

Salco Vacuum Relief Valves

Mike Clark Billings, MT 9-2013





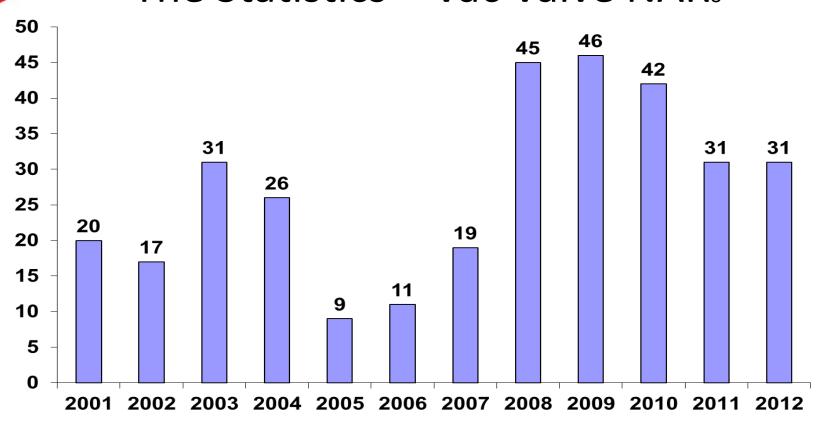
The force of a vacuum





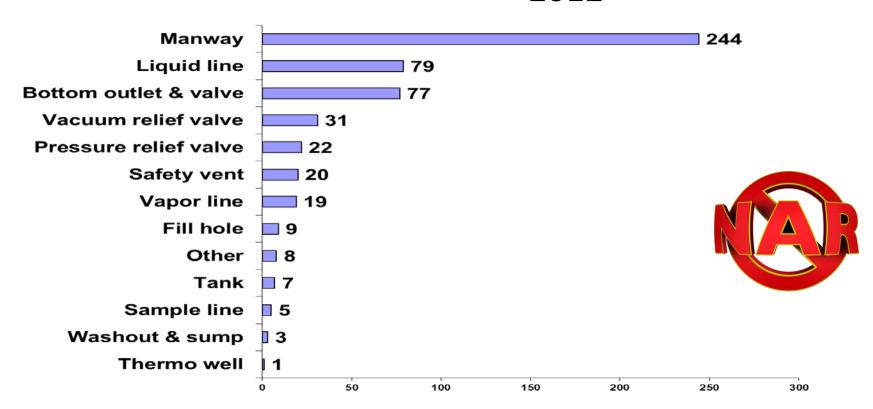


The Statistics – Vac Valve NARs



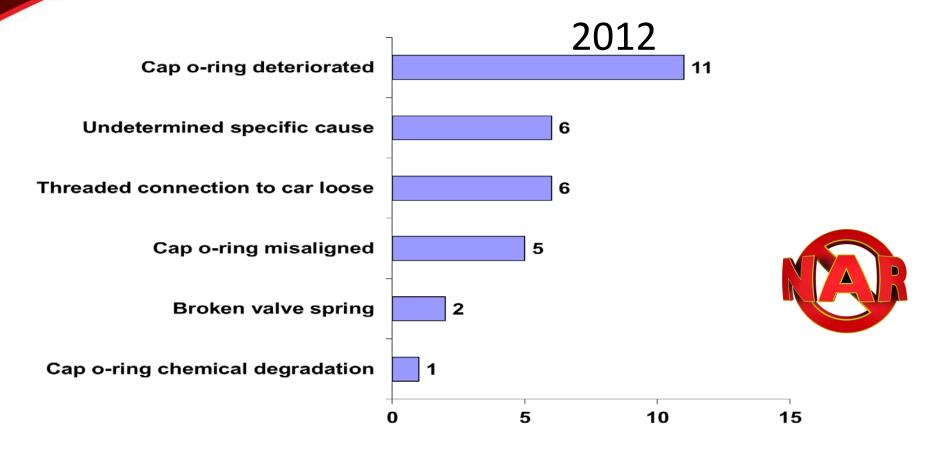


Non-pressure Car NARs by Component 2012





Vacuum Relief Valve NAR Causes



Cause Analysis

- of 6 top Vac Valve causes are O-ring Related
- •That's 22 of 31
- •Or 71%
- •Why is this happening?



NAR DATA

- •WHY?
- •Misuse of the Cycling type valve as a pressure relieving device. (Step Valve)
- •O-rings are blown off the stem.
- No set qualification requirements for Vac Valves
- Tested on car lieu of bench test.



More Why?

- •6 of 31 NARs at threaded connection
- That's 20% of Vac Valve NARs

•What's being done about it?



Rule Changes

- MSRP C-III Appendix A
- •4.10.3 Effective 7-1-2013, for new car construction or at time of the next qualification, vac valves must:
 - •Be designed so that they cannot be manually actuated.
 - OVER TIME = No More Step Valves.







Questions?



Thank You!

Mike Clark
Salco Products

Salcoproducts.com

