

Title (en)  
INTERNAL COMBUSTION ENGINE

Title (de)  
BRENNKRAFTMASCHINE

Title (fr)  
MOTEUR À COMBUSTION INTERNE

Publication  
**EP 4257812 A1 20231011 (EN)**

Application  
**EP 22166697 A 20220405**

Priority  
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Abstract (en)  
The present invention relates to internal combustion engines comprising a system for exhaust gas recirculation and to methods for running such internal combustion engines. The internal combustion engine (100), namely a large vessel engine or a stationary engine, comprises at least one cylinder (1) having an inner diameter (2) of at least 200mm. The internal combustion engine (100) comprises a system (10) for exhaust gas recirculation with an EGR path (11) arranged between an exhaust outlet (3) and an air inlet (4) of the cylinder (1). The internal combustion engine (100) comprises a turbocharger (5) with a turbine (6) and a compressor (7). The system (10) for exhaust gas recirculation is a low-pressure system, wherein exhaust gas is guidable via the turbine (6) of the turbocharger (5) and at least a part of the exhaust gas is guidable to the air inlet (4) of the cylinder (1) through the compressor (7) of a turbocharger (5). The EGR path (11) comprises a flow regulating valve (12), arranged upstream of the compressor (7), and a shut-off valve (13), arranged downstream of the turbine (6) and upstream of the flow regulating valve (12). The internal combustion engine (100) comprises an air-supply system (20) for guiding scavenging air from a scavenge air-line (8) and/or from a scavenge air-receiver (9) into the EGR path (11) on demand.

IPC 8 full level  
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