


EASA	AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2006 - 0174</p> <p>Date: 21 June 2006</p>	
<p>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.</p>		
<p>Type Approval Holder's Name :</p> <p>AIRBUS</p>	<p>Type/Model designations:</p> <p>A318, A319, A320 and A321 aircraft</p>	
<p>TCDS Number : EASA.A.064</p>		
<p>Foreign AD : None</p>		
<p>Supersedure: DGAC AD F-2005-191, EASA approval No. 2005-6411</p>		
ATA 32	Landing Gear - Nose landing gear – Wheels at 90 degrees	
<p>Manufacturers:</p>	<p>AIRBUS (formerly AIRBUS INDUSTRIE)</p>	
<p>Applicability:</p>	<p>AIRBUS A318, A319, A320 and A321 aircraft, all certified models and all serial numbers that are equipped with or have ever been equipped with a EMM Breaking/Steering Control Unit (BSCU) part number (PN):</p> <ul style="list-style-type: none"> - PN E21327001 (standard L4.1) installed by AIRBUS Modification 26965 or by AIRBUS Service Bulletin (SB) A320-32-1912 <p>Or</p> <ul style="list-style-type: none"> - PN E21327003 (standard L4.5) installed by AIRBUS Modification 33376 or SB A320-32-1261. <p>Aircraft on which the BSCU has always been standard L4.8 (modification 35216 : installation of EMM BSCU PN E21327004) or non EMM BSCU are not affected by the requirements of this Airworthiness Directive (AD).</p>	
<p>Reason:</p>	<p>An event where an A320 landed with the Nose Landing Gear (NLG) wheels rotated at 90 degrees to the aircraft centreline was recently reported.</p> <p>Investigation showed that the upper support of the NLG shock absorber was damaged and the anti-rotation lugs were ruptured. This led the nose wheels to loose their centred position reference normally ensured by the shock-absorber cams. The Braking and Steering Control Unit (BSCU) had logged a steering system fault, because hydraulic power was not available at the time of steering system checks, therefore the BSCU was not able to</p>	

	<p>proceed with the re-centring of the wheels.</p> <p>To prevent reoccurrence of landings with NLG turned 90 degrees, AD F-2005-191 that dealt with the same subject, rendered mandatory an operational procedure and maintenance actions.</p> <p>This AD supersedes AD F-2005-191 and is issued to extend the applicability and to introduce a repetitive boroscopic inspection of the NLG upper support lugs and cylinder lugs.</p>
Effective Date:	05 July 2006
Compliance:	<p>1. Operational procedure only applicable to aircraft listed in the applicability paragraph that have not received AIRBUS modification 31152 in production (i.e. applicable only to aircraft with the steering powered by the green hydraulic system).</p> <p>From the effective date of this AD , the following operational procedure is mandatory for all flights:</p> <p><i>The ECAM message, in case of a nose wheel steering failure, will be worded as follows:</i></p> <ul style="list-style-type: none"> - "WHEEL N/W STRG FAULT" for aircraft with FWC software post E3P - "WHEEL N.W STEER FAULT" for aircraft with FWC software pre E3P <p>➤ <i>If the L/G SHOCK ABSORBER FAULT ECAM caution is triggered at any time in flight, and the WHEEL N/W STRG FAULT ECAM caution is triggered after the landing gear extension:</i></p> <ul style="list-style-type: none"> • <i>When all landing gear doors are indicated closed on ECAM WHEEL page, reset the BSCU:</i> <ul style="list-style-type: none"> - <i>A/SKID&N/W STRG----- OFF THEN ON</i> • <i>If the WHEEL N/W STRG FAULT ECAM caution is no longer displayed, this indicates a successful nose wheel re-centring and steering recovery.</i> <ul style="list-style-type: none"> - <i>Rearm the AUTO BRAKE, if necessary.</i> • <i>If the WHEEL N/W STRG FAULT ECAM caution remains displayed, this indicates that the nose wheel steering remains lost, and that the nose wheels are not centred.</i> <ul style="list-style-type: none"> - <i>During landing, delay nose wheel touchdown for as long as possible.</i> - <i>Refer to the ECAM STATUS</i>

➤ If the *WHEEL N/W STRG FAULT ECAM* caution appears, without the *L/G SHOCK ABSORBER FAULT ECAM* caution:

- No specific crew action is requested by the *WHEEL N/W STRG FAULT ECAM* caution procedure.

- Refer to the *ECAM STATUS*

Incorporation of this AD or AFM TR 4.02.00/33 for aircraft without FWC H2E3P or H1E3P or subsequent standard, or TR 4.02.00/34 for aircraft with FWC H2E3P or H1E3P or subsequent standard in the Aircraft Operations Manual as well as in the Aircraft Flight Manual and strict adherence by the crew allows complying with paragraph compliance 1 of this AD.

2. For all aircraft listed in the applicability paragraph:

Within 100 flight cycles following an ECAM caution 'L/G SHOCK ABSORBER FAULT' associated with at least one of the below Centralised Fault Display System (CFDS) messages:

'N L/G EXT PROX SNSR 24GA TGT POS',

'N L/G EXT PROX SNSR 25GA TGT POS',

'N L/G SHOCK ABSORBER FAULT 2526GM'.

2.1. Check the NLG strut inflation pressure, weight off and weight on wheels, in accordance with AIRBUS Aircraft Maintenance Manual AMM 12-14-32 revised by TR No 12-001. Adjust/correct as applicable.

Note: the instructions for the NLG pressure check are also given in SB A320-32-1310 at original issue.

2.2. Perform a boroscopic inspection of the NLG upper support anti-rotation lugs and the cylinder lugs, in accordance with AIRBUS Technical Note 957.1901/05, dated October 18, 2005.

If any upper support anti-rotation lugs are found broken or cracked or if the cylinder lugs are found to be missing: before next flight, apply all necessary actions to get a serviceable NLG (contact AIRBUS Fax: 33 5 61 93 32 73).

All inspection results should be reported to AIRBUS.

Note: the instructions for the boroscopic inspection are also given in SB A320-32-1310 at original issue.

3. For aircraft listed in the applicability paragraph that are equipped with EMM BSCU standard L4.1 or L4.5:

3.1. At the latest of these two dates:

- Prior to the accumulation of 20 months, or 6000 flight hours, or 4500 flight cycles, since the aircraft first flight, whichever occurs first,

or

- Within the 6 months, or 1800 flight hours, or 1350 flight cycles, following the effective date of this AD, whichever occurs first,

Perform a boroscopic inspection of the NLG upper support lugs and

	<p>cylinder lugs and apply corrective actions, if necessary, in accordance with SB A320-32-1310 at original issue.</p> <p>3.2. Repeat the inspection defined in above paragraph compliance 3.1 at intervals not exceeding 6 months or 1800 flight hours or 1350 flight cycles, whichever occurs first and apply corrective actions, if necessary, in accordance with SB A320-32-1310 at original issue.</p> <p>- Installation of a NLG with new upper support anti-rotation lugs and new cylinders lugs Or</p> <p>- Installation of a NLG for which it can be demonstrated that it was never driven by a EMM BSCU L4.1 or L4.5</p> <p>together with the installation of a EMM BSCU standard L4.8 or a non EMM BSCU render void the requirements of this AD. No further action is required by this AD.</p> <p>4. For aircraft listed in the applicability paragraph that are equipped with EMM BSCU standard L4.8 or a non EMM BSCU:</p> <p>4.1. At the latest of these two dates:</p> <p>- Prior to the accumulation of 20 months, or 6000 flight hours, or 4500 flight cycles, since the aircraft first flight, whichever occurs first, or</p> <p>- Within the 6 months, or 1800 flight hours, or 1350 flight cycles, following the effective date of this AD, whichever occurs first,</p> <p>Perform a boroscopic inspection of the NLG upper support lugs and cylinder lugs and apply corrective actions, if necessary, in accordance with SB A320-32-1310 at original issue.</p> <p>4.2. Repeat the inspection defined in above paragraph compliance 4.1 at intervals not exceeding 20 months or 6000 flight hours or 4500 flight cycles, whichever occurs first and apply corrective actions, if necessary, in accordance with SB A320-32-1310 at original issue.</p> <p>- Installation of a NLG with new upper support anti-rotation lugs and new cylinders lugs Or</p> <p>- Installation of a NLG for which it can be demonstrated that it was never driven by EMM BSCU L4.1 or L4.5</p> <p>renders void the requirements of this AD. No further action is required by this AD.</p>
<p>Ref. Publications:</p>	<p>AIRBUS Aircraft Maintenance Manual TR No 12-001 based on the Nov 01/05 revision</p> <p>AIRBUS Aircraft Maintenance Manual 12-14-32</p> <p>AIRBUS Technical Note reference 957.1901/05 dated October 18, 2005</p> <p>AIRBUS AFM TR 4.02.00/33</p> <p>AIRBUS AFM TR 4.02.00/34</p>

	AIRBUS Service Bulletin A320-32-1310 at original issue or later approved revisions.
Remarks :	<ol style="list-style-type: none">1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Method of Compliance (AMOCs) for this AD.2. This AD was posted as PAD 06-071 for consultation on 22 March with a comment period until 05 April 2006. The Comment Response Document can be found at http://ad.easa.eu.int/ .3. Enquiries regarding this AD should be addressed to Mr. M. Capaccio, AD Focal Point, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu4. For any question concerning the technical content of the requirements in this AD, please contact AIRBUS - Fax 33 5 61 93 44 51