



Literacy and numeracy profile:

Tyre Technician

This profile identifies the literacy and numeracy tasks and skills used by tyre technicians.

These tasks and skills involve reading, writing, speaking and listening and numeracy, critical thinking and the use of information and communication technology.

Reading tasks

"Read" implies that a person reads and understands.

Tyre technicians are required to read and understand some specialised technical vocabulary and abbreviations.

Read signs and short texts

- Tyre markings including serial number, tyre size, load rating, date of manufacture
- Tyre and wheel alignment service stickers
- Vehicle registration plate number
- Bin labels for products such as wheel weights
- Product signage and labels
- Diagnostic readings on balancing and wheel alignment machines
- Health and safety signs
- Safety warnings on tyres and batteries.

Read tables, graphs and lists

- List of vehicles pre-booked for work each day (list may be on whiteboard, in diary, or on computer screen)
- Manufacturer's tyre specifications on pillar placard

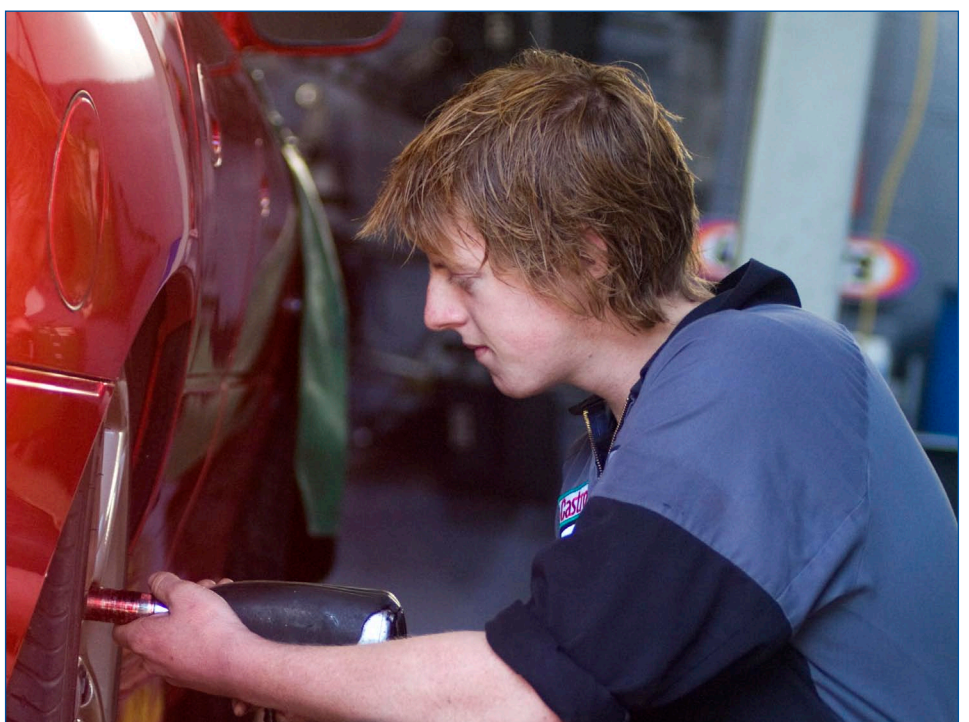
- Tables (complex, multiple lists) of tyre specifications and performance details
- Lists containing customer details
- Inventory lists
- Purchase order to ensure stock ordered is received
- Product lists, containing specifications, retail and wholesale prices
- Tables and charts of specifications included in manuals or service information.

Read forms on job

- Job sheets
- Customer invoice
- Customer questions list
- Customer details form.

Read electronic screens

- Customer and job records
- Point of Sale systems
- Diagnostic information on balancing machine and wheel alignment machine screens.



Reading tasks

Read notices and memos

- Emails from other employees regarding scheduling of work
- Emails from suppliers notifying details of prices, product changes and special promotions
- Emails from franchise head office about sales campaigns, changes to work procedures and upcoming training events
- Bulletins from franchise head office or vehicle manufacturers about recall details and recurring faults with particular models
- Health and safety reminders and information
- Notices on the notice board
- Reminders about appropriate work behaviour.

Read instructions and more detailed job information

- Equipment operating instructions (e.g. hoist)
- Instructions for next steps to take when using balancing and wheel alignment machines

- Information from suppliers with suggestions for diagnosing malfunctions
- Tyre suppliers' product specification brochures
- Special instructions for how to complete repairs provided by automotive manufacturers
- Workplace operations manuals
- Machinery manuals (e.g. Wheel Alignment Machine).

Read employment related information

- Job descriptions
- Employment agreement or contract
- Company policies, processes, and procedures
- Company induction material
- Company forms (accident forms)
- Training agreements
- First aid information
- Workplace accident information.

Read training material

- Apprenticeship training materials such as study guides, open and/or closed book assessments, practical assessments, CDX (paper and computer based)
- MITO Training Folder
- Supplier training handouts
- Franchise learning materials.

Read diagrams

- Interpret assembly drawings
- Pictures or photos of tyres that customers want to purchase (supplied by customer).

Read industry publications or supplier publications

- Trade magazines to understand wheel and tyre trends, new product lines and changes within the sector
- Look up internet based information to solve problems.

Reading underpinning tasks and skills

Interpret graphic symbols.

- Signs.

Recognise the features of a range of texts.

- Signs
- Codes
- Forms
- Drawings
- Procedures
- Manuals.

Recognise number formats.

- Serial numbers
- Tyre numbers
- Vehicle registration numbers
- Phone numbers.

Match numbers or codes across different texts.

Understand common and industry vocabulary.

Understand common and industry abbreviations.

Find out the meaning of unfamiliar words or phrases.

Follow written instructions (which may include diagrams).

Use a guide to document contents.

- Index
- Table of contents
- Key
- Legend.

Identify the main points from a page of text.

Scan text or table or label to find specific piece of information.

Read text thoroughly.

Make inferences based on what written material does not say.

Understand information in graphic displays.

- Tables
- Graphs
- Diagrams
- Charts.

Interpret material read.

- Summarise material read in own words
- Take notes from material read
- Report accurately on the information read.

Writing tasks

Write short notes

- Type notes about work completed for regular and fleet customers onto customer database
- Write reminder notes to self or other staff about customer requests, scheduled work, and waiting on parts
- Email suppliers about incomplete orders received.

Complete workplace forms

- Fill in next service date sticker
- Record appointment times and details of services wanted on job sheet or customer details form
- Record customer information on database (or paper form)
- Generate and update invoices and trade accounts
- Generate purchase orders
- Fill in time sheets, leave forms, accident forms.

Write for training purposes

- Record job evidence notes in Practical Jobs Record Book
- Complete MITO Training Folder - including Practical Task Evidence Sheets
- Complete exercises in study guides
- Write answers to open book and closed book assessment questions.

Writing underpinning tasks and skills



Understand that different writing styles are used for different types of writing.

- Note
- List
- Form
- Study guide activities
- Open and closed book assessment answers.

Complete forms using numbers, single words, or short sentences.

- Handwriting must be legible
- Abbreviations can be used
- Spelling must be understandable, but correct spelling is not essential
- Grammar and punctuation must be understandable.

Take notes from training material read (during their apprenticeship).

Write short answers to assessment questions (during their apprenticeship).

- Handwriting must be legible
- Abbreviations can be used
- Spelling must be understandable, but correct spelling is not essential
- Grammar and punctuation must be understandable.

Speaking and listening tasks

Speaking and listening includes non-verbal communication

Customer interaction (may be face to face or on telephone)

- Greet customers
- Respond to customer requests for prices and services
- Deal with customer enquiries about tyres and services
- Ask questions to identify customer's tyre requirements
- Book in tyre service or wheel alignment
- Offer additional services such as wheel alignments
- Ask targeted questions to get the customer to agree to the service.

Workshop interaction

- Listen to oral instructions from workshop supervisor or manager
- Listen to and respond to requests from colleagues
- Discuss on-going work with colleagues
- Talk to other service technicians
- Ask questions to ensure you have understood what another person said
- Report work progress to supervisor or manager
- Ask for assistance when needed
- Make suggestions to help other colleagues complete a job

- Communicate in noisy environments using hand signals and gestures
- Listen to explanations and on-job training
- Listen during health and safety meetings or briefings
- Participate in team meetings (contribute ideas, listen attentively).

Supplier contact

- Contact suppliers to place and clarify orders and prices.

Training related communication

- Answer questions during unit standard assessment
- Discuss apprenticeship progress with MITO Industry Training Advisor.

Speaking and listening underpinning tasks and skills

Speak clearly.

Discuss topics which are appropriate in work context.

Use words, pronunciation, and tone appropriate to situation and audience.

Plan the main points to cover in a conversation.

Open and close conversations appropriately.

Give information in a sensible order.

Understand that communication is a two way process.

Use active listening skills.

- Repeat message back to sender
- Summarise instructions in own words
- Use following techniques e.g. say "aha" or "okay" to follow what someone is saying.

Read information out loud.

Use hand signals and gestures to communicate in noisy environment.

Use open and closed questions to gain information, check understanding and encourage further discussion.

Use closed questions to check the person agrees with what you have asked.

Summarise to check or clarify details.

Use suitable body language.

Read body language of person speaking, or being spoken to, and respond appropriately.

Understand that there are barriers to communication, especially in cross-cultural situations.

Use assertive communication techniques.



Numeracy tasks

Estimate

- Estimate the percentage of wear to tyre tread
- Estimate time to fix and refit tyre, or how long a vehicle will need to be in the workshop
- Estimate weight of tyre before moving it
- Estimate size of bolts.

Calculate using addition and subtraction

- Total bill for services and products
- Prepare invoices
- Accept payment by cash, cheque or credit card and prepare change
- Count products for stock-take
- Tally stock in stock bins and replenish when low
- Work out date or odometer reading when vehicle will be due for next wheel alignment
- Work out difference between actual measurement and required measurement.

Calculate using multiplication and division

- Calculate price for a number of tyres (e.g. 4)
- Calculate GST for goods and services
- Calculate discounts, refunds and credits for parts returned.

Measurement, shape and space

- Identify tyre width in millimetres
- Identify tyre aspect ratio (as a percentage of tyre width)
- Identify rim size in inches
- Identify rolling diameter of tyre, using specification tables
- Identify load rating of tyre
- Use tyre measurements to identify which tyres can be used on a vehicle
- Match load ratings of tyres fitted to a vehicle so that they are within two load rating points of each other
- Select and place weights correctly to balance wheels

- Measure tightness of bolt with a torque tool (measured in feet per pound)
- Recognise common angles to properly align wheels
- Work within tolerance allowance when aligning wheels
- Pump tyres using air pressure gauge to acceptable pressure (measured in pounds per square inch (PSI) or kilopascals (kPA))
- Convert tool sizes from imperial to metric measurements and vice versa
- Understand relationship between fuel consumption and properly fitted and aligned wheels
- Interpret assembly diagrams.

Numeracy underpinning tasks and skills

Recognise numbers as part of a code.

Use numbers in different forms.

- Whole numbers
- Decimals
- Fractions
- Percentage.

Do number problems.

- Addition
- Subtraction
- Multiplication
- Division.

Understand difference between imperial and metric measurements.

Understand place value.

Estimate amounts.

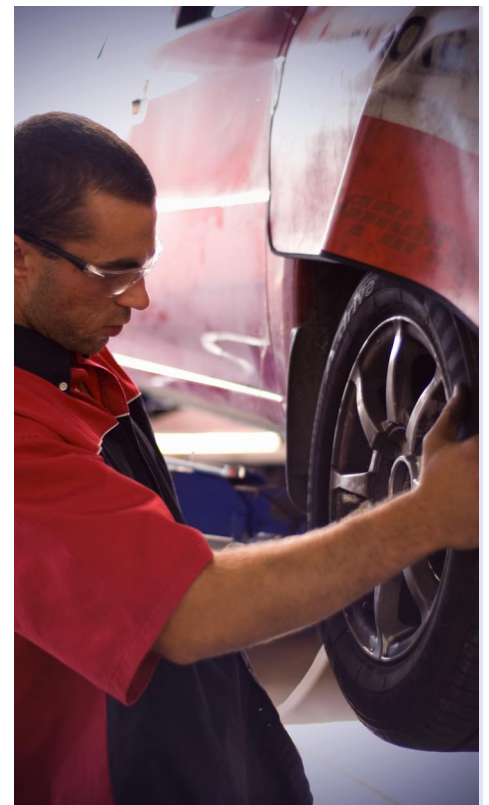
- Depth
- Time
- Number.

Measure accurately.

- Length
- Width
- Time
- Number
- Depth
- Pressure
- Angle
- Torque.

Interpret numerical information represented on:

- Graphs
- Tables
- Scales
- Dials
- Gauges
- Computer display.



Critical thinking tasks

Critical thinking relates to how we use knowledge and experience to make decisions about what we will do.

- Identify appropriate opportunities for cross selling to customers
- Make a recommendation for the best tyre for a customer based on the options available
- Decide on order of tasks, priority may be given to small tasks that can be completed quickly or working on a more complicated task that is more valuable to the company
- Identify when colleagues need assistance to complete jobs by the time the customer will return and move from job to job as needed

- Decide what tools to use, procedures to follow to carry out tasks
- Identify correct jack points on any given vehicle
- Decide when to replace worn parts rather than try to repair parts
- Decide what to do if a tyre isn't available (decide whether to wait or call another supplier)
- Ensure tyre load rating is appropriate for vehicle
- Decide if vehicle performance issues are due to poorly aligned wheels or underperforming tyres
- Identify likely issues with wheel alignment by observing wear patterns on tyres

- Decide what to do when additional repairs need to be made (check with supervisor or manager, contact the customer and explain what needs to be done and approximate costs)
- Take action when a problem is found that is outside of the scope of diagnostic equipment in the workshop (decide how to diagnose a fault and what the next step will be, contact customer and explain)
- Evaluate the complexity of the task and decide if it requires additional help from the Supervisor/Manager
- Deal with problems such as accidents.

Critical thinking underpinning tasks and skills

Develop knowledge of common and unusual faults and the solutions used to correct them.

Apply knowledge of professional trade practice to work carried out.

Apply knowledge of safety requirements and principles to work practice.

Apply knowledge of quality assurance processes to work carried out.

Identify when personal knowledge and skills are sufficient to act on own.

Identify when personal knowledge and skills are not sufficient and know who to ask for help.

Recall and follow specified procedures to deal with problems.

Information and Communication Technology tasks

- Update and modify customer details in database
- Send and receive emails

- Look up web-based information about tyres and diagnosing faults

- Use computerised machinery such as balancing machines and wheel alignment machines.

Information and Communication Technology underpinning tasks and skills

Operate a computer or digital device.

- Start the computer or device
- Log-in if needed
- Start appropriate application
- Exit appropriate application
- Turn off computer or device.

Identify elements of computer applications and the function of the element (e.g. menus and menu options, command buttons, icons, toolbars).

Identify appropriate computer application for task (e.g. spreadsheet, word processor, e-mail, web browser, drawing, company software system).

Develop knowledge of how to use computer applications (e.g. navigation, shortcuts, correct way to enter data, updating records, recovering information).

Operate computer application(s).

Enter and update data using keyboard, mouse or other input device.



Link to Learning Progressions for Adult Literacy and Numeracy

The Tertiary Education Commission has developed the Adult Learning Progressions. They provide a framework and language for describing literacy and numeracy skills and knowledge. There are strands for Reading, Writing, Speaking, Listening and Numeracy. Each strand is divided into progressions and there are six steps (step 1 is lower and step 6 is higher). There are assessment tools that measure what step a person is on at the different strands.

We can use the Adult Learning Progressions to help us understand how to build the literacy and numeracy skills and knowledge that Tyre Technician apprentices need.

The information here explains how the tasks described in this profile relate to the Adult Learning Progressions.

Read with Understanding:

All Tyre Technician apprentices will read a small range of on-job forms, signs and short instructions. These texts map to step 2 on the Read with Understanding strand.

Apprentices need to quickly learn to read specialist terms relating to vehicles and tyres. The specialist vocabulary used by Tyre Technicians maps to step 5 on the Decoding and Vocabulary progressions of the Read with Understanding strand.

To use their MITO learning material, they also need to be able to locate, organise, summarise, compare and evaluate information from a range of texts. These skills map to step 4 and 5 on the Read with Understanding strand.

Tyre technicians will need to quickly develop their reading skills so that they can achieve step 4 on the Read with Understanding strand.

Write to Communicate:

Tyre Technician apprentices will complete the same simple writing tasks as qualified technicians. Examples include filling in details of work completed on job sheets, and producing invoices. Most writing is one word or short sentences, and little punctuation is required. These tasks map to step 1 and 2 on most of the progressions in the Write to Communicate strand.

Apprentices need to be able to spell and write specialist terms relating to tyres and vehicles. The specialist vocabulary used by Tyre Technicians maps to steps 4 and 5 on the Decoding and Vocabulary progressions in the Write to Communicate strand.

As part of their training, apprentices must take notes to remember what they have learned, write answers to assessment questions, and complete their MITO practical task records. These tasks map to step 3 and 4 on the Write to Communicate strand.

Tyre Technician apprentices will need to quickly develop their writing competencies so they can achieve step 3 to 4 on the Write to Communicate strand.

Speak to Communicate and Listen with Understanding:

Tyre Technicians and apprentices use their speaking and listening skills all the time during their working day. At the beginning of their apprenticeship, Tyre Technician apprentices take part in simpler conversations, using words they already know. These tasks map to step 3 on the Listen with Understanding strand, and step 2 to 3 on the Speak to Communicate strand.

Tyre Technicians and apprentices work in a fast paced, sales focused environment, so they need a high level of communication skills to help them offer the right products to customers. They must also develop skills to communicate appropriately with a broad range of customers.

Apprentices must have strategies to help when comprehension breaks down, as this will help them understand detailed instructions and explanations from their on-job trainers.

They will need to get to step 4 to 5 on the Listen with Understanding Vocabulary progression, as they will use specialist tyre and automotive industry words every day.

Apprentices need to quickly develop their speaking and listening skills and need to be at least at step 4 on most progressions of the Listen with Understanding and Speak to Communicate strands.

Numeracy Progression Strands:

Tyre Technicians carry out tasks (e.g. calculating prices and discounts, interpreting tyre sizes) that require them to be at steps 5 to 6 on the Numeracy Progressions strands - Make Sense of Number to Solve Problems, and Measure and Interpret Shape and Space.

Apprentices will need to either have the numeracy skills and knowledge when they start their apprenticeship, or develop them very soon after coming into their apprenticeship.

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