BUREAU OF INDIAN STANDARDS

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DRAFT AMENDMENT NO. 1
TO
IS 15731: 2018 AUTOMOTIVE TYRES — SELECTION AND INSPECTION OF RETREADABLE TYRE CASING
(*First Revision*)

ICS: 83.160.10

Automotive Tyres, Tubes and Rims Sectional Committee, TED 7	Last Date for Comments: **27/07/2024**

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TO
IS 15731: 2018 AUTOMOTIVE TYRES — SELECTION AND INSPECTION OF
RETREADABLE TYRE CASING
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[*Page* 2, *Clause* **2.45**] ― Insert the following after **2.45**:

'**2.46 Inspection** — The process of checking and assessing the suitability of a tire or casing for further stage of manufacturer or service.

2.47 Returned as Received (R.A.R.)—A casing rejected for retreading.

2.48 Edge Lifting — A separation of the outer edge of the tread from the casing's shoulder.

2.49 Finger Bulge — A localized distortion normally in the sidewall indicating a slight opening between body cord spacing or can be caused by a penetrating injury.

2.50 Flex Area — Circumferential area in a tyre where maximum bending or flexing occurs.

2.51 Flex Break — A circumferential break in fabric cords usually parallel to the beads in the mid-sidewall area.

2.52 Flex Zone — Reference to the area of a radial tyre from the shoulder apex to mid-sidewall where only the body ply supports the casing profile.

2.53 Inner Liner Separation — The parting of the inner liner from the body ply material.

2.54 Bluing — The general color that result in rubber that has been subjected to a high heat built up in the tyre . The actual colors can vary from shades of blue to purple to dark green.

2.55 Zipper Rupture — As a result of being operated significantly underinflated and/or overloaded, multiple ply cords break, thus creating a circumferential rupture in the upper sidewall area of a steel cord radial tyre and is accompanied by instantaneous air loss and explosive force.'

[*Page* 2, *Clause* **3.1.1**] ― Substitute the following for the existing:

In addition to properly functioning tyre spreaders, adequate lighting is necessary. The tyre inspection area, in general, shall be well lighted. The place where tyres are being inspected should have internal lighting of not less than 200 foot-candles. The recommended lighting is 300 foot-candles or above 3200 lux recommended. A simple light meter can measure the effectiveness of the actual lighting.

[*Page* 3, *Clause* **4.1**] ― Substitute the following for the existing:

'**4.1** Tyres should be inspected in dry and clean condition. A wet vacuum is to be used to remove waterand then wipe the tyre dry. This should be done the day before the inspection to allow the casing to dry thoroughly. Tyre punctures, inner liner splits and other damages may go undetected in wet or dirty tyres.

Thorough inspection should be made by a skilled operator and should include placing the tyre casing on a tyre inspection machine, or other machine capable of spreading the beads under adequate lighting above 3 000 lux'

[*Page* 3, *Clause* **4.2.1 g)**] — Substitute the following for the existing:

g) Tubeless tyres with visible body ply through the liner stock and splice opening;

[*Page* 3, *Clause* **4.2.5**] — Insert the following after **4.2.5:**

'**4.2.6** *Zipper Damage Indicators*

Indications of zipper damage include any signs of weakness or non-repairable injury (for example: ripples, bulges, porosity, softness, etc.) in the sidewall, particularly the upper sidewall. Steel belted radial tyres exhibiting such conditions should be rejected and scrapped.

 a) Cuts, snags or chips exposing body cords or steel;
 b) Distortions or undulations (ripples and/or bulges) visible when using an indirect light source which will produce shadows left by any sidewall irregularities;
 c) Creasing, wrinkling, cracking or discoloration of the inner liner;
 d) Soft spot(s) in the sidewall flex area;
 e) Protruding filaments indicating broken cords; and
 f) Any popping sound when feeling for soft spots or when rolling the tyre.'