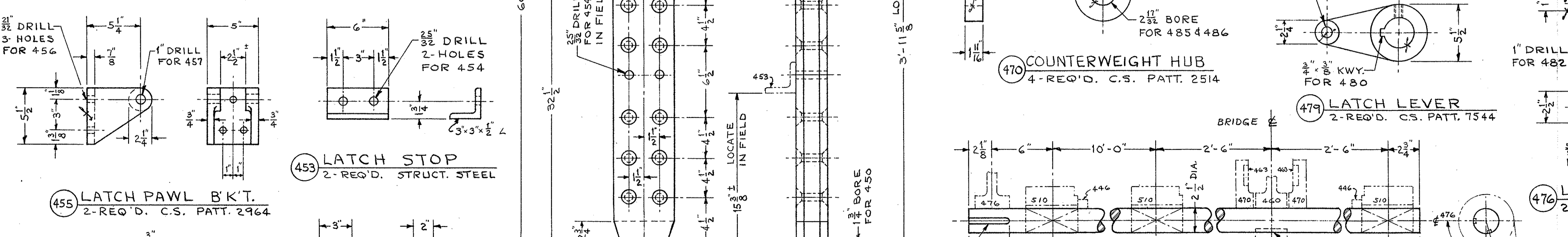
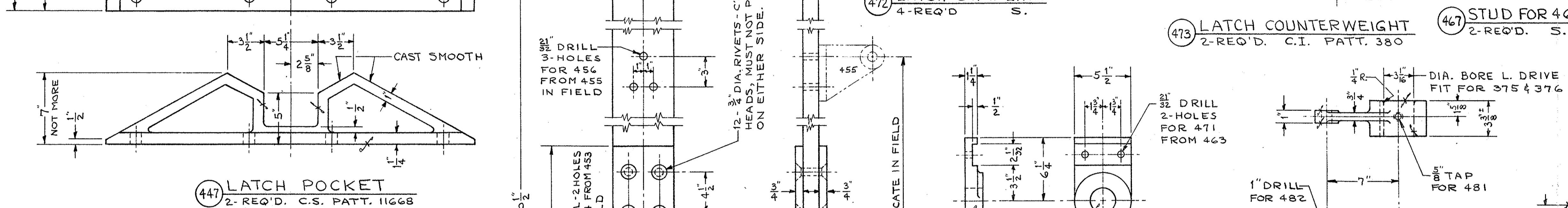
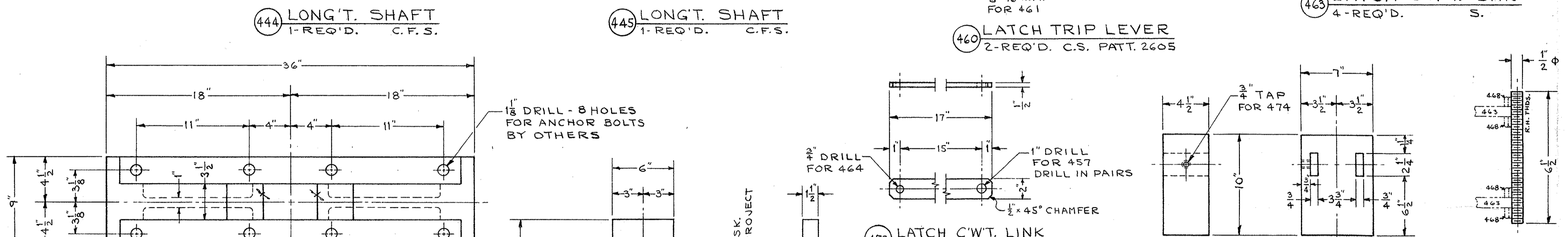
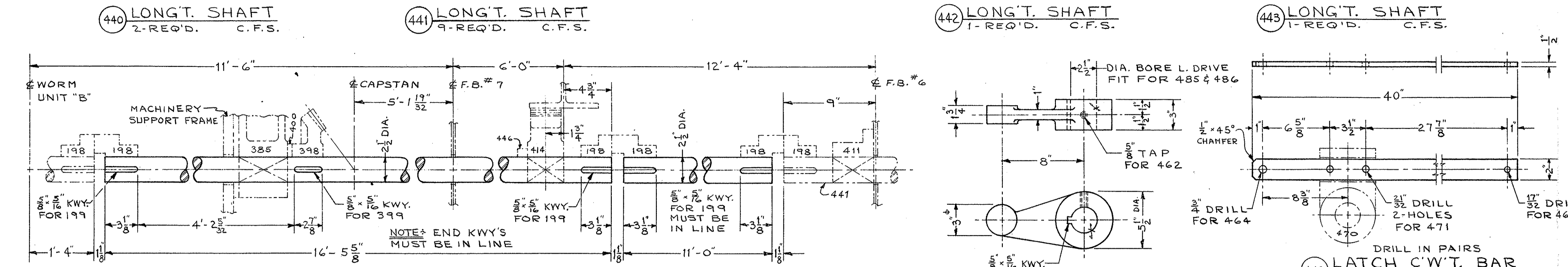
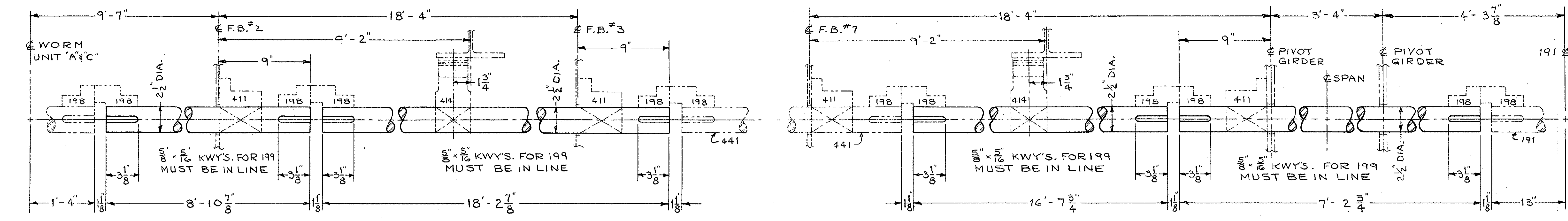
S.O.D-7935 CONTRACT 3.11907

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

| 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 1/2" 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" x 1 1/2" LG. CUP-POINT |
| 482 | PIN FOR 476, 479 & 519 | 4 | C.R.S. | | |
| 483 | COTTER PIN FOR 482 | 8 | S. | STD. | 3/16" 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.

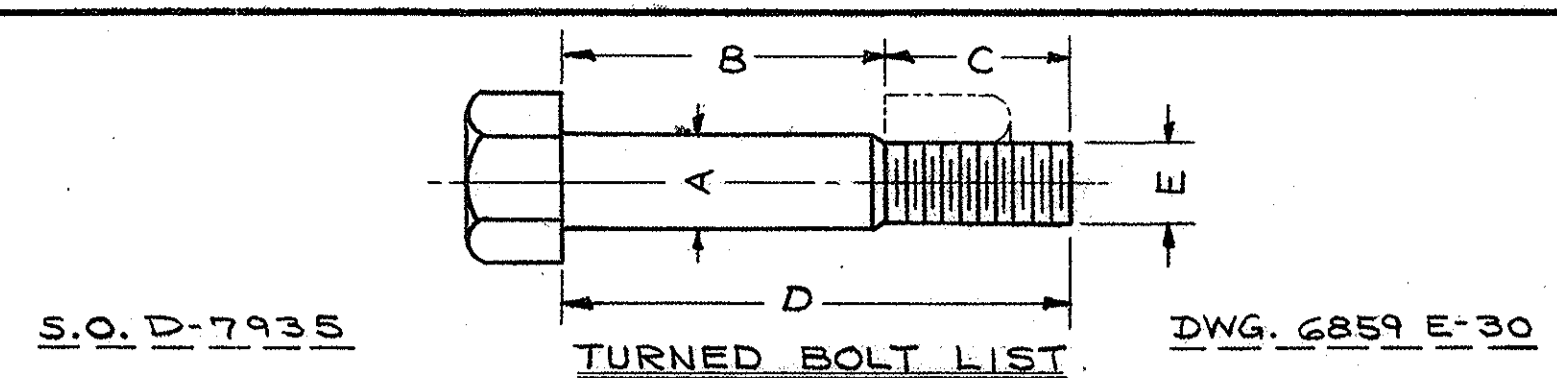
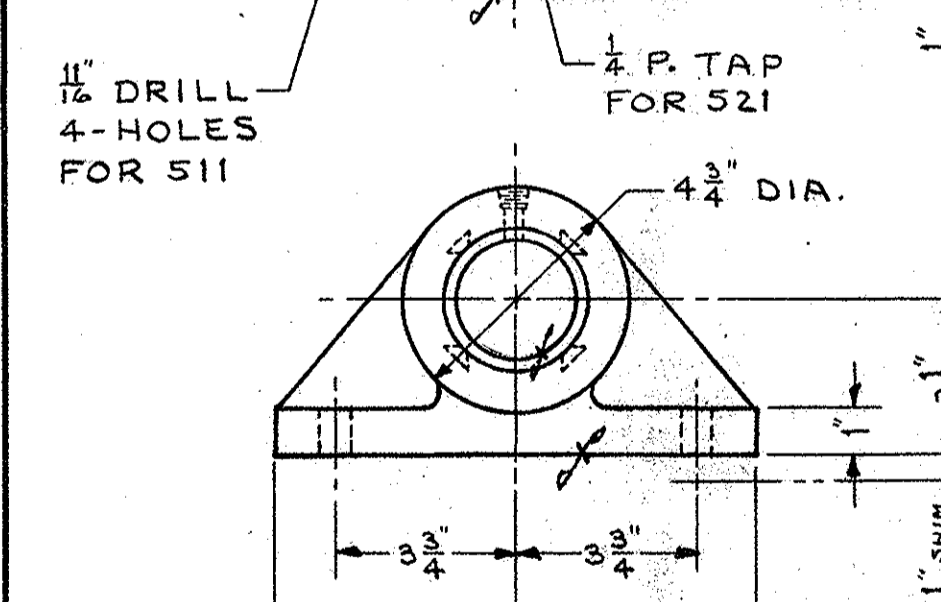
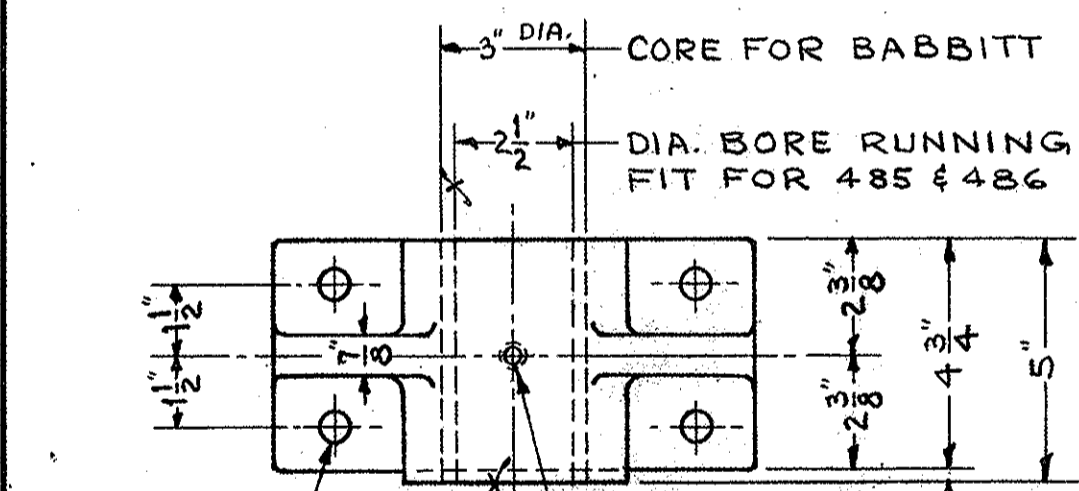
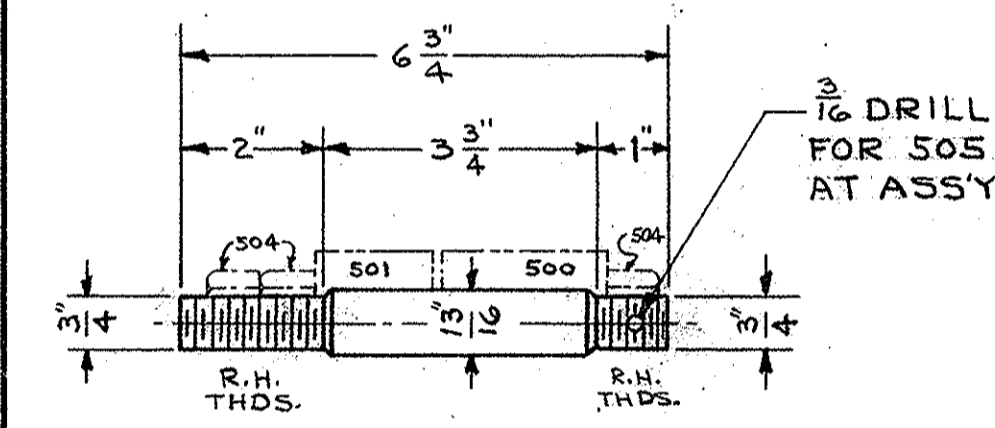
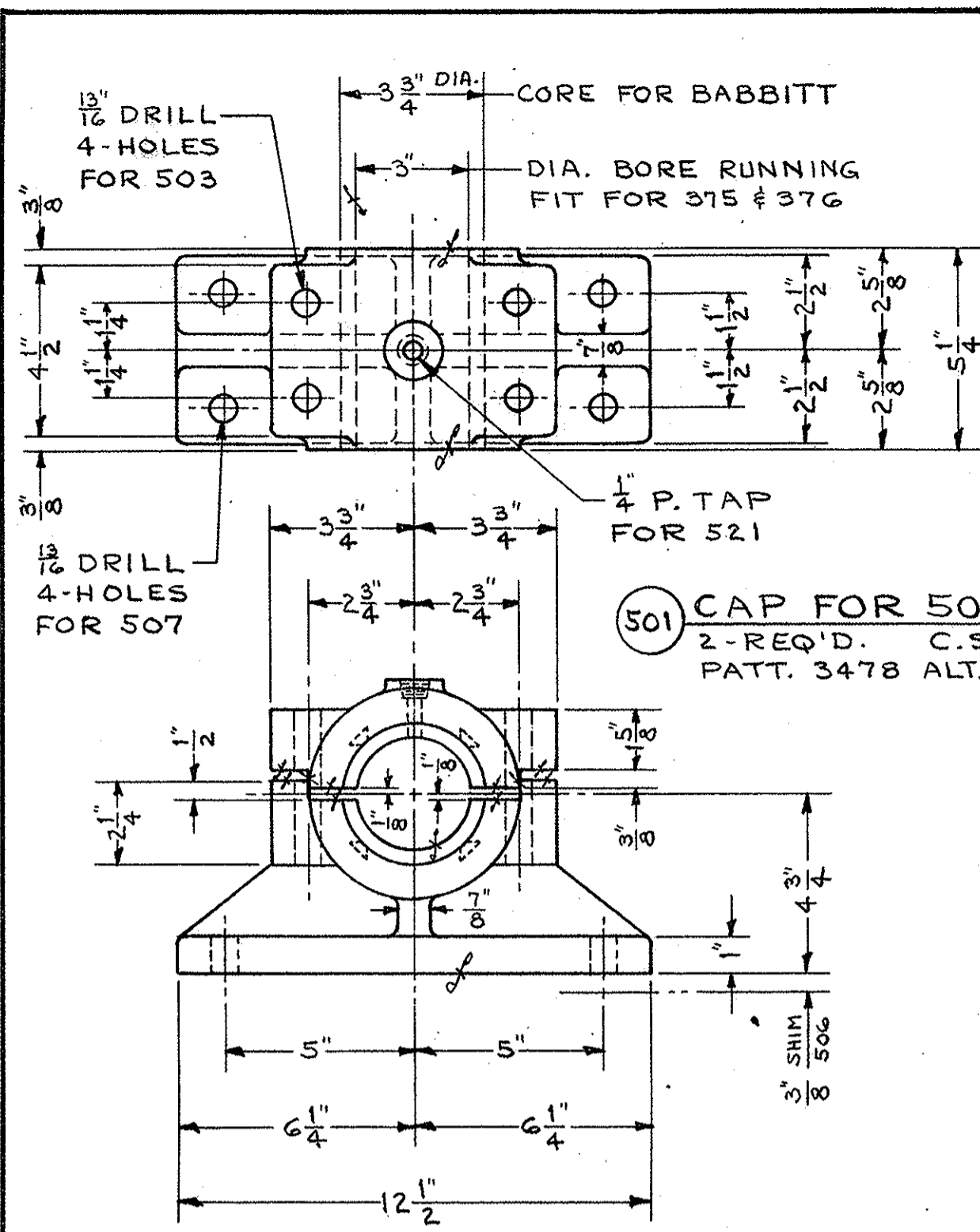
SPECIFICATIONS AASHTO & SPECIAL PROVISIONS
INSPECTION FROEHLING & ROBERTSON, INC.

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

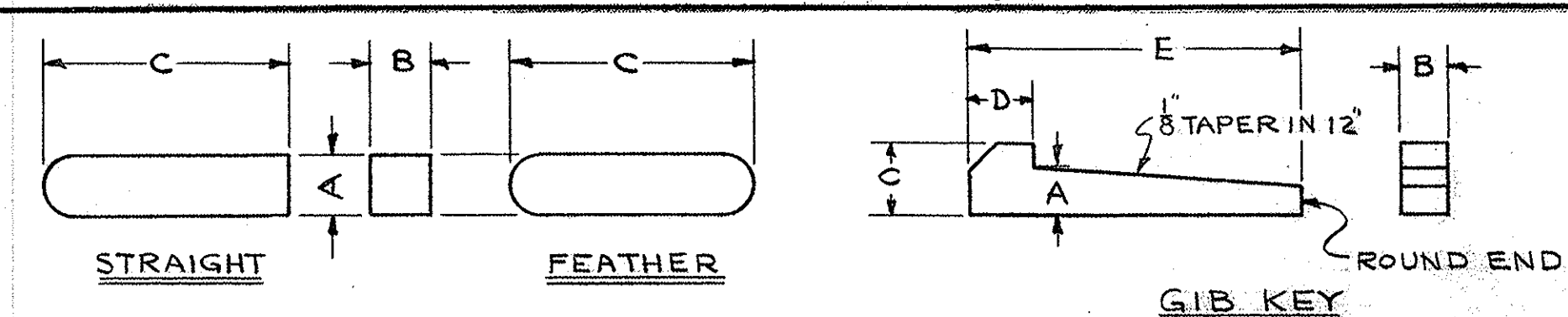
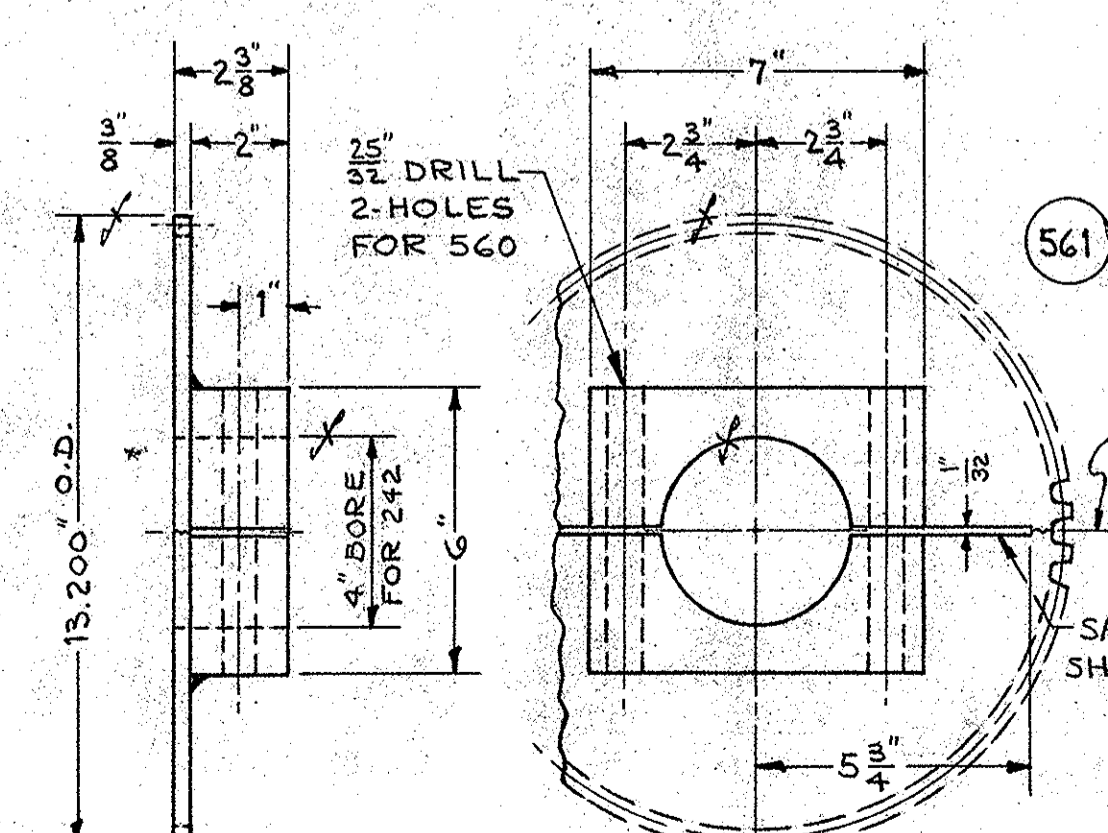
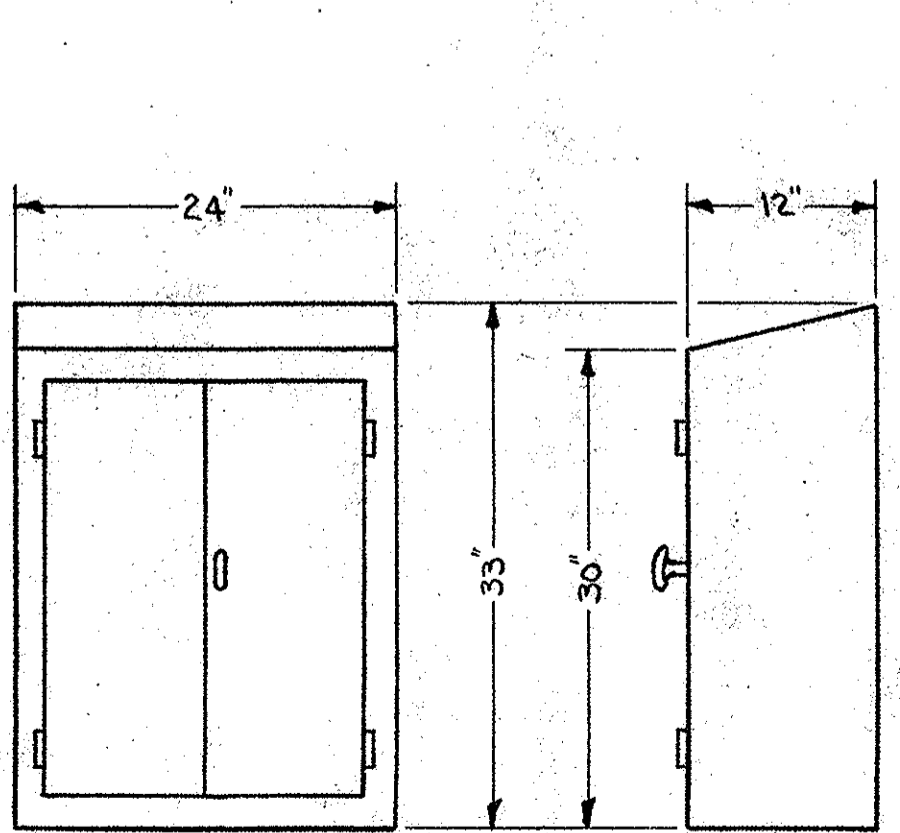
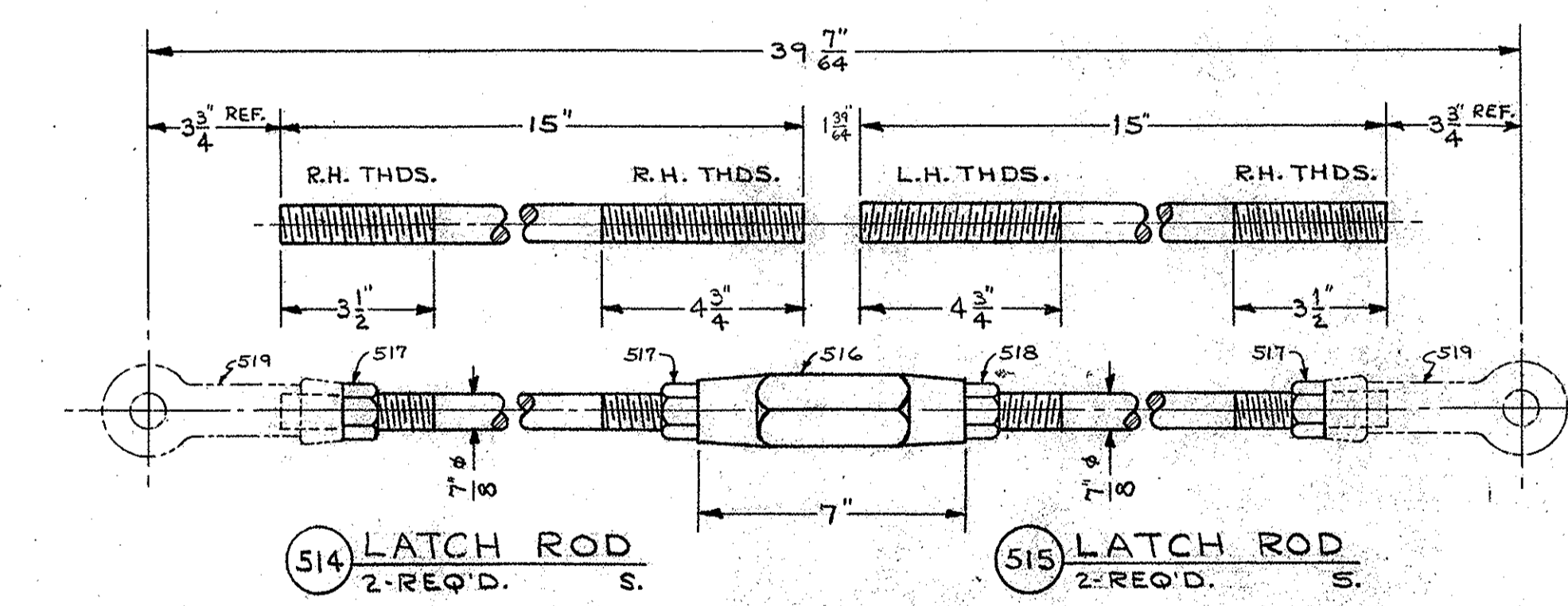
THE EARLE GEAR AND MACHINE COMPANY
4707 TO 4715 STENTON AVENUE
PHILADELPHIA 44, PA.

DRAWN BY: A.J.C. 7-5-60 APPROVED BY: _____
CHECKED BY: G.P. 7-13-60 REV. APPV. _____
DATE: _____ REV. APPV. _____

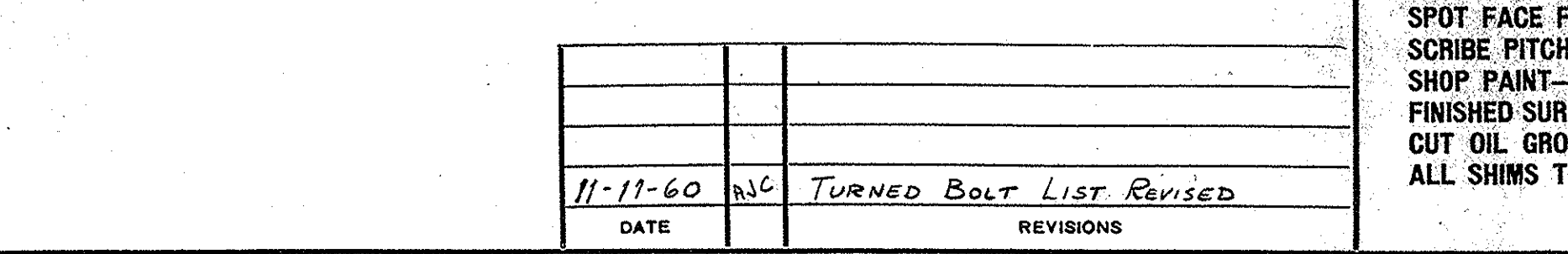
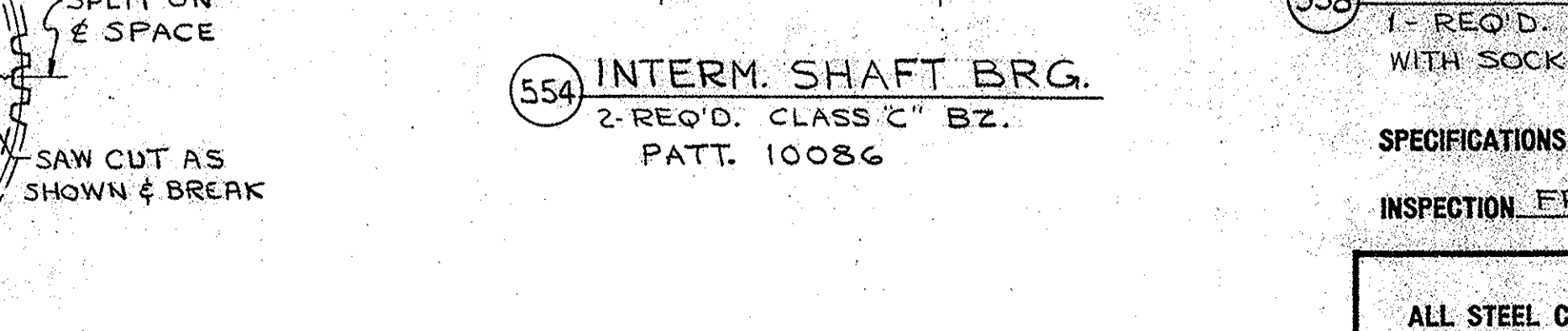
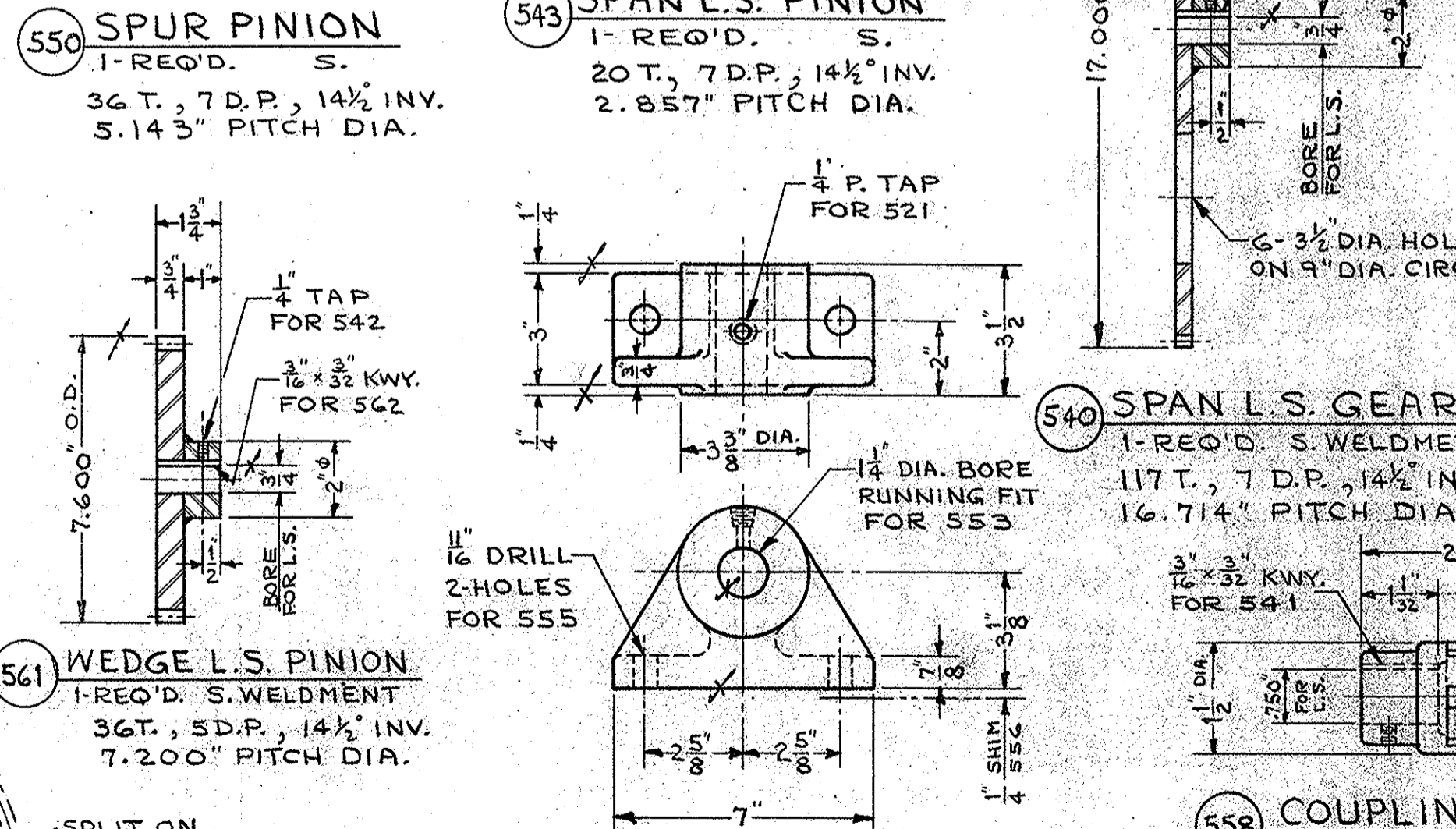
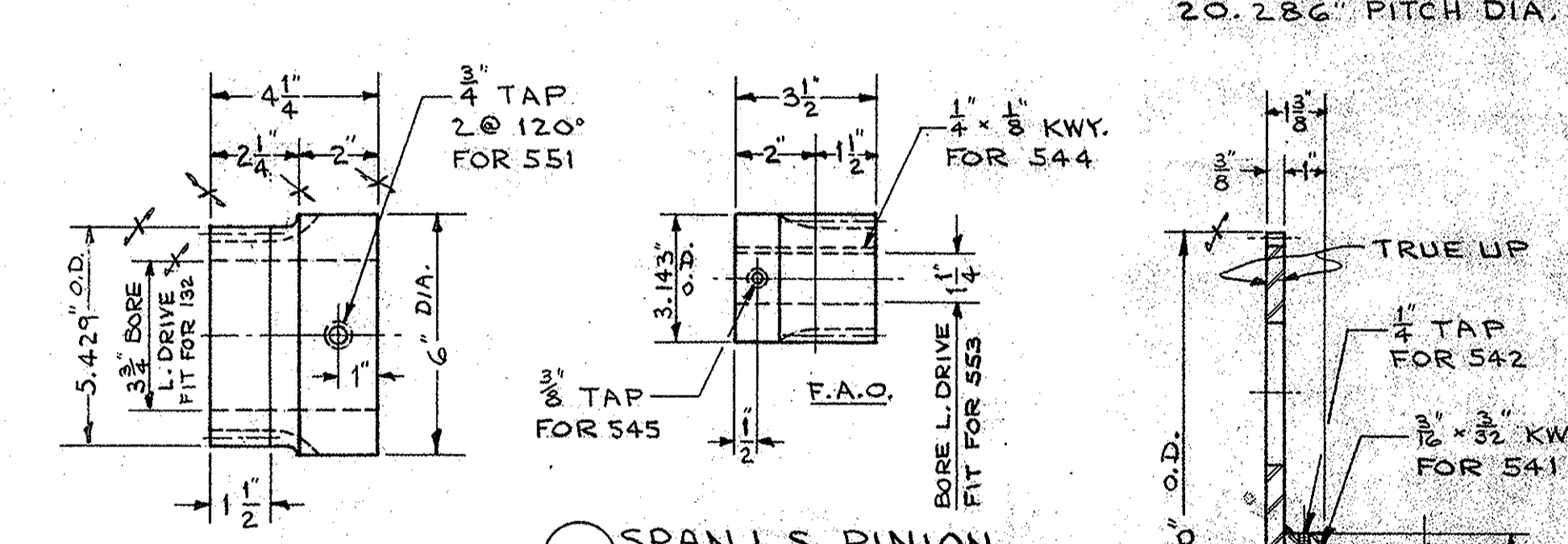
SHEET 8 OF 11 DWG. NO. 6858 E-30



| Pc. No. | HEAD | QTY. | A | B | C | D | E | FOR | REMARKS | NUTS | L.W. | B.W. |
|---------|------|------|-------|-------|-------|--------|-------|--------|---------|------|------|-------------|
| 3 | HEX. | 8 | 1 1/2 | 2 3/8 | 1 3/8 | 4 1/2 | 1" | 1#2 | BASE | 8 | 8 | |
| 4 | HEX. | 4 | 1 1/2 | 2 3/8 | 1 3/8 | 4 1/2 | 1" | 2 | FLANGE | 4 | 4 | |
| 15 | HEX. | 6 | 1 1/2 | 5 1/4 | 2 3/8 | 7 3/8 | 1 3/8 | 14 | BASE | 6 | 6 | |
| 17 | HEX. | 16 | 1 1/2 | 1 3/8 | 1 3/8 | 3" | 3/8 | 16 | BASE | 16 | 16 | |
| 27 | HEX. | 24 | 1 1/2 | 2 3/8 | 1 3/8 | 4" | 1" | 25 | FLANGE | 24 | 24 | |
| 31 | HEX. | 24 | 1 1/2 | 3 3/8 | 1 3/8 | 5 1/2 | 1" | 38 | BASE | 24 | 24 | |
| 32 | SQ. | 16 | 1 1/2 | 7 3/8 | 3 3/8 | 10 1/4 | 1 1/2 | 2 3/8 | CAP | 32 | | |
| 39 | HEX. | 16 | 1 1/2 | 4 3/8 | 1 1/2 | 6 1/4 | 3/8 | 16 | BASE | 16 | 16 | |
| 77 | HEX. | 8 | 1 1/2 | 3 1/4 | 2 3/8 | 5 3/8 | 3/8 | 7 1/8 | CAP | 16 | | |
| 78 | HEX. | 8 | 1 1/2 | 1 1/2 | 1 3/8 | 2 3/8 | 3/8 | 7 1/8 | BASE | 8 | 8 | |
| 85 | SQ. | 8 | 1 1/2 | 5 1/4 | 2 3/8 | 8 1/4 | 3/8 | 8 3/8 | CAP | 16 | | |
| 86 | HEX. | 16 | 1 1/2 | 2" | 1 1/2 | 3 1/8 | 3/8 | 8 1/8 | BASE | 16 | 16 | |
| 123 | HEX. | 6 | 1 1/2 | 2 3/8 | 1 3/8 | 4 3/8 | 3/8 | 12 1/8 | BASE | 6 | 6 | 6 3/8 SLOPE |
| 140 | HEX. | 4 | 1 1/2 | 2 3/8 | 1 3/8 | 3 3/8 | 3/8 | 13 1/8 | BASE | 4 | 4 | |
| 144 | HEX. | 4 | 1 1/2 | 1 3/8 | 1 1/2 | 2 3/8 | 3/8 | 14 3/8 | BASE | 4 | 4 | |
| 192 | HEX. | 6 | 1 1/2 | 2 3/8 | 1 3/8 | 4" | 3/8 | 19 1/8 | BASE | 6 | 6 | 6 3/8 SLOPE |
| 214 | HEX. | 18 | 1 1/2 | 2 3/8 | 1 3/8 | 3 3/8 | 3/8 | 20 3/8 | BASE | 18 | 18 | |
| 266 | HEX. | 12 | 1 1/2 | 3 3/8 | 1 3/8 | 5 3/8 | 3/8 | 26 1/8 | BASE | 12 | 12 | |
| 276 | HEX. | 12 | 1 1/2 | 3" | 1 3/8 | 4 3/8 | 3/8 | 27 1/8 | BASE | 12 | 12 | |
| 277 | HEX. | 4 | 1 1/2 | 3 3/8 | 1 3/8 | 4 3/8 | 3/8 | 27 1/8 | BASE | 4 | 4 | |
| 337 | HEX. | 8 | 1 1/2 | 1 3/8 | 1 1/2 | 3 3/8 | 3/8 | 33 1/8 | BASE | 8 | 8 | 8 3/8 SLOPE |
| 338 | HEX. | 16 | 1 1/2 | 1" | 1 1/2 | 2 3/8 | 3/8 | 33 1/8 | BASE | 16 | 16 | |
| 341 | HEX. | 8 | 1 1/2 | 3" | 1 1/2 | 4 3/8 | 3/8 | 34 1/8 | BASE | 8 | 8 | |
| 343 | HEX. | 16 | 1 1/2 | 2 3/8 | 1 3/8 | 3 3/8 | 3/8 | 34 1/8 | BASE | 16 | 16 | |
| 347 | HEX. | 16 | 1 1/2 | 1 1/2 | 1 3/8 | 2 3/8 | 3/8 | 34 1/8 | BASE | 16 | 16 | |
| 380 | HEX. | 24 | 1 1/2 | 2 3/8 | 1 3/8 | 4 3/8 | 3/8 | 37 1/8 | BASE | 24 | 24 | |
| 391 | HEX. | 2 | 1 1/2 | 6 1/2 | 1 3/8 | 8 1/8 | 3/8 | 38 1/8 | BASE | 2 | 2 | |
| 392 | HEX. | 2 | 1 1/2 | 5 3/8 | 1 3/8 | 7 3/8 | 3/8 | 38 1/8 | BASE | 2 | 2 | |
| 408 | HEX. | 4 | 1 1/2 | 1 3/8 | 1 3/8 | 3 3/8 | 3/8 | 40 1/8 | BASE | 4 | 4 | |
| 412 | HEX. | 44 | 1 1/2 | 1 3/8 | 1 3/8 | 2 3/8 | 3/8 | 41 1/8 | BASE | 44 | 44 | |
| 413 | HEX. | 4 | 1 1/2 | 1 3/8 | 1 3/8 | 2 3/8 | 3/8 | 41 1/8 | BASE | 4 | 4 | |
| 417 | SQ. | 22 | 1 1/2 | 6 1/4 | 2" | 8 1/4 | 3/8 | 41 1/8 | CAP | 44 | | |
| 418 | HEX. | 22 | 1 1/2 | 2 3/8 | 1 3/8 | 3 3/8 | 3/8 | 41 1/8 | BASE | 22 | 22 | |
| 507 | HEX. | 8 | 1 1/2 | 2" | 1 3/8 | 3 3/8 | 3/8 | 50 1/8 | BASE | 8 | 8 | |
| 555 | HEX. | 4 | 1 1/2 | 1 3/8 | 1 3/8 | 3" | 3/8 | 55 1/8 | BASE | 4 | 4 | |
| 233 | HEX. | 6 | 1 1/2 | 2 3/8 | 1 3/8 | 4" | 3/8 | 20 3/8 | BASE | 6 | 6 | |



| Pc. No. | KIND | QTY. | A | B | C | FOR | ON | D | E |
|---------|----------|------|-------|-------|-------|-----|---------|----|----|
| 52 | STRAIGHT | 4 | 1 1/2 | 1 1/2 | 6 3/8 | 51 | 50 1/2 | | |
| 59 | GIB HEAD | 2 | 7/8 | 7/8 | 1 1/2 | 58 | 102 4 | 1" | 7" |
| 63 | STRAIGHT | 4 | 1 1/2 | 1 1/2 | 6 3/8 | 62 | 56 1/2 | | |
| 66 | FEATHER | 1 | 5/8 | 5/8 | 4" | 65 | 72 | | |
| 69 | FEATHER | 1 | 7/8 | 7/8 | 4" | 68 | 133 | | |
| 127 | STRAIGHT | 4 | 3/8 | 3/8 | 5 1/2 | 126 | 121 | | |
| 128 | STRAIGHT | 4 | 7/8 | 7/8 | 4 3/8 | 126 | 132 1/2 | | |
| 130 | STRAIGHT | 1 | 1/2 | 1/2 | 3" | 129 | 121 | | |
| 195 | STRAIGHT | 1 | 3/8 | 3/8 | 2 1/8 | 194 | 191 | | |
| 199 | STRAIGHT | 36 | 5/8 | 5/8 | 5 1/8 | 198 | 201 | | |
| 202 | STRAIGHT | 6 | 1" | 1" | 5" | 201 | 204 | | |
| 203 | STRAIGHT | 6 | 1" | 1" | 5 1/2 | 201 | 230 | | |
| 232 | FEATHER | 3 | 1" | 1" | 4 3/8 | 231 | 230 | | |
| 301 | STRAIGHT | 2 | 1" | 1" | 5" | 300 | 241 1/2 | | |
| 321 | FEATHER | 2 | 1" | 1" | 6" | 320 | 331 1/2 | | |
| 327 | FEATHER | 2 | 1" | 1" | 6 1/2 | 326 | 331 1/2 | | |
| 350 | STRAIGHT | 4 | 1" | 1" | 5 3/8 | 349 | 348 1/2 | | |
| 365 | FEATHER | 2 | 1" | 1" | 6 1/2 | 364 | 375 1/2 | | |
| 367 | STRAIGHT | 4 | 1" | 1" | 7 1/8 | 366 | 376 1/2 | | |
| 371 | STRAIGHT | 2 | 1" | 1" | 6 1/8 | 364 | 377 | | |
| 396 | FEATHER | 1 | 5/8 | 5/8 | 3 1/2 | 395 | 401 | | |
| 399 | FEATHER | 1 | 5/8 | 5/8 | 2 3/8 | 398 | 444 | | |
| 461 | FEATHER | 2 | 5/8 | 5/8 | 3" | 460 | 489 1/2 | | |
| 477 | STRAIGHT | 2 | 5/8 | 5/8 | 3 5/8 | 476 | 486 1/2 | | |
| 480 | FEATHER | 2 | 3/4 | 3/4 | 3 1/2 | 479 | 372 3/8 | | |
| 541 | SQ. ENDS | 2 | 3/16 | 3/16 | 2 1/2 | 540 | 548 | | |
| 544 | FEATHER | 1 | 1/4 | 1/4 | 3 3/8 | 543 | 553 | | |
| 548 | STRAIGHT | 1 | 1/4 | 1/4 | 2 1/8 | 547 | 553 | | |
| 562 | SQ. ENDS | 1 | 3/16 | 3/16 | 2 1/2 | 561 | | | |



S.O. D-7935 BILL OF MATERIAL DWG. 6859 E-30

| Pc. | NAME | QTY. | MTL. | PATT. | REMARKS |
|-----|----------------------------|--------|--------------|-----------------------|----------------------------------|
| 500 | E.W. JACK SHAFT BRG. | 2 | C.S. | 3471 | ALT. |
| 501 | CAP FOR 500 | 2 | C.S. | 3478 | ALT. |
| 502 | LINER FOR 500 & 501 | 4 | FIBER | 5 1/2 x 1 1/2 x 1 1/2 | |
| 503 | STUD BOLT FOR 500 | 8 | S. | | SEE DETAIL |
| 504 | NUT FOR 503 | 24 | S. | HEX. | 3/4" R.H. AMER. STD. HEAVY |
| 505 | COTTER PIN FOR 503 | 16 | S. | STD. | 3/8" x 2" LG. |
| 506 | SHIM FOR 500 | 2 SETS | S. | 12 1/2 x 5" | 1/8" - 1/8" - 1/8" - 1/8" |
| 507 | BASE BOLT FOR 500 | 8 | S. | | T. B. LIST |
| 508 | | | | | |
| 509 | | | | | |
| 510 | LATCH SHAFT BRG. | 6 | C.S. | 8295 | |
| 511 | BASE BOLT FOR 510 | 24 | S. | | T. B. LIST |
| 512 | SHIM FOR 510 | 2 SETS | S. | 10" x 4 1/2" | 1/4" - 1/8" - 1/8" - 1/8" - 1/8" |
| 513 | | | | | |
| 514 | LATCH ROD | 2 | S. | | R.H. THREADS |
| 515 | LATCH ROD | 2 | S. | | R.H. & L.H. THREADS |
| 516 | SLEEVE NUT FOR 514 & 515 | 2 | F.S. | | 3/8" A.B. STYLE R.H.L. THDS. |
| 517 | NUT FOR 514 | 6 | S. | HEX. | 3/8" R.H. AMER. STD. HEAVY |
| 518 | NUT FOR 515 | 2 | S. | HEX. | 3/8" L.H. AMER. STD. HEAVY |
| 519 | CLEVIS FOR 514 & 515 | 4 | S. | STD. | MERRILL BROS. |
| 520 | | | | | |
| 521 | LUB. FITTING FOR 522 | 10 | | 1/4" P.T. | ALEMITE #1627-A |
| 522 | TOOL CABINET | 1 | S. | | HALLOWELL #330-1224 |
| 523 | GREASE GUN | 1 | | | ALEMITE #401G |
| 524 | HOSE ASSY. FOR 523 | 1 | | | ALEMITE #6654-A |
| 525 | | | | | |
| 526 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 58 3/8" - 3 1/2" |
| 527 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 44 2" - 1 1/2" |
| 528 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 39 1 1/2" - 1 1/2" |
| 529 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 37A 1 1/2" - 1 1/2" |
| 530 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 34 1 1/2" - 3/8" |
| 531 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 33C 1" - 1 1/8" |
| 532 | ENG. WRENCH-15" DOUBLE | 1 | F.S. | | No. 72B 3/4" - 3/16" |
| 533 | ENG. WRENCH-15" SINGLE | 1 | F.S. | | No. 13 2 3/8" |
| 534 | SOCKET SCREW KEY | 1 | S. | HEX. | 1/2" ACROSS FLATS |
| 535 | SOCKET SCREW KEY | 1 | S. | HEX. | 3/8" ACROSS FLATS |
| 536 | SOCKET SCREW KEY | 1 | S. | HEX. | 5/16" ACROSS FLATS |
| 537 | SOCKET SCREW KEY | 1 | S. | HEX. | 1/4" ACROSS FLATS |
| 538 | SOCKET SCREW KEY | 1 | S. | HEX. | 3/16" ACROSS FLATS |
| 539 | SOCKET SCREW KEY | 1 | S. | HEX. | 1/8" ACROSS FLATS |
| 540 | SPAN L.S. GEAR | 1 | S. | | WELDMENT |
| 541 | KEY FOR 540 & 558 | 2 | S. | | KEY LIST |
| 542 | SET SCREW FOR 541 | 2 | S. | HOLLOW | 1/4" x 1/2" LG. CUP-POINT |
| 543 | SPAN L.S. PINION | 1 | S. | | KEY LIST |
| 544 | KEY FOR 543 | 1 | S. | | KEY LIST |
| 545 | SET SCREW FOR 543 | 1 | S. | HOLLOW | 3/8" x 1" LG. CUP-POINT |
| 546 | | | | | |
| 547 | INTERMEDIATE GEAR | 1 | S. | | WELDMENT |
| 548 | KEY FOR 547 | 1 | S. | | KEY LIST |
| 549 | SET SCREW FOR 547 | 1 | S. | HOLLOW | 3/8" x 5/8" LG. CUP-POINT |
| 550 | SPUR PINION | 1 | S. | | |
| 551 | SET SCREW FOR 550 | 2 | S. | HOLLOW | 3/4" x 1 1/4" LG. HALF DOG PT. |
| 552 | | | | | |
| 553 | INTERMEDIATE SHAFT | 1 | C.R.S. | | |
| 554 | INTERM. SHAFT BRG. | 2 | CLASS C" BZ. | 10086 | |
| 555 | BASE BOLT FOR 554 | 4 | S. | | T. B. LIST |
| 556 | SHIM FOR 554 | 2 SETS | S. | 3" x 7" | 1/8" - 1/8" - 1/8" - 1/8" |
| 557 | | | | | |
| 558 | COUPLING FOR L.S. & JELSYN | 1 | S. | | BOSTON #FC BB15 |
| 559 | WEDGE L.S. GEAR | 1 | S. | | WELDMENT |
| 560 | BOLT FOR 559 | 2 | S. | HEX. HD. MACH. | 3/8" x 7 1/2" LG. 1/4" N. & L.W. |
| 561 | WEDGE L.S. PINION | 1 | S. | | WELDMENT |
| 562 | KEY FOR 561 | 1 | S. | | KEY LIST |

S.O. D-7935 CONTRACT B.11907

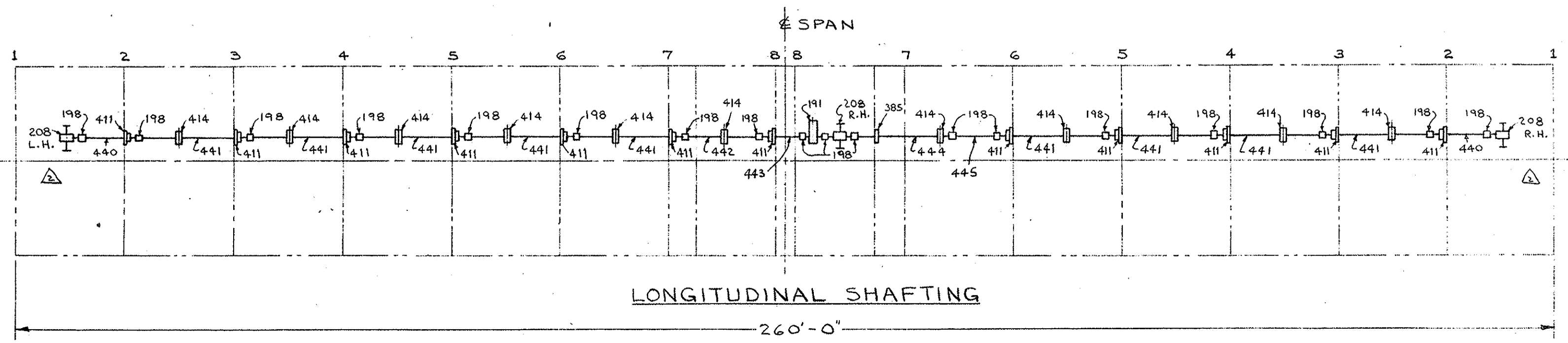
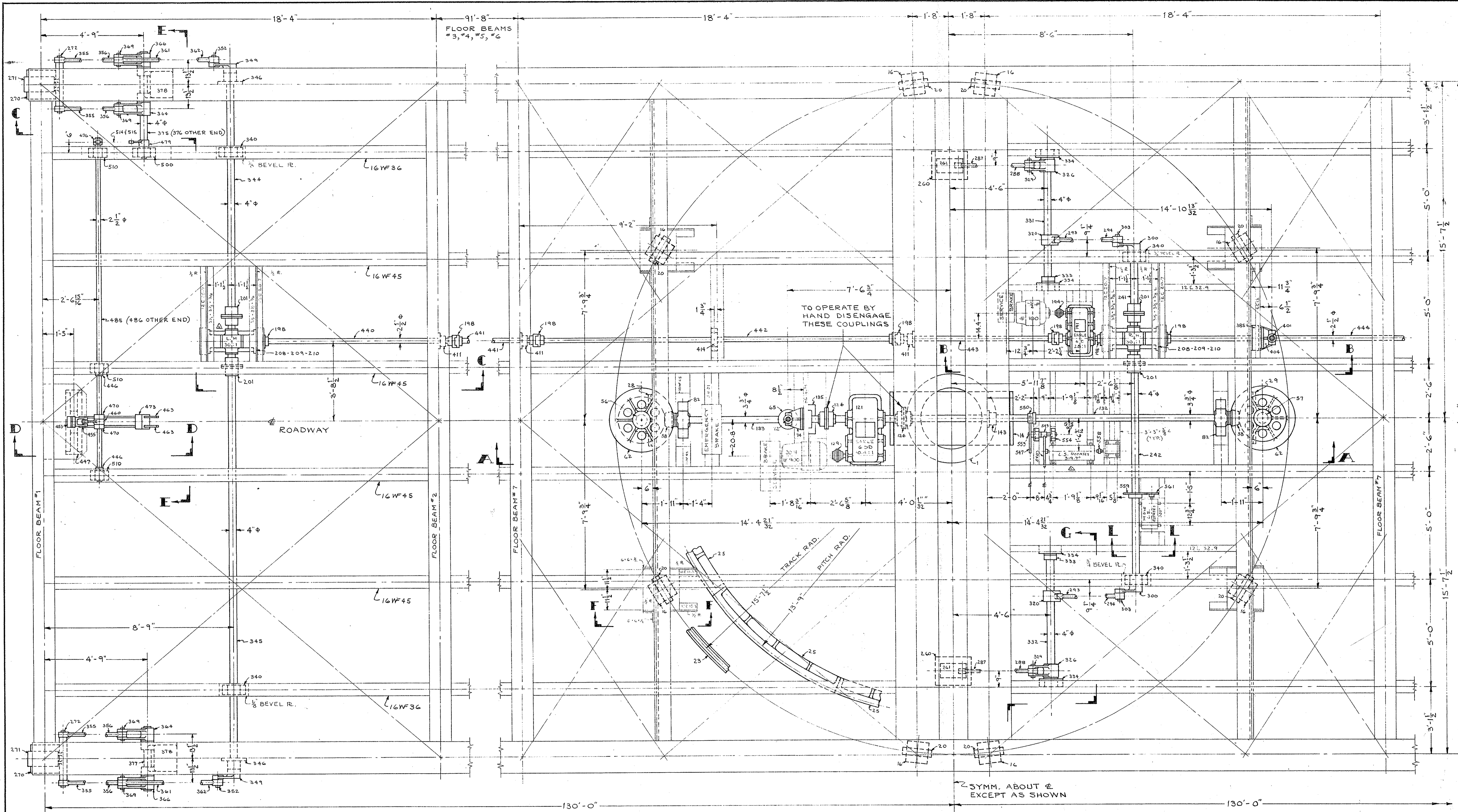
LATCH & MISC. DETAILS
ALLIGATOR RIVER SWAN SPAN
OVER ALLIGATOR RIVER
TYRRELL-DARE COUNTY, N.C.

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

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 11-11-60 REV. N/C TURNED BOLT LIST REVISED
REVISIONS

DRAWN BY A.J.C. 7-11-60 APPROVED BY S.H.C. 9-9-60
CHECKED BY R.P. 7-14-60 REV. APPROV. REV. APPROV.
DATE 8-2-60 REV. APPROV. REV. APPROV.
SHEET 9 OF 11 DWG. NO. 6859 E-30



| 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.

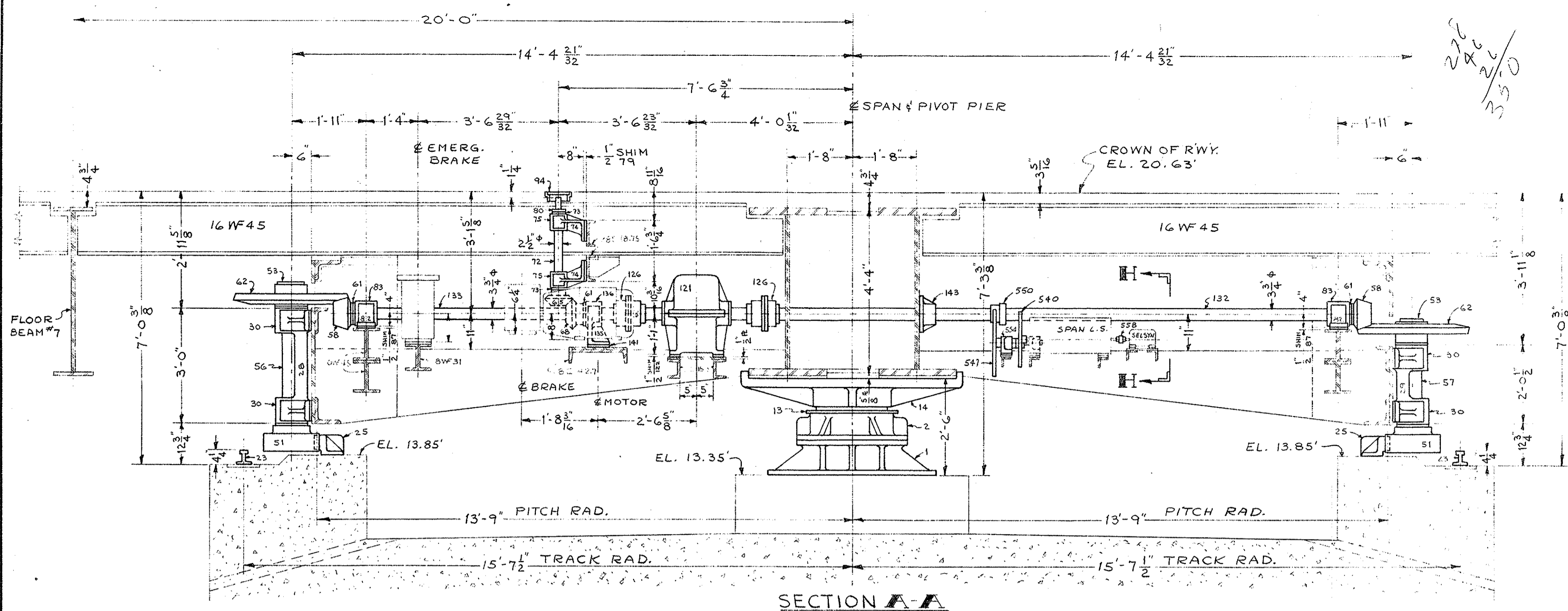
GENERAL NOTES
 ALL STEEL CASTINGS & FORGINGS TO BE ANNEALED
 SPOT FACE FOR ALL BOLT HEADS & NUTS
 SCRIBE PITCH LINES ON BOTH SIDES OF ALL GEARS
 SHOP PAINT—ONE COAT—
 FINISHED SURFACES COATED—
 CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
 ALL SHIMS TO BE DRILLED

S.O. D-7935 CONTRACT 8.11907

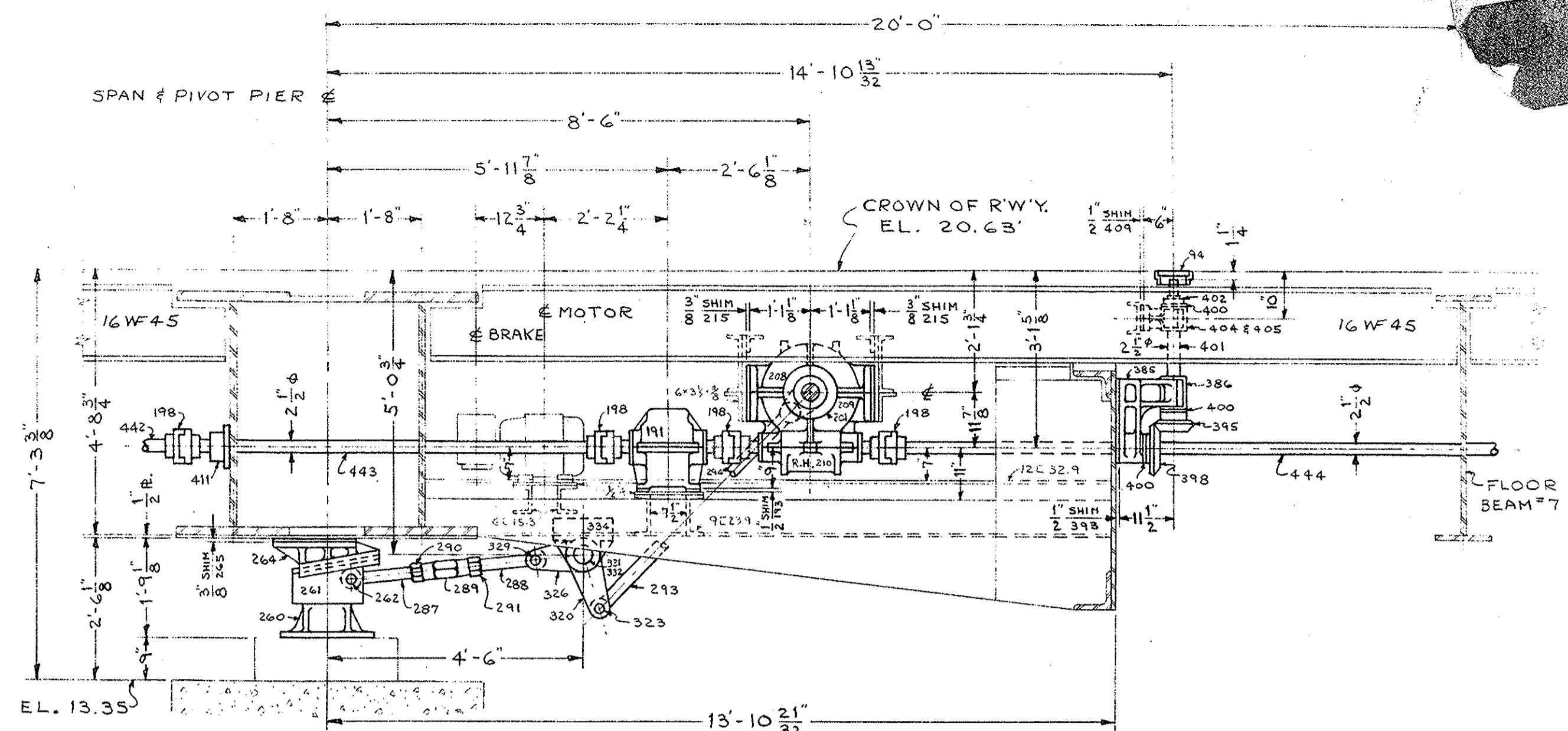
MACHINERY ASSEMBLY
 ALLIGATOR RIVER SWING SPAN
 OVER ALLIGATOR RIVER
 TYRRELL-DARE COUNTY, N.C.

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

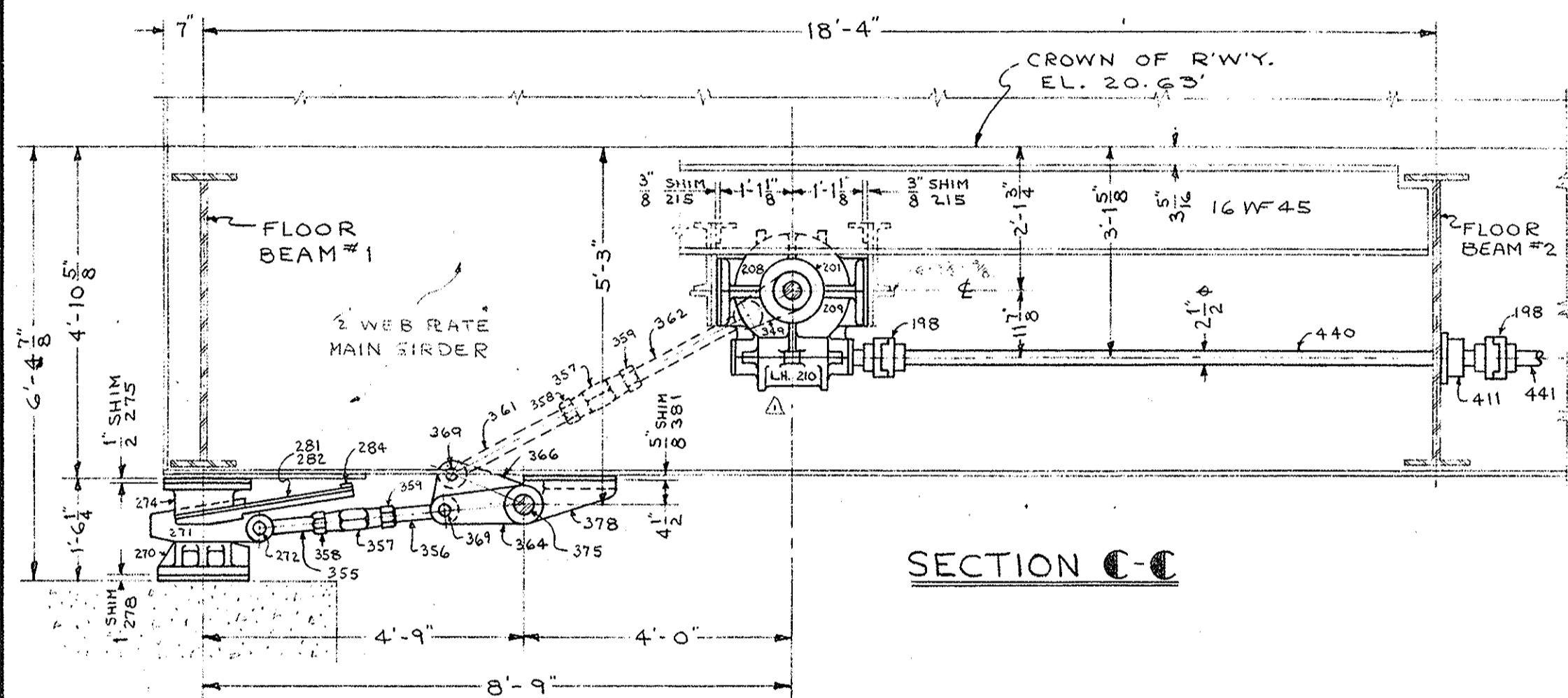
DRAWN BY A.J.C. 8-15-60 APPROVED BY S.H.C. 9-9-60
 CHECKED BY T.B. 8-23-60 REV. APPVD.
 DATE REV. APPVD.
 SHEET 10 OF 11 DWG. NO. 6860 E-30



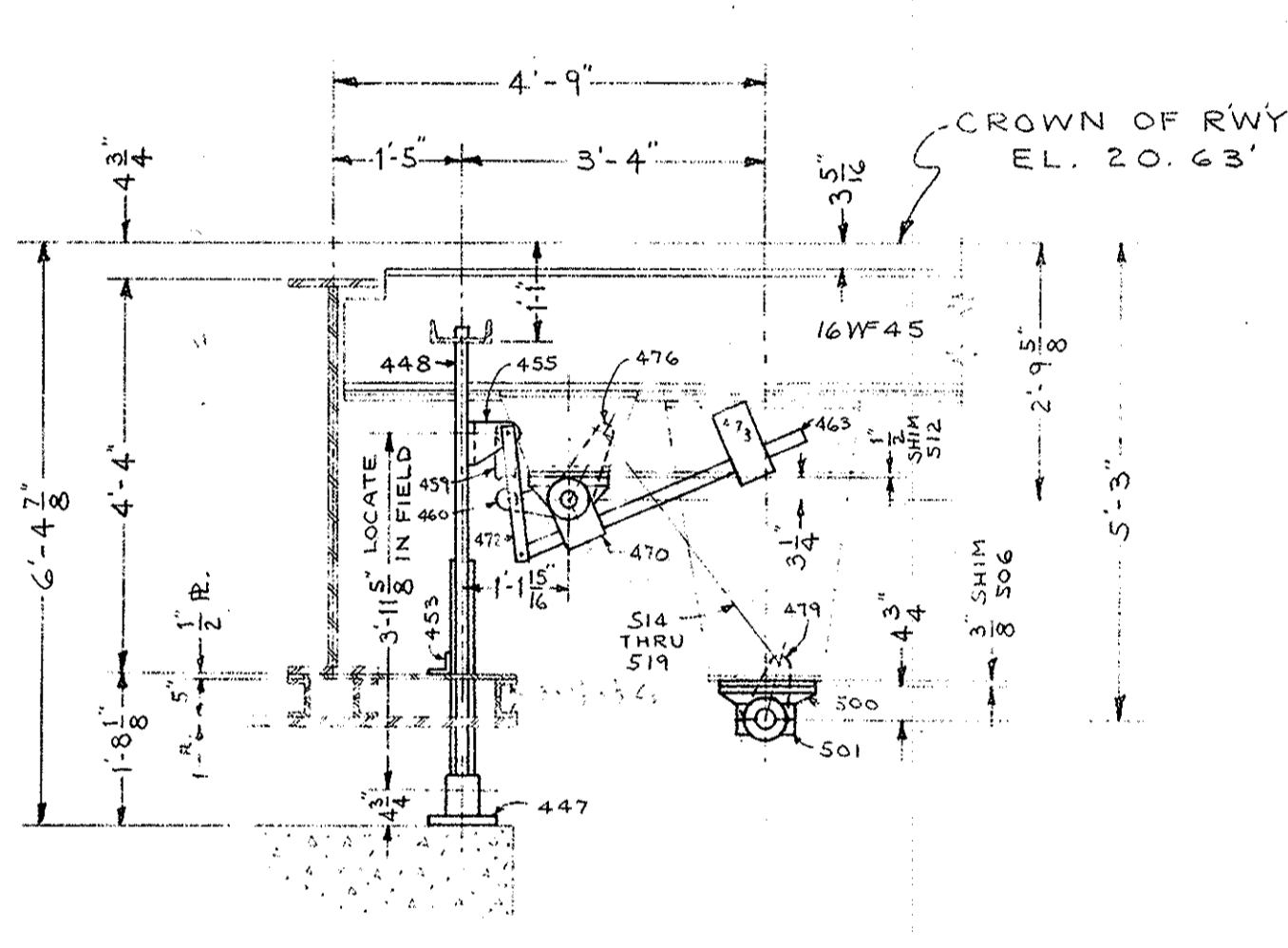
SECTION A-A



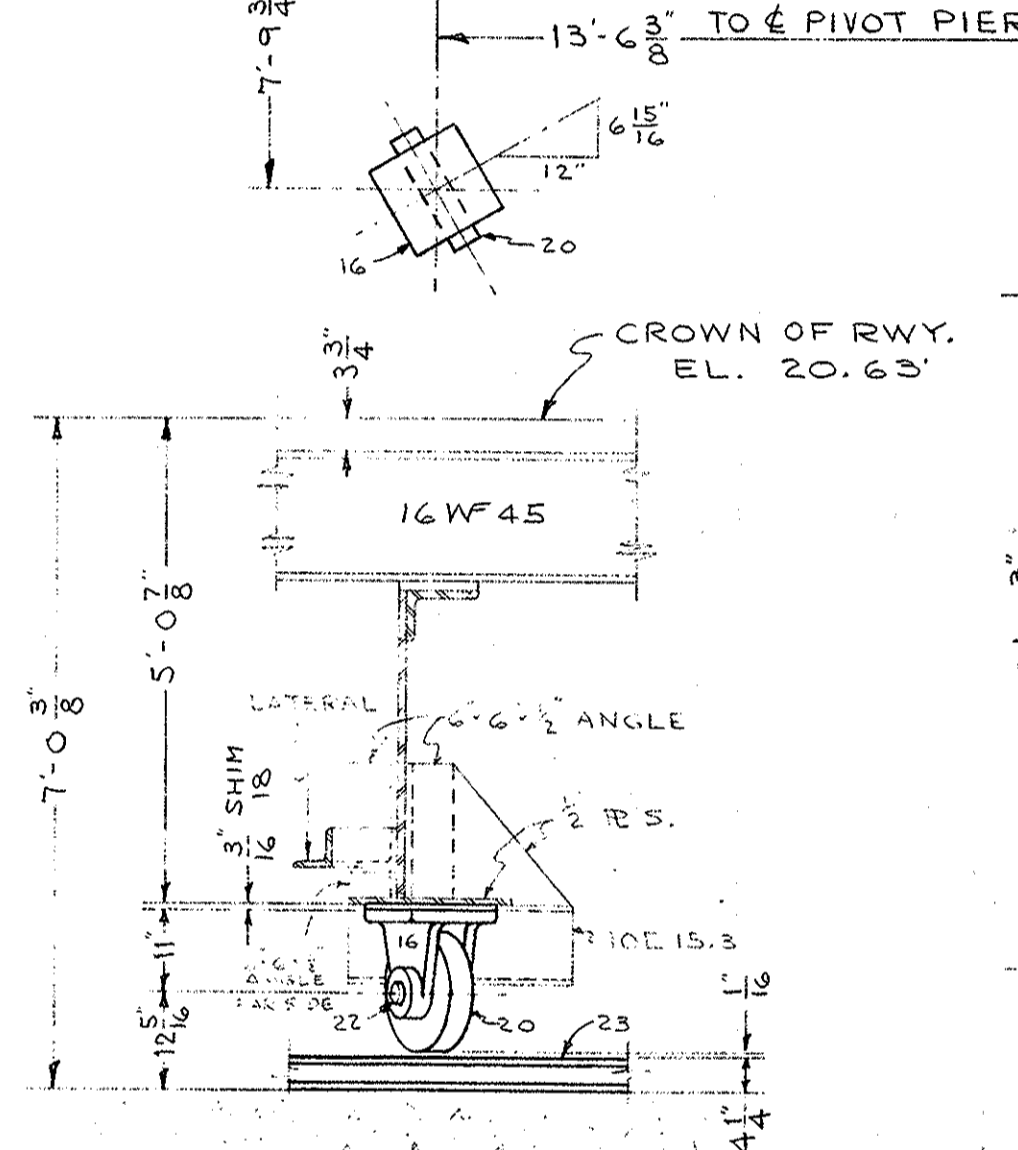
SECTION B-B



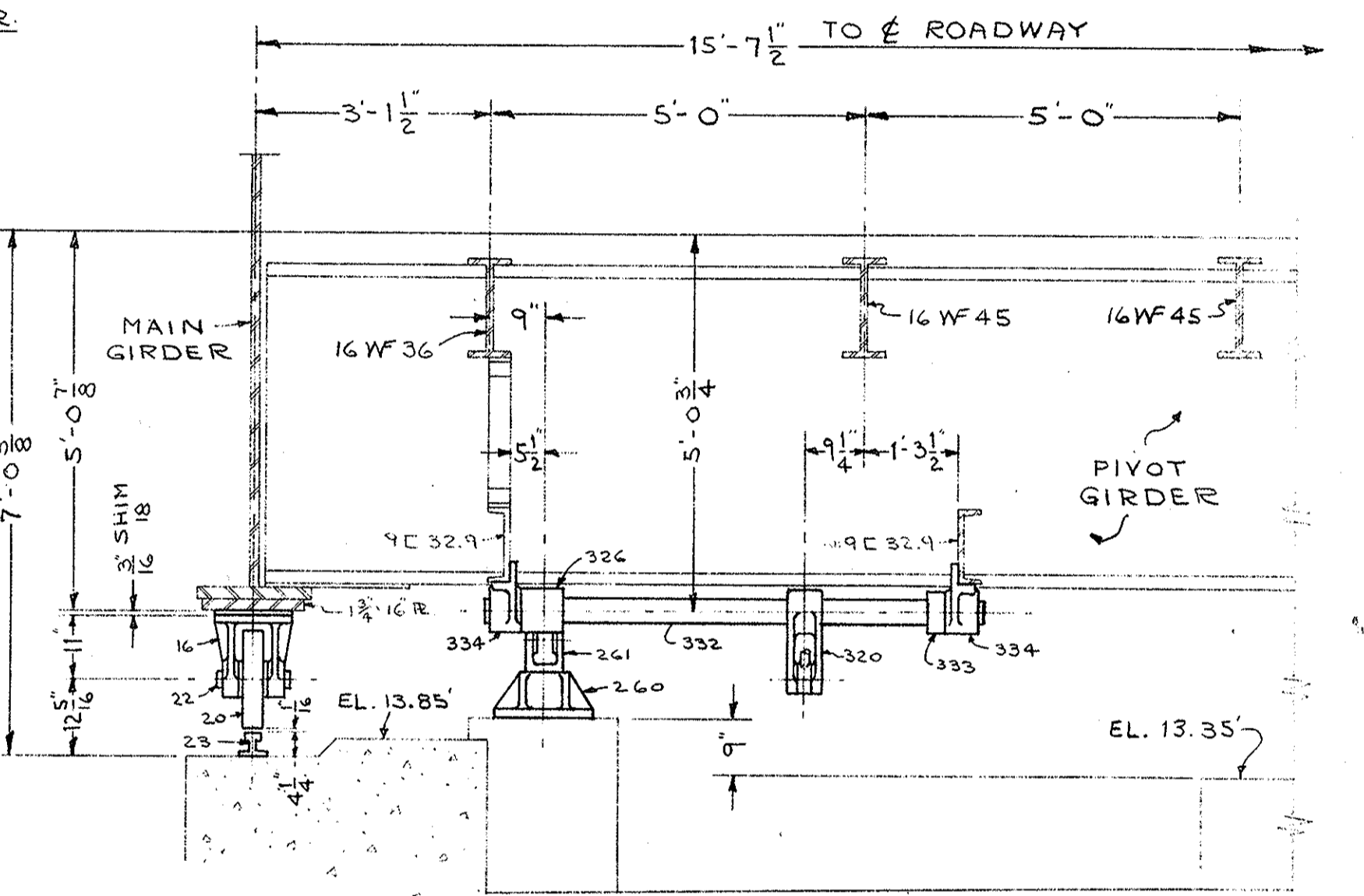
SECTION C-C



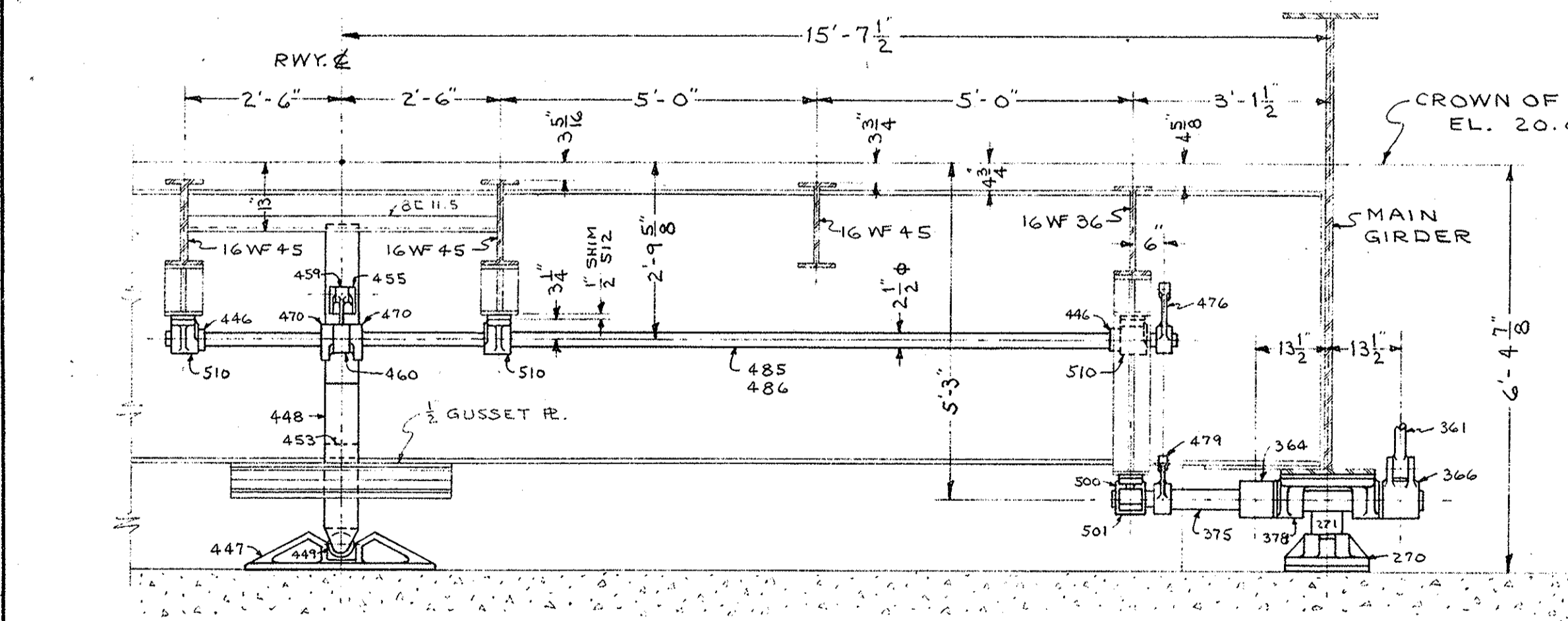
SECTION D-D



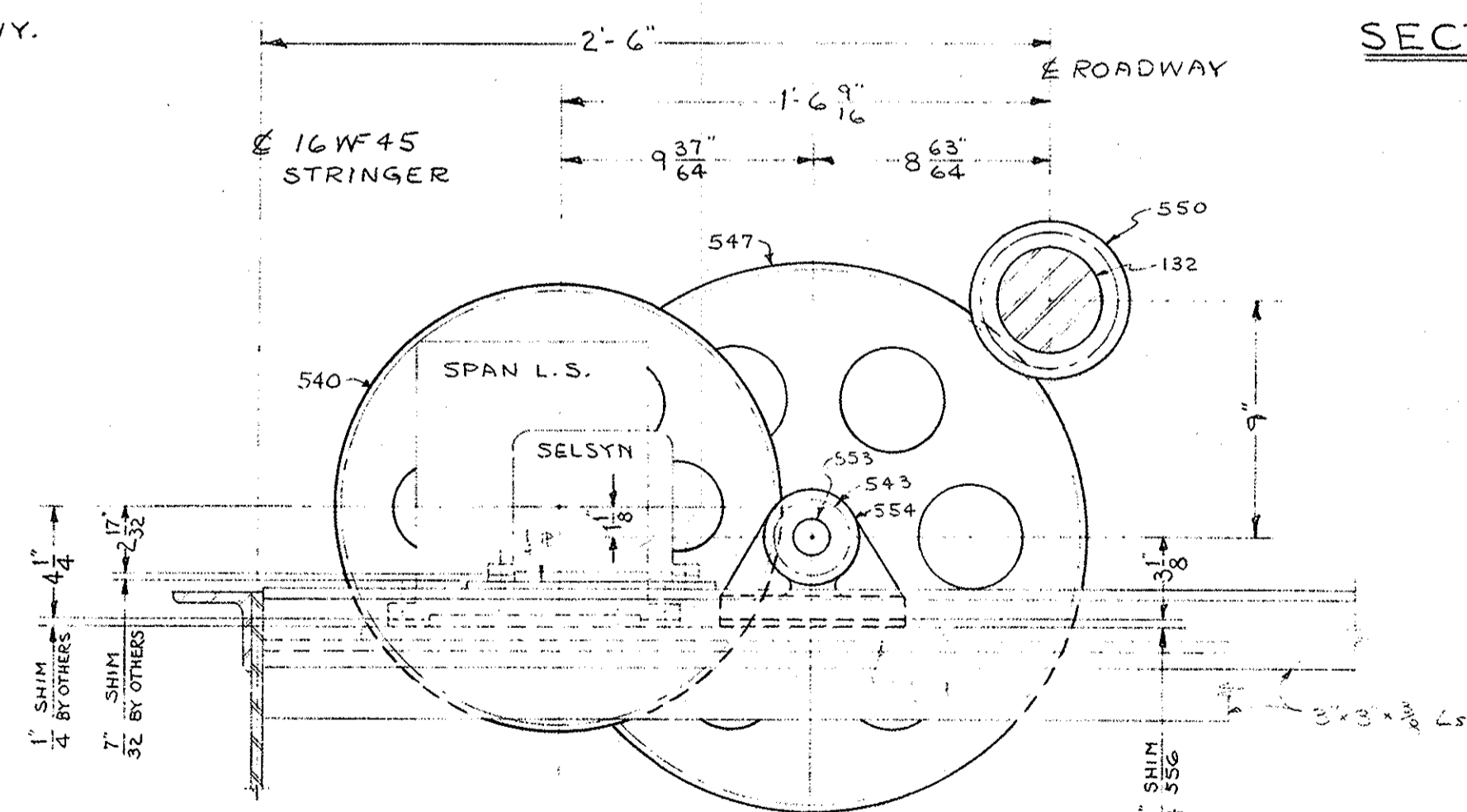
SECTION E-E



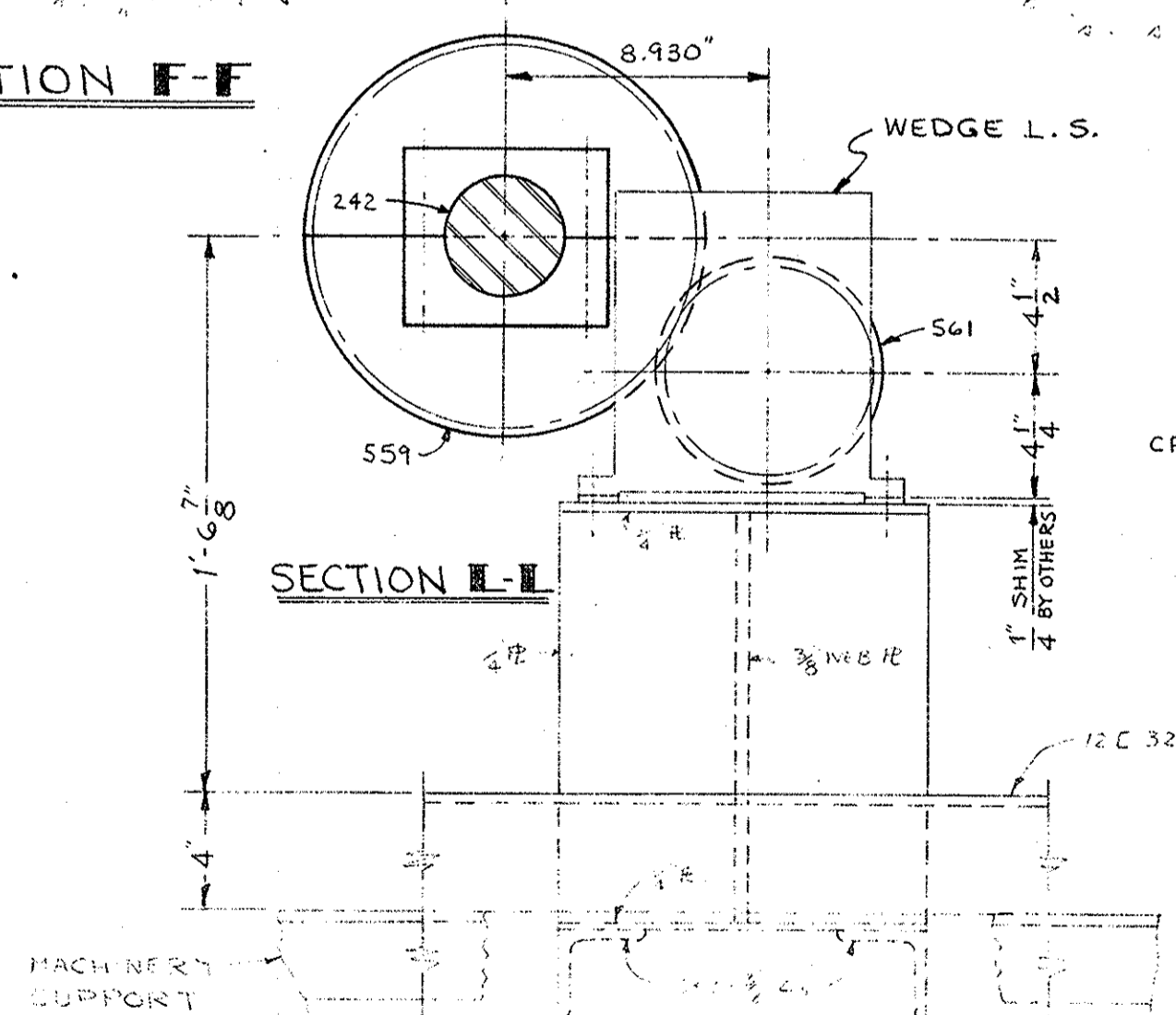
SECTION F-F



SECTION G-G



SECTION H-H



SECTION I-I

$86.6' \times \frac{32.4}{15} \times \frac{71}{18} \times \frac{36}{142} \times \frac{20}{117} = 319.7'$ ROTATION FOR SWING SPAN L.S. & SELSYN

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—
FINISHED SURFACES COATED—
CUT OIL GROOVES IN ALL BEARINGS UNLESS NOTED
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. 8-23-60 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 | BY | REVISIONS |
|--------|-----|-------------------------|
| 2-1-61 | AJC | L.H. WORM UNIT WAS R.H. |

