ISSUE NUMBER

23-017-VEH

ISSUE NAME

OOSC, Part II, Item 12, b. Tires Other Than Those Found on the Front Steering Axle(s) of a Power Unit - ATIS

STATUS

Closed

Vehicle Committee

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SUMMARY OF ISSUE

Automatic Tire Inflation Systems (ATIS) for trailers have been around for over 20 years, and are widely adopted. Estimates today put approximately 70%+ of new trailers are built with ATIS. ATIS has been validated by fleets to provide a return on investment (ROI) that is typically less than a year. In addition to reducing a fleets tire and fuel costs, a primary aspect of ATIS is improving highway safety through;

- Fewer tire blow-outs
- Reduction of tire casings on the roads
- Improved vehicle handling
- Reduction of commercial vehicles stuck on roadside due to tire issues

An important part of the ROI is the reduction of tire related roadside calls. The nature of the system is that it continuously provides air to tires that fall below their cold pressure setting, even when moving. In general, one roadside call avoidance will pay for the system.

ATI solutions utilize the on-board air system to fill an underinflated tire on an immediate basis. Should a tire fall below its desired cold pressure setting, the system will immediately begin supplying air to the tire.

JUSTIFICATION OR NEED

With over 2.5 million systems provided into the market, ATIS has proven itself capable of maintaining a safe operating pressure in tires with audible leaks. Since this scenario of a leaking tire equipped with ATIS does not represent an imminent hazard, removal of the OOS condition for a tire that is leaking that is maintaining the appropriate pressure is justified and the violation could be cited but the vehicle allowed to finish the trip and the required repair could be done at a safer location in a repair shop. The continued adoption of this technology serves to improve highway safety.

REQUEST FOR ACTION

Given that ATIS is capable of keeping a tire with an audible air leak inflated sufficiently to allow it to continue to operate until the next redispatch, we request that trailers equipped with an operable ATIS not be placed out-of-service (OOS) when an audible air leak from a trailer tire is present and the air pressure is being maintained.

Suggested Language:

Tire (not equipped with ATIS) has noticeable (e. g., can be heard or felt) leak, or has 50% or less of the maximum inflation pressure marked on the tire sidewall. (393.75(a)(3))

Tire (equipped with ATIS) has noticeable (e. g., can be heard or felt) leak significant enough that the ATIS system

cannot maintain inflation, or has 50% or less of the maximum inflation pressure marked on the tire sidewall. (393.75(a)(3))
OR
Tire has noticeable (e. g., can be heard or felt) leak, or has 50% or less of the maximum inflation pressure marked on the tire sidewall. (393.75(a)(3))
NOTE: Tires equipped with ATIS are only OOS if the system cannot maintain proper tire inflation.
NOTE: Measure tire air pressure only if there is evidence the tire is under-inflated.

SUPPORTING DOCUMENTS/PHOTOS

- Fleets-Using-ATIS.docx
- ROI-for-ATIS.png
- NACFE-Reference-from-Confidence-Report.png

ACTION TAKEN BY COMMITTEE

Tires are dangerous when they are under-inflated and get hot. These systems maintain air pressure. This is for tires that an ATIS can keep up with, not a catastrophic failure such as a sidewall blowout. ATIS are not designed for sidewall damage or large areas of damage, but small damage/punctures will usually be overcome by the ATIS. If the tire is already at 50% or less of the maximum inflation pressure, it would still be declared out of service. This issue request is to amend the tire leak OOS condition.

The committee had significant discussion around tire inflation systems and the fact that tires equipped with these systems do not have blowouts in the same manner as tires that are not. Air pressure can still be checked in the tire equipped with these systems. The ability for a vehicle equipped with these systems to operate to a safe location (next dispatch) with a small leak in the tread area of the tire reduces the number of roadside repairs and potential for rear end collisions.

The committee voted unanimously to amend the OOSC (Part II, Item 12. (b)) to include verbiage to address leaking tires on other than steer tires, when equipped with ATIS as follows:

ALL TIRES OTHER THAN THOSE FOUND ON THE FRONT STEERING AXLE(S) OF A POWER UNIT

(b)(1) Tire not connected to an operable automatic tire inflation system (ATIS) has a noticeable leak (e. g., can be heard or felt), or has 50% or less of the maximum inflation pressure marked on the tire sidewall.

(b)(2) Tire connected to an operable ATIS has a noticeable leak (e. g., can be heard or felt) specific to the tread area and it is significant enough that the ATIS cannot maintain inflation pressure greater than 50% of the maximum inflation pressure marked on the tire sidewall.