

General Service Car Fittings 101

TransQuip USA
... Machine at work ...

Jamesbury® Quality Valves for top and bottom Tank Car Applications



6FR
Value-Line*
1", 2", & 3" Series
Full-Bore Screwed End Ball Valves



33R
1/4"-2" Series 3000
Screwed End Ball Valves



5RNT
Top-Loading and Unloading
Standard-Port Angle Ball Valves



7RRU
Top-Loading and Unloading
Standard-Port Ball Valves



6RA3
Top-Loading and Unloading
Full-Port Angle Ball Valves



7RRR & 7RRT
Top-Loading and Unloading
Standard-Port Ball Valves



5REB3
Low Profile
Bottom-Unloading
Standard-Port Valves



6R1B3
Internal Bottom-Unloading
Full-Port Valves



9REL
Bottom-Unloading
Full-Port Valves



9RET
Bottom-Unloading
Full-Port Valves



6FRF
Full-Bore Flanged By-Three
Ball Valves



WSRR & WSRF
Bottom-Unloading
Wafer-Sphere® Butterfly Valves

Goal for this Presentation

- Provide a understanding of the typical Service Equipment (VALVES and FITTINGS) used and it's intended use for General Service Cars.
- We will Cover.....
 1. Top Valves and Fittings
 2. Safety Relief Valves / Pressure Relief Devices
 3. Vacuum Relief Valves
 4. Bottom Valves and Fitting

Ref. MSRP C-III (M-1002) Appendix A.

1. Top Valves and Fittings



**6FR
NPT X NPT**



Flanged X Flanged



**6FRF
Flanged X NPT**



Plug & Chain Assy.

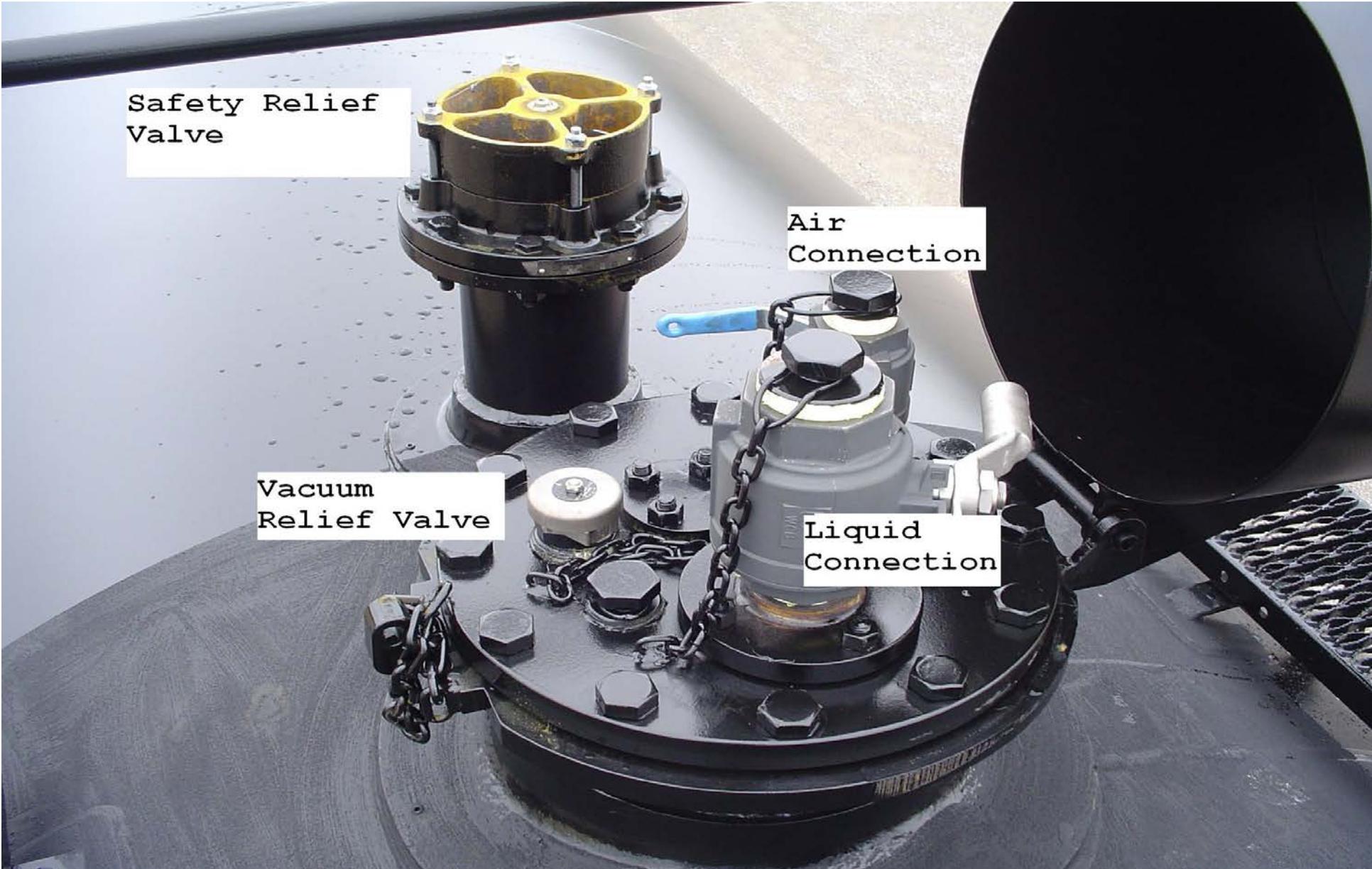
Prior 10/2011 Top Fittings Arrangement on NCNI Car

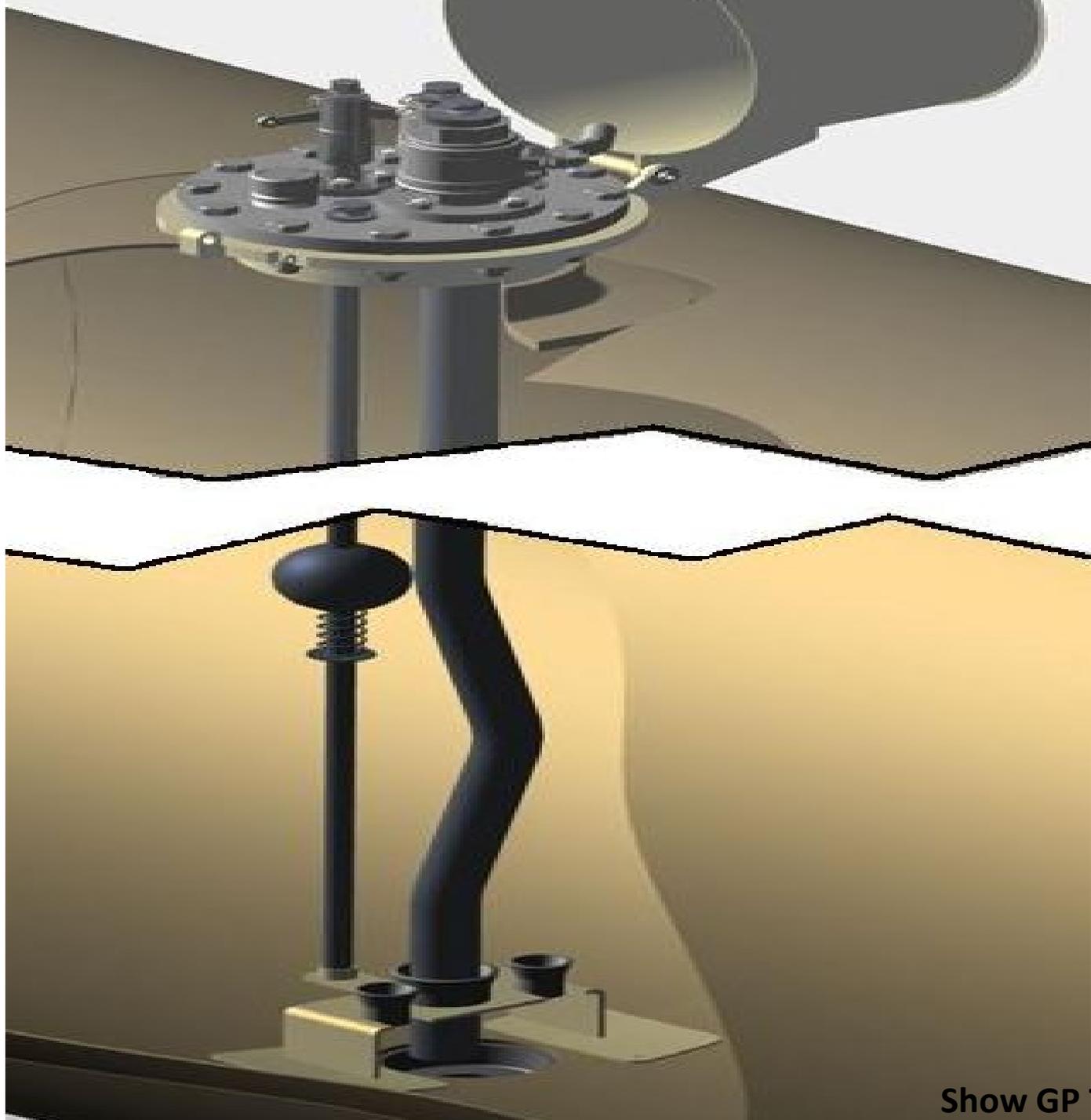
Safety Relief
Valve

Air
Connection

Vacuum
Relief Valve

Liquid
Connection





Show GP Top Loading

3", 2", 1" 6FR Screw Valves

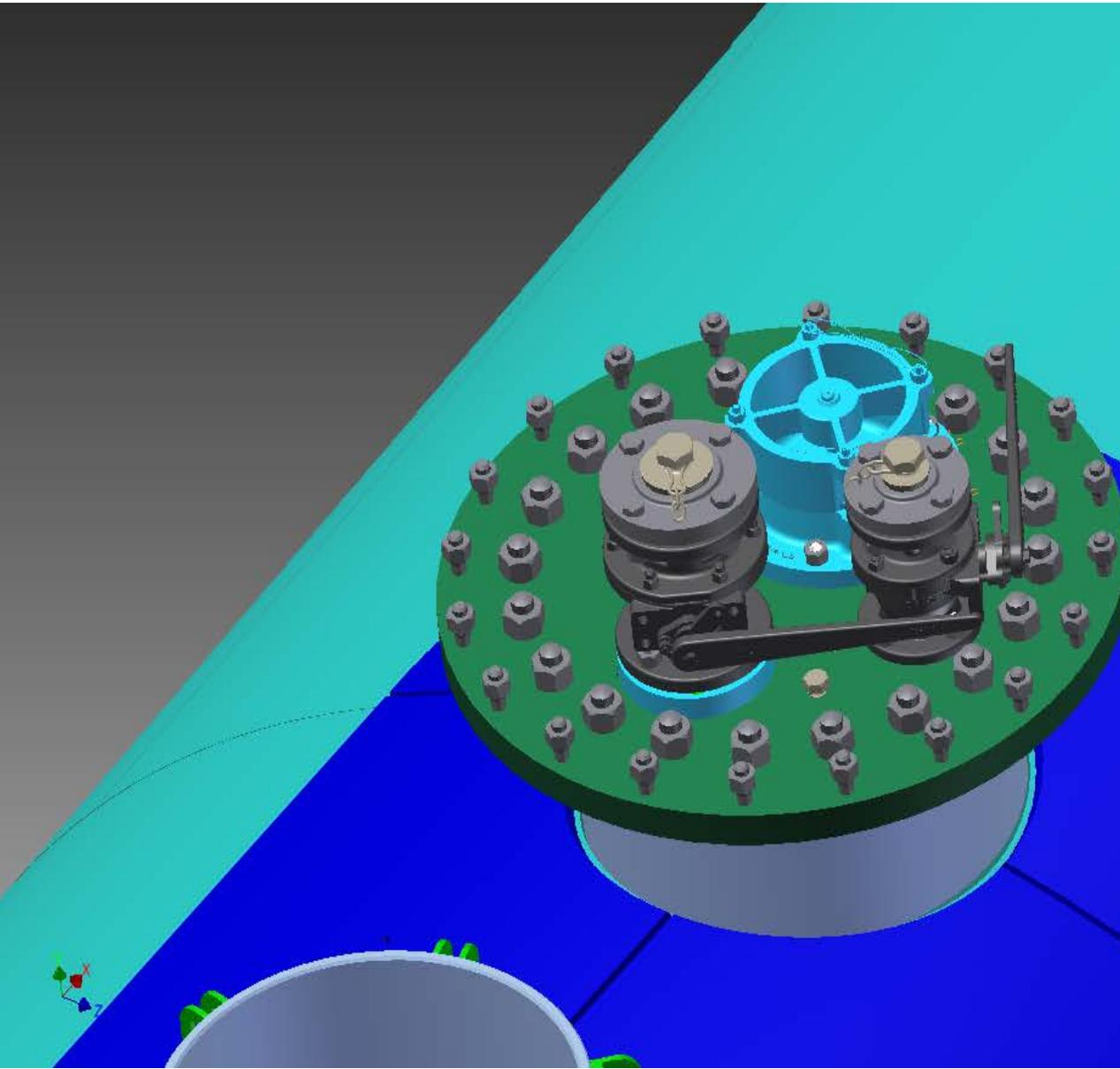


**Not allowed on NEW Cars Built
After July 1st 2013**

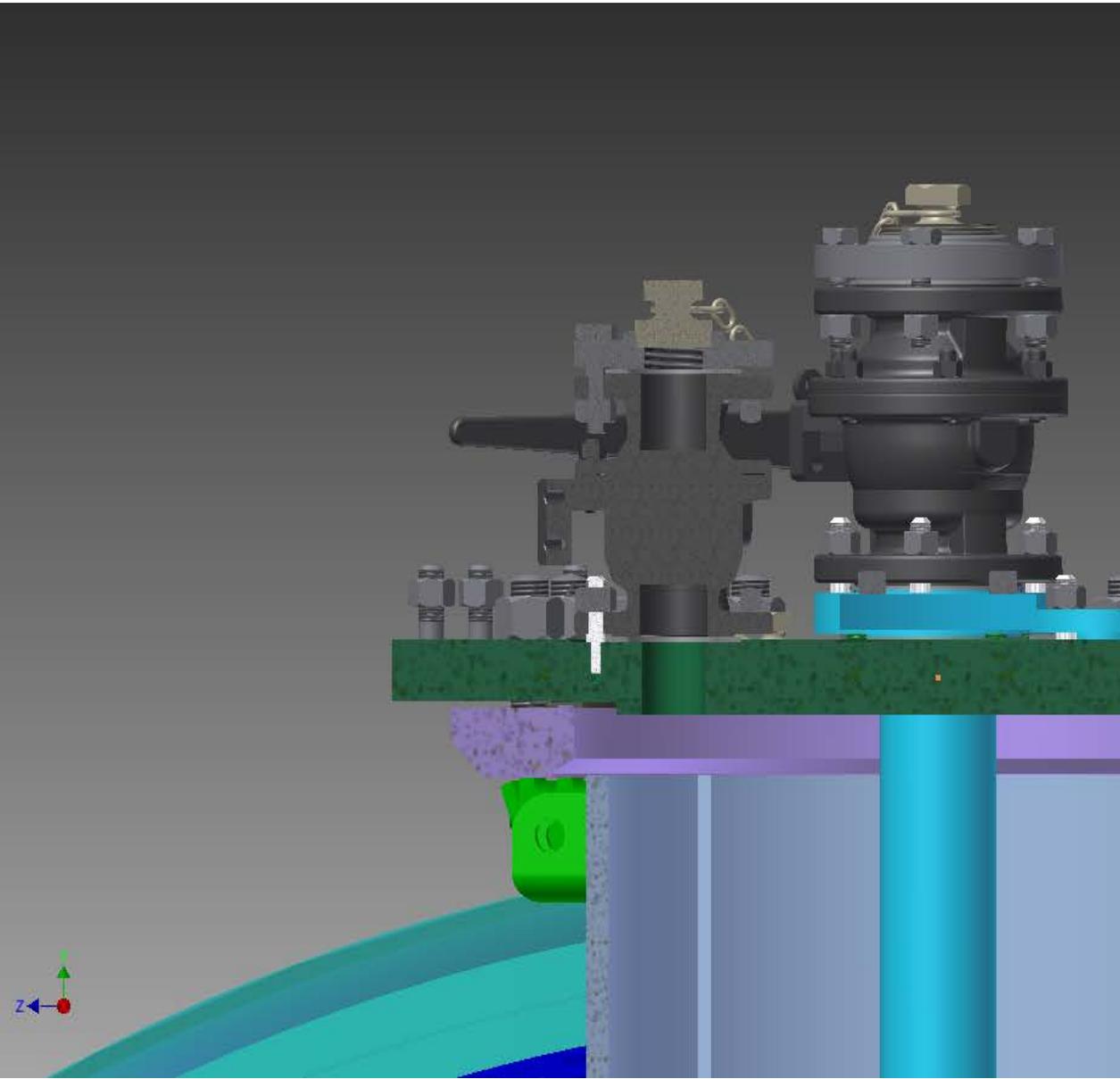
Prior 10/2011 Top Fittings Arrangement on CI Car



Post 10/2011 Top Fittings Arrangement on NCNI Car



Flanged Valves with NPT Connecting Flange



2" and 3" Flanged X NPT Valve



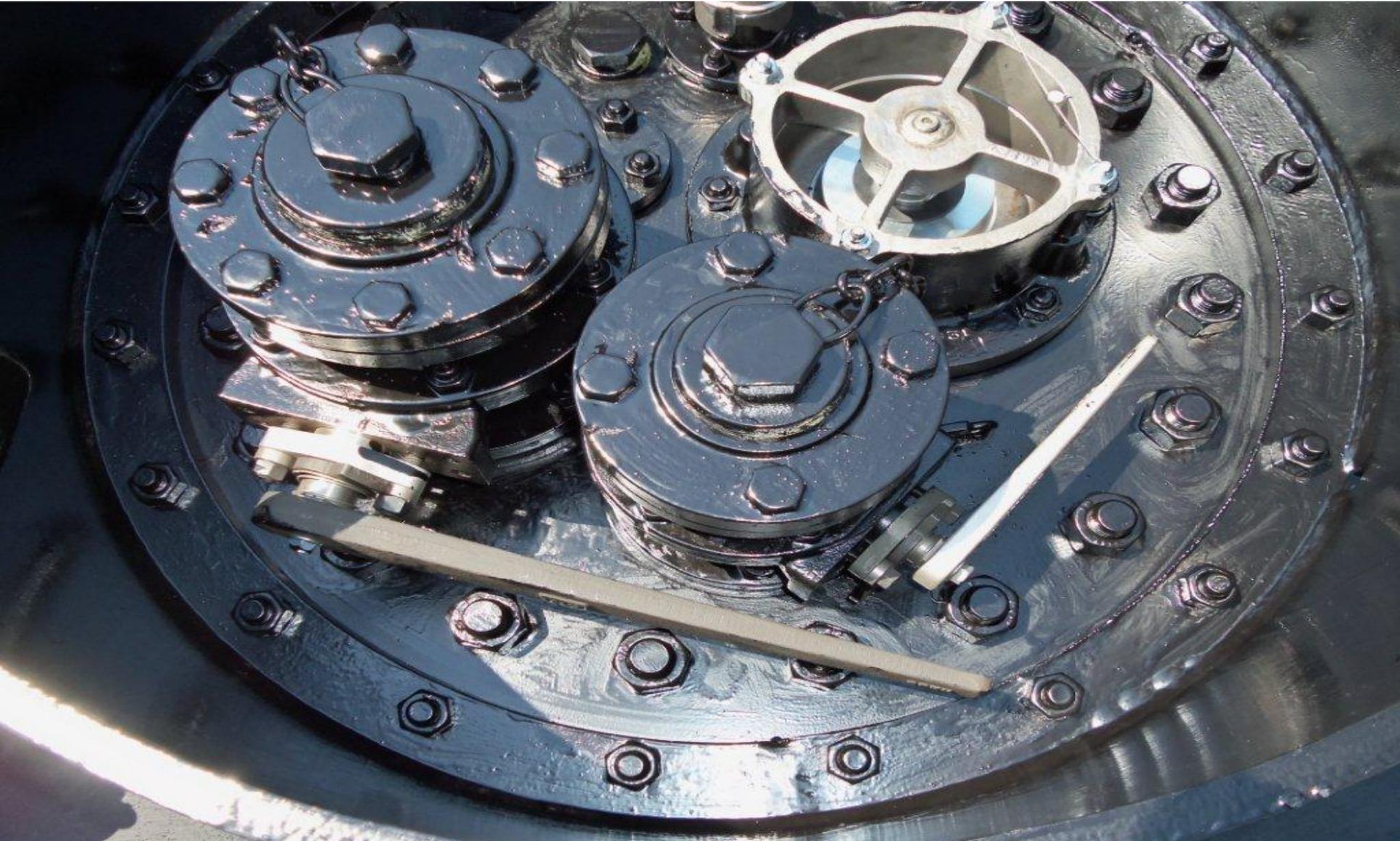
2" and 3" Flanged X NPT Valve



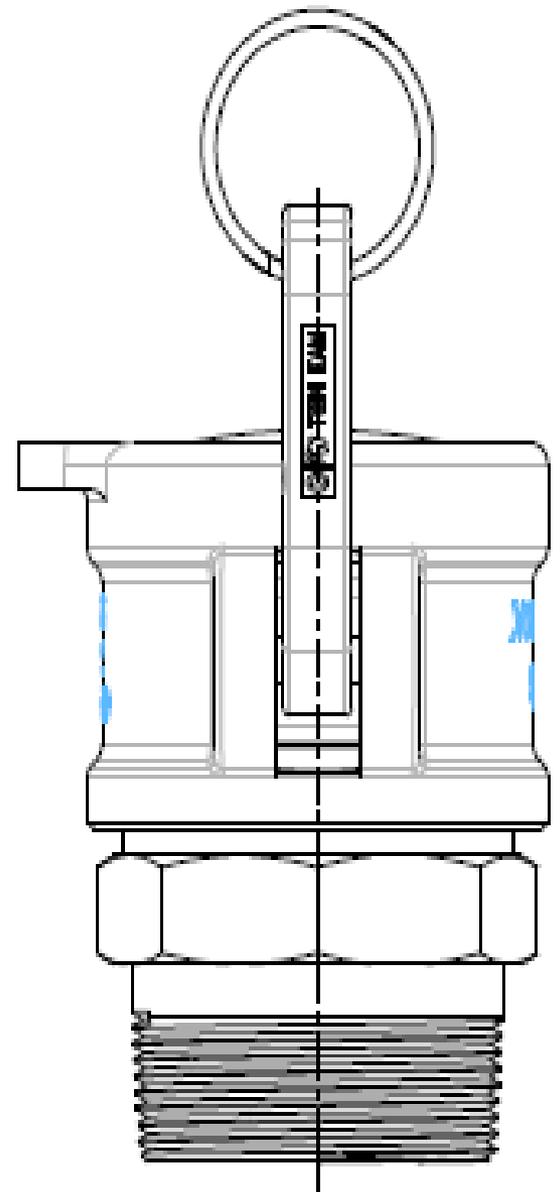
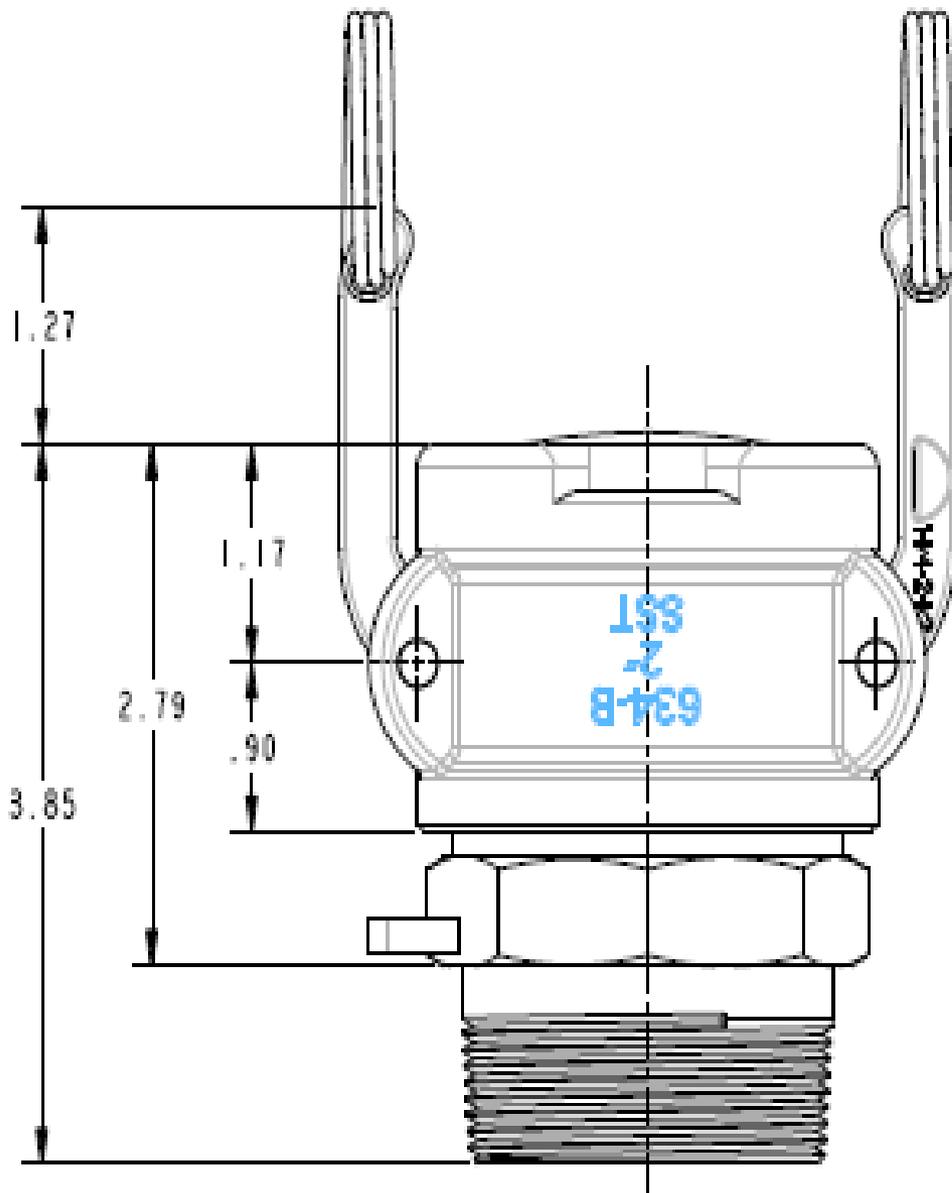
2" and 3" Flanged X NPT Markings



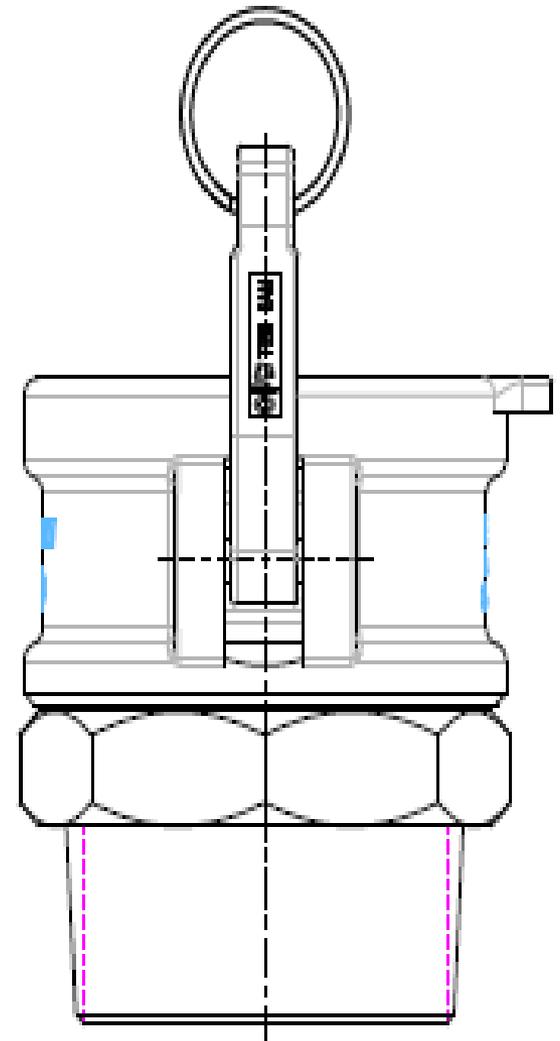
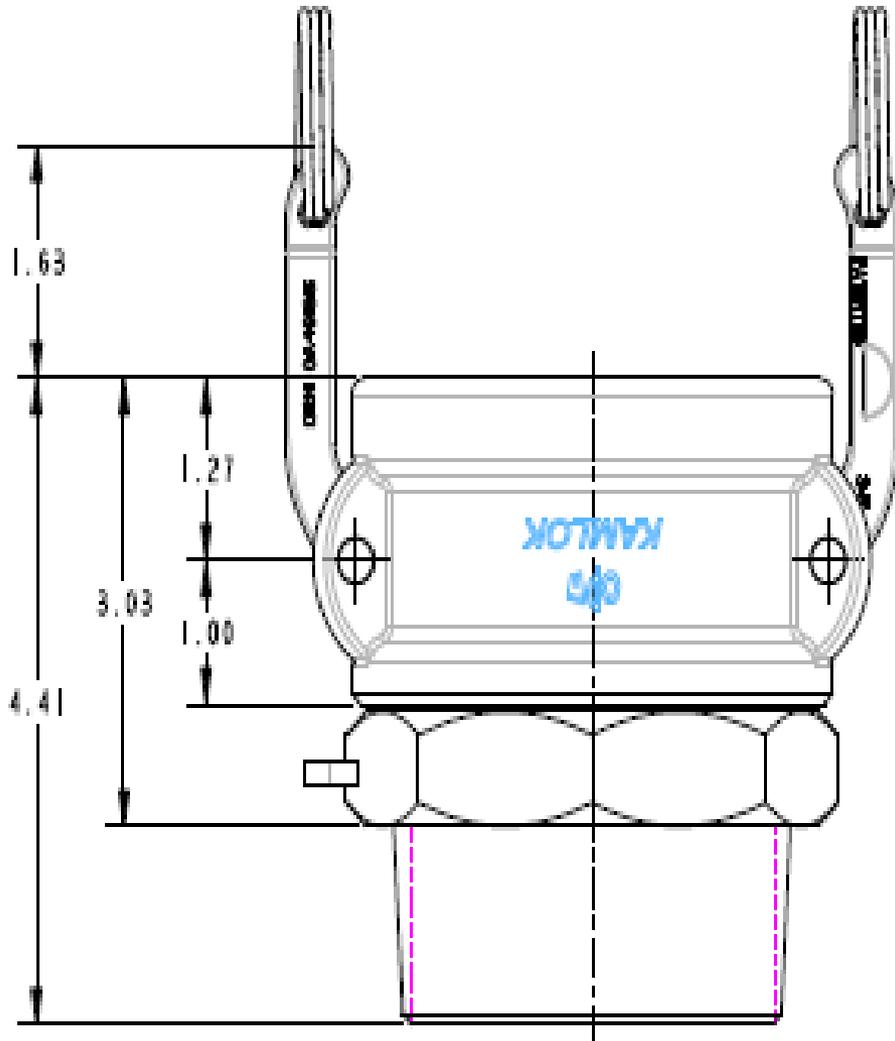
Post 10/2011 Top Fittings Arrangement on NCNI Car with NPT Connecting Flange



2" NPT Quick Connect Assy.



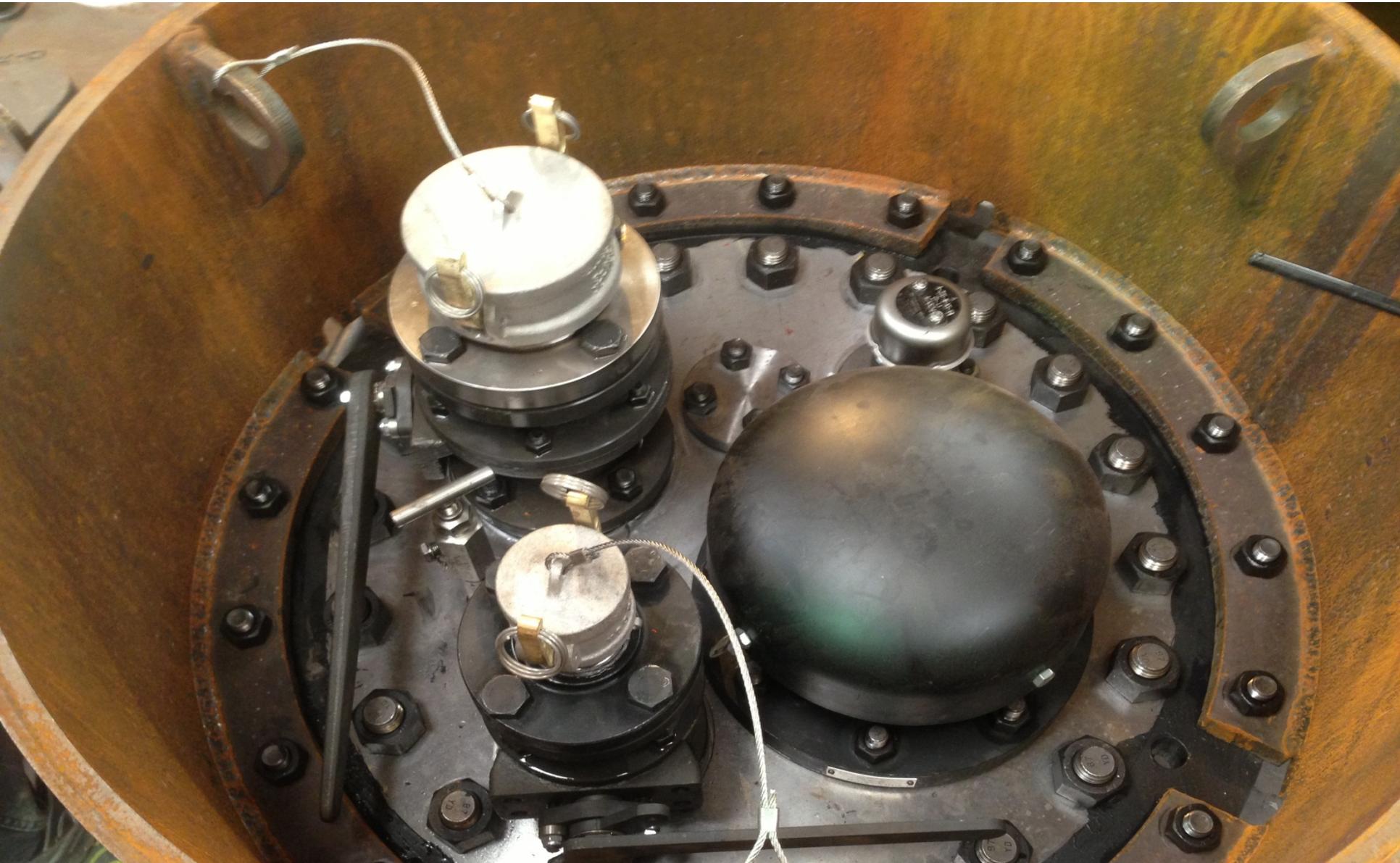
3" NPT Quick Connect Assy.



Flanged Valve with Quick Connect



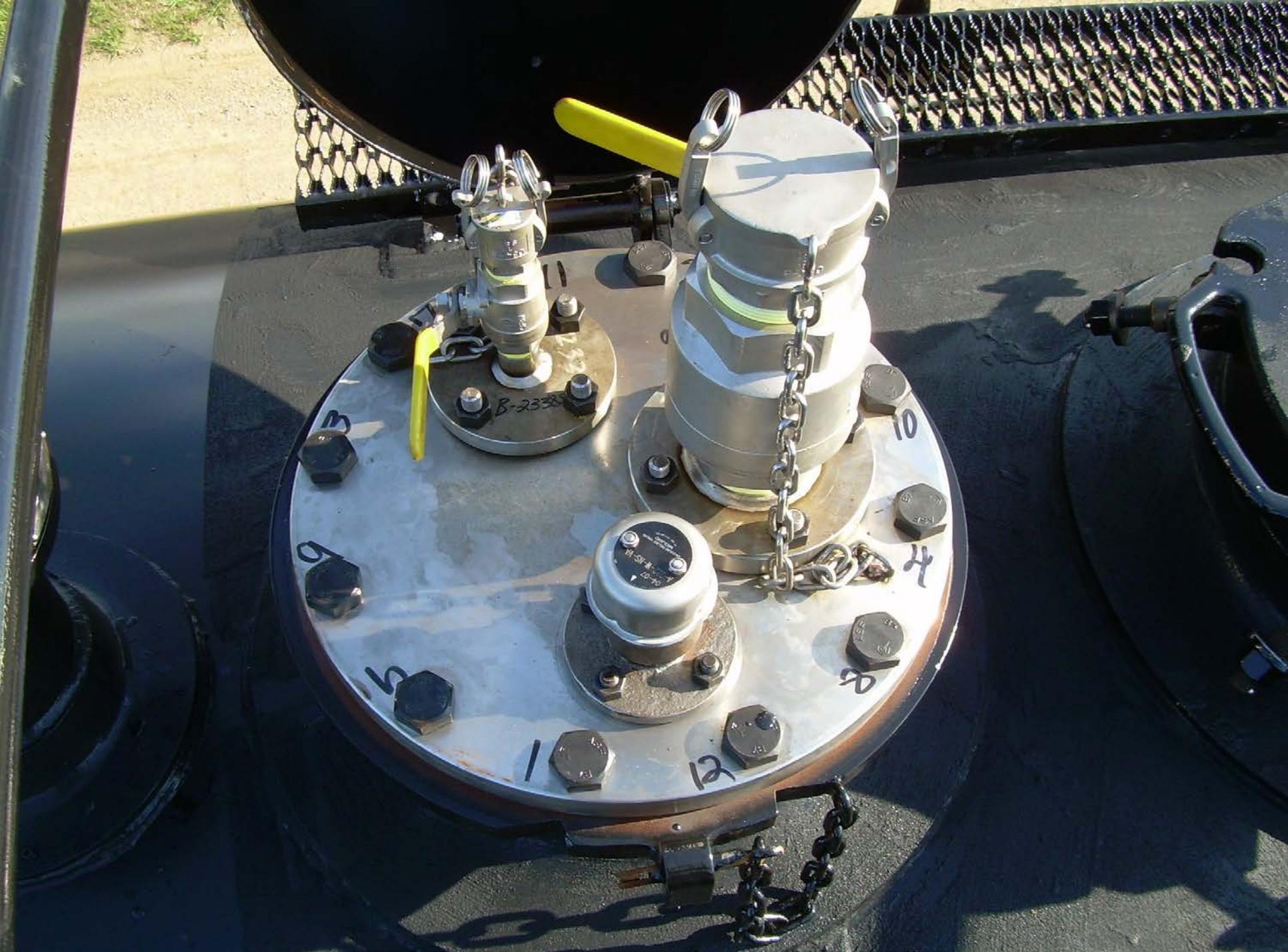
Post 10/2011 Top Fittings Arrangement on NCNI Car





Fill
3" OPW
Camvalok
Fitting

Vent
2" OPW
Camvalok
Fitting



B-2338

M-SIP-A
10-20

3

9

5

11

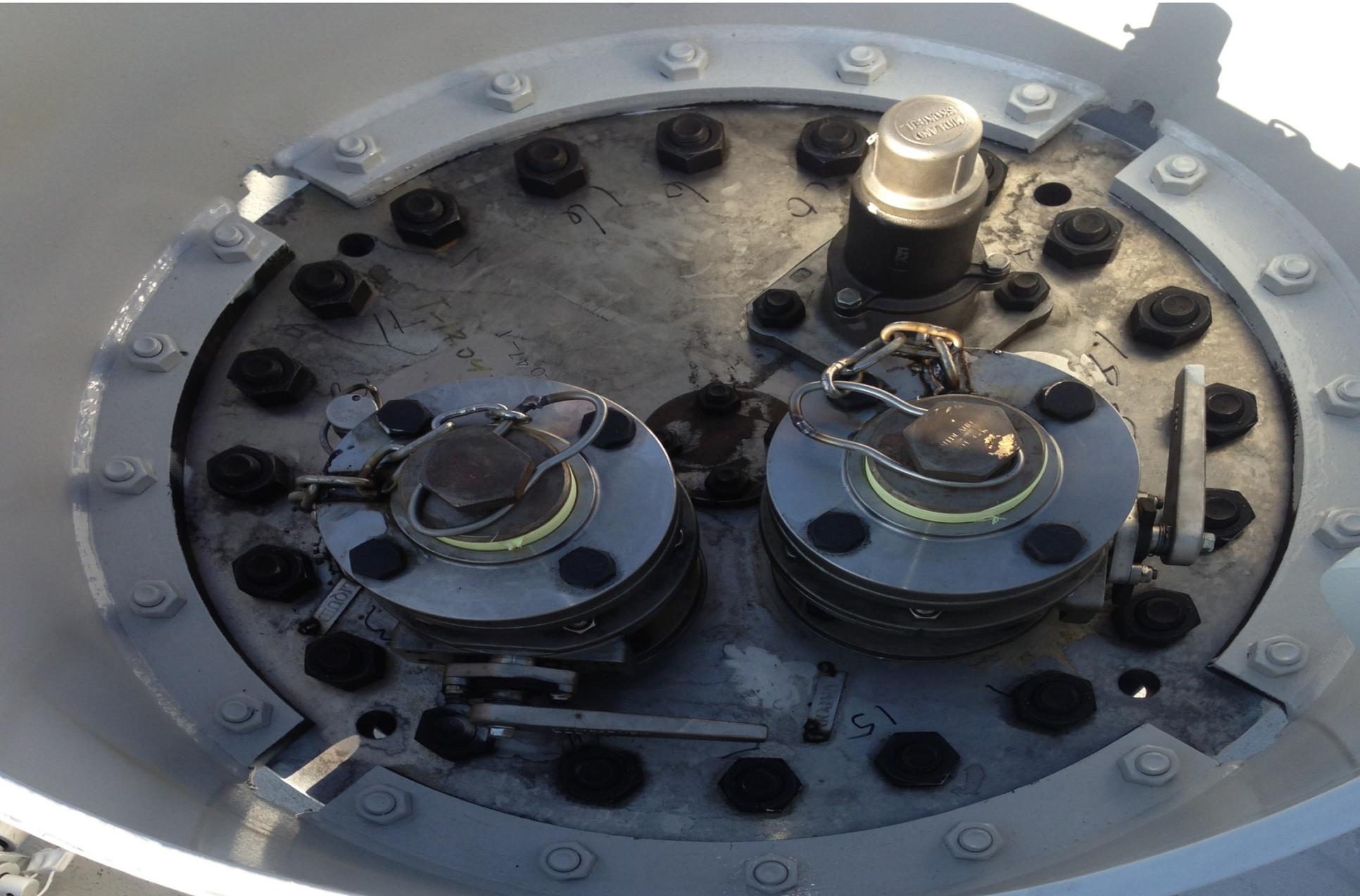
12

10

7

8

Other Top Fittings Arrangements



Other Top Fittings Arrangements



Other Top Fittings Arrangements Cont.



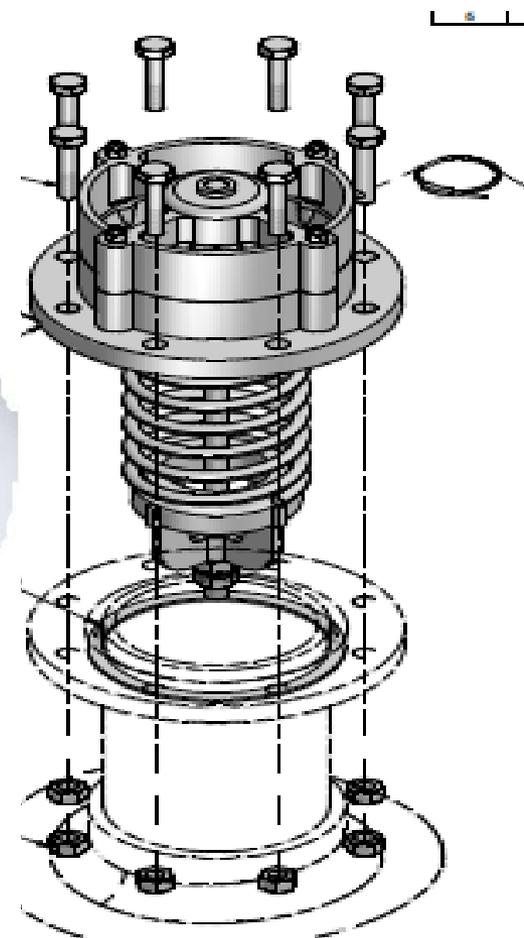
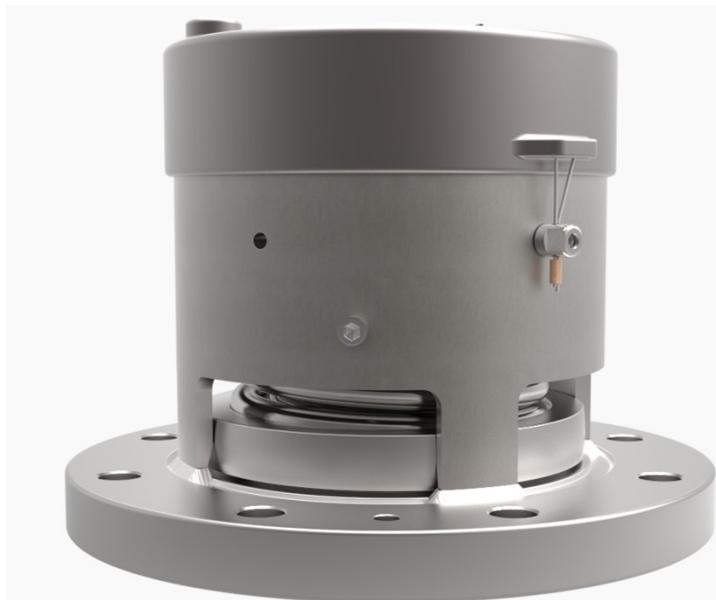
Other Top Fittings Arrangements Cont.



2. Safety Relief Valve / Pressure Relief Device



External PRD's

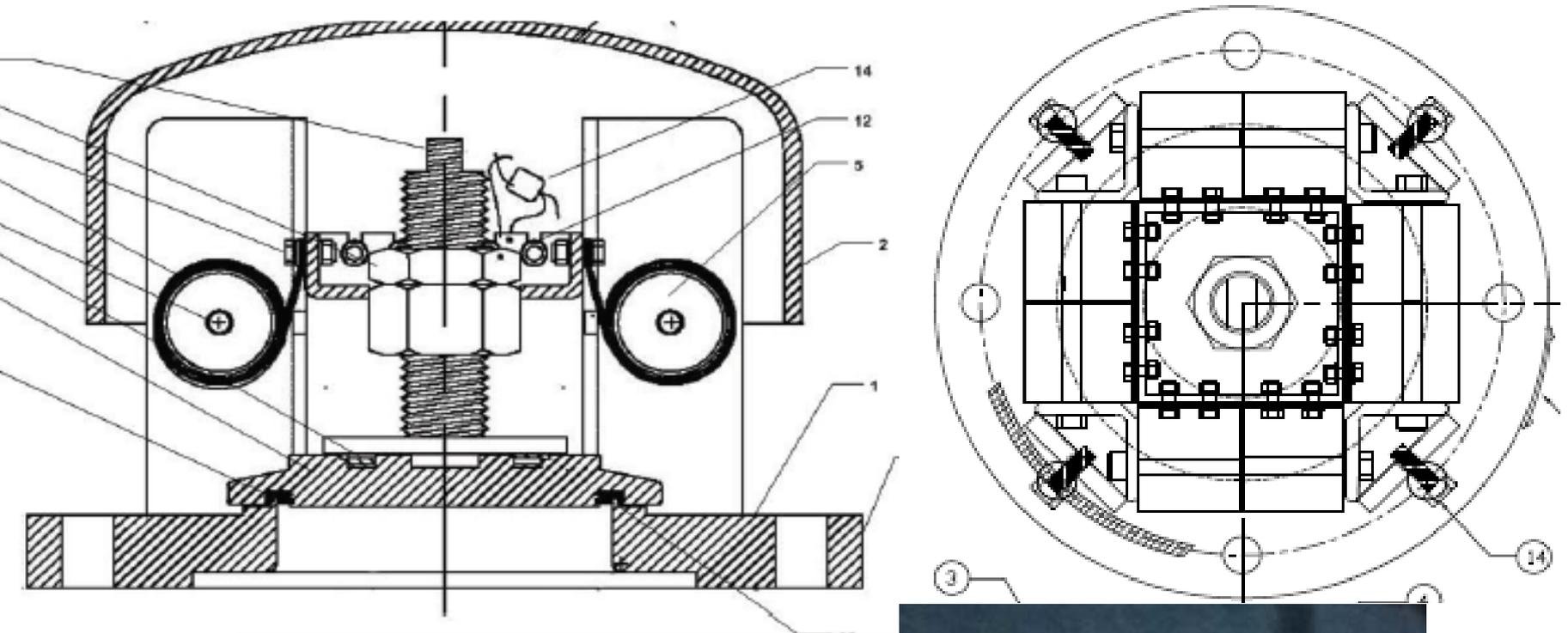


Internal PRD's

Show PRD Clips

KELSO NCNI Crude Car

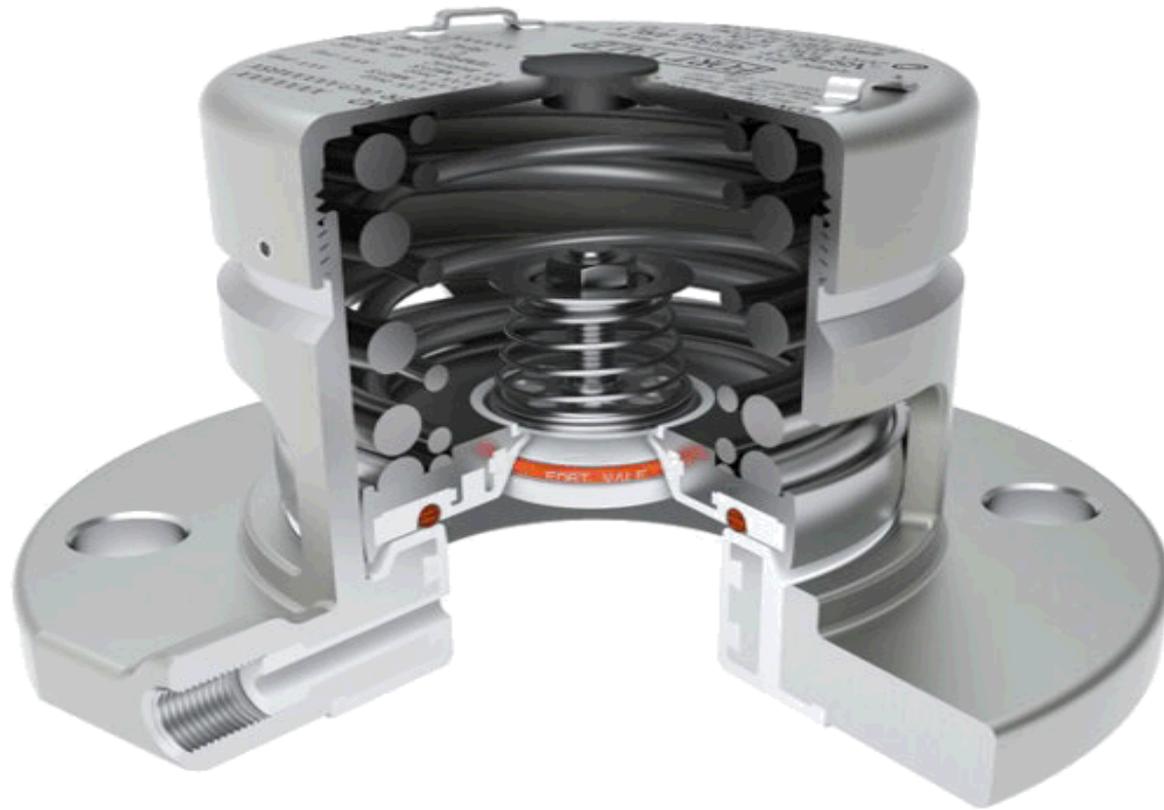
75 Psi, 30,000 SCFM PRD



New Requirement for NCNI Crude Cars

75 Psi, 27,000 SCFM PRD

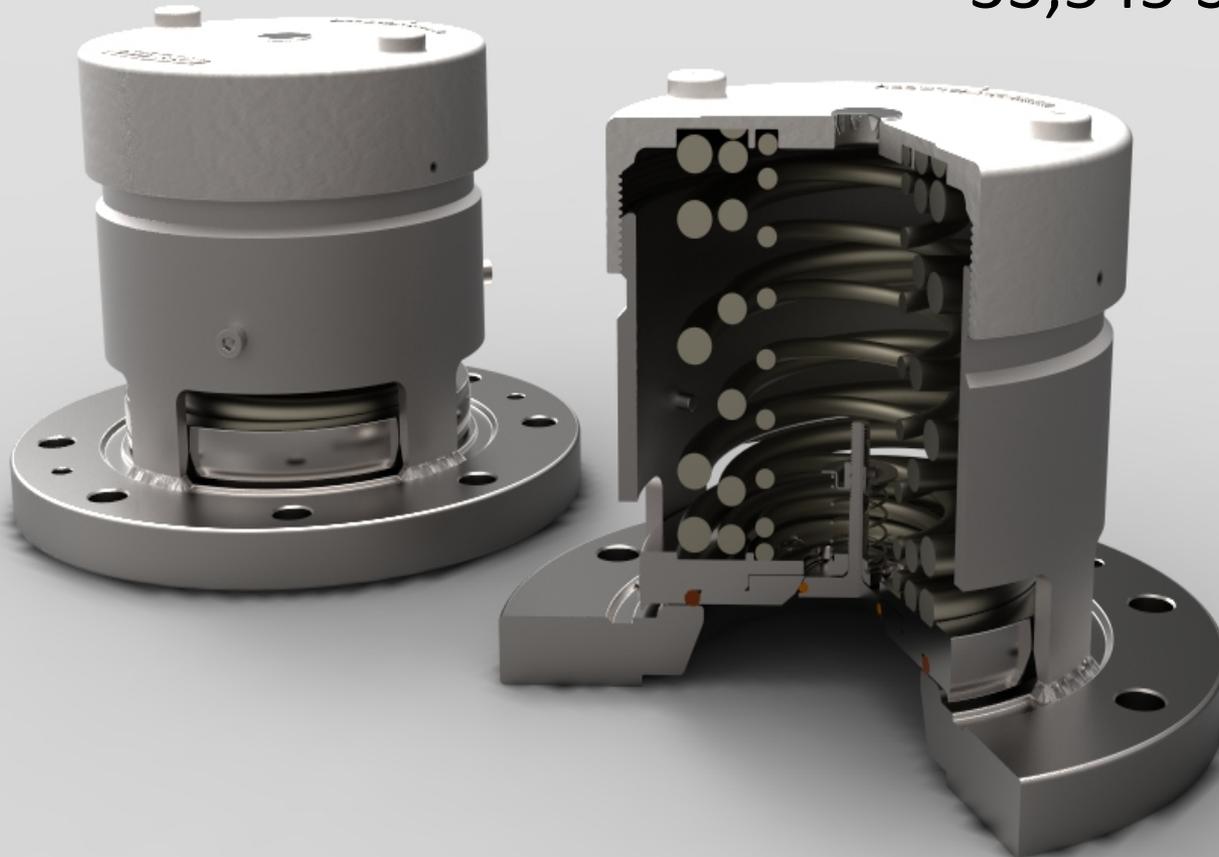
Effective Oct 1, 2013



Introducing
Part # OR4/1075130
AAR # PRD129514

31,676 SCFM at 85psi

33,545 SCFM at 90psi



Show Flow Test

Flow Test Results



0r4_high_lift_75psi_run1.mp4 Destroying Lab.mp4

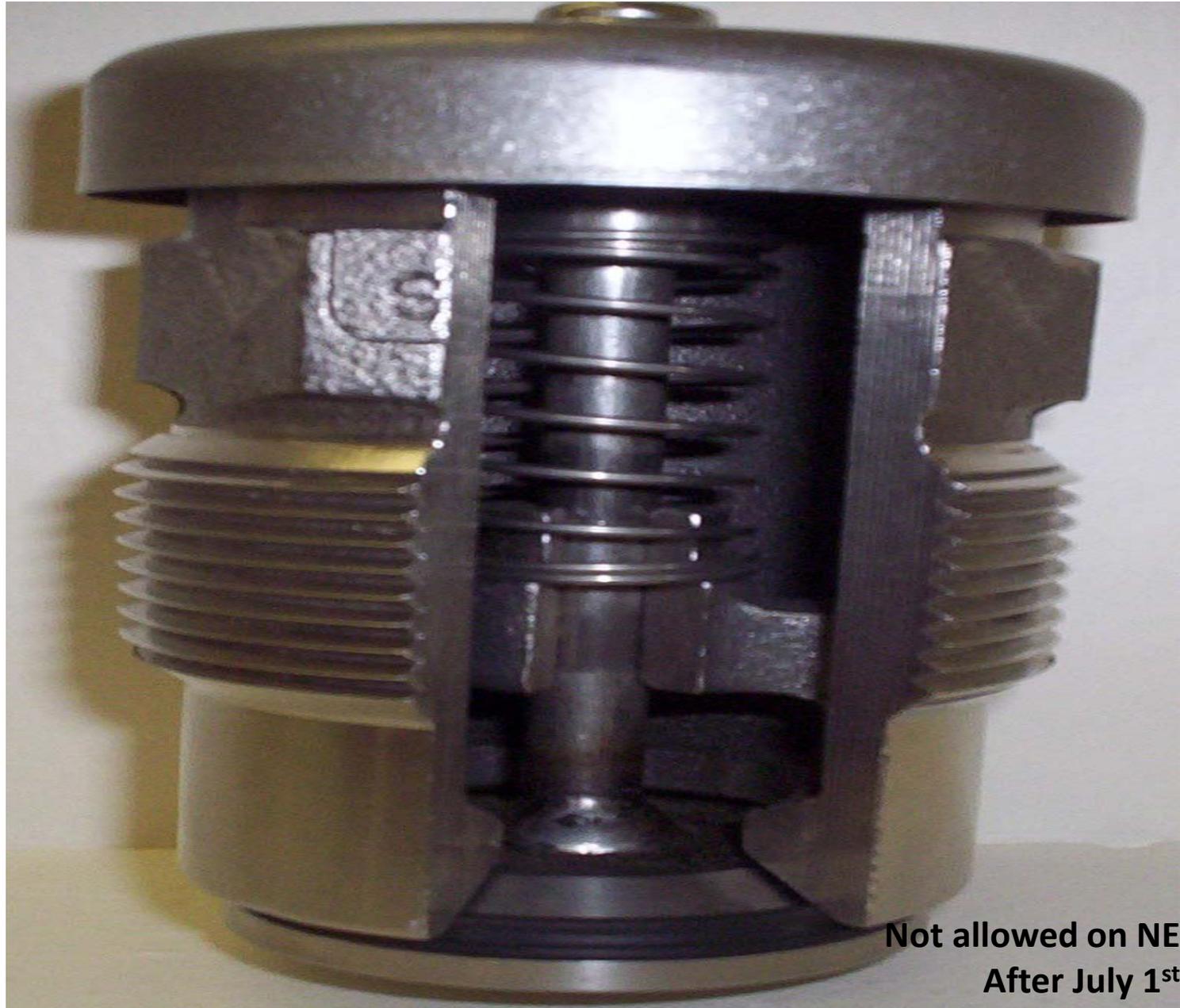
3. Got a Vacuum Relief Valve ??

Typical scene of a car not being vented when unloading and without a Vacuum Relief Valve.



Show Vac. Clip

Outdated Screwed Vacuum Relief Valve

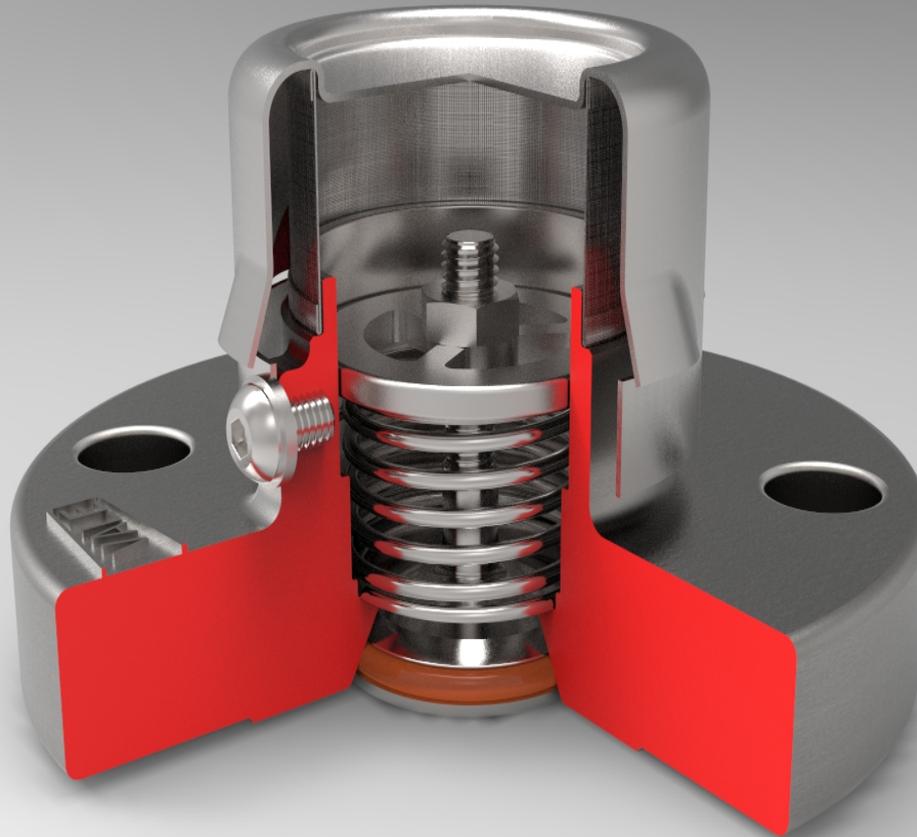


**Not allowed on NEW Cars Built
After July 1st 2013**

Vacuum Relief Valve Markings

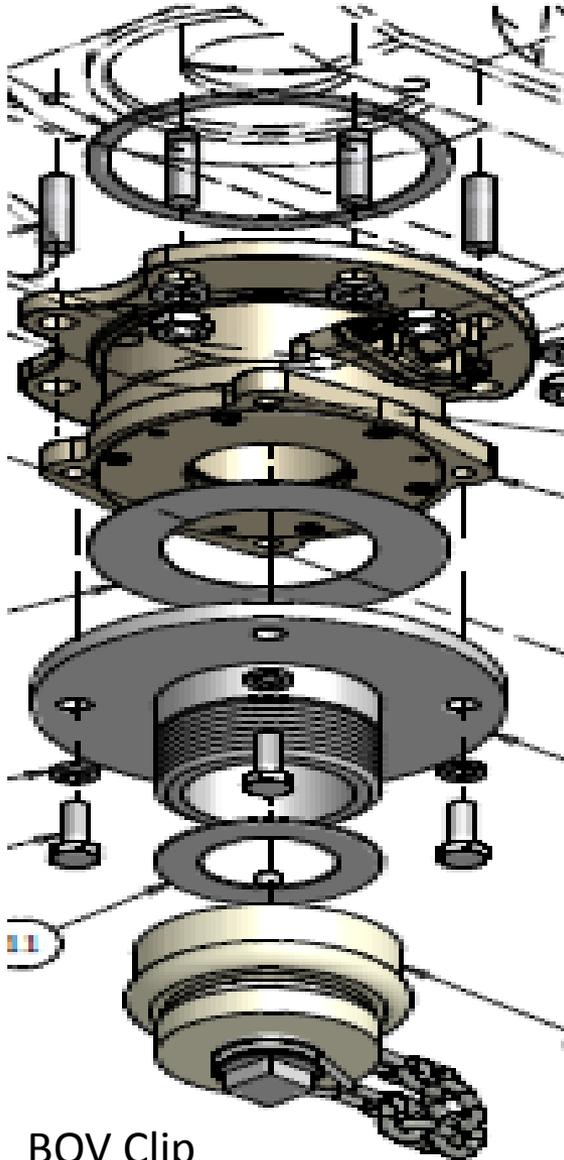


Required Flanged Vacuum Relief Valve

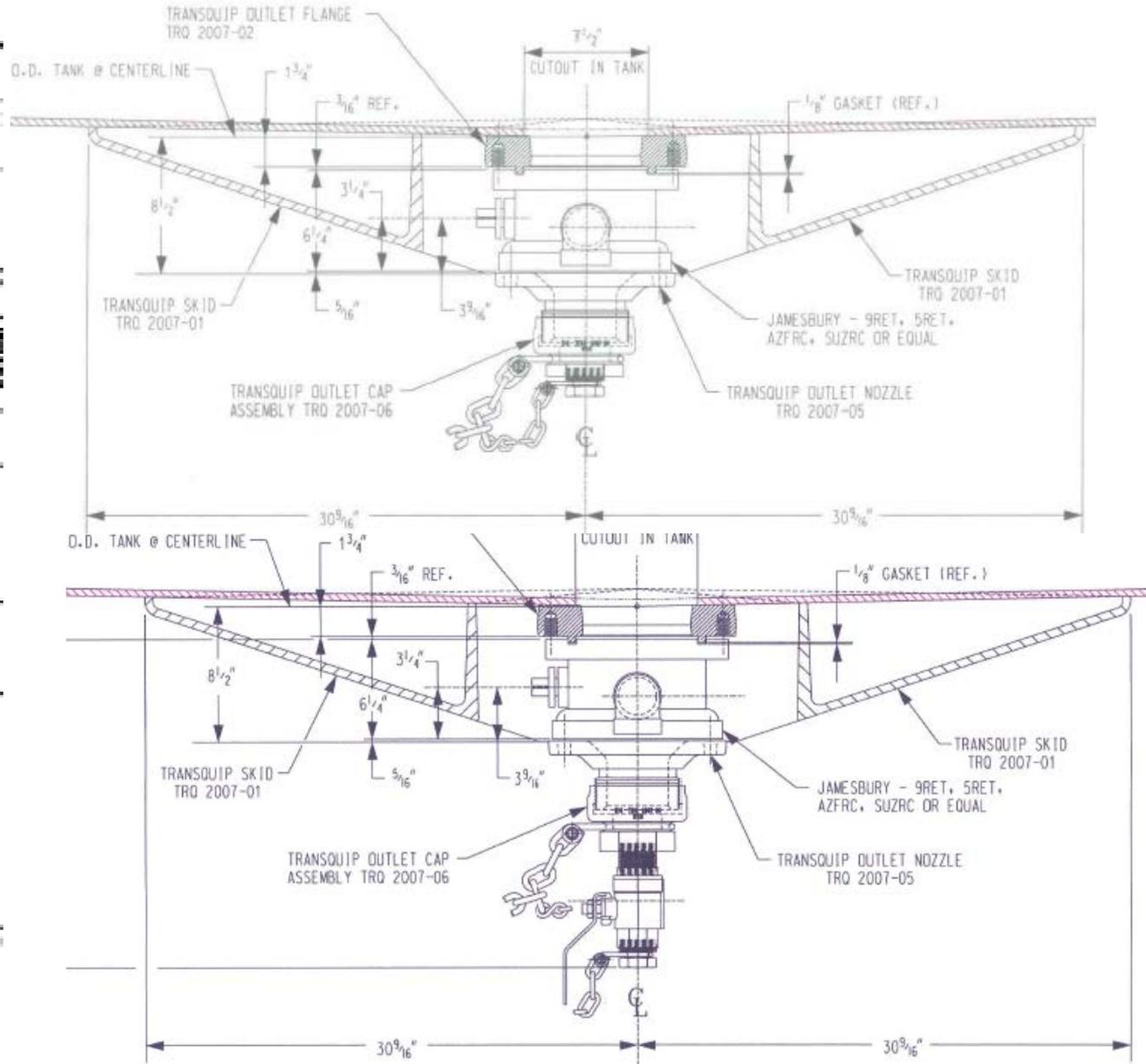


**Required on NEW Cars Built
After July 1st 2013**

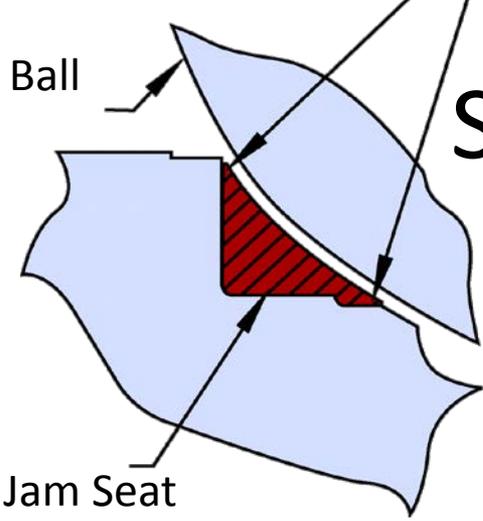
4. Bottom Outlet Valve and Fittings



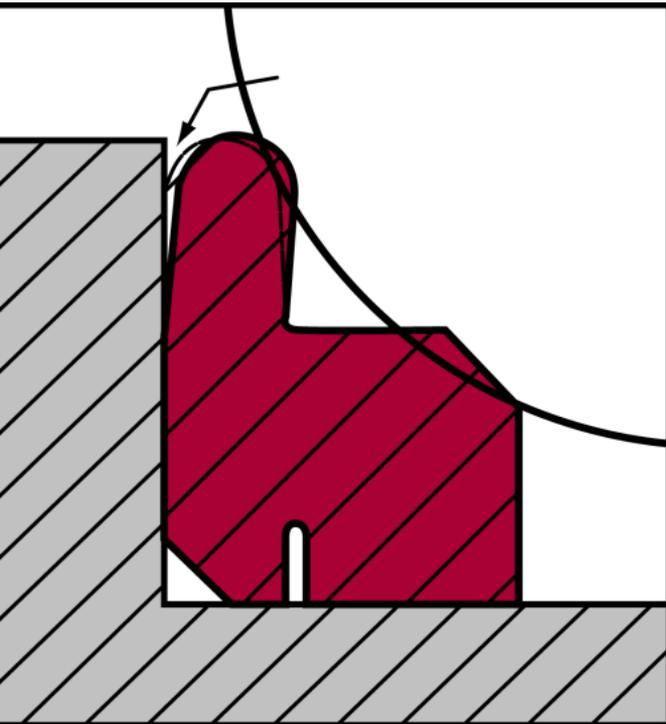
BOV Clip



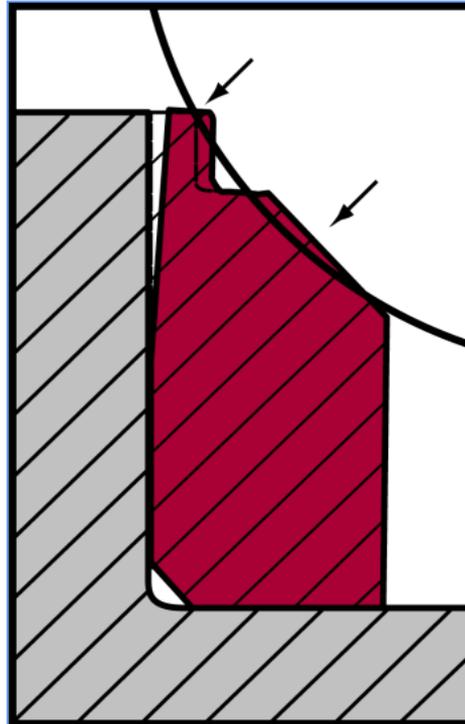
Cold Flow Seat Designs



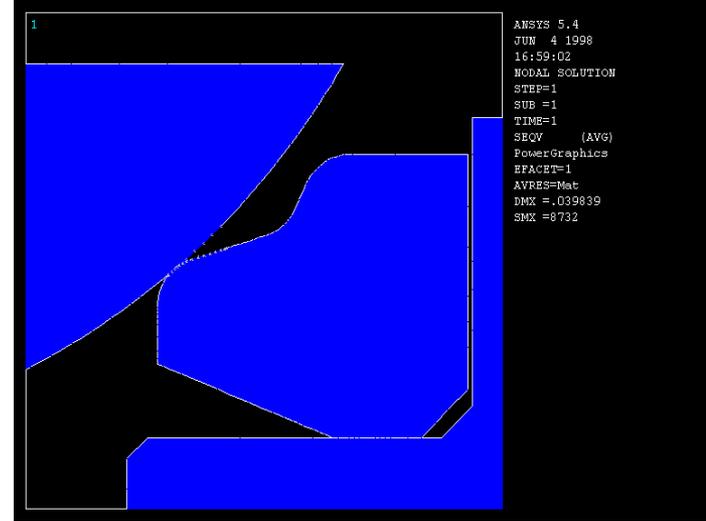
Competitor "U"



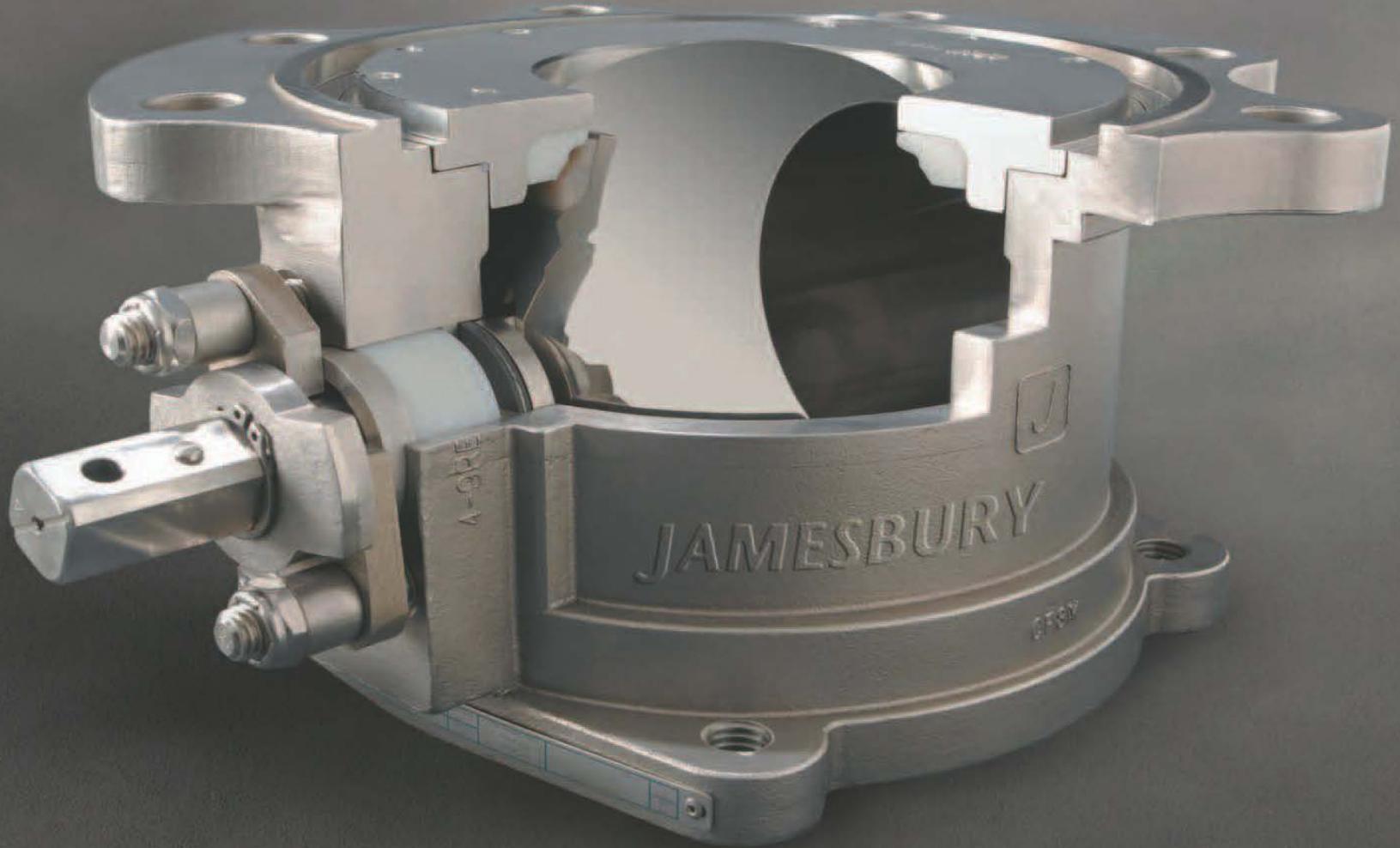
Competitor "M"



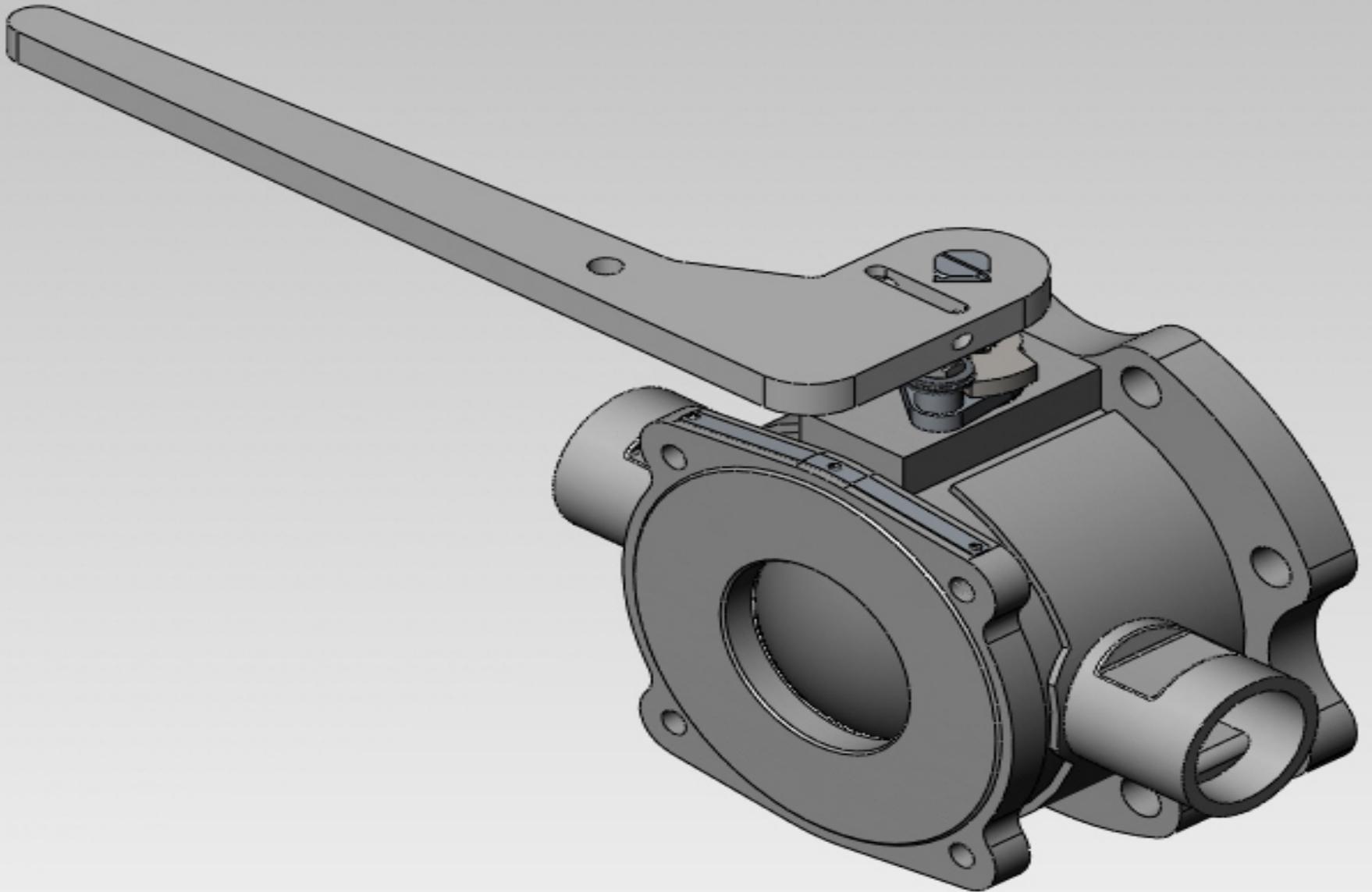
Competitor "A"



Jamesbury 4" 9RET3-22HB



Jamesbury 4" 9RET4-22HB



Jamesbury 4" 9RET4-22HB Markings

SERIAL NUMBER - Manufacturing is responsible for creating the serial number which is constructed as follows except for subcontract purchased transportation valves refer to 2.1.3.

Example: **U123210123.1** where:

U	12	3210123	.1
1	2	3	4

- 1 U stands for USA
- 2 Year manufactured (last 2 digits)
- 3 (7) digits Manufacturing Order (MO)
- 4 Sequential number within total MO quantity



Bottom Outlet Valve and Fittings



Show BOV. Clip

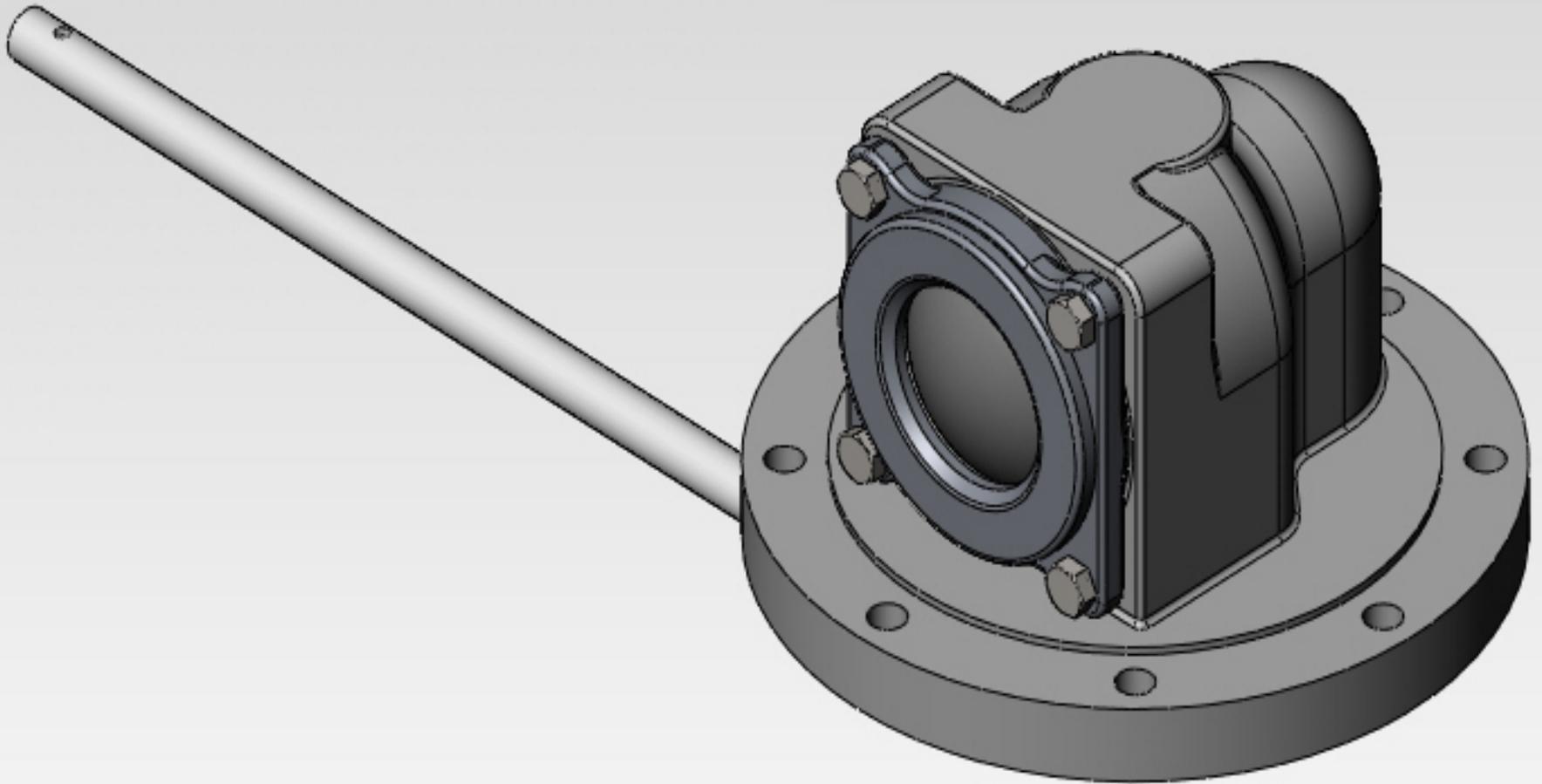
9RET4 Bottom Outlet Valve



Bottom Outlet Valve and Fittings w/ 2" Aux. Valve



Internal 6RIB3 Bottom Outlet Valve



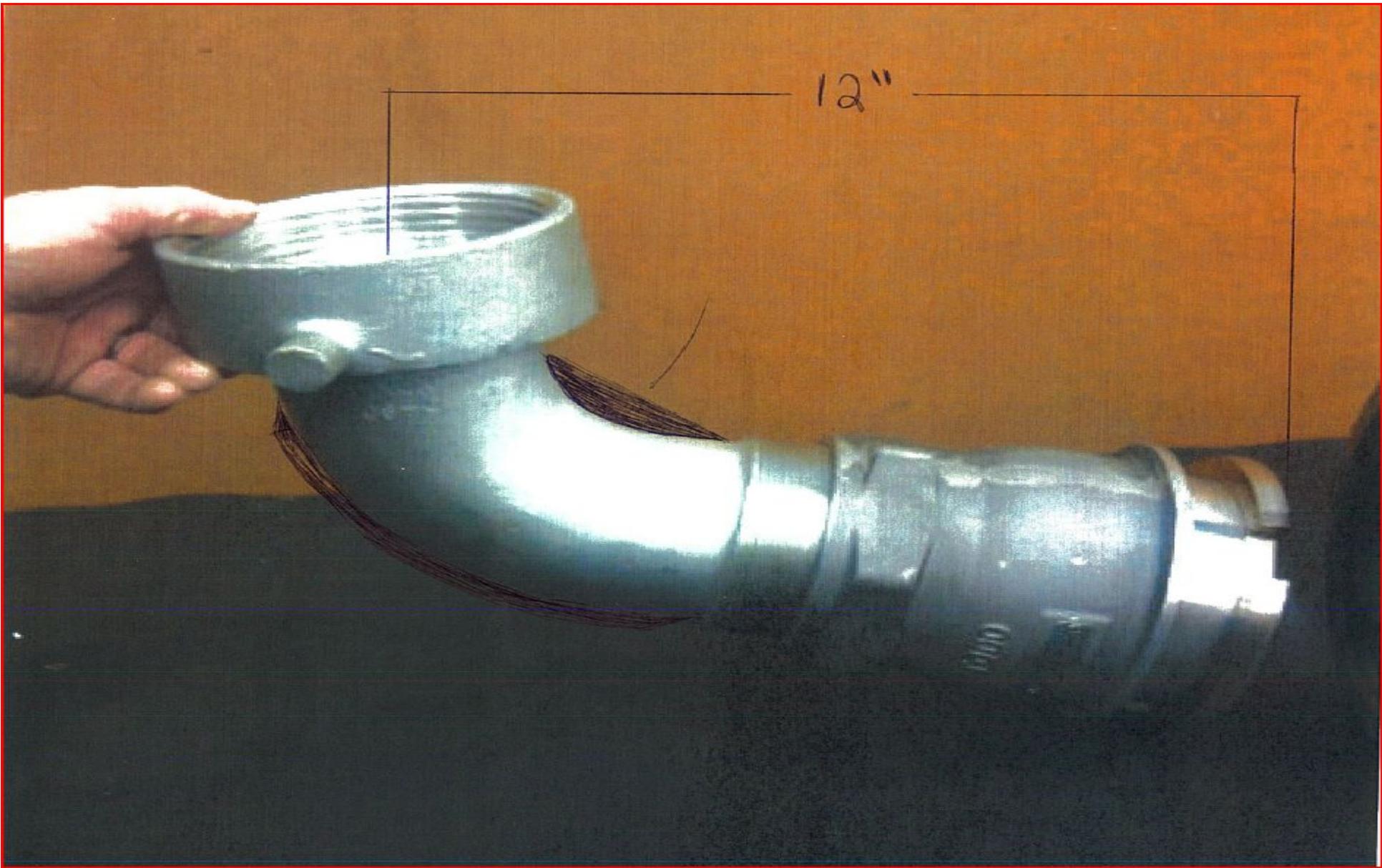
Bottom Outlet Valve Equipment



Bottom Outlet Valve Standard Hardware



Alternate BOV Fitting



Alternate BOV Fitting



Trans Loading from Truck to Railcar



Trans Unloading through BOV



Open Discussions, Questions

Let's Hear from you.....

