

## Overview

This standard is about preparing and assembling a cycle from its individual components, so the cycle is left in a safe and roadworthy condition.

N.B.: This unit does not include assembling brakes, gears or wheels, all of which are covered in separate NOS units.

In this standard the term 'cycle' includes pedal-propelled vehicles with two, three or four wheels. It may also include pedal-assisted e-bikes:

- Road legal up to 15.5 mph with a motor with an output of up to 250w
- E-cycles used for other purposes

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## Performance criteria

- You must be able to:
- P1 use suitable personal protective equipment and bicycle coverings (where applicable) throughout all cycle preparation and build activities
  - P2 use suitable sources of technical information to support all your cycle preparation and build activities
  - P3 ensure the work area is safe prior to work commencing
  - P4 examine all components following:
    - P4.1 the manufacturer's data and instructions
    - P4.2 your workplace procedures
    - P4.3 health, safety and environmental requirements
  - P5 work in a way which minimises the risk of:
    - P5.1 damage to the cycle and it's components
    - P5.2 damage to your working premises or the environment
    - P5.3 injury to self and others
  - P6 use suitable test methods and technical data to accurately evaluate the condition and compatibility of all components
  - P7 prepare frames and forks prior to cycle assembly
  - P8 promptly report any problems or issues relating to the bicycle's condition or conformity to the relevant person(s)
  - P9 ensure your preparation and assembly records are accurate, complete and promptly passed to the relevant person(s) in the format required
  - P10 complete all cycle preparation and build activities within the agreed timescale
  - P11 promptly report any anticipated delays in completion to the relevant persons(s)

## Knowledge and understanding

You need to know and understand:

### **Legislative and organisational requirements and procedures**

- K1 the manufacturer's and legal requirements relating to cycle preparation and build activities
- K2 the legal requirements relating to the cycle (including road safety requirements)
- K3 the health and safety legislation, environmental requirements and workplace procedures relevant to cycle preparation and build activities and personal and cycle protection
- K4 your workplace procedures for:
  - K4.1 recording frame preparation and cycle build activities
  - K4.2 the referral of problems
  - K4.3 reporting delays to the completion of work
- K5 how to work safely avoiding damage to the cycle, its systems and components.
- K6 the importance of documenting cycle preparation and build information
- K7 the importance of working to agreed timescales and keeping others informed of progress
- K8 the importance of promptly reporting anticipated delays to the relevant person(s)

### **Use of technical information**

- K9 how to find, interpret and use sources of current technical information for cycle preparation and build activities
- K10 the importance of using the appropriate sources of technical information

### **Cycle preparation and build**

- K11 the units and components, including their features and dimensions, for the type of cycles on which you work
- K12 how to ensure the compatibility of all **components**
- K13 how to prepare and use all tools and equipment required for cycle preparation and build
- K14 the procedures for preparing frames and forks for cycle assembly
- K15 how to make adjustments to cycle systems and components
- K16 how to recognise cosmetic damage to cycle systems and components

K17 the importance of, and how to carry out a quality check

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## Scope/range

### 1. Sources of technical information are:

- 1.1. manufacturer's instructions
- 1.2. customer requirements

### 2. Procedures are:

- 2.1. checking threads
- 2.2. thread tapping
- 2.3. thread chasing
- 2.4. facing headtube
- 2.5. facing bottom bracket shell
- 2.6. reaming headtube
- 2.7. checking fork and frame alignment

### 3. Units and components are:

- 3.1. frame
- 3.2. forks
- 3.3. wheels
- 3.4. groupset
- 3.5. brakes
- 3.6. saddle
- 3.7. handlebar / stem

### 4. Adjustments include:

- 4.1. bearings
- 4.2. stem alignment
- 4.3. measurement
- 4.4. personalisation

## Additional information

### Glossary

*This section contains examples and explanations of some of the terms used but does not form part of the standard.*

### Agreed timescales

Examples include industry recommended work times, job times set by your company or a job time agreed with a specific customer

### Conformity

Examples include conformity to approvals and specifications, UK and European legal requirements where applicable

### Cycles

In this standard the term 'cycle' includes pedal-propelled vehicles with two, three or four wheels on which the rider sits. It may also include pedal-assisted e-bikes:

- Road legal up to 15.5 mph with a motor with an output of up to 250w
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### Quality check

To include cleanliness, security of component parts, adjustment of bearings, tension of spokes, trueness of wheel, function test

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