

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

ITEM ONE - THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Panels:	312AR (EMPEN AND FUSE TAIL - PANEL 1 - RIGHT SIDE)		
Zones:	310 (FUSLG TAIL SECTION AFT OF AFT PRESS BHD SIDE: LR)		
References:	AD: 2012-0175 Rev.02		
	SB: 27-1214 Rev.01		
	VSB: 47145-27-16 Rev.04		
Material:	08BAA9	NON AQUEOUS CLEANER	1.0 req.
	06LCG9	NON HARDENING JOINTING PUTTY	1.0 req.
	14QFB1	WIRE-LOCKING DIA:0.8MM CRES NI ALLOY	1.0 req.
	FE151-000-27	WASHER-TAB	1.0 req.
Tools:	0U190360	PIN-RIGGING	1.0 req.
	98D27403500000	PITCH TRIM CONTROL LOCKING	1.0 req.
	0U145409	SPECIAL WRENCH	1.0 req.

STEP 00.

APPROVAL DATA.

Prepared by: 84086; Date: 27.04.2017.

Approved by: 11700; DATE: 04.05.2017

MECH	INSP

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 01.

Mech. Skill: A/B1/B2 Release Skill: A/B1/B2

MECH

INSP

GENERAL INFORMATION. WARNINGS AND CAUTIONS.

 **WARNING**

MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND ALL THE CAUTIONS INCLUDED IN THE REFERENCED PROCEDURES.

 **CAUTION**

ALWAYS OBEY THE PRECAUTIONS THAT FOLLOW TO KEEP ELECTRICAL WIRING IN A SATISFACTORY CONDITION (ELECTRICALLY AND MECHANICALLY SERVICEABLE). WHEN YOU DO MAINTENANCE WORK, REPAIRS OR MODIFICATIONS, ALWAYS KEEP ELECTRICAL WIRING, COMPONENTS AND THE WORK AREA AS CLEAN AS POSSIBLE. TO DO THIS:

- PUT PROTECTION, SUCH AS PLASTIC SHEETING, CLOTHS, ETC; AS NECESSARY ON WIRING AND COMPONENTS. REGULARLY REMOVE ALL SHAVINGS, UNWANTED MATERIAL AND OTHER CONTAMINATION.
- THESE PRECAUTIONS WILL DECREASE THE RISK OF CONTAMINATION AND DAMAGE TO THE ELECTRICAL WIRING INSTALLATION.

IF THERE IS CONTAMINATION REFER TO ESPM 20-55-00.

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 02.

Mech. Skill: A/B1/B2 Release Skill: A/B1/B2	MECH	INSP
<p>GENERAL INFORMATION. NOTES.</p> <div style="border: 1px solid blue; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"> NOTES</p> <p>The accomplishment instructions of this JIC include procedures given in other documents or in related SB. When the words "refer to" are used and the operator has a procedure accepted by the local authority he belongs to, the accepted alternative procedure can be used. When the words "in accordance with" are used then the given procedure must be followed.</p> <p>The access and close-up instructions, not comprising return to service tests, in this JIC do not constitute or affect the technical intent of the related SB. Operators can therefore, as deemed necessary, omit or add access and/or close-up steps to add flexibility to their maintenance operations as long as the technical intent of the SB is met within the set parameters.</p> </div>		

STEP 03.

Mech. Skill: A/B1/B2 Release Skill: A/B1/B2	MECH	INSP
<p>STANDARD PRACTICES.</p> <ol style="list-style-type: none"> 1. For the specification of materials (Mat. No.) given in this JIC, refer to Consumable Materials List (CML). 2. For the identification of zones, refer to AMM 06-20-00, Page Block 001. 3. For the identification of access panels, refer to AMM 06-41-53, Page Block 001. 4. Tag the parts that you must remove and retain to make the subsequent installation easier. 5. Put all the retained hardware in identified plastic bags and attach the bags to the related unit. 6. Clean the area and surface to be inspected with: Non Aqueous Cleaner-General P/N 08BAA9 As required 		

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 04.

Mech. Skill: A/B1/B2 Dble. Rel. Skill: A/B1/B2	MECH	INSP
<p>JOB SET-UP.</p> <p>1. The following items shall be considered as the basic Aircraft configuration before you start a maintenance task:</p> <ol style="list-style-type: none"> 1) Aircraft on the ground resting on landing gear (the ground safety locks and the wheel chocks are in position on the landing gear). 2) Engine shut down, thrust reversers closed and locked. 3) Aircraft in clean configuration. 4) Parking brake applied. 5) Aircraft electrical network de-energized. 6) Hydraulic systems depressurized. 7) Access to the cockpit and cabin is available. 8) All circuit breakers are in closed position. 9) All controls in NORM, AUTO or OFF position. <p>2. Make sure that the aircraft is electrically grounded. Reference: AMM 12-34-24.</p> <p>3. Put the access platforms in position at Zone 310.</p> <p>4. Open the access door 312AR.</p> <p>5. Put the warning notices in position on the hydraulic controls to tell persons not to operate the hydraulics systems.</p>		

STEP 05.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>CLAW STOP REMOVAL.</p> <p>Remove the lower claw stop. Reference: AMM 27-44-51 Page Block 401.</p> <div style="border: 1px solid blue; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"> NOTE</p> <div style="border: 1px solid black; padding: 5px; margin: 5px auto; width: 80%;"> <p>Remove the two keys (Item 80) and keep them for re-installation. Reference: Figure 02.</p> </div> </div>		

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 06.

Mech. Skill: B1 Dble. Rel. Skill: B1

MECH

INSP

THE THSA BALL SCREW DETAILED INSPECTION.

Do a detailed inspection of the THSA ball screw.

Reference: Figure 01 (Inspected area general view).

Visual inspection of the lower end of the screw shaft on the following area:

- 1) Screw shaft internal splines end. Reference: Figure 3 view A.
- 2) Screw shaft bottom face. Reference: Figure 3 view B.
- 3) Screw shaft thread underneath the lower claw stop. Reference: Figure 3 view C.

 **NOTES**

The aim of this visual inspection is to classify level of corrosion of the lower end of the screw shaft in 3 different categories:

- Corrosion type III
Reference: Figure 04 through Figure 08. (Examples of corrosion Type III)
- Corrosion type II
Reference: Figure 09 through Figure 12. (Examples of corrosion Type II)
- Corrosion type I

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 07.

Mech. Skill: B1 Dble. Rel. Skill: B1

MECH

INSP

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

THE THSA BALL SCREW DETAILED INSPECTION.
PROCEDURE AND CORROSION TYPE CRITERIA.

1. CORROSION TYPE III

Without cleaning, inspect the gaps between screw shaft and tie bar splines.

Corrosion type III is characterized by:

- 1) Presence of a pasty brown compound generated by iron oxide.
- 2) This compound is mainly localised between screw shaft and tie rod lower splines.
- 3) Corrosion is classified as type III, when compound fully clogs lower splines gaps, i.e. all SIX gaps are clogged by pasty brown compound.

! CAUTION

FAIL SAFE TIE BAR IS A TITANIUM PART, IT IS FORBIDDEN TO CLEAN IT WITH CHLORINATED PRODUCT.

Clean screw shaft threads, bottom face of the screw and elastic claw stop keys grooves with Isopropyl alcohol or local approved solvent.

Corrosion is also classified as type III when ALL SIX screw shaft splines are affected by corrosion.

Screw shaft splines corrosion is characterized by corrosion pits along inner splines edges of the screw shaft. Edges are serrated.

2. CORROSION TYPE II

- 1) Screw shaft splines corrosion is characterized by corrosion pits along inner splines edges of the screw shaft. Edges are serrated.

If at least one of the six screw shaft splines is not affected by corrosion, corrosion is classified as type II.

! NOTE

If all SIX screw shaft splines are affected by corrosion, corrosion is classified as type III.

- 2) Corrosion is also classified type II if:

- a) Corrosion pits are found on the lower thread of the screw shaft. (Reference: Figure 11).
- b) Corrosion pits are found on the screw shaft key groove. (Reference: Figure 12).
- c) Corrosion pits are found on the screw shaft bottom face. (Reference: Figure 13).

! NOTE

The first six threads starting from the bottom of the screw shaft are located under the elastic claw stop.

3. CORROSION TYPE I.

If the screw shaft lower splines/thread condition does not meet any of the type III or type II condition, the screw shaft is considered not corroded, classified as type I.

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 08.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>INSPECTION RESULTS REPORT.</p> <p>1. Report the corrosion type (Type I, II or III): _____</p> <p>2. Write corrosion type in the field "Action" of the WO.</p> <p>3. Fill out the Airbus inspection report attached.</p> <p>4. Perform the actions as follows:</p> <p>1) If THSA is classified Type I (no corrosion): No further action is required, proceed to STEP 09 "INSTALL LOWER CLAW STOP" and subsequent. Mark STEP 10 and STEP 11 as N/A or N/R.</p> <p>2) If THSA is classified Type II (local traces of corrosion): Proceed to STEP 09 "INSTALL LOWER CLAW STOP" and STEP 10 "BALL SCREW INTEGRITY TEST FOR TYPE II". Mark STEP 11 as N/A or N/R.</p> <p>3) If THSA is classified Type III (significant corrosion): Proceed to STEP 09 "INSTALL LOWER CLAW STOP" and STEP 11 "BALL SCREW INTEGRITY TEST FOR TYPE III". Mark STEP 10 as N/A or N/R.</p>		

STEP 09.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>INSTALL THE LOWER CLAW STOP.</p> <p>Install the lower claw stop. Reference: AMM 27-44-51 Page Block 401.</p> <div style="border: 1px solid blue; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"> NOTE</p> <p style="border: 1px solid black; padding: 5px; display: inline-block;">Re-install the two keys (Item 80) retained at removal.</p> </div>		

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 10.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>BALL SCREW INTEGRITY TEST FOR TYPE II.</p> <p>Do a ball screw integrity test in accordance with AMM 27-44-51 Page Block 601.</p> <div style="border: 1px solid blue; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"> NOTE</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Before doing the ball screw integrity test, the lower claw stop must be installed. Reference: STEP 09 "INSTALL THE LOWER CLAW STOP".</p> </div> </div> <p>1. If the test is correct: Proceed to STEP 12 "TEST" and subsequent.</p> <p>2. If the test is not correct: Replace the THSA 9CE BEFORE NEXT FLIGHT in accordance with AMM 27-44-51 Page Block 401.</p>		

STEP 11.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>BALL SCREW INTEGRITY TEST FOR TYPE III.</p> <p>Do a ball screw integrity test in accordance with AMM 27-44-51 Page Block 601.</p> <div style="border: 1px solid blue; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"> NOTE</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Before doing the ball screw integrity test, the lower claw stop must be installed. Reference: STEP 09 "INSTALL THE LOWER CLAW STOP".</p> </div> </div> <p>1. If the test is correct:</p> <ol style="list-style-type: none"> 1) Immediately inform MCC and Engineering Department or customer representative via e-mail. Only 10 days are given for THSA replacement. 2) Proceed to STEP 12 "TEST" and subsequent. <p>2. If the test is not correct: Replace the THSA 9CE BEFORE NEXT FLIGHT in accordance with AMM 27-44-51 Page Block 401.</p>		

PROPERTY OF "ROSSIYA AIRLINES" JSC

JIC: 42366 / 0

Title: THSA - BALLSCREW LOWER SPLINES CORROSION INSPECTION.

Area:

ATA:

Special Codes:

A/C: BIV

Job Instruction Card for - / -

STEP 12.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>TEST.</p> <div style="border: 1px solid blue; padding: 10px; margin: 10px auto; width: 80%; text-align: center;">  NOTE <div style="border: 1px solid black; padding: 5px; display: inline-block; margin: 5px auto; width: 80%;"> <p>Before doing this test, the lower claw stop must be installed.</p> </div> </div> <p>Do the test procedure as specified after the installation of the lower claw stop. Reference: AMM 27-44-51 Page Block 401.</p>		

STEP 13.

Mech. Skill: B1 Dble. Rel. Skill: B1	MECH	INSP
<p>CLOSE-UP.</p> <ol style="list-style-type: none"> 1. Make sure that the work area is clean and clear of tools and other items. 2. Close the access panel 312AR. 3. Remove the WARNING NOTICE(S). 4. Remove the access platforms. 5. Restore the systems and the aircraft to normal operating condition. 		

PROPERTY OF "ROSSIYA AIRLINES" JSC