

MICHELIN TRUCK TIRE

TECHNICAL BULLETIN

May 19, 2017

Usage Recommendations for MICHELIN® 12R22.5 and 305/85R22.5 Tires Used in Urban Transit Service

Federal Transit Administration (FTA) testing procedures for buses assume a theoretical average passenger weight of 150 pounds. This regulatory standard may underestimate the actual average combined weight of individual passengers and their personal effects. The actual axle loads may exceed the Gross Axle Weight Rating of the vehicle and the maximum load capacity of the tires. Since tire inflation pressures should be set according to actual loads seen at maximum vehicle occupancy, MICHELIN recommends a cold inflation pressure of 830 kPa (120 psi) for all 12R22.5 LRH and 305/85R22.5 LRJ size Michelin tires used in Urban Transit bus applications

End Users should verify that the wheels used have a maximum inflation pressure rating of at least 120 psi.

MICHELIN also recommends that all products in these dimensions (12R22.5 and 305/85R22.5) used in Urban transit service not be submitted for future retreading if they have been subjected to any of the following:

- operation with inflation pressures lower than Michelin specifications as noted above
- inflation with compressed air with a high concentration of condensates
- operation in an overload / underinflated condition at peak passenger loads

It is critical that compressor systems have condensates (oil and water – natural byproducts of compressing air) drained, either manually or via an automatic draining system, on a regular basis to ensure that the air used to inflate the tires is dry. The optimal inflation systems incorporate automated drying function. From a tire perspective, if condensates are not drained at regular intervals these fluids will

flow through the air lines and be transferred to the tire with the air that is compressed inside. Under normal tire inflation pressures these condensates will pass through the rubber tire components over time and attack the steel cables in the body plies and the crown reinforcements causing irreversible damage.

Care must be taken to ensure that any water based lubricants used in mounting the tire(s) are applied in appropriate quantities to avoid any excess accumulation inside the inflated tire.

The degradation caused by water or oil inside the tire will weaken the tire structure and may lead to a sudden rupture of the casing plies and loss of pressure:

Wheel flanges often develop sharp edges when exposed to friction between the tire / wheel flange interface, a condition that is aggravated when the tires are operated in an underinflated / overloaded state. These sharp edges may cut into the rubber exposing the metallic components to air from outside of the tire leading to oxidation. Regular wheel flange inspection should be completed by the servicing technicians. Wheel manufacturers' guidelines should be followed for proper maintenance and removal from service.

Ref:

https://www.arconic.com/alcoawheels/north_america/en/info_page/rim_flange_maintenance.asp

<http://www.atabusinesssolutions.com/ATAStore/ProductDetails.aspx?productId=3825>

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