



Rewarding Learning

General Certificate of Secondary Education
2022

Engineering and Manufacturing

Unit 3
assessing

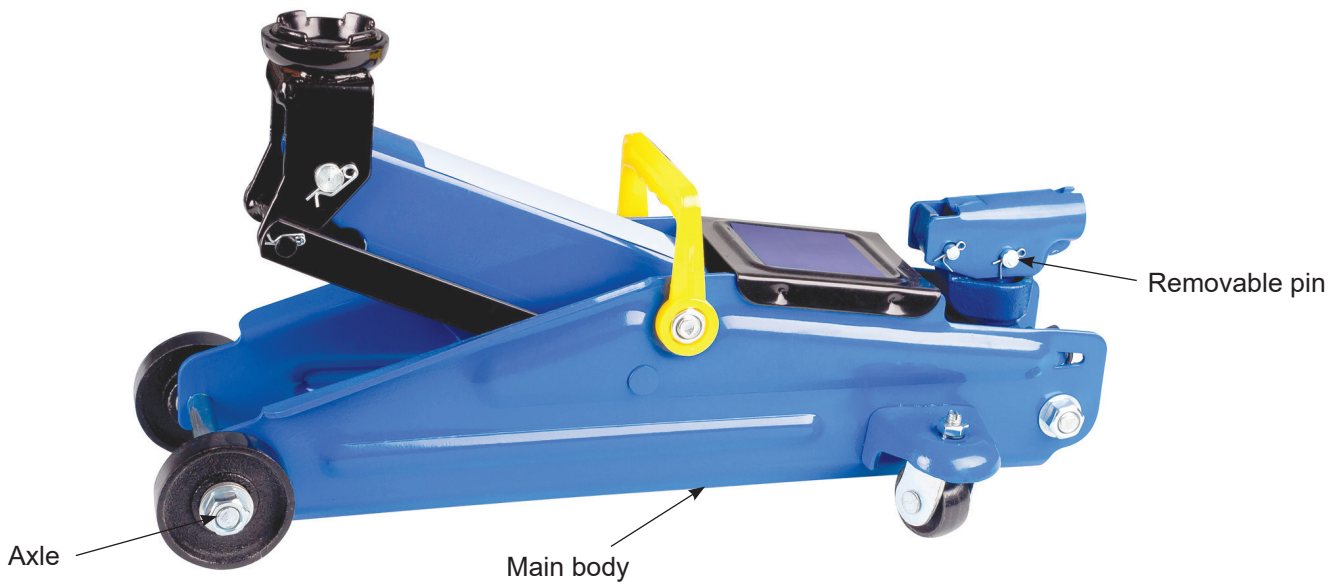
Materials, Processes and Systems

[GEM31]

**PRE-RELEASE
MATERIAL**

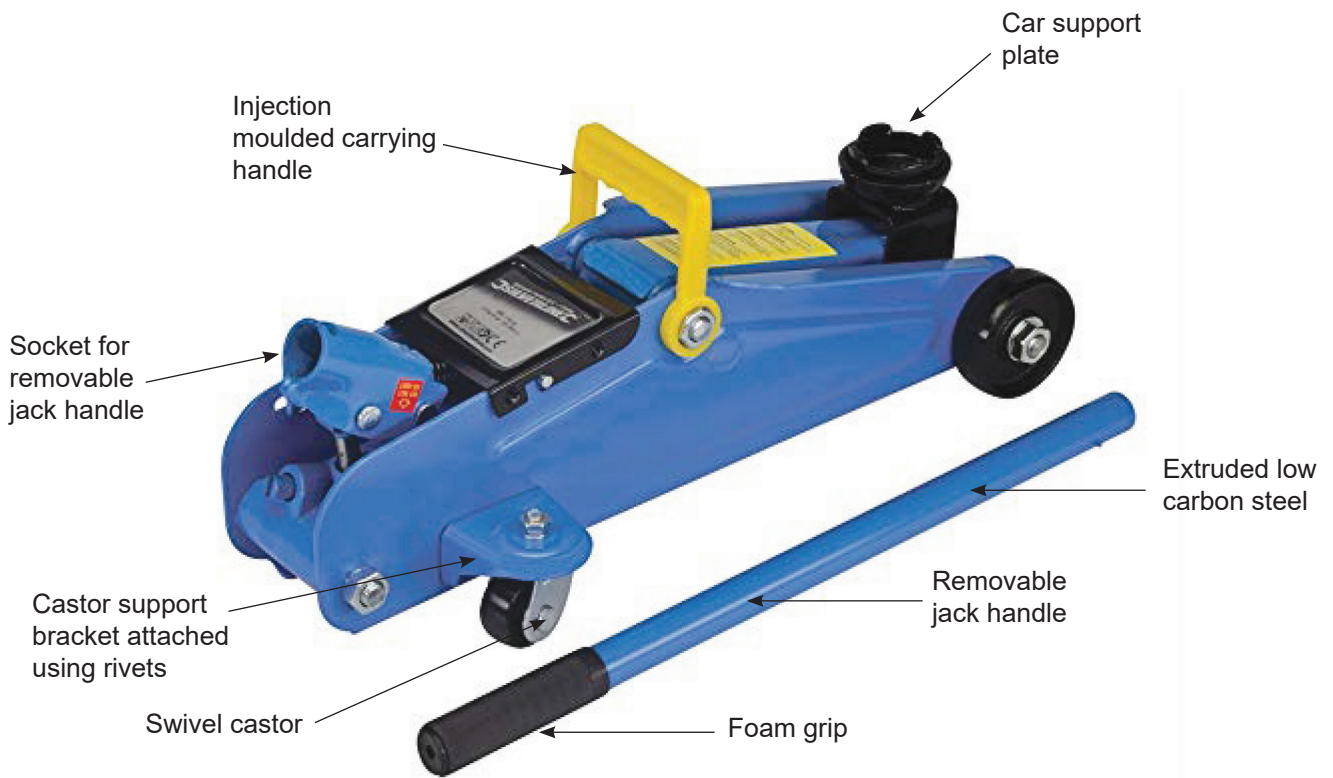
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Fig. 1 and Fig. 2 show a trolley jack.



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Fig. 1



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Fig. 2

Product features include:

- Folded sheet, low carbon steel main body;
- Swivel plastic castors;
- Low carbon steel castor support brackets;
- Injection moulded carrying handle;
- Jack handle with foam grip;
- Dimensions (assembled) Height (200 mm) – Length (500 mm) – Width (200 mm); and
- A Maximum indicated load.

Pre-release investigation:

You should investigate the possible impact and use of the following where appropriate, in the design and production of the trolley jack:

- Materials and components: including application, properties, form, supply and types of finish;
- Manufacturing processes: including joining, folding, assembly and the use of standard parts;
- Environmental issues relating to the disposal and manufacture of the product or parts of the product;
- Quality control and quality assurance; and
- Costing: including direct and indirect costs incurred in the manufacture of the trolley jack.

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