

Title (en)
Boss structure

Title (de)
Nabenstruktur

Title (fr)
Structure de bossage

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Application
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Abstract (en)
The present invention relates to the boss structure (1) of the CNG (compressed natural gas) tanks. The boss structure (1), which is manufactures in a single stage, can resist the forces created by the pressure of compressed natural gas in the axial direction of the tank. The boss structure (1) of the present invention has a boss part (4) which can be fixed on an outer apparatus during torquing and tightening of the valve and which thus enables to prevent transmission of the resulting torque to the internal liner which has a weak strength.

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Citation (applicant)
• US 5476189 A 19951219 - DUVALL PAUL F [US], et al
• EP 0550951 A1 19930714 - BRUNSWICK CORP [US]
• US 5979692 A 19991109 - WEST BILL J [US]

Citation (search report)
• [X] US 2011304083 A1 20111215 - STRACK LUDGER [DE]
• [X] DE 19631546 C1 19971113 - MANNESMANN AG [DE]
• [X] US 2008251520 A1 20081016 - OTA MASAHIKO [JP], et al
• [X] WO 2010080948 A1 20100715 - LINCOLN COMPOSITES [US], et al
• [X] FR 2962782 A1 20120120 - DJP [FR]
• [X] DE 19751411 C1 19990114 - MANNESMANN AG [DE]
• [X] US 2007164561 A1 20070719 - KWON YOUNG-JUN [KR], et al
• [XA] EP 2034199 A1 20090311 - YACHIYO IND CO LTD [JP]
• [XA] EP 2322841 A2 20110518 - YACHIYO IND CO LTD [JP]

Cited by
US2023022376A1; DE102015223538B4; US2022099250A1; CN110637186A; CN110107798A; CN114542973A; US11828415B2; US11371653B2; EP3964745A1; WO2023003688A1

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