

TABLE OF TURNING MACHINERY COMPONENTS							
PIECE	NAME	QNTY.	DESCRIPTION OF WORK	MATERIAL	DESIGNATION	SUPPLEMENTAL REQUIREMENT	REMARKS
25	RACK SECTION	12	REPLACE EXISTING SECTIONS	CAST STEEL	ASTM A 148 GR. 80-50	BHN 170 - 200	SEE NOTE 1
27	BOLTS FOR 25	24	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
28	RACK PINION BEARING	1	REHABILITATE EXISTING BEARING	N/A	N/A	N/A	SEE NOTES 5
29	RACK PINION BEARING	1	REHABILITATE EXISTING BEARING	N/A	N/A	N/A	SEE NOTES 5
30	CAP FOR 28 AND 29	4	REHABILITATE EXISTING CAP	N/A	N/A	N/A	SEE NOTES 5
31	BOLT FOR 28 AND 29	24	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
32	BOLT FOR 28, 29 AND 30	16	REPLACE EXISTING HARDWARE	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
33	SHIM FOR 28 AND 29	2-SETS	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTES 1 AND 2
34	SHIM FOR 28 AND 29	2-SETS	REPLACE EXISTING SHIMS	STAINLESS STEEL	ASTM A 240	N/A	SEE NOTES 1 AND 2
35	BUSHING FOR 28 AND 29	4	REPLACE EXISTING BUSHINGS	CAST BRONZE	ASTM B 22 C91100	N/A	SEE NOTES 1 AND 5
36	LINER FOR 28, 29, 30 AND 35	8	REPLACE EXISTING LINERS	COMMER. BRASS	MIL-S-22499	N/A	SEE NOTE 1 AND 5
51	RACK PINION	2	REPLACE EXISTING PINIONS	FORGED STEEL	ASTM A 291 CL. 2	S3. NON. EXAM., BHN 210 - 240	SEE NOTE 1
52	KEY FOR 51	4	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
53	PLATE FOR 51, 56 AND 57	4	REPLACE EXISTING PLATES	STR. STEEL	ASTM A 709 GR. 50	N/A	SEE NOTE 1
54	SCREW FOR 53	12	REPLACE EXISTING SCREWS	STEEL	ASTM A 449	N/A	SEE NOTES 1, 3 AND 4
56	RACK PINION SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 291 CL. 2	N/A	SEE NOTE 1
57	RACK PINION SHAFT	1	REPLACE EXISTING SHAFT	FORGED STEEL	ASTM A 291 CL. 2	N/A	SEE NOTE 1
58A	BEVEL PINION	2	REPLACE EXISTING PINIONS	FORGED STEEL	ASTM A 291 CL. 2	S3. NON. EXAM., BHN 210 - 240	SEE NOTE 1
62	BEVEL GEAR	2	REPLACE EXISTING GEARS	CAST STEEL	ASTM A 148 GR. 80-50	BHN 170 - 200	SEE NOTE 1
63	KEY FOR 62	4	REPLACE EXISTING KEYS	FORGED STEEL	ASTM A 668 CL. K	N/A	SEE NOTE 1
94	CAPSTAN BOX	1	ABANDON EXISTING CAPSTAN BOX IN PLACE	N/A	N/A	N/A	SEE NOTE 6
95	COVER FOR 94	1	ABANDON EXISTING COVER IN PLACE	N/A	N/A	N/A	SEE NOTE 6
N/A	KEEPER PLATE	2	PROVIDE NEW KEEPER PLATE	STR. STEEL	ASTM A 709 GR. 50	N/A	SEE DETAIL SHT. NO. M-5
N/A	BEARING-B1	4	NEW EARLE PILLOW BLOCK, MODEL NO. EPB-16, SPECIAL 3 3/4" DIA. NOMINAL BORE	N/A	N/A	N/A	COMMERCIAL
N/A	SHAFT COLLAR	2	NEW TWO-PIECE CLAMP-ON SHAFT COLLAR FOR 3 3/4" DIAMETER, TYPE 303 STAINLESS STEEL	MCMASTER-CARR PART NO. 6436K247 (OR APPROVED EQUAL)			COMMERCIAL
N/A	MACHINERY BRAKE SHAFT	2	PROVIDE NEW SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-5
N/A	MACHINERY BRAKE	2	NEW MONDEL 13" BTE-ED80/6S, TORQUE SETTING 550 FT.-LBS.	N/A	N/A	N/A	ELECTRICAL ITEM
N/A	SHORT FLOATING SHAFT	1	PROVIDE NEW SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-5
N/A	LONG FLOATING SHAFT	1	PROVIDE NEW SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-5
143A	COLLAR BEARING - HOUSING	2	REPLACE EXISTING HOUSING WITH TWO (2) SIMILAR HOUSINGS	STR. STEEL	ASTM A 36	N/A	SEE DETAIL SHT. NO. M-5
143B	COLLAR BEARING - BUSHING	2	REPLACE EXISTING BUSHING WITH TWO (2) SIMILAR BUSHINGS	CAST BRONZE	ASTM B 22 C93700	N/A	SEE DETAIL SHT. NO. M-5
N/A	SUPPORTED SHAFT	1	PROVIDE NEW SHAFT	FORGED STEEL	ASTM A 434 CL. BC	N/A	SEE DETAIL SHT. NO. M-5
N/A	REDUCER-R1	1	NEW EARLE SPEED REDUCER, TYPE DD, SIZE 6, INPUT RATING 25 HP AT 870 RPM, RATIO 30.41:1, SERV. FACT. 1.5	N/A	N/A	N/A	SEE NOTE 7
N/A	SPAN MOTOR	1	NEW REULAND VECTOR DUTY MOTOR, 25 HP, 900 RPM	N/A	N/A	N/A	ELECTRICAL ITEM
N/A	MOTOR BRAKE	1	NEW MONDEL 10" BTE-ED30/5S, TORQUE SETTING 200 FT.-LBS.	N/A	N/A	N/A	ELECTRICAL ITEM

TURNING 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 RACK PINION BEARINGS SHALL INCLUDE REMOVAL AND TRANSPORTATION TO A QUALIFIED MACHINE SHOP, DISASSEMBLY AND CLEANING OF ALL SURFACES FOR SHOP INSPECTION, REPLACEMENT OF EXISTING BUSHINGS, REPLACEMENT OF EXISTING LINERS, SHOP PAINTING AND REASSEMBLY IN THE FIELD WITH NEW HARDWARE.
- ABANDONMENT OF EXISTING CAPSTAN BOX AND COVER SHALL BE COORDINATED WITH DECK OVERLAY WORK SHOWN ON SHEET NO. S-1. ITEMS 65-70 AND 72-80 SHALL BE CAREFULLY REMOVED FROM THE SWING SPAN AND PROPERLY DISPOSED OF AS PART OF THE WORK.
- REDUCER-R1 SHALL BE A COMMERCIAL FLOOR MOUNTED DOUBLE REDUCTION WITH DIFFERENTIAL REDUCER WITH EXTENDED INPUT SHAFT FOR MOTOR BRAKE.

TABLE OF NEW TURNING 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.		
C1-A	1	1030G51	75.3	SINGLE ENGAGE. GEAR	3 7/8	1 x 1	F	R	7/8 X 7/8	3 3/4		FALK CORPORATION
C1-B	1	1030G51	75.3	SINGLE ENGAGE. GEAR	3 7/8	1 x 1	F	R	7/8 X 7/8	3 3/4		FALK CORPORATION
C2	1	1030G51	75.3	SINGLE ENGAGE. GEAR	*	*	R	F	1 x 1	3 7/8		FALK CORPORATION
C3	1	1030G51	75.3	SINGLE ENGAGE. GEAR	3 3/4	7/8 X 7/8	R	F	1 x 1	3 7/8		FALK CORPORATION
C4	1	1035G10	163.8	DOUBLE ENGAGE. GEAR	*	*	F	F	7/8 X 7/8	3 3/4		FALK CORPORATION
C5	1	1070T10	8.8	STEELFLEX	*	*	F	F	*	*		FALK CORPORATION

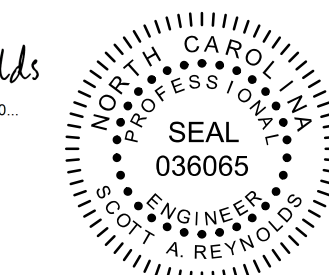
* DESIGNATES SIZE TO MATCH COMMERCIAL COMPONENT SHAFT

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

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



DocuSigned by:
Scott Reynolds
9/14/2016



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TABLE OF TURNING MACHINERY COMPONENTS

ALLIGATOR RIVER SWING SPAN

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			M-6
2			4			

DWG NUMBER	TOTAL DWGS	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	TOTAL SHEETS
73	90		23