

Technical guidelines

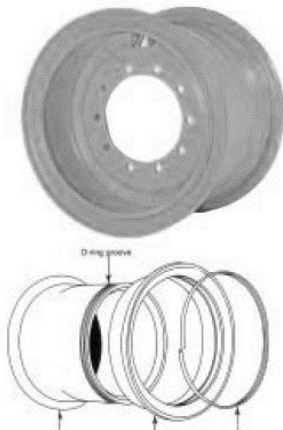
Mounting and dismounting of OTR tyres

In general

This guide deals with tubeless OTR tyres mounted on 3-piece and 5-piece Flat-Base rim types.

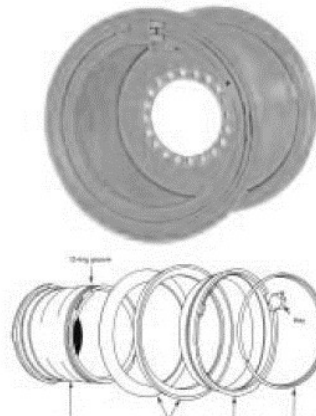
3-piece rim type:

1. Rim base with fixed rear side ring
2. Front side ring
3. Locking ring

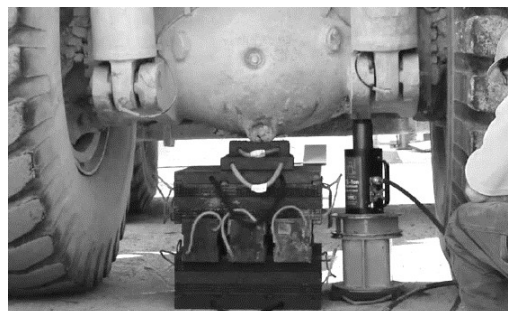


5-piece rim type:

1. Rim base with loose side rings
2. Front side ring
3. Rear side ring
4. Bead seat band
5. Locking ring



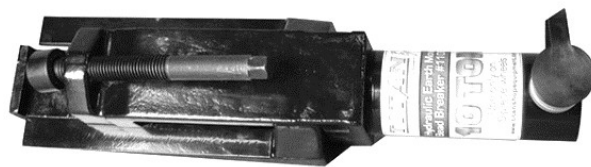
The vast majority of OTR tyres are replaced while mobile. Therefore, special attention must be paid to the fact that the vehicle is standing on a solid surface and is properly lifted and secured against sudden tilting and rolling.



This guide has been prepared by the supplier section at Dæk Specialisternes Landsforening (National Association of Tyre Specialists) on the basis of current legislation and standards as well as industry practice. Find more information at www.branchvejledning.dk.

1. Equipment and competencies

Skilled tyre fitters must conduct the mounting and dismounting of OTR tyres so that the work can be carried out correctly and safely. The fitter must be familiar with the use of bead breakers, ring handling tools and other equipment suitable for the task and type of tyre in question.



Examples: Bead breaker for 3-piece and 5-piece rims, respectively.

Smaller sizes up to 25" can usually be changed with "manual power" with the help of a crane and lifting pads.

For large sizes, e.g. > 26,5R25, for weight and handling reasons, the use of special equipment for lifting and handling both tyres and side rings is recommended.



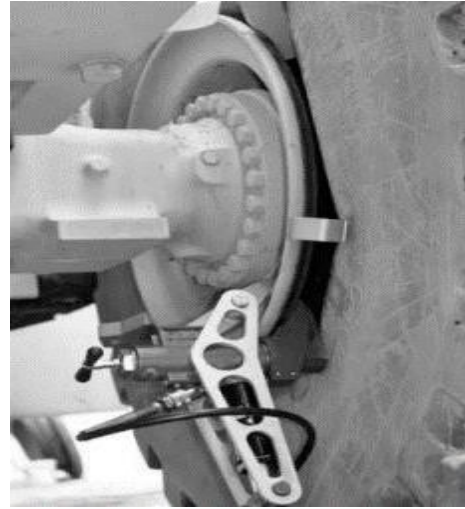
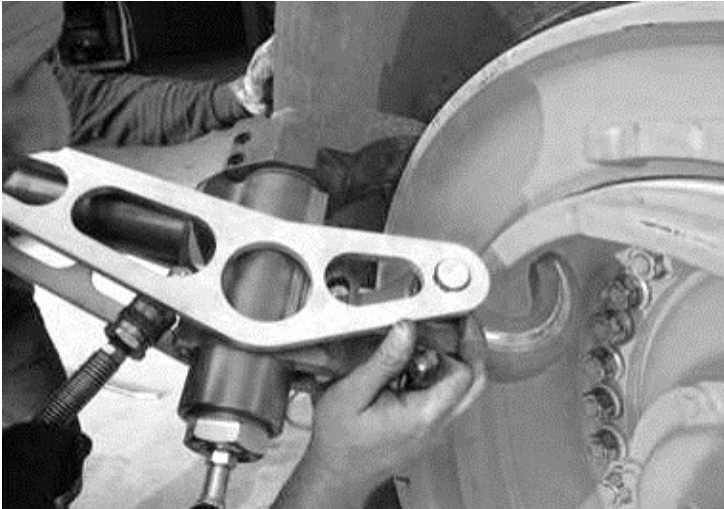
2. Dismounting

Make sure the tyre is completely deflated.

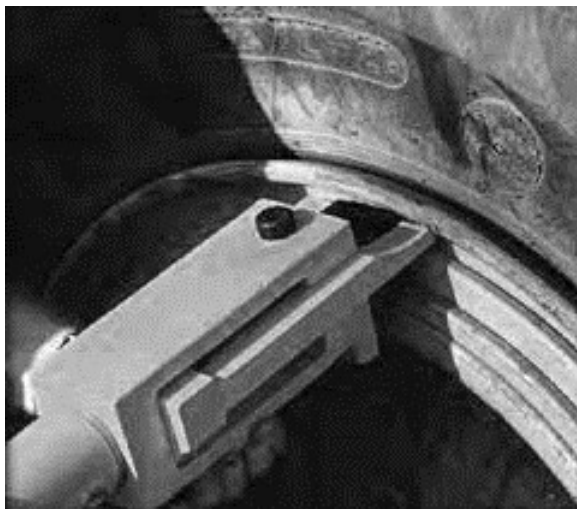
Always remove reductions and valve cone for quick and efficient emptying.

Position the bead breaker correctly and press the tyre/rings free on the front and back, respectively.

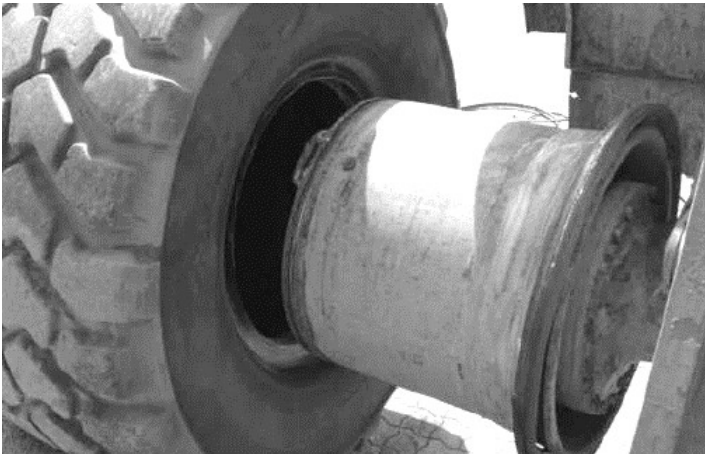
Examples: 3-piece rims, front and rear.



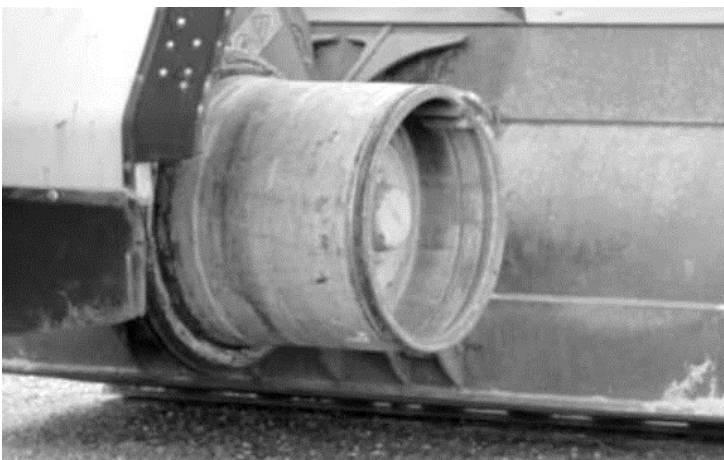
5-piece rims, front and rear.



Press the tyre free of the side rings (5-piece types).
If necessary, use a penetrating tyre-slip agent.
Remove the locking ring.
Remove the O-ring and remove the bead seat band and side ring.
Pull the tyre off the rim.



Remove rust and clean the O-ring groove before fitting a new tyre.



3. Before mounting

Make sure the tyres and rims fit together. Use the STRO Data Book or the tyre supplier's data book for the correct selection of tyres and rim type.

Inspect the rim for any damage, cracks, and corrosion.

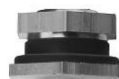
Always replace both O-ring and valve parts when fitting new tyres.



O-ring



Valve



Valve seat



Internal Reduction



External VG12-8



Valve cone

4. Mounting

Lubricate the tyre's bead on both sides and the entire rim base with a suitable mounting agent in a saturating layer. The O-ring groove must be kept clean.

Push the tyre over the rim.

Fit the side ring and bead seat ring.

Use an O-ring installer or the ring handling tools on an Easy Gripper to handle the side ring and locking ring. Remember to bring the O-ring before mounting the O-ring installer. Note that the O-ring installer may only be used for mounting.



Example: O-ring installer



Example: Ring handling tools on an Easy Gripper.

Install new O-ring.

Fit the locking ring and make sure it is seated and engaged correctly.



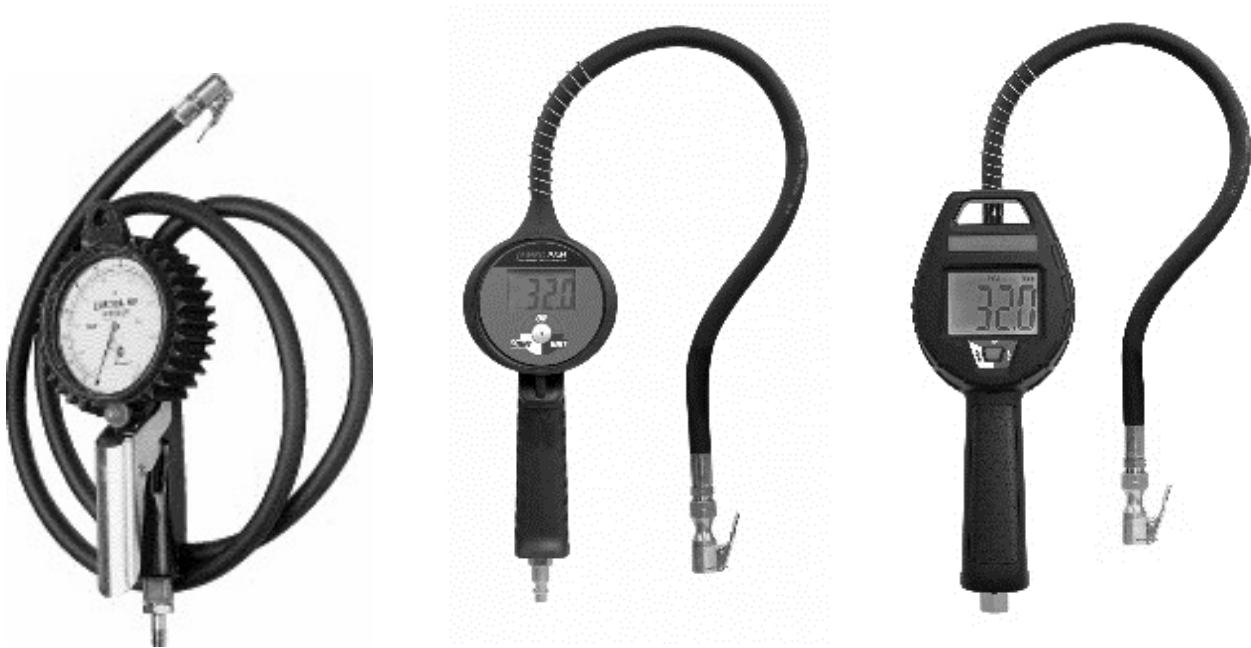
Examples of tyre handlers for use with crane and vehicle, respectively.



5. Pumping

Important: Before starting to pump, check that the locking ring is seated and engaged correctly.

Remove the valve cone and cap and use a 12 mm nipple to achieve the required airflow. Pumping of the tyre must be done either with a hand-held tyre inflator with a long hose or with a programmable air pump.



Example: Analog and digital hand-held inflator and programmable air pump.

OTR tyres are tyres with a large volume. It is therefore of the utmost importance that the guidelines for the work are complied with. A possible explosion could result in serious personal injury or, in the worst case, be fatal.



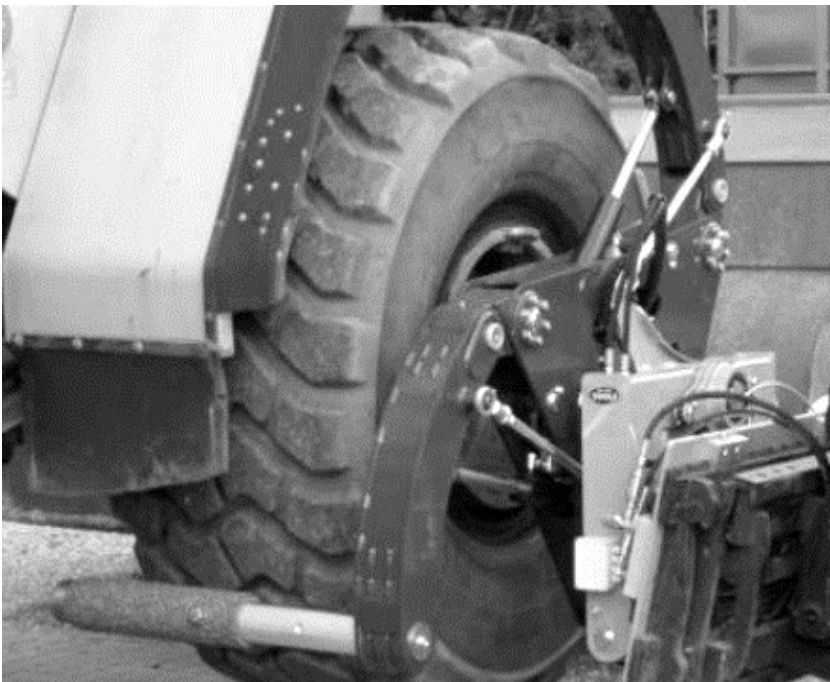
WARNING:

**Safety distance when pumping:
Next to the tyre tread: **Min. 3 m.**
Standing in front of the sidewall and locking ring side during
inflation is **not permitted** for safety reasons.**



Correct positioning during inflation.

Mount the pump hose on the valve and inflate the tyre to the prescribed tyre pressure. Make sure that the rings are seated correctly during inflation. Install valve cone, valve cap and possibly reductions. Perform final inspection.



If an Easy Gripper is used, this can also be used as an extra safeguard when inflating.



INDUSTRY INSTRUCTIONS

for work with tyres and rims



6. Tensioning

If the wheel has been dismantled, it must be re-tensioned in accordance with the technical specifications of the machine/vehicle.

Remember that it is the operator's responsibility at all times to ensure that the wheels on the machine/vehicle are correctly tensioned.