

Title (en)

Process and installation for supplying gaseous carbon monoxide by cryogenic distillation

Title (de)

Verfahren und Installation zur Bereitstellung eines gasförmigen Kohlenstoffmonoxids durch kryogene Destillation

Title (fr)

Procédé et installation pour la fourniture d'un monoxyde de carbone gazeux par distillation cryogénique

Publication

EP 2562502 A1 20130227 (EN)

Application

EP 11306060 A 20110823

Priority

- EP 11306060 A 20110823
- IN 1810DE2011 A 20110624

Abstract (en)

In a process for supplying gaseous carbon monoxide by cryogenic distillation, a feed gas (1), containing carbon monoxide as at least one of its principal components and at least one other components chosen from methane, nitrogen and hydrogen, is purified using an adsorption step in one of at least two adsorbent beds (3) to produce a purified feed gas to be sent to the separation unit comprising at least one distillation column (7, 19, 27), the separation unit separates the feed gas to produce gaseous carbon monoxide and the gaseous carbon monoxide is compressed in a product compressor (35) to produce a final product at a product pressure, refrigeration is supplied to the process by a carbon monoxide cooling cycle in which a cycle fluid is compressed in at least the product compressor, cooled and expanded wherein at least part of the carbon monoxide is liquefied to form pressurised liquefied carbon monoxide and part of the pressurised liquefied carbon monoxide (51 A, 53A, 59A), is vaporised at the product pressure to form a pressurised gaseous back-up stream which is then mixed with the final product, vaporisation of the carbon monoxide taking place only when there is an increase in demand for pressurised carbon monoxide.

IPC 8 full level

F25J 3/02 (2006.01)

CPC (source: EP)

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Citation (applicant)

- EP 1245533 A1 20021002 - AIR LIQUIDE [FR]
- EP 1479989 A1 20041124 - AIR LIQUIDE [FR]

Citation (search report)

- [XDY] EP 1479989 A1 20041124 - AIR LIQUIDE [FR]
- [Y] DE 102005003497 A1 20060727 - LINDE AG [DE]
- [A] JP S63163771 A 19880707 - DAIDO OXYGEN
- [A] DE 3631332 A1 19880324 - LINDE AG [DE]

Cited by

EP4249837A1; FR3133665A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

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DOCDB simple family (application)

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