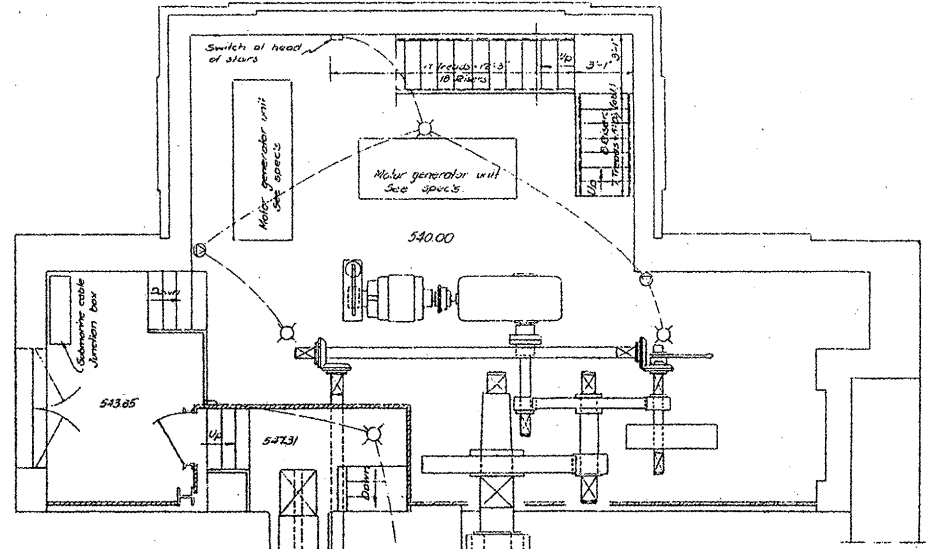


PLAN OF OPERATING MACHINERY - WEST LEAF
EAST LEAF SAME BY ROTATION Scale 1/4" = 1'-0"



PLAN OF MACHINERY SHOWING LOCATION OF MOTOR GENERATOR UNITS
NORTH SIDE OF EAST LEAF
Scale 1/4" = 1'-0"

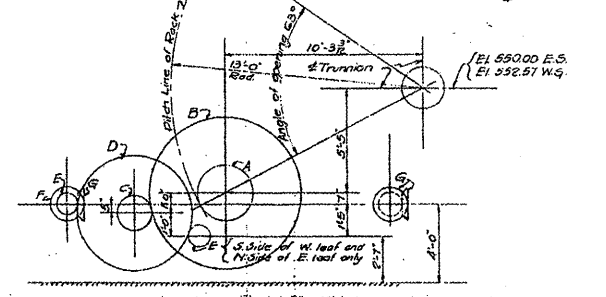


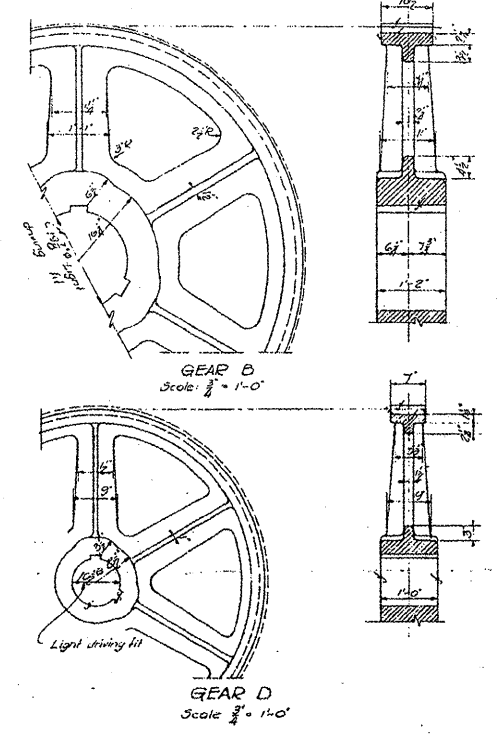
TABLE OF GEARS - PER LEAF

GEAR	HAZARD	NOTE	PITCH	PITCH DIA.	FACE	TEETH	KEYS PER GEAR
B/C	2	29	7 C.P.	26'-0"	1'-3"	Special 20° Involute (see detail sh. 44)	
A	2	15	7 C.P.	33'-4"	1'-2"	do	2 - 2 1/2" x 2 1/2"
B	2	66	4 1/2 C.P.	51'-5"	10"	do	2 - 3" x 2 1/2"
C	2	15	4 1/2 C.P.	21'-8"	11"	do	2 - 1 1/2" x 1 1/2"
D	2	75	3 C.P.	71'-6"	7"	Standard 20° Involute sh. 1	2 - 1 1/2" x 1 1/2"
E	3	15	3 C.P.	14'-2"	7"	do	1 - 1 1/2" x 1 1/2"
F	2	22	1 D.P.	22"	4"	M 1/2" standard	Loose on shaft
G	2	22	1 D.P.	22"	4"	do	2 - 1 1/2" x 1 1/2"

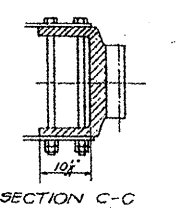
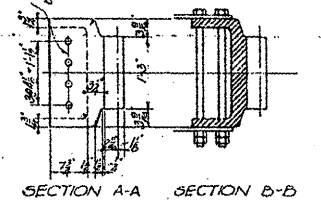
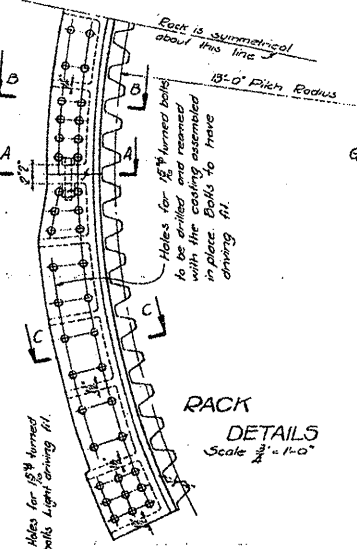
* Bevel gears

EQUIPMENT

- Motor Generator Units: 75 H.P. A.C. Motor, 3 Ph. G.O.C., 440V. and generator G.E. Co. or equal.
 - Operating Motors: 50 H.P. @ 850 R.P.M. D.C. Motor 230V. G.E. Co. Frame # CO 1030 or equal. Torque requirements: 550' for 2 min. - 1000' momentarily.
 - Motor Drives: G.E. floor mounted Thruster Brake # CR 9216-464 or equal. Retarding torque 375'. Provide interlocked hand release.
 - Electric Emergency Brake: G.E. floor mounted Thruster Brake # CR 9216-467 or equal. Holding torque 5000'. Provide interlocked hand release.
 - Reducer A: Falk # 10 D.S. right angle speed reducer or approved equal. Reduction ratio 24 to 1. Speed reducer to be assembled with motor on C.I. or welded steel bed plates. Price of same to be included in lump sum price for speed reducers. Ded ps. to be of minimum width and length.
 - Reducer D: Falk # 11 DA parallel shaft speed reducer with equalizer or approved equal. Reduction ratio 10 to 1.
 - Gasoline engine, reversing unit and brake: 55 H.P. @ 800 R.P.M. gasoline engine with reversing unit having 7 to 5 reduction ratio and attached brake of 250' retarding torque. Woodward-Norton Co. unit # 55-1 or approved equal. This unit shall be furnished complete with all accessories.
 - Flexible coupling "a": Falk # 3 or equal.
- Note: Manufacturers of speed reducers shall furnish complete details of the speed reducers for approval. Complete details of the gasoline engine reversing units and attached brakes shall be furnished.



GENERAL NOTES:
Pinion A may be made of cast steel all other pinions shall be forged.
All castings and forgings shall be made of steel and shall be annealed.
All gear pinions and racks shall have machine cut teeth and pitch lines plainly marked on both sides.
All shafts over 3" shall be forged. Others may be cold rolled.
Six head tapered keys shall be used where possible.
Thickness of keys given are for small end.
Shanks of turned bolts shall be 1/8" longer than the threaded ends and shall have lock nuts unless otherwise noted.
All bearings shall be provided with Alenite-Del Magul fittings or equal and grooved for lubrication except where self lubricating bearings are specified.
Dabbified bearings shall have drilled cores.
All couplings are to be furnished by machinery contractor.



FOR INFORMATION ONLY

OPERATING MACHINERY
DOUBLE LEAF TRUNNION BASCULE BRIDGE
OVER
THE ILLINOIS WATERWAY
AT
RUBY ST. JOLIET, ILLINOIS

DESIGNED BY
THE SCHERZER ROLLING LIFT BRIDGE CO.
MONADNOCK BLOCK, CHICAGO, ILL.

DRAWN BY ALND
TRACED BY A.D.
CHECKED BY EE

SCALE: AS NOTED
DATE: FEB. 21 1923
SHEET NO. 1243

FILE NAME -	USER NAME - mdyjo	DESIGNED -	REVISED -
ea,dgn		DRAWN -	REVISED -
PLOT SCALE = 1/83.1218 ' / IN.		CHECKED -	REVISED -
PLOT DATE = 6/27/2009		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RUBY STREET OVER DES PLAINES RIVER
SN 099-9901

SCALE: SHEET NO. 26 OF 30 SHEETS STA. TO STA.

F.A.P. RTE. 112	SECTION M-BDR-1	COUNTY WILL	TOTAL SHEETS 66	SHEET NO. 35
			CONTRACT NO. 62714	
ILLINOIS FED. AID PROJECT				