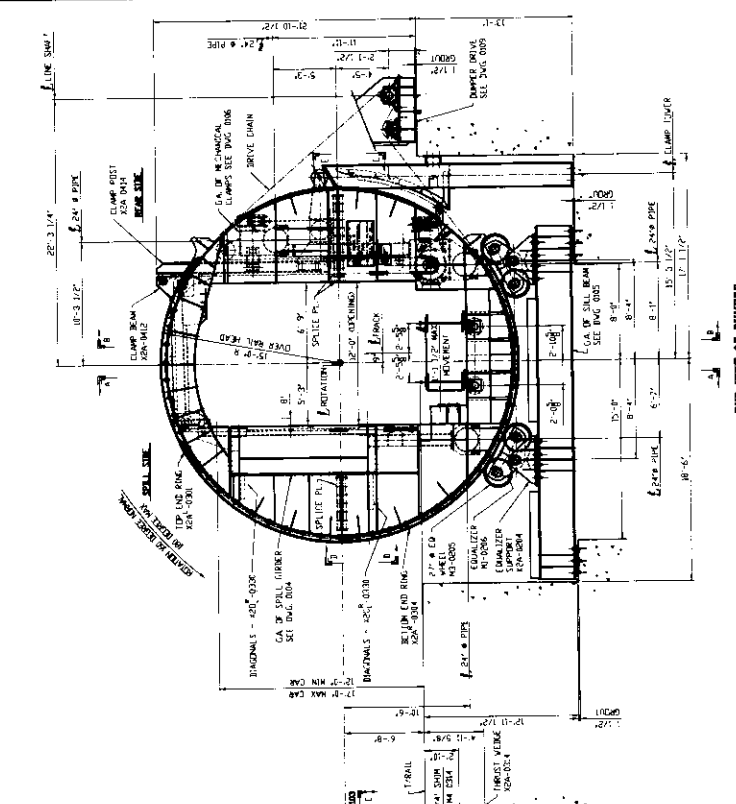
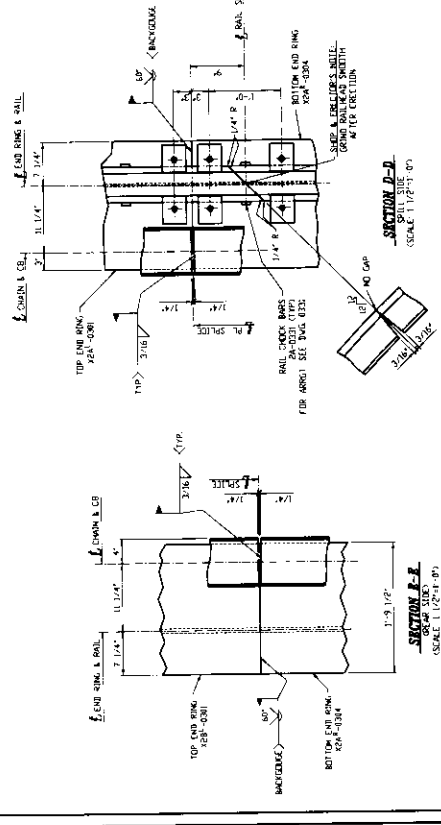


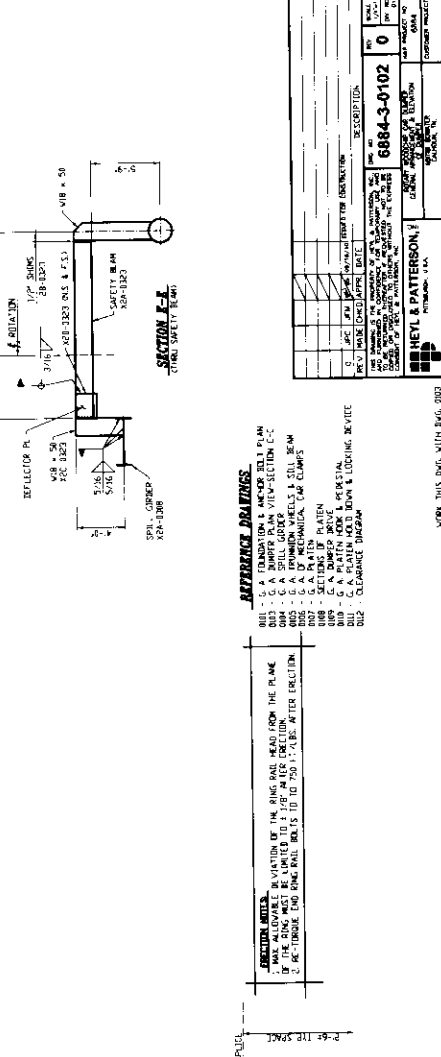
PARTIAL VIEW - SPILL TRUSS
SECTION A-A



PARTIAL VIEW - SPILL TRUSS
SECTION B-B



SECTION E-E
SCALE 1/4\"/>



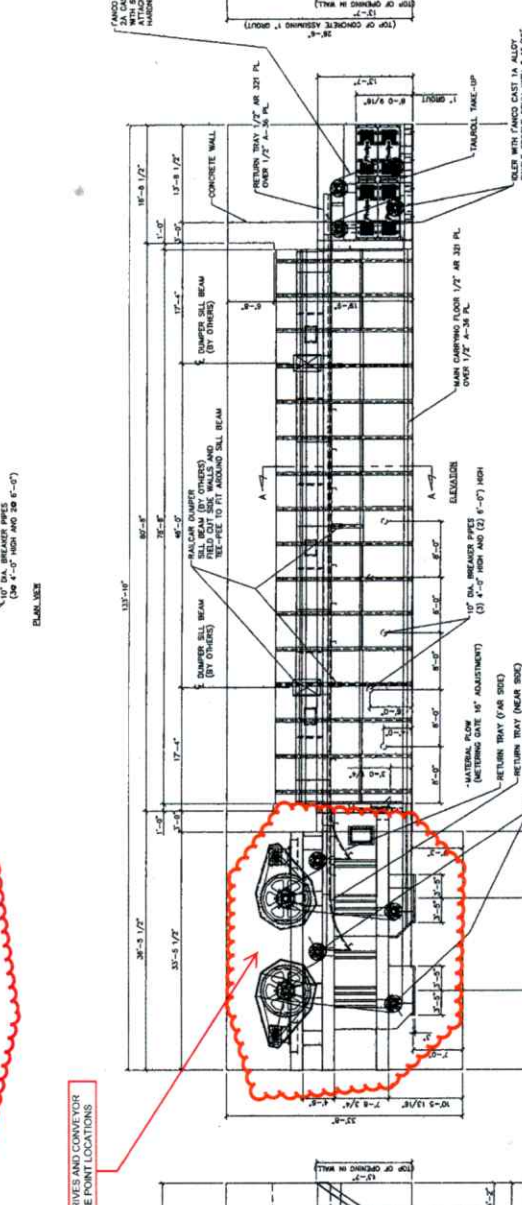
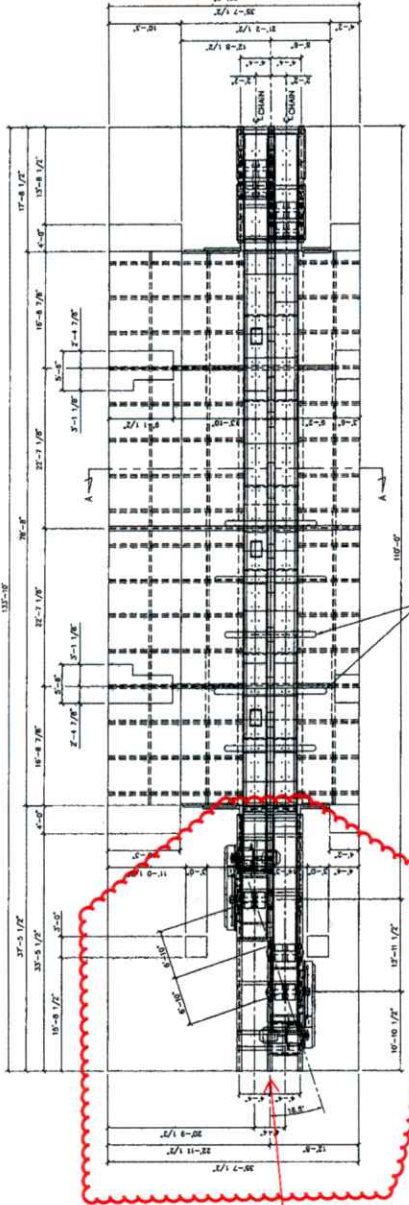
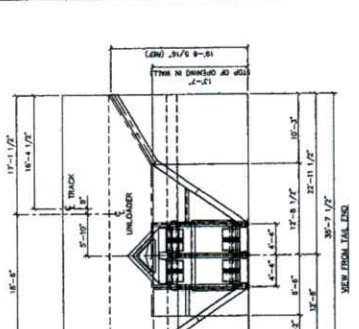
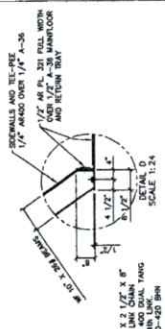
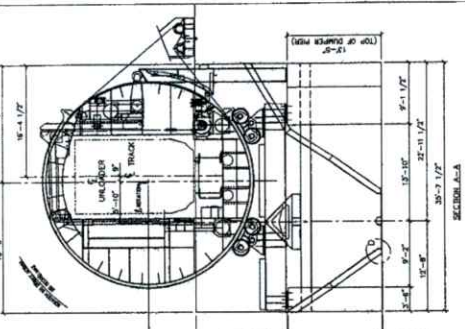
SECTION F-F
SCALE 1/4\"/>

REFERENCE DRAWINGS

- 003 - C.A. JUMPER PLATE VERTICAL SECTION C-C
- 004 - C.A. SHILL GORER VERTICAL SECTION C-C
- 005 - C.A. SHILL GORER VERTICAL SECTION C-C
- 006 - C.A. SHILL GORER VERTICAL SECTION C-C
- 007 - C.A. SHILL GORER VERTICAL SECTION C-C
- 008 - C.A. SHILL GORER VERTICAL SECTION C-C
- 009 - C.A. SHILL GORER VERTICAL SECTION C-C
- 010 - C.A. SHILL GORER VERTICAL SECTION C-C
- 011 - C.A. SHILL GORER VERTICAL SECTION C-C
- 012 - C.A. SHILL GORER VERTICAL SECTION C-C

REV	DATE	BY	CHKD	DESCRIPTION
0				
6884-3-0102				
HEYL & PATTERSON				
ENGINEERS, ARCHITECTS, SURVEYORS				
PITTSBURGH, PA.				

WORK THIS DRAWING WITH DRAWING NO. 6884-3-0102



TITLE:
GENERAL ASSEMBLY
RAILCAR HOPPER

1	DEC 3/71	REVISIONS	REVISIONS	DESCRIPTION
2	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>		
3	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>		
4	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>		
5	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>		
6	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>		
7	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>		

CERTIFIED BY
W. Craig Burke
042811

1	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>
2	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>
3	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>
4	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>
5	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>
6	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>
7	DEC 3/71	CHANGED HOOPER AND CHANGED DISCHARGE WALL TO 1/2\"/>

MODIFY DRIVES ABOUT
HORIZONTAL CENTERLINE

MODIFY DRIVES AND CONVEYOR
DISCHARGE POINT LOCATIONS

From Phelps Quotation #8515-01, dated 9/8/2010:

PHELPS MODEL C-P-120-6.5-XX-2-125(2) RECEIVING AND CONVEYING LIVE BOTTOM HOPPER TO MATE TO ROLL-OVER STYLE HEYL & PATTERSON RAILCAR DUMPER PER PHELPS DRAWING 7259-Q1A. UNIT IS FOR BELOW GRADE INSTALLATION.

UNIT HAS AN APPROXIMATE HOLDING CAPACITY OF 12,000 CUBIC FEET AND NOMINAL DISCHARGE RATE BETWEEN 200 TO 350 TONS PER HOUR BASED ON A WOOD CHIP DENSITY OF 20 LBS PER CUBIC FOOT FOR VOLUMETRIC CALCULATIONS AND 25 LBS PER CUBIC FOOT FOR HP AND STRUCTURAL CALCULATIONS.

EACH DRAG CHAIN STRAND IS DRIVEN BY ONE (1) 125 HP, 1,800 RPM, MOTOR DRIVING A FALK 2110FC2 GEAR REDUCER. THE DRIVE ALSO INCLUDES CHAIN DRIVE PROVIDING ADDITIONAL REDUCTION.

THIS DESIGN IS BASED ON THE PHELPS HOPPER INSTALLED AT HAWESVILLE, KY, BUT ALSO WILL INCLUDE THE FOLLOWING IMPROVEMENTS: 8" PITCH LONG LINK CHAIN, FULL WIDTH WEAR PLATE ON MAIN CARRYING FLOOR AND RETURN TRAY (NOT USING THE LAZY DIAMOND PATTERN) SHEAR PLOW USED AT METERING GATES, BREAKER PIPES USED IN FRONT OF SHEAR PLOWS, 125 HP MOTORS USED IN LIEU OF 75 HP MOTORS, AND USING 5-15/16" SHAFTS ON IDLER DRUMS.

NOTE: MOTOR HORSEPOWER AND RPM AND REDUCER MODEL AND REDUCTION IS SUBJECT TO CHANGE AFTER PHELPS' COMPLETE HOPPER EVALUATION INCLUDING THE ON-SITE VISIT TO HOPPER AT DOMTAR-HAWESVILLE.

THE FOLLOWING ITEMS ARE INCLUDED WITH THE HOPPER:

TWO (2) CONVEYOR CARRYING FLOORS, EACH 3'-3" WIDE; 1/2" AR PLATE 225 BHN FULL WIDTH OVER 1/2" A36 PLATE.

TWO (2) CONVEYOR RETURN TRAYS, EACH 3'-3" WIDE; 1/2 AR PLATE 225 BHN FULL WIDTH OVER 1/2" A36 PLATE WITH "TEE PEE" SECTION COVERING BOTH RETURN TRAYS.

TWO (2) STRANDS OF I'ANCO BRAND 1-1/2" X 2-1/4" X 8" SERIES 300 A2 ALLOY STEEL LONG LINK CHAIN WITH 5" X 36" SERIES 300 A2 ALLOY STEEL FLIGHTS EVERY 6TH PITCH WITH MATCHING I'ANCO SPROCKETS AND IDLER DRUMS.

EACH CONVEYOR HAS IT'S OWN DRIVE CONSISTING OF ONE (1) 125 HP MOTOR, ONE (1) FALK 2110FC2 GEAR REDUCER, CHAIN DRIVE, AND REQUIRED GUARDS. CHAIN TAKE-UP IS ADJUSTABLE AT THE TAIL SHAFT WITH ACCESS BY EXPANDED METAL REMOVEABLE GUARDS.

EACH CONVEYOR HAS A MANUALLY ADJUSTABLE SHEAR PLOW WITH 12" TRAVEL

SIDEWALLS AND TEE PEE SECTION MADE OF 1/4" A36 MILD STEEL.

PHELPS STANDARD PAINT SYSTEM INVOLVING THE FOLLOWING:
SURFACE PREPARATION: SP3 POWER TOOL & SP6 COMMERCIAL
SANDBLAST PRIMER & FINISH: CARBOLINE CARBOTHANE 8812 DIRECT-
TO-METAL - 4.0 MILS
FINISHED COLOR: CHARCOAL GRAY

