

TABLE OF END WEDGE MACHINERY COMPONENTS

PIECE	NAME	QNTY.	DESCRIPTION OF WORK	MATERIAL	DESIGNATION	SUPPLEMENTAL REQUIREMENT	REMARKS
94	CAPSTAN BOX	1	ABANDON EXISTING CAPSTAN BOX IN PLACE	N/A	N/A	N/A	SEE NOTE 7
95	COVER FOR 94	1	ABANDON EXISTING COVER IN PLACE	N/A	N/A	N/A	SEE NOTE 7
191A	REDUCER-R2	1	NEW EARLE SPEED REDUCER, TYPE D, SIZE 4, INPUT RATING 7.5 HP AT 870 RPM, RATIO 28:1, S.F. 1.5	N/A	N/A	N/A	SEE NOTE 8
N/A	WEDGE MOTOR	1	NEW REULAND VECTOR DUTY MOTOR, 7.5 HP, 900 RPM	N/A	N/A	N/A	ELECTRICAL ITEM
208	WORM HOUSING TOP	2	REHABILITATE EXISTING HOUSING	N/A	N/A	N/A	SEE NOTES 5
209	WORM HOUSING CENTER	2	REHABILITATE EXISTING HOUSING	N/A	N/A	N/A	SEE NOTES 5
210	WORM HOUSING BOTTOM	2	REHABILITATE EXISTING HOUSING	N/A	N/A	N/A	SEE NOTES 5
211	BOLT FOR 208 AND 209	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
212	BOLT FOR 208 AND 209	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
213	BOLT FOR 209 AND 210	12	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
214	BASE BOLT FOR 208 AND 209	16	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
215	SHIM FOR 208 AND 209	8-SETS	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTES 1 AND 2
216	OUTPUT BUSHING	4	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C91100	N/A	SEE NOTE 1
217	INPUT BUSHING	4	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C91100	N/A	SEE NOTE 1
221	OUTPUT SEAL RING	4	REHABILITATE EXISTING SEAL RINGS	N/A	N/A	N/A	SEE NOTE 5
222	BOLT FOR 221	16	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
223	OIL SEAL FOR 221	4	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
225	INPUT COVER PLATE	2	REHABILITATE EXISTING COVER PLATE	N/A	N/A	N/A	SEE NOTE 5
226	BOLTS FOR 224 AND 225	16	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
228	WORM SHAFT	2	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 668 CL. H	S6. MAG. PARTICLE TEST	SEE NOTE 1
230	WORM WHEEL SHAFT	2	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 668 CL. H	S6. MAG. PARTICLE EXAM	SEE NOTE 1
231	WORM WHEEL	2	REPLACE EXISTING WORM WHEEL	CAST BRONZE	ASTM B 22 C90500	N/A	SEE NOTE 1
232	KEY FOR 231	2	REPLACE EXISTING KEY	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
270A	END WEDGE SEAT	4	REPLACE EXISTING SEAT	FORGED STEEL	ASTM A 668 CL. D	N/A	SEE DETAIL SHT. NO. M-8
271A	END WEDGE	4	REPLACE EXISTING WEDGE	CAST STEEL	ASTM A 27 GR. 70-36	N/A	SEE DETAIL SHT. NO. M-8
272	PIN FOR 271A	4	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 6
273	COTTER PIN FOR 272	8	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
274	END WEDGE GUIDE	4	REHABILITATE EXISTING GUIDE	N/A	N/A	N/A	SEE NOTE 6
275	SHIM FOR 274	4 SETS	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTES 1 AND 2
276	BASE BOLT FOR 274	12	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
277	BASE BOLT FOR 274	4	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
278A	SHIM FOR 270A	4	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTE 2
281A	END WEDGE ANGLE FOR 274	4	REPLACE EXISTING ANGLE	STR. STEEL	ASTM A 709 GR. 50	N/A	SEE DETAIL SHT. NO. M-8
282A	END WEDGE ANGLE FOR 274	4	REPLACE EXISTING ANGLE	STR. STEEL	ASTM A 709 GR. 50	N/A	SEE DETAIL SHT. NO. M-8
283	BOLT FOR 281A AND 282A	24	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
284	TIE BAR FOR 281A AND 282A	4	REHABILITATE EXISTING TIE BAR	N/A	N/A	N/A	SEE NOTE 6
285	BOLT FOR 281A, 282A AND 284	8	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
305	WASHER FOR 352	4	REPLACE EXISTING WASHERS	STEEL	ASTM F 436	N/A	SEE NOTES 1
340A	E.W. CRANK SHAFT BEARING - HOUSING	4	REPLACE EXISTING HOUSING WITH SIMILAR	STR. STEEL	ASTM A 36	N/A	SEE DETAIL SHT. NO. M-17
340B	E.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
344A	END WEDGE CRANK SHAFT	2	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-9
345A	END WEDGE CRANK SHAFT	2	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-9
346A	COLLAR BEARING - HOUSING	4	REPLACE EXISTING HOUSING WITH SIMILAR	STR. STEEL	ASTM A 36	N/A	SEE DETAIL SHT. NO. M-9
346B	COLLAR BEARING - BUSHING	4	REPLACE EXISTING BUSHING WITH SIMILAR	CAST BRONZE	ASTM B 22 C91100	N/A	SEE DETAIL SHT. NO. M-9
349	END WEDGE CRANK	4	REHABILITATE EXISTING CRANK	N/A	N/A	N/A	SEE NOTE 6
350	KEY FOR 349	4	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
351	SET SCREW FOR 349	4	REPLACE EXISTING HARDWARE	STEEL	ASTM F 912	N/A	SEE NOTE 1, 3 AND 4
352	END WEDGE CRANK PIN	4	REHABILITATE EXISTING PIN	N/A	N/A	N/A	SEE NOTE 6
353	COTTER PIN FOR 352	4	REPLACE EXISTING HARDWARE	STAINLESS STEEL	ASTM A 276, TYPE 316	N/A	SEE NOTE 1
355	END WEDGE EYE BAR	8	REPLACE EXISTING EYE BAR	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
356	END WEDGE EYE BAR	8	REPLACE EXISTING EYE BAR	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
357	SLEEVE NUT FOR 355, 356, 361, 362	12	REPLACE EXISTING SLEEVE NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
358	NUT FOR 355 AND 361	12	REPLACE EXISTING NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1
359	NUT FOR 356 AND 362	12	REPLACE EXISTING NUTS	FORGED STEEL	ASTM A 668 CL. G	N/A	SEE NOTE 1

END WEDGE MACHINERY REHABILITATION NOTES:

1. 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.

2. 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.

3. 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.

4. 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.

5. REHABILITATION OF WORM GEAR REDUCERS SHALL INCLUDE REMOVAL AND TRANSPORTATION TO A QUALIFIED MACHINE SHOP, DISASSEMBLY AND CLEANING OF ALL SURFACES FOR SHOP INSPECTION. WITH THE EXCEPTION OF HOUSINGS, SEAL RINGS AND COVER PLATES, ALL OTHER COMPONENTS MAKING UP THE WORM GEAR REDUCER SHALL BE REPLACED IN-KIND FOR A FULLY FUNCTIONAL UNIT.

6. REHABILITATION OF GUIDES, PINS, CRANKS, LEVERS, ETC. 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.

7. ABANDONMENT OF EXISTING CAPSTAN BOX AND COVER SHALL BE COORDINATED WITH DECK OVERLAY WORK. ITEMS 385-393, 395-402 AND 404-409 SHALL BE CAREFULLY REMOVED FROM THE SWING SPAN AND PROPERLY DISPOSED OF AS PART OF THE WORK.

8. REDUCER R2 SHALL BE A COMMERCIAL FLOOR MOUNTED DOUBLE REDUCTION MODEL WITH DOUBLE INPUT AND DOUBLE OUTPUT SHAFTS. THE INPUT SHAFT LOCATED ON THE OPPOSITE SIDE OF THE WEDGE MOTOR SHALL BE DETAILED TO SUITE MANUAL OPERATION WITH A HAND CRANK. DURING NORMAL OPERATION, I.E. WHEN THE WEDGE MACHINERY IS DRIVEN BY THE WEDGE MOTOR, THIS INPUT SHAFT SHALL BE FULLY ENCLOSED WITH A COVER. THE CONTRACTOR SHALL DETAIL THE COVER WITH A SAFETY LIMIT SWITCH, WHICH SHALL SERVE TO CUT POWER TO THE WEDGE MOTOR WHEN REMOVED AND WARN THE OPERATOR OF CHANGE IN OPERATION.

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

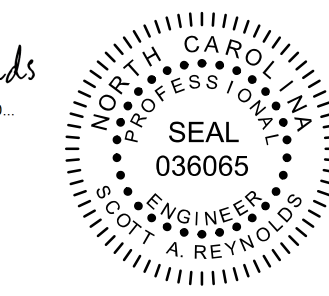
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

**TABLE OF END WEDGE MACHINERY COMPONENTS I**

**ALLIGATOR RIVER SWING SPAN**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	M-13
1			3			TOTAL SHEETS
2			4			23

DocuSigned by:  
*Scott Reynolds*  
BFE05720F8F1480...



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: 80 TOTAL DWGS: 90

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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