National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation
Certificate of Approval No 8/52

This is to certify that the approval for use for trade granted in respect of the

Challenge Engineering Model HDV 1890 Milk Tank

submitted by Challenge Engineering Ltd
36-44 Princes Street
Hawera 4800
NZ

has been cancelled in respect of new instruments as from 1 July 2001.

Instruments which were verified/certified before that date may, with the concurrence of the relevant verifying authority, be submitted for reverification.

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

National Standards Commission

Certificate of Approval

No 8/52

Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

This is to certify that an approval for use for trade has been granted in respect of the

Challenge Engineering Model HDV 1890 Milk Tank

submitted by Challenge Engineering Ltd
36-44 Princes Street
Hawera 4800 New Zealand.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 July 1998, and then every 5 years thereafter

Instruments purporting to comply with this approval shall be marked NSC No 8/52 and only by persons authorised by the submittor.

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It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 15 June 1993

- A Challenge Engineering model HDV 1890 horizontal milk tank of 15 000 L capacity incorporating a sight-gauge for the measurement of the volume.

Variant: approved 15 June 1993

1. Model HDV 1890 and model HDV 1500 in various capacities as listed in Table 1.

Technical Schedule No 8/52 describes the pattern and variant 1.

Variant: approved 30 June 1994

2. Model HDV 2750 in various capacities as listed in Table 2.

Technical Schedule No 8/52 Variation No 1 describes variant 2.

Variant: approved 11 September 1996

3. Model HDV 1325 in various capacities as listed in Table 3.

Technical Schedule No 8/52 Variation No 2 describes variant 3.

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Variant: approved 4 December 1996

4. Model HDV 1325 of 5 050 L capacity.

Technical Schedule No 8/52 Variation No 3 describes variant 4.

FILING ADVICE

Certificate of Approval No 8/52 dated 19 October 1996 is superseded by this Certificate, and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No 8/52 dated 7 February 1997
Technical Schedule No 8/52 dated 6 October 1993 (incl. Table 1 and Test Procedure)
Technical Schedule No 8/52 Variation No 1 dated 16 September 1994 (incl. Table 2)
Technical Schedule No 8/52 Variation No 2 dated 19 October 1996 (incl. Table 3)
Technical Schedule No 8/52 Variation No 3 dated 7 February 1997
Figure 1 dated 6 October 1993

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

National Standards Commission

TECHNICAL SCHEDULE No 8/52

Pattern: Challenge Engineering Model HDV 1890 Milk Tank.

Submittor: Challenge Engineering Ltd
36-44 Princes Street
Hawera 4800 New Zealand.

1. Description of Pattern

A Challenge Engineering model HDV 1890 horizontal milk tank of 15 000 L capacity (Figure 1 and Table 1) incorporating a sight-gauge for the measurement of the volume.

1.1 Details

(i) The tank is a horizontal stainless steel cylinder sheathed in an outer casing of stainless steel; the cavity between is filled with insulating material.

A milk-sampling valve is fitted to the tank.

(ii) A single sight-gauge mounted in a vertical position is located in the vicinity of the outlet valve (Figure 1) and comprises a transparent sight-tube fitted in a rigid stainless steel support tube fixed to the side of the tank adjacent to a stainless steel scale. The scale has provision for a lead and wire seal to be attached to the scale mounting assembly. The sight-tube is made of plastic complying with Australian Standard AS 2070 *Plastics material for food contact use.*

The scale is graduated in 50 L increments.

(iii) Levelling is effected by means of 6 adjustable legs (in two groups of three legs) with reference to the datum level marks permanently marked on the tank. The volume represented by the datum level marks is marked on the sight-gauge scale. Each leg has provision for fixing the leg to the floor, and provision for a lead and wire seal to be attached, after levelling.

(iv) Provision is made for a CIP (clean-in-place) system for both the tank and the sight-gauge.

(v) Access for inspection is provided by a top or front entry opening.

1.2 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

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1.3 Markings

The following is marked on a nameplate permanently attached to the instrument in a clearly visible location:

Manufacturer's name or mark	
Model number	
Serial number	
NSC approval number	NSC No 8/52
Maximum capacity	 L
Year of manufacture	

In addition, the volume represented by the datum level marks is marked on the sight-gauge scale.

2. Description of Variant 1

Model HDV 1890 and HDV 1500 in capacities as listed in Table 1.

TABLE 1

Model Number	Maximum Capacity (litres)	Number of legs	Minimum Graduation Size (litres)
HDV 1500	4 500	4	10
"	5 100	4	20
"	5 600	4	20
"	6 700	4	20
"	7 200	4	20
"	7 700	4	20
"	8 200	4	20
HDV 1890	7 400	4	20
"	8 200	4	20
"	9 100	4	20
"	10 700	4	50
"	11 600	4	50
"	12 400	6	50
"	13 300	6	50
"	14 100	6	50
"	15 000	6	50

TEST PROCEDURE

Instruments should be tested in conjunction with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Error at Verification/Certification

The maximum permissible error for farm milk tanks incorporating a sight-gauge is ±1 scale interval.

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TECHNICAL SCHEDULE No 8/52

VARIATION No 1

Pattern: Challenge Engineering Model HDV 1890 Milk Tank.

Submittor: Challenge Engineering Ltd
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1. Description of Variant 2

A Challenge Engineering model HDV 2750 milk tank of capacities as listed in Table 2.

TABLE 2

Model Number	Maximum Capacity (litres)	Number of legs	Maximum Scale Interval (litres)
HDV 2750	20 000	6	50
"	23 500	6	50
"	25 000	6	50
"	27 000	6	50
"	29 000	6	50
"	30 000	6	50

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VARIATION No 2

Pattern: Challenge Engineering Model HDV 1890 Milk Tank.

Submittor: Challenge Engineering Ltd
36-44 Princes Street
Hawera 4800 New Zealand.

1. Description of Variant 3

A Challenge Engineering model HDV 1325 milk tank of capacities as listed in Table 3.

TABLE 3

Model Number	Maximum Capacity (litres)	Number of legs	Scale Interval (litres)
HDV 1325	2 000	4	10
HDV 1325	3 300	4	10

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TECHNICAL SCHEDULE No 8/52

VARIATION No 3

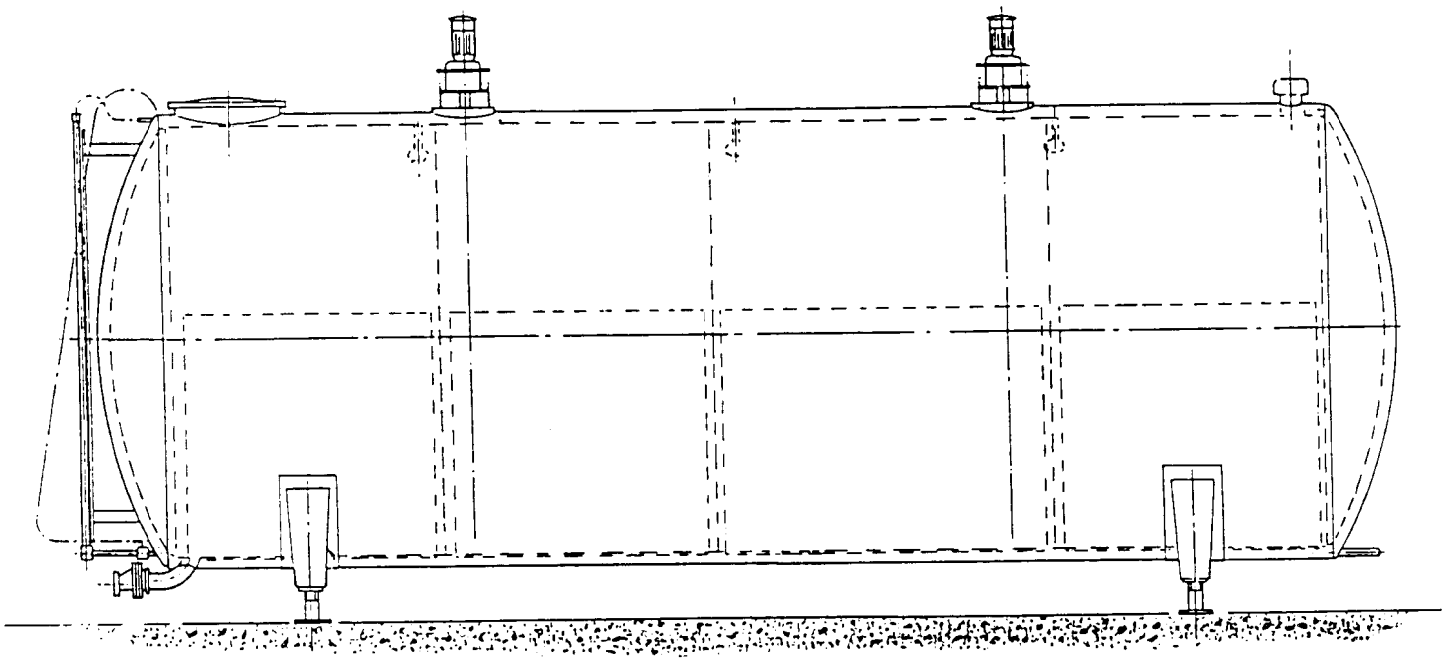
Pattern: Challenge Engineering Model HDV 1890 Milk Tank.

Submittor: Challenge Engineering Ltd
36-44 Princes Street
Hawera 4800 New Zealand.

1. Description of Variant 4

A Challenge Engineering model HDV 1325 milk tank of 5 050 L maximum capacity with a scale interval of 20 L and having 4 legs.

FIGURE 8/52 - 1



Challenge Engineering Model HDV 1890 Milk Tank