

Customer: Husky Oil Operations Ltd.
Facility/Loc:
Cust PO: TBA
Cust Ref:
Tag : **PSV 171**

Product: Relief Valve
Service Req'd: Repair
Received: 14-Sep-2017
Seal: Intact
Seal ID: RMV

Code Case : NB
Code Symbol: UV

EQUIPMENT DATA

Mfr : Consolidated
Model: 1993C
CRN #: 0G0449.2
Serial No: 95C0045
Inlet Size: 1" MNPT
Orifice: .292
Outlet Size: 1.5" FNPT

Body Mat: Standard
Bonnet Mat:
Trim Mat:
Soft Seat Mat:
Cap Type: Plain
Spring: AA52CR

Service: Compressible
Set Pressure: 1440.00 PSIG
CDTP: 0.00
Capacity: 7068 SCFM
Temp: 80 F
Constant BP: 0
Variable BP: 0

PRE-TEST

Pre-tested: YES
Pre-test By: Josh Bougie
Leaked: NO
Pre-test Note: FUNCTIONS GOOD AT 90% / NO LEAKS FOUND

Pre-test 1: 1438 PSIG
Pre-test 2: 1435 PSIG
Pre-test 3: 1434 PSIG

Fittings: NO
Inlet: Oily
Outlet: Clean
Shipping Crate: NO

CRITICAL DIMENSIONS

<u>NOZZLE</u>	<u>Mfr Spec</u>	<u>As Found</u>	<u>DISC</u>	<u>Mfr Spec</u>	<u>As Found</u>	<u>OTHER</u>	<u>Mfr Spec</u>	<u>As Found</u>
Length	0.906	0.910	Thickness	0.490	0.493	Spindle/Collar	0.007	.002
Seat Step	0.265	0.275	Inside Step	0.010	0.020			
Seat ID	0.684	0.685	Outside Step	0.000				
Seat OD	0.798	0.798	Seat	0.000				

PARTS EVALUATION

<u>PARTNAME</u>	<u>CLEAN</u>	<u>OILY</u>	<u>RUSTY</u>	<u>CARBON</u>	<u>OTHER</u>	<u>CONDITION</u>	<u>WORK PERFORMED</u>
Disc	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty, Marked	Cleaned/Lapped
Nozzle	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty, Marked	Cleaned/Lapped
Cap-lever Assy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Comp Screw And Locknut	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Spring And Buttons	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Spindle / Stem	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Stem Retainer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Disc Holder	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Guide / Upper Ring	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Lower Ring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Ring Pin(S)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Gasket / Seals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Connection Ends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Body	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse
Base	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dirty	Cleaned/Reuse

Disassembled By: Josh Bougie

Inspected By: Rick Fetch

Assembled By: Josh Bougie

FINAL TEST

Date Tested: 14-Sep-2017
Test Method: Bench
Set Definition: Pop
Test Media: Air
Tested By: Rick Fetch

Gauge 1: TW 16
Gauge 2: TW 10
Perform BP Test: Yes
Back Pressure: 30 PSIG
BP Gauge: TW 18A

Final Set Pressure: 1440.00 PSIG
Leakage Rate: 10 BPM
Upper BlowDown Ring: N/A
Lower BlowDown Ring: NOTCHES
Seat Tightness Test: 1296.00 PSIG

Pilot Type:
Pilot Test Fluid:

Pilot Gauge 1:
Pilot Gauge 2:

Pilot Final Set Pressure: 0
Pilot Leakage Rate: 0
Pilot Seat Tightness Test: 0

FINAL INSPECTION

Shipment Check : Seals Intact, Painted, Service/Repair Tags Verified

Final Inspection : Josh Bougie

VR Tag Applied By:

Definitions

Wear and Conditions

Bent - Altered from an originally straight or even condition.

Blown - (Specific to bellows) pressure has exceeded the operational limits of the bellows and has resulted in the catastrophic failure of the part.

Catastrophic Wear - Rapidly occurring or accelerating surface damage, deterioration, or change of shape caused by wear to such a degree that the service life of the part is appreciably shortened or its function is destroyed.

Collapsed - (Specific to Farris gaskets) the corrugations in the metal gasket are no longer functioning to form part of the seal.

Corrosion - the gradual destruction of metal due to a chemical reaction with the environment characterized by rust, pitting and pinhole porosity

Cracked - a break without the complete separation of parts.

Dirty -requires cleaning only.

Eroded - a form of wear in which there is a progressive loss of original material from a solid surface due to mechanical interaction between that surface and a fluid.

Galling - A form of surface damage arising between two sliding solids, distinguished by roughening, and the creation of protrusions above the original surface and may involve material transfer.

Marked -surface is showing abrasions that will alter or hinder valve performance.

Missing - There is a part listed on the manufacturers parts list, critical to the designed operation, which has been found absent and unaccounted for.

Nonconcentric - the deformation of a circular part in which there is an absence of a common center.

Non-OEM - a part identified as not being from the original equipment manufacturer.

Out of Tolerance - a specific dimension has been determined to be out of the stated acceptable range listed by the manufacturer.

Pinhole Porosity - small spaces in a material characterized by small holes appearing porous; compromising the isolation of a pressure zone.

Pitting - A form of wear characterized by the presence of surface cavities the formation of which is attributed to processes such as fatigue, local adhesion, or cavitation.

Requires Replacement - The particular part needs to be changed out in order to meet the construction and/or operational requirements as specified by the valve owner.

Scoring - A severe form of wear characterized by the formation of extensive grooves and scratches in the direction of sliding.

Seized - Two parts are jammed together to become stuck and cannot be removed by conventional means.

Spalling - (Specific to seats) the separation of material from a surface in the form of flakes or chips resulting from an impact event.