

**Department of Road Transport**

**MANUAL vehicle inspection saloon  
And light trucks up to three tons gross  
LOAD**

**This Manual is not a legal document.**

The purpose of this manual is to establish guidelines for the technical inspection of vehicles for both Line Managers as specified in the Contract Award Services (T.O.M. 1/2001) and for owners of vehicles subject to scrutineering.

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**This Manual may be reviewed periodically. About such changes will be provided by the Road Transport Department.**

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**KEY OBSERVATION**

**E - Recheck**

**F - Observation**

**E / TOM - refer to the Member Center Inspection**

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## 1. REGISTRATION AND LICENSE HOLDERS, CHASSIS NUMBER AND ENGINE NUMBER

- 1.1. Check registration number (license plate) and authorization of legality validity and secure placement.
- 1.2. Checking VIN and engine numbers for legality, validity and secure fastening where there is a sign manufacturer.

CONTROL	CAUSES OF FAILURE	ENERGY
Signs (PI 189/2000)	1a. Absence	E
	1b. Poor fixation	F
	Two. Absence of digits	E
	Three. Wrong size or colors (Note 1)	F
Frame number.	4. Difference of title deed	E / TOM
	5. Does not exist or is different from that used in title property.	E / TOM

Machine number

6. Does not exist or is different from that used in title property.

E / TOM

NB

For vehicles inscribed before 01/01/78: -

(Billboards with white or silver digits a black background.)

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**Two. EXHAUST EMISSIONS**

2.1. Apply the official control basis of Directive 96/96/EEC.

	<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
1	Exhaust noise	- Unusual noise high-intensity	E
2	<b>Exhaust emissions</b>		
2.1.	<b>Motor vehicles with spark ignition (petrol)</b>		
	(A) when emissions are not regulated by advanced emission control system		

such as three-way catalytic converter  
closed-loop controlled  
lambda probe:

lambda probe:

(I) Visual inspection of  
exhaust system in order  
be checked for leaks

1. Leaks  
(Eg punched)

E

(Ii) Visual inspection of  
emission control system, if the  
examination is possible,  
to check if there  
where the necessary equipment

Two. Lack of technical  
equipment (balconies)

E

After a reasonable period of time  
required to reach the engine  
in normal mode  
(Taking into account the recommendations of the  
manufacturer), measured at the state  
idle (idle) and  
disengaged, the  
content of the exhaust gases  
monoxide (CO).

The maximum content of  
the CO is that  
specified by the vehicle manufacturer.

Three. Over the limit  
determines the  
manufacturer

E

If this element is not  
available, the content of the exhaust  
in CO must not exceed:

- Regarding  
Vehicles registered or put into  
service for the first time between  
1<sup>st</sup> August 1975 and 1<sup>st</sup> October, 1986: CO - 4,5% vol

4. More than 4.5% by  
volume

E

- Regarding  
Vehicles registered or  
put into service for the first time  
after 1<sup>st</sup> October 1986: CO -  
3.5% by volume.

5. More than 3.5% by  
volume

(B) Where the exhaust emissions  
controlled by an advanced system  
emission control, for example  
three-way catalytic converter closed  
circuit controlled sensor  
Lambda:

(I) Visual inspection of  
exhaust system

6. When there  
leaks or parts not

E

order to check if leaks and if all parts are complete	is full	
(Ii) Visual inspection of emission control system order to check if is that the required technical equipment	7. Lack of technical equipment	E
(Iii) determination performance of the control system emission vehicle measuring the lambda value and the content of the exhaust CO in accordance with the provisions of point (iv) below or according the procedures proposed by the manufacturer. For each test, the vehicle's engine must be reaches the normal state Operating in accordance with the manufacturer's recommendations.		
(Iv) Emissions termination system Exhaust - limit values		
- measurement with the engine in idle	8. Over the limit determines the manufacturer or more than 0,5% volume accordingly	E
the maximum allowable content in the exhaust gas CO which determines the the vehicle manufacturer. In If the value is not known, the CO content exceed 0,5% volume.		
- measurement during no load operation engine accelerated (idle) idling. The rotation speed the engine must be least 2000 rpm:	9. More than 0,3% volume	E
- content CO: not more	10. Outside the scope Addition of 0.97 to 1.03 or	E

than 0.3% by volume. defined fields  
 - Lambda:  $1 \pm 0,03$  or the manufacturer

as provided  
manufacturer's specifications.

	<b>Checkpoints</b>	<b>Reasons for failure</b>	<b>ENERGY</b>
2.2.	<b>Vehicles with diesel engine (ignition compression)</b>		
	Measurement of opacity exhaust during free no load speed engine from idle up to 70% of the speed at which inhibited the fuel supply. The concentration should not exceed that nameplate manufacturer. In case the This item is not available, as limit values for the maximum rate absorption is obtained:	11. Above concentration nameplate manufacturer	E
	diesel engines with natural absorption: 2,5 m -1	12. Over 2,5 m -1	E
	- diesel engines Overflow: 3,0 m -1	13. Over 3,0 m -1	E
	For vehicles registered or put into service for the first time before 1 January 1980.	14. Emerges visible black smoke or visible exhaust gas	E



**Three. BRAKE**

- 3.1. Check the status of implementation of the lever Handbrake gambling and if lock when he applied.

(MACHINE CONTROL BRAKING PERFORMANCE)

- 3.2. Check that the handbrake locks least two wheels measure the performance.

(METER RETARDANT)

- 3.3 Where not applicable testing machine performance brake control is to counter slowdown braking the vehicle with the parking brake from speed of 25 kilometers.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Handbrake lever	1. Absent is cracked or not secure.	E
	Two. Deletes great route.	F
Mechanism with gears, insurance	1. Missing or worn.	E
	Two. Does not lock.	E
Performance / Performance (Roller tester)	1. O ratio of braking per mass of vehicle is presented. Lower 12%	E
	Two. Yield differential left-right Brake over 30%	E

#### 4. BRAKES

4.1. Check points in the table below where applicable

CONTROL	CAUSES OF FAILURE	ENERGY
Mechanical condition and function.		
Axes center brake, brake lever.	1. Difficulties in activating	E
	Two. Diversion of socket	E
	Three. Excessive wear / play (slack)	E
Condition and travel podostiriou of the brake mechanism.	1. Excessive or insufficient route	E
	Two. Brake control not releasing correctly pause the action to the system	E
	Three. No missing, loose, or has been smoothing due to wear in slip podostiriou cover.	F
Assist Brake (AUMA) master cylinder (Hydraulic systems).	1. Failure or malfunction actuator.	E
	Two. Damaged or leaking master cylinder.	E
	Three. Insufficient fixation of the central cylinder	E
	4. Insufficient amount of brake fluid	F
	5. There reservoir cap master cylinder	F
	6. The brake fluid is too dirty or contaminated	E
	7. The brake fluid warning light remains illuminated or damaged.	E
	8. Incorrect functioning system warning Poetry for the fall of the level of brake fluid.	E
Rigid pipes braking system.	1. Damage or breakage (Cracked Loose)	E
	Two. Leaks from pipes or connections (Nipple).	E

Three. Damage or excessive corrosion	E
4. Incorrect placement.	E

Hoses braking system.	1. Damage or breakage (Rusty)	E
	Two. Wear, friction points, too short brake hoses, twist.	E
	Three. Leaks from hoses or from their connections.	E
	4. Show resources.	E
Friction surfaces brake Coverings (lining pads)	1. Excessive wear	E
	Two. Oils, grease, challenging the friction surfaces.	E
Drums, discs	1. Excessive wear, scratches, cracks or cracks or other defects that reduce safety.	E
	Two. Drums or discs soiled by oil, grease etc.	E
	Three. Bad fastening of the support plate	
Cables and executives rods (rods) braking system.	1. Worn cords, knotted	F
	Two. Excessive wear or corrosion	E
	Three. Missing security on connections between cable or rod	E
	4. Insufficient fixation of the wires	F
	5. Restrictions on freedom of movement brake	E
	6. Abnormal movement of bars / joints maladjustment	F
	7. Excessive wear	E
Brake cylinders (Including brakes springs and hydraulic cylinders).	1. Cracked or damaged	E
	Two. Leaks	E
	Three. Defective assembly	E
	4. Excessive corrosion	E
	5. Excessive cylinder stroke	E
	6. Missing or excessively damaged protective dust cover	F
Sensing valve adjustment Load sensing.	1. Poor connection	E
	Two. Maladjustment	E
	Three. Does not work (stuck)	E
	4. Missing	E

Vending - Slack levers	1. Not work, stuck or abnormal movement, excessive wear or maladjustment Two. Malfunction	E E
System slowdown (Where available)	1. Mismatch or link Two. Malfunction	E E
Operation and effectiveness main system		
Braking		
Performance (increased gradually up to a maximum price)	1. Inadequate braking effort on a or more wheels Two. Braking effort from any wheel is less than 70% of	E
	highest recorded effort from another wheel the same axis. If the conducts technical inspection finds that needs additional testing braking on the road, and finds that the vehicle's deviation from a straight line is excessive.	E
	Three. No gradual change effort braking (grabbing)	E
	4. Abnormal operation of the delay brakes at any wheel.	E
	5. Excessive fluctuation of effort braking due to distorted discs or oval drums	E
Return	Ratio of brake effort by mass the vehicle control is shown for less than 50%	E
Performance and efficiency the auxiliary brake (If it exists as separate system)		
Performance	1. Sided operation Two. Braking effort from any wheel is smaller than 70% of highest recorded effort from another wheel on the same axis. Three. The braking effect of not gradual variation (blocking)	E E E

Return	1. For all vehicle categories braking ratio less than 50% of the service brake performance mentioned in section 4.2.2 in relation to the maximum mass.	E
	Two. For vehicles of category 5 are minimum performance of the secondary Braking is 2.2 m / s <sup>2</sup>	E
Performance system deceleration or braking halt exhaust	1. The braking effect of not gradual variation (retarder)	E
Braking system anti-lock	Two. Faults 1. Malfunction indicator system Two. Defective.	F E

**NB**

Where oval drums discs (ovality) the vehicle  
rejected unless the vehicle during braking moves to one side or  
sense the deformation of the podostirio.

**5. Driver's seat**

5.1. Observe the mounting seat for any undue movement and  
general condition of the seat.

CONTROL	CAUSES OF FAILURE	ENERGY
Driver's seat	1. Loose, unsafe. Two. Adjustment mechanism damaged. Three. Excessively worn / makes dangerous driving.	F F E

## 6. FIELD GUIDE - VISIBILITY

- 6.1. Turn on the wipers and observe if the field of vision providing sufficient.
- 6.2. Check the jets for proper operation.

CONTROL	CAUSES OF FAILURE	ENERGY
Field	1. There is anything which reduces the optical field beyond the authorization	F
Mirrors (Two or more)	Two. Cracked	F
	Three. Broken or missing	E
	4. Poor fixation	F
Wipers	5. Worn tires or absent	F
	6. Warped strain	F

Screenwashers	7. Not provide adequate cleaning of the glass	E
	8. Do not make any water or the amount of water is not satisfactory	F
	9. Is not configured correctly to provide water in the right direction	F
	10. Worn tires for water supply	F
	11. Misapplication Tires points application	F

**7. HORN**

- 7.1. Check that the controller for the horn is close to the driver.
- 7.2. Check for proper mounting of the horn and the controller.
- 7.3. Operate the horn and check that the sound is continuous and has satisfactory intensity.

**CONTROL**

**CAUSES OF FAILURE**

**ENERGY**

Horn

1. Does not work or does not exist.
- Two. Not working satisfactorily.
- Three. Loose mounting horn.
4. Control outside the field guide.
5. Loose mounting controller.

E  
F  
F  
F  
F

**8. GLASS**

- 8.1. Check the state of all windows.



- 8.2. Check that the glass is safety glass.
- 8.3 Check to ensure an adequate field of vision to the driver.
- 8.4 Laminate (Laminated after 1.1.86.)

CONTROL	CAUSES OF FAILURE	ENERGY
1. Windshield	1. There is safety glass.	E
Two. Rest glazing	Two. There are safety glass (All records since 1964).	E
	Three. Limited visibility.	E
	4. The driver's window does not open.	F
	5. Windscreen cracked field driver visibility (over 20mm)	E
	6. Absence windows.	E
	7. There is laminate after 01/01/86	F

## 9. BELTS

- 9.1. Check that there is the anticipated number and type seat belts.  
(BS3254, DIN75400, JIS D4604, 77/541/EOK, UN-ECE R16 + R44, 8853/98FIA,  
8854/98FIA)
- 9.2. Check that they are properly installed and in good condition.
- 9.3. Check that lock / unlocked and working correctly.

CONTROL	CAUSES OF FAILURE	ENERGY
Bases belt.	1. Absence of bases.	E
	Two. Loose mounting bases	E
Seatbelts.	1. Absence zones.	E
	Two. Bad shape zones.	E
	Three. Malfunction.	E
	4. Inconsistent with the provisions standards.	F

**10. STEERING (STEERING)**

- 10.1. Check twisting side to side if the wheel has play in relation to wheels.
- 10.2. Check if there is play in the vertical axis in relation to the pulling wheel and pushing the steering wheel slightly.

## NOTE:

1. If the steering system features flexible couplings (flexible coupling), make sure that playing, not due to this construction, when it is expected.

Two. Welds other than those of the manufacturer considered cause of failure.

CONTROL	CAUSES OF FAILURE	ENERGY
Mechanical condition		
Play (play or slack) steering	1. Excessive rotational play / play / Lasko: <b>20 The</b> more of the handlebar	E
	Two Excessive rotational play / play / Lasko: <b>5 The</b> more to the rack wheel (/ Rack & Pinion)	E
	Three. The steering system (wheel / beam / axle) has excessive play / play / slack in any other direction or is unsafe or broken.	E
Support system Address	4. Mounting points - anti-friction rings (foot) / bracket support - in wheel / strut / steering axle is worn, broken, unsafe or absent.	E
	5. The pin in telescopic beam is broken.	E
	6. The articulated joint steering is broken, damaged, insecure or damaged.	E
	7. One of the mechanisms retaining or locking is insecure or absent.	E
'Ball bearings (Bearing)	8. Bearings are worn, broken, insecure or absent.	E

**11. DOORS - LOCKS**

- 11.1. Open the doors and the lift up to check the play in the hinges.
- 11.2. Close the doors checking to insure / unlocked and no risk to open unexpectedly.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
DOORS	1. The doors are missing.	E
	Two. Damaged hinges.	E
	Three. Damaged locks.	F
	4. The doors do not lock / unlocked or open unexpectedly.	E
	5. Absence handles in or out (Does not open the door).	E

## 12. BRAKE LIGHTS

- 12.1. Having open the switch and pressing the brake podostirio observe operation of brake lights.

CONTROL	CAUSES OF FAILURE	ENERGY
Brake lights.	1. Absent.	E
	Two. This is broken.	E
	Three. Not the brightest of lights position (microns).	F
	4. No red color.	F
	5. It is broken or cracked too.	E
	6. Not shown, 50% of the light seen from the rear of the vehicle.	E

**13. POSITIONS AND REAR LIGHTS LIGHTS REAR PLATE**

- 13.1. Check that the rear position lights are red in color and is visible from some reasonable distance.
- 13.2. Check that the light (s) rear plate is white and illuminate satisfactorily plate.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
1. Rear position lights	1. This is broken.	E
	Two. Missing or broken.	E
	Three. No red color.	F
	4. There are symmetrical points.	F
Two. Rear plate	5. The sign is not visible in the dark.	F
	6. Do not work or do not exist.	E
	7. Not illuminate with a white light the sign.	F

**14. NAVIGATION LIGHTS - Hazard**

- 14.1. Turn on the lights direction and check that:
  - 14.1.1. Operate at a reasonable frequency (60-120 times / min)
  - 14.2.2. They have a yellow color.
  - 14.2.3. There is evidence that the driver knows that it works.
- 14.2. Turn on hazard lights and check that they work with switch closed or open.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
1. Directional lights	One or more: 1. Absent or not prominent. Two. This is broken. Three. Not operate at a frequency of 60-120 times / minute.	E E F

	4. Their function is affected by the operation of other system.	F
Two. Hazard	5. Not all simultaneously frequency 60-120 times / minute.	F

**15. LIGHTS (BIG) LIGHTS AND INTERSECTION (MEDIUM)**

- 15.1. Check that successively running lights and low beam, respectively, satisfactory emit light with the same color (white or yellow).
- 15.2. Place the machine adjustment control lights in front of each light and check the slope of the beam.

**NB**

1. For other types of said follow the manufacturer's instructions.

Two. Check the tire pressure for accurate results.



Three. If there is additional lighting is not considered part of the audit.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Running lights (large) and beam (middle)	1. Not light	E
	Two. The display flash your headlights not switched simultaneously	F
Condition and operation	Three. Deformed or broken	E
	4. The lantern is absent	E
	5. Excessive dirt at traffic lights or corrosion	F
Alignment	6. Excessive deflection of the beam the straight line as shown in 15A, 15B, 15C	F
Switches (switches)	7. Dropouts	F
	8. Worn	F
Color	9. No white or yellow	F

### 15.A. EUROPEAN "S" TYPE (FOTA INTERSECTION)

<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
1. The lenses are mounted in reverse (right - left)	E
Two. For lenses with center not more than 850 mm above the ground or horizontal line (cut - off) is outside (red) lines (0.5% - 2%)	E
Three. Lens centered above 850 mm from the ground and the horizontal line (cut - off) is outside the (blue) line (1.25% - 2.75%)	E
4. The junction of horizontal and sloped line (break point) is:	
• Most of the right vertical dashed (0%)	F
• Most of the left vertical dashed (2%)	F

<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
1. The lenses are mounted in reverse (right - left).	E
Two. The upper edge of the central stack light (hot spot) is above the horizontal dotted (0%)	E
Three. The upper edge of the central stack light (hot spot) is below from the horizontal line (2.75%)	F
4. The right edge of the central stack light (hot spot) are: - <ul style="list-style-type: none"><li>• Most of the right vertical dashed (0%)</li><li>• Most of the left vertical dashed (2%)</li></ul>	F F

**15.G. LIGHTS (HIGH / HIGH)****CONTROL****ENERGY**

The center of the central stack lights (hot spot) are:

- |  |   |
|--|---|
| 1. Above the horizontal dashed line 0%   | F |
| Two. Further to the right of the vertical dotted line 0%   | F |
| Three. The left of the vertical dashed line 2%   | F |
| 4. For lenses with center not more than 850 mm from the ground center<br>central stack lights (hot spot) is below the<br>horizontal line 2%. | F |
| 5. Lens centered above 850 mm from the ground center<br>Central Res. lights (hot spot) is below the horizontal<br>line 2.75%.                | F |

**16. BODY**

Check the body for rust advanced degree, an unexpected sharp edges that may cause injury. Check that the exhaust fumes can not enter the cabin. Check that the chassis is correctly positioned in the frame (chassis).

<b>POINTS CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
General situation	1. Cracks, noticeable deviation from alignment, advanced corrosion or other main damage that affects the safety of vehicle	E / TOM
Tanks and plumbing fuel	Two. Leaks, corrosion, loose connections, extensive damage or distortion due Flip	E
Reception spare wheel (Spare)	Three. The spare wheel can be securely mounted	E
Safety mechanism link (if available)	4. Absent	E
Chassis	5. The initial construction pieces body is broken, cracked, unsafe or rusty in advanced degree	E
	6. Two halves of different body vehicles have been joined together.	E / TOM
General situation	7. Advanced corrosion	E
	8. Apparent alteration of the geometry of the vehicle (The body does not align	E
Doors and locks	9. The doors do not close properly or unlocked alone	E

10. The area around the mounting points are corroded to the point that make support unsafe

E

## 17. TIRES

17.1 Check the tires or the foot is cut off.

17.2 Examine tires for:

- a cut off or cracking weave.
- b Bumps or distortion.
- C. Disclosure of fabric or frame.

NB

Problem with the extra tire is not cause failure.

CONTROL	CAUSES OF FAILURE	ENERGY
Wheels and tires	1. Indication of cleavage by	E
	TwoThe tire does not fit snugly on the rim the wheel (rim)	E
	Three. The rim is stamped or distorted slightly	F
	4. Difference in tire size	E
	5. Difference in the type of tire (eg different tread pattern)	E
	6. There are slots in the hose greater of 25 mm or greater than 10% of width of the wheel is deep enough to reach the internal reinforcement of tire (tilt)	E
	7. Bursting of internal reinforcement or when it looks to the naked eye, lifting or paw swelling caused by the separation of the outer hose	E

- aid, slimming aid  
Tread deformed or broken.
- |   |   |
|---|---|
| 8. Visible deformation or breaking the stem valve   | E |
| 9. The valve stem is notoriously worn   | E |
| 10. Eating the tread depth of less 1.6 mm, measured at a distance of ¾ of the center of the tread | E |
| 11. Eating the tread depth of less this indicates that the same tire                              | E |

**18. INLINE STEERING**

- 18.1. Check front wheels for angular deviation.
- 18.2. Check for voltage derogation course some wheels in relation to the opposite counterpart.
- 18.3 Check for uneven tire wear.

Note Please check the prices of the manufacturer (camber etc.)

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Wheel alignment	Indication alignment (side slip) between + / - 5 - 10mm / m	F
	Indication alignment (side slip) more of + / - 10mm / m	E

**19. FRAME (frame - Chassis)**

- 19.1. Check the frame members for any deformation, cracks or advanced corrosion.
- 19.2. Check welds / security screws / nails fasten if members security.
- 19.3. Observe for any movement in the compounds of the frame members.

**NB**

a control extends only to the parts that are visible without the need to dismantled vehicle parts.

B. Particular attention be given to the parts that are covered with mud.

c If there are distortions that fall under the test specifications manufacturer.

**CONTROL**

**CAUSES OF FAILURE**

**ENERGY**



	1. It consists of 2 or more welded parts	E / TOM
Chassis, frame	Two. Welds detached.	E
	Three. Cracks, insecure containment States.	E
	4. Loose nails / screws.	E

## **20. SUSPENSION**

### 20.1. Suspension

- 20.1.1 For hanging like Figure 1 lift the front / rear suspension order the wheels are not touching the ground, please check the movement of articulated joints (swivel joints)
- 20.1.2 For hanging like Figures 2 and 3 lift the front / rear suspension that the wheels do not touch the ground, the wheels and shake to determine the condition of the ball joints (ball joints)
- 20.1.3 For hanging as Figure 4 lift front / rear suspension order the wheels are not touching the ground and shake the wheels to determine the status of the rolling fingers and collar (Gland), and the upper bushing.

Please check the support area (strut casing) and external spherical joints deformation or excessive wear.

- 20.4 Generally double check the status of all links and anti-fingers, shaft ends, scissors, rods suspension globular joints, rods stability subframe (crossmember), shaft for advanced corrosion, distortion, cracks / fractures or large gambling.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Shaft, scissors, a central arm	1. Besides directly.	E
	Two. Loose joints.	E
	Three. Cracks or deformities.	E
Stability rod, rod Post	4. Cracks / fractures	E
Bushings, spherical joints, moving rings compounds or reverse	5. Excessive gambling	E
	6. Worn or rusted in high degree	E

## **20.2 FRONT / REAR SPRINGS**

- Please check the following:
- 20.2.1 Spring blades with the blades
- 20.2.2 Elikoides spring
- 20.2.3 Suspension with pneumatic

20.2.4 Torsion bar

20.2.5 Support clamps or claws

CONTROL	CAUSES OF FAILURE	ACTIONS A
Spring (Flats / elikoides)	1. Eaten / exhausted / broken.	E
	Two. Broken blade, there gluing or absent blade.	E
	Three. Claws of elikoidous spring loose or missing.	E
	4. Screws (U-bolts) loose or absent	E
SPRING PAD torsion bar	5. Loose / missing	E
Central screw	6. Missing / broken	E
Suspension with hydrogen gas or air suspension	7. Leaks	E
	8. Defective flow valve	E
	9. Unsatisfactory move	E

### 20.3 Shock (plywood clasp)

- 20.3.1 Please check for leaks
- 20.3.2 Please check attachments
- 20.3.3 Control the effectiveness Vibration

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Suspension	1. The shaft (axle beam) is clearly outside directly	E
	Two In relation to the support points wishbones, swinging arm, track control arm, suspension strut is notoriously loose or worn, cracked, broken or deformed	E
	Three In relation to the points of anti-roll bar, torque arm / rod, radius rod / link absent or support are loose, cracked, broken or deformed	E
	4. The bushings, links with Beal, moving or articulated rings Links of excessive wear or unsafe or area support is distorted or corroded to such as to affect the alignment or security to support them.	E
Clinch studs (Shock absorbers)	5. Absent	E
	6. Exterior stroke or rust in casing point against the stud not working	E
	7. Fluid loss indicating that the seal is damaged	E
	8. Extensive damage to the lever, shaft or ring (foot)	E
	9. Ineffective damping (Total yield below 50%)	E

**21. ELECTRICAL SYSTEM**

- 21.1. Check your battery for good fastening.
- 21.2 Control the state associations and visible cables.
- 21.3 Please check the fan belt / alternator (alternator) / dynamo

**NB: DANGER VRACHYKYKLOMATOS**

Please check that the poles of the battery are not in contact with the bonnet when it is closed.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Accumulators	1. Unsatisfactory fastening	F
	Two. Risk of short circuit	E
	Three. Leakage	F
Cables and associations	4. Loose associations	F
	5. Risk of short circuit	E
Alternator / dynamo	6. Loose	F
	7. Not charging	F
	8. Does not work	F
Fan belt	9. Loose, abraded	F

**22. FUEL SYSTEM**

- 22.1 Please check the fuel tank for good fastening.
- 22.2 Check to see that there is security (cap) at the mouth and that insures tank.
- 22.3 Check to see that there are no fuel leaks
- 22.4 Please check the fuel lines. You should not have corrosion, loose associations or large distortions.
- 22.5 Sitting in the driver's seat double check that the regulator (patidi) acceleration operating normally, no loose or corroded and not preventing the course of other components / objects.
- 22.6 Please check that the knob off the engine running on diesel normally.
- 22.7 Please check that the air filter is present and securely.

**NB**

The review is limited to visible signs and disassembly of components not necessary.

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Fuel tank, filters fuel pipes	1. Loose associations or fixation	E
	Two. Corrosion, distortion, damage	E
	Three. Leakage	E
Air Filters	4. Lack of security (cap)	F
	5. Loose mounting or absent	F
Acceleration slider (Patidi)	6. Hindered the progress of	E
	7. Loose or corroded	F
Engine switch	8. Absent or not working	E

**23. EXHAUST SYSTEM / OCHLISEIS**

23.1 Control the state of the exhaust and muffler

23.2 Ensure that silencers reduce, to a reasonable degree, the noise from engine

<b>CONTROL</b>	<b>CAUSES OF FAILURE</b>	<b>ENERGY</b>
Evaporation	1. Loose connections, associations	F
	Two. Exhaust leaks / Noise	E
Silencers	Three. Absent does not work	E
	4. Loose connections, associations	F
	5. Exhaust leaks / Noise	E
Generally	6. Fire due to leakage or extensive damage	E