

Title (en)
HEAT ENGINE WITH STEAM SUPPLY DEVICE

Title (de)
WÄRMEKRAFTMASCHINE MIT DAMPFZUFUHRVORRICHTUNG

Title (fr)
MOTEUR THERMIQUE AVEC DISPOSITIF D'ALIMENTATION EN VAPEUR

Publication
EP 4193049 A1 20230614 (DE)

Application
EP 21765831 A 20210802

Priority
• DE 102020209850 A 20200805
• DE 102021201627 A 20210219
• DE 2021100664 W 20210802

Abstract (en)
[origin: WO2022028651A1] The present invention relates to a heat engine (1), in particular an aircraft engine (3), having a first compressor (10) for supplying a combustion chamber (11) of the heat engine (1) with air and a first turbine (12) arranged downstream of the combustion chamber (11) for driving the first compressor (10), wherein the heat engine also has at least one steam supply line (24) for supplying steam from a steam source (25) into the combustion chamber (11). The heat engine (1) also has a steam supply device (2), which has a second compressor (20) and is designed to compress the working gas further by means of the second compressor (20) as a function of a mass flow conducted through the steam supply line (24), before said working gas flows into the combustion chamber (11).

IPC 8 full level
F02C 7/141 (2006.01); **F01D 25/32** (2006.01); **F02C 3/30** (2006.01); **F02C 7/16** (2006.01)

CPC (source: EP US)
B64D 27/18 (2013.01 - EP US); **B64D 27/40** (2024.01 - EP US); **B64D 29/06** (2013.01 - EP US); **B64D 33/04** (2013.01 - EP); **B64D 33/10** (2013.01 - EP US); **F01D 25/32** (2013.01 - EP); **F01N 3/0205** (2013.01 - US); **F02C 3/305** (2013.01 - EP US); **F02C 7/141** (2013.01 - EP US); **F02C 7/16** (2013.01 - EP US); **F02C 7/18** (2013.01 - EP US); **B64D 33/08** (2013.01 - US); **F01N 3/02** (2013.01 - US); **F01N 13/082** (2013.01 - US); **F01N 2260/02** (2013.01 - US); **F02C 7/12** (2013.01 - US); **F02C 7/185** (2013.01 - US); **F05D 2220/323** (2013.01 - EP US); **F05D 2220/72** (2013.01 - EP US); **F05D 2260/213** (2013.01 - EP US); **F05D 2260/602** (2013.01 - EP); **F05D 2270/08** (2013.01 - EP US); **F05D 2270/082** (2013.01 - US); **F05D 2270/0831** (2013.01 - US); **Y02T 50/60** (2013.01 - EP)

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)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102021201629 A1 20220210; DE 102021201627 A1 20220210; DE 102021202602 A1 20220210; DE 112021004156 A5 20230810; EP 4193047 A1 20230614; EP 4193048 A1 20230614; EP 4193049 A1 20230614; US 11965462 B2 20240423; US 12060830 B2 20240813; US 2023286661 A1 20230914; US 2023332522 A1 20231019; US 2023366349 A1 20231116; WO 2022028651 A1 20220210; WO 2022028652 A1 20220210; WO 2022028653 A1 20220210

DOCDB simple family (application)
DE 102021201629 A 20210219; DE 102021201627 A 20210219; DE 102021202602 A 20210317; DE 112021004156 T 20210802; DE 2021100664 W 20210802; DE 2021100665 W 20210802; DE 2021100666 W 20210802; EP 21759237 A 20210802; EP 21759238 A 20210802; EP 21765831 A 20210802; US 202118040444 A 20210802; US 202118040460 A 20210802; US 202118040526 A 20210802