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Vehicle standards — Specification for vehicle roadworthiness — Part 6: Roadworthiness — Requirements for combinations of vehicles

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Foreword

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ARSO Central Secretariat
International House 3rd Floor
P. O. Box 57363 — 00200 City Square
NAIROBI, KENYA

Tel. +254-20-2224561, +254-20-3311641, +254-20-3311608

E-mail: arso@arso-oran.org
Web: www.arso-oran.org

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Introduction

This standard consists of the following parts under the general title “Specification for vehicle roadworthiness”

Part 1: Roadworthiness of vehicles already in service

Part 2: Roadworthiness of vehicles prior to entry into service and thereafter

Part 3: Roadworthiness — Supporting information

Part 4: Roadworthiness — Requirements for vehicle examiners

Part 5: Roadworthiness — Requirements for testing equipment

Part 6: Roadworthiness — Requirements for combinations of vehicles

Vehicle standards — Specification for vehicle roadworthiness — Part 6: Roadworthiness — Requirements for combinations of vehicles

1 Scope and application

1.1 Scope

This Part 6 of the specification contains information to aid vehicle examiners or any person wishing to perform a visual inspection to determine whether a vehicle combination exhibits features or conditions which would result in it being classed as unroadworthy.

1.2 Application

This part of the specification is intended to be applied to heavy vehicle combinations where the combination mass exceeds 3 500kg, at a roadside inspection or whilst the combination is standing idle at a weigh station or customs post or similar and may be used as a walk-around visual check by any party including the operator, driver or an official.

No testing equipment nor special premises are required, although the availability of flat road or of an inspection pit will enhance the extent of the visual inspection that is possible.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ARS 1355-1, *Vehicle Standards — Specification for Vehicle Roadworthiness — Part 1: Roadworthiness of vehicles already in use*

3 Terms and definitions

For the purpose of this standard the following definitions and abbreviations apply.

3.1 Definitions

3.1,1
gross combination mass
GCM
maximum design mass of a combination vehicles and their load as specified by the manufacturer of the drawing vehicle on the vehicle plate

3.1.2
gross vehicle mass
GVM
maximum design mass of a vehicle and its load as specified by the manufacturer of the vehicle on the vehicle plate

3.4
registration plate / licence plate / number plate
the appropriately manufactured and embossed plate which is attached to the front and rear of a motor vehicle or the rear of a trailer and a motorcycle

3.2 Abbreviations

COF Certificate of Fitness issued after a periodic roadworthiness test which is to be displayed on the vehicle to which it relates

VTS vehicle test station

4 Visual inspection

4.1 General

The following list of items to be inspected or observed is provided to assist in achieving a comprehensive inspection.

NOTE Inspection of vehicle at roadside could reveal deficiencies which might not be observable when the vehicle is submitted for roadworthiness test.

4.2 Walk-around checks for items that are accessible and visible and that would result in a failure at a full roadworthiness test

(1) Check that the vehicle documentation (COF disc, together with licence/road tax disc and operator disc, if applicable) and number plates correspond and that the number plates are securely attached to the vehicles and that the COF is available.

(2) Check inside cab for any obvious risk to safety – damaged or missing controls.

(3) Check inside cab for loose seats, bunk beds and any other loose vehicle equipment.

(4) Check that doors can be opened and closed without using excessive force.

(5) Check for data plate with GVM, GCM and applicable provisions specified in ARS 1355-1.

(6) Check presence and condition and cleanliness of exterior mirrors.

(7) Check presence and condition and cleanliness of windscreen and side glass.

(8) Check operation of windscreen washers and condition of wipers.

(9) Check engine bonnets are properly closed and the cab on cab-over-engine is properly secured.

(10) Check chassis for excessive rust and for signs of distortion, cracks or missing or loose bolts or rivets on body mountings.

(11) Check that the batteries are properly secured and that no battery cables have damaged sleeves.

(12) Record the front tyre load index and speed index and tyre size.

(13) Check condition of all tyres for cuts, tread depth etc all the way round the whole combination.

(14) Check function of all lights, indicators, brake lights.

(15) Check chevron and yellow contour tape for presence, cleanliness, quality of retro-reflective material and colour as required by domestic legislation.

(16) Check wheels for damage and check that all wheel nuts are present and properly fitted.

(17) Check the landing gear on a semitrailer for signs of damage and that it can be operated.

(18) Check for excessive smoke when the engine is under load.

(19) Check if tyres of vehicle follow in straight line or if there is crabbing evident.

(20) Check that inner walls of dual wheels do not touch and that all tyres on an axle are the same size.

(21) Check pneumatic couplings and electrical couplings – whether connected, damaged, missing?

(22) Examine brake chambers that can be easily seen for bad lever adjustment, unmatched sizes of chambers or “wound-off” spring brakes.

(23) Check tool kit for the presence of a clevis or special tool for the release of the spring-brakes.

(24) Ask driver to repeatedly apply and release the brakes and observe movement of visible slack adjusters on all axles.

(25) Ask driver to rock the combination forward and backwards and study the movement at the 5th wheel(s) or at the mechanical couplings.

(26) Check the mounting of the 5th wheel to the chassis.

(27) Ask the driver to rock the steering ¼ turn and observe wheel movement of the steered axle and listen for abnormal noises.

(28) Check availability and status of fire extinguishers, triangles and chocks as required by domestic legislation.

(29) Check that dimensions of the units and of the combination are not exceeded.

4.3 Checks only if the site is absolutely level and chocks are available

(1) Position chocks at front and rear wheels and check that they are of suitable strength by releasing the brakes briefly.

(2) Ask driver to ensure reservoirs are charged and record how many full brake applications he can make before any warnings of low pressure.

(3) Then record how long it takes to recharge to full pressure.

(4) Listen for obvious air leaks.

(5) Check that air reservoirs have drain plugs which can be reached easily and request the driver to show that the reservoirs are drained of liquid.

4.4 Checks if a suitable inspection pit is available

(1) Examine for excessive corrosion, excessive wear, damage, missing or loose parts that would result in a failure at a full roadworthiness test.

(2) Check suspension springs and mountings for any damage or cracks, also pots and bellows with air suspension.

(3) Check for oil leaks which result in a larger spot than about 150mm diameter (on the floor) during the inspection.

(4) Check transmission and propeller shaft for worn mountings or any other visible damage.

(5) Examine brake chambers for bad lever adjustment, unmatched sizes of chambers or “wound-off” spring brakes or brake chambers that are clearly too small for the axle or brake.

(6) If a load-sensing valve is fitted check that its movement is not impeded.

(7) Check brake pipes and electric wiring for looseness or chafing marks, especially near the suspension.

(8) If brake linings or discs are exposed, then check for presence of linings and shoes.

(9) Check condition of inner sides of tyres for cuts, damage or obvious under-inflation.

(10) If hydraulic brakes, check for leaks or sweating on all pipe connections and on the wheel brakes.

5 Action in the event of a deficiency in roadworthiness being detected

In the event of a deficiency being detected which renders the combination unroadworthy a Vehicle Examiner may instruct the driver to take the vehicle to a specified VTS for further examination, with or without an escorting vehicle or according to a time and date as decided by the Vehicle Examiner.

In the event of a serious and dangerous deficiency the Vehicle Examiner issues a “Discontinuation of Use” notice in respect of the vehicle, which requires the vehicle to be towed to a location where the defects can be repaired.

Bibliography

SADC HT 105-6:2019, *SADC Harmonized Text — Vehicle Standards — Specification for Vehicle Roadworthiness — Part 6: Roadworthiness — Requirements for Combinations of Vehicles*