



# National Standards Commission

C. - CSIRO NATIONAL STANDARDS LABORATORY UNIVERSITY GROUNDS  
CITY ROAD, CHIPPENDALE, N.S.W. 2068  
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CERTIFICATE OF APPROVAL No 9/S

CANCELLED

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This is to certify that the pattern and variants of

A 1000-gallon Vehicle Tank Compartment and Variants  
(existing designs)

described in the attached Technical Schedule, were approved  
under the Weights and Measures (Patterns of Instruments)  
Regulations on 27th FEBRUARY, 1974, as being suitable for  
use for trade.

This approval is limited to vehicle tank compartments manu-  
factured before 31 December 1974; and it will remain in effect  
until 31 December 1975.

All instruments conforming to these variants shall be marked  
with the approval number "NSC No 9/S".

Signed

A person authorised by the Commission  
to sign Certificates under the  
abovementioned Regulations.

27/2/74

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31-12-90



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 9/S

Pattern: A 1000-gallon Vehicle Tank Compartment and Variants  
(existing designs)

Date of Approval: 27 February 1974

Description:

The pattern and variants relate to vehicle tank compartments of capacities from 100 to 23 000 gallons manufactured prior to 31 December 1974.

They are constructed in the following manner:

1. Where a vehicle tank is subdivided into two or more compartments, each compartment shall be deemed to be a separate instrument and the capacity of any compartment shall not vary by more than 0.1% if any adjacent compartment is empty or full.
2. Every compartment shall -
  - (a) be of sufficient strength and of such construction as not to become distorted during transportation or use;
  - (b) have an inspection opening of sufficient size to facilitate examination of the inside of the compartment and, when any inspection opening cover having the dipstick guide-tube attached can be fitted in more than one position, witness marks shall be punched on the cover and the tank body to identify the correct location; compartments of demountable tanks will be acceptable without inspection openings;
  - (c) be provided with effective venting to prevent the formation of gas pockets under all conditions of levelling which can reasonably be anticipated; (this includes venting of the fill pipe into the ullage space);
  - (d) have any baffle plate so constructed as to prevent the trapping of gas or liquid;

- (e) where constructed so that a quantity of liquid remains in the sump after complete delivery, be calibrated to exclude that quantity from reading on the dipstick;
  - (f) if fitted with a sump which projects above the bottom of the tank, have a line scribed on the reading face of the dipstick at the level of the top of the sump marked "sump level", and a notice below that line reading "not to be used for measurement below sump-level line";
  - (g) have the outlet pipe sloped to ensure complete drainage when the vehicle is standing on a level surface.
3. Every compartment fitted with a dipstick shall -
- (a) be limited to a capacity of 2250 gallons (compartments over this capacity shall be fitted with ullage dipsticks, a fixed-capacity marker, or similar);
  - (b) have a dip-tube not less than 2 inches or more than 4 inches in diameter adequately vented into the space above the maximum-capacity mark;
  - (c) have nothing in the dip-tube to obstruct the dipstick;
  - (d) be fitted with a dip-plate (which may consist of the base of the compartment itself) of sufficient size to cover the projected area of the dip-tube:  
  
Provided this requirement shall not apply to an instrument in which the dipstick is used in conjunction with a fixed datum on the top of the compartment;
  - (e) have the axis of the fixed-capacity mark or the dip-tube within 3 inches of the point determined from Figure 1.
4. Where a vehicle tank is subdivided into two or more compartments, each compartment shall be prominently numbered consecutively, from front to rear on the body of the compartment adjacent to each dip hatch.
5. Where the outlet pipe is fitted with a valve (internal valve) at the compartment outlet, the compartment shall be calibrated with the valve

open. (This requirement shall not apply to rail tank cars, which shall be calibrated with the internal valve closed.)

6. Every dipstick shall -

- (a) be of rigid construction and made of brass, stainless steel, mild steel, or aluminium;
- (b) where constructed to be removed from the dip-tube when not in use, have a clearly scribed mark passing around it, at the level of the top of the dip-tube;
- (c) be marked with the serial number of the compartment with which it is to be used;
- (d) have graduation widths not less than  $\frac{1}{8}$  inch;
- (e) be graduated in 1, 2, 5, 10, 20, 25 or 50-gallon graduation values;
- (f) be graduated for use with one compartment only;
- (g) be provided with a centre punch mark or scribed line on one of its ungraduated sides within 6 inches of the bottom and have the distance between that mark and the bottom of the dipstick legibly stamped thereon.

7. Tolerances for all graduation lines on any dipstick shall be in accordance with the following table:

<u>Indicated value</u>	<u>Tolerance</u>
Up to 100 gallons	$\pm \frac{1}{2}$ gal
Over 100 but not over 500 gal	$\pm 1$ gal
Over 500 but not over 1250 gal	$\pm 2$ gal
Over 1250 but not over 1750 gal	$\pm 3$ gal
Over 1750 but not over 2250 gal	$\pm 4$ gal
Over 2250 gal	$\pm 0.2\%$ of capacity

8. The pattern and variants shall be marked "NSC No 9/S".

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NOTE: A copy of the Certificate to which this Schedule refers was issued to the Head Office of each Weights and Measures Authority and the Petroleum Marketing Engineers Advisory Committee on 27 February 1974.



# NATIONAL STANDARDS COMMISSION

## NOTIFICATION OF CHANGE

## CERTIFICATE OF APPROVAL No 9/S

## CHANGE No 1

The approval of

A 1000-gallon Vehicle Tank Compartment and Variants  
(existing designs)

given in Certificate No 9/S dated 27 February 1974

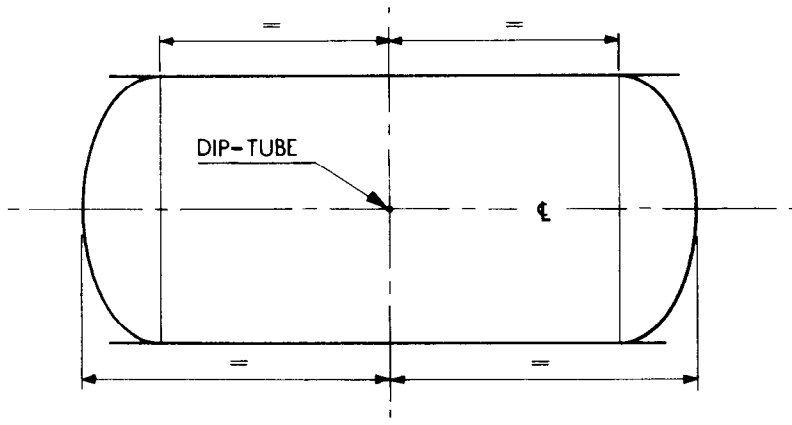
is extended to cover vehicle tank compartments whose manufacture  
has been completed by 30 June 1975.

Signed

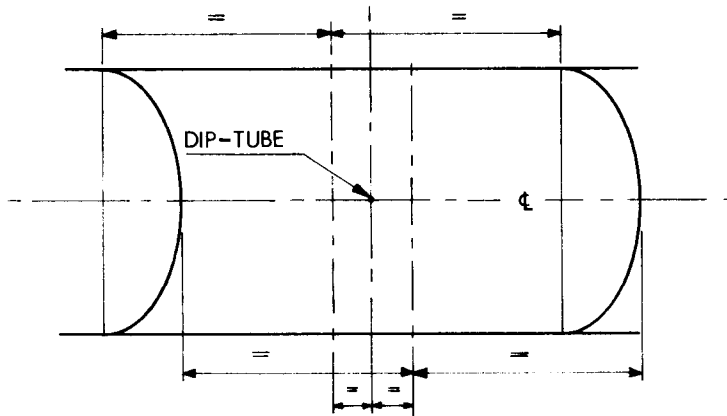
A handwritten signature in cursive script, appearing to read 'J. M. ...', written over a horizontal line.

Acting Executive Officer

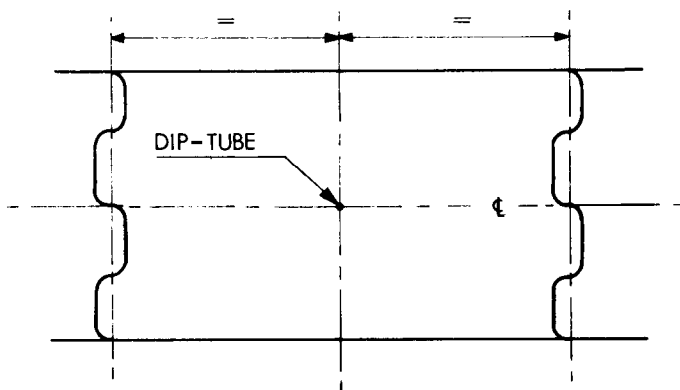
FIGURE 9/S -1



SYMMETRICAL



NON-SYMMETRICAL



CORRUGATED

LOCATION OF DIP-TUBE IN VEHICLE TANK COMPARTMENTS  
(PLAN VIEWS)