



# Careers in manufacturing: plastics, rubber and cabling

## Tyre manufacture and repair

**This information sheet covers the following occupations within the plastics, rubber and cabling sector:**

- **Tyre builder**
- **Tyre retreader/repairer.**

### Tyre builder

Tyre builders operate machines to build tyres. Tasks may include:

- inspecting worn tyres for faults, cracks, cuts and nail holes, and to determine if tyres are suitable for retreading
- cutting plies at splice points, and pressing ends together to form continuous bands
- aligning treads with guides, starting drums to wind treads onto plies, and slicing ends
- positioning rollers that turn ply edges under and over beads, or using steel rods to turn ply edges
- positioning ply stitcher rollers and drums according to width of stock, using hand tools and gauges
- building semi-raw rubber treads onto buffed tyre casings in order to prepare tyres for vulcanisation in recapping or retreading processes
- winding chafers and breakers onto plies
- rolling camelbacks onto casings by hand, and cutting camelbacks using knives
- cleaning and painting completed tyres

- rubbing cement sticks on drum edges to provide adhesive surfaces for plies
- filling cuts and holes in tyres using hot rubber
- brushing or spraying solvents onto plies to ensure adhesion, and repeating process as specified, alternating direction of each ply to strengthen tyres
- rolling hand rollers over rebuilt casings, exerting pressure to ensure adhesion between camelbacks and casings
- measuring tyres to determine mould size requirements
- trimming excess rubber and imperfections during retreading processes
- placing tyres into moulds for new tread.

### ***Relevant qualifications:***

- Certificate III in Polymer Processing
- Certificate IV in Polymer Technology

## Tyre repairer

Tyre repairers are normally employed by automotive repair shops, where they are responsible for repairing and replacing car tyres.

Tasks may include:

- identifying and inflating tyres correctly for the size and ply
- placing wheels on balancing machines to determine counterweights required to balance wheels
- locating punctures in tubeless tyres by visual inspection or by immersing inflated tyres in water baths and observing air bubbles
- unbolting wheels from vehicles and remove them, using lug wrenches and other hand and power tools
- reassembling tyres onto wheels
- replacing valve stems and removing puncturing objects
- hammering required counterweights onto rims of wheels
- rotating tyres to different positions on vehicles, using hand tools
- inspecting tyre casings for defects, such as holes or tears
- sealing punctures in tubeless tyres by inserting adhesive material and expanding rubber plugs into punctures, using hand tools
- gluing tyre patches over ruptures in tyre casings, using rubber cement
- preparing rims and wheel drums for reassembly by scraping, grinding, or sandblasting
- separating tubed tyres from wheels, using rubber mallets and metal bars or mechanical tyre changers
- placing casing-camelback assemblies in tyre moulds for the vulcanisation process and exerting pressure on the camelbacks to ensure good adhesion.

### **Relevant qualifications:**

- Certificate III in Polymer Processing
- Certificate IV in Polymer Technology.

*This information sheet has been produced with assistance from the Australian Government.*

