



Machinery ergonomics

When we think about ergonomics, we tend to think about people working at computers but ergonomics is relevant to all our workplaces.



It is the science of studying people at work and then designing tasks, jobs, equipment and workstations so people can be safe, healthy, effective, productive and comfortable.

Machinery ergonomics is applying these principles to your workstation inside the cab of a vehicle.

Risk factors when operating

Musculoskeletal	
Awkward postures	Jarring/high force
Whole body vibration	Sustained postures
High repetition	Duration of exposure to risk factors

Environmental	
Dust	Noise
Diesel	Temperature
Exhaust	Age and quality of equipment

High risk body parts

Lower back	Hip, knee and ankle	Shoulder, elbow and wrist
Sustained sitting	High step up into vehicle	Reaching above head to get in and out of vehicles
Twisting	Working on uneven surfaces	Reaching postures when operating
Jarring forces	Sustained postures in vehicle	Repetitive operating movements
Lifting and moving bins	Lifting and moving bins	Lifting and moving bins

Tips for your vehicle

Seat

- ▶ Understand your seat functions
- ▶ Recommend 90-100° angle at your hip joint
- ▶ Seat height range between 38-48cm
- ▶ Ensure suspension devices are adjusted to users weight
- ▶ Check that your chair isn't broken or lacking cushioning

Operating controls

- ▶ Ensure you can easily reach and operate levers or controls
- ▶ Ensure you can easily reach foot pedals
- ▶ Ensure your elbows are comfortably supported whilst operating

Mirrors, camera and radio

- ▶ Ensure mirrors are positioned in a practical position to avoid excessive back and neck movements
- ▶ Ensure mirrors and windscreens are not broken or cracked
- ▶ Ensure camera monitor position does not require excessive neck movements
- ▶ Ensure 2-way radio is within reach and easily accessible

Access and egress

- ▶ Recommend initial step is 40-50cm from the ground
- ▶ Ensure initial handrail is no higher than 1600 mm from ground level
- ▶ Ensure steps are adequate and in good working order
- ▶ Ensure the steps provide non slip properties

If any of these recommendations are causing issues in your vehicle, it may require attention and a review would be beneficial to improve machinery ergonomics. Report any issues with machinery/vehicles to your manager or WHS representative.