



April, 2009

## **ROADWORTHINESS INSPECTION CRITERIA FOR VEHICLES EXPORTED FROM SINGAPORE TO ZAMBIA**

All used vehicle(s) exported to Zambia from Singapore must pass the JEVIC Roadworthiness Inspection (RWI), as regulated by the Zambia Bureau of Standards, prior to export. The criteria includes the following;

**IMPORTANT:** Any vehicle not inspected in Japan and arriving in Zambia will incur a fee calculated on 15% CIF and subject to inspection upon arrival by ZABS.

### **1) VEHICLES**

- a) All vehicles include; small vehicles, passenger vehicles, commercial, multi-purpose vehicles (includes trucks and buses).
- b) Parts and components of the vehicle operate as manufactured.
- c) Vehicle(s) to be presented in a clean manner. Engine to be washed so the VIN and Engine number can be identified.
- d) No CFCs (R12)
- e) No Age Limitation
- f) RHD / LHD vehicles are accepted.

### **2) DOCUMENTATION**

- a) The vehicle must be presented with an authentic registration / deregistration card.

### **3) DETAILS**

#### **a) Visual Inspection**

- i) General Appearance
  - Cosmetic corrosion will not need to be painted over unless it exceeds 15cm in length or width.
  - No repair that detracts from the general appearance of the car (such as taping)
  - No damage that exceeds an area greater than the 1/4 of a panel in size
  - \* Rejected - any hole in the panel.
  - No sharp or dangerous projections (including broken aerial, etc)
  - No missing parts
  - No loose parts

RWI Inspection Criteria\_270409 04 ZA SG

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*Specialists in Pre-Shipment Inspections*

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ii) Doors

- To be able to open and close smoothly
- All components are fixed firmly
- To be able to lock
- Power operated doors to be able to be operated manually.
- Draft excluders and weather rubbers are present and working
- Sliding doors are able to be secured in the open position

iii) Interior

- All door, interior linings and upholstery are free from damage (such as open tears and staining) in excess of 10cm for passenger vehicles or 30cm for commercial vehicles
- Not containing a large amount of rubbish.
- Components are not to have any deterioration, looseness, and other excessive damage
- To be equipped with safety belts that function correctly
- No corrosion (if corrosion present this must be painted e.g. painting with chassis black (paster))

\* Standard of corrosion of cargo compartment for commercial vehicles such as vans; it is the same as that of trucks. (Refer to Truck section)

iv) Suspension / Underside

- No corrosion (if corrosion present this must be painted e.g. painting with chassis black (paster))

\* Excluding areas predetermined to rust (only unprotected from manufacture. e.g. differential case).

- No leakage of water, oil and fuel
- No tear's of the boots or bushes
- No loose mounts
- Shock absorbers operate normally

v) Exhaust System

- No leakage
- No excessive noise

vi) Tyres

- Correct size for the vehicle

\* Rejected – the tyres shall not touch the body

- No cracking, bulging or tear in the fabric which is more than 25mm longer or 10% of tread width
- Tread more than 1.6mm
- Fixed to the vehicle firmly
- Correctly inflated

vii) Engine Bay

- No fluid leakage including water, oil, or fuel
- Not containing a large amount of rubbish
- No excessive noise or vibration, and mechanisms functioning correctly
- No corrosion (if corrosion present this must be painted e.g. painting with chassis black (paster))
- No excessive deterioration or damage to the belts
- No fluid leakage from or sulphation of the battery



- All wiring and cables to be properly fixed.
  
- viii) Instrumentation
  - All functioning correctly
  - Main bulbs working (such as warning lamps and odometer display)
  - No warning lamps to remain on after the engine is started
  
- ix) Accessory (such as Air condition, Power window, Horn, etc)
  - All functioning correctly
  
- x) Lighting
  - All bulbs working
  - Switches functioning correctly
  - No damage to lenses such as cracks etc
  
- xi) Reflectors
  - Rear reflectors need to be colored red
  - Front or middle reflectors need to be colored in orange
  - Securely attached
  
- xii) Mirrors
  - To be able to retract backwards
  - If able to be stowed; operating correctly.
  - Securely attached
  
- xiii) Wipers
  - Function correctly in accordance with switch operation
  - No corrosion (if corrosion present this must be painted e.g. painting with chassis black (paster))
  - Rubber blade functioning correctly

\* Rejected – deterioration of rubber blade
  
- xiv) Glazing
  - No crack longer than 15cm in the front windscreen
  - No crack longer than 2cm or “star” damage diameter greater then 1.5cm immediately in the drivers line of vision (the right-side from the inside of the car)
  - The glass of the windscreen, driver’s window and front passengers window will be of clear glass (except for original manufacturers color)

\* Rejected – any tinted films and stickers

  - Marked with appropriate safety standards



## b) Inspection Using Testing Equipment

### i) Side Slip

Side Slip : 5mm in/out for 1m travel

### ii) Speed meter

Reading : between 31~44.4km/h (driving at 40km/h)

Deflection : within +/-3km/h (driving at more than 35km/h)

### iii) Brake

Sum of main brake : more than 50% of mass (vehicle weight+55kg)

Sum of parking brake : more than 20% of mass (vehicle weight +55kg)

Sum of rear wheel brake : more than 10% of axis weight

Front Pull : within 8% of axis weight

(front: axis weight+55kg / rear: axis weight)

### iv) Headlight

Illuminance

4 lights : more than 12000cd

2 lights (available low beam light at the same time) : more than 12000cd

2 lights (not available low beam light at the same time) : more than 15000cd

Light axis

To be set within 10m from the front of the vehicle.

### v) Exhaust

Petrol

CO : under 3.5%

HC : under 1200ppm

Diesel (metered smoke test)

Turbocharged : within 53%

Non-turbo : within 48%

## c) Operational Testing

### i) Abnormality at driving

No excessive noise or abnormality when driving the vehicle.

### ii) Abnormality at idle

No excessive noise or abnormality when vehicle is at idle.



**Corrosion in trucks: 1**



a)

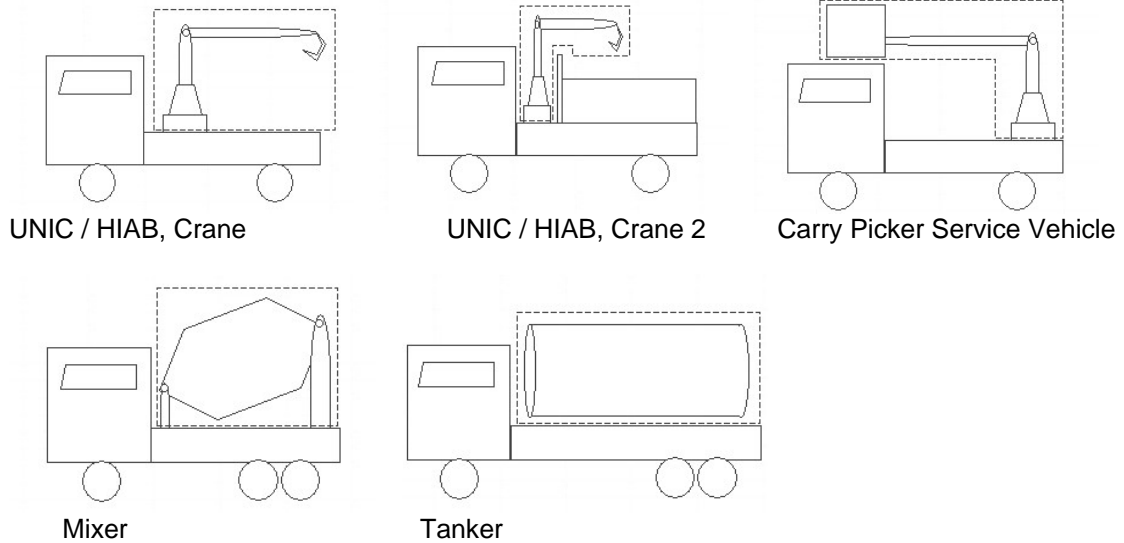
b)

- a): The area within the red dotted lines is required to be painted.
- b): Same as figure a), but the range in blue (bottom and sides of cargo area) can be approved with surface corrosion present.

**Corrosion in trucks: 2**

These areas are not considered as a part of the vehicles body

\* The standards of corrosion and damage will not be applied to the parts within dotted line



\* As a basic policy, flat deck and sides of the cargo area of the truck are considered as a part of the body to which this criteria is applicable.

**NOTE: ALL INSPECTION CRITERIA IS REGULATED BY THE ZAMBIA BUREAU OF STANDARDS.**

END