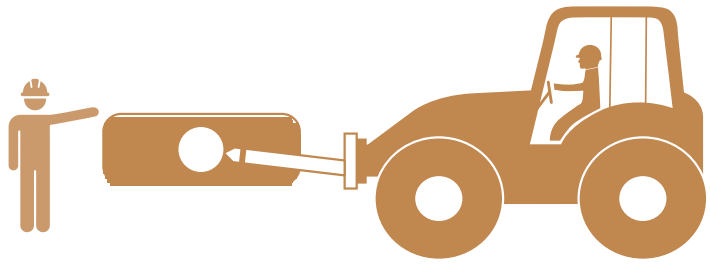
PROBLEM-BASED DESIGN STATEMENTS



TYRE HANDLER OPERATOR STATEMENT

PROBLEM-BASED DESIGN STATEMENT	CATEGORY(IES)
As an operator, I want meaningful and timely warnings if someone is standing in an unsafe location	Feedback Hazard response time
As an operator, I want meaningful and timely warnings if the tyre, grab arms, pads, and attachments are not secure during lifting or holding tyres/rims	Feedback Hazard Response Time
As an operator, I want to see the contact of the grab pads and tyre/rim	Visibility Feedback
As an operator, I want visual confirmation and clear verbal communication with the fitter/spotter	Visibility Communication Feedback
As an operator, I want meaningful and timely warnings if the load is beyond the maximum rated capacity and/or could affect machine stability	Feedback Hazard response time
As an operator, I want to be shielded from an air blast, wheel/rim disassembly, tyre drop, or an uncontrolled movement while a tyre is clamped	Safety protections
As an operator, I want to be shielded from a tyre drop or uncontrolled movement when handling wheel/rim components	Safety protections
As an operator, I want to know that I am protected from erroneous control activation while operating a truck-mounted tyre handler with direct or remote controls	Human error safeguards Feedback Hazard response time
As an operator, I want to know that the wheel/rim/assembly component will be held while restraints are released or secured	Visibility Feedback
As an operator, I want to know that the tyre handler will remain in position during operations once parked (and avoid rollbacks)	Human error safeguards Feedback Hazard response time
As an operator, I want timely information about the condition of the tyre and pads, and how this affects the tyre handler’s hold of the tyre	Feedback Hazard response time
As an operator, I want the tyre handler to maintain its structural integrity and functional control of a tyre and wheel/rim assembly	Safety Protections System Resilience
As an operator, I want to know that the wheel/rim assembly will be held when retaining hardware is released or secured	Safety Protections System Resilience
As an operator, I want to be prevented from exiting the cab with a suspended load	Safety Protections System Resilience
As an operator, I want to be prevented from engaging in unsafe operations (e.g., using the TH for towing, pushing, or use as a jack; or using the handler to break beads or drop tyres)	Human error safeguards Feedback
As an operator, I want to know that there are adequate clearances for safe travel	Visibility Feedback
As an operator, I want to know that the grab arms, pads, and attachments are secure	Visibility Feedback
As an operator, I want controlled, smooth movement of the tyre (in the handler)	Feedback

As an operator, I want to know that the tyre is aligned with the fasteners	Visibility Feedback
As an operator, I want travel to occur only when the load is in a safe position prior to transit (i.e., horizontal and even)	Human error safeguards Feedback Hazard response time
As an operator, I want travel to occur only within safe speed limits established per work areas and job type	Human error safeguards Feedback
As an operator, I want the equipment to operate in adherence to the manufacturer's hydraulic settings	Safety protections System resilience
As an operator, I want smooth ground conditions	Visibility Feedback

TYRE FITTER/SPOTTER STATEMENTS

PROBLEM-BASED DESIGN STATEMENT	CATEGORY(IES)
As a fitter, I want meaningful and timely warnings if I am standing in an unsafe location	Feedback Hazard response time
As a fitter, I want to know that the tyre or rim are held securely, and the tyre handler arms, pads, and attachments are secure when I stand nearby	Feedback
As a fitter, I want to be protected from uncontrolled movement of the tyre handler and its attachments	Safety Protection
As a fitter, I want meaningful and timely warnings if the tyre/rim are not secure when held by the tyre handler	Feedback Hazard response time
As a fitter, I want visual confirmation and clear verbal communication with the tyre handling operator	Visibility Communication Feedback
As a fitter, I want to know in a timely manner if the tyre handler arms, pads, and attachments are not secure	Feedback Hazard response time
As a fitter, I want to know that the tyre is secure when held by the tyre handler	Feedback

TYRE HANDLER EQUIPMENT MAINTAINER STATEMENTS

PROBLEM-BASED DESIGN STATEMENT	CATEGORY(IES)
As a maintainer, I want to know the specifications for the tyre grab pads and attachments (teeth) and the indicators if they are eroded (i.e., what is the threshold tolerance?)	System resilience
As a maintainer, I want to know that the handler arms will not get stuck in side-shift and that the lubrication will suffice for general operations	System resilience
As a maintainer, I want to see an effective dust extraction system that does not require our construction of add-on equipment (like a belly plate) to control the effect of blow-back	System resilience

TYRE MAINTENANCE MANAGER STATEMENTS

PROBLEM-BASED DESIGN STATEMENT	CATEGORY(IES)
As a manager, I want to know that agreed controls are implemented, effective, and complete	System resilience
As a manager, I want to know that the maintenance procedures have been followed	System resilience
As a manager, I want actionable information to learn from the Credible Failure Modes that inform a process of continual improvement	System resilience