

NON TRANSFERABLE**TEST REPORT**

No.SHL/239/2007-08/5566/1789

DATE: -27.03.2008

- 1.0 **NAME AND ADDRESS OF THE CUSTOMER** : **M/s. Bhiwadi Cylinders Pvt. Ltd.**
E-925, 1200 & 1201,
Industrial Area Ph. III,
Bhiwadi , distt. Alwar(Rajasthan),
Rajasthan – 301 019.
- 2.0 **CUSTOMER LETTER REF.** : Ref: BCPL/SHL/007 Dt: 27.02.2008.
- 3.0 **DESCRIPTION OF TEST COMPONENTS** :
- 3.1 **Multifunction Valve** bearing Sr. No. 012414 and Model No.: MV -01 is manufactured by M/s. Bhiwadi Cylinders Pvt. Ltd., Rajasthan. and valve orientation angle with respect to horizontal plane is 90° and having DOE Approval No. G3 (40) 177 Dt. 08.12.2006.
- 3.2 **LPG Tank**, Type – Cylindrical bearing Serial No.0082, Water Capacity – 50 Lit. having diameter = 270 mm, manufactured by M/s. Bhiwadi Cylinders Pvt. Ltd., Rajasthan and having DOE Approval No. G3 (42) 521/P/Auto LPG-2007 Dt. 03.09.2007.
- 3.3 Mounting arrangements of Cylinder and Multifunctional Valve along with non-Moisture Retaining hard Rubber, bearing Drawing No. BCPL/CM-01 Rev. No.: 00 is attached herewith. Mounting arrangements has to verify as per the attached drawing during vehicle certification.
- 4.0 **TEST OBJECTIVE** :
- Functionality check of Automatic Fill Limiter and Excess flow valve incorporated in Multifunction Valve, as per Cl. 14-xi and Cl. No.14 – (viii) of AIS:026.
- 5.0 **TEST REQUIREMENTS** :
- 5.1 Automatic Fill Limiter should cut off the entry of LPG (in liquid form) to the LPG tank, when pre-determined maximum level of 80% of water capacity of LPG tank fitted on vehicle is reached.



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5.2 When the service fuel line is disconnected at the automatic shut off device, the excess flow valve should function before or as soon as the service valve is fully open. The functioning of excess flow valve is confirmed when the initial escape of gas suddenly drops to the small flow permitted by the bypass in the closing disc of the excess flow valve

6.0 TEST PROCEDURE :

6.1 Test procedure for Automatic Fill Limiter:

6.1.1 Test was conducted at BPCL Auto LPG Filling Station (Saraswati Auto) located at Pune.

6.1.2 The tank was filled and LPG was consumed by driving the vehicle on the road till the vehicle cannot be run on LPG. This exercise was repeated two or three time till the fill limiter performance gets stabilized.

6.1.3 After stabilization of fill limiter, the tank was filled at least twice till the fill limiter valve stopped further filling. The volume of fuel as indicated by the dispenser.

6.1.4 The average of the two readings was calculated.

6.2 Test procedure for Excess Flow Valve :

6.2.1 Close the service valve on the fuel auto LPG tank.

6.2.2 Disconnect the service fuel line where it meets the automatic shut off device or where it meets the veporiser whichever is first.

6.2.3 Open the service valve on the Auto LPG tank rapidly and fully, and then close it immediately

6.2.4 Check the functionality of Excess flow valve incorporated in Multifunction Valve

7.0 TEST RESULTS :

7.1 Test Results for Automatic Fill Limiter :

7.1.1 Capacity of the Tank : 50.00 L

7.1.2 80% Capacity of the Tank : 40.00 L

7.1.3 Actual quantity of liquid LPG filled in the tank: (Percentage)

First Reading : 39.21 Ltrs. (78.42 %)

Second Reading : 39.48 Ltrs. (78.96 %)

Average Reading : ----- (78.69 %)



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7.2 Test Results for Excess Flow Valve:

7.2.1 After disconnecting service flue line from the automatic fuel shut off device and opening the service valve rapidly and fully, the initial escape of gas was suddenly dropped to the small flow

8.0 CONCLUSION :

8.1 The Automatic Fill Limiter incorporated in the Multifunction bearing Sr. No. 012414 and Model No.: MV -01 is manufactured by M/s. Bhiwadi Cylinders Pvt. Ltd., Rajasthan and fitted on cylinder manufactured by M/s. Bhiwadi Cylinders Pvt. Ltd., Rajasthan Ltd having diameter 270 mm **meet the test requirements** when tested as per Cl. No.14-xi of AIS:026.

8.2 The Excess Flow Valve incorporated in the Multifunction bearing Sr. No. 012414 and Model No.: MV -01 is manufactured by M/s. Bhiwadi Cylinders Pvt. Ltd., Rajasthan and fitted on cylinder manufactured by M/s. Bhiwadi Cylinders Pvt. Ltd., Rajasthan having diameter 270 mm **meet the test requirements** when tested as per Cl. No.14 (viii) of AIS:026.

PREPARED BY:


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Place of Issue: PUNE

Date of Issue: 28/03/08

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