

Assessment Requirements

Unit HV11.2K – Knowledge of Overhauling Heavy Vehicle Transmission Units

Content:

How the units and assemblies being overhauled operate

- a. Identify unit components
- b. Understand unit construction
- c. Describe unit operation

How units are dismantled and reassembled

- a. The dismantling procedure.
- b. Tools and equipment used for stripping and rebuilding units and assemblies.
- c. Methods of safe storage for removed components during overhaul activities.
- d. The process for assessing the condition of sub-assemblies including:
 - i. fit
 - ii. tolerances
 - iii. permitted limits
- e. The rebuild procedure for units and assemblies.
- f. Adjustment procedures during re-assembly.

Unit and assembly testing and evaluation procedures

- a. Appropriate testing and evaluation procedures prior to dismantling units.
- b. Appropriate testing and evaluation procedures of components after dismantling units.
- c. How to use overhauling and test equipment for the task.
- d. The cost-benefit relationship between reconditioning, repair and replacement of components within units.
- e. How to test and evaluate the performance of the overhauled units against the operating specification.
- f. How to interpret test results.
- g. Adjustment procedures during final evaluation.

Faults associated with units and assemblies being overhauled

- a. Causes of faults and failures within units and assemblies.
- b. The faults associated with units and assemblies.
- c. How to make adjustments to meet final specification after testing and evaluation of assembled units and assemblies.

The procedures for dismantling, removal and replacement of units and components

- a. The preparation, testing and use of:
 - i. tools and equipment
 - ii. removal and replacement of electrical and electronic systems and components
- b. Appropriate safety precautions:
 - i. PPE
 - ii. vehicle protection when dismantling
 - iii. removal and replacing electrical and electronic components and systems
- c. The importance of logical and systematic processes.
- d. Preparation of replacement units for re-fitting or replacement electrical and electronic components and systems.
- e. The reasons why replacement components and units must meet the original specifications (OES) – warranty requirements, to maintain performance, safety requirements.
- f. Refitting procedures.

- g. The inspection and testing of units and systems to ensure compliance with manufacturer's, legal and performance requirements.
- h. Inspection and re-instatement of the vehicle following repair to ensure:
 - i. customer satisfaction
 - ii. cleanliness of vehicle interior and exterior
 - iii. security of components and fittings
 - iv. re-instatement of components and fittings
 - i. cancelling of any fault codes and warning lights