

Casing Wear & Damage Recognition

The following examples have been put together by Bandvulc Tyres Ltd of typical wear & damage seen on tyres together with the adjudication given to the defects; the list is not exhaustive and should only be used as a guide.

For more information on the categorisation defects see the following:-







- “Casing Damage Recognition” booklet produced by **Bandvulc Tyres Ltd** (available on request),
- visit the Bandvulc website www.Bandvulc.com, **Bandvulc Tyres/technical**, or
- contact **VOSA (Vehicle & Operator Service Agency) 0870 6060440**



Tyre Tread Wear as per “Categorisation of Defects on Road Vehicles”

Extract from manual

“Tyre tread worn beyond legal Limit:- Depth of tread is not at least 1mm throughout a continuous (excluding tie-bars) circumferential band for at least three quarters of the tread width”.

	Depth of tread is greater than 1mm throughout the circumference and covers ¾ of the tread width Tyre legal		Remaining legal tread pattern less than ¾ of the tread width Tyre illegal		Flat Spot 1mm or more tread 1mm or more of tread depth in any ¾ of the tread area. Tyre Legal
	Depth of tread is greater than 1mm throughout the circumference and covers ¾ of the tread width Tyre legal		Tread remaining less than 1mm centre of tread, therefore, legal tread pattern less than ¾ of the tread width Tyre illegal		Flat Spot less than 1mm tread Less than 1mm of tread depth in any ¾ of the tread area. Tyre illegal

Casing Damage Recognition as per “Categorisation of Defects on Road Vehicles” Extract from VOSA Testing Standards Enquiry

Enquiry

If there is a cut in a tyre less than 25mm long or 10% of the section width, should a probe be used to check if the ply or cords are exposed?

Answer









When inspecting any tyre, follow the notes below

1. any ply or cord that can be seen without touching the tyre – **FAIL**
2. if during investigation i.e. either by folding back the rubber or opening a cut with a blunt instrument so as not to cause further damage, exposed ply or cord can be seen irrespective of size – **FAIL**
3. if during investigation cords can be felt but not seen, if the cut is more than 25mm or 10% of the section width whichever is greater – **FAIL**, if the cut is smaller than this **PASS & ADVISE** (Note:- **ADVISE does not mean the tyre must be changed**)

Before **FAILING** a cut as listed in 3. above, you **must** ensure that it is definitely the cords that are felt and not a foreign object. If there is any doubt then you should **PASS & ADVISE**.

There are wide variations in interpreting these regulations. Operators should therefore be prepared to ask for clarification of the interpretation of the written regulation.

Blunt Probe All inspections should be conducted using a blunt probe as shown in the photo (Far right). The use of a sharp end prodder can cause further damage to the tyre during inspection. The correct tool as used by VOSA can be purchased from:- “Prosol U.K.” 0114 255 7700 Description = “Commercial Tyre Inspection Tool”. Part No. CTT 1091			
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	Tread Damage (Rubber Only) 150mm x 45mm area of tread torn from the tread shoulder, no exposed cords PASS AND ADVISE		Belt ply cord exposed Regroove too deep, belt ply cords are exposed. FAIL & REMOVE TYRE Belt ply cord can be seen but not exposed PASS AND ADVISE		25mm cut to tread Inspection with simple blunt probe, unable to ascertain if cords or foreign object detected. PASS AND ADVISE
	30mm cut to tread (Rubber Only) Cut to tread investigated with blunt probe, no exposed or damaged cords PASS AND ADVISE		15mm cut to tread Investigation with probe measured depth of cut @ 18mm deep, rust and foreign object material visible within the damage. FAIL & REMOVE TYRE		25mm rubber flap, cut to cords Investigation with probe reveals obvious corrosion/damage to cords FAIL & REMOVE TYRE
	Heavy curbing Sidewall lettering completely removed from sidewall. Minimum requirement = size, load and speed. POSSIBLE = DELAYED PROHIBITION NOTICE CAUTION SHOULD BE EXERCISED CONCERNING EXTENT OF SIDEWALL DAMAGE TURN TYRE ON RIM OR REMOVE TO LESS AGGRESSIVE POSITION, E.G. OFFSIDE OF VEHICLE		Exposed Body Plies (Cord(s)) Excessive curbing resulting in exposed / damaged cords. FAIL & REMOVE TYRE		