

Title (en)  
GAS COOLING DEVICE

Title (de)  
GASKÜHLVORRICHTUNG

Title (fr)  
DISPOSITIF DE REFROIDISSEMENT DE GAZ

Publication  
**EP 4365423 A1 20240508 (EN)**

Application  
**EP 23196925 A 20230912**

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Abstract (en)  
The invention relates to a cooling device for cooling gas in an internal combustion engine, an internal combustion engine with a cooling device and a method for maintaining a cooling device. A Cooling device (1) for cooling a gas in a large internal combustion engine (100) comprises a housing (2) with a gas inlet (3) and a gas outlet (4). The cooling device (1) comprises a first cleaning device (50), wherein the first cleaning device (50) comprises a fluid spray system (51), the fluid spray system (51) comprising at least two arrays (53) of array spray nozzles (52) and comprises at least one valve (54a, 54b), allowing passage only through a part of the arrays (53) of array spray nozzles (52), in particular only to one array (53) of array spray nozzles (52), at a time. Alternatively or additionally, the cooling device (1) comprises a second cleaning device (10), wherein the second cleaning device (10) comprises at least one first fluid spray nozzle (11), which is arranged downstream a first cooling stage (12) of the cooling device (1) and upstream a second cooling stage (13) of the cooling device (1). Alternatively or additionally the cooling device (1) comprises a third cleaning device (20) wherein the third cleaning device (20) comprises a lubricant spray system (21), preferably comprising at least one lubricant spray nozzle (22), connected or connectable to a lubricant rail (23), preferably arranged close to the gas inlet (3).

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