

Title (en)

A method and a system for drain liquid collection and evacuation in a subsea compression system

Title (de)

Verfahren und System zur Abflussflüssigkeitssammlung und -entleerung in einem Unterwasser-Verdichtungssystem

Title (fr)

Procédé et système de collecte et d'évacuation de liquide de drain dans un système de compression sous-marine

Publication

EP 2799716 A3 20150520 (EN)

Application

EP 14001520 A 20140430

Priority

NO 20130604 A 20130430

Abstract (en)

[origin: EP2799716A2] A system and a method for drain liquid collection and evacuation in a subsea compression system using a compressor (1) is disclosed, wherein an external drainage tank (10) is arranged in direct flow communication with the compressor sump via a sump evacuation valve (12). The drainage tank can be set under compressor discharge pressure (17, 18) via a tank pressurizing line (18) arranged to connect the drainage tank to a compressor discharge flow (7) upstream of a throttle valve (21), and a tank evacuation line (20) is arranged to connect the drainage tank to the compressor discharge flow (7) downstream of the throttle valve (21). Drain liquid evacuation is accomplished through generation, by adjusting the throttle valve (21), of a flow restriction in the compressor discharge flow (7) while setting the drainage tank under compressor discharge pressure by opening of the pressure valve (17) and permitting drain liquid flow into a reduced compressor discharge pressure downstream the throttle valve (21) by opening an evacuation valve (19) in the evacuation line (20).

IPC 8 full level

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Citation (search report)

- [I] EP 2233745 A1 20100929 - SIEMENS AG [DE]
- [I] WO 2011008103 A1 20110120 - FMC KONGSBERG SUBSEA AS [NO], et al
- [A] WO 2012164382 A1 20121206 - VETCO GRAY SCANDINAVIA AS [NO], et al

Cited by

NO20180680A1; NO344895B1; US10738789B2; WO2016050978A1; WO2019221608A1; US11624480B2

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EP 2799716 A2 20141105; **EP 2799716 A3 20150520**; AU 2014202201 A1 20141113; BR 102014008799 A2 20160105; BR 102014008799 A8 20160202; NO 20130604 A1 20141031; NO 335664 B1 20150119; US 2014318636 A1 20141030

DOCDB simple family (application)

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