



Australian Government

**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Notification of Change Certificate of Approval No 9/2/3 Change No 2

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

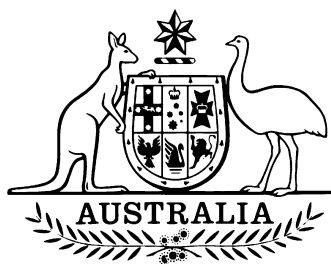
The following changes are made to the approval documentation for the
Holmwood Highgate Model PB-25800-4 Vehicle Tank
submitted by Holmwood Highgate (Aust)
now of 20 Burchill Street
Loganholme QLD 4129.

- A. In Certificate of Approval No 9/2/3 dated 16 June 2000;
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 January **2016**, and then every 5 years thereafter."
Note: The review date was previously amended by the Notification of Change No 1 dated 6 October 2006.
 2. The FILING ADVICE should be amended by adding the following:
"Notification of Change No 1 dated 6 October 2006
Notification of Change No 2 dated 25 March 2011"
- B. In Certificate of Approval No 9/2/3 and its Technical Schedule both dated 16 June 2000, and in Notification of Change No 1 dated 6 October 2006, the references to the address of the submitter should be amended to read:
"20 Burchill Street
Loganholme QLD 4129"
- C. In Technical Schedule No 9/2/3 dated 16 June 2000, the 1st paragraph of the TEST PROCEDURE should be amended to read, in part:
"... any relevant tests specified in **the Uniform Test Procedures.**"

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 'M. J. ...', written over a horizontal line.

9/2/3
16 June 2000



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Certificate of Approval

No 9/2/3

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

Holmwood Highgate Model PB-25800-4 Vehicle Tank

Submitted by Holmwood Highgate (Aust)

77 Parramatta Road

Underwood

QLD

4119.



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 January 2005, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 9/2/3 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 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 10 December 1999

- The pattern is a Holmwood Highgate model PB-25800-4 non-pressurised tank of 25 800 L nominal maximum capacity fitted to or forming part of the vehicle.

Variants: approved 10 December 1999

1. Other models of various capacities and configurations.

Technical Schedule No 9/2/3 describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 9/2/3 dated 16 June 2000
Technical Schedule No 9/2/3 dated 16 June 2000 (incl. Table 1 & Test Procedure)
Figures 1 to 7 dated 16 June 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 9/2/3

Pattern: Holmwood Highgate Model PB-25800-4 Vehicle Tank.

Submittor: Holmwood Highgate (Aust)

77 Parramatta Road
Underwood QLD 4119.



1. Description of Pattern

The pattern is a Holmwood Highgate model PB-25800-4 non-pressurised tank of 25 800 L nominal maximum capacity fitted to or forming part of the vehicle.

The tank is divided into 4 compartments and incorporates a dipstick for each compartment for the measurement of the volume of the contents.

1.1 Details of a typical configuration

- (i) The tank is a horizontal, elliptical cross-section, parallel barrel vessel constructed of aluminium, mild steel or stainless steel.
- (ii) The tank is divided into 4 compartments. A typical configuration is shown in Figures 1 and 2. Table 1 lists the various cross-sections ('oval designations') which may be used. Compartment capacity, within the limits specified in Table 1, is determined by the cross-section used and the product to be carried. Each compartment is provided with a single dipstick and has its outlet located at the centre of the bottom, as close a practical to the rear bulkhead of the compartment.
- (iii) Top-datum dipsticks (Figure 3) are used on bitumen tanks and are fitted with a crosspiece whose lower surface is perpendicular to the axis of the dipstick. These dipsticks are manufactured from bright steel flat bar.

Bottom-datum dipsticks (Figure 4) are used for all other products and are fitted with a solid foot to the base of each dipstick. These dipsticks are manufactured from anodised aluminium box section, or alternatively, if the product being measured would corrode the dipstick, stainless steel flat section is used.

Except for bitumen tanks, a dipstick tube is incorporated in each compartment and is located so that the dipstick passes in a vertical position, through the centroid of each compartment on the longitudinal centreline. Dipstick tubes are made from hollow pipe with dip-plate/guide fitted to the bottom of the tank to locate the tube and to provide a surface for the dipstick to rest upon.

The dipsticks are graduated in accordance with NSC Document 105 for the various tank capacities used. Each dipstick is graduated for use with one compartment only and shall be marked with the serial number of the tank and the compartment number.

- (iv) Each compartment is provided with a top-mounted inspection opening and hatch. The inspection opening is designed in such a way as to ensure that the hatch can only be fitted in one position.
- (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
Model number
Serial number of the instrument
Pattern approval mark for the instrument	NSC No 9/2/3

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 Variant 1

Other model tanks having 1 to 6 compartments of various nominal maximum capacities. Other details are the same as described for the pattern with compartment capacities according to Table 1.

Tanks may be of the PB (parallel barrel) type (same as the pattern) or of the TB (tapered barrel) type (Figures 2 and 5). Either of these two types use either dished and flanged ends and bulkheads (as in Figures 1, 2 and 5), or use ends and bulkheads that are rolled to a radius in one direction about a vertical axis, and are not flanged (as in Figures 6 and 7). The latter version (with rolled ends) is known as the Mark II version and may be of any model listed in Table 1, e.g. the pattern model 'PB-25800-4' would then be known as a model 'PB-25800-4 Mark II'.

Tapered barrel tanks/compartments have increasing cross-section along the length of the barrel and are provided with dipsticks which are marked with the minimum volume.

For compartments which have tapered bottoms, the volume of the lowest graduation mark shall be greater than the volume of liquid which fully covers the tapered bottom.

The model number style is typified by the following examples:

- (i) Model PB-25800-4 is a parallel barrel vehicle tank of 25 800 litre capacity having 4 compartments.
- (ii) Model TB-30000-3 is a tapered barrel vehicle tank of 30 000 litre capacity having 3 compartments.

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 ± 0.5 scale interval for each scale mark on the dipstick.

TABLE 1

OVAL DESIGNATION (cross-section)	MINIMUM COMPARTMENT SIZE (litres)	NOMINAL MAXIMUM COMPARTMENT SIZE (litres)
NUMBER 1	2540	8600
NUMBER 2	2600	8600
NUMBER 3	2670	8600
NUMBER 3B	2680	8600
NUMBER 4	2710	8600
NUMBER 4B	2750	8600
NUMBER 5	2770	8600
NUMBER 5B	2820	8600
NUMBER 6	2820	8600
NUMBER 7	2880	8600
NUMBER 7B	2890	8600
NUMBER 7C	2910	8600
NUMBER 7E	2940	8600
NUMBER 8	2960	8600
NUMBER 8B	2990	8600
NUMBER 9	3040	9250
NUMBER 10	3090	8600
NUMBER 11	3090	9250
NUMBER 12	3090	9250
NUMBER 13	3090	9250
NUMBER 14	3090	9250
NUMBER H36	2910	8600
NUMBER H38	2910	8600
NUMBER H361	2910	8600
NUMBER HT37	2910	12500
CHEM 34	2680	8600
CHEM 37	2950	8600
RIGID 29	2290	8600
RIGID 31	2440	8600
RIGID HT37	2950	8600
SEMI	2680	8600
BITUMEN	2330	33000
HOCKNEY	2500	12500
MOLASSES	2100	8600
ARMY	2210	8600
OLD RD TRAIN	2800	8600
MINI TANK	1230	8600
MIDI TANK	1760	8600

9/2/3
6 October 2006



Australian Government

**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Notification of Change
Certificate of Approval No 9/2/3
Change No 1

Issued by the Chief Metrologist under Regulation 60
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The following change is made to the approval documentation for the

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submitted by Holmwood Highgate (Aust)
77 Parramatta Road
Underwood QLD 4119.

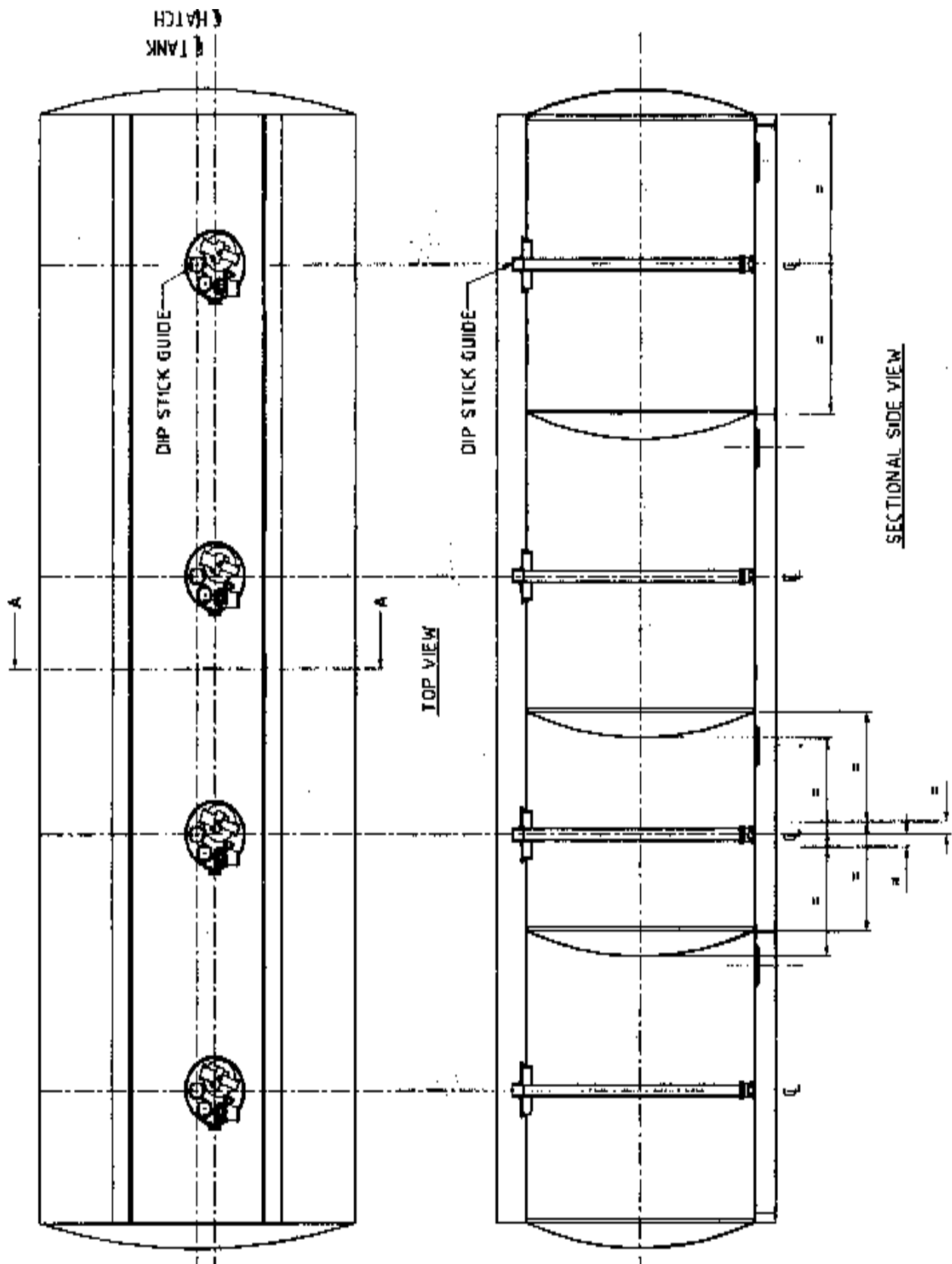
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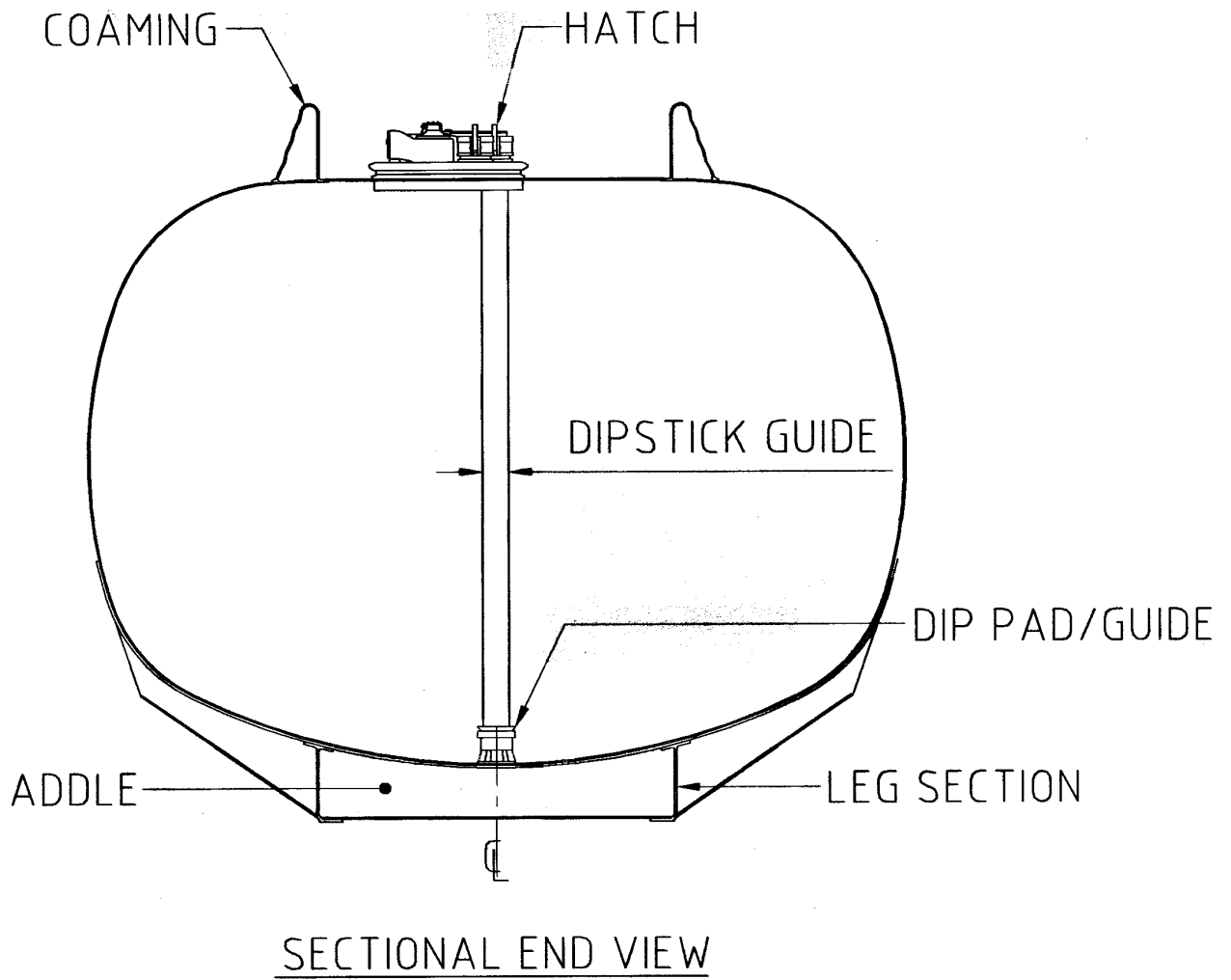
FIGURE 9/2/3 - 1



Holmwood Highgate Model PB-25800-4 Tanker

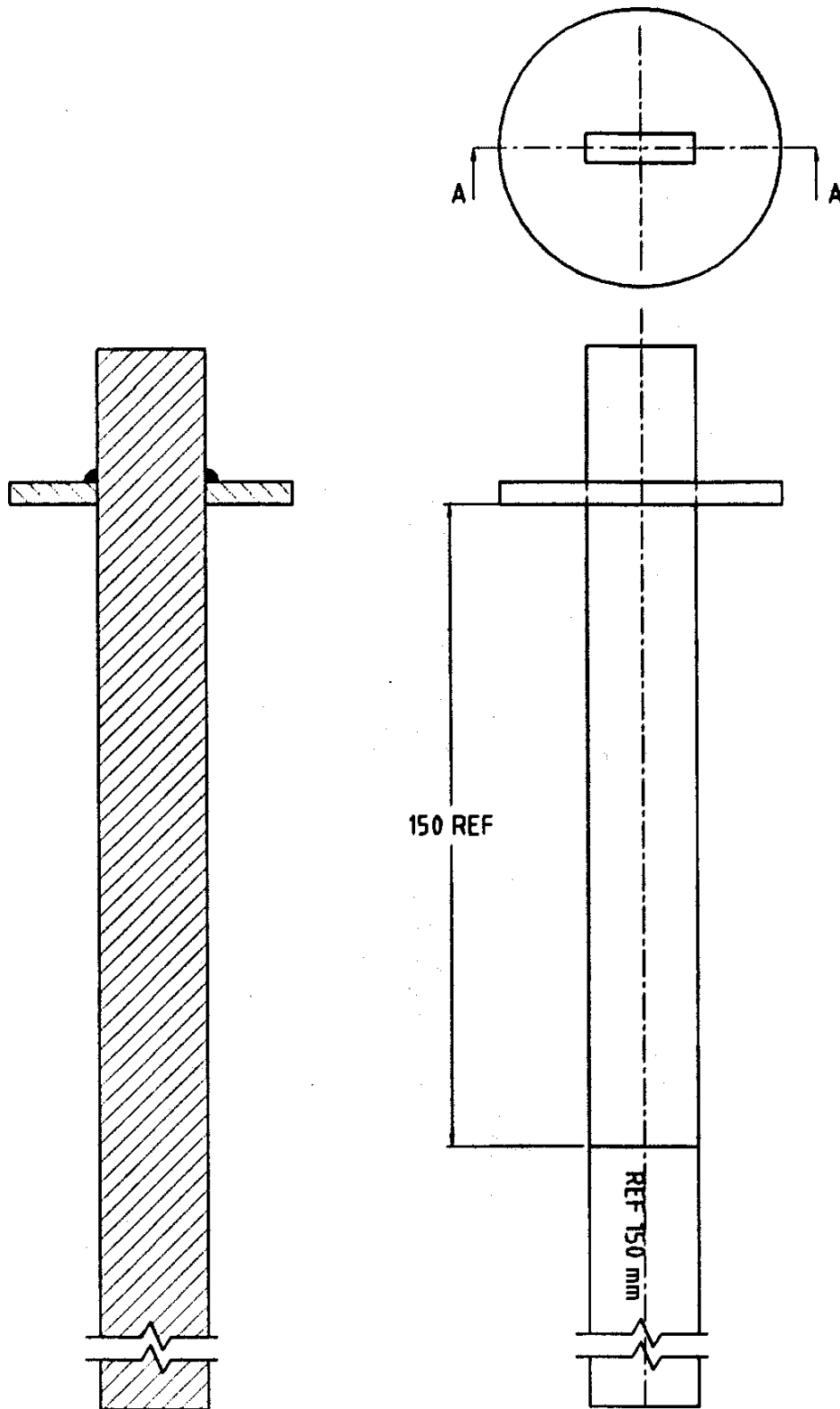
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FIGURE 9/2/3 - 2



Cross-section

FIGURE 9/2/3 - 3

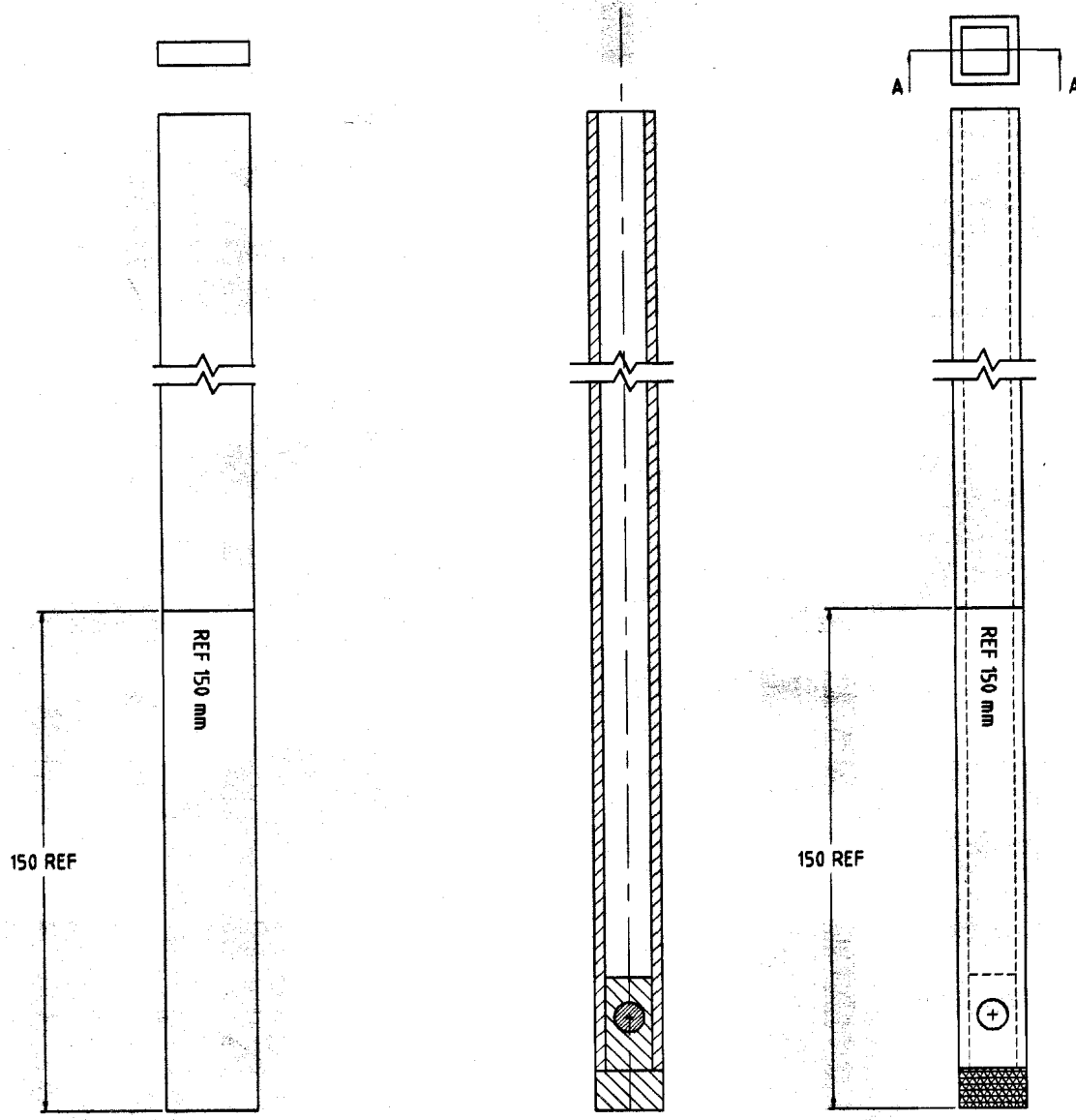


SECTION A - A

Typical Top-datum Dipstick

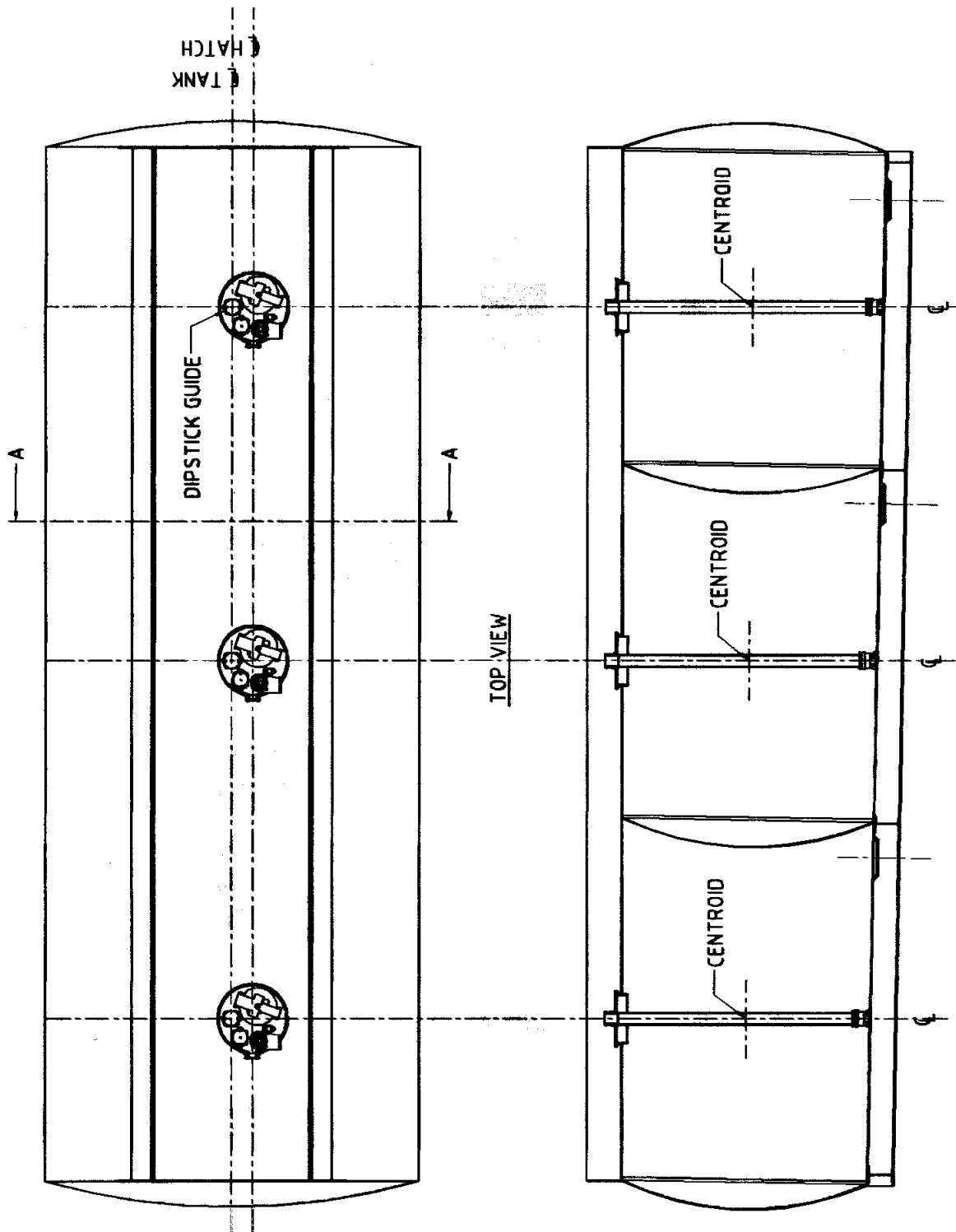
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FIGURE 9/2/3 - 4



Typical Bottom-datum Dipstick

FIGURE 9/2/3 - 5

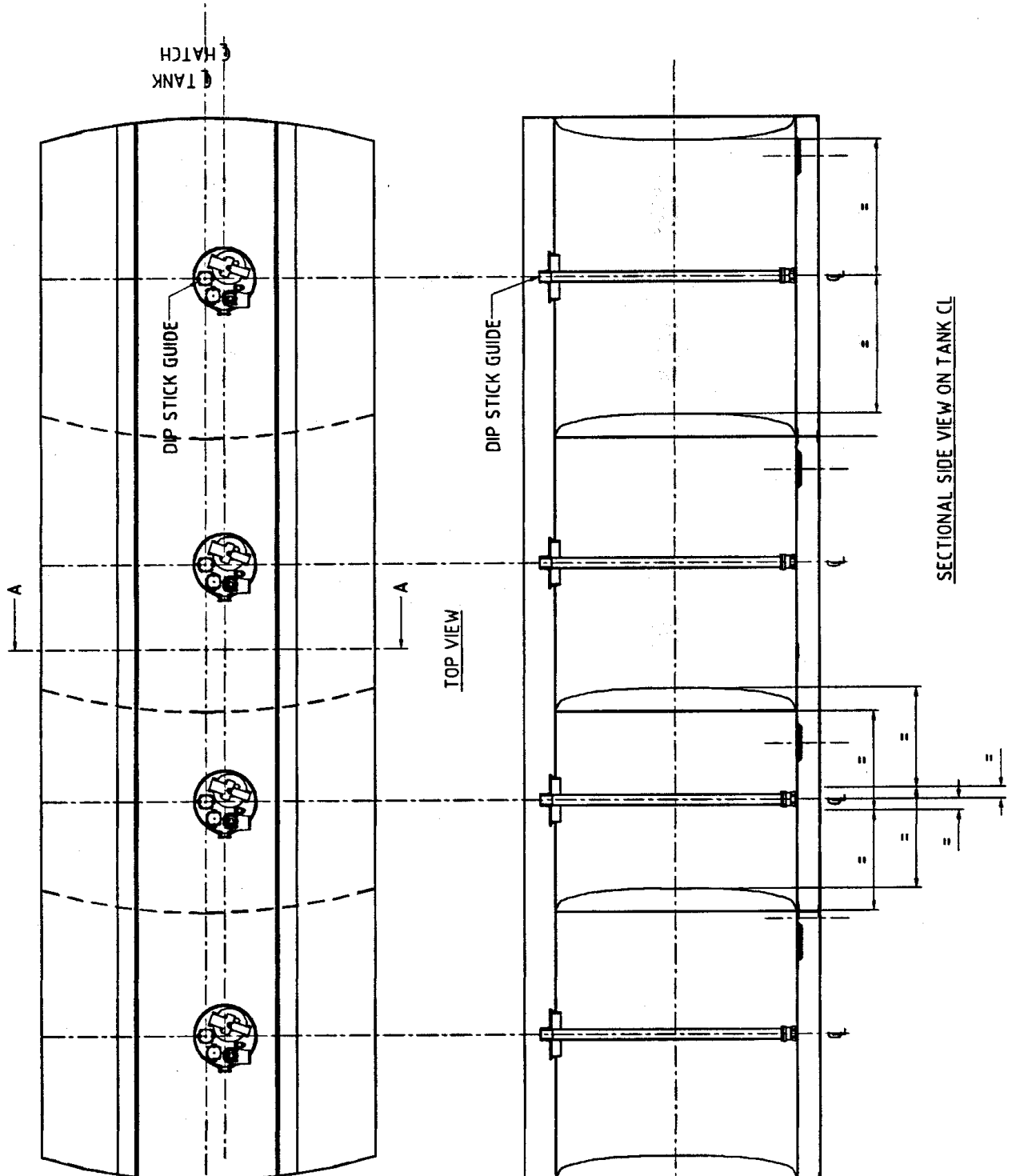


NOTE TAPER

Typical Tapered Barrel Tanker

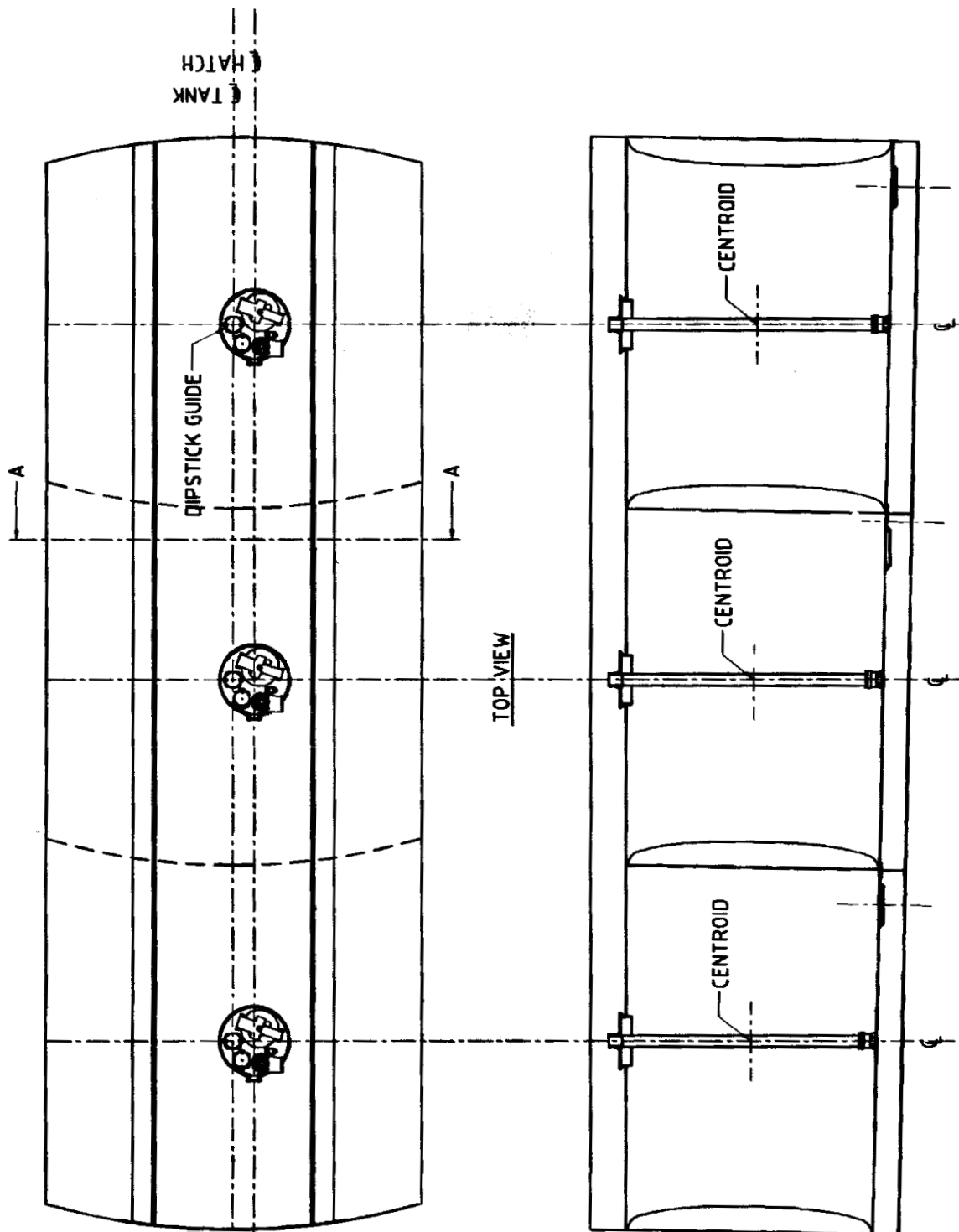
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FIGURE 9/2/3 - 6



Model PB-25800-4 Mark II Version Tanker

FIGURE 9/2/3 - 7



NOTE TAPER

Typical Tapered Barrel Mark II Version Tanker