IMIMC01 Carry out routine motorcycle maintenance

Overview

This NOS is about conducting routine examination, adjustment and replacement activities as part of the periodic servicing of motorcycles.

In this standard the term ‘motorcycle’ includes motorcycles, scooters, mopeds and motorcycle-derived three- or four-wheel vehicles (such as quad bikes) on which the rider sits.

Performance criteria

You must be able to:

P1 use suitable personal protective equipment and motorcycle coverings (where applicable) throughout all motorcycle maintenance activities

P2 use suitable **sources of technical information** to support all your motorcycle maintenance activities

P3 ensure the motorcycle and the work area is safe prior to work commencing

P4 use the correct specifications and tolerances for the motorcycle when making **assessments** of system and component performance

P5 record details accurately, where the customer's motorcycle falls outside the manufacturer's original specification, and use this modified specification as the basis for your examination and assessment

P6 examine the motorcycle's systems and components following:

- P6.1 the manufacturer's approved **examination methods**
- P6.2 your workplace procedures
- P6.3 health and safety requirements

P7 ensure your **examination methods** identify any motorcycle system and component faults which fall outside the scope of the specified servicing schedule

P8 retrieve, record and act on onboard data where applicable

P9 carry out adjustments, replacement of motorcycle components and replenishment of consumable materials following the manufacturer's current specification for:

- P9.1 the particular service interval
- P9.2 working methods and procedures
- P9.3 use of equipment
- P9.4 the tolerances for the motorcycle

P10 record the details accurately and take action which complies with the customer's instructions where system adjustments cannot be made within the manufacturer's specification

P11 work in a way which minimises the risk of damage to the motorcycle and its systems

P12 use suitable testing methods to evaluate the performance of all replaced and adjusted components and systems accurately, prior to returning the motorcycle to the customer

P13 report any problems or issues relating to the motorcycle's condition or conformity to the relevant person(s) promptly

P14 ensure your maintenance records are accurate, complete and passed to the relevant person(s) promptly in the format required

P16 report any anticipated delays in completion to the relevant persons(s) promptly

Knowledge and understanding

You need to know and understand:

Legislative and organisational requirements and procedures

K1 the manufacturer's and legal requirements relating to routine maintenance activities for motorcycle systems and components

K2 the legal requirements relating to the motorcycle (including road safety requirements)

K3 the health and safety legislation, environmental requirements and workplace procedures relevant to motorcycle maintenance activities and personal and motorcycle protection

K4 your workplace procedures for:

- K4.1 recording motorcycle maintenance work and any variations from the original motorcycle specification
- K4.2 the referral of problems
- K4.3 reporting delays to the completion of work

K5 the importance of documenting motorcycle maintenance information

K6 the importance of working to agreed timescales and keeping others informed of progress

K7 the relationship between time and cost

K8 the importance of reporting anticipated delays to the relevant person(s) promptly

Use of technical information

K9 how to find, interpret and use **sources of current technical information** for scheduled maintenance activities, including on-board diagnostic displays

K10 the importance of using the appropriate sources of technical information

K11 the purpose of and how to use identification codes

Motorcycle system operation

K12 how engines/powertrains, cooling systems, intake and exhaust systems, fuel systems and ignition systems operate for the type(s) of motorcycle on which you are working

K13 how clutch assemblies, clutch operating systems, manual gear boxes,

You need to know and understand:

automatic gear boxes, constantly variable transmission, drivelines and hubs (if appropriate) and final drive assemblies operate for the type of motorcycles on which you work

K14 how suspension systems, steering systems, braking systems, non-electrical body systems, wheels and tyres operate for the type of motorcycle on which you are working

K15 how batteries, starting systems, charging systems, lighting systems and ancillary equipment operate for the type of motorcycle on which you are working

K16 the operating specifications and tolerances for the type(s) of motorcycles on which you are working

Routine maintenance requirements

K17 how to conduct scheduled, routine examination methods and assessments against motorcycle specifications to identify damage, corrosion, inadequate fluid levels, leaks, wear, security problems and general condition and serviceability

K18 how to check and make adjustments to clearances, settings, alignment, pressures, tension, speeds and levels relevant to the engine, transmission, frame and electrical systems and components

K19 the difference between a faulty component and a dangerous component

K20 how to safely remove, store, replace and inspect fairings, tanks, seats and guards

K21 how to replenish and replace routine service components and materials, including filters, drive systems, lubricants and fluids

K22 how to recognise cosmetic damage to motorcycle components and units which do not fall within normal service items

K23 how to identify codes and grades of lubricants

K24 how to work safely avoiding damage to the motorcycle and its systems

Scope/range

All of the items listed below form part of this National Occupational Standard.

1. Sources of technical information are:

1.1 motorcycle technical data

1.2 schedules of inspection

1.3 regulations

1.4 onboard data

2. Examination methods are:

2.1 sensory

2.2 functional

2.3 measurement

3. Assessments are for:

3.1 malfunction

3.2 damage

3.3 fluid levels

3.4 leaks

3.5 wear

3.6 security

3.7 condition and serviceability

3.8 conformity

3.9 necessity for adjustment(s)

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 manufacturer's recommended work times, job times set by your company or a job time agreed with a specific customer

Adjustments

Examples include adjustments to clearances, gaps, settings, alignment pressures, tensions, speeds and levels, and adjustments to valves, ignition, fuel and emissions, brakes, transmission, lights, tyres, steering and body fittings

Components

Examples include filters, drive chains and belts, brake linings and pads, lubricants and fluids

Conformity

Examples include conformity to manufacturer's specifications, UK and European legal requirements where applicable

Sensory testing methods

These may include looking, listening, smelling and touching for heat.

Systems testing equipment

Examples include electrical, electronic and diagnostic equipment, emission test equipment, wheel alignment equipment, tyre tread depth gauges

Maintenance records

Examples include records of motorcycle inspection, manufacturers, fleet company or customer job cards

Major service

As defined by manufacturer's specifications appropriate to the motorcycle being worked on

Motorcycles

In this standard the term 'motorcycle' includes motorcycles, scooters, mopeds and motorcycle-derived three- or four-wheel vehicles (such as quad bikes) on which the rider sits.

Routine motorcycle maintenance

Examples include conducting scheduled examinations, adjustments, replacements and replenishment of, or to, components and systems in accordance with manufacturer's instructions for the period and/or mileage interval.

Motorcycle technical data

Examples include hard copy manuals, data on computer and data obtained from on-board diagnostic displays

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