

DRAFT AMENDMENT NO. 1 JANUARY 2025

TO

**IS 13603 2014 – Automotive Vehicles — Air Brake Systems — Performance
Requirements for Brake Chamber
(First Revision)**

(Foreword, Para 3) — Substitute the following for the existing clause:

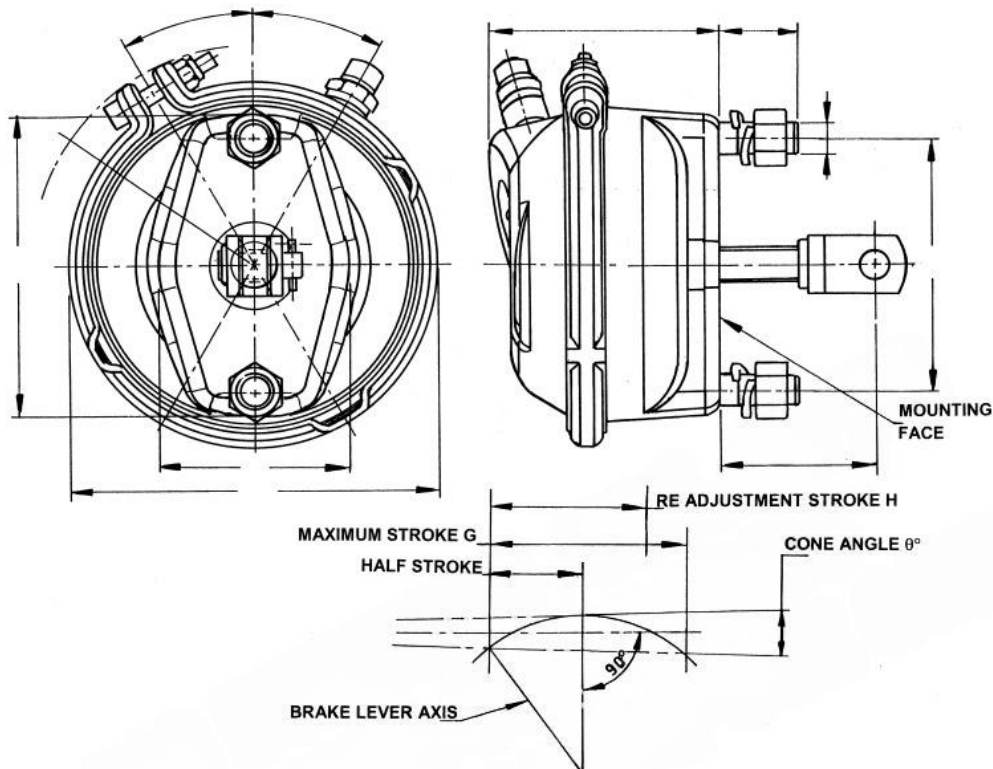
‘This standard was first published in 1992. This revision has been taken up to update based on latest technology available in the field. This standard is one in the series of Indian Standards being developed for air brake components. This standard forms an important adjunct to IS 11852: 2013 ‘Automotive vehicles — Uniform provisions concerning the approval of vehicles of categories M, N and T with regard to braking (second revision)’, for the performance requirements of braking systems for automotive vehicles.’

(Page 1, clause 4.2) — Substitute the following for the existing clause:

4.2 Working Conditions

Working medium Dry air
Other conditions shall be as agreed to between the supplier and the purchaser. In the absence of any such agreement the following values shall be applicable :
Normal working pressure 800 / 1 000 kPa (8 / 10 bar)
Maximum working pressure 1 000 kPa/1 250 kPa (10/12.5 bar)
Thermal range of operation: -40 °C to 80 °C

(Page 2, Fig. 1) — Substitute the following for the existing Figure:



All dimensions in millimetres.

Mounting pitch as agreed between supplier and purchaser. In the absence of this agreement recommendations as follows.

Type	12	16	20	24	30	36
Dimension, <i>B</i>	76.2	76.2/120.7	120.7	120.7	120.7	120.7

NOTES

- 1 *B* is the standard dimensions and generally followed.
- 2 Angular relationships between axis of brake chamber and brake lever shall be as per figure to ensure minimum variation of effective brake lever length. However, this shall be decided considering the maximum stroke and actual brake lever length.
- 3 Principal dimensions may be rounded off to the next higher integer.
- 4 Maximum chamber volume shall be as agreed to between the purchaser and the supplier.
- 5 When used with automatic slack adjuster (ASA), re-adjustment stroke is not required.

FIG. 1 INSTALLATION DIMENSION — PUSH ROD

[Page 3, Fig. 2 a)] — Substitute the following for the existing Figure:

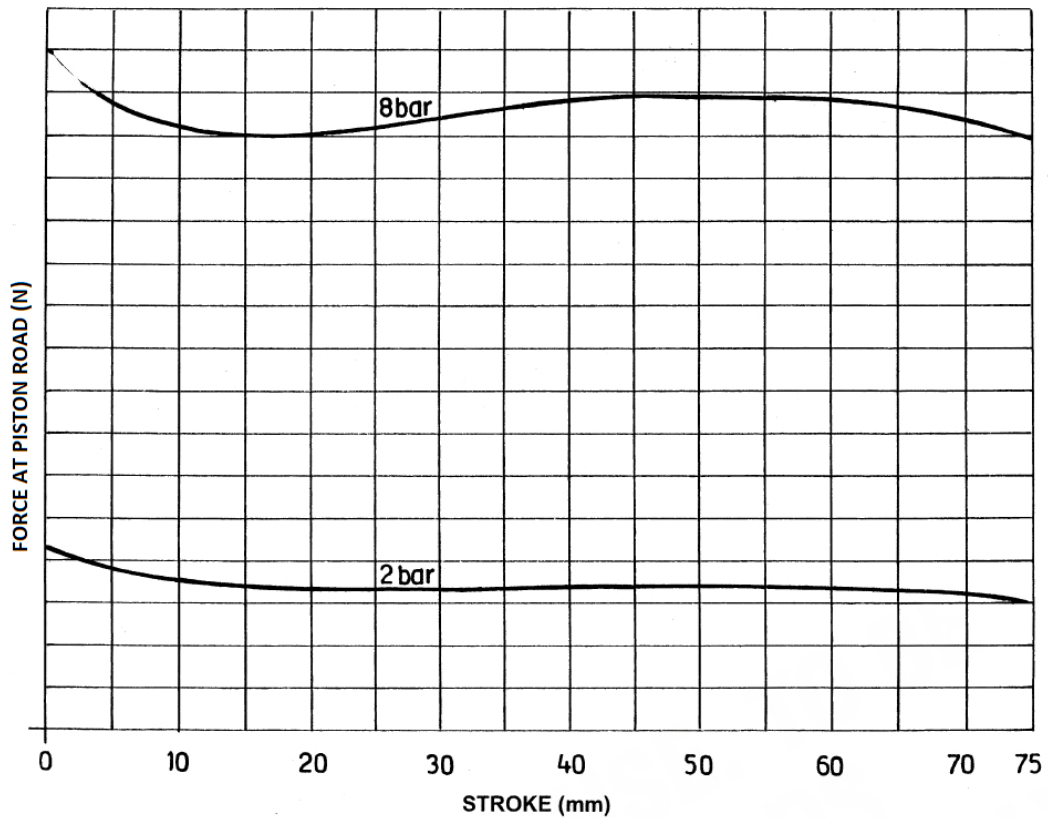


FIG. 2 a) PERFORMANCE OUTPUT FOR BRAKE CHAMBER TYPE 16 AND ABOVE

(Page 4, clause 4.6) — Substitute the following for the existing clause:

4.6 Low Temperature Test

The test consists of subjecting the specimen to a temperature of -40° C for 16 h.

Acceptance criteria:

- a) Leakage rate not to exceed 1 500 cc/min when tested at -40° C, and
- b) Performance within ± 10% when tested as per 4.4.

(Page 4, clause 4.7) — Substitute the following for the existing clause:

4.7 High Temperature Test

The test consists of subjecting the specimen to a temperature of 80° C for 16 h.

Acceptance criteria:

- a) Leakage rate not to exceed
- b) 10 cc/min when tested when tested at 80° C, and
- c) Performance within ± 10 percent when tested as per **4.4**.

(Page 4, clause 4.10) — Substitute the following for the existing clause:

4.10 Water Spray Test

Test requirement shall be as agreed to between the supplier and the purchaser. In the absence of any such agreement the following life tests shall be carried out on the specimen:

Subject one specimen to a driving rain test as per IS 9000 (Part 16). After the test the specimen shall meet the test as per **4.3** and **4.4**.

(TED 04)