



## CICA – Vic / Tas Branch Crane Safety Bulletin #319 June 2023



Greetings all. Today's Bulletin is about knowing when to change and how to dispose of crane tyres.

The frequency of changing crane tyres depends on various factors such as the type of crane, the nature of the work it performs, the load capacity, and the condition of the tyres.

As part of your pre-start inspection, crane tyres should be regularly checked for signs of wear, damage, or deterioration.

The manufacturer's guidelines and recommendations for tyre replacement should be followed closely.

Damaged crane tyres can pose several dangers, both to the crane operator and to the surrounding environment.

Damaged crane tyres can be dangerous due to:

**Reduced stability:** Crane tyres are designed to provide stability and support the weight of the crane and its load. When tyres are damaged, such as having cuts, punctures, or bulges, their structural integrity is compromised. This can result in reduced stability, leading to an increased risk of tipping or instability during crane operations.

**Increased risk of tyre failure:** Damaged tyres are more likely to experience sudden tyre failures, such as a blowout or tread separation. This can occur while the crane is in operation, potentially causing loss of control and accidents.

**Decreased traction and braking ability:** Tyres with worn-out treads or damaged surfaces have reduced traction on various surfaces, including uneven terrain or slippery conditions. This can affect the crane's ability to manoeuvre safely and may result in sliding, skidding, or difficulty in stopping, leading to accidents or collisions.

**Tyre disintegration:** Severely damaged or deteriorated tyres can disintegrate while the crane is in operation. Pieces of the tyre can become projectiles, posing a risk to the operator, other workers, or nearby equipment and structures.

**Increased stress on other crane components:** Damaged tyres can place additional stress on other crane components, such as the axles, suspension system, and braking system. This can lead to accelerated wear and potential failures in these components, further compromising the crane's safety and functionality.

**Occupational hazards:** In addition to the risks associated with crane operation, damaged tyres can also create a hazard for workers who are responsible for maintenance, tyre changes, or repairs. For example, handling damaged tyres can lead to injuries, such as cuts, punctures, or strains.

To ensure the safe operation of cranes and mitigate potential risks, it is essential to regularly inspect and maintain crane tyres.

Damaged tyres should be replaced as soon as possible.

Here are some indicators for when to change crane tyres:

**Tread wear:** When the tread depth reaches the minimum recommended by the manufacturer, it is time to replace the tyres. This depth can vary depending on the tyre type and design.

**Damage or cuts:** Tyres that have significant cuts, punctures, sidewall damage, or other visible signs of structural damage should be replaced immediately.

**Ageing and deterioration:** Over time, tyres can degrade due to exposure to sunlight, weather conditions, and chemical exposure. If the tyres show signs of cracking, dry rot, or other signs of ageing, replacement is necessary.

**Bulges or deformities:** Any unusual bulges, deformities, or irregularities in the tyre sidewall or tread can indicate internal damage or a weak spot. These tyres should be replaced immediately.

According to Planet Ark, over 48 million tyres reach the end of their life in Australia every year and only 16% of those are domestically recycled.

Disposing of crane tyres should be done in an environmentally responsible manner. Here are a few options for proper tyre disposal:

**Tyre retailers or manufacturers:** Contact tyre retailers or manufacturers in your area to inquire if they accept used crane tyres for recycling or disposal. Some companies have tyre recycling programs in place.

**Recycling centres:** Look for recycling centres or facilities that accept used tyres. They may have processes in place to recycle or repurpose tyres into new products such as playground surfaces, or fuel.

**Specialised tyre disposal services:** In some areas, there are specialised services that handle the proper disposal of large industrial tyres, including crane tyres.



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These services ensure that the tyres are recycled or disposed of safely.

Local regulations: Check with your local council or waste management authorities for specific guidelines on tyre disposal.

If tyres aren't disposed of properly, it can have a negative impact on the environment.

They can become breeding grounds for mosquitoes, create fire hazards, and take up valuable landfill space.

Stay Safe - CICA