

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION

GENERAL INFORMATION

-Module Number- 2210177

-Session-1997-98

-Superclass- ZJ

-Title- MOTOR VEHICLE INSPECTION: PROHIBITION

-DESCRIPTION-

GENERAL COMPETENCE FOR UNIT: Organising and carrying out safe inspections of road vehicles, trailers and motorcycles, identifying, evaluating, and recording defects, exercising legislative powers to prohibit the use of vehicles, trailers and motorcycles, completing inspection and prohibition documentation.

OUTCOMES

1. prepare to carry out a prohibition inspection;
2. identify immediately dangerous defects related to the engine, exhaust, fuel and transmission systems;
3. identify immediately dangerous defects related to the suspension, steering, wheels and tyres;
4. identify immediately dangerous defects related to the brakes and braking systems;
5. identify immediately dangerous defects related to the chassis/frame, trailer couplings, driver's area and bodywork;
6. identify immediately dangerous defects related to the conveyance of passengers in a passenger carrying vehicle;
7. identify immediately dangerous defects related to the electrical equipment, road lamps and reflectors;
8. identify the key points in the legislation and the administrative procedures relating to the prohibition of use of a vehicle on a road.

CREDIT VALUE: 1 NC Credit

ACCESS STATEMENT: Candidates should have achieved module 2210167 Motor Vehicle Inspection: Light Vehicles and Motorcycles or equivalent and have a basic working knowledge of the mechanical features of large goods vehicles, passenger carrying vehicles and trailers, with particular reference to power and power assisted braking systems.

For further information contact: Committee and Administration Unit, SQA, Hanover House, 24 Douglas Street, Glasgow G2 7NQ.

Additional copies of this unit may be purchased from SQA (Sales and Despatch section). At the time of publication, the cost is £1.50 (minimum order £5.00).

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION**STATEMENT OF STANDARDS****UNIT NUMBER:** 2210177**UNIT TITLE:** MOTOR VEHICLE INSPECTION: PROHIBITION

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME

1. PREPARE TO CARRY OUT A PROHIBITION INSPECTION

PERFORMANCE CRITERIA

- (a) The selected inspection site has sufficient space and is free from hazards.
- (b) Selected equipment will enable a full inspection to be completed.
- (c) Selected support information and data is appropriate for the vehicle to be inspected.
- (d) Vehicle identification particulars are correctly recorded in terms of make, model, registration mark, mileage, VIN, chassis or frame number, operator's licence number and vehicle type, as appropriate.
- (e) Inspection record particulars are correctly recorded in terms of place, date, time and persons present.

RANGE STATEMENT

Vehicle: road vehicle; trailer; motorcycle.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to present a vehicle, inspection equipment and support materials ready to carry out a full prohibition inspection, as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to record information and identify hazards associated with carrying out a vehicle prohibition inspection, as specified in performance criteria (d) and (e).

OUTCOME

2. IDENTIFY IMMEDIATELY DANGEROUS DEFECTS RELATED TO THE ENGINE, EXHAUST, FUEL AND TRANSMISSION SYSTEMS

PERFORMANCE CRITERIA

- (a) Methods of inspection of the engine, exhaust, fuel and transmission systems are in accordance with the Vehicle Inspectorate Categorisation of Defects guide.
- (b) Inspection is fully completed systematically and efficiently.
- (c) All defects present are identified in terms of severity in accordance with the Vehicle Inspectorate Motor Vehicle Defect Guide.
- (d) Action to be taken in respect of each identified defect is determined in accordance with the Vehicle Inspectorate Categorisation of Defects guide.

RANGE STATEMENT

Vehicle: road vehicle; trailer; motorcycle.

Systems: engine; exhaust; fuel; transmission.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to complete a prohibition inspection and identify immediately dangerous defects as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to identify defects in terms of their severity and to determine the action to be taken in respect of defects as specified in performance criteria (c) and (d).

OUTCOME

3. IDENTIFY IMMEDIATELY DANGEROUS DEFECTS RELATED TO THE SUSPENSION, STEERING, WHEELS AND TYRES

PERFORMANCE CRITERIA

- (a) Methods of inspection of the running gear, suspension and steering are in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.
- (b) Inspection is fully completed systematically and efficiently.
- (c) All defects present are identified in terms of severity in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

- (d) Action to be taken in respect of each identified defect is determined in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

RANGE STATEMENT

Vehicle: road vehicle; trailer; motorcycle.

Systems: suspension; steering; wheels; tyres.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to complete a prohibition inspection and identify immediately dangerous defects as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to identify defects in terms of their severity and to determine the action to be taken in respect of defects as specified in performance criteria (c) and (d).

OUTCOME

- 4. IDENTIFY IMMEDIATELY DANGEROUS DEFECTS RELATED TO THE BRAKES AND BRAKING SYSTEMS

PERFORMANCE CRITERIA

- (a) Methods of inspection of the brakes and braking system are in accordance with the appropriate Vehicle Inspectorate Categorisation of Defects Guide.
- (b) Inspection is fully completed systematically and efficiently.
- (c) All defects present are identified in terms of severity in accordance with the Vehicle Inspectorate Categorisation of Defects guide.
- (d) Action to be taken in respect of each identified defect is determined in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

RANGE STATEMENT

Vehicle: road vehicle; trailer; motorcycle.

Systems: brakes; brake operation.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to complete a prohibition inspection and identify immediately dangerous defects as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to identify defects in terms of their severity and to determine the action to be taken in respect of defects as specified in performance criteria (c) and (d).

OUTCOME

5. IDENTIFY IMMEDIATELY DANGEROUS DEFECTS RELATED TO THE CHASSIS/FRAME, TRAILER COUPLINGS, DRIVER'S AREA AND BODYWORK

PERFORMANCE CRITERIA

- (a) Methods of inspection of the chassis, trailer couplings, driver's area and body are in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.
- (b) Inspection is fully completed systematically and efficiently.
- (c) All defects present are identified in terms of severity in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.
- (d) Action to be taken in respect of each identified defect is determined in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

RANGE STATEMENT

Vehicle: road vehicle; trailer; motorcycle.

Defects to: chassis/frame; driver/rider area; bodywork/fairings.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to carry out a prohibition inspection as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to determine the action to be taken in respect of identified defects as specified in performance criterion (d).

OUTCOME

6. IDENTIFY IMMEDIATELY DANGEROUS DEFECTS RELATED TO THE CONVEYANCE OF PASSENGERS IN A PASSENGER CARRYING VEHICLE

PERFORMANCE CRITERIA

- (a) Methods of inspection of the passenger areas of a passenger carrying vehicle is in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

- (b) Inspection is fully completed systematically and efficiently.
- (c) All defects present are identified in terms of severity in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.
- (d) Action to be taken in respect of each identified defect is determined in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

RANGE STATEMENT

The range for this outcome is fully expressed in the performance criteria.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to complete a prohibition inspection and identify immediately dangerous defects as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to identify defects in terms of their severity and to determine the action to be taken in respect of defects as specified in performance criteria (c) and (d).

OUTCOME

- 7. IDENTIFY IMMEDIATELY DANGEROUS DEFECTS RELATED TO THE ELECTRICAL EQUIPMENT, ROAD LAMPS AND REFLECTORS

PERFORMANCE CRITERIA

- (a) Methods of inspection of the electrical equipment, road lamps and reflectors are in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.
- (b) Inspection is fully completed systematically and efficiently.
- (c) All defects present are identified in terms of severity in accordance with the Vehicle Inspectorate Vehicle Categorisation of Defects Guide.
- (d) Action to be taken in respect of each identified defect is determined in accordance with the Vehicle Inspectorate Categorisation of Defects Guide.

RANGE STATEMENT

Vehicle in normal used state: road vehicle; trailer; motorcycle.

Defects: electrical equipment; road lamps and reflectors.

EVIDENCE REQUIREMENTS

Evidence of actual performance of the candidate's ability to complete a prohibition inspection and identify immediately dangerous defects as specified in performance criteria (a), (b) and (c).

Written and/or oral evidence of the candidate's ability to identify defects in terms of their severity and to determine the action to be taken in respect of defects as specified in performance criteria (c) and (d).

OUTCOME

8. IDENTIFY THE KEY POINTS IN THE LEGISLATION AND THE ADMINISTRATIVE PROCEDURES RELATING TO THE PROHIBITION OF USE OF A VEHICLE ON A ROAD

PERFORMANCE CRITERIA

- (a) Vehicle prohibition documentation is completed accurately and clearly with all the relevant information.
- (b) The action(s) identified to be implemented in respect of the offence(s) are in accordance with the relevant legislation and powers to prohibit the use of a vehicle/trailer on a road.

RANGE STATEMENT

Vehicle prohibition pro-forma: vehicle prohibition notice (PG9); vehicle exemption notice (PG9E).

EVIDENCE REQUIREMENTS

Written evidence, perhaps in the form of short answers to questions set, to assess the candidate's ability to identify the key points in the legislation and the administrative procedures relating to the prohibition of use of a vehicle on a road.

ASSESSMENT

In order to achieve this unit, candidates are required to present sufficient evidence that they have met all the performance criteria for each outcome within the range specified. Details of these requirements are given for each outcome. The assessment instruments used should follow the general guidance offered by the SQA assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Accurate records should be made of the assessment instruments used showing how evidence is generated for each outcome and giving marking schemes and/or checklists, etc. Records of candidates' achievements should be kept. These records will be available for external verification.

SPECIAL NEEDS

In certain cases, modified outcomes and range statements can be proposed for certification. See references at end of support notes.

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NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION**SUPPORT NOTES****UNIT NUMBER:** 2210177**UNIT TITLE:** MOTOR VEHICLE INSPECTION: PROHIBITION

SUPPORT NOTES: This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

NOTIONAL DESIGN LENGTH: SQA allocates a notional design length to a unit on the basis of time estimated for achievement of the stated standards by a candidate whose starting point is as described in the access statement. The notional design length for this unit is 40 hours. The use of notional design length for programme design and timetabling is advisory only.

PURPOSE This unit is designed to enable the candidate to develop skills and knowledge related to the inspection of light and heavy vehicles, trailers and motor cycles in order to make decisions regarding the imposition of a prohibition on using an immediately dangerous vehicle, motor cycle and/or trailer on a road. It is intended for serving police officers nominated by their respective police authorities.

SQA publishes summaries of NC units for easy reference, publicity purposes, centre handbooks, etc. The summary statement for this unit is as follows:

This unit will enable you to acquire the necessary skills and knowledge to inspect light and heavy vehicles, motor cycles and trailers for defects in order to make decisions regarding the imposition of a prohibition from using, on a road, a vehicle, motor cycle or trailer which presents an immediate danger to public safety. You will learn how to interpret and apply inspection information, record the results of inspections and exercise the power to prohibit the use of vehicles and/or trailers on a road.

CONTENT/CONTEXT Corresponding to outcomes 1-8:

Outcome 1

Equipment: lifting, levers, lamps, crawlers.
Reports/note sheets: vehicle inspection checksheets or records.
Support information: inspection manuals, DTp publications.

Outcome 2

Inspection of engine, fuel and exhaust systems for:-

Engine mounting: security.
Oil leaks: oil contamination of components, excessive leakage, fire risk.

Fuel tank and system: security of tank and pipe mountings, fuel - leakage, spillage, tank cap security.

Exhaust system: security, leakage, excessive noise, excessive smoke emission.

Inspection of transmission for:-

Propeller shaft: damage, distortion.

Propeller shaft flange: damage, security.

Propeller shaft coupling: wear, bolt security.

Motorcycle chains and guards: security.

Outcome 3

Inspection of running gear for:-

Road wheel and hub: damage, distortion, security.

Wheel nuts/studs: loose, missing.

Tyre retaining ring: abutment.

Half shaft nut/stud: security.

Wheel fitting: incorrect.

Tyres: wear, fitting, fouling, type, size, mixing, damage, pressure, direction of rotation.

Stub axles and wheel bearings: wear, security, free movement.

Inspection of suspension for:-

Leaf spring defects: leaf fracture, fouling, location/retention, centre bolt fracture/location, shackle pin wear/security, slipper bracket security, anchor bracket security, retaining bolt security.

Coil spring defects: fracture, security.

Torsion bar defects: fracture, security.

Rubber spring defects: deterioration, security.

Air suspension defects: leakage, deterioration, damage, fouling, security, levelling valve wear/damage, radius arm damage/security.

Shock absorbers defects: security.

Anti-roll bar defects: fracture, security.

Trailing arms: security, free movement, alignment.

Inspection of steering for:-

Steering wheel "free" play: excessive.

Steering wheel and column: security.

Steering box: operation, security, damage.

Steering head: free movement, security.

Steering linkage: wear, damage, fracture, fouling, security, retaining device locking.

Power assisted steering: operation, damage, leakage, pipe fouling/damage, wear, security.

Outcome 4

Inspection of brakes for:-

Foot pedal: operation, travel, security.
Hand brake lever: operation, travel, security, locking.
Machine hand lever: operation travel, security.
Air brake hand control valve: operation, travel, security, locking.
Air pressure warning system: operation.
Air pressure/vacuum: build up time, leakage, operation.
Air brake actuators: excessive travel, operation, leakage.
Brake servo: operation, damage, security, leakage.
Air/vacuum reservoir: security, corrosion, leakage.
Brake valves: operation, damage, security, leakage.
Hydraulic cylinders: operation, leakage, damage, corrosion.
Fluid level: incorrect.
Brake pipes/couplings: damage, fouling, corrosion, security, deterioration.
Friction materials: excessive wear, contamination.
Drums/discs: fracture, security.
Retarder: security, contamination, leakage.
Vehicle service brake: operation and performance.
Vehicle secondary brake: operation and performance.
Vehicle parking brake: operation and performance.
Trailer service brake: operation and performance.
Trailer secondary brake: operation and performance.
Trailer emergency brake: operation and performance.
Trailer parking brake: operation and performance.
Motorcycle front brake: operation and performance.
Motorcycle rear brake: operation and performance.

Outcome 5

Inspection of vehicle chassis and attachments for:-

Chassis member: damage, corrosion, fracture, security.
Spare wheel and bracket: security.
Trailer coupling: security, wear, damage, locking.

Inspection of motorcycle frame for:-

Frame members: damage, corrosion.
Frame assembly: distortion.

Inspection of trailer couplings for:

Fifth wheel: security, wear, adjustment, fracture, locking.
Trailer coupling: security, wear, damage, locking.
Drawbar attachment pin: security, wear, damage, locking.
Landing legs: security, damage, pad/wheel security.

Inspection of driver's cab/area and fittings for:-

Driving controls: security.

Floor/step: security, wear.
Drivers seat: security, adjustment locking.
Rear view mirrors: adequacy, security.
Wiper/washer: operation.
View to the front: impaired.
Horn: operation.
Cab doors/hinges: security, obstruction, opening, closure.
Driver's area: obstruction.

Inspection of body for:-

Body mounting and fittings: security, alignment.
Cab mounting: security, tilt cab locking.
Wind deflector: security.
Body panelling and guard rails: security, damage, protrusions.
Wings and wheel arch: security, corrosion, wear, clearance.
Windscreen and windows: type of glass, damage, security, vision impairment.

Inspection of motorcycle for:-

Seat: security.
Footrests: security, anti slip surfaces.
Fairings/panniers: security.

Outcome 6

Inspection of vehicle passenger area for:-

Windscreen and windows: type of glass, damage, security, vision impairment.
Floors/gangways/steps/stairs: damage, weakness, hazards, excessive wear, security.
Passenger entrance: wear, operation.
Passenger seats: security, fracture, hazards.
Parcel rack guard: security.
Roof lighting: security, operation.
Bell/buzzer: operation.
Engine cover: security, fire hazard.
Passenger grab rail: security.
Passenger door: power operation, manual operation, security, retained open, retained closed, sensitive edge operation, door open warning, hazards.
Flap type/luggage compartment doors: security, protrusion, hold open, floor security.

Inspection of electrical and ancillary equipment for:

Battery isolator switch: operation.
Entrance/exit illumination: operation, adequacy.
Engine emergency stop control: operation.

Outcome 7

Inspection of electrical equipment for:-

- Battery - security, leakage, fume isolation.
- Wiring - security, fire hazard.

Inspection of road lamps and reflectors for:

- Obligatory front side lamps: security.
- Obligatory rear position lamps: operation, security.
- Rear fog lamp - security.
- Obligatory reflectors: security.
- Obligatory end-outline marker lamps: security.
- HGV rear marking: location, security.
- Direction indicators: operation, security, obstruction.
- Obligatory headlamps: operation, security aim, dip operation.
- Obligatory stop lamps: operation, security.

Outcome 8

Relevant information for prohibiting a vehicle from a road: vehicle owner/operator/driver, vehicle mileage, date and time of inspection, state of the vehicle when inspected (laden or unladen), identification of maintenance related defects.

All outcomes should be initially taught in a classroom environment regularly supported by workshop facilities with access to a range of vehicles and trainers.

Copies of the Vehicle Inspectorate Testers Manual for Light Vehicles and the Vehicle Inspectorate Categorisation of Defects Guide must be available for reference by candidates as required.

The necessary equipment must be provided, in a safe condition and ready for use by the candidates.

The methods and techniques of inspection and the standards applied, must be in accordance with the information given in the Vehicle Inspectorate Testers Manual for the type of vehicle being examined.

The emphasis must be on the identification of defects which present an immediate danger to public safety, and the accurate interpretation of the results of the inspection of vehicles and trailers, relative to the appropriate section(s) of the Vehicle Inspectorate Categorisation of Defects Guide.

APPROACHES TO GENERATING EVIDENCE Tutors should demonstrate the practical elements step-by-step and introduce the underpinning knowledge at the most appropriate stages of the programme. Safety and the use of safe working practices must be emphasised throughout the instruction and assessment.

The assessment of individual outcomes could be integrated as a complete vehicle inspection.

Written prohibition inspection reports should identify:

- (i) items inspected;
- (ii) an accurate identification of all the defects found;
- (iii) defects found which do not present an immediate danger;
- (iv) defects found which are immediately dangerous;
- (v) action to be taken with respect to each defect found.

ASSESSMENT PROCEDURES Centres may use the Instruments of Assessment which are considered by tutors/trainers to be most appropriate. Examples of Instruments of Assessment which could be used are as follows:

Outcomes 1-7

Performance evidence for outcomes 1-7 could be generated from the complete inspection of each of the following, as a summative assessment following a course of training:

- light vehicle;
- heavy goods vehicle;
- passenger carrying vehicle;
- motorcycle.

Knowledge evidence to support that provided by a demonstration of competence, could be provided by written and/or oral tests.

Outcome 8

This evidence could be in the form of a case study, based on inspection records and other information.

Performance evidence could be provided by the completion of written reports of the vehicle inspections carried out in relation to outcomes 1-7.

Knowledge evidence provided by the reports, should be supplemented by written responses to 10 short answer examination questions covering the application of the power to prohibit the use on a road of an immediately dangerous vehicle or trailer.

Satisfactory achievement of this assessment should be a minimum of 8 correct responses.

RECOGNITION Many SQA NC units are recognised for entry/recruitment purposes. For up-to-date information see the SQA guide 'Recognised Groupings of National Certificate Modules'.

REFERENCES

1. Guide to unit writing. (A018).
2. For a fuller discussion on assessment issues, please refer to SQA's Guide to Assessment. (B005).
3. Procedures for special needs statements are set out in SQA's guide 'Candidates with Special Needs'. (B006).
4. Information for centres on SQA's operating procedures is contained in SQA's Guide to Procedures. (F009).
5. For details of other SQA publications, please consult SQA's publications list. (X037).

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