

AUSTRALIAN

MOTOR VEHICLE

CERTIFICATION BOARD

COMPRISING AUSTRALIAN AND STATE AUTHORITIES

CIRCULAR NO. 28A-2-1

PROCEDURE FOR DEMONSTRATION OF COMPLIANCE

Introduction

1. ADR 28A - Motor Vehicle Noise --requires that motor vehicles comply with the noise limits specified. The level of testing required to establish compliance of every possible vehicle variant could be most extensive. Therefore the Board has decided to set down the criteria by which a test on one vehicle may be considered applicable to another.
2. An implementation procedure is defined in the following which details the requirements.
3. It will be the responsibility of the vehicle manufacturers to ensure that every vehicle to which a Compliance Plate is affixed complies with the Design Rule.

Implementation Procedures

4. The Board will accept a test on one vehicle as representative of another for the purposes of issuing a Compliance Plate Approval, provided. the following criteria are met:

The untested vehicle, when compared with the test vehicle;

- a. has an engine of the same family and has no greater net engine power and maximum speed. To be classed the same engine family, engines shall be identical with respect to:
 - i. the nominal bore centre to centre dimensions,
 - ii. the nominal dimension from the centerline of the camshaft to the centerline of the crankshaft,
 - iii. the nominal dimensions from the centreline of the crankshaft to the top of the cylinder block head face,
 - iv. the number of cylinders and their configuration,
 - v. the nominal location of the intake and exhaust valves,
 - vi. the method of air aspiration (i.e. natural or forced),

- vii. the combustion cycle,
 - viii. the method of fuel intake. if by carburetion, there shall be no variation in the number of carburetors, number of barrels or principle of operation. If by fuel injection, there shall be no variation in the type of flow (i.e. it shall be either continuous or non-continuous);
- b. has an exhaust system which is identical in respect to the mufflers resonator(s), nominal diameter of exhaust pipe(s), tail pipe length and direction of exhaust discharge;
 - c. has identical engine compartment construction and no lesser level of sound proofing (to be classed as identical, the compartments shall be:
 - i. constructed of the same material, and
 - ii. have the same envelope shape and size);
 - d. is a vehicle with no greater number of axles, driven road wheels;
 - e. has an identical engine cooling fan (Note if cooling fan is thermostatically controlled and is provided with manual override then it must be engaged during the test run);
 - f. has an engine air cleaning system comprising the same air cleaner assembly and filter elements;
 - g. has no greater number of overall gear ratios and an equal or greater unladen mass.
5. The following optional equipment if offered for sale shall be fitted to the test vehicle and operated as specified:
- a. engine brake - shall be engaged at line BB,
 - b. radiator shutters - open.

Documentation

6. Manufacturers who wish to utilize the procedures specified above are required to submit evidence in sufficient detail for the Board to determine that all the criteria have been met. As a general rule, the Board requires the manufacturer to provide a complete submission which shall include:
- a. reports of the test conducted,
 - b. details of all the vehicles covered by the submission, and
 - c. justification for the selection of the test vehicles.