

APPENDIX 1 - Job Safety Analysis Worksheet		Date: 13/03/2014	Sheet: of	
Site	XXX			
Participants & Signatures	Joe Bloggs			
	Stanley Brooke			
Activity: Removal and Fitting of Tyre on Mobile Equipment - Vertical Mount.		'Permit to Work' requirements?	Yes	No
Activity Step in Task - step by step list the tasks that you are required to perform the task,	Hazards Using your knowledge and the hazard checklist, list the hazards that could cause injury.	Risk Control Measures List the control measures required to control the hazards so that no injuries or accidents occur	Who is responsible? Write the names of who will implement	
1. Guide vehicle into tyre bay.	Vehicle interaction, people interaction, equipment damage, property damage.	Never enter the footprint of the vehicle. Use clear hand signals while guiding onto tyre bay. Ensure that all tools and obstacles are out of the way before the vehicle starts to move onto the tyre bay. Ensure PPE clothing standard is adhered to. Trained competent operator. Stay in line of sight of the operator. Place signage to advise personnel of tyre work being undertaken.	Joe Bloggs	
2. Isolate Vehicle and Chock Wheel	Uncontrolled movement of vehicle; collision, crushing, impacting.	All personnel to isolate vehicle with Personal Danger Tag and padlock. Check vehicle for DEAD by trying to start the equipment. Truck operator or tyre fitter to insert wheel chocks in the front and rear of wheel diagonally opposite of wheels being lifted. Check vehicle for hang-up (mud) and wash off before undertaking work.	Joe Bloggs	
3. Jack the required position of unit & place stands	Crushing/impacting due to vehicle falling off stands, interaction with personnel, uncontrolled movement,	Selection of correct jack for vehicle. Place jack in correct jacking point. Placement of suitable safety stands (if applicable) in correct position if lift and lock jack not being used. Ensure locking device is in place. Use steel jacking plate (if required).	Joe Bloggs	

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	vehicle skipping off jacks due to uneven/unstable surface, jack not compatible to lift machine, incorrect jacking point, manual handling.		
4. Deflation of tyre	High speed projectiles from rim components being dislodged, high noise levels, dirt/mud and dust particles being carried under high pressure, rim components dislodging.	Ensure hearing and eye protection is used. Fully deflate tyre to be removed. Keep away from tyre whilst deflating. Use of baffle/muffler. Check pressure is 0 psi using pressure gauge. In dual assembly tyres not being removed deflated to 20 psi	Stanley Brooke
5. Depress the front bead with the tyre handler to expose the lock ring and O-ring groves	Uncontrolled movement of vehicle due to use of tyre handler, personal injury, people interaction, equipment failure, property damage, crush/impact injury.	Operator to use ground crew to guide tyre handler hands into place. Ground crew to stay in line of operator and never enter the footprint of the vehicle. Do not use excessive force or speed when depressing tyre. Use appropriate jack and/or stand (where required). Use of audible safety systems for tyre handler movement.	Stanley Brooke
6. Removal of lock ring and o'ring	Tyre handler hands slipping off the side ring causing injury to personnel, manual handling, incorrect body positioning, incorrect use of tooling, fall from ladder or work platform.	Park brake applied on tyre handler. Correct PPE – Gloves. Correct positioning of tyre handler hands on side ring and the use of tyre leavers to remove the o'ring and lock ring from their grooves. Appropriate tooling available. Competent and authorised tyre servicemen. Use appropriate work platform where required. Only enter the tyre handler hands once the tyre has been depressed sufficiently and tyre handler operator has advised its safe. <u>NEVER USE FINGERS TO REMOVE O'RINGS.</u>	Joe Bloggs
7. Break the rear bead seal of the tyre	Hydraulic failure, oil injection, striking/impacting of hydraulic tooling, manual handling injury.	PPE and Gloves. Inspect all equipment ensuring safe for use. Competent and trained operators. Use hydraulic bead breaker. Do not hold hydraulic bead breaker hose while under pressure. Do not stand in trajectory zone when using hydraulic tooling. Correct lifting techniques for equipment.	Stanley Brookes
8. Removal of tyre (including outer rim components)	Uncontrolled movement of vehicle due to use of tyre handler, personal injury, equipment failure, property	Operator to use ground crew to guide removal of tyre and rim. Ground crew to stay in line of operator and never enter the footprint of the vehicle. Do not push or pull to violently when removing tyre. Fit for purpose equipment and pre-starts. Trained competent and authorised operators.	Joe Bloggs

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	damage, crush/impact injury.		
9. Remove inner flange	Crush/impact injury, uncontrolled movement, personal injury	Use spotter for removal. Positive communication between spotter and tyre handler/operator. Operator to use ground crew to guide removal of flange. Ground crew to stay in line of operator sight and outside the handler attachment.	Stanley Brooke
10. Clean rim components and mating surfaces	Musculoskeletal injuries, crush/impact injury, dust and rust particles, slip/trip/fall.	Correct handling/grip of tooling. Correct body position for the task. Correct PPE. Use of mobile work platform to prevent strains from overhead work. Remove handler from direct work area. Cleaning to take place on a suitable stand or work surface. Maintain housekeeping in work area.	Stanley Brooke
11. Installation of inner flange	Crush/impact injury, uncontrolled movement, personal injury.	Use spotter for fitment. Positive communication between spotter and tyre handler/operator. Operator to use ground crew to guide fitment of flange. Ground crew to stay in line of operator sight and outside the handler attachment.	Stanley Brooke
12. Fitment of tyre	Uncontrolled movement of vehicle due to use of tyre handler, personal injury, equipment failure, property damage, crush/impact injury.	Operator to use ground crew to guide fitment of tyre onto rim. Ground crew to stay in line of operator and never enter the footprint of the vehicle. Do not push or pull to violently when fitting tyre. Fit for purpose equipment and pre-starts. Trained competent and authorised operators.	Joe Bloggs
13. Fitting lock ring & o'ring	Tyre handler hands slipping off the side ring causing injury to personnel, manual handling, and incorrect body positioning, incorrect use of tooling.	Correct PPE – Gloves. Correct positioning of tyre handler hands on side ring and the use of tyre leavers to fit the o'ring and lock ring to their grooves. Appropriate tooling available. Competent and authorise tyre servicemen. Use work platform where required. Only enter the tyre handler hands once the tyre has been depressed sufficiently. Park brake has been applied and tyre handler operator has advised its safe.	Stanley Brooke
14. Tyre inflation	Lock ring dislodging, tyre burst.	Use an air-line with a minimum of 3 metres with a deflation system. A copper hammer is to be used to seat the lock ring at 20 psi. Stay outside the trajectory zone as tyre is inflated to cold operating pressure. Tyre Handler to remain parked in front of the tyre being inflated and operator out of cab.	Stanley Brooke

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15. Removal of Jack and stand	Interaction with personnel, Musculoskeletal injury, Property Damage from failing to remove jack/stand, slips, trips and falls	Restricted work area and signage. Manual handling training. Use correct equipment that is fit for purpose. Maintain housekeeping. Use correct PPE.	Joe Bloggs
16. Release vehicle back to work	Vehicle contacting other vehicles, persons, equipment, tools.	All personnel to remove danger tags and locks. Operator or Tyre Fitter to remove chocks. Spotter to guide vehicle off the tyre pad. Trained and competent personnel.	Joe Bloggs

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