

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:	Affidavit to remove Assignment at Reel 019283, Frame 0314, erroneously recorded against U.S. Patent Application No. 11/577,377				
CONVEYING PARTY DATA					
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Sumitomo Chemical Company, Limited</td> <td>07/10/2012</td> </tr> </tbody> </table>		Name	Execution Date	Sumitomo Chemical Company, Limited	07/10/2012
Name	Execution Date				
Sumitomo Chemical Company, Limited	07/10/2012				
RECEIVING PARTY DATA					
Name:	Sumitomo Chemical Company, Limited				
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City:	TOKYO				
State/Country:	JAPAN				
PROPERTY NUMBERS Total: 1					
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11577377</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11577377
Property Type	Number				
Application Number:	11577377				
CORRESPONDENCE DATA					
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ATTORNEY DOCKET NUMBER:	Q125467				
NAME OF SUBMITTER:	Travis B. Ribar				
<p>Total Attachments: 13 source=Q125467_CorrectionOfAssignment_071012#page1.tif source=Q125467_CorrectionOfAssignment_071012#page2.tif source=Q125467_CorrectionOfAssignment_071012#page3.tif source=Q125467_CorrectionOfAssignment_071012#page4.tif</p>					

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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Hajime MIZUNO

Appln. No.: 13/327,387

Confirmation No.: 6447

Filed: December 15, 2011

For: PRODUCTION METHOD OF PYRIMIDINE COMPOUNDS

Docket No: Q125467

Group Art Unit: 1624 (parent)

Examiner: Paul V. Ward (parent)

AFFIDAVIT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Travis B. Ribar, hereby declare and state:

I am an attorney of record in U.S. Application No. 13/327,387 (the '387 Application).

This affidavit is being filed on behalf of the assignee, Sumitomo Chemical Company, Ltd., the correct owner of this application.

Sumitomo Chemical Company, Limited is the correct owner of the above-captioned application and its parent application, Application No. 11/577,377 (now U.S. Patent No. 8,101,753), and has been, and continues to be the owner of the above-mentioned applications and patent. Sumitomo Chemical Company, Limited is the correct owner of the above-mentioned applications and patent by virtue of the assignment recorded at reel 019169, frame 0544.

AFFIDAVIT


Appln No. 13/327,387

On May 4, 2007, an assignment from Pascal Arrouy to Airbus France was recorded at reel 019283, frame 0314, and was erroneously recorded against the '387 Application due to an apparent typographical error on the assignment recordation cover sheet indicating application 11/577,377 instead of the correct application number, which appears to be Application No. 11/575,377 based on the attached copy of U.S. Patent No. 7,506,840 which matured from that application and which lists Pascal Arrouy as the inventor and Airbus France as the assignee. A copy of the cover sheet and the Assignment of the erroneous recordation is also attached. The error is self-evident from the USPTO records in PAIR, where it is seen that Pascal Arrouy is not an inventor of the '387 Application, and thus had no rights to assign.

The undersigned contacted the representative of Airbus France listed in the PAIR records by telephone to notify him of the error above. However, to date there has been no change in the assignment records.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 7/10/12


Travis B. Ribar



US007506840B2

(12) **United States Patent**
Arrouy

(10) **Patent No.:** **US 7,506,840 B2**
(45) **Date of Patent:** **Mar. 24, 2009**

(54) **DEVICE FOR CONNECTING IN FLIGHT AN AIRCRAFT TO A REFUELLING DEVICE OF A TANKER AEROPLANE**

(52) **U.S. Cl.** 244/135 A
(58) **Field of Classification Search** 244/135 A,
244/1 TD, 136, 135 R, 137.1
See application file for complete search history.

(75) **Inventor:** Pascal Arrouy, Toulouse (FR)

(56) **References Cited**

(73) **Assignee:** AIRBUS France, Toulouse (FR)

FOREIGN PATENT DOCUMENTS

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 57 days.

GB 695200 8/1953
GB 1472296 * 5/1977

OTHER PUBLICATIONS

(21) **Appl. No.:** 11/575,377

PCT International Search Report dated Feb. 9, 2006 with English translation.

(22) **PCT Filed:** Sep. 6, 2005

* cited by examiner

(86) **PCT No.:** PCT/FR2005/002209

§ 371 (c)(1),
(2), (4) **Date:** Mar. 15, 2007

Primary Examiner—Michael Carone
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(87) **PCT Pub. No.:** WO2006/032747

(57) **ABSTRACT**

PCT Pub. Date: Mar. 30, 2006

A connection device for in-flight connecting an aircraft to a refueling device of a tanker airplane has a support structure carrying a hollow connecting boom that is fixed to the fuselage structure. The support structure has a tubular cylindrical body with an internal passage, at least two parallel bearings carrying the cylindrical body and fixed to the fuselage structure, and an element longitudinally locking the cylindrical body along its longitudinal axis.

(65) **Prior Publication Data**

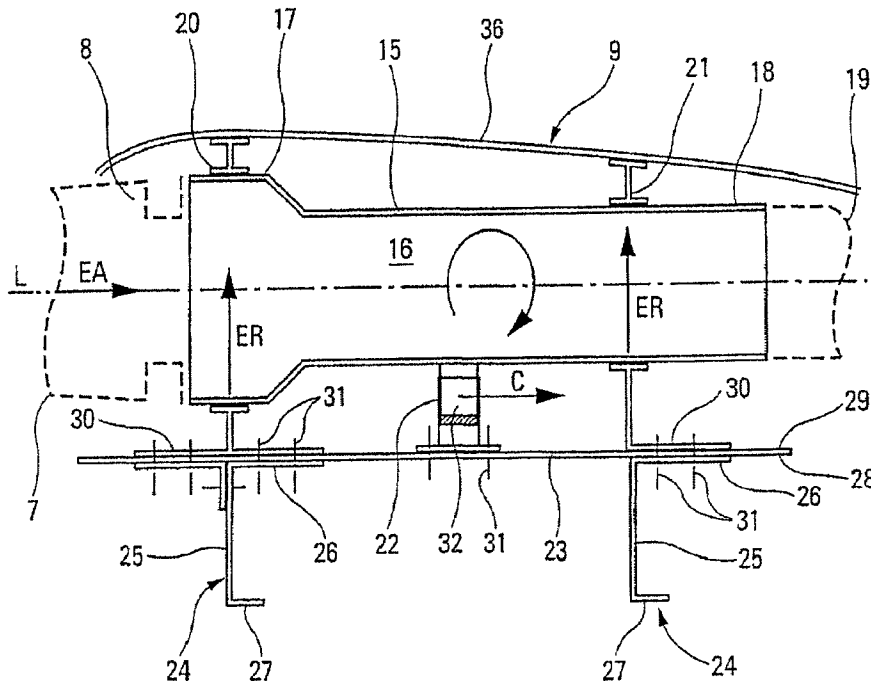
US 2008/0061190 A1 Mar. 13, 2008

(30) **Foreign Application Priority Data**

Sep. 16, 2004 (FR) 04 09808

(51) **Int. Cl.**
B64D 39/00 (2006.01)

7 Claims, 2 Drawing Sheets



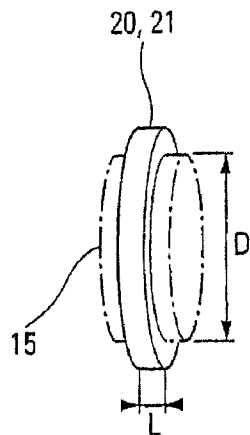


Fig. 3

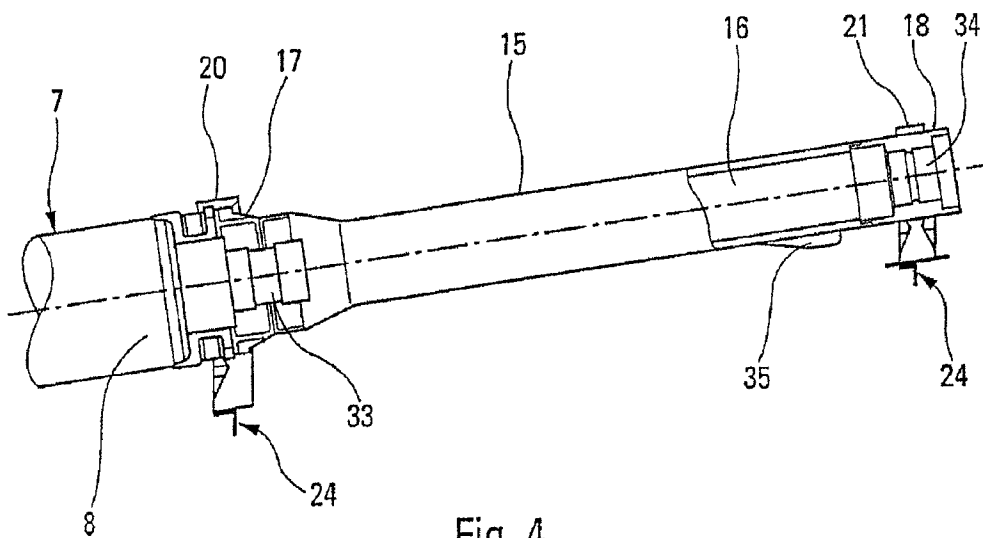


Fig. 4

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**DEVICE FOR CONNECTING IN FLIGHT AN
AIRCRAFT TO A REFUELLING DEVICE OF
A TANKER AEROPLANE**

FIELD OF THE INVENTION

The present invention relates to a device for connecting in flight an aircraft to a refueling device of a tanker airplane.

BACKGROUND OF THE RELATED ART

These connecting devices equip in particular military airplanes such as certain fighters or troop and/or hardware transporters, as well as helicopters, which, in order to successfully complete their mission, must be refueled during their flight.

Refueling is performed from a tanker airplane on which is provided at least one connecting device comprising a refueling pipe or the like in fluidic communication with at least one relevant tank of the tanker airplane and which, after linkage with the connecting device of the airplane to be refueled, provides for the transfer of fuel from the tank or tanks of the tanker airplane to the tank or tanks of the refueled airplane.

Of course, the tanker airplane may itself be equipped with a connecting device so as, in its turn, to be refueled in flight from another tanker airplane.

The connecting devices currently used onboard refueled aircraft generally comprise:

- a fixed connecting boom, which is hollow and able to cooperate via its distal end with the refueling device of the tanker airplane; and
- a support structure, fixed to the structure of the refueled aircraft, in particular to the top front part of the fuselage in its longitudinal plane of symmetry, said support structure serving as base fixed to said boom and being provided with an internal passage making it possible to join the proximal end of the connecting boom to a tank to be filled of said refueled aircraft.

Having regard to the loads engendered on the connecting boom when it is linked to the pipe of the refueling device and during the transfer of the fuel, the support structure which takes up and absorbs the loads (forces and moments) transmitted by the boom, is designed rigidly.

According to a first known embodiment, the support structure comprises an ax symmetric body with internal passage and three supports carrying the body. More particularly, to the front face of the body is joined the proximal end of the connecting boom, while the rear face of said body is joined to fluidic piping to convey the fuel flowing through the internal passage of the body, to the tank. The three supports distributed along the body are, on the one hand, fixed to the latter and, on the other hand, rest externally on the skin of the fuselage while also being fixed to transverse structural frames of the fuselage, which are situated internally with respect to the skin, by way of fixing members.

The three supports then constitute built-in links embedded vis-à-vis the frames aimed at transmitting the loads in the frames, while the axisymmetric body opposes the bending moment imposed by the boom.

According to a second likewise known embodiment, the support structure of the boom is also composed of three supports fixed to the structural frames of the fuselage by way of the skin and joined fixedly together by plates so as to define a structure of the box type which is very rigid and whose interior forms the internal passage. The connecting boom is fixed, via its proximal end, to the front support of the box structure. This embodiment makes it possible to lessen the intensity of the stresses in the built-in embedding with the

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structure of the airplane, but has the drawback of adding a rigid and quasi-undeformable node to the fuselage.

Although they are widely used, these connecting devices nevertheless have drawbacks, chiefly by reason of their rigidity.

Specifically, if these built-in solutions make it possible to efficiently take up the loads exerted on the connecting boom and transmitted by the latter during linkage thereof to the tanker airplane's refueling device, on the other hand they disturb the surrounding structure of the refueled airplane, which cannot deploy in an optimal manner since all the movements apt to occur are disabled in proximity to the built-in embedding. Consequently, as the structure of the fuselage is designed to be able to "breathe" during flight following pressure variations between the interior of the airplane and the exterior environment, the prevention of these movements through the rigidity of the "support structure-fuselage structure" link may lead to the appearance of cracks in them. A solution then consists in strengthening the zone of the relevant structure so as to decrease the level of the stresses, but it makes the whole assembly heavier and even further rigidities said zone, so that the overdimensioned structure absorbs more load and new cracks appear.

For example, the structural frames have a C cross section to resist pressure. Thus, the web of each frame, perpendicular to the skin of the fuselage, works in shear and its lower flange or heel makes it possible to avoid the warping or distortion of the web, its upper flange being fixed to the respective support by fixings and the skin of the fuselage. If the radial loads introduced by the boom into the support structure are taken up well by the web of each support, on the other hand, the axial load imposes a secondary moment on the frame which tends to bring about the warping of the web. A strengthener is then adjoined to the web to rigidify each support but this solution then brings about an increase in the weight and the increase in the rigidification brings about the appearance of cracks.

SUMMARY OF THE INVENTION

The present invention is aimed at remedying these drawbacks and relates to a connecting device, the design of whose support structure makes it possible in particular to avoid the deformation of the frames, the appearance of cracks and the use of numerous strengtheners.

For this purpose, according to the invention, the connecting device for the refueling, in flight, of a refueled aircraft, such as an airplane, from a tanker airplane provided with a refueling device, said connecting device being carried by said refueled aircraft and comprising:

- a fixed connecting boom, which is hollow and able to cooperate with said refueling device of said tanker airplane; and
- a support structure, fixed to the fuselage structure of said refueled aircraft and serving as base fixed to said connecting boom, said support structure being provided with an internal passage in communication with said connecting boom,

is noteworthy in that said support structure comprises,

- a tubular cylindrical body comprising said internal passage;
- at least two parallel bearings, carrying said cylindrical body and fixed to said structure of the fuselage, and able to take up the radial loads engendered and transmitted by said connecting boom; and
- an element for longitudinal locking of said cylindrical body along its longitudinal axis, associating said body

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with said structure of the fuselage and able to take up the axial loads engendered and transmitted by said connecting boom.

Thus, instead of built-in embedded links from the support structure of the device to the structure of the fuselage which indifferently transmit all the loads to the structure of the fuselage and bring about deformations and the appearance of cracks thereon, the embodying of the support structure according to the invention in the form of a tubular cylindrical body fixed, on the one hand, by bearings and, on the other hand, by a longitudinal locking element makes it possible to dissociate the loads transmitted by the connecting boom on the structure of the fuselage and avoid the aforesaid drawbacks.

Specifically, the bearings act as short centering shims capable of taking up the radial loads transmitted by the boom to the tubular body while permitting rotations and, in a limited manner, angular displacements making it possible to best follow the movements of the boom, so that the webs of the structural frames parallel to said bearings advantageously work only in their plane and thus do not deform. The longitudinal locking element is for its part envisaged for preventing longitudinal movement and thus for taking up the axial loads parallel to the boom.

Preferably, said bearings are respectively situated in line with the webs of the transverse frames of said structure of the fuselage and fixed to them by way of the skin of said fuselage, so that the webs of the frames, in the same plane as the bearings, work in an optimal manner.

In particular, said bearings are arranged substantially in the neighborhood of the ends of said tubular cylindrical body, and said longitudinal locking element is situated between said bearings. To obtain such a link by short centering shim, said bearings have a relatively narrow width in comparison to their internal diameter receiving, with adjustment, said tubular cylindrical body. Preferably, the ratio of the internal diameter to the width of each bearing is of the order of 10. For example, the bearings may be smooth or have elastic or spherical articulation.

In a preferred embodiment, said longitudinal locking element comprises at least one thin plate forming a panel, disposed along the vertical longitudinal plane of said body, orthogonally to said bearings, and joining said body to the skin of the structure of the fuselage. It is noted that the thin plate thus arranged, tied directly to the skin of the fuselage, works in shear and avoids introducing a secondary moment into the structure of the fuselage.

BRIEF DESCRIPTION OF THE DRAWINGS

The figures of the appended drawing will elucidate the manner in which the invention may be embodied. In these figures, identical references designate similar elements.

FIG. 1 diagrammatically shows the refueling in flight of an airplane to be refueled equipped with a connecting device according to the invention by way of the refueling device of a tanker airplane.

FIG. 2 is a diagrammatic view in longitudinal section of the connecting device.

FIG. 3 shows in diagrammatic perspective the dimensional ratio of one of said bearings to the cylindrical body of said device.

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FIG. 4 is an exemplary embodiment of said connecting device.

DETAILED DESCRIPTION OF THE INVENTION

The refueled airplane 1, represented in FIG. 1, is equipped with a connecting device 2 able to cooperate with a refueling device 3 provided in the tanker airplane 4. For this purpose, the connecting device 2 is situated at the front of the fuselage structure 5 of the refueled airplane 1 substantially in its longitudinal plane of symmetry and above the flight deck 6 and it comprises a connecting boom 7, fixed and hollow, projecting from the front of the fuselage and coupled up rigidly and in a leak-tight manner, by its proximal end 8, to a support structure 9. The latter is secured to the structure of the fuselage 5 and in fluidic communication with a tank to be filled (not represented). This support structure 9 thus constitutes a base fixed to the fuselage 5 for the fixing of the boom 7. The refueling device 3 is situated, in the present example, under the rear of the fuselage 10 of the tanker airplane 4 and it comprises, for example, a refueling pipe 11 emanating from a pod or from a winch (not represented) in said fuselage 10. The pipe 11 terminates in a conical guide basket 12, facilitating the introduction and the linking of the distal end 14 of the connecting boom 7.

Although FIG. 1 represents a transport airplane 1 as airplane to be refueled, it goes without saying that the connecting device 2 could be mounted on other types of airplanes, such as fighters.

As shown in FIG. 2, the support structure or carrying base 9 of the connecting device 2 takes the form of a tubular cylindrical body 15, with axial internal through-passage 16 for transferring the fuel, the longitudinal axis L-L of the tubular body being substantially parallel to the fuselage 5 of the airplane 1. The front transverse end 17 of the body fixedly receives the proximal end 8 of the connecting boom 7, while its rear transverse end 18 is connected in a leak-tight manner to linking piping 19 partially represented by dashes leading to said tank to be filled.

The support structure 9 is tied to the structure of the fuselage 5 and, for this purpose, it advantageously comprises two parallel bearings 20, 21 surrounding, with adjustment, the tubular cylindrical body 15 and fixed to the structure of the fuselage 5, and an element for longitudinal locking 22 of the body fixed to said structure of the fuselage.

More particularly, the structure of the fuselage 5 of the airplane is composed chiefly of a metal skin 23 constituting the cladding of the fuselage, and of rigid structural frames 24 disposed transversely along the skin, under the latter. These frames 24 have a substantially C-shaped cross section and each comprise, as indicated previously, a vertical web 25 terminating, on one side, in a horizontal footing 26 cooperating with the internal face 28 of the skin and, on the other side, in a heel 27 substantially parallel to the footing and pointing towards the interior of the fuselage 5. Internal claddings (not represented) are applied and fixed to the heels of the frames.

The two bearings 20 and 21 carrying the tubular body 15 are arranged in such a way as to be in line with the webs 25 of the two frames concerned 24, while being situated approximately at the level of the respective front and rear ends 17, 18 of the body. For their fixing to the fuselage, each bearing 20, 21 terminates in a base 30 which rests on the external face 29 of the skin 23, and means of fixing 31 (such as bolts, rivets, or the like) symbolized by their geometrical axis, rigidly unite the footing 26, the skin 23 and the base 30 of each bearing 20, 21 through holes made opposite them.

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These two bearings 20, 21 thus disposed constitute short centering shims which are aimed at taking up the radial loads ER engendered and transmitted by the connecting boom 7 when it is linked to the refueling pipe 11, while permitting rotations. Thus, this has the effect of making each frame 24 work normally along its web 25, that is to say in its plane without introducing other loads and/or moments, and of avoiding any warping or distortion of the frames and, thereby, the appearance of cracks. This is so, all the more as the web of each frame lies along the extension of its bearing, in the same vertical plane in FIG. 2. To achieve this link by short centering shim, the ratio of the width L of the bearings 20, 21 to the external diameter D of the tubular body 15 must be significant, for example equal to 10, as shown in FIG. 3. For example, the bearings may be smooth or have elastic or spherical articulation permitting limited angular displacements.

As regards the longitudinal locking element 22, intended to take up the axial loads EA emanating from the boom along the axis L-L of the tubular body 15, it takes the form of a thin plate or panel 32, as shown by its cross section in FIG. 2. This thin plate 32 joins the tubular body 15 to the skin 23 of the fuselage 5 by fixing means 31 and it is situated between the bearings 20 and 21, advantageously in the vertical longitudinal plane of symmetry of the fuselage 5, that is to say of the tubular body 15, so that it can take up sizeable axial loads without suffering deformation. Under the action of these loads, the plate 32 works in shear C taken up normally and directly by the skin in its plane without inducing any secondary moment.

Thus, by virtue of the embodiment of the support structure 9, the loads transmitted by the boom are dissociated and decomposed into radial loads taken up by the bearings 20, 21 and into axial loads taken up by the thin plate 32.

FIG. 4 is a practical embodiment of the connecting device 1, wherein it may be seen that the front end 17 and rear end 18 of the tubular body 15 comprise respective connectors 33, 34 in which are received fixedly and leak-tightly the connecting boom 7 on the one hand and, on the other hand, the fuel piping (not represented) leading to the tank to be filled, allowing the transfer of fuel from the tanker airplane 4 to the tank of the refueled airplane 1 through the pipe 11, the boom 7, the axial passage 16 of the body and the piping 19. Moreover, a lug 35 for the take-up of the thin plate 32 projects from the tubular cylindrical body 15, on the side of the rear end 18.

Furthermore, as shown in particular in FIGS. 1 and 2, the connecting device 2 comprises a protective cowling 36 enveloping the tubular body 15, the bearings 20, 21 and the proximal ends of the boom 7 and of the piping 19, and applied against the skin of the fuselage.

The invention claimed is:

1. A connecting device for the refueling, in flight, of a refueled aircraft from a tanker airplane provided with a refueling device, said connecting device being able to be carried by said refueled aircraft and comprising:

- a fixed connecting boom, being able to be fixed as a protrusion to the nose of said refueled aircraft, said connecting boom being hollow and able to cooperate with said refueling device of said tanker airplane; and
- a support structure, able to be fixed to the fuselage structure of said refueled aircraft and serving as a rigid base fixed to said connecting boom, said support structure being provided with an internal passage in communication with said connecting boom, wherein said support structure comprises,
- a tubular cylindrical body, of which the longitudinal axis may be disposed parallel to the fuselage structure of

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said refueled aircraft, said tubular cylindrical body comprising said internal passage;

at least two parallel bearings, fittingly surrounding said tubular cylindrical body respectively in the front part and in the rear part of the latter, said bearings being able to be fixed to said structure of the fuselage structure, and able to take up the radial loads applied to said tubular cylindrical body and engendered and transmitted by said connecting boom; and

an element for longitudinal locking of said tubular cylindrical body along its longitudinal axis, able to associate said tubular cylindrical body with said structure of the fuselage structure and able to take up the axial loads applied to said tubular cylindrical body and engendered and transmitted by said connecting boom.

2. The device as claimed in claim 1, wherein said bearings are respectively situated in line with the webs of the transverse frames of said structure of the fuselage structure and fixed to them by way of the skin of said fuselage structure.

3. The device as claimed in claim 1, wherein said bearings are arranged substantially in the neighborhood of the ends of said tubular cylindrical body, and said longitudinal locking element is situated between said bearings.

4. The device as claimed in claim 1, wherein said bearings have a relatively narrow width in comparison to their internal diameter receiving, with adjustment, said tubular cylindrical body.

5. The device as claimed in claim 4, wherein the ratio of the internal diameter to the width of each bearing is of the order of 10.

6. The device as claimed in of claim 1, wherein said bearings are smooth or have an elastic and articulation.

7. A connecting device for the refueling, in flight, of a refueled aircraft from a tanker airplane provided with a refueling device, said connecting device being carried by said refueled aircraft and comprising:

- a fixed connecting boom, which is hollow and able to cooperate with said refueling device of said tanker airplane; and

- a support structure, fixed to the fuselage structure of said refueled aircraft and serving as base fixed to said connecting boom, said support structure being provided with an internal passage in communication with said connecting boom, wherein said support structure comprises,

- a tubular cylindrical body comprising said internal passage;

- at least two parallel bearings, carrying said tubular cylindrical body and fixed to said structure of the fuselage structure, and able to take up the radial loads engendered and transmitted by said connecting boom; and

- an element for longitudinal locking of said tubular cylindrical body along its longitudinal axis, associating said tubular cylindrical body with said structure of the fuselage structure and able to take up the axial loads engendered and transmitted by said connecting boom, wherein:

- said longitudinal locking element comprises at least one thin plate forming a panel, disposed along the vertical longitudinal plane of said tubular cylindrical body, orthogonally to said bearings, and joining said tubular cylindrical body to the skin of the structure of the fuselage structure.

* * * * *

Docket No.: L7307.07101

05-09-2007

T U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

FORM PTO-1595 (Modified)
(Rev. 03-01)
OMB No. 0651-0027 (exp. 5/31/2002)
P08A/REV04



103403838

Tab settings

To the Director of the United States Patent and Trademark Office, for recording the attached original documents or copy thereof.

1. Name of conveying party(ies):
Pascal ARROUY



54-07

Additional names(s) of conveying party(ies) Yes No

2. Name and address of receiving party(ies):

Name: AIRBUS FRANCE

Address: 316 Route de Bayonne

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

Execution Date: January 5, 2007

City: Toulouse State/Prov.: _____

Country: FRANCE ZIP: 31060

Additional name(s) & address(es) Yes No

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is: _____

Patent Application No.	Filing date
11/577,377	March 15, 2007

B. Patent No.(s)

Additional numbers Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

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01 FC:8021

City: Washington State/Prov.: DC

Country: USA ZIP: 20036

6. Total number of applications and patents involved: **1**

7. Total fee (37 CFR 3.41):.....\$ 40.00

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To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

James E. Ledbetter

Name of Person Signing

Signature

May 4, 2007

Date

2

Total number of pages including cover sheet, attachments, and document:

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PATENT
REEL: 019283 FRAME: 0314

PATENT
REEL: 028542 FRAME: 0098

ASSIGNMENT

Serial No. _____

Filed _____

Title Device for connecting in flight an aircraft to a refuelling device of a tanker aeroplane.

For one dollar the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to AIRBUS France residing at 316 Route de Bayonne - 31060 TOULOUSE - France

its successors and assigns _____ the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, executed by the undersigned on January 05, 2007 and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension thereof.

The undersigned hereby authorizes and requests the Commissioner of Patents to issue said Letters Patent to said assignee AIRBUS France

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the date and serial number of said application when officially known.

The undersigned warrants himself to be the owner of the interest herein assigned and to have the right to make this assignment; and further warrants that there are no outstanding prior assignments, licenses, or other rights in the interest herein assigned.

For said consideration the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation, continuation-in-part and substitute applications for said invention or improvements, and any necessary oath or affidavit relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns, may deem necessary or expedient. and for the said consideration the undersigned further agrees upon the request of said assignee, its successors or assigns, in the event of any application or Letters Patent assigned herein becoming involved in interference, to co-operate to the best of the ability of the undersigned with said assignee, its successors or assigns, in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon request, any and all affirmative acts to obtain said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the said assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

WITNESS my hand and seal, this 5th day of January Nineteen Hundred and 2007

State of _____
County of _____ } ss.

ARROYU PASCAL (SEAL)
ARROYU Pascal

On this _____ day of _____, 19____, before me, a Notary Public in and

for the County and State aforesaid, appeared _____


to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the day and year last above given.

Patent Assignment Details

NOTE: Results display only for issued patents and published applications. For pending or abandoned applications please consult USPTO staff.

Reel/Frame: 019283 / 0314

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Pages: 2

Recorded: 05/04/2007

Attorney Dkt #: L7307.07101

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Total properties: 1

1 Patent #: 8101753 Issue Dt: 01/24/2012 Application #: 11577377 Filing Dt: 04/17/2007
Publication #: US20080039445 Pub Dt: 02/14/2008
Title: PRODUCTION METHOD OF PYRIMIDINE COMPOUNDS

Assignor

1 ARROY, PASCAL

Exec Dt: 01/05/2007

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Web interface last modified: Jan 26, 2012

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Hajime MIZUNO

Appln. No.: 13/327,387

Confirmation No.: 6447

Filed: December 15, 2011

For: PRODUCTION METHOD OF PYRIMIDINE COMPOUNDS

Docket No: Q125467

Group Art Unit: 1624 (parent)

Examiner: Paul V. Ward (parent)

AFFIDAVIT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Hajime MIZUNO, hereby declare and state:

THAT I am a citizen of JAPAN;

THAT I have been employed by Sumitomo Chemical Company, Limited since April 1st, 1999, where I hold a position as research associate, with responsibility for discovery of new insecticides;

I am making this Declaration on behalf of Sumitomo Chemical Company, Limited.

Sumitomo Chemical Company, Limited is the correct owner of the above-captioned application and its parent application, Application No. 11/577,377 (now U.S. Patent No. 8,101,753), and has been, and continues to be the owner of the above-mentioned applications and

AFFIDAVIT

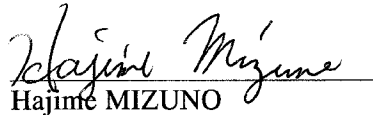
Appln No. 13/327,387

patent. Sumitomo Chemical Company, Limited is the correct owner of the above-mentioned applications and patent by virtue of the assignment recorded at reel 019169, frame 0544.

The chain of title for the above-mentioned applications and patent should not be considered to be altered by the incorrect and erroneous assignment recorded at reel 019283, frame 0314 to Airbus France. The incorrect assignment recorded at reel 019283, frame 0314 was submitted with erroneous information, since the assignment of the above-mentioned applications and patent should not have been altered by Airbus France's assignment.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: February, 24, 2012


Hajime MIZUNO