

Title (en)
Two-stage compression cycle

Title (de)
Zweistufiger Kompressionszyklus

Title (fr)
Cycle de compression à deux étages

Publication
EP 2863151 A3 20150729 (EN)

Application
EP 14188877 A 20141014

Priority
JP 2013216944 A 20131018

Abstract (en)
[origin: EP2863151A2] An object is to provide a two-stage compression system that has no need for oil equalization between a lower-stage compressor and a higher-stage compressor, which makes it possible to simplify the configuration, and that makes it possible to reliably ensure appropriate oil levels in both the lower-stage compressor and the higher-stage compressor. In a two-stage compression system (1) in which a lower-stage compressor (2) and a higher-stage compressor (3) are disposed in series, and an oil separator (7) is provided on a discharge side of the higher-stage compressor (3), a first oil-returning circuit (11) and a second oil-returning circuit (12), which are independent of each other, are provided so as to be connected between the oil separator (7) and the lower-stage compressor (2) and the higher-stage compressor (3), and $V1 > V2$ is satisfied, assuming that the volume of oil returned to the lower-stage compressor (2) from the first oil-returning circuit (11) is $V1$, and the volume of oil returned to the higher-stage compressor (3) from the second oil-returning circuit (12) is $V2$.

IPC 8 full level
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CPC (source: EP US)
F25B 1/10 (2013.01 - EP US); **F25B 31/004** (2013.01 - EP); **F25B 41/40** (2021.01 - EP US); **F25B 2400/072** (2013.01 - EP); **F25B 2400/075** (2013.01 - EP)

Citation (search report)

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