



# A SAFETY NUDGE

## Removing, Replacing, Repairing Tyres on Vehicles and Mobile Plant

The removal, replacement and inflation of tyres is extremely common (around 30 million tyres on cars, buses and lorries are replaced in the UK each year), so it may seem a simple task.

But it can cause injury and even death resulting from:

- being struck by vehicles at the roadside;
- collapse of an elevated vehicle;
- explosion of the tyre or disintegration of the wheel during inflation.

Our industry over time has had its fair share of incidents often near misses, but sadly also fatal! The following brief text is just a couple of safety nudges to remind people who operate and manage others carrying out these activities to just **STOP THINK & ACT**.

But also sharing with those companies that we subcontract out this activity to, challenging standards, questioning are risk controls robust and correctly implemented?

## PEOPLE

### Competent people

Are the people carrying out, plant tyre replacement and repairs on your vehicles competent?



Do they belong to a scheme or an equivalent such as the NTDA  
<https://www.ntda.co.uk/tyre-technician-professional-development-scheme/>

or completed the REACT working safely at the roadside licensing scheme

<https://www.ntda.co.uk/services/roadside-emergency-action-concerning-tyres/>

## VEHICLE & MOBILE PLANT HAZARDS

The following safety nudges do not cover all the hazards you may encounter, you should complete your own **STOP, Think, Act** risk assessment before starting every job. Consider amongst other hazards; is the vehicle in a safe place, switched off, keys removed, brakes applied etc.

## Raising and supporting the vehicle safely

On the occasions where it is considered necessary to crawl beneath a vehicle or where a wheel needs changing, proprietary jacks should be used to raise the vehicle **before placing appropriately rated stands under the vehicle or its wheels,**



**Don't** rely solely on the jack to support the vehicle!



Make sure the ground is firm and level before raising a vehicle.



If the area is unsuitable then move the vehicle to a safer place before any attempt is made to lift it to undertake any repairs.



Chock the wheels on the vehicle to prevent movement.

## Be wary of vehicle air suspension systems



Vehicle ground clearance can suddenly and unexpectedly change due to a drop-in air pressure. This presents crushing and trapping hazards to technicians repairing vehicles, especially if working beneath them. There is also a risk of trapping around the wheel arch.

The risk of this happening is significantly reduced if some basic principles are adopted:



**Never** crawl beneath a vehicle fitted with air suspension unless it is properly supported.



**Never** tamper with the ride height for the purposes of recovery or repair.



Each vehicle manufacturer may have a specially designed tool or brace to allow you to do this safely, you should always check the manufacturers manual for further information before raising and supporting the vehicle.

## Do's and Don'ts for tyre inflation



Do use a clip-on chuck to connect the airline with a quick-release coupling at the operator's end (this allows tyre deflation from a safe position if problems occur).



Do be aware of others working near who maybe in the trajectory zone ask them to move.



Do use enough bead lubricant when seating the tyre. Consider removing the valve core or using a 'bead blaster' if seating is difficult.



Do remove the airline after use to prevent air seepage and possible over inflation.



Do use inflation bags on one-piece rims and alternative methods of restraint for split rim wheels.



**Don't** use valve connectors that require the operator to hold them in place.



**Don't** exceed the manufacturer's recommended tyre pressure for the size and rating of the tyre.



**Don't** use 'unrestricted' airlines (i.e. without a gauge or pressure control device)



**Don't** allow the control valve to be jammed open (which could allow the operator to leave the inflating tyre unattended).

<http://www.hse.gov.uk/mvr/mechanical-repair/tyreremoval.htm>

<http://www.hse.gov.uk/pubns/indg433.pdf>

<http://www.hse.gov.uk/mvr/mechanical-repair/under-vehicles.htm>

[www.safequarry.com/IncidentReports/pdf.aspx?kincident=1486](http://www.safequarry.com/IncidentReports/pdf.aspx?kincident=1486)