

SYLLABUS - COMPLEX B

MOTOR CARAVAN ENGINEERS

Safety and Efficiency

The caravan engineer will be expected to fulfil the following safety and efficiency criteria in relation to all work specified under the technical syllabus sections 1 - 13 below.

- All relevant legislation covering Health & Safety at work was adhered to.
- Working areas were kept in a clean and tidy condition.
- Work was carried out in a responsible manner having consideration for others at all times.
- Time and materials were used effectively, minimising waste.
- Working areas, caravan and equipment were left in a safe and secure condition.
- The safety of the general public and the candidate was ensured at all times.
- Clothing worn was appropriate for the work being carried out.
- Candidate followed company policies and procedures with respect to accident prevention.

1. Chassis and Equipment

The motor caravan engineer should be able to:

- 1.1 check chassis; report damage and/or misalignment
- 1.2 check corner steadies (where fitted), lubricate and repair, if necessary
- 1.3 raise and lower motor caravans using a jack and using corner steadies as supports
- 1.4 check under flooring and report damage
- 1.5 check security of body to chassis

2. Suspension, Wheels, Tyres and Brakes

The motor caravan engineer should be able to

Wheels and Tyres

- 2.1 examine wheels; identify where replacement is necessary
- 2.2 check tyres and report damage and/or illegality
- 2.3 check wheel nuts/ studs and torque to correct setting
- 2.4 check and adjust tyre pressures where necessary

3. Road Vehicle Lighting

The touring caravan engineer should be able to

- 3.1 check road lights, signals, reflectors; report where they do not meet legal requirements; test for operation; repair or fit replacement parts as required
- 3.2 check road lighting connections and earthing; repair or replace as required
- 3.3 check reversing lamps as necessary
- 3.4 check lamps for signs of water ingress

4. Gas Systems

The touring caravan engineer should be able to

- 4.1 check regulators fit replacement regulator if required
- 4.2 check pipework, hoses and connections; repair or fit replacement parts

Leak test

- 4.3 trace leaks using a leak detector and repair or fit replacement parts
- 4.4 test pressure systems completely and report

Appliances

- 4.5 check refrigerator operation and report if faulty
- 4.6 check oven/grill/hotplate operation and report if faulty
- 4.7 check heater operation; clean and report if faulty
- 4.8 check water heater operation and report if faulty
- 4.9 check heat shielding of appliances and report where it is insufficient
- 4.10 check flues; report defects and/or incorrect fitting
- 4.11 check space heater operation, and report if faulty
- 4.12 check cassette toilet for operation
- 4.13 check toilet seals and replace if necessary
- 4.14 check presence and operation of flame failure devices

Gas Bottle Lockers

- 4.15 check gas bottle locker vent holes for obstructions, and rectify if necessary
- 4.16 check securing straps/ mountings for gas bottle
- 4.17 check gas bottle locker lid and repair damaged hinges or locks

5. Ventilation

The motor caravan engineer should be able to

- 5.1 check ventilation is compliant to appropriate British or European standards (see handbook for further details)
- 5.2 check all vents and vermin screens; free them from obstructions
- 5.3 check all ventilation equipment (eg roof lights, open/close vents etc); repair or fit appropriate replacement parts as required
- 5.4 check ventilation of all LPG appliances and report where provision has NOT been made

5.5 check gas drop holes are unobstructed and report where provision has NOT been made

6. 12v Electrical System

The motor caravan engineer should be able to

Batteries and charging

6.1 check batteries, top up, charge or replace (where fitted)

6.2 check battery terminals for corrosion; clean and grease as necessary

6.3 check battery charging systems (12v and 240v) and report defects

Wiring and fuses

6.4 follow basic caravan wiring diagrams

6.5 check cables and connections (including earthing); repair or fit replacement parts as required

6.6 check 12S plugs and cables; repair or fit replacement parts as required

6.7 check fusing; fit replacement fuses as required

Power points, lights and appliances

6.8 check power points; repair or fit replacement parts as required.

6.9 check interior and exterior lights; repair or fit replacement parts as required

6.10 check operation of appliances (eg water pump, water heater, cooker hood, refrigerator); repair or fit replacement parts as required

7. 230V Mains Electrical System

The touring caravan engineer should be able to

7.1 check connecting cables and connectors and report if unserviceable and/or if they do not meet the requirements of current Standards

7.2 check inlet plugs; report where they do not meet the requirements of current Standards

7.3 check cables and cable connections (including earthing); report if defective

- 7.4 check operation of residual circuit current breakers (RCCBs); report if defective
- 7.5 check earth bonding; report if defective
- 7.6 check transformers, invertors, battery chargers; report if defective
- 7.7 check power points; report if defective
- 7.8 check lighting; report if defective
- 7.9 check any other appliances; report if defective

8. Water Systems

The motor caravan engineer should be able to

Pumps

- 8.1 connect up portable water sources and waste water collection tanks
- 8.2 check pumps (foot, hand and electric) and repair or fit replacement parts as necessary

Taps, valves, pipework and tanks

- 8.3 check operation of water systems and identify faults
- 8.4 check and repair or fit replacement parts as required:
 - filters
 - pipework and couplings
 - taps, mixer taps and shower heads
 - foot and hand switches
 - waste outlets

Installation

- 8.5 replace sinks and hand basins
- 8.6 install waste water systems
- 8.7 install basic fresh water systems

9. External Structure

The touring caravan engineer should be able to

- 9.1 check mouldings, gutters, beads and seals; report damp or rot; replace rusty screws; refit or replace mouldings, gutters and beads; reseal as required
- 9.2 check floor and wheel boxes; report defects
- 9.3 check body panels and report damage
- 9.4 check additional external trimmings (e.g. wheel arch valances, grab handles etc); repair or replace as required
- 9.5 check folding, sliding or attachable steps for operation and security; report any defects
- 9.6 check security of any roof racks/ access ladders/ bike racks etc fitted
- 9.7 check any elevating roof mechanism and associated canvas fitted; report any defects

10. Main Doors and Windows

The touring caravan engineer should be able to

Doors

- 10.1 check doors, report damage and replace if necessary
- 10.2 check door aperture trim; refit or replace and reseal as required
- 10.3 check door alignment, hinges, catches and locks; lubricate, adjust, repair or fit replacement parts as required

Windows

- 10.4 check windows and their sealing; replace and reseal as required
- 10.5 check opening window alignments, hinges, catches and stays; lubricate, adjust, repair or fit replacement parts as required
- 10.6 check opening window aperture trim; refit or replace and reseal as required

11. Internal Structure

The motor caravan engineer should be able to

11.1 check weather penetration, beading, seals, report defects

11.2 carry out moisture meter check

11.3 check floor and walls for indications of delamination

Doors, cupboards, table, hinges, catches, stays

11.4 check cupboard doors and drawer hinges, catches and stays; repair or refit replacement parts as necessary

11.5 check table legs and their hinges and catches; repair or replace as necessary

11.6 check partition doors and curtain tracks; repair or fit replacement parts as necessary

11.7 check security of internal fittings and appliances; rectify as necessary

Edge Banding, Curtain Rails, Bed Bases, Panels, Trim

11.8 check furniture edge banding, refit or replace as necessary

11.9 check window curtain rails; repair or replace as necessary

11.10 check bed bases; repair or replace as necessary

11.11 check bunk beds and ladders for integrity

11.12 check internal panels and trimming; report damage or damp stains

11.13 check blinds for operation and re-tension if necessary

Soft furnishings

11.14 check curtains, cushions and floor coverings; report defects

12. Smoke and Security Alarms

The touring caravan engineer should be able to

12.1 check location and operation of smoke alarms; report defects as required

12.2 check location and operation of security alarms; report defects as required

13. Toilets

The touring caravan engineer should be able to

13.1 check cassette toilet seals; replace if necessary

13.2 check unit for operation and report defects

13.3 check any foul waste outlets fitted; report any defects

Damp

14 carry out damp test to National Caravan Council standard damp check; report any problems.