



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

JUL 21 1999

400 Seventh Street, S.W.  
Washington, D.C. 20590

DOT-E 12191

EXPIRATION DATE: June 30, 2001

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Van Hool NV, B-2500 Lier Koningshooikt, Belgium  
(U.S. Agent: Aris Antoniou, Houston, Texas)
2. PURPOSE AND LIMITATIONS:
  - a. This exemption authorizes the manufacture, marking, sale and use of certain non-DOT specification steel portable tanks conforming with all regulations applicable to a DOT Specification IM 101 steel portable tank, except as specified herein, for the transportation in commerce of the materials authorized by this exemption. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171- 180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 178.270-3(c) in that the maximum allowable stress value may not exceed 125 percent of the specified minimum yield and tensile strength specified in the national standard to which the material is manufactured; and § 178.270-5(b)(2) in that the equivalent shell thickness must be at least 6.00 mm (0.236 inch).
5. BASIS: This exemption is based on the application of Van Hool dated November 7, 1998, and supplemental information dated April 5, June 23, and July 2, 1999, submitted in accordance with § 107.105 and the public proceeding thereon.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Those materials authorized for a DOT Specification IM 101 steel portable tank, subject to the applicable "T" Codes in the Hazardous Materials Table. <sup>1</sup>	3 4.2 4.3 5.1 8 9	Various	I, II, or III as appro- priate

<sup>1</sup> Tanks may not be used for materials where the applicable T Code requires a wall thickness greater than 6.35 mm or a test pressure greater than 6 bar.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification steel portable tank enclosed in an ISO frame that is certified by the American Bureau of Shipping (ABS) to be in conformance with the requirements for a DOT Specification IM 101 steel portable tank, except § 178.270-3(c) in that a special stainless steel material not conforming to a national standard is authorized (in addition to standard materials) and § 178.270-5(b)(2) in that the head and wall thicknesses must be equivalent to at least 6.00 mm (0.236 inch) in the reference (mild) steel. The portable tank is designed and fabricated as a vessel of sandwich wall construction consisting of a stainless steel inner vessel and insulation plus an outer stainless steel cladding rather than as a single walled vessel. Each portable tank must be manufactured in accordance with Van Hool NV drawings OP99020501 and 68755-006, other drawings and specifications on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in accordance with the following:

(1) Specification - Each tank must conform to the DOT IM 101 Specification in all respects except as specified above.

(2) Materials - Each inner vessel must be constructed of cold-rolled stainless steel meeting DIN 1.4404 (equivalent to SA 240 316L) or DIN 1.4436 + Ti which has been certified by TUV. The value of the product of  $[R_m A_1]$  for the material DIN 1.4436 + Ti used in § 178.270-5(c) is not to exceed 31,300.

+ Ti which has been certified by TUV. The value of the product of  $[Rm_1A_1]$  for the material DIN 1.4436 + Ti used in § 178.270-5(c) is not to exceed 31,300.

(3) Head and wall construction - the following head and wall construction is authorized.

Material of Construction	Head and Wall Construction and Thicknesses
DIN 1.4404	3.35 mm inner vessel + 50 mm insulation + 0.8 mm cladding
DIN 1.4436 + TI	3.4 mm inner vessel + 50 mm insulation + 0.7 mm cladding

(4) Tank Capacity and Pressure - Up to 24,000 L (6340 US gallons) in capacity and a design pressure of 4.0 bar (58 psig) with a test pressure of 6.0 bar (87 psig).

(5) Pressure Relief - For each tank design, a 2½ inch diameter spring-loaded safety relief valve set at 110% of the design pressure must be provided. A rupture disc in series with the relief valve is optional.

(6) Maximum Gross Weight: 74,956 lbs.

(7) Design Temperature Range: -40°C (-40°F) to 93°C (200°F).

(8) Welded Joints - Welded joints must be 100% tested by a non-destructive method authorized by the ASME Code.

(9) Corrosion Allowance - 0.0.

(10) G-Loadings: Vertical down - 3; Vertical up - 1; Longitudinal - 2; Transverse - 1.

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b. TESTING - Each portable tank must be tested and retested and reinspected as specified for DOT Specification IM 101 steel portable tanks.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. MARKING - Each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background, "DOT-E 12191".

g. A test report documenting a satisfactory ISO prototype test for each tank design must be on file with OHMEA prior to the first shipment.

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9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this exemption.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
  - o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption

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must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.

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Alan I. Roberts  
Associate Administrator for  
Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for  
Hazardous Materials Safety, Research and Special Programs  
Administration, Department of Transportation, Washington, D.C.  
20590. Attention: DHM-31.

The original of this exemption is on file at the above office.  
Photo reproductions and legible reductions of this exemption  
are permitted. Any alteration of this exemption is  
prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S.  
Department of Transportation, 400 7th Street, S.W.,  
Washington, DC 20590-0001, Attention: Records Center, 202-366-  
5046.

Dist: FHWA, FRA, USCG  
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