

Petroleum road tankers: Recommendations for a
standard method of inspection for a safe loading
pass (SLP)

PETROLEUM ROAD TANKERS: RECOMMENDATIONS FOR A STANDARD
METHOD OF INSPECTION FOR A SAFE LOADING PASS (SLP)

March 2016

Published by

ENERGY INSTITUTE, LONDON

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Registered charity number 1097899

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The EI gratefully acknowledges the financial contributions towards the scientific and technical programme from the following companies

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Phillips 66	Vitol
Qatar Petroleum	World Fuel Services

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ISBN 978 0 85293 746 4

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CONTENTS

	Page
Foreword	6
Acknowledgements	7
Introduction and scope	8
Change register	10
Standard method of inspection	11
1 Tank certificates (not relevant to tractor units)	12
1.1 Tank certificates – initial/intermediate/periodic	12
1.2 Tank certificate – vapour tightness	12
2 Cab interior	13
2.1 Roof hatch	13
2.2 Fire extinguisher	13
2.3 Tachograph	13
2.4 Additional in-cab electrical equipment	13
2.5 Battery master switch control	14
2.6 Daytime running lights (DRLs) and automatically powered headlights	15
2.7 Night heater (if fitted)	15
2.8 Cigarette lighter socket	16
2.9 Electrically operated/heated mirrors	16
2.10 Reserved (safety kits)	16
2.11 Reserved (instructions in writing)	16
3 Cab exterior	17
3.1 Wiring in door apertures	17
3.2 Electrically heated/operated mirrors	17
3.3 Reserved (door locks)	17
3.4 Cab front top outline marker lamps	17
3.5 Cab front lights	17
3.6 Reserved (orange coloured panel)	17
3.7 Male 'C' type air coupling and non-return valve	18
3.8 Rear engine cover and exhaust system	18
3.9 Rear window (if fitted)	18
4 Batteries, battery master switch and associated equipment	19
4.1 Battery box and cover	19
4.2 Batteries	20
4.3 Cables to the battery master switch	20
4.4 Battery master switch negative relay	21
4.5 Tachograph power cable	21
4.6 Battery boost socket (if fitted)	21
4.7 Battery master switch external controls	22
4.8 Battery main earth point	23

Contents continued...	Page
5 Electrical system (external to the cab)	24
5.1 Conductors (wiring).	24
5.2 Light units and other electrical components.	25
5.3 Additional operation/work lamps.	25
5.4 Permanently powered equipment (if fitted)	25
6 General equipment external to the cab	26
6.1 Tyres	26
6.2 Mudwings.	26
6.3 Fire extinguisher(s).	27
6.4 Electrical continuity to fifth wheel coupling and drive axle (tractors).	27
6.5 Reserved (tractors – power take off and hydraulic drive)	28
6.6 Reserved (rear bumper)	28
6.7 Reserved (hose racks).	28
6.8 Reserved (spill containment)	28
6.9 Reserved (tools/fittings)	28
6.10 Reserved (chock carrier(s))	28
6.11 Reserved (hazard panels)	28
6.12 Reserved (livery).	28
7 Inspection of tank plates, tank status, the tank, footvalves and pipework	29
7.1 Tank plates	29
7.2 Tank status	30
7.3 The complete tank shell including its (integral) supports.	30
7.4 The (vehicle mounted) mountings for the tank (if applicable).	30
7.5 Tank mounting fasteners	31
7.6 Footvalves	31
7.7 External product pipework, flanges and gaskets	31
8 Inspection of control system, interlocks and guard bar	32
8.1 Control cabinet	32
8.2 Anti-driveaway function	33
8.3 Guard bar (or cabinet door) covering the loading adaptors	34
8.4 Control system – vapour transfer valves and ESD operators	35
8.5 Control system – footvalve operation.	35
9 Inspection of labels and hazard panels	36
9.1 Notices and labels	36
9.2 Grade/product indicators (if fitted).	36
9.3 Hazard warning panels	37
10 Inspection of loading connections	38
10.1 Loading adaptor caps	38
10.2 Loading adaptors.	38
10.3 Vapour adaptor	39
10.4 Overfill prevention socket	40
10.5 Pressure switch	41
10.6 Loading adaptor support plate.	41

Contents continued...	Page
11 Inspection of tank top (including service equipment)	42
11.1 Tank top condition.	42
11.2 Tank top drainage	42
11.3 Pneumatic system on tank top.	42
11.4 Tank access chamber covers and neckrings (approx. 500 mm diameter).	42
11.5 Dip caps and mandrels (where fitted).	43
11.6 Vapour transfer valves (VTV) and hose connections to manifold	43
11.7 Emergency pressure relief valve (EPRV).	44
12 Tank/compartment internal inspection	45
12.1 Breather valves (Pressure – vacuum valves).	45
12.2 Compartment internal inspection	45
12.3 Central conductor (where required).	45
12.4 Footvalve installation/deflector plate	46
12.5 Overfill prevention system sensors	46
13 Electrical continuity checks – ground level.	47
13.1 Earth pin to tank and service equipment	47
13.2 Earth pin to axles and wheels	47
14 Reserved (inspection of delivery service equipment (if fitted))	48
14.1 Reserved (cargo pump, cradle, product pipes/hoses, controls, drive system)	48
14.2 Reserved (meter, cabinet (if fitted)).	48
14.3 Reserved (hosereel, reeling hose and hose end valve).	48
Annexes	
Annex A 2.1 Roof hatch – Fitment of security seals to a cab roof hatch if designed to be used as an emergency exit.	49
Annex B 2.4 Additional permanently powered electrical equipment.	50
Annex C 4.8 Battery main earth point – Alternative design for the connection point of the battery negative cable to the chassis.	51
Annex D 5.0 Electrical system external to the cab – examples of secondary insulation	52
Annex E 5.2 Mudwings – Repairs to mudwings of non-metallic material	53
Annex F 8.2 Procedure for testing the anti-drive away function	54
Annex G 12.5 Overfill prevention system sensors – wiring and sealing of sensor housing cap/adjustment screw	55
Annex H Sample Inspection forms – Rigid tanker, tractor, trailer	56
Annex I Acronyms	57

FOREWORD

This publication has been prepared by Robert Harris, Amber Engineering Consultancy Ltd, on behalf of members of the Energy Institute's (EI's) Road Tanker and Distribution Contractors Panels. It is aimed at organisations and their personnel who carry out inspections and tests on those tankers which carry the main petroleum fuels products (petrol, kerosene/jet fuel and diesel/gas oil). The principles may be readily extended to other tankers including those which carry liquefied petroleum gases, bitumen and lubricating oil.

This publication provides recommendations for the inspections required for an industry Safe Loading Pass Scheme (SLPS). Sister publications provide recommendations for the other occasions when inspection and testing of petroleum road tankers is practised, being:

- statutory periodic and intermediate inspections and exceptional checks (where necessary) required by ADR, and
- preventive maintenance inspections, normally carried out every six – eight weeks.

This publication supersedes the following EI publications, which are hereby withdrawn:

- *Model Code: the maintenance of road tankers used for the conveyance of petroleum fuels*
- *A model written scheme for the examination, testing and certification of petroleum road tankers*
- *Additional requirements to 'A model written scheme for the examination, testing and certification of petroleum road tankers' for ADR tankers*

The publication is presented in the format of a 'tester's manual' to assist on-site inspection and testing activities.

The EI is not undertaking to meet the duties of employers to warn and equip their employees, and others exposed, concerning health and safety risks and precautions, nor undertaking their obligations under local and regional laws and regulations.

This guidance is intended as a supplement to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR). If there is any conflict between the information contained in this guidance and the provisions of ADR then the provisions of ADR take precedence. If there is any doubt, advice should be sought from a specialist/Dangerous Goods Safety Adviser.

The information contained in this publication is provided as guidance only, and while every reasonable care has been taken to ensure the accuracy of its contents, the EI cannot accept any responsibility for any action taken, or not taken, on the basis of this information. The EI shall not be liable to any person for any loss or damage which may arise from the use of any of the information contained in any of its publications.

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Suggested revisions are invited and should be submitted to the Technical Department, Energy Institute, 61 New Cavendish Street, London, W1G 7AR (technical@energyinst.org).

ACKNOWLEDGEMENTS

This publication has been authored by Robert Harris (Amber Engineering Consultancy Ltd) on behalf of the EI's Road Tanker/Distribution Contractors Panel. At the time of publication the Panel membership comprised representation from the following companies:

BP
DHL/Exel
ExxonMobil
Federation of Petroleum Suppliers
Freight Transport Association
Harris Group (Purfleet Commercials)
Hoyer Petrolog
Phillips 66
Shell UK Oil Products
SMMT
Suckling Transport
Turners of Soham
Valero
Wincanton

The author acknowledges with thanks the additional guidance provided by John Kight of John Kight Services Ltd., Simon Miller of MAN Northern Ltd., and Damian Taylor and Russell Ashley of Keltruck Ltd.

INTRODUCTION AND SCOPE

This publication defines the standard inspection method for road tankers used for the carriage of liquid petroleum fuels.

It covers the type of tanks typically used for the carriage of petrol (UN1203), kerosene (UN1223), aviation turbine fuel (UN1863), diesel and gas oil (UN1202) and therefore specifically excludes tanks which are:

- pressure tanks (i.e. with a working pressure exceeding 0,5 bar);
- lined or coated tanks;
- insulated tanks;
- vacuum insulated tanks;
- tank containers;
- portable tanks, and
- tanks made from materials other than metallic.

There are three principal occasions when inspection and testing of petroleum road tankers is practised. Firstly there is a need to comply with the statutory periodic and intermediate inspections and exceptional checks (where necessary) required by ADR and the referenced standard EN 12972 – *Tanks for the transport of dangerous goods – testing, inspection and marking of metallic tanks*. Secondly, there is a need for preventive maintenance inspections, normally carried out every six – eight weeks, and which should include the tank and its equipment. Finally there may be an inspection required for an industry SLPS. In principle these inspections are similar, it being predominantly the extent of the inspections which varies and not the way in which an inspection of a particular item is performed.

The standard inspection method defined by this publication is intended to cover the inspections recommended for an industry SLPS. The standard inspection method is intentionally specific to road tankers used for the carriage of liquid petroleum fuels only, although the principles and format of this publication may be extended to cover any design of tank.

This publication has been developed with the engagement of UK inspection bodies and industry specialists, in accordance with EI policies for the development of EI technical publications, and is therefore considered to fulfil the criteria for a 'standard inspection method' as defined in ISO 17020 *Conformity assessment – Requirements for the operation of various types of bodies performing inspection*, clause 7.1.

Inspections and tests described in this publication should be undertaken at facilities which conform to the recommendations of EI *Design, construction and operation of workshops for petroleum road tanker maintenance*, 2015.

The format for the document has been inspired by the UK's Driver and Vehicle Standards Agency's *Heavy goods vehicle inspection manual*; the interpretation of descriptions of 'reasons for failure' such as 'worn to excess' used throughout this publication are as follows:

Excessive travel

Abnormal amount of movement such that a component has reached a stage when it requires remedial action to enable it to:

- operate effectively as designed;
- prevent it from reaching the end of its permitted travel, or
- prevent it from exceeding the manufacturer's known maximum permitted limits.

Excessive wear

Worn to such an extent that a component is:

- likely to fail;
- clearly not functioning effectively as designed;
- visibly worn beyond the manufacturer's known permitted limits, or
- likely to affect the operation or condition of another safety related component.

Insecure

In a defective condition such that a component:

- has relative movement (looseness) either at its fixings or in relation to an associated component where there should be none, or
- is not safely or completely attached either at its fixing or to an associated component.