## CNG Fuel System Approvals

Pursuant to regulation 90B of the Traffic Regulations 1976 (as inserted by the Traffic Regulations 1976 Amendment No. 7) and pursuant to the powers granted to me by the Secretary for Transport, I, Trevor Alan Lister, Senior Automotive Engineer, hereby approve the components listed in the Schedule hereto for inclusion in any CNG fuel system installed and operated in accordance with the requirements of New Zealand Standard NZS 5422, part 2, 1980 (and any standard made in amendment thereto or in substitution therefor) subject to the conditions (if any) set out in respect of any component in the said Schedule.

## **SCHEDULE** CNG FUEL CYLINDERS

Manufacturer	MOT Reference	Drawing Number	Material	Specification	Independent Inspection Authority	Nominal Water Capacity (litres)	Test Pressure (MPa)	Working Pressure Rating (MPa)	
US Steel Corp., USA	AF C03 073 AF C03 074 AF C03 075	4 × 14999	Steel Steel	DOT 3AA DOT 3AA DOT 3AA	R. W. Hunt R. W. Hunt R. W. Hunt	108.7 143 177	34.5 34.5 34.5	16.5 16.5 16.5	
US Steel Corp., USA	AF C03 076 AF C03 077 AF C03 078 AF C03 079 AF C03 080 AF C03 081 AF C03 082	4 × 14477	Steel Steel Steel Steel Steel Steel	DOT 3AA DOT 3AA DOT 3AA DOT 3AA DOT 3AA DOT 3AA	R. W. Hunt R. W. Hunt R. W. Hunt R. W. Hunt R. W. Hunt R. W. Hunt R. W. Hunt	58.9 72.2 85.5 98.8 112.1 125.4 138.7	27.8 27.8 27.8 27.8 27.8 27.8 27.8 27.8	16.5 16.5 16.5 16.5 16.5 16.5	

CNG cylinders are approved subject to the following conditions—

- 1. That they be permanently and clearly marked, either on a thickened portion of the cylinder or on a suitably attached metal plate, with characters not less than 6 mm high if space permits but in any case not less than 3 mm high, displaying the following information:
  - (a) The specification to which the cylinder was manufactured.
  - The manufacturers name or mark, and the serial number of the cylinder.
  - (c) The date of the original cylinder inspection and the identification mark of the inspection authority who made the inspection.
    (d) The date of any periodic cylinder test and the identification mark of the cylinder testing station who made each test.

  - The cylinder test pressure
  - (f) The charging pressure of the cylinder at 15°C.
    (g) The nominal water capacity of the cylinder.

  - (g) The nominal water capacity (h) The tare weight of the cylinder,
  - (i) An identification that the cylinder is suitable for use with CNG.
- 2. That the cylinders be provided with valve threads of the form specified in British Standard BS 341 "Valve Fittings for Compressed Gas Cylinders"
- 3. That the cylinders be tested at periods not exceeding five years in accordance with the periodic test requirements laid down in the specification to which the cylinder was manufactured.
- 4. That the cylinder be provided with a cylinder shut off valve designed for a working pressure of 16.5 MPa and capable of withstanding the test pressure of the cylinder. Cylinder shut off valves shall be fitted with a hand wheel to facilitate ease of opening and closing of the valve and shall be fitted with a pressure relief device comprising of a burst disc backed by fusible alloy. The fusible alloy is to have a nominal yield temperature of 100°C and the burst disc shall yield at a pressure of not less than 24.75 MPa and not more than the test pressure of the cylinder. Cylinder valves shall be provided with an outlet thread of  $\frac{1}{4}$  inch NPT (female) and a stem thread compatible with the cylinder neck thread.

Dated at Wellington this 19th day of February 1982.

T. A. LISTER, for Secretary for Transport.

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## SCHEDULE CNG FUEL CYLINDERS

Manufacturer	MOT Reference	Drawing Number	Material	Specification	Independent Inspection Authority	Capacity	Test Pressure (MPa)	Working Pressure Rating (MPa)
T.I. Chesterfield, U.K.	AF C03 083	47112P Rev 1	Steel	DOT 3AA	Lloyds	43.6	27.6	16.5
	AF C03 084	47112P Rev 3	Steel	DOT 3AA	Lloyds	49.6	27.6	16.5

CNG cylinders are approved subject to the following conditions-

- 1. That they be permanently and clearly marked, either on a thickened portion of the cylinder or on a suitably attached metal plate, with characters not less than 6 mm high if space permits but in any case not less than 3 mm high, displaying the following information:
  - (a) The specification to which the cylinder was manufactured.

  - (b) The manufacturers name or mark, and the serial number of the cylinder.
    (c) The date of the original cylinder inspection and the identification mark of the inspection authority who made the inspection.
  - (d) The date of any periodic cylinder test and the identification mark of the cylinder testing station who made each test. (e) The cylinder test pressure.