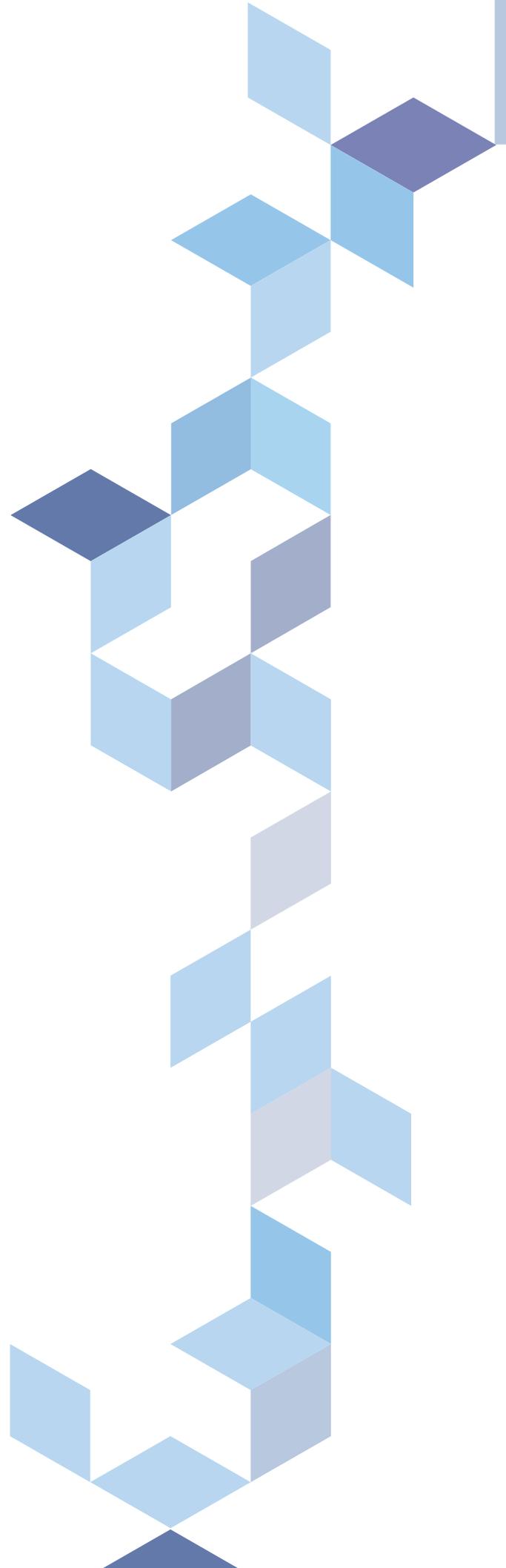


Hazardous manual tasks





Hazardous manual tasks

Bending, stretching and reaching movements, static lifting and positioning tasks – either with high, sudden, repeated or sustained force – can lead to stress on the body, muscle strain, overexertion and injuries.

Carrying out work at the limit of reach or in awkward postures away from the body's centre of gravity requires muscles to work harder. When these postures are held for too long, muscular or spinal injuries can occur.

Look at reducing heavy lifting or working in sustained or awkward postures by using mechanical aids and devices (e.g. tyre underslides, overhead-mounted body support harnesses).

If equipment exists to help reduce the risk of body stressing, it should be used. You may already be using tools powered by compressed air, hoists, cranes and lifting hooks, bead breakers and body underslides to get under vehicles.

Equipment and devices you can use include:

- vacuum lifters for windscreen insertion
- hoists when detailing
- hip-height roller conveyors and ramps to load or move tyres
- order picking ladders with load tables for stock access
- pads and body tables for comfortable work in footwells and under dashes
- castors on heavy toolboxes.

Further information

Code of Practice: Hazardous Manual Tasks

safework.sa.gov.au/cop

SafeWork SA's *Hazardous Manual Tasks: Overview* and *Risk Management Worksheet* can be used to help you assess individual manual tasks.

safework.sa.gov.au

Manual tasks

Hazards/risks

Increased weight equals increased risk: People differ in height, weight and physical capacity, so it is difficult to define what is an unsafe weight for everyone. However as a general rule, if a manual task seems difficult or strenuous, then it may present a significant risk. Discomfort can be an early warning sign, especially if it reoccurs the next day or continues after days off.

The risk is not just about weight: Often the risk is due to a combination of weight and posture, such as bending forward, and movements such as holding the load away from the body or twisting, as well as the shape or configuration of the load.

Manual tasks can cause gradual wear and tear to the body: Damage to the body can build up over time.

The risk of injury is cumulative where repetitive movements or fixed/awkward postures are concerned: Regardless of how many different tasks a worker might perform each day, injury risk can exist if the total time spent performing similar postures or actions exceeds one hour.

Young and new workers: Workers who are young and still developing physical strength, and any new worker lacking experience, are at greater risk of injury.

Safety solutions

Carry out workplace inspections and observe manual tasks, check injury/hazard reports, and identify any relevant contributing factors (e.g. slippery floors).

Modify workplace layout and equipment where possible (e.g. automate the manual tasks, replace hand tools with power tools).

Use lifting aids (e.g. jigs, slings, dollies) that are adaptable to the size/shape of handled items (e.g. engines, transmissions).

Deliver goods or equipment directly to the point of use to eliminate multiple handling.

Modify working loads (e.g. redistribute the weight, or replace heavy items with lighter, smaller, more easily handled items).

Redesign work patterns (e.g. change the frequency and type of tasks done by workers, rotate workers between tasks).

Ensure everyone has both general and specific hazardous manual task training, especially young and new workers.

Consult with workers before purchasing any new equipment and tools. Ensure they are designed for safe use and are a best match to both the worker and task needs.

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. workers who need to carry out tasks in extreme heat or cold, wind or rain)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.

Wheel and tyre fitting

Hazards/risks

The primary risks arise from high force and awkward postures during manual handling, rotating parts, nuisance dusts and asbestos (from brake linings), nipping and trapping points, exposure to noise, falling vehicles, nearby traffic, compressed air and tyre/wheel explosion due to defective or split rims.

Safety solutions

Use vehicle hoists, wheel balancers, tyre changers and mechanical aids.

Roll, rather than carry, tyres and wheels when moving them over a distance.

Deflate tyres to minimise potential explosion hazard.

Use chocks to prevent movement of vehicles when they are being raised or lowered vehicles on jacks.

Place wheels firmly on mountings before nuts are done up evenly and firmly.

Visually inspect tyres and valves for damage and wear.

Follow the manufacturer's specifications for tyres and rims.

Use restraining devices when inflating tyres on split rim assemblies.

Use tyre cages when inflating tyres.

Train technicians in safe work practices and ensure they follow them.

Provide regular training sessions in correct manual handling practices.

Provide personal protective equipment (PPE) that is:

- suitable for the nature of the work and the hazard (e.g. eye and ear protection, high-visibility clothing)
- comfortable to wear, and of a suitable size and fit
- maintained, repaired or replaced when required
- used or worn by workers who have been trained in its use and care.



Working inside vehicle cabins

Hazards/risks

Working inside the confined and awkward spaces within vehicle cabins, often for sustained periods, can result in body-stressing injuries.

These risks can be minimised or eliminated by applying practices that change the way the work is done or better support the worker and/or the tools.

Safety solutions

Remove seats or other items to improve access.

Raise vehicles on a hoist to enable easier access under the dash from a standing position.

Change the vehicle working angle and height by using a lifting device (e.g. hoist) to improve access to the work area.

Use a spacer or filler (e.g. beanbag or foam equivalent) to fill a footwell, if it improves the working position.

Support the tools and the worker, so that muscle effort goes into using, not holding (e.g. use lanyards, magnetic clamps).

Use powered tools (e.g. air operated) to reduce time spent working in constrained, awkward postures.

Use braces to support the load (e.g. when undoing dashes).

Use vacuum lifters to hold and position windscreens.

Ensure there is adequate lighting (e.g. lead lights).

Working under bonnets

Hazards/risks

Associated risks include over-reaching, awkward or sustained postures, poor lighting and unguarded parts (e.g. belts, fans).

Safety solutions

Adopt working positions between shoulder and knee, and close to the body.

Raise vehicles to approximately waist height to remove the need to bend as far forward.

Ensure postures are not held for long durations through job rotation, using mirrors to reduce time exploring the engine, and using purpose-built jigs.

Provide protective pads to allow for resting of the upper torso on vehicles being worked on (also prevents paintwork or panel damage).

Use overhead-mounted body support harnesses to reduce back strain.

Provide powered tools (e.g. air operated tools) that reduce the time spent applying force while working at the limits of reach.

Remove the bonnet to reduce awkward work positions.

Provide a stable step to give access to the engine bays of taller vehicles.

Use a hoist to give access from underneath, if this improves the working position.

Reduce the weight before handling (e.g. drain fluids before lifting).

Ensure there is adequate lighting (e.g. lead lights).

Working under vehicles

Hazards/risks

Associated risks include poor lighting, cramped working conditions, awkward or sustained postures, hot engine parts and hazardous substances (e.g. fuels, fluids).

Safety solutions

Improve the worker's access (e.g. use of creepers).

Improve support for the worker (e.g. use a chair with head support that can be tilted).

Change the vehicle working angle and height by using a lifting device (e.g. ramps or side supports) to improve access to the work area.

Provide powered tools (e.g. air operated) that reduce the time spent applying force while working at the limits of reach.

Support the tools as well as the worker so that muscle effort is reduced.

Reduce the need to hold or support parts being removed (e.g. use dollies, slings etc).

Reduce task length for above-shoulder work (e.g. remove entire units that can then be worked on at a bench).

Provide differing height vehicle hoists or platforms for workers to stand on, and use in-ground pits.

Ensure there is adequate lighting (e.g. lead lights).

Provide personal protective equipment (PPE) that is appropriate for the nature of the work (e.g. eye and hand protection) and of a suitable size and fit, and ensure that it is maintained in good condition.

Further information

SafeWork SA:

- *Safety Alert – Working under elevated motor vehicles*
- *Safety Alert – Truck tipping and tilting trays*

safework.sa.gov.au



Quick safety scans – hazardous manual tasks

Use these quick safety scans to look at key work health and safety (WHS) issues in your workplace. Those items where you tick 'Sometimes' or 'Never' will need action to fix or improve. Use the safety solutions suggested earlier to help you.

Manual tasks	Always	Sometimes	Never
Risks (e.g. handling heavy and awkward items) are identified, assessed and controls implemented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustained and repetitive tasks in awkward postures are minimised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers can vary their posture and pace throughout tasks (e.g. do not have to stand, sit, kneel or squat for long periods)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers can perform tasks in a comfortable, upright, forward facing position (not bent or twisted)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are trained in solving manual handling problems and correct manual handling techniques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical aids (e.g. jigs, slings, dollies, chains) are used to lift or move heavy or awkward items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tool boxes and benches are mobile for ease of use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safe, task-suitable hand tools are provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hand tool weight/comfort to hold and use is considered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hand tools are replaced by power tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are consulted about new tools/equipment prior to purchase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job rotation is used for repetitive tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jobs are redesigned/working loads are modified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment is regularly inspected, tested and tagged (where required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment is regularly maintained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are protected against vibration when using powered equipment for long periods (e.g. grinders)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Wheel and tyre fitting	Always	Sometimes	Never
Vehicle hoists, wheel balancers, tyre changers and mechanical aids are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres and wheels are rolled, not carried, over distance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres are deflated to minimise potential explosion hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chocks are used when raising or lowering vehicles on a jack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheels are firmly placed on mountings before nuts are done up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres and valves are visually inspected for damage and wear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyre inflation cages are available and used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturer's specifications for tyres and rims are followed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restraining devices are used when inflating tyres on split rim assemblies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are trained in safe work practices for tyre assembly/fitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regular training sessions are conducted in correct manual handling practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate PPE is provided and used (e.g. eye and ear protection, high-visibility clothing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPE is maintained, repaired or replaced as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are trained in the correct use and care of PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Working inside vehicle cabins	Always	Sometimes	Never
Adequate lighting is provided, especially lead lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risks from awkward and sustained working positions are identified and controlled (e.g. footwell spacers/fillers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Powered tools are provided, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Braces (for undoing dashes), vacuum lifters (for windscreens) and magnetic clamps etc are in use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Working under bonnets	Always	Sometimes	Never
Adequate lighting is provided, especially lead lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risks from awkward and sustained working positions are identified and controlled (e.g. remove bonnet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Powered tools are provided, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Body support harnesses are used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Protective pads are used for upper torso support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Working under vehicles	Always	Sometimes	Never
Adequate lighting is provided, especially lead lights	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risks from awkward and sustained working positions are identified and controlled (e.g. creepers, tiltable chairs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Powered tools are provided, where appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hoists/platforms/in-ground pits are used to provide better access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dollies/slings are used to reduce the need to hold/support parts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating instructions are displayed (where required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate PPE is provided and used (e.g. eye and hand protection)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workers are trained in the correct use and care of PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPE is maintained, repaired or replaced as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>