



# Dangerous Goods Transport Bulk Road Design Approvals

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20th October 2010

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Dangerous Goods Unit  
Hazards Management Division



# WorkSafe Legislation that applies to Dangerous Goods Transport in Victoria



## *Dangerous Goods Act 1985*



## *Dangerous Goods (Transport by Road or Rail) Regulations 2008*

- To reduce as far as practicable the risk to persons, environment and property; and
- To give effect to the ADG Code (Technical Requirements); and
- To promote consistency between all States and Territories
- To promote intermodal consistency (Sea, Air & Road)



## *Australian Code for the Transport of Dangerous Goods by Road & Rail 7<sup>th</sup> Edition*

*Vol 2 Chapter 6.9 calls up Australian Standard AS 2809 Parts 1 to 6 "Road Tank vehicles for dangerous goods" as applicable.*

- Based on United Nations Model Regulations

# Background Dangerous Goods Road Transport



## **Background:**

There are approximately 6710 Vehicles licensed to Transport Dangerous Goods

## **Transporting predominantly**

- Petrol
- LP Gas

## **Other Goods**

- Corrosives: Sulphuric Acid, Hydrochloric Acid, Caustic
- Gases: Chlorine, Oxygen, Nitrogen, Carbon Dioxide
- Elevated temperature products: Bitumen



# Fuel Tanker







# ADG Code – bulk vehicle design compliance plates





# ADG Code – bulk vehicle design compliance plates



\* Problem on existing plates, the name of the issuing Authority is not shown (Refer to Part 6.9.2.2.3 of Code)







**ATE tankers**

**AUSTRALIAN TANK ENGINEERING PTY LTD.**  
Phone: 03 9310 2722 - [www.atetankers.com.au](http://www.atetankers.com.au)

TANKER SERIAL NO.

10-0159

DATE OF MANUFACTURE

FEBRUARY 2010

DESIGN CODE

AS2809.1 & AS2809.2

APPROVAL NO.

VDGT 1320

DESIGN PRESSURE

35 kPa

HEAD MATERIAL

7.0mm ALUM. 5083-0-TEMP.

SHELL MATERIAL

5.0mm ALUM. 5083-H321

MAX. PRODUCT DENSITY

1.0 Kg/LITRES

MAX. PRODUCT MASS

9850 Kg

TOTAL CAPACITY

9850 LITRES

DATE OF TEST

23/02/2010

TEST PRESSURE

35 kPa

NEXT TEST DATE

23/02/2010

NOTICE:  
THIS TANK IS CALIBRATED  
WITH INTERNAL VALVE OPEN  
& WITHOUT MANIFOLD FITTED.

WARNING:  
REPAIRS OR ALTERATIONS TO THIS  
TANK, PIPING, VALVES OR  
MANIFOLD MAY AFFECT THE  
ACCURACY OF THE ORIGINAL  
CALIBRATION AND CONDITIONS  
OF APPROVAL.

C1 9850 LT

C2 N/A LT

C3 N/A LT

C4 N/A LT

C5 N/A LT

C6 N/A LT

C7 N/A LT



# Dangerous Goods Design Plate



**MARSHALL LETHLEAN INDUSTRIES PTY. LTD. TEL: (03) 9791 7922**

GROSS CAPACITY	20000 LITRES	APPROVAL	NSC 9/01	GOMPT. 5	
DESIGN CODE AS2889 APP. No.	1000	GOMPT. 1		GOMPT. 6	
SERIAL No.	ML 5843	GOMPT. 2			
DATE OF MAN. AND TEST	10/01/2011	GOMPT. 3			
HEAD MATERIAL	304 STAINLESS	GOMPT. 4			
SHELL MATERIAL	304 STAINLESS	MARSHALL LETHLEAN			
DESIGN PRESSURE	200kPa				
MAX. DES. PRODUCT DENSITY Kg/ltr	1				
MAX. LIQUID LOAD Kg.	20000				
MAX. LOADING RATE L/MIN AT 20kPa	2000				
MAX. UNLOADING RATE L/MIN	2000	<p><b>NOTICE:</b> THIS TANK IS CALIBRATED WITH INTERNAL VALVE OPEN AND WITHOUT MANIFOLD FITTED.</p>			
<p><b>WARNING:</b> REPAIRS OR ALTERATIONS TO THIS TANK, PIPING, VALVES OR MANIFOLD MAY AFFECT THE ACCURACY OF THE ORIGINAL CALIBRATION AND/OR CONDITIONS OF APPROVAL.</p>					

**MARSHALL LETHLEAN**  
**SERIAL No ML 5843**  
**6 COMPARTMENTS**

**CALIBRATED BY**  
**CALIBRATION CONSULTANTS P/L**

# Dangerous Goods Bulk Transport – Road Tank vehicle designs *Stability angle*



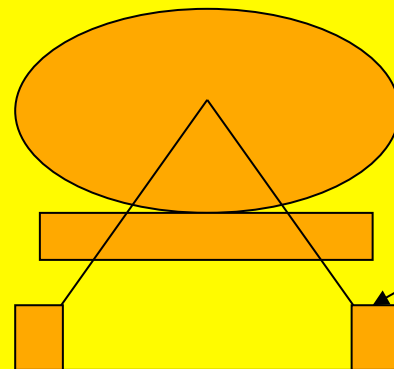
Dangerous Goods Act 1985

AS 2809.1 2008 Stability angle

Clause 2.1.1 Fully loaded Tanker

- Must have a stability angle not exceeding 64 degrees for a rigid road tank vehicle and:-
- Must not exceed 62 degrees for all other vehicles

Rear Tanker  
View



62 Degrees/64degrees – isosceles triangle, between the outside walls of the outside tyres to mass centroid of the tank



# What can you do to ensure your tankers are in order ?



## Dangerous Goods Act 1985

1. Ensure that your tanker has a valid design approval compliance plate.
2. Undertake the regular industry safety inspections for the tanker.
3. Maintain the tanker in a fit for road transport use.
4. Maintain all required dangerous goods and general heavy vehicle licences current and fully compliant.

When presenting the road tank vehicle for either a new or renewal of a bulk vehicle license ensure the required application to WorkSafe Victoria has the correct Dangerous Goods Bulk vehicle design approval number quoted – e.g. VDGT 2044 If this number is not provided or is not correct it will cause unnecessary delays license issue.

The WorkSafe Victoria Website has [www.workcover.vic.gov.au](http://www.workcover.vic.gov.au) has all required applications including guidance notes and documents for download and application lodgements