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## Wheel – Description of how it is made

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**Title:** Wheel – Description of how it is made

**Security Classification:** UNCLASSIFIED

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**Responsible partner company:** UK MoD /U8025

**Originator:** UK MoD /U8025

**Applicability cross-reference table reference:** [S1000DBIKE-AAA-D00-00-00-00AA-00WA-D](#)

**Applicability:** Mountain bicycle and (Mountain storm Mk1 or Brook trekker Mk9)

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Applicable to: Mountain bicycle  
and (Mountain storm Mk1 or  
Brook trekker Mk9)

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Authority exceptions:  
Authority notes:

**Brex data module reference:** [S1000DBIKE-AAA-D00-00-00-00AA-022A-D](#)

**QA:** First verification Cleared Table Top

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## Wheel

### *Description of how it is made*

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### **References**

*Table 1 References*

Data module / Technical publication	Title
None	

### **Description**

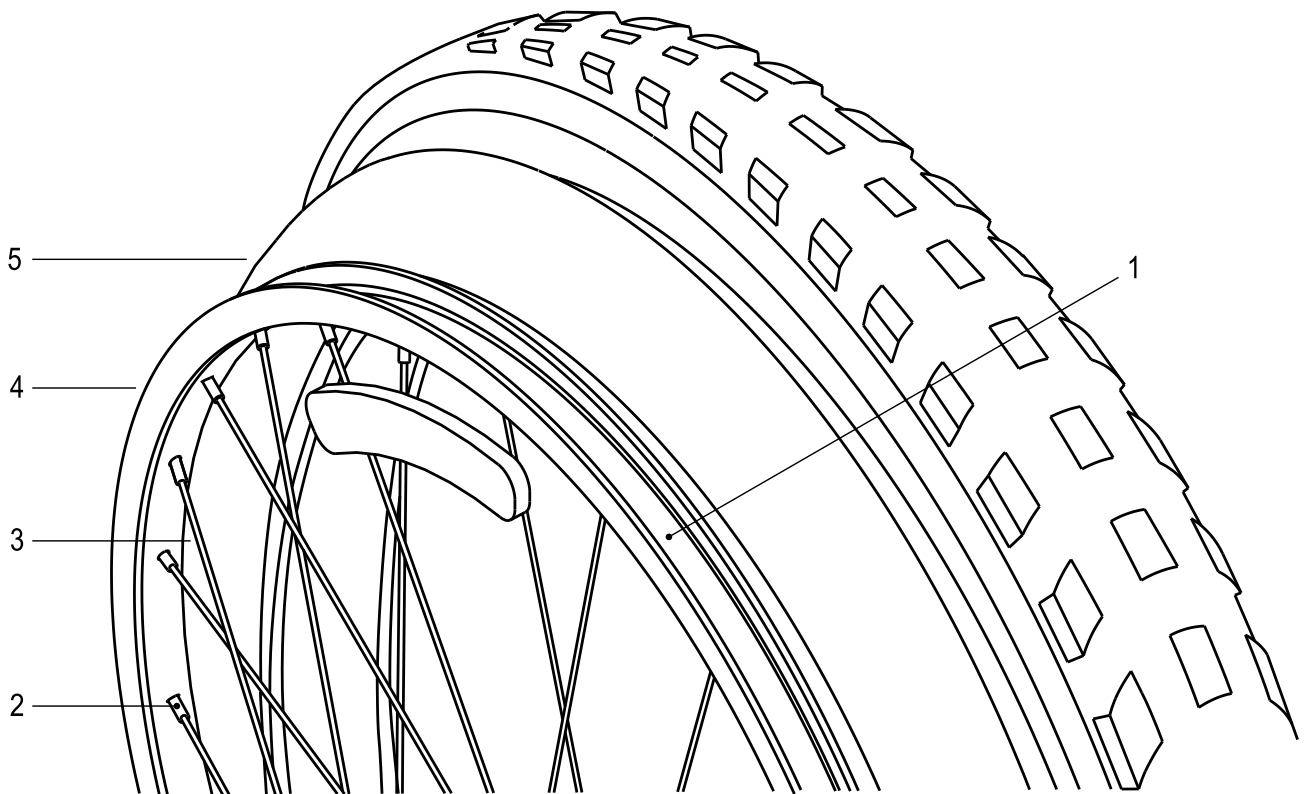
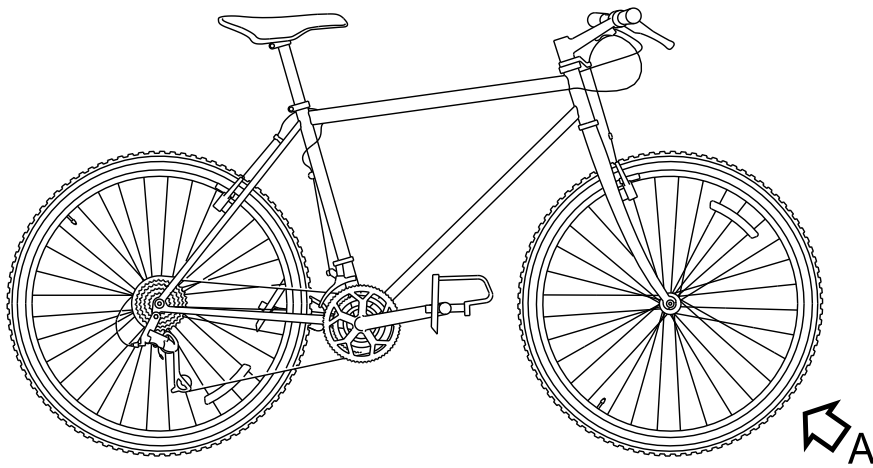
#### **1 The bicycle wheel**

The wheel (refer to [Fig 1](#)) of a bicycle is a complex structure. The wheel assembly has these parts:

- the tire
- the tube
- the spokes
- the spoke nipples
- the valve
- the hub

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On their own, the individual components are not very strong. But, when they are installed together, the components make the complete wheel (refer to [Fig 1](#)). The complete wheel is resistant to almost any type of heavy loads and operation.



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Fig 1 Parts of the wheel

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Applicable to: Mountain bicycle  
and (Mountain storm Mk1 or  
Brook trekker Mk9)

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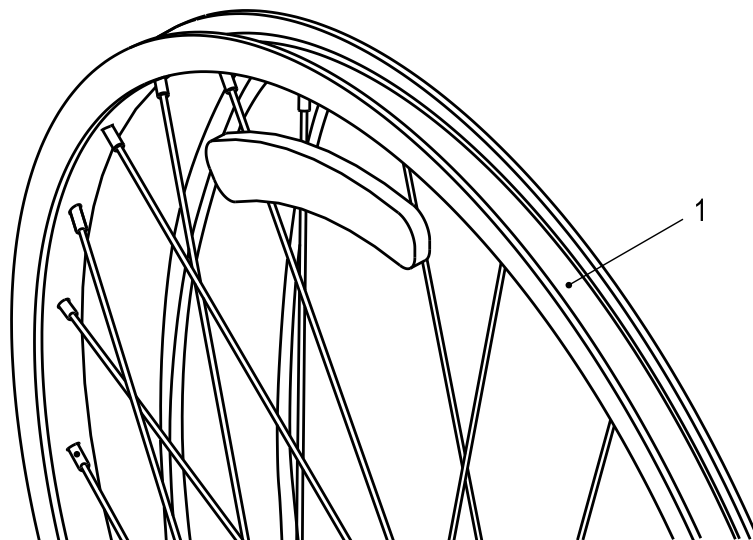
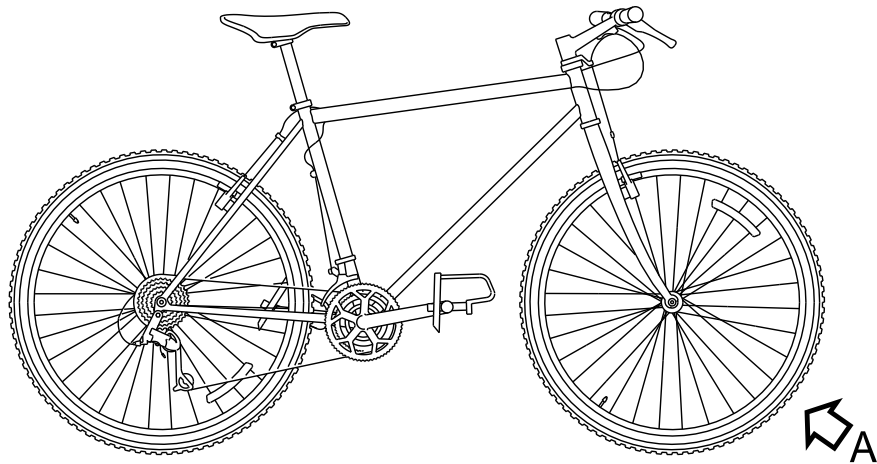
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## 1.1 Spokes

The spokes go out from the hub and go across and below each other. The spoke nipples attach the spokes to the rim with the threads on the end of the spokes. You can use the spoke nipples to adjust the tension of the spokes. The tension on each of the spokes must be equal.

## 1.2 Wheel rim

The rim (refer to [Fig 2](#)) of the wheel has a lining of rim tape. This tape protects the tube from damage that the rough edges on the spoke nipples can cause.



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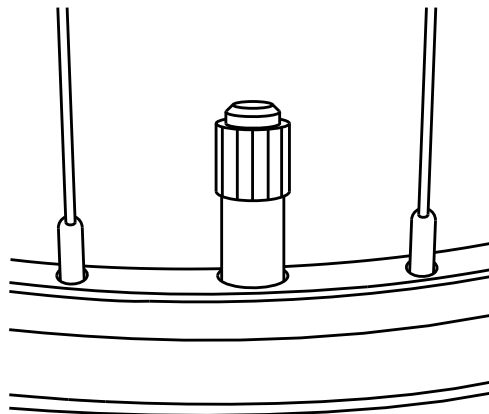
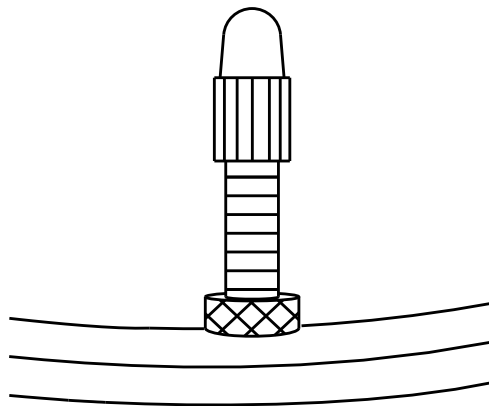
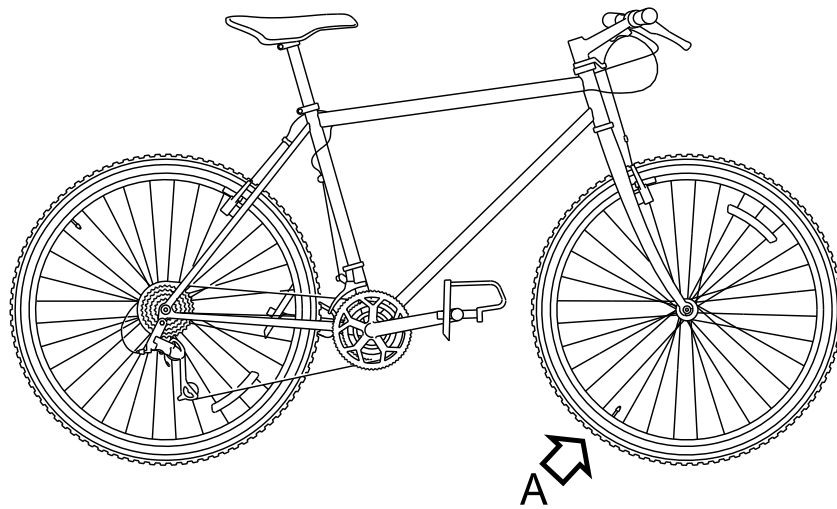
Fig 2 The tire and rim

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## 1.3 Tube and tire

The tube and the tire install on the rim. The sidewalls of the tire have markings on them. These markings are used to indicate the correct direction of rotation. The markings also make sure the tire installs on the rim and that the directional arrows point in the correct direction. You install the tube into the tire before you inflate it. The tube has a valve (refer to [Fig 3](#)) which you put through the hole in the rim. This valve (refer to [Fig 3](#)) is used to inflate the tube and the tire to the correct pressure. A dust cap installs on the valve (refer to [Fig 3](#)) to prevent damage that dust and debris can cause.





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Fig 3 Valve

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