

SPECIFICATION NO. 3405

FIRE RESISTANT INSULATION FOR TANKS,
PIPE AND STRUCTURAL STEEL
SUPPORTING PROCESS PIPING
PROJECTS 2154 AND 2410

JULY 7, 1953

APPROVED BY:

Design Division

Date

Design Division

Date

E. I. DU PONT DE NEMOURS & COMPANY, INC.
WILMINGTON, DELAWARE

DUP 0838118

FIRE RESISTANT INSULATION FOR TANKS, PIPE AND STRUCTURAL STEEL
SUPPORTING PROCESS PIPING

Tanks

Insulation Application

Shells:

To the bare surface of the tank shell apply 3/8" Black Hi-Rib Lath, 3.4 pounds per square yard, banding lath in place with 3/4" x 0.020 Type 18-8 stainless steel bands and seals on 12" centers machine tightened and sealed while under tension. Then apply 1-3/4" thick Eagle Picher Fireproofing Cement in accordance with manufacturer's directions.

Heads:

Heads shall be insulated with Eagle Picher Fireproofing Cement in the same manner as the shells.

Stiffeners:

Box in any I-beam stiffeners, banding the lath in place with 3/4" x 0.020 Type 18-8 stainless steel bands over which shall be applied 1-3/4" of Eagle Picher Fireproofing Cement.

Manholes:

The manholes shall be boxed in with 3/8" Hi-Rib Lath, banded in place with 3/4" x 0.020 Type 18-8 stainless steel bands and insulated with 1-3/4" thick of Eagle Picher Fireproofing Cement.

Finish Application

Shells:

The shells of the vessels shall be finished with 24 gauge galvanized sheet iron jacketing banded in place with 3/4" x 0.020 Type 18-8 stainless steel bands on 10" centers machine stretched and fastened while under tension. Vessel sheets shall have 3" circumferential and longitudinal lap, lapped to the weather.

Heads:

Heads shall be finished with 24 gauge galvanized sheet metal made up in one piece by goring segments of sheet metal and riveting gores together. The sheet metal head shall extend 6" onto the vessel body insulation with two bands of stainless steel machine stretched and tightened.

Stiffeners:

The jackets shall be made in four quarter sections and applied to fit the contour of the insulation, banding the four quarter sections in place with two 3/4" stainless steel bands. The horizontal section of the jacket metal shall extend 5" back on the vessel insulation.

Manhole:

The manhole jacket shall be prefabricated in two half sections, made to fit the contour of the insulation, and shall be banded in place with 3/4" stainless steel bands. The extended portion of the horizontal section of the manhole jacket shall extend outward from the neck of the removable head 5" and shall be rolled to fit the contour of the vessel sheet metal jacketing and embedded in Eagle Picher "Stalastic".

All nozzles or projected openings extending through the sheet metal jacketing shall be flashed up with Eagle Picher "Stalastic".

Pipe:

All process lines within the diked area, together with any process headers adjacent to the diked area, shall be covered with 2" of Code N1H insulation (Specification 1984, Standard Thermal Insulation for Pipes, Valves, Fittings and Equipment). The insulation shall be finished by covering with a 24 gauge galvanized sheet metal jacket banded in place with 3/4" stainless steel bands.

Supporting Structural Steel

Insulation Application

The structural members shall be boxed in with 3/8" Black H1-Rib Lath, banded in place with 3/4" x 0.020 Type 18-8 Stainless steel bands over which shall be applied 1-3/4" of Eagle Picher Fireproofing Cement, in accordance with the manufacturer's directions.

Finish Application

The structural members shall be finished with 24 gauge galvanized sheet metal applied to fit the contour of the insulation. The sheet metal shall overlap approximately 4" and be banded in place with 3/4" stainless steel bands.

SCALE OF 1" = 1' FIRE PROTECTION - TANK FARM AREAS

NO. 2164 & 2410

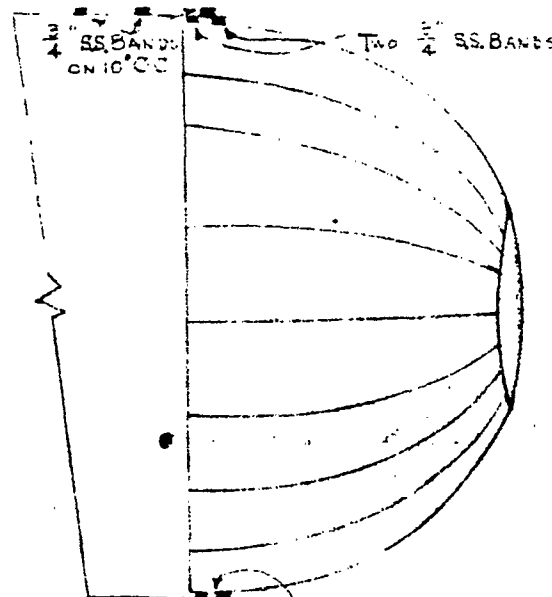
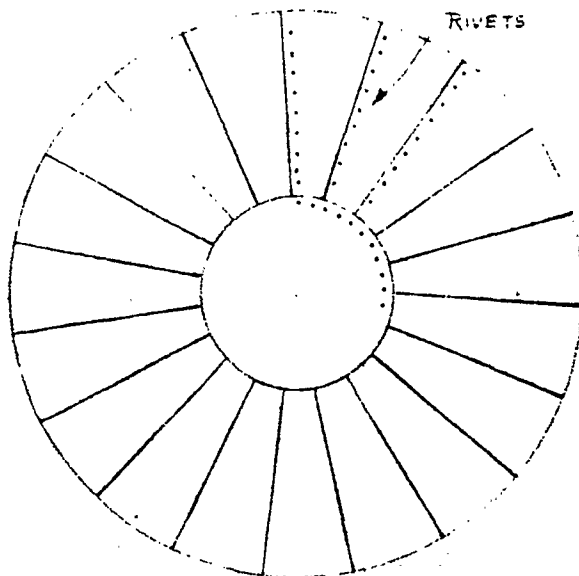
SHEET FIRE RESISTANT INSULATION - TANKS

SABINE & VICTORIA

24 GA. GALV SHEET METAL JACKETS

W/2

JUNE 25 53

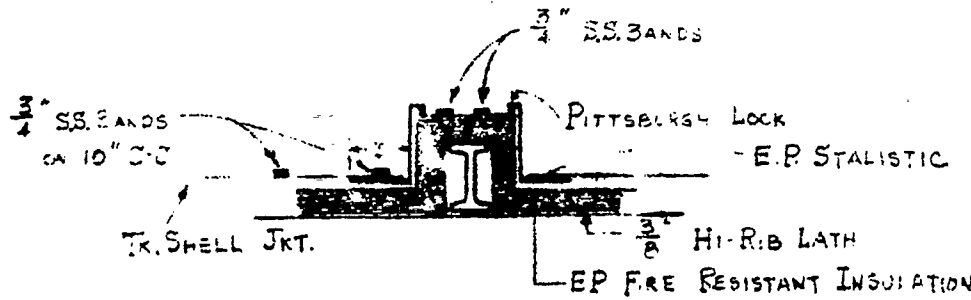


24 GA. GALV. SHEET METAL HD.

TK. SHELL

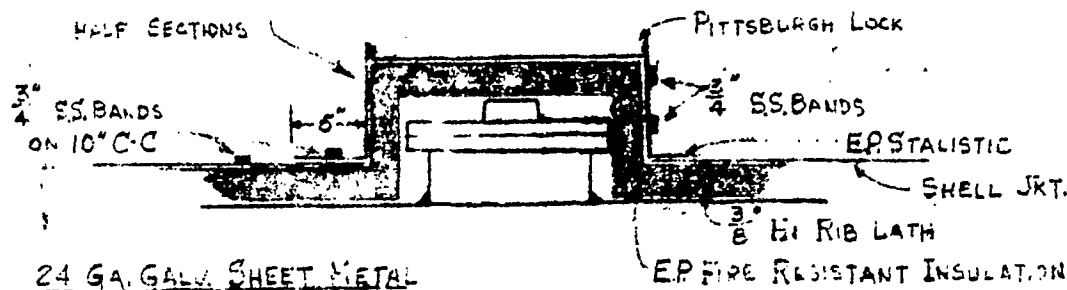
6"

BEAD OF EP STALASTIC



24 GA. GALV SHEET METAL STIFFENER JOINT

MANHOLE JKT. MADE IN TWO HALF SECTIONS



24 GA. GALV. SHEET METAL
MANHOLE JKT. DETAIL

EP FIRE RESISTANT INSULATION

DUP 0838121

DUP-525

REC-3405

DUP 0838117