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(54) COMBUSTION SECTION FOR A TURBINE ENGINE

(57) The present disclosure relates to a combustion section (100, 500, 800, 900, 1200, 1300, 1400, 1500) for a turbine engine. The combustion section (100, 500, 800, 900, 1200, 1300, 1400, 1500) includes a wall (102, 502, 802, 902, 1202, 1302, 1402, 1502) that at least partially defines a combustion chamber (104, 504, 804, 904, 1204, 1304, 1404, 1504). A fuel nozzle (108, 508, 708, 808, 908, 1208, 1308, 1408, 1508) extends through the wall (102, 502, 802, 902, 1202, 1302, 1402, 1502) and opens into the combustion chamber (104, 504, 804, 904, 1204, 1304, 1404, 1504). The fuel nozzle (108, 508, 708, 808, 908, 1208, 1308, 1408, 1508) comprises a fuel nozzle body (110, 510, 710, 810, 910, 1210, 1310, 1410, 1510) defining a central channel (114, 514, 714, 814, 914, 1214, 1314, 1414, 1514) that exhausts into the combustion chamber (104, 504, 804, 904, 1204, 1304, 1404, 1504) at a nozzle outlet (118, 518, 818, 918, 1218, 1318, 1418, 1518). A swirler (120, 220, 320, 420, 520, 720, 820, 920, 1020, 1120, 1220, 1320, 1420, 1520, 1620, 1720) is provided within the central channel (114, 514, 714, 814, 914, 1214, 1314, 1414, 1514) and has a body centerline (122, 222, 322, 422, 522, 822, 922, 1022, 1122, 1222, 1322, 1422, 1522, 1622, 1722). The swirler (120, 220, 320, 420, 520, 720, 820, 920, 1020, 1120, 1220, 1320, 1420, 1520, 1620, 1720) is movable within the central channel (114, 514, 714, 814, 914, 1214, 1314, 1414, 1514) about a plane of movement (1378, 1478, 1578), thereby enabling adjustment of flow characteristics within the fuel nozzle (108, 508, 708, 808, 908, 1208, 1308, 1408, 1508) to influence mixing and combustion behavior within the combustion chamber (104, 504, 804, 904, 1204, 1304, 1404, 1504).

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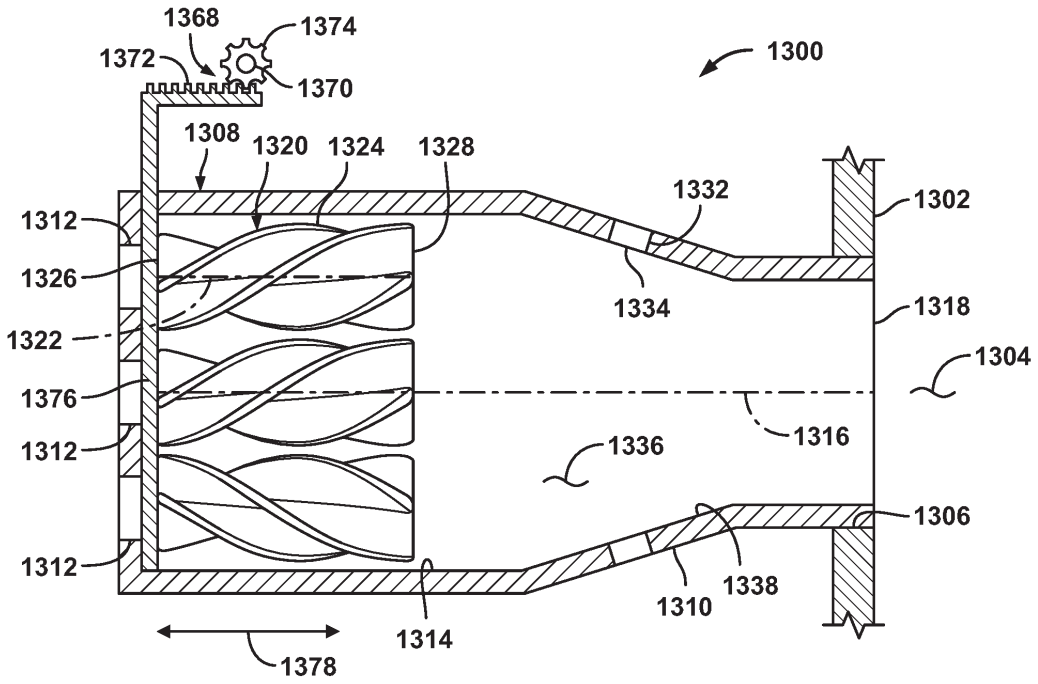

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FIG. 21

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EUROPEAN SEARCH REPORT

Application Number
EP 26 15 1186

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	14 August 2026	Mootz, Frank

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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Application Number
EP 26 15 1186

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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TECHNICAL FIELDS SEARCHED (IPC)

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
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& : member of the same patent family, corresponding document

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Application Number
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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-12

Combustion section having swirler moved by actuator

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2. claims: 13-15

Combustion section having swirler moved by fluid

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 26 15 1186

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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14-08-2026

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