

## Assessment Requirements

### Unit VF08K – Knowledge of inspection and Repair of Light Vehicle Clutches

#### Content

#### **Tools and equipment used in the repair and maintenance of manual clutches.**

- a. Hand tools
- b. Lifting equipment
- c. Ramps, jacks and axle stands
- d. Specialist tools: alignment tools
- e. Use, maintenance storage and cleaning
- f. Safety procedures to be observed while carrying out work
- g. General workshop equipment

#### **The purpose and basic function and layout of manual clutches.**

- a. Front wheel drive and rear wheel drive
- b. Types of clutches ( single plate dry clutch – spring and diaphragm applications)
- c. clutch operating mechanisms ( mechanical and hydraulic ) adjustments
- d. Hydraulic fluids
- e. DOT classification

#### **Removal and refitting procedures associated with manual clutches**

- a. Safe use of equipment and PPE
- b. Vehicle protection
- c. Sequence: logical, manufacturer recommended methods ( FWD and RWD )
- d. Disposal of removed parts, materials, solutions and chemicals
- e. Final inspection and component adjustment

#### **Checks and adjustments to systems and components to include:**

- a. clutch operating systems
- b. clutch assemblies
- c. flywheel
- d. oil leaks

#### **Clutch inspection techniques including:**

- a. visual
- b. aural
- c. measurement
- d. functional test

#### **Clutch components**

- a. Clutch assembly (drive plate, pressure plate and release bearing)
- b. Spigot bearing
- c. Flywheel
- d. Operating cable
- e. Hydraulic clutch components
- f. Automatic and manual adjusters
- g. Clutch fork
- h. Oil seals
- i. Input shaft

- j. Inspection cover
- k. Clutch pedal
- l. Bell housing
- m. Gear box
- n. Driveshaft
- o. Prop-shaft

**Type of clutch and operating system**

- a. Single plate
- b. Multi-plate
- c. Centrifugal
- d. Spring and diaphragm type pressure plates (covers)
- e. Cable,
- f. Hydraulic
- g. Electronic.

**Common faults associated with clutch systems, their causes and how to identify and rectify them.  
To include:**

- a. slip
- b. drag
- c. judder
- d. noise

**The removal and replacement procedures associated with clutch systems including:**

- a. the effective sequence of working
- b. workplace requirements for recording
- c. measurements taken and adjustments made

**Adjusting clutch working tolerances to include:**

- a. finding and using data
- b. importance of accurate measurement
- c. importance of adjusting to acceptable tolerances