

TABLE OF CENTER WEDGE MACHINERY COMPONENTS							
PIECE	NAME	QNTY.	DESCRIPTION OF WORK	MATERIAL	DESIGNATION	SUPPLEMENTAL REQUIREMENT	REMARKS
208	WORM HOUSING TOP	1	REHABILITATE EXISTING HOUSING	N/A	N/A	N/A	SEE NOTES 5
209	WORM HOUSING CENTER	1	REHABILITATE EXISTING HOUSING	N/A	N/A	N/A	SEE NOTES 5
210	WORM HOUSING BOTTOM	1	REHABILITATE EXISTING HOUSING	N/A	N/A	N/A	SEE NOTES 5
211	BOLTS FOR 208 AND 209	4	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
212	BOLTS FOR 208 AND 209	4	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
213	BOLTS FOR 209 AND 210	6	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
214	BASE BOLTS FOR 208 AND 209	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
215	SHIMS FOR 208 AND 209	4-SETS	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTES 1 AND 2
216	OUTPUT BUSHING	2	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C91100	N/A	SEE NOTE 1
217	INPUT BUSHING	2	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C91100	N/A	SEE NOTE 1
221	OUTPUT SEAL RING	2	REHABILITATE EXISTING SEAL RINGS	N/A	N/A	N/A	SEE NOTE 5
222	BOLT FOR 221	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
223	OIL SEAL FOR 221	2	REPLACE EXISTING OIL SEALS	GARLOCK # 53 X 2539 (OR APPROVED EQUAL)			COMMERCIAL
224	INPUT SEAL RING	2	REHABILITATE EXISTING SEAL RINGS	N/A	N/A	N/A	SEE NOTE 5
226	BOLTS FOR 224	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
227	OIL SEAL FOR 224	2	REPLACE EXISTING OIL SEALS	GARLOCK #63 X 2170 (OR APPROVED EQUAL)			COMMERCIAL
229	WORM SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 668 CL. H	S6. MAG. PARTICLE TEST	SEE NOTE 1
230	WORM WHEEL SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 668 CL. H	S6. MAG. PARTICLE EXAM	SEE NOTE 1
231	WORM WHEEL	1	REPLACE EXISTING WORM WHEEL	CAST BRONZE	ASTM B 22 C90500	N/A	SEE NOTE 1
232	KEY FOR 231	1	REPLACE EXISTING KEY	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
241A	C.W. CRANK SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-17
242A	C.W. CRANK SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-17
260	CENTER WEDGE SEAT	2	REHABILITATE EXISTING SEAT	N/A	N/A	N/A	SEE NOTE 6
261	CENTER WEDGE	2	REHABILITATE EXISTING WEDGE	N/A	N/A	N/A	SEE NOTE 6
262	PIN FOR 261	2	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 6
263	SET SCREW FOR 261	4	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
264	CENTER WEDGE GUIDE	2	REHABILITATE EXISTING GUIDE	N/A	N/A	N/A	SEE NOTES 2, 3, 4 AND 6
265	SHIM FOR 264	2-SETS	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTES 1 AND 2
266	BASE BOLT FOR 264	12	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
287	CENTER WEDGE EYE BAR	2	REPLACE EXISTING EYE BARS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
288	CENTER WEDGE EYE BAR	2	REPLACE EXISTING EYE BARS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
289	SLEEVE NUT FOR 287, 288	2	REPLACE EXISTING SLEEVE NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
290	NUT FOR 287	2	REPLACE EXISTING NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
291	NUT FOR 288	2	REPLACE EXISTING NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
293	CENTER WEDGE CONNECTING ROD	2	REPLACE EXISTING CONNECTING RODS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
294	CENTER WEDGE CONNECTING ROD	2	REPLACE EXISTING CONNECTING RODS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
295	SLEEVE NUT FOR 293, 294	2	REPLACE EXISTING SLEEVE NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
296	NUT FOR 293	2	REPLACE EXISTING NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
297	NUT FOR 294	2	REPLACE EXISTING NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
298	BUSHING FOR 294	2	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C91100	N/A	SEE NOTE 1
300	CENTER WEDGE CRANK	2	REHABILITATE EXISTING CRANKS	N/A	N/A	N/A	SEE NOTE 6
301	KEY FOR 300	2	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
302	SET SCREW FOR 300	2	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
303	CENTER WEDGE CRANK PIN	2	REHABILITATE EXISTING CRANK PIN	N/A	N/A	N/A	SEE NOTE 6
304	COTTER PIN FOR 303	2	REPLACE EXISTING PINS	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
305	WASHER FOR 303	2	REPLACE EXISTING WASHERS	STEEL	ASTM F 436	N/A	SEE NOTE 1
320	CENTER WEDGE LEVER	2	REHABILITATE EXISTING LEVER	N/A	N/A	N/A	SEE NOTE 6
321	KEY FOR 320	2	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
322	SET SCREW FOR 320	2	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
323	PIN FOR 293 AND 320	2	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 6
324	COTTER FOR 323 AND 329	8	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
326	CENTER WEDGE LEVER	2	REHABILITATE EXISTING LEVER	N/A	N/A	N/A	SEE NOTE 6
327	KEY FOR 326	2	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
328	SET SCREW FOR 326	2	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTES 1, 3 AND 4
329	PIN FOR 288 AND 326	2	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 6
331	CENTER WEDGE JACK SHAFT	1	REHABILITATE EXISTING JACK SHAFT	N/A	N/A	N/A	SEE NOTE 6
332	CENTER WEDGE JACK SHAFT	1	REHABILITATE EXISTING JACK SHAFT	N/A	N/A	N/A	SEE NOTE 6
333	COLLAR FOR 331 & 332	2	REHABILITATE EXISTING COLLAR	N/A	N/A	N/A	SEE NOTE 6
334	CENTER WEDGE JACK SHAFT BEARING	4	REHABILITATE EXISTING BEARING	N/A	N/A	N/A	SEE NOTE 7
335	BUSHING FOR 334	4	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C93700	N/A	SEE NOTES 1 AND 7
336	SCREW FOR 335	16	REPLACE EXISTING HARDWARE	STAINLESS STEEL	TYPE 316	N/A	SEE NOTE 1
337	BASE BOLT FOR 334	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
338	BASE BOLT FOR 334	16	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
340A	C.W. CRANK SHAFT BEARING - HOUSING	2	REPLACE EXISTING HOUSING WITH SIMILAR	STR. STEEL	ASTM A 36	N/A	SEE DETAIL SHT. NO. M-17
340B	C.W. CRANK SHAFT BEARING - BUSHING	4	REPLACE EXISTING BUSHING WITH SIMILAR	CAST BRONZE	ASTM B 22 C91100	N/A	SEE DETAIL SHT. NO. M-17

CENTER WEDGE MACHINERY REHABILITATION NOTES:

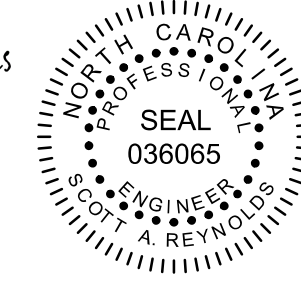
- EXISTING PIECE(S) SHALL BE REMOVED AND REPLACED IN-KIND. THE IN-KIND REPLACEMENT PIECE(S) SHALL BE DETAILED USING DIMENSIONAL INFORMATION SHOWN ON THE ORIGINAL SHOP DRAWINGS AND MATERIAL INFORMATION SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF THE DIMENSIONAL INFORMATION BY MEASURING EXISTING PIECE(S) PRIOR TO SUBMITTING SHOP DRAWINGS.
- UNLESS NOTED OTHERWISE, ALL IN-KIND REPLACEMENT PIECES, REHABILITATED PIECES AND NEW PIECES SHALL BE PROVIDED WITH NEW SHIMS. SHIMS SHALL PROVIDE FOR PROPER ALIGNMENT OF MATING PIECES.
- UNLESS NOTED OTHERWISE, ALL IN-KIND REPLACEMENT PIECES, REHABILITATED PIECES AND NEW PIECES SHALL BE PROVIDED WITH NEW HARDWARE. HARDWARE SHALL PROVIDE FOR PROPER MOUNTING.
- HARDWARE FOR IN-KIND REPLACEMENT PIECES AND REHABILITATED PIECES SHALL COMPLEMENT THE REQUIREMENTS OF THE ORIGINAL SHOP DRAWINGS. HARDWARE FOR NEW PIECES SHALL BE PER THE GENERAL MACHINERY NOTES AND GENERAL BRIDGE MACHINERY SPECIFICATION.
- REHABILITATION OF WORM GEAR REDUCER SHALL INCLUDE REMOVAL AND TRANSPORTATION TO A QUALIFIED MACHINE SHOP, DISASSEMBLY AND CLEANING OF ALL SURFACES FOR SHOP INSPECTION. WITH THE EXCEPTION OF HOUSINGS AND SEAL RINGS, ALL OTHER COMPONENTS MAKING UP THE WORM GEAR REDUCER SHALL BE REPLACED IN-KIND FOR A FULLY FUNCTIONAL UNIT.
- REHABILITATION OF SEATS, WEDGES, PINS, GUIDES, CRANKS, LEVERS AND JACK SHAFTS SHALL INCLUDE CLEANING OF ALL SURFACES FOR INSPECTION, ADJUSTMENT FOR PROPER ALIGNMENT, PREPARATION OF EXPOSED SURFACES FOR PAINTING, PAINTING AND REASSEMBLY WITH MATING PIECES. WHEN APPLICABLE, THE CONTRACTOR SHALL COORDINATE MATING DIMENSIONS OF NEW (REPLACEMENT) PIECES WITH EXISTING (REHABILITATED) PIECES.
- REHABILITATION OF JACK SHAFT BEARINGS SHALL INCLUDE REMOVAL AND TRANSPORTATION TO A QUALIFIED MACHINE SHOP, DISASSEMBLY AND CLEANING OF ALL SURFACES FOR SHOP INSPECTION. REPLACEMENT OF EXISTING BUSHINGS, PAINTING AND REASSEMBLY IN THE FIELD WITH NEW HARDWARE.

TABLE OF NEW CENTER WEDGE MACHINERY COUPLINGS											
MARK	QNTY.	SIZE	TORQUE RATING IN-KIPS	TYPE	DRIVING HALF			DRIVEN HALF			MANUFACTURER
					NOMINAL BORE, IN.	KEY IN. x IN.	R = RIGID F = FLEX	KEY IN. x IN.	NOMINAL BORE, IN.		
C14	2	1040G81	270.9	RIGID GEAR	4	1 x 1	R R	R R	1 x 1	4	FALK CORPORATION

PROJECT NO. B-5936
TYRRELL COUNTY
BRIDGE NO: 7



Drawn by: *Scott Reynolds*
 9/14/2016



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TABLE OF CENTER WEDGE MACHINERY COMPONENTS

ALLIGATOR RIVER SWING SPAN

DRAWN BY: JAG/MS DATE: 8/8/2016
 CHECKED BY: GAF/RH DATE: 8/8/2016
 DESIGN ENGINEER OF RECORD: JAG/MS DATE: 8/8/2016

DWG NUMBER 85	TOTAL DWGS 90	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	NO. BY: DATE: NO. BY: DATE: NO. BY: DATE:	SHEET NO. M-18
			1 3 4	TOTAL SHEETS 23

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