


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>	
	<b>AD No: 2007- 0112</b>  <b>Date: 27 April 2007</b>	
No person may operate an aircraft, to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.		
<b>Type Approval Holder's Name:</b>		<b>Type/Model Designation(s):</b>
ATR - GIE Avions de Transport Régional		ATR 42-200, 42-300 and 42-320
TCDS Number: EASA A.084		
Foreign AD: Not applicable		
Supersedure: Not applicable		
<b>ATA 32</b>	<b>Main Landing gear – Side brace assembly - Upper arm – Inspection / Replacement</b>	
<b>Manufacturer(s):</b>	ATR - GIE Avions de Transport Régional (formerly AEROSPATIALE – AEROSPATIALE, AEROSPATIALE – ALENIA, AEROSPATIALE ATR – ALENIA, ERASME ATR – ALENIA)	
<b>Applicable to:</b>	ATR 42-200, 42-300 and 42-320 aircraft models, all serial numbers, fitted with Main Landing Gear (MLG) side brace assembly Part Number (P/N) D22710000-(all suffix).	
<b>Reason:</b>	<p>One ATR 42-300 experienced a collapse of its right MLG when taxiing. This MLG collapse was caused by failure of the side brace assembly. Investigations revealed a crack propagation that occurred from a corrosion pit, in a very high stressed area of the upper arm. Dimensions of the corrosion pit were lower than the minimum defect size that can be detected by usual inspection means used during landing gear overhaul.</p> <p>The aim of this Airworthiness Directive (AD) is to perform repetitive inspections on affected high stressed areas, on MLG side brace assemblies, for crack detection and to replace the affected side brace assembly if any defect is found. A modification of the MLG side brace assembly will be further proposed by the manufacturer as a terminating action.</p>	
<b>Effective Date:</b>	11 May 2007	

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Note 1: when not specified, the Flight Cycles (FC) hereto indicated must be construed as Total Cycles Since Overhaul (TCSO) or as Total Cycles Since New (TCSN) for side brace assemblies that have not undergone any overhaul yet.

1. Perform the first Eddy current inspection on MLG side brace assemblies in accordance with the accomplishment instructions of the Messier Dowty Service Bulletin No. 631-32-191 revision 1 at thresholds given in table 1:

For MLG Side Brace Assembly with TCSN or TCSO, on the effective date of this AD :	Perform the Eddy current inspection:
more than 8,000 FC	within the next 500 FC after the effective date of this AD.
between 5,000 and 8,000 FC	within the next 1,000 FC or before accumulating 1,500 FC, whichever occurs first after the effective date of this AD
less than 5,000 FC	within the next 2,000 FC or before accumulating 6,000 FC, whichever occurs first after the effective date of this AD

Table 1

Compliance:

Note 2: For the inspection it is necessary to disconnect the hydraulic pipes of the MLG side brace jacking actuator. Refer to ATR Technical Instruction No. ATR42-07-01 for aircraft preparation, hydraulic pipe disconnection and reconnection, and for subsequent landing gear normal extension and retraction functional tests.

Repeat the Eddy current inspection of the MLG side brace assembly at intervals not to exceed 2,600 Flight Cycles in accordance with the accomplishment instructions of the Messier Dowty Service Bulletin No. 631-32-191 revision 1

2. If any defect is found on the side brace assembly during the inspection as per paragraph 1 or 2 above, replace the affected side brace within the compliance times given in table 2 :

If the depth of detected defect is:	Replace the side brace:
More than 0.3 mm	Before next flight
from 0.15 mm to 0.3 mm	Within the next 200 FC after the inspection date that detected the defect

Table 2

Note 3: Indications less than 0.15mm (half of the calibration signal) are considered as not significant.

Ref. Publications:

Messier Dowty Service Bulletin No. 631-32-191 revision 1 or later approved revision.  
ATR Technical Instruction No. ATR42-07-01 Original Issue or further revisions

Remarks:	<ol style="list-style-type: none"><li>1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOCs) for this AD.</li><li>2. This AD was posted as PAD 07-044 for consultation on 12 March 2007 with a comment period until 09 April 2007. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu/">http://ad.easa.europa.eu/</a>.</li><li>3. Enquiries regarding this Airworthiness Directive should be referred to the AD Focal Point - Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a></li><li>4. For any question concerning the technical content of the requirements in this AD, please contact : ATR - GIE Avions de Transport Régional Continued Airworthiness Service 1, allée Pierre Nadot - 31712 Blagnac cedex France Tel.: +33 (0)5 62 21 62 21 - Fax: +33 (0) 5 62 21 67 13 Email: <a href="mailto:continued.airworthiness@atr.fr">continued.airworthiness@atr.fr</a></li></ol>
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