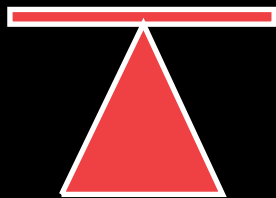


# TYRE CHANGING



Its no balancing act

**!** **Safe Maintenance**

**Saves Time >> Saves Money >> Saves Lives**

**Dangers**  
lurk in every workplace



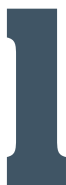
**hseni**

CONTROLLING RISK TOGETHER

In partnership with the  
District Councils

As the size and weight of tyres in use on farm machinery continues to increase so do the risks involved when a tyre or wheel needs to be changed.

Applying the following five basic rules before attempting to change a tyre or wheel can help to minimise these risks.



## **Planning**

Put a plan in place to deal with changing a tyre. A safe system of work is essential to avoid the risk of instability.

### **Possible causes of instability include:**

- High centre of gravity.
- The use of inappropriate jacks and props.
- Overloading of the jack and/or props.
- Positioning the jack/prop close to, or on the centre-line.
- Uneven ground or uneven supports used to prop.
- Small movements in liquid load.



**Did you know that in 2011 – 2012, the NI farming community lost 12 people in work related accidents? 3 were carrying out maintenance and repair work.**

## **Always carryout a risk assessment and consider the following hazards:**

- Reduced access to and clear space on the axle to jack/prop.
- Increased height which a jack must reach.
- Manual handling due to the tyres size and weight.

## **Minimise the risks by:**

- Using a skilled professional. The cost is minimal compared to the costs associated with the serious consequences if something goes wrong when farmers attempt the task themselves.
- Reducing the load e.g. empty the slurry tanker, if necessary by transferring the slurry to another tanker. Avoid pollution of watercourses: NIEA Hotline, 0800 807060.
- Only purchasing machinery that has jacking and propping points. Check it comes with a Safe System of Work in the User Manual.



# 2

## Making the Work Area Safe

Position the machinery on a good flat hard standing that can withstand the loading and away from live traffic. Stay clear of the Danger Zone (crush area if e.g. the machine were to collapse off its temporary support). Contact PSNI 0845 600 8000 if your vehicle is a hazard to road users.

Wear high visibility clothing where appropriate.



**A tractor was propped too high to replace a tyre. While lowering the tractor, it tilted and overloaded the metal prop which failed. A near miss for two poorly trained men who did not plan, used the wrong tools, and did not have a safe system of work.**



# 3

## Using the Appropriate Equipment

Always refer to the User Manual before carrying out the work.

### In general, **USE:**

- Well-maintained, heavy-duty trolley jacks that can extend high enough to reach the jacking point and heavy-duty axle stands as props.
- Mechanical aids to lift/position wheels.
- Hazard warning signs/cones and high visibility clothing may be needed near live traffic.

### And **AVOID:**

- Metal on metal contact.
- Relying on the hydraulics of any lifting equipment.



**Accident reconstruction**

# 4

## Working as Planned

- Check the wheels are chocked and towed equipment is hitched to the tractor with its parking brake effectively engaged.
- Choose jack and prop positions to maintain maximum stability.
- Know the load and only use adequately rated equipment for the load.
- Check the tanker can withstand the additional loads at the point where it is supported.



**Only carryout the work if you have the correct equipment. Often this means employing a competent contractor or tyre fitter – ask if the repair can be done with the wheel on.**



**Jacking on a hard standing from a safe position.**

Photograph reproduced by kind permission of CAFRE/DARD.



# 5

## Final Check

Make sure the wheels are safely replaced and the repair site cleared.

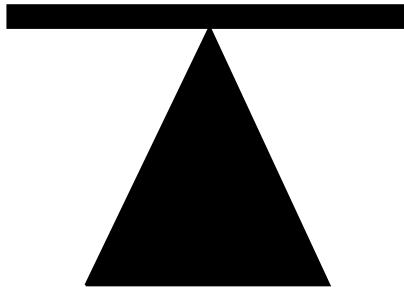
Now consider what difficulties you faced - improve your plan for next time!



**A farm worker was replacing a wheel on a 9T laden slurry tanker, supported using a bottle jack and blocks of wood as props. It overturned and crushed him. Good access to clearly identifiable jacking and propping points, heavy duty jacks and axle stands may have prevented this fatality.**

## Buying agricultural machinery?

Look for this internationally recognised symbol for where to jack and prop safely.



*Symbol for jacking or support point*

*BS ISO 3767-1:1998+A1:2008 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Symbols for operator controls and other displays*



# Safe Maintenance

Saves Time >> Saves Money >> Saves Lives

## 5

### Basic Rules

- Planning
- Making the work area safe
- Using the appropriate equipment
- Working as planned
- Final Check

## 2

### Maintenance Tasks

- Corrective
- Preventive

## 3

### Key Hazards

- Asbestos
- Work at Height
- Isolation

**Want to Know More?** Additional information is available from the HSENI website [www.hseni.gov.uk/safemaintenance](http://www.hseni.gov.uk/safemaintenance) or via the helpline number 0800 0320 121