MAZDA BONGO PETROL EMISSIONS
UNTILL SEPT 2002

In my opinion prior to september 2002 Mazda bongos should NOT have to pass a catalyst emissions test due to the fact they left the factory with 7 Passenger seats and therefore are not defined as a passenger car by DVSA

Please take note of the following sections of the inspection manual which are highlighted in yellow and the flow chart for Non Passenger cars

You may need to check this information with your local DVSA officer or approved testing station

8.2.1. Spark ignition engine emissions

8.2.1.1. Exhaust emission control equipment

This inspection is only for vehicles that must have a full catalyst emissions test (disregarding the basic emissions test). You only need to check components that are visible and identifiable, such as catalytic converters, oxygen sensors, and exhaust gas recirculation valves.

Defect	**Category**
(a) Emission control equipment fitted by the manufacturer: missing, obviously modified or obviously defective	Major
(b) An induction or exhaust leak that could affect emissions levels	Major

8.2.1.2. Gaseous emissions

You must inspect vehicles with spark ignition engines first used on or after 1 August 1975.

You do not need to check:

- L category vehicles
- hybrid vehicles - with electric and combustion engines
- hydrogen fuel cell vehicles
- two-stroke engines - unless they are subject to a catalyst test

If an engine has been modified in any way, it still must meet the exhaust emission requirements according to the age of the vehicle.

For emissions purposes only you should treat the following as first used before 1 August 1975:

- kit cars and amateur-built vehicles first used before 1 August 1998
- Wankel rotary-engined vehicles first used before 1 August 1987
- Q plated vehicles

To prevent the build-up of fumes, the test should be carried out in a well-ventilated area.

Personal imports

A personal import must be tested according to its date of first use. However, if you're shown a letter from the vehicle manufacturer proving that the engine does not meet British emission standards you must test to the next lower emission standard.

For example, a 1995 car first used in Gambia with a letter from the engine manufacturer stating the engine number and showing that the engine cannot meet catalyst emission limits, you must use the non-cat limits of carbon monoxide (CO) 3.5% and hydrocarbons (HC) 1,200ppm.

Vehicles fitted with a different engine

If a vehicle first used before 1 September 2002 is fitted with an engine that's older than the vehicle, you must test it to the standards applicable for the engine. The vehicle presenter must have proof of the age of the engine.

If a vehicle first used on or after 1 September 2002 is fitted with a different engine, you must test it to the emissions standards for the age of the vehicle.

For emission standards on kit cars, read further.

Kit cars

Kit cars and amateur-built vehicles first used on or after 1 August 1998 must have either Single Vehicle Approval (SVA) or Individual Vehicle Approval (IVA).

You must test kit cars or amateur built vehicles to the limits in the vehicle's registration document (V5c). If the V5c does not show any

limits, you must test it to the limits of the engine fitted at the time of the SVA or IVA test.

Vehicles exempt from emission limits

Some vehicles may never have been able to meet the MOT limits for CO or HC emissions. The vehicle owner must provide proof of this, such as a letter from the vehicle manufacturer. If the vehicle owner cannot provide proof of this, you must fail the MOT test if the vehicle is not within the emissions limits.

Passenger cars

A ‘passenger car’ is a vehicle that:

- is constructed or adapted to carry passengers
- has up to 5 passenger seats, excluding the driver’s seat
- has a DGW not exceeding 2,500kg
- is not a goods vehicle, such as a pick-up or a car-derived van

If you’re not sure if a vehicle is a passenger car, you can confirm it by:

- getting the DGW from the manufacturer’s VIN plate
- checking if the vehicle is listed in section 2 of the current emissions data book
- checking the owner’s handbook or a data book

If you cannot find proof that the vehicle is a passenger car, you must assume it’s not a passenger car.

Specialist conversions

For emissions purposes, you must treat specialist conversions as if they had not been converted.

For example, a motor caravan or ambulance converted from a goods vehicle is still to be treated as not being a passenger car, whereas an ambulance converted to a goods vehicle, or a passenger car with seats added is still to be treated as being a passenger car.

Similarly, a vehicle originally built with 6 or more passenger seats, in addition to the driver, which has had seats removed must be still treated as **not** being a passenger car.

Testing dual exhaust systems

A dual exhaust system has 2 separate pipes from the engine manifold to the tailpipes.

You need to average the emissions from both tailpipes - even if the system has a balance tube between the separate pipes.

To average the emissions, you add both readings together and divide by 2.

For example:

- 1st pipe emits 0.3% CO and 200 ppm HC
- 2nd pipe emits 0.1% CO and 150 ppm HC

Average CO reading is: $\frac{0.3 + 0.1}{2} = 0.2\%$

Average HC reading is: $\frac{200 + 150}{2} = 175$ ppm

If a vehicle has an exhaust holed to the extent that it will fail its MOT, you should recheck the emissions when the exhaust is repaired even if the vehicle does not leave the testing station. You should tell the vehicle presenter that any emission readings taken with a leaking exhaust might be incorrect.

Vehicles which run on more than one fuel, such as petrol and LPG, should be tested on the fuel they are running on when presented.

Testing LPG engines

The hydrocarbon (HC) emissions on vehicles running on LPG are propane and not hexane. The HC reading obtained must therefore be divided by the ‘propane/hexane equivalency factor’ (PEF) marked on the gas analyser. For example: If the HC reading = 180 ppm and the PEF marked on the machine is 0.48.

The actual MOT value is: $\frac{180}{0.48} = 375$

Emission limits

Use the flowcharts 1, 2 and 3 to decide which emission test is applicable for the vehicle being tested. Follow the flowcharts and notes carefully as early catalyst equipped vehicles may not need a ‘CAT’ test.

Some vehicles give unstable readings due, for example, to their carburettor or fuel injection system design. Before failing a vehicle,

make sure that a particular limit has been exceeded constantly for at least 5 seconds.

Some vehicles give unstable readings. Make sure you test the emissions level for at least 5 seconds.

Chart 3. Emissions limits of non-passenger cars first used on or after 1 August 1992