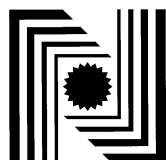


9/2/1  
22 March 2002



## National Standards Commission

12 Lyonpark Road, North Ryde NSW

### Cancellation

### Certificate of Approval

No 9/2/1

Issued under Regulation 60  
of the  
National Measurement Regulations 1999

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

Tieman Model TA Vehicle Tank

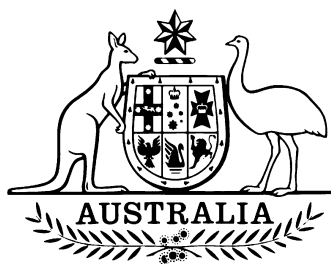
submitted by Tieman Industries Pty Ltd  
4-10 Keon Parade  
Keon Park VIC 3073

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

A handwritten signature in black ink, which appears to read 'Jim Bennett'.

9/2/1  
22 November 2000



## **National Standards Commission**

12 Lyonpark Road, North Ryde NSW

### **Certificate of Approval**

**No 9/2/1**

Issued under Regulation 63  
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 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.

### CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 November 2000, and then every 5 years thereafter.

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

It is the submitter'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 19 October 1995

- 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 19 October 1995

1. Model TA having five compartments.

**Variants:** approved 23 March 1998

2. Model TB having five compartments.

Technical Schedule No 9/2/1 describes the pattern and variants 1 & 2.

**Variants:** approved 25 August 2000

3. Model TC having four compartments.

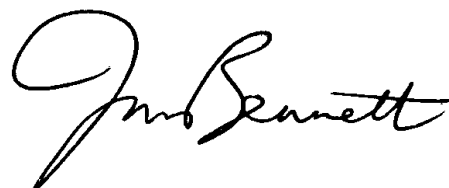
Technical Schedule No 9/2/1 Variation No 1 describes variant 3.

### FILING ADVICE

Certificate of Approval No 9/2/1 dated 15 December 1998 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 9/2/1 dated 22 November 2000  
Technical Schedule No 9/2/1 dated 15 December 1998 (incl. Test Procedure)  
Technical Schedule No 9/2/1 Variation No 1 dated 22 November 2000  
Figures 1 to 3 dated 15 December 1998  
Figure 4 dated 22 November 2000

Signed by a person authorised under Regulation 63 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.



## TECHNICAL SCHEDULE No 9/2/1

**Pattern:** Tieman Model TA Vehicle Tank.

**Submittor:** Tieman Industries Pty Ltd  
4 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 Verification/Certification Provision

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

### 1.3 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 given in the Inspector's Handbook in regard to markings, numbering and notices.

## 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.

## TEST PROCEDURE

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

### Maximum permissible error at verification/certification

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

TECHNICAL SCHEDULE No 9/2/1  
VARIATION No 1

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

**1. Description of Variant 3**

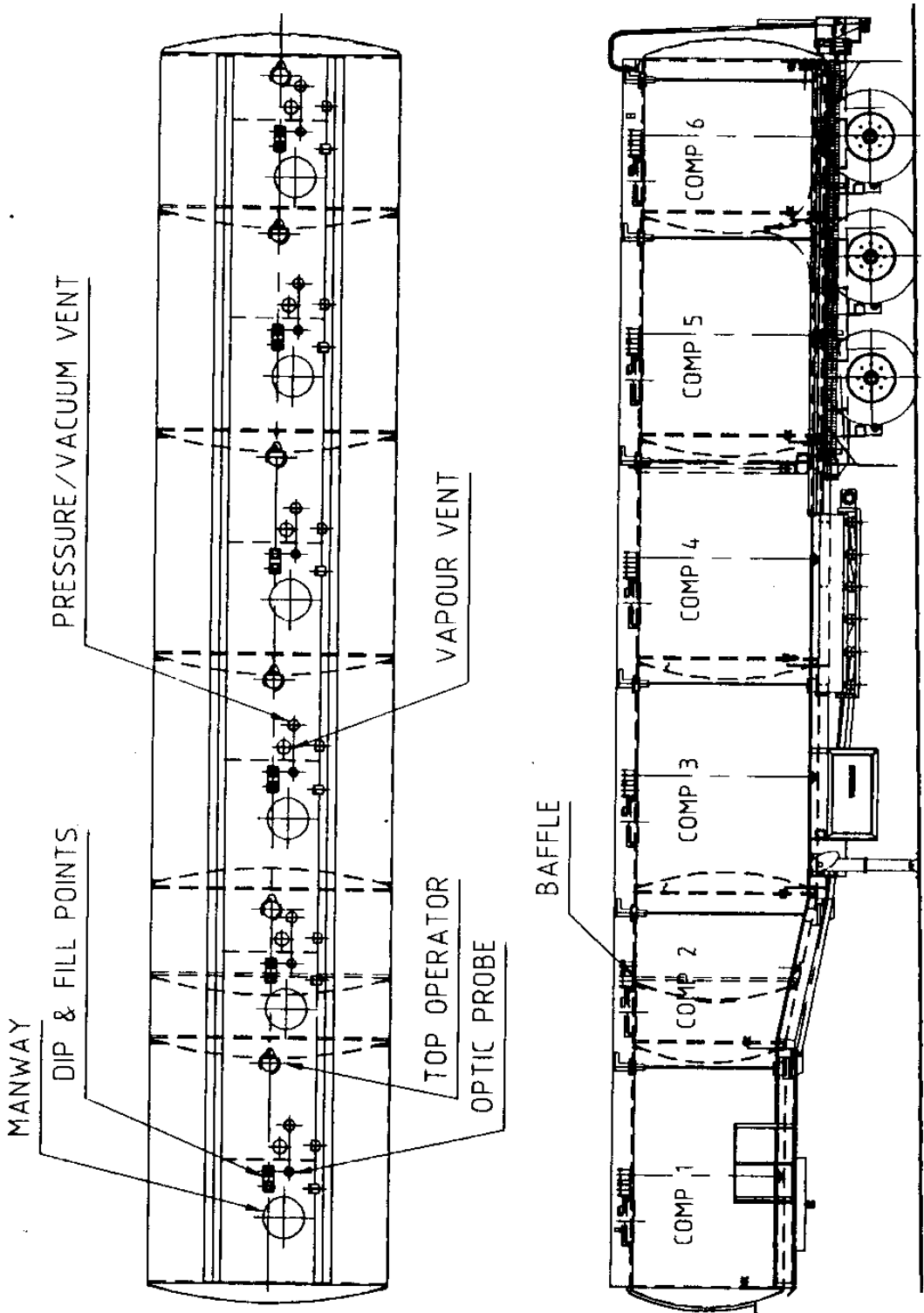
A model TC non-pressurised, horizontal elliptical cross-section, tapered barrel tank (Figure 4) of 32 000 L nominal maximum capacity fitted to or forming part of the vehicle, and having four compartments.

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.

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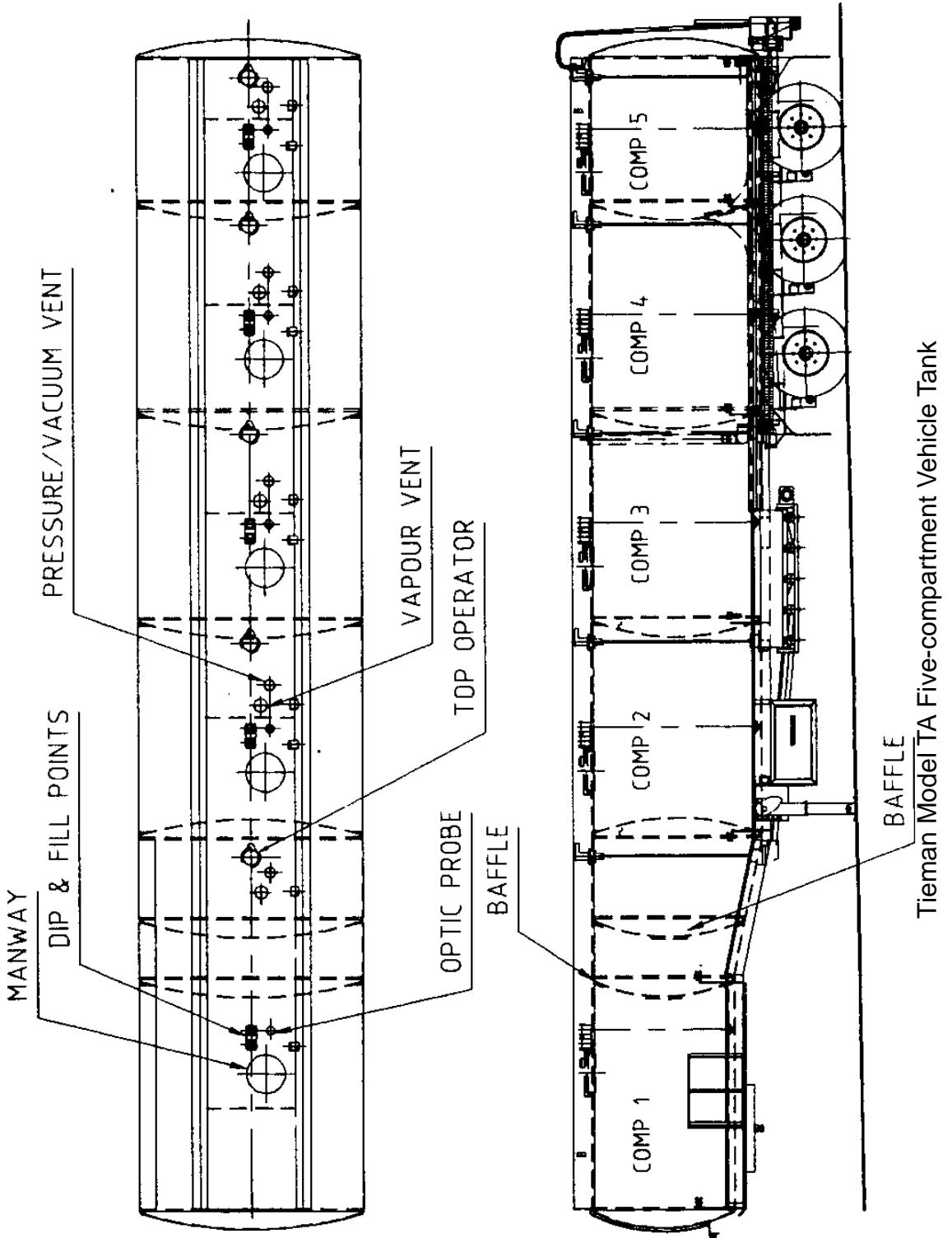
FIGURE 9/2/1 - 1



Tieman Model TA Six-compartment Vehicle Tank

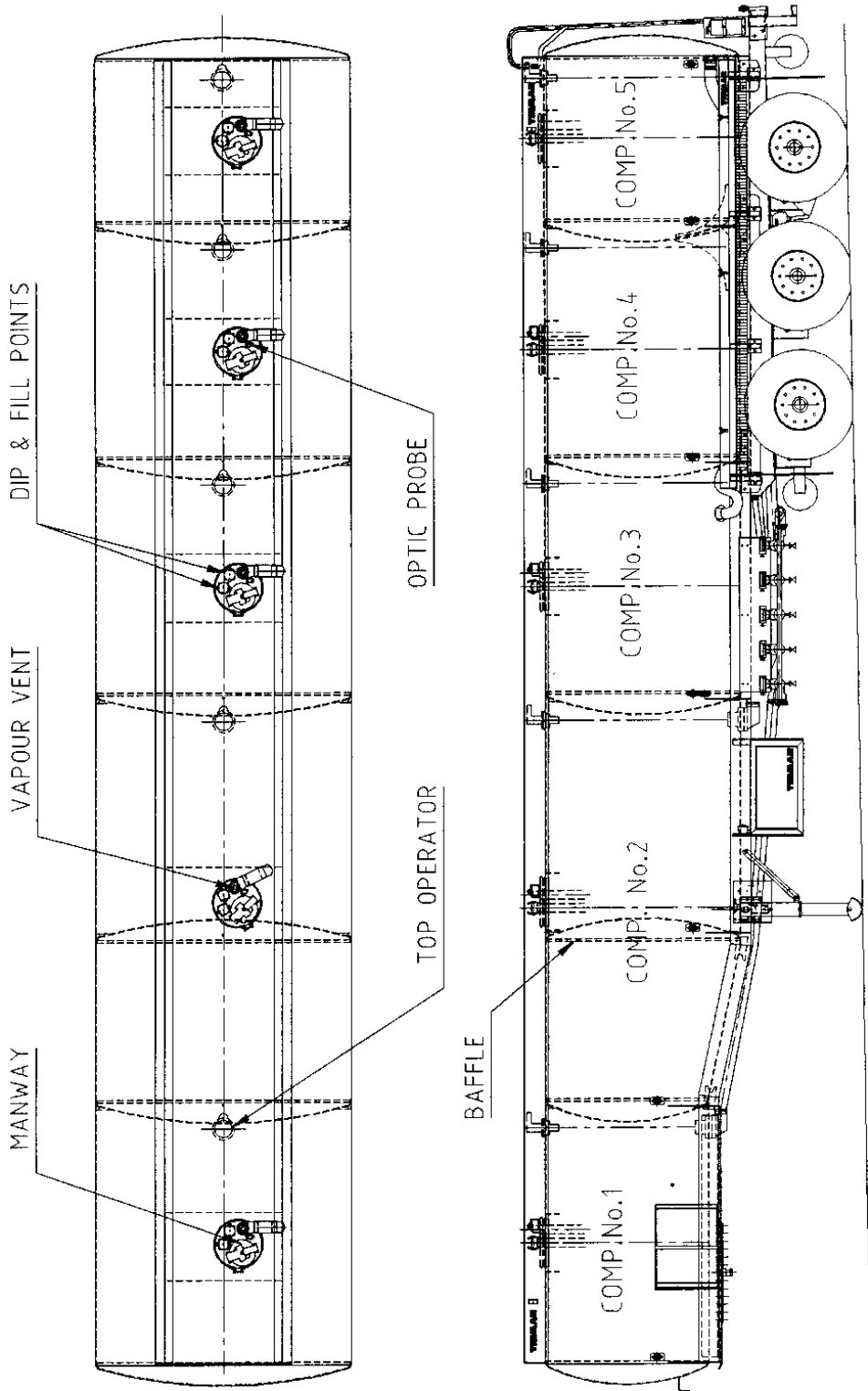


FIGURE 9/2/1 - 2



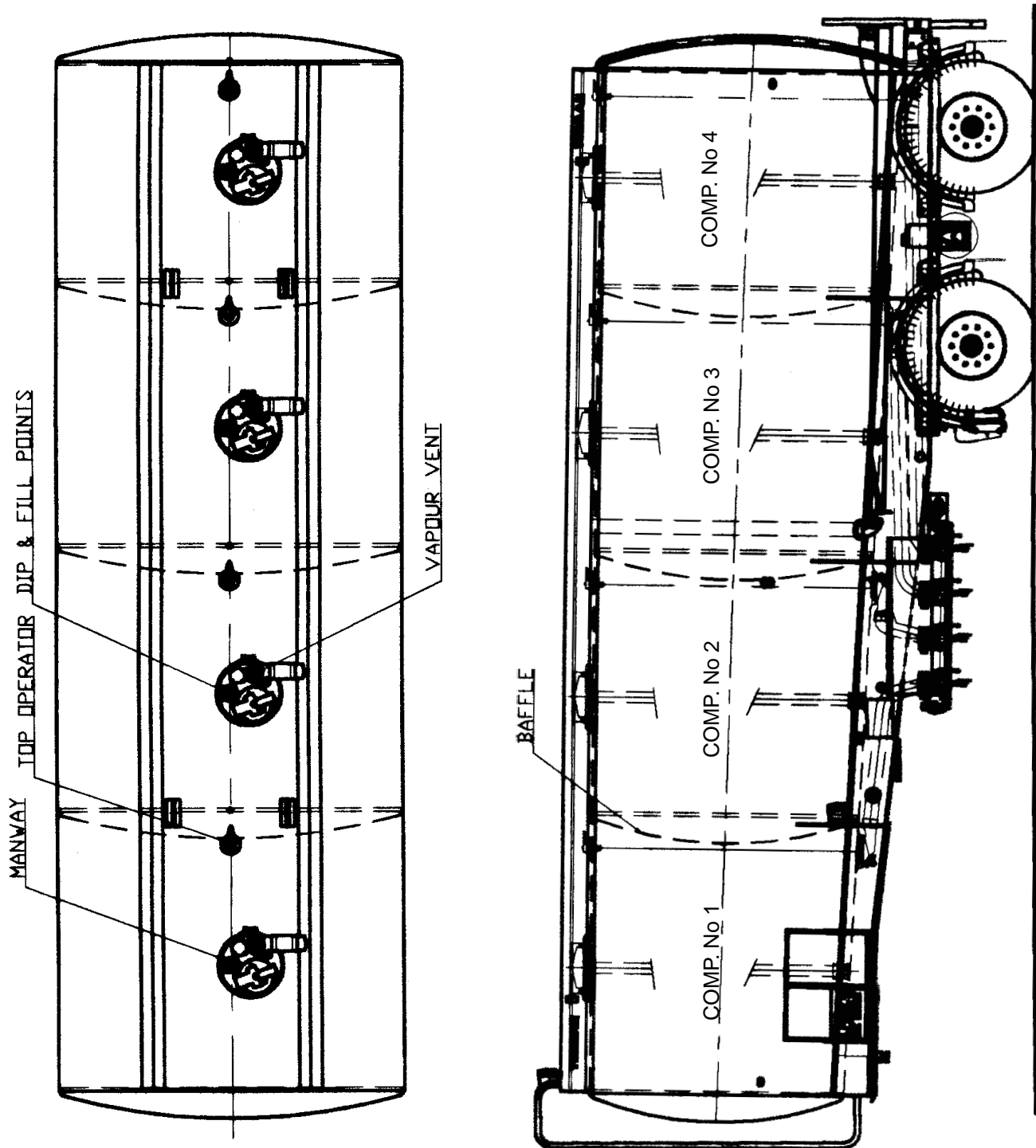
Tieman Model TA Five-compartment Vehicle Tank

FIGURE 9/2/1 - 3



Tieman Model TB Five-compartment Vehicle Tank

FIGURE 9/2/1 - 4



Model TC Tanker