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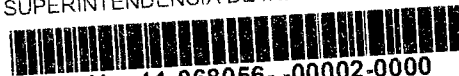
Clarke, Modet & Cº
COLOMBIA

P-2959

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

E. S. D.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 11-068056-00002-0000

Fecha: 2011-09-29 16:08:35 Dep. 2020 DIR.NUEVASCR
Tra. 11 PATENTEIYII Eve: 379 FASENACIONALII
Act. 444 RESPUESTAREQUE Folios: 15

Ref.: Expediente No. 11.068.056
Solicitud de Patente a nombre de
ARES TURBINE AS

Yo, DILIA MARÍA RODRÍGUEZ D'ALEMAN, identificada como aparece al pie de mi firma, domiciliada en la Carrera 11 No. 86-53, piso 6, obrando como apoderada de la sociedad **ARES TURBINE AS**, solicitante de la patente de la referencia, en respuesta al oficio No. 12415 notificado por fijación en lista el día 11 de Agosto de 2011, atentamente me permito presentar:

1. Documento donde consta la cesión del derecho a la patente otorgada por los inventores a favor de mi mandante.

Sobre el particular, es importante resaltar que de conformidad con las normas legales vigentes, numeral 1.2.1.1 del Capítulo Primero, Título X de la Circular Única expedida por la Superintendencia de Industria y Comercio, y artículo 2 de la Convención de la Haya, el documento en inglés que se pretenda aportar como parte de los trámites de propiedad industrial ante la Superintendencia de Industria y Comercio no requiere traducción. Por otro lado, la legalización consular y/o diplomática de los documentos expedidos en el extranjero no es necesaria. Por lo tanto, los documentos anexos a este memorial son válidamente presentados en idioma inglés y con la correspondiente apostilla.

2. Copia auténtica del poder junto con el Certificado de Existencia y Representación Legal de dicha sociedad y con su respectiva traducción del inglés al español.
3. Copia simple del Examen Preliminar Internacional sobre Patentabilidad (IPRP) actualizado, con la respectiva traducción de sus anexos. Toda vez que por un error involuntario el originalmente presentado (folios 32-35 de la solicitud de patente presentada el 2011-06-01) solo hacía referencia a una hoja de modificaciones cuando en realidad eran dos.

Espero con esto haber dado cabal cumplimiento a lo solicitado por ese despacho y de conformidad con lo indicado en los artículos 3º, inciso 3, 35 inciso 2 y 59 inciso 2 del CCA, al analizar este memorial, atentamente ruego se traten todas las cuestiones planteadas con motivo del mismo.

Señor Superintendente,

DILIA MARÍA RODRÍGUEZ D'ALEMAN
C.C. 41.654.882 de Bogotá.
T.P. 20824 CSJ

Clarke, Modet & C^o

COLOMBIA

E-MAIL: info@clarkemodet.com.co
SANTAFÉ DE BOGOTÁ, A.A. 92397 COLOMBIA

P-7959
M

CESION

ASSIGNMENT

El (la) abajo firmante (En adelante EL CEDENTE)

The undersigned (Hereinafter THE ASSIGNOR)

KLEVEN, Ole, Bjørn

KLEVEN, Ole, Bjørn

en su carácter de inventor /diseñador
con domicilio en:
Kvisla N-3580 Geilo, Noruega

Inventor /designor of domiciled at :
Kvisla N-3580 Geilo, Noruega

Por el presente documento declara que cede todos y cada uno de los derechos que le corresponden o puedan corresponderle sobre la siguiente invención, modelo de utilidad, diseño industrial No. PCT/NO2009/000404

Do hereby declare that it assigns all and each of his rights and privileges on the following invention, industrial design, and utility model No. PCT/NO2009/000404

a: ARES TURBINE AS

to ARES TURBINE AS

Con domicilio en Elvevegen 4 N-3550 Gol, Noruega.

With domicile in Elvevegen 4 N-3550 Gol, Norway.

En prueba de la mutua aceptación de esta cesión ambas partes CEDENTE y CESIONARIO firman el presente documento.

As a proof of the mutual acceptance of this assignment, both parties ASSIGNOR and ASSIGNEE sign the present document.

Dado y firmado en Gol, Norway
A los 3. Días de Aug. De 2011

Granted and signed at Gol, Norway.
on this 3. day of Aug. of 2011

KLEVEN, Ole, Bjørn

KLEVEN, Ole, Bjørn

Ole Bjørn Kleven

El Cedente /The Assignor

Ole Bjørn Kleven

El Cedente /The Assignor

I confirm that this document is signed by Ole Bjørn Kleven.

Bjørn Reestberg

El Cesionario/The Assignee

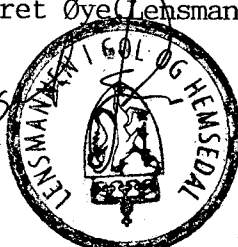
Bjørn Reestberg

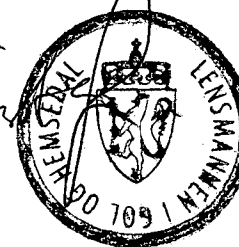
El Cesionario/The Assignee

Este documento debe ser otorgado ante Notario público y legalizado por el Cónsul de Colombia) o por Apostilla

(This document must be signed before Notary Public and legalized before the colombian Consul) or by Apostille

I confirm that this document is signed by Ole Bjørn Kleven, Bernt Engbret Øye (Lensmann).

Bernt Engbret Øye


Bernt Engbret Øye


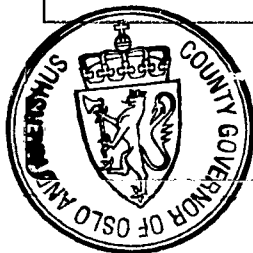
APOSTILLE

(Convention de La Haye du octobre 1961)

1. Country: Norway
2. This public document has been signed by:
Bernt Engebret
3. Acting in the capacity of:
District Sheriff
4. bears the seal/stamp of:
The District Sheriff of Gol and Hemsedal

Certified

5. at Oslo	6. the 22.09.2011
7. by the Governor of the counties of Oslo og Akershus	
8. No 92755	10. Signature <i>Bente Iren Jahr</i>
9. Seal/stamp	Bente Iren Jahr



COLOMBIA

PODER

BIRGER RUSTBERGGARD
en mi (nuestro) carácter de representante(s) legales de

NORWAY

a los 3. días de August, 2011

BIRGER RUSTBERGER ARD
legal representative(s) of

NORWAY

5) To register domain names before the competent entity.

6) To the effect of this mandate the above-named proxy are empowered to: conciliate, cancel, settle, submit to arbitration, withdraw, and to receive and take possession of the litigation related object and have or announce the rights granted or in process of granting, admit the facts of the case constar que

7) To ratify or not the officious agent of OTOCOPIA to which con su Original

8) I (we) hereby appoint the afore mentioned attorneys with powers to receive notifications and to designate judicial and extra-judicial attorneys substitute this Power of Attorney and to revoke such substitutions

3 8 SEP 2014

on this 3 day of August of 1911

Firma / signature

3

CERTIFICADO NOTARIAL
(Cuando el solicitante es SOCIEDAD)

A los 3. días del mes de August, 2011 de
el Notario que suscribe DA FE de que:

1. BIRGER RUSTBERGEARD
(nombre de la persona que firma el poder)

mayor de edad y domiciliado Gol,
NORWAY firmó de su puño
y letra el documento que antecede.

2. Conoce al (a la) otorgante y que este (a) está legalmente capacitado
para el otorgamiento.

3. El otorgante ha firmado el referido documento en su carácter
de PRESIDENTE
de la persona jurídica ARES TURBINE AS

4. La citada persona jurídica con sede en Elvevegen 4 N-3550 Gol,
Noruega., está legalmente constituida, que tiene actualmente
existencia legal y que el acto para el cual se ha otorgado este
poder está comprendido entre los que constituyen su objeto social.
5. El otorgante tiene efectivamente la representación que ostenta, que
esta es legítima y que está facultado para otorgar este poder.
6. las anteriores certificaciones de los puntos 3, 4 and 5, me constan porque
he tenido a la vista los documentos auténticos.

Bent Engebretsen
Notario Público
Bent Engebretsen
NOTA: A continuación de la anterior, el Consúl de Colombia debe
autenticar la firma del Notario Público.

CERTIFICADO NOTARIAL (Cuando el solicitante es
INDIVIDUO)

A los _____ días del mes de _____ de
el Notario que suscribe DA FE de que:

1. _____
(nombre de la persona que firma el poder)

mayor de edad y domiciliado en _____
firmó en su presencia
el documento que antecede, conoce al otorgante y que este está
legalmente capacitado para el otorgamiento.

Notario Público

NOTA: A continuación de lo anterior, el Consúl de Colombia debe
autenticar la firma del Notario Público.

Para todos los demás países el Señor Consúl de Colombia o ante
quien se otorgue, debe expedir una certificación dejando constancia
1) de la existencia legal de la sociedad, 2) de que esta ejerce
actualmente su objeto social, y 3) de que la persona o personas que
otorgan el poder están facultadas para hacerlo, dejando
constancia así mismo de que tuvo a la vista las pruebas que acrediten
tales circunstancias.

**LEGALIZACIÓN POR EL CONSUL DE COLOMBIA
O POR APOSTILLA**

NOTARIAL CERTIFICATE
(When the applicant is a CORPORATION)

This 3. day of August, 2011
the undersigned Notary CERTIFIES that:

1. BIRGER RUSTBERGEARD
(name of the person who signs the power of attorney)

of Gol, legal NORWAY age _____ and _____
domiciled in Gol, NORWAY set his hand on
the foregoing document.

2. The grantor is to him personally known and that he/she has legal capacity to
execute the document.

3. The grantor has executed the foregoing document in his capacity
of PRESIDENT
of the juridical person ARES TURBINE AS

4. The mentioned juridical person with place of business in Elvevegen 4 N-
3550 Gol, Noruega., is duly organized, has actual legal existence and that
the purposes for which the power of attorney is granted are within the scope
of its corporate purposes.

5. The grantor has in fact the referred quality and that his/her
representation is legal and that he/she is empowered to grant this power
of attorney.

6. I have based the above certifications 3, 4 and 5, on the authentic documents
which for such purpose were exhibited to me.

Bent Engebretsen
Notario Público
Bent Engebretsen
NOTA: Then the Colombian Consul must legalize the signature of the Notary
Public.

NOTARIAL CERTIFICATE (When the applicant is an
INDIVIDUALS)

On this _____ day of _____
the undersigned Notary CERTIFIES that:

1. _____
(name of the person who signs the Power of Attorney)

of legal age and domiciled at _____
signed in his presence the foregoing
document, the grantor is to him personally known and that he/she has legal
capacity to execute the document.

Notary Public
NOTA: Then the Colombian Consul must legalize the signature of the Notary
Public.

For all other countries the Colombian Consul or before who it is granted
must issue a certification stating 1) the legal existence of the corporation,
2) that the corporate purposes are actually being accomplished, 3) that
the person or persons who grant this Power of Attorney are empowered
to do it. The Consul will certify also that the documents evidencing those
circumstances were exhibited to him.

**LEGALIZATION BY THE COLOMBIAN CONSUL OR BY
APOSTILLE.**

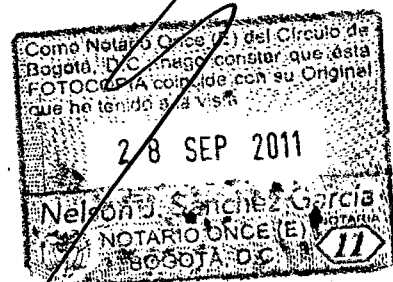
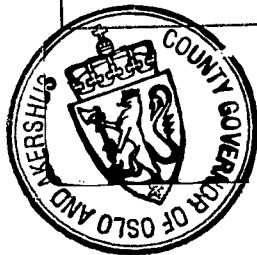
APOSTILLE

(Convention de La Haye du octobre 1961)

1. Country: Norway
2. This public document has been signed by:
Bernt Engebret
3. Acting in the capacity of:
District Sheriff
4. bears the seal/stamp of:
The District Sheriff of Gol and Hemsedal

Certified

5. at Oslo
6. the 22.09.2011
7. by the Governor of the counties of
Oslo og Akershus
8. No 92754
9. Seal/stamp
10. Signature
Bente Iren Jahr
Bente Iren Jahr



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P15100PC00	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/NO2009/000404	International filing date (day/month/year) 24/11/2009	Priority date (day/month/year) 24/11/2008
International Patent Classification (IPC) or national classification and IPC F02C 7/105 (2006.01), F02C 7/10 (2006.01), F02C 7/08 (2006.01), F02C 1/04 (2006.01)		
Applicant KLEVEN, OLE BJØRN		
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. ☒ (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows: ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see paragraph 3bis of Annex C of the Administrative Instructions). 4. This report contains indications relating to the following items: ☒ Box No. I Basis of the report ☐ Box No. II Priority ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability ☐ Box No. IV Lack of unity of invention ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement ☐ Box No. VI Certain documents cited ☐ Box No. VII Certain defects in the international application ☐ Box No. VIII Certain observations on the international application		
Date of submission of the demand 15/09/2010	Date of completion of this report 27/01/2011	
Name and mailing address of the IPEA/ Nordic Patent Institute Helgeshøj Allé 81 DK-2630 Taastrup Facsimile No. (+45) 43 50 80 08	Authorized officer Wilhelmsen, John André Telephone No. (+47) 22 38 75 46	

Form PCT/IPEA/409 (cover sheet) (July 2010)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/NO2009/000404

Box No. 1 Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b)).
- ☐ publication of the international application (Rule 12.4(a)).
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a)).

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished.
- ☒ the description:
pages 1-16 as originally filed/furnished.
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- ☐ the claims:
pages _____ as originally filed/furnished.
pages* _____ as amended (together with any statement) under Article 19
pages* 12 received by this Authority on 13/10/2010
pages* 13 received by this Authority on 15/09/2010
- ☒ the drawings:
pages 1-6 as originally filed/furnished.
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- ☐ a sequence listing - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since either they are considered to go beyond the disclosure as filed, or they were not accompanied by a letter indicating the basis for the amendments in the application as filed, as indicated in the Supplemental Box (Rules 70.2(c) and (c-bis)):

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____

5. ☐ This report has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 70.2(e)).

6. ☐ Supplementary international search report(s) from Authority(ies) _____ have been received and taken into account in drawing up this report (Rule 45bis.8(b) and (c)).

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/NO2009/000404

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

I. Statement

Novelty (N)	Claims 1-9	YES
	Claims	NO
Inventive step (IS)	Claims 1-9	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-9	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

We refer to your letter of October 13, 2010.

Documents cited in the International Search Report:

D1: US 7444818 B1
D2: FR 2916240 A1

Novelty:

Document D1 does show a gas turbine that includes a stationary heat exchanger and a bypass line. Document D2 describes a gas turbine that includes a rotating regenerative heat exchanger. According to the new amended claims we find that document D2 describes the closest prior art.

The amended independent claim 1 describes that the rotatable heat exchanger is configured to rotate in a continuous stepless manner. The regenerative heat exchanger described in claim 1 comprises a large number of parallel, separated duct elements open at both ends, parallel or skewed with the axis of rotation of the rotating regenerative heat exchanger and configured to allow a separated two-ways flow through the rotating regenerative heat exchanger. Document D2 does not show these features, and the device according to independent claim 1 is therefore novel, as required by Article 33(2) PCT.

Inventive step:

The problem to be solved by the present invention, in the light of D2, is how to construct a gas turbine for transforming thermal energy into mechanical work using a rotatable heat exchanger and how to regulate the temperature of the flue gas between the combustion chamber and the heat exchanger.

Independent claim 1 describes technical features of the regenerative heat exchanger that is considered not to be obvious for a person skilled in the art. It is will neither be possible for a skilled person in the art to combine the bypass line known from publication D1 together with the new regenerative heat exchanger described in claim 1 on purpose to regulate the temperature of the flue gas between the combustion chamber and the heat exchanger. Therefore the invention according to independent claim 1 is considered to include an inventive step, see Art. 33(3) PCT.

(Continued in Supplemental Box)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/NO2009/000404

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

(Box No. V, 2. Citations and explanations)

Claims 2-9 are dependent upon a patentable claim, and thus meet the novelty and inventive step requirements set forth in Art. 33(2) and 33(3) PCT.

Industrial applicability:

The invention in claims 1-9 is considered to be industrially applicable, see Article 33(4) PCT.

IPEA / 13 OCT 2010
/w

Claims

1. Gas turbine (10) for transforming thermal energy, for example from coal, bio mass or the like, into mechanical work, comprising a compressor unit (11) and a turbine unit (13) rotating on a common shaft; at least one a regenerative, rotatable heat exchanger (16) arranged between the outlet of compressor unit (11) and the inlet to the turbine unit (13), a combustion chamber (15) and a associated pipe system, the regenerative heat exchanger supplying heat to the air flow from the compressor unit (11) to the turbine unit (13) by means of hot flue gas from the combustion chamber (15), the rotating regenerative heat exchanger preferably being divided into a plurality of sector shaped compartments by means of radial walls (22), and the gas turbine (10) also comprising a bypass line (23), bypassing the combustion chamber,
- characterized in that the rotatable regenerative heat exchanger is configured to rotate in a continuous stepless manner, that the regenerative heat exchanger comprises a large number of parallel, separated duct elements (21) open at both ends, parallel or skewed with the axis of rotation of the rotating regenerative heat exchanger and configured to allow a separated two-ways flow through the rotating regenerative heat exchanger, and that the bypass line (23) is arranged between the exit of the compressor unit (13) and the inlet of at least one regenerative heat exchanger (16), by-passing the combustion chamber, allowing a part of the compressed air from the compressor to by-pass the combustion chamber (15) and then to be directed into the rotating regenerative heat exchanger and into the hot gas from the combustor chamber 15.
2. Gas turbine (10) according to claim 1, wherein a control valve is arranged upstream of the combustion chamber, directing at least part of the compressed air to the combustion chamber.
3. Gas turbine (10) according to claim 1 or 2, wherein the heat exposed interior surfaces of the rotating regenerative heat exchanger is coated with a catalytic coating, such as for example a platinum coating.

IPEA / 15 SEP 2010

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4. Gas turbine (10) according to one of the claims 1-3, wherein the at least one heat exchanger (16) is provided with a number of separated ducts (21) arranged parallel with the main direction of flow of air, and which is configured in such way that parts of the ducts (21) at any time are situated in the air flow between the compressor unit (11) and the turbine unit (13) for heating the air flow, and that the remaining part of the ducts (21) are situated in the flue gas flow from the combustion chamber (15) and thereby is heated up.
5. Gas turbine (10) according to claim 4, wherein the longitudinal axes of ducts (21) are skewed with respect to the axis of rotation of the at least one regenerative heat exchanger.
- 10 6. Gas turbine (10) according to claim 5, wherein the part of the openings for the inlet of compressed air through the at least one rotating heat exchanger (16) is somewhat rotationally displaced with respect to the outlets upstream of the turbine unit (13), so that a part of the compressed air flow is directed into the air flow from the combustion chamber (15), thereby
- 15 as a consequence of this flushing flow, cleaning the ducts (21) of the at least one regenerative heat exchanger for particles.
7. Gas turbine (10) according to one of the claims 1-6, wherein the electrical energy is produced by the compressor unit, the rotor of which functioning as an generator generating
- 20 electricity and that the stator unit (24) is arranged around the compressor unit (11), such stator unit (24) comprising one or more coils.
8. Gas turbine (10) according to claim 1, wherein the runner of the compressor unit (11) being permanently magnetized.
- 25 9. Gas turbine (10) according to claim 8, wherein the runner of the compressor unit (11) is magnetized by means of an external magnetic field.

REIVINDICACIONES

1. Turbina a gas (10) para transformar energía térmica, por ejemplo a partir de carbono, biomasa o similares, en un trabajo mecánico, que comprende una unidad de compresor (11) y una unidad de turbina (13) que giran sobre un eje común; por lo menos un intercambiador de calor giratorio, regenerador (16) dispuesto entre la salida de la unidad de compresor (11) y la entrada de la unidad de turbina (13), una cámara de combustión (15) y un sistema de tubería asociado, el intercambiador de calor regenerador suministra calor al flujo de aire desde la unidad de compresor (11) a la unidad de turbina (13) por medio de combustión caliente proveniente de la cámara de combustión (15), el intercambiador de calor regenerador giratorio se divide preferiblemente en una pluralidad de compartimentos con forma de sectores por medio de paredes radiales (22) y la turbina a gas (10) también comprende una tubería de derivación (13), que se deriva de la cámara de combustión,

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Caracterizado porque el intercambiador de calor regenerador giratorio se configura para girar en una forma continua sin escalonamiento, de tal manera que el intercambiador de calor regenerador comprende un gran número de elementos de conductos separados, paralelos (21) abiertos en ambos extremo, paralelos o sesgados con el eje de rotación con el intercambiador de calor regenerador giratorio y configurado para permitir un flujo de dos vías separado a través del intercambiador de calor regenerador giratorio, y que se dispone un conducto de derivación (23) entre la salida de la unidad de compresor (13) y la entrada de por lo menos un intercambiador de calor regenerador (16) derivando la cámara de combustión, permitiendo que una parte del aire comprimido del compresor se derive de la cámara de combustión 15 y luego se dirija al intercambiador de calor regenerador giratorio y dentro del gas caliente de la cámara de combustión (15).

2. Turbina a gas (10) de acuerdo con la reivindicación 1, en donde la válvula de control se dispone corriente arriba de la cámara de combustión, que dirige por lo

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menos parte del aire comprimido a la cámara de combustión.

3. Turbina a gas (10) de acuerdo con la reivindicación 1 o 2, en donde las superficies interiores expuestas al calor del intercambiador de calor regenerador giratorio se cubre con un recubrimiento catalítico, tal como por ejemplo un recubrimiento de platino.

4. Turbina a gas (10) de acuerdo con una de las reivindicaciones 1-3, en donde se proporciona por lo menos un intercambiador de calor (16) con un número de conductos separados (21) dispuestos en paralelo con la dirección principal de flujo de aire, y que se configura en tal forma que parte de los conductos (21) se ubican en cualquier momento en el flujo de aire entre la unidad de compresor (11) y la unidad de turbina (13) para calentar el flujo de aire, y que la parte restante de los conductos (21) se ubican en el flujo de gas de combustión proveniente de la cámara de combustión (15) y por lo tanto se caliente.

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5. Turbina a gas (10) de acuerdo con la reivindicación 4, en donde los ejes longitudinales de los conductos (21) están sesgados con respecto al eje de rotación de por lo menos un intercambiador de calor regenerador.

6. Turbina a gas (10) de acuerdo con la reivindicación 5, en donde la parte de las aberturas de la entrada de aire comprimido a través de por lo menos un intercambiador de calor regenerador giratorio (16) se desplaza un poco rotacionalmente con respecto a la salida corriente arriba de la unidad de turbina (13) de tal manera que una parte del flujo de aire comprimido se dirige hacia el flujo de aire proveniente de la cámara de combustión (15), por lo tanto como consecuencia del flujo de lavado, limpia los conductos (21) de partículas de por lo menos un intercambiador de calor regenerador.

7. Turbina a gas (10) de acuerdo con una de las reivindicaciones 1-6, en donde la energía eléctrica se produce mediante la unidad de compresor, cuyo rotor funciona como un generador que genera electricidad y la unidad de estator (24) está dispuesta alrededor de la

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unidad de compresor (11), de tal manera que la unidad del estator (24) comprende una o más bobinas.

8. Turbina a gas (10) de acuerdo con la reivindicación 1, en donde el patín de la unidad de compresor (11) se magnetiza permanentemente.

9. Turbina a gas (10) de acuerdo con la reivindicación 8, en donde el patín de la unidad de compresor (11) se magnetiza por medio de un campo magnético externo.

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2020
Bogotá D.C.,

Doctor(a)
RODRIGUEZ D` ALEMAN DILIA MARIA
Apoderado(a) y/o Representante de
ARES TURBINE AS

REFERENCIA	Radicación No.	11 68056
	Solicitud internacional	PCT/NO2009/000404
	Fecha inicio fase nacional	24/06/2011
	Trámite	11
	Evento	379
	Actuación	416
	Oficio No.	14564
	Folios	1

Teniendo en cuenta que la solicitud de privilegio de patente que se tramita bajo el expediente indicado en la referencia, reúne los requisitos de forma establecidos en la Decisión 486 de la Comisión de la Comunidad Andina, el Tratado de Cooperación en Materia de Patentes (PCT), el Reglamento y la Circular Única de la Superintendencia de Industria y Comercio, se envía el extracto de la solicitud a la Oficina de Comunicaciones para efecto de su publicación en la Gaceta de Propiedad Industrial.

Cúmplase

Dado en Bogotá DC,

03 NOV. 2011



JOSE LUIS SALAZAR LOPEZ
Director de Nuevas Creaciones (c)

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