



- (51) International Patent Classification:
G01V 5/00 (2006.01)
- (21) International Application Number:
PCT/RO2015/000002
- (22) International Filing Date:
22 January 2015 (22.01.2015)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
a 2014 00068 23 January 2014 (23.01.2014) RO
- (72) Inventor; and
(71) Applicant : TUDOR MIRCEA [RO/RO]; Int. G-ral
Maior Stefan Bardan, no. 19, Balotesti Village, Ilfov
Country (RO).
- (81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,
SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,
TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

7 January 2016

(54) Title: SYSTEM AND METHOD FOR NON-INTRUSIVE COMPLETE AIRCRAFT INSPECTION

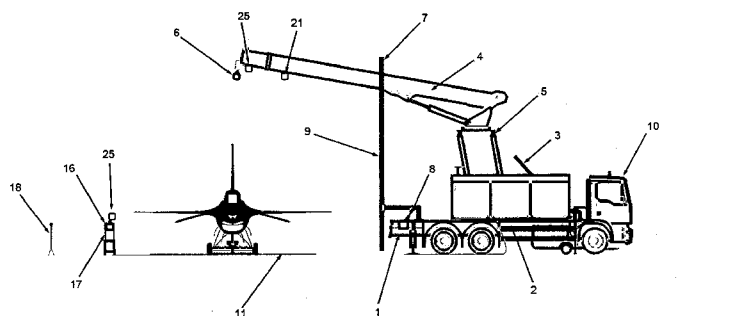


Figure 3

(57) Abstract: The present invention consists of a method and a scanning system for nonintrusive inspection, through radiography of inspected aircrafts from at least two different perspectives. The complete scanning system for nonintrusive inspection of aircrafts according to the invention is a mobile nonintrusive scanning ensemble, installed on a vehicle chassis with a superstructure, on which a deformable parallelogram profile and a mechanical boom are mounted with a penetrating radiation source at one end. A detector line assembly is installed on the ground. A hinged boom is fitted with an array of detectors and positioned opposite a relocatable radiation source. The scanning system for nonintrusive inspection include a mobile tugging device to tow the inspected aircraft at constant speed through the scanning frames. A mobile control center is placed outside the exclusion area.



INTERNATIONAL SEARCH REPORT

International application No
PCT/R02015/000002

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01V5/00
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
G01V
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 103 529 480 A (UNIV TSINGHUA; NUCTECH CO LTD) 22 January 2014 (2014-01-22)	13,14
A	abstract; figures 2-4	1-9
Y	WO 2006/036076 A1 (S C MB TELECOM LTD S R L [RO]; TUDOR MIRCEA [RO]; SIMA CONSTANTIN [RO]) 6 April 2006 (2006-04-06)	13,14
A	abstract; figures 1-3,8,10,11	1-9
A	US 2007/237294 A1 (HOFF PAUL W [US] ET AL) 11 October 2007 (2007-10-11)	1-9,13,14
A	paragraphs [0091] - [0094]; figure 6	
A	US 2011/103548 A1 (BENDAHAN JOSEPH [US]) 5 May 2011 (2011-05-05)	1-9,13,14
	paragraphs [0085], [0086], [0090] - [0092]; figures 2,5-9	
	-/--	

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search 24 September 2015	Date of mailing of the international search report 08/12/2015
---	---

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Van Ouytsel, Krist'1
--	---

INTERNATIONAL SEARCH REPORT

International application No
PCT/R02015/000002

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2005/084351 A2 (VARIAN MED SYS TECH INC [US]; CLAYTON JAMES E [US]; BJORKHOLM PAUL [US]) 15 September 2005 (2005-09-15) abstract; figures 18,19 -----	1,13
A	US 2011/026673 A1 (MASTRONARDI RICHARD [US] ET AL) 3 February 2011 (2011-02-03) paragraphs [0026], [0030] - [0032], [0034], [0038]; figures 1-3 -----	1,13

INTERNATIONAL SEARCH REPORT

International application No.
PCT/R02015/000002

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9, 13, 14

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9, 13, 14

mobile scanner unit and method for non-intrusive inspection of an aircraft, wherein an aircraft is towed passed two scanning frames for inspection in two directions, using two radiation sources and two detector arrays in different locations

2. claims: 10-12

modular detector line for placing at ground level and configured to discharge load of an aircraft to the housing

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/R02015/000002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
CN 103529480	A	22-01-2014	CN 103529480 A	22-01-2014
			EP 2884269 A1	17-06-2015
			WO 2015051665 A1	16-04-2015

WO 2006036076	A1	06-04-2006	AT 384274 T	15-02-2008
			BR PI0419065 A	10-06-2008
			CN 101027576 A	29-08-2007
			DE 602004011405 T2	28-08-2008
			EA 200700174 A1	28-12-2007
			EP 1794626 A1	13-06-2007
			ES 2300875 T3	16-06-2008
			RO 121293 B1	28-02-2007
			US 2008123809 A1	29-05-2008
			WO 2006036076 A1	06-04-2006

US 2007237294	A1	11-10-2007	NONE	

US 2011103548	A1	05-05-2011	CN 102686999 A	19-09-2012
			EP 2494340 A1	05-09-2012
			GB 2488698 A	05-09-2012
			GB 2506797 A	09-04-2014
			US 2011103548 A1	05-05-2011
			US 2014098937 A1	10-04-2014
			US 2015247947 A1	03-09-2015
			WO 2011059838 A1	19-05-2011

WO 2005084351	A2	15-09-2005	CN 101833116 A	15-09-2010
			EP 1730502 A2	13-12-2006
			EP 1733254 A2	20-12-2006
			IL 177559 A	31-05-2015
			IL 177560 A	31-03-2014
			IL 206183 A	31-08-2015
			JP 5037328 B2	26-09-2012
			JP 5173405 B2	03-04-2013
			JP 2007526482 A	13-09-2007
			JP 2007526483 A	13-09-2007
			SG 150553 A1	30-03-2009
			US 2007025505 A1	01-02-2007
			US 2007210255 A1	13-09-2007
			US 2007241282 A1	18-10-2007
			US 2008205594 A1	28-08-2008
			WO 2005084351 A2	15-09-2005
			WO 2005084352 A2	15-09-2005

US 2011026673	A1	03-02-2011	CN 102483383 A	30-05-2012
			EP 2459991 A1	06-06-2012
			MY 154268 A	29-05-2015
			SG 178165 A1	29-03-2012
			US 2011026673 A1	03-02-2011
			US 2013039463 A1	14-02-2013
			WO 2011014445 A1	03-02-2011
