EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2013-0208 **Date: 10 September 2013** Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:	**Type/Model designation(s):**
BAE SYSTEMS (OPERATIONS) LTD	HP 137 Jetstream MK 1, Jetstream Series 200 and 3100 aeroplanes

TCDS Number:	UK BA4 and EASA.A.191
Foreign AD:	Not applicable
Supersedure:	This AD supersedes UK CAA AD G-003-01-86.

ATA 32	**Landing Gear – Main Landing Gear – Inspection / Replacement**
Manufacturer(s):	British Aerospace PLC, British Aerospace (Commercial Aircraft) Ltd, British Aerospace Regional Aircraft Ltd, Jetstream Aircraft Ltd and British Aerospace (Operations) Ltd.
Applicability:	HP 137 Jetstream MK 1, Jetstream Series 200 and 3100 aeroplanes all models, all serial numbers.
Reason:	Prompted by occurrences of the main landing gear (MLG) yoke pintle housing cracking, the United Kingdom Civil Aviation Authority (UK CAA) issued AD G-003-01-86 to require repetitive inspections to identify any crack in the yoke pintle housing on MLG fitted to Jetstream 3100 aeroplanes in accordance with BAE Systems (Operations) Ltd Service Bulletin (SB) 32-A-JA851226, and depending on findings, corrective action. After that AD was issued, an occurrence of Jetstream 3100 MLG failure was reported after landing. The subsequent investigation revealed stress corrosion cracking of the MLG yoke pintle housing as a root cause of the MLG failure. Furthermore, the investigation report recommended a review of the effectiveness of UK CAA AD G-003-01-86 in identifying cracks in the yoke pintle housing on MLG fitted to Jetstream 3100 aeroplanes. Degradation of the surface protection by abrasion can occur when the forward face of the yoke pintle rotates against the pintle bearing, which introduces corrosion pits and, consequently, stress corrosion cracking. This condition, if not detected and corrected, could lead to structural failure of the MLG, possibly resulting in loss of control of the aeroplane during take-off or landing runs.

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	To provide protection of the affected area of the MLG assembly spigot housing, BAE Systems (Operations) Ltd issued SB 32-JM7862 to provide instructions for installation of a protective washer, fitted at the forward spigot on both, left hand (LH) and right hand (RH), MLG. Consequently, BAE Systems (Operations) Ltd issued SB 32-A-JA851226 at Revision 5 to provide additional accomplishment instructions for Non-destructive testing inspection (NDT) of MLG equipped with the protective washer installed in accordance with BAE Systems (Operations) Ltd SB 32-JM7862 and to introduce reference to MLG manufacturer APPH Ltd SB 32-19 at Revision 4, providing instructions for re-protection of the yoke pintle. For the reasons described above, this AD retains the requirements of AD G-003-01-86, which is superseded, and requires implementation of revised inspection requirements, and depending on findings, corrective action. This AD introduces an optional modification, which constitutes terminating action for the inspections required by this AD.
Effective Date:	24 September 2013
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) **For aeroplanes that, before the effective date of this AD, have never been inspected in accordance with the instructions of paragraph 2.B. Part A of BAE Systems (Operations) Ltd SB 32-A-JA851226:** Within the compliance time defined in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 1 200 MLG flight cycles (FC) or 12 months, whichever occurs first, accomplish a NDT inspection of each MLG assembly cylinder attachment spigot housing in accordance with the accomplishment instructions of paragraph 2.B. Part A of BAE Systems (Operations) Ltd SB 32-A-JA851226 at Revision 5. Table 1 Inspection threshold **Compliance time (whichever occurs first A or B)** A: Within 300 MLG FC or 3 month after the effective date of this AD, whichever occurs first B: At the first overhaul of the MLG after the effective date of this AD (2) **For aeroplanes that, before the effective date of this AD, have already been inspected in accordance with the instructions of paragraph 2.B. Part A of BAE Systems (Operations) Ltd SB 32-A-JA851226 at any Revision:** Within 1 200 MLG FC or 12 months, whichever occurs first, after the last inspection and thereafter at intervals not to exceed 1 200 MLG FC or 12 months, whichever occurs first, accomplish a NDT inspection of each MLG assembly cylinder attachment spigot housing in accordance with the accomplishment instructions of paragraph 2.B. Part A of BAE Systems (Operations) Ltd SB 32-A-JA851226 at Revision 5. (3) **For aeroplanes that have sustained a heavy or abnormal landing:** Within 300 MLG FC or 3 months, whichever occurs first after the event, accomplish a one-time NDT inspection of each MLG assembly cylinder attachment spigot housing in accordance with the accomplishment instructions of paragraph 2.B. Part A of BAE Systems (Operations) Ltd SB 32-A-JA851226 at Revision 5. (4) If, during any inspection as required by paragraph (1) or (2) or (3) of this AD, any crack is detected, before next flight, accomplish the applicable corrective actions in accordance with BAE Systems (Operations) Ltd SB

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	32-A-JA851226 Revision 5. (5) Within 300 MLG FC or 3 months, whichever occurs first, after accomplishment of each NDT inspection as required by paragraph (1) or (2) of this AD, as applicable, and, thereafter, at intervals not to exceed 300 MLG FC or 3 months, whichever occurs first, accomplish a visual inspection of each MLG in accordance with the accomplishment instructions of paragraph 2.B. Part B of BAE Systems (Operations) Ltd SB 32-A-JA851226 at Revision 5. (6) If, during any visual inspection, as required by paragraph (5) of this AD, any discrepancy is detected, before next flight, accomplish the applicable corrective actions in accordance with BAE Systems (Operations) Ltd SB 32-A-JA851226 Revision 5. (7) **Aeroplanes with MLG incorporating a microswitch hole:** Within 10 600 MLG FC since new, and thereafter at intervals not to exceed 1 200 MLG FC, accomplish a NDT inspection of each MLG microswitch hole in accordance with paragraph 2.B. Part C of BAE Systems (Operations) Ltd SB 32-A-JA851226 at Revision 5. Accomplishment of an inspection, before the effective date of this AD, in accordance with APPH Ltd SB 32-40 at Initial issue or Revision 1, constitutes an acceptable alternative method of compliance for the initial NDT inspection required by this paragraph. (8) If, during any NDT inspection as required by paragraph (7) of this AD, any crack is detected, before next flight, accomplish the applicable corrective actions in accordance with BAE Systems (Operations) Ltd SB 32-A-JA851226 Revision 5. (9) Accomplishment of corrective actions as required by paragraph (4) or (6) or (8) of this AD does not constitute terminating action for the inspections required by this AD. (10) Modification of each MLG cylinder in accordance with BAE Systems (Operations) Ltd SB 32-JA880340 constitutes terminating action for the inspections required by this AD for that MLG.
Ref. Publications:	BAE Systems (Operations) Ltd SB 32-A-JA851226 Revision 5, dated 30 April 2013, BAE Systems (Operations) Ltd SB 32-JA880340 Original issue, dated 6 January 1989, APPH Ltd SB 32-40 Initial issue dated 21 June 1989 or Revision 1 dated February 2003. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 29 July 2013 as PAD 13-108 for consultation until 26 August 2013. The Comment Response Document can be found at http://ad.easa.europa.eu. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: BAE Systems (Operations) Ltd, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, The United Kingdom; Telephone +44 1292 675207, Facsimile +44 1292 675704; E-mail: RApublications@baesystems.com.

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