

AAR Manual of Standards and Recommended Practices Specifications for Tank Cars

M-1002

CHAPTER 1

APPLICATION FOR APPROVAL OF VALVES, CLOSURES, AND FITTINGS

Applicant Kelso Technologies Inc. AAR No. E202111
 Description of Device Standard Profile Bottom Outlet Valve (4") With Ceramic Ball

Applicant No. _____ Device Ident. No. KBOV-SP Series Date 11/13/19

1. Manufacturer Kelso Technologies Inc.
 2. Address 7773-118A Street City Delta State British Columbia Zip Canada V4C 6V1
 3. Test facility if other than the manufacturer _____ Address _____
 4. Test date 11/21/14 4. Observer Drew Trojacek
 Title: Sr. Product Engineer

TEST PROCEDURE

5. Description of prototype testing: High and Low Temp. Testing (330F & -20F); Shock and Vibration; High and Low pressure testing at different temps. and body housing structural integrity. The same tests below were conducted at room temp. (75F) for same pressures - No Issues or leaks

Cycles	Min. Temp.	@ Pressure	Cycles	Max. Temp.	@ Pressure	Test Medium	Remarks
10	-20 °F	300 psi	10	330 °F	300 psi	Nitrogen	No Leaks
10	-28 °C	2068 kPa	10	166 °C	2068 kPa	Nitrogen	
Cycles	Min. Temp.	@ Pressure	Cycles	Max. Temp.	@ Pressure	Test Medium	Remarks
10	-20 °F	30 psi	10	330 °F	300 psi	Nitrogen	No Leaks
10	-28 °C	2.06 kPa	10	166 °C	2.06 kPa	Nitrogen	
Cycles	Min. Temp.	@ Pressure	Cycles	Max. Temp.	@ Pressure	Test Medium	Remarks
10	-40 °F	300 psi	10	330 °F	300 psi	Nitrogen	No Leaks
10	-40 °C	2068 kPa	10	166 °C	2068 kPa	Nitrogen	

7. Commodity: Regulated Commodity _____ Non Regulated Commodity _____ Specific Commodity _____ X **Commodity to be disclosed and
 8. Flow rate (if applicable) _____ gpm (_____ L/min) subject to TCC approval**

Applicable drawings	Material	Drawing Number latest revision	Precedent	
			Drawing Number	Application/Certificate
9. Device application	SS with Ceramic Ball	KBOV-SP Series (04/15/2020)		
10. Device assembly	SS with Ceramic Ball	KBOV-SP Series (04/15/2020)		
11. Device details	SS with Ceramic Ball	KBOV-SP Series (04/15/2020)		

12. Quality Control Statement Kelso has adhered to a strict quality control system that has granted Kelso a "Code B85, C4 and C5" certification rating by the AAR.

**Note: Kelso has received approval for service trial for a similar Low Profile Bottom Outlet Valve (AAR# E162100).

REVISIONS: The only difference for this assembly will be that this will be considered a Standard Profile Bottom Outlet Valve with similar and identical feature as that prior approval.
CERTIFICATION: The above data is correct and conforms with AAR Specifications for Tank Cars, Appendix A. The devices tested conform with drawings listed above.

By  Title Engineering

APPROVAL AAR Tank Car Committee Service Trial Required

Date Approved for Service Trial 5/1/2020
 Service Trial Number ST-474
 • Service Trial is only approved for molten Sulfur and Asphalt.
 • Valve can not be used in a pressure car service without a special permit

 (Signature) on behalf of Tank Car Committee

APPROVAL AAR Tank Car Committee Service Completed / Not Required

Date Service Trial Completed _____ Date AAR Received Form AAR 4-6 _____
 Date Approved _____
 Expiration Date _____

(Signature) on behalf of Tank Car Committee

Form AAR 4-5 Revised 10/2014

Fig. 1.4 Form AAR 4-5 Application for Approval of Valves and Fittings