

Tyres on Telehandlers

Do you need to replace the tyres on your telehandler?

Are you looking for alternative suppliers?

Did you know that research undertaken by a major telehandler manufacturer indicates that a five percent reduction in tyre pressure from the manufacturer's specified values can result in a 30 percent reduction in capacity at certain points on the load/height/radius curve? This could result in the vehicle overturning. Tyres deflect/distort under load and they have a significant effect on telehandler stability and load carrying ability.

An example of the importance of properly planning tyre replacement occurred when a telehandler operator checked the tyre pressures on his machine. Having completed the checks, he was walking away when **one of the tyres exploded!** A subsequent investigation revealed that the tyre, which had recently been replaced, was a 14 ply with a 3.5 tonne load rating, rather than the manufacturer's specification of 16 ply with a six tonne rating. The contractor also found that the tyre had been ordered from the company's approved supplier by asking for a tyre for the model of the telehandler, without mention of ply or load rating.

A subsequent check of other machines on site found that a third of them were fitted with incorrect tyres.



The Effect of Tyres on Stability

Tyres play a vital part in the stability of telehandlers. Stability can be adversely affected by issues such as:-

- Mixing tyres from different manufacturers
- Incorrect ply rating
- Differences in diameter of tyres on the same axle due to differential wear
- Low tyre pressure'
- High tyre pressure
- Uneven tyre pressure
- Substandard repairs
- Tyre Repair, Replacement and Maintenance for pneumatic tyres only. Foam filled tyres are not user serviceable.

Tyre pressure check

- Tyre pressures should be marked on the chassis adjacent to each wheel
- Pressures should be checked daily when cold
- If necessary inflate tyres to correct pressure as stated in the manufacturers operators manual
- Personnel inflating tyres should stand a minimum of 3 metres away from the tyre and outside the likely explosion trajectory to avoid injury in the event of a failure. This will require 3 metres of airline between the nozzle and the airline trigger mechanism.
- Personnel should ensure that they stand to one side of the tyre facing the tread when inflating
- Tyre valves should be checked to ensure they are not leaking. Valve stem caps should always be replaced.

Tyre Damage

- All tyres should be inspected daily as follows
- The tread and side walls should be checked for bulges and separation
- The tread and side wall should be checked for cuts



For pneumatic tyres, when any cut, rip or tear is discovered that exposes sidewall or tread area cords in the tyre, measures must be taken to remove the tyre from service immediately. Arrangements must be made for replacement of the tyre or tyre assembly.

Tyre and Wheel Replacement

Replacement tyres should be the same size, ply and brand as originally installed, refer to the appropriate parts manual for ordering information. If not using an approved replacement tyre, the tyres must have the following characteristics:

- Equal or greater ply and load rating and size of original
- Tyre tread contact width equal or greater than original
- Wheel diameter, width and offset dimensions equal to the original
- Approved for the application by the tyre manufacturer (including inflation pressure and maximum tyre load).

Unless specifically approved by the telehandler manufacturer, foam filled or ballast filled tyre assembly must not be replaced with a pneumatic tyre.

Summary

So when replacing tyres ensure the ply and pressure ratings are as per manufacturer recommendations.