



Australian Government
National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Notification of Change
Certificate of Approval No 9/2/1A
Change No 1

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

The following changes are made to the approval documentation for the

Tieman Model TA Vehicle Tank

submitted by Tieman Industries Pty Ltd
4-10 Keon Parade
Keon Park VIC 3073.

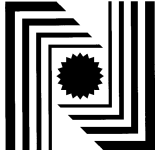
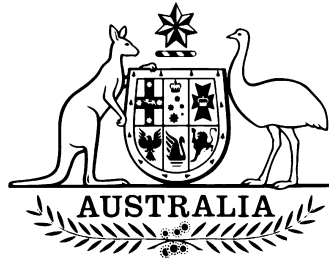
In Certificate of Approval No 9/2/1A dated 31 January 2002;

1. The Condition of Approval referring to the review of the approval should be amended to read:
"This approval becomes subject to review on 1 February 2012, and then every 5 years thereafter."
2. The FILING ADVICE should be amended by adding the following:
"Notification of Change No 1 dated 27 August 2007"

Signed by a person authorised by the Chief Metrologist
to exercise his powers under Regulation 60 of the
National Measurement Regulations 1999.

A handwritten signature in black ink, appearing to be 'J. H. T.', is located to the right of the signature text.

9/2/1A
31 January 2002



National Standards Commission

12 Lyonpark Road, North Ryde NSW 2113

Certificate of Approval

No 9/2/1A

Issued under Regulation 60
of the
National Measurement Regulations 1999

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

Tieman Model TA Vehicle Tank

submitted by Tieman Industries Pty Ltd
4-10 Keon Parade
Keon Park VIC 3073.

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.

This Certificate is issued upon completion of a review of NSC approval No 9/2/1.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 February 2007, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 9/2/1A and only by persons authorised by the submittor.

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 NSC P 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 24 January 2002

- A Tieman model TA non-pressurised tank of 45 000 L nominal maximum capacity fitted to or forming part of the vehicle, and having six compartments.

Variants: approved 24 January 2002

1. Model TA having five compartments.
2. Model TB having five compartments.
3. Model TC having four compartments.

Technical Schedule No 9/2/1A describes the pattern and variants 1 to 3.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 9/2/1 dated 31 January 2002
Technical Schedule No 9/2/1 dated 31 January 2002 (incl. Test Procedure)
Figures 1 to 4 dated 31 January 2002

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.



TECHNICAL SCHEDULE No 9/2/1A

Pattern: Tieman Model TA Vehicle Tank.
Submittor: Tieman Industries Pty Ltd
4-10 Keon Parade
Keon Park VIC 3073.

1. Description of Pattern

The pattern is a Tieman model TA non-pressurised tank of 45 000 L nominal maximum capacity fitted to or forming part of the vehicle.

The tank is divided into six compartments and incorporates a dipstick for each compartment for the measurement of the volume of the contents.

1.1 Details

- (i) The tank is a horizontal cylindrical vessel constructed of aluminium incorporating a stepped section that has a slope at the base of 12°.
- (ii) The tank is divided into six compartments (Figure 1). Compartment 1 has a capacity of approx. 7000 L; compartment 2, which has a sloping base, has a capacity of approx. 6000 L; and compartments 3 to 6 each have a capacity of approx. 8600 L.
- (iii) Each dipstick is situated in a socket in a vertical position located in the centroid of each compartment.

The dipsticks are graduated in 50 L increments. For compartment 2 the dipstick is not graduated for measurement of volumes less than 1000 L.

Each dipstick is graduated for use with one compartment only and is marked with a serial number of the tank and the compartment number.

- (iv) Each compartment is provided with a top-mounted inspection opening.
- (v) The outlet slopes towards the discharge valve at a gradient of 1 in 30 to the horizontal plane to ensure complete drainage of the measured quantity when the vehicle is standing unladen on a level surface.

1.2 Markings

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

Manufacturer's mark, or name written in full	Tieman Industries
Model number
Serial number of the instrument
Pattern approval mark for the instrument	NSC No 9/2/1

In addition, tanks shall comply with the relevant requirements in regard to markings, numbering and notices.

1.3 Verification/Certification Provision

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

2. Description of Variants

2.1 Variant 1

A model TA non-pressurised tank of 45 000 L nominal maximum capacity having the tank divided into five compartments (Figure 2).

Compartment 1, which includes a section with a sloping base, has a capacity of approx. 13 000 L; and compartments 2 to 5 each have a capacity of approx. 8600 L.

The dipstick for compartment 1 is not graduated for measurement of volumes less than 1000 L.

2.2 Variant 2

A model TB non-pressurised tank of 45 000 L nominal maximum capacity having the tank divided into five compartments (Figure 3).

Compartment 1 has a capacity of approx. 7000 L; compartment 2, which includes a section with a sloping base, has a capacity of approx. 14 600 L; and compartments 3 to 5 each have a capacity of approx. 8600 L.

The dipstick for compartment 2 is not graduated for measurement of volumes less than 1500 L.

2.3 Variant 3

A model TC non-pressurised, horizontal elliptical cross-section, tapered barrel tank (Figure 4) of 32 000 L nominal maximum capacity fitted to or forming part of the vehicle, and having four compartments.

Compartments 1 and 2 have capacities of approximately 7800 L, and compartments 3 and 4 have capacities of approximately 8200 L.

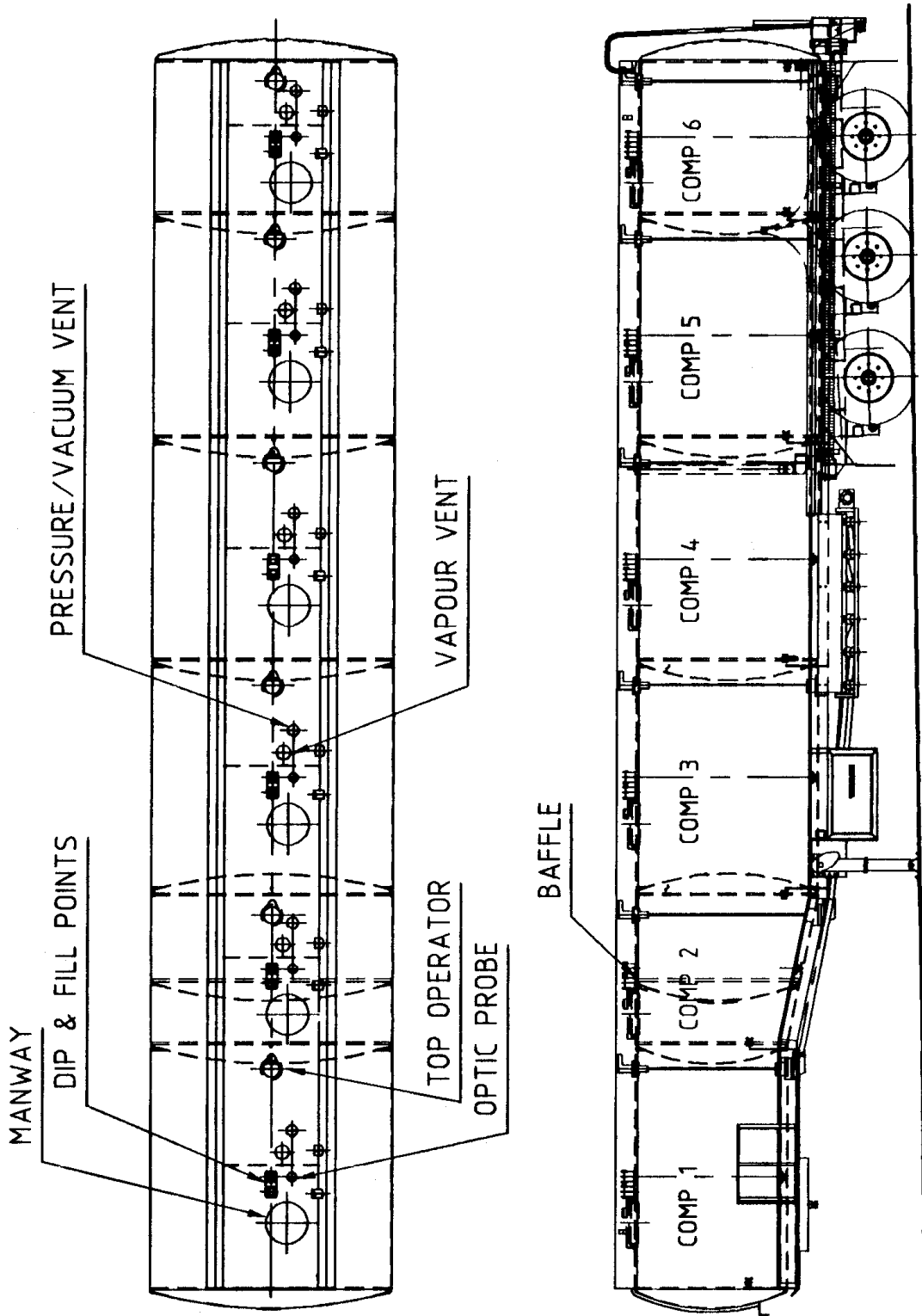
The dipstick of each compartment is not graduated for measurement of volumes less than 200 L.

TEST PROCEDURE

Maximum permissible error at verification/certification

The maximum permissible error applicable to vehicle tanks provided with a dipstick is ± 0.5 scale interval for each scale mark on the dipstick.

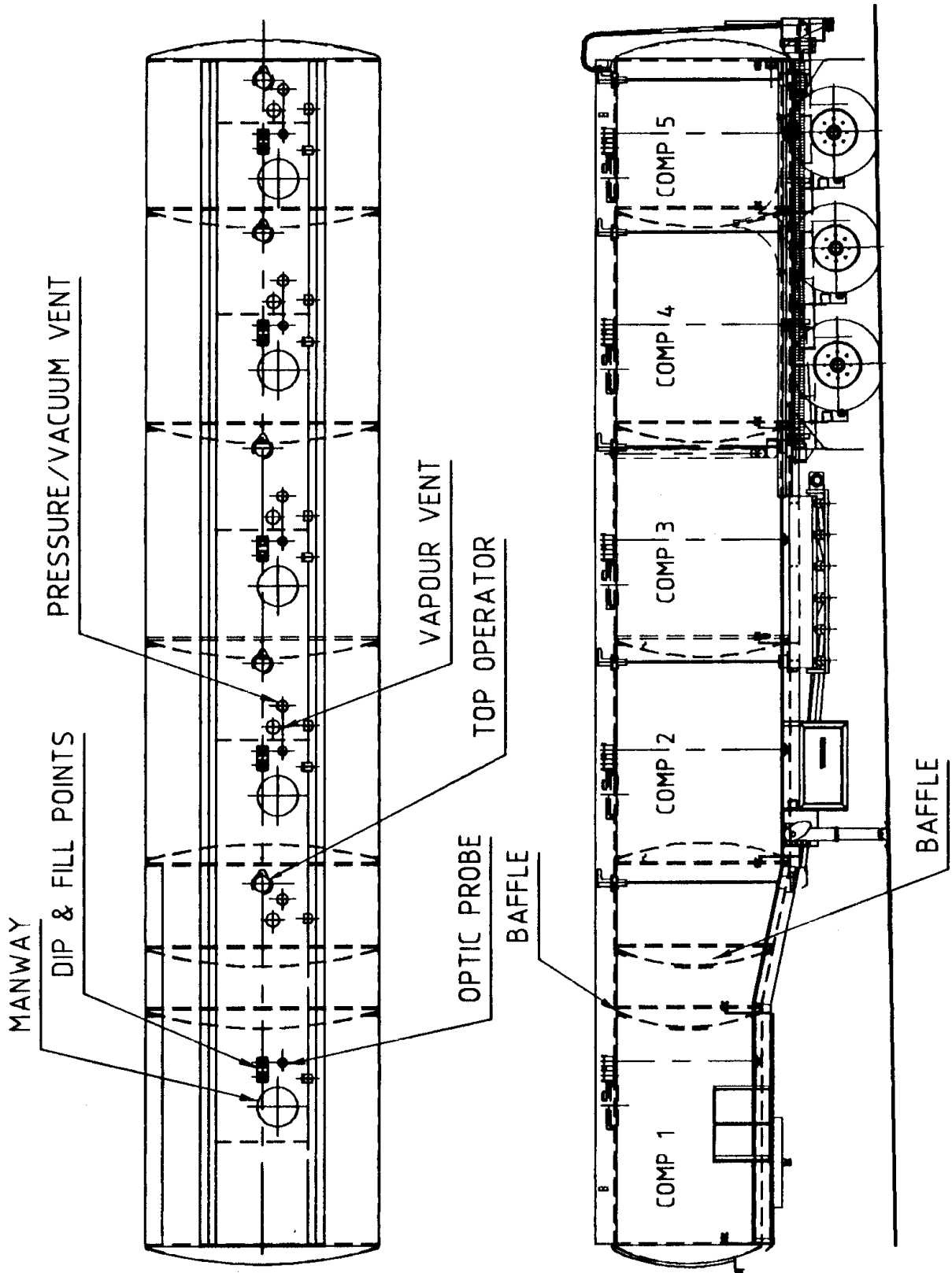
FIGURE 9/2/1A - 1



Tieman Model TA Six-compartment Vehicle Tank

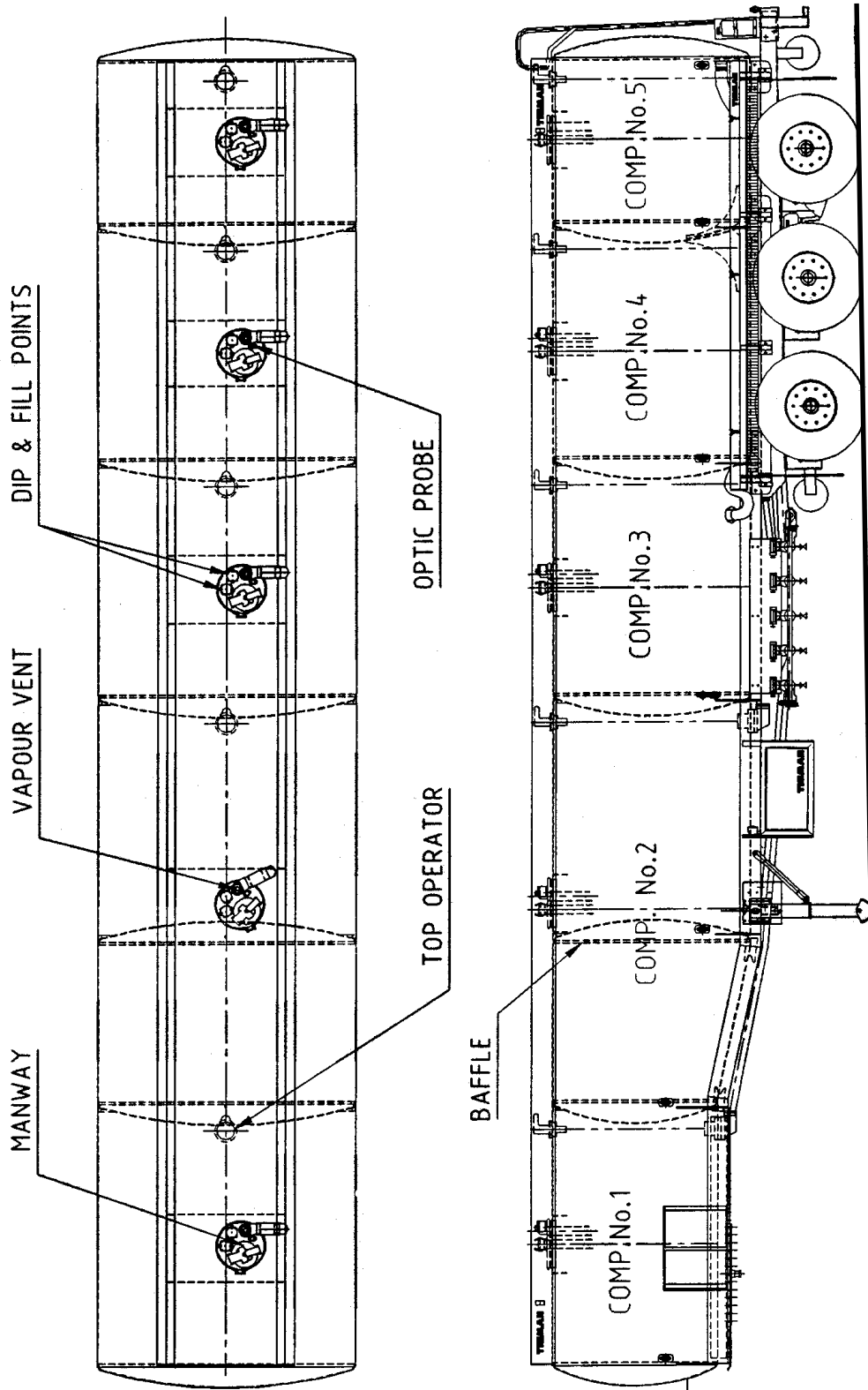
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FIGURE 9/2/1A - 2



Tieman Model TA Five-compartment Vehicle Tank

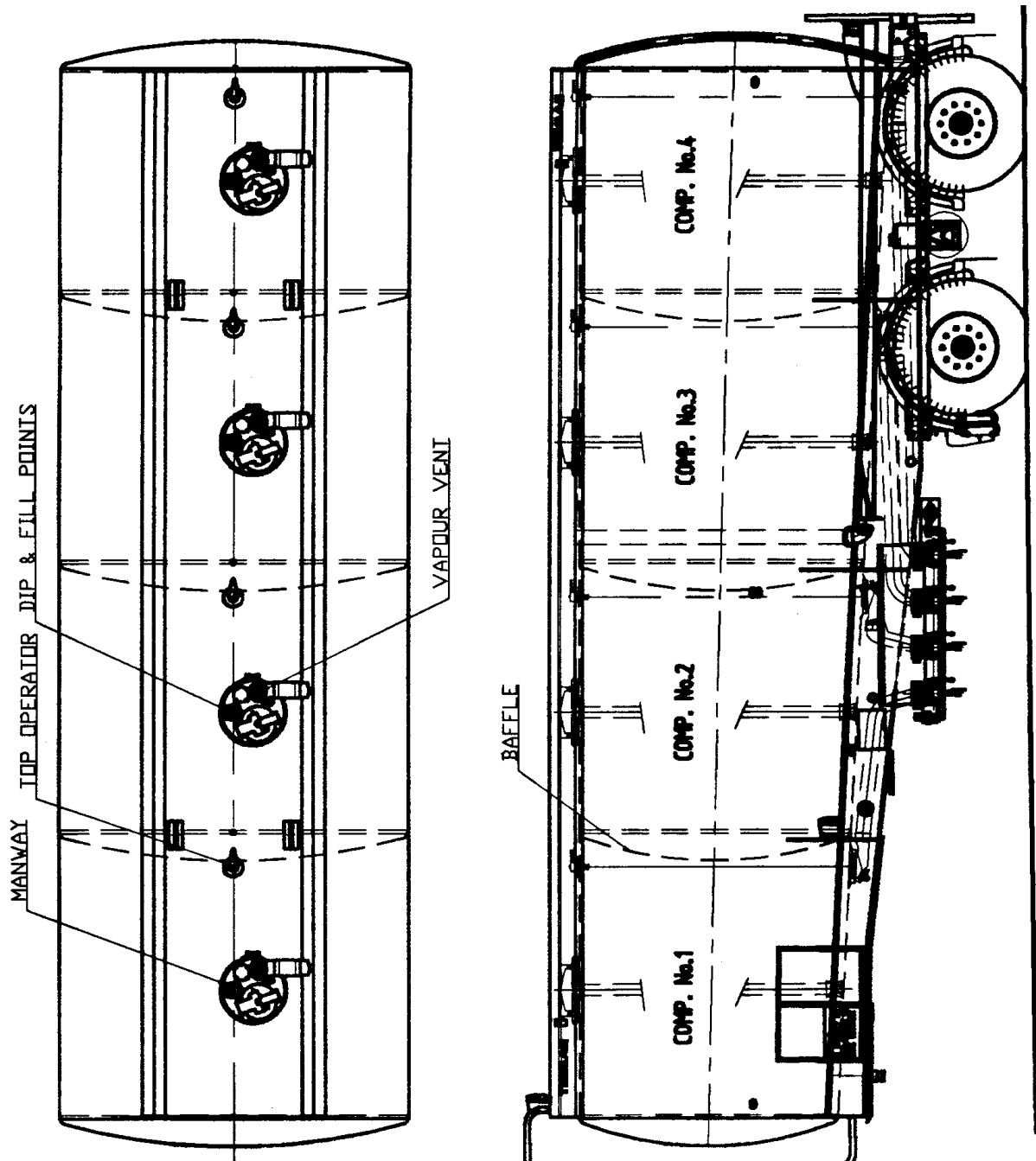
FIGURE 9/2/1A - 3



Tieman Model TB Five-compartment Vehicle Tank

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FIGURE 9/2/1A - 4



Tieman Model TC Four-compartment Vehicle Tank