MINI PACK

AJW

Model

B777 Stab Trim Actuator Assy

Serial

000180090

Part number

251W4110-18

Condition

Repaired

TSR₀

CSR₀

TSN 44117.15

CSN 4793

Trace to

Etihad Airways

Tag by

Curtis Wright

Tag date

COMING SOON

Location

AJW Group The Headquarters, Maydwell Avenue, Slinfold, West Sussex, RH13 0AS, United Kingdom

Additional details

For additional details on this unit please contact the AJW Major Assets Team.



AIRWORTHY CERTIFICATE/FORM

SHOP VISIT REPORT

NON- INCIDENT STATEMENT



Date: 07 October, 2018

To: Altavair

Non Incident / Non Accident Statement - Airframe

Aircraft

Registration	MSN	Туре	TSN	CSN
A6-LRC	36302	B777-200LR	44117:15	4793

To whom it may concern:

During operation by Etihad Airways of the above Aircraft, we hereby confirm that the Aircraft:

- ▶ Has not been involved in any accident or serious incident as defined in Chapter 1 of ICAO Annex 13
- ▶ Has not been obtained from nor operated by any government or military source.
- ► Has not been subjected to severe stress or heat outside of normal operation and maintenance.
- Have not been submerged in salt water or otherwise exposed to corrosive agents outside of normal operation and maintenance.

Approved by:
Najeeb Hassan Ansari
B777 Fleet Management Manager
+971 2 511 5459
NAnsari@etihad.ae

Prepared by: Renz Estiva Tehcnical Records Officer +971 2 511 5324 REstiva@etihad.ae



AD & SB STATUS

=	_ار	ayı		
= I	119-72	-	- I	

Unit Name: A6-LRC TSN: 44119:15 Engine 1 SN: 906288 APU SN: P-2158 Item Number: B777-200LR CSN: 4794 Engine 2 SN: 906428 Issue Date From: 01-JAN-92 Serial Number: 36302 TSLSV/TSO: NOT APPLICABLE Engine 3 SN: NOT APPLICABLE Issue Date To: 06-JAN-19 Optr/Owner: ETIHAD AIRWAYS(EY) Order By: Document Issue Date CSLSV/CSO: NOT APPLICABLE Engine 4 SN: NOT APPLICABLE

Airworthiness	Directives	Status Report	
---------------	------------	---------------	--

EASA-AD / CN / FAA-AD	Issue Date	Effective Date	SB/VSB/AOT	EO / MR	Subject	Applicability (Position/ Item No/SN)	Repeat	Status	Last Done	NextDue Date / Remaining Life	Remarks
EAD: 2007-0003 / 01	15-JAN-09	15-JAN-09		EY_2007-0003 00	TIME LIMITS - ENGINE CRITICAL PARTS LIVES.	A6-LRC B777-200LR 36302	NO	Not Applicable			Applicable to RR Trent engines only. EY 777 fleet is fitted with GE90 engines.
AD: 2009-05-08 / 00	19-FEB-09	20-APR-09		EY_2009-05-08_B77 7 00	To prevent a pilot from making an unsafe decision based on erroneous information provided by the 2101 I/O Approach Plus system, which could result in loss of control of the aircraft.	A6-LRC B777-200LR 36302	NO	Not Applicable			AFFECTED EQUIPMENT NOT INSTALLED
AD: 2008-06-27 / 00	09-MAR-0 9	28-APR-08		EY_2008-06-27_B77 7 00	Equipment Furnishing - Goodrich evacuation system - To Prevent Failure of An Evacuation System which could impede an emergency Evacuation.	A6-LRC B777-200LR 36302	NO	Not Applicable			NOT APPLICABLE DUE AFFECTED EQUIPMENT NOT INSTALLED
EAD: 2006-0334 / 01	19-MAR-0 9	14-NOV-06		EY_2006-0334 00	COMMUNICATIONS - THALES COMMUNICATIONS VHF DATA RADIO	A6-LRC B777-200LR 36302	NO	Not Applicable			AD is not applicable due to effected PN not installed.
AD: 2009-08-01 / 00	30-MAR-0 9	14-MAY-09		EY_2009-08-01R1 01	Honeywell NZ-2000 navigation computers and Honeywell IC-800 or IC-800E integrated avionics computers - Prevent a shift in the FMS computed position	A6-LRC B777-200LR 36302	NO	Not Applicable			EFFECTED PN NOT INSTALLED.
EAD: 2006-0140 / 04	17-APR-09	25-MAY-06		EY_2006-0140 00	Zonal Drying System Deactivation.	A6-LRC B777-200LR 36302	NO	Not Applicable			NOT APPLICABLE AS ZONAL DRYING SYSTEM NOT USED ON A/C LINE # 610 TO 698, AND STCs NOT APPLICABLE.
AD: 2009-14-06 / 00	(24-JUN-09)	(12-AUG-09)	SB, 777-27A0059) 05	EY_777-27A0059-PA RT-1 08	FLIGHT CONTROLS- HORIZONTAL STABILIZER TRIM ACTUATOR BALLSCREW AND BALLNUT DETAILED INSPECTION.	A6-LRC B777-200LR 36302	YES	Open	Date: 29-NOV-18) TSN: 44117:15) CSN: 4793 Visit: 1697830 WO : TEV21355891	(12-AUG-19) (3498:00 Hours)	
AD: 2009-14-06 / 00	24-JUN-09	12-AUG-09	(SB, 777-27A0059 / (D5)	EY_777-27A0059-PA RT-2 08	FLIGHT CONTROLS- HORIZONTAL STABILIZER TRIM ACTUATOR (BALLSCREW AND) BALLNUT FREEPLAY INSPECTION.	A6-LRC B777-200LR 36302	YES	Open	Date: 15-OCT-15 TSN: 31445:35 CSN: 3685 Visit: 981305 WO: AUH13143264	(04-DEC-19) (5326:20 Hours)	EO FORECAST IS NOW BEING CONTROLLED BY AMP TASK EY_B777_27-440-00-01
AD: 2009-14-06 / 00	24-JUN-09	12-AUG-09	(S8, 777-27A0059 / (05)	EY_777-27A0059-PA RT-3 08	FLIGHT CONTROLS- HORIZONTAL STABILIZER TRIM ACTUATOR BALLSCREW AND	A6-LRC B777-200LR 36302	YES	Open	Date: 29-NOV-17) TSN : 43518:30 CSN : 4744 Visit : 1510896	(10-MAY-19) (1998:00 Hours)	(EO FORECAST IS NOW) BEING CONTROLLED BY) AMP TASK) EY_B777_12-006-00-01

le



Unit Name: A6-LRC TSN: 44119:15 Engine 1 SN: 906288 APU SN: P-2158 Item Number: B777-200LR CSN: 4794 Engine 2 SN: 906428 Issue Date From: 01-JAN-92 Serial Number: 36302 TSLSV/TSO: NOT APPLICABLE Engine 3 SN: NOT APPLICABLE Issue Date To: 06-JAN-19 Optr./Owner: ETIHAD AIRWAYS(EY) CSLSV/CSO: NOT APPLICABLE Engine 4 SN: NOT APPLICABLE Order By: Document Issue Date

Airworthiness	Directives	Status	Report
---------------	------------	--------	--------

EASA-AD / CN / FAA-AD	Issue Date	Effective Date	SB/VSB/AOT	EO / MR	Subject	Applicability (Position/ Item No/SN)	Repeat	Status	Last Done	NextDue Date / Remaining Life	Remarks
					BALLNUT LUBRICATION.				W <mark>O: AUH18902309</mark>		
AD: 2009-14-06 / 00	24-JUN-09	12-AUG-09	SB, 777-27A0059 / 05	EY_B777_12-006-00- 01 B023	LUBRICATE THE HORIZONTAL STABILIZER BALLSCREW AND BALLSCREW ACTUATOR. NOTE: MRB INTERVAL 3000 FH OR 400 DY FAA AD 2009-14-06 REPEAT AT 2000 FH OR 12 MO	A5-LRC B777-20LR 36302	YES	(Open)	Diste: 29-NOV-18 TSN: 44117:15 CSN: 4793 Visit: 1697830 WO: TEV21355893	10-MAY-19 1998:00 Hours	
AD: 2009-14-06 / 00	24-JUN-09)	12-AUG-09	(SB, 777-27A0059 /) (05)	EY_B777_27-440-00- 01 B023	FUNCTIONALLY CHECK THE STABLIZER BALLNUT TO BALLSCREW FREEPLAY, NOTE: MRB (INTERVAL 25000 FH OR 1875 DY FAA AD 2009-14-06 THRESHOLD AT 15000 FH AND REPEAT (INTERVAL AT 18000 FH OR 60 MO	A6-LRC B777-200LR 36302	YES	(Open)	Date: 04-NOV-15 TSN: 31445:35 CSN: 3885 Visit: 981305 WO: AUH13142954	04-DEC-19 5326:20 Hours	
EAD: 2009-0200 / 00	08-SEP-09	22-SEP-09		EY_2009-0200 00	NAVIGATION - MODE A/C TRANSPONDER - CHECK / MODIFICATION	A6-LRC B777-200LR 36302	NO	Not Applicable			AD not applicable due effected PN not installed.
AD: 2009-24-08 / 00	27-NOV-0 9	04-JAN-10	SB, 777-53A0054 / 01	EY_777-53A0054_PA RT1 00	FUSELAGE - BS 132.5 to BS 2150 - External Inspection of the Fuselage Skin for External Scribe Lines	A6-LRC B777-200LR 36302	МО	SUPERSEDED			SUPERSEDED BY FAA AD 2013-07-11 R00
AD: 2009-24-08 / 00	27-NOV-0 9	04-JAN-10	SB, 777-53A0054 / 01	EY_777-53A0054_Pa rt 2_3_4 00	FUSELAGE - BS 132.5 to BS 2150 - External Inspection of the Fuselage Skin for External Scribe Lines	A6-LRC B777-200LR 36302	NO	SUPERSEDED			SUPERSEDED BY FAA AD 2013-07-11 R00
AD: 2009-24-08 / 00	27-NOV-0 9	04-JAN-10	SB, 777-53A0054 / 01	EY_777-53A0054_Pa rt 5_6 00	FUSELAGE - BS 132.5 to BS 2150 - External Inspection of the Fuselage Skin for External Scribe Lines	A6-LRC B777-200LR 36302	NO	SUPERSEDED			SUPERSEDED BY FAA AD 2013-07-11 R00
AD: 2009-21-10 / 00	02-DEC-09	17-DEC-09	SB, 777-35A0023 / 00	EY_AD_2009-21-10 00	OXYGEN - CREW AND PASSENGER GASEOUS OXYGEN SYSTEMS - OXYGEN CYLINDER INSPECTION/REPLACEME NT EO NBR: M35-A0023EY 00	A6-LRC B777-200LR 36302	NO	SUPERSEDED			Superseded by Rev 01



	AD			JOB CA	RD			REV NO.	13/ 09-OCT-17
ETIH	AD				CARD SEQ:	194			
		ETIHAD EY_777-27A0059-PART-1						PAGE	1/4
41.60					FERENCE	<u>"I</u>		PAGE	
Return to Service					TEACH CONTRACTOR OF THE PARTY O			VISIT NO.	1697830
			IX	ciam to oc	VICE			CHARGEABL	e IVI
Abir Dhabi International Ale PO Box 35566	rport	A/C TYPE	B777-200LR	REGN.	A6-LRC	MSN	36302	NON-CHARGI	
New Airport Road Abu Dhabi United Arab Emirates		WORK ORDER		1,0150,000,000,000,000	21355891*		ΔF		
		LOCATION	/ DEPT.	Teruel Ai	rport/Teruel	Airport Li	ne		
CUSTOMER CODE	EY	TITLE	FLIGHT CONTRIBUTIONS TRIM ACTUATIONS DETAILE					PROGRAM TYPE	EO-MANDATORY
MAN HOURS	2.50			INTERVA	L			TASK	DETAILED IN
MEN	1	FH	FH FC DY					ATA	27-41
ELAPSED TIME ZONE DE	ec.	350 Empennage				365		ZONE	300
				PRECAUTIO	NS IDENTIF	TED WITH	IN THE API	PLICABLE TASKS A	RE FOLLOWED
									ICATION
STEP	TASK DESCRIPTION / REQUIREMENT							MECH Sign/Emp.No Date	INSP Sign/Stamp Date
TICK AS APPLID UAE.145.0 FASA.145.0 UAE.145.0	config config 2.Product ledessar tools, listed in AMM 3.In cas requir NOTE: As Of 12 CABLE 002	warrant guration etion Pla Ty equipme 12-21-0 se of adv ced. Cee	changes gianning to a change of the change o	ensure avensumable 13,AND 29 1,ngs HSTA	his EO. ailabil s/expen -11-00. replac t in a	ity of dables ement r "known erwise spe	as nay be ciffed, was cot to that w	aarried out in	2 gorov 1
INDEPENDENT	INSPECTI	ON REQUIRE	D		YES			NO X	
NOTE: INDEPE	NDENT INS	SPECTIONS I	MUST BE RECO	RDED AND C	ERTIFIED II	AN APPI	ROVED MA	NNER.	

NRC's	NRC NO(S):	Add. Work Sheets	AWS NO(s)	CARD CLEAR	
Raised		raised:		CARD CLEAR	
YES		YES	1		
ио Ф		NO 🗆			

ORIGINAL COPY REV NO. 13/09-OCT-17 JOB CARD CARD SEQ: 194 الإتحار EY 777-27A0059-PART-1 PAGE 2/4 WORK PACK REFERENCE 1697830 VISIT NO. Return to Service CHARGEABLE Abu Dhabi International Airport A/C TYPE B777-200LR REGN. A6-LRC MSN 36302 NON-CHARGEABLE PO Box 35566 New Alroot Road Abu Dhabi United Arab Emirates WORK ORDER *TEV21355891* LOCATION / DEPT. Teruel Airport/Teruel Airport Line CERTIFICATION STEP TASK DESCRIPTION / REQUIREMENT MECH INSP Sign/Emp.No Sign/Stamp Date Date serviceable condition" cannot be installed on an airplane. HSTA which meets the requirements of this EO must be procured for stocks, otherwise detailed inspection, freeplay check and lubrication of that HSTA must be performed IAW this EO. SPECIAL TOOLS: Special tooling necessary to do this EO: 1. Tool Kit: J55002-37 - Horizontal stabilizer freeplay test equipment, is the correct tool to accomplish the ball nut freeplay inspection. However, any inspection done earlier using tool in rev 1 of this EO is satisfactory. 2. Dial indicator with magnetic v-base, rods, and clamps or equivalent dial indicator tool. 10 Carry out attached EO No: EY_777-27A0059-PART-1. ACCOMPLISHMENT OF THIS EO WILL BE CONSIDERED COMPLIANT WITH THE AMS TASK EY_B777_27-450-00-01 TICK AS APPLICABLE Certifies that the work specified, except as otherwise specified, was carried out in accordance with CAR 145 / EASA Part 145* and in respect to that work, the aircraft / UAE.145.0002 aircraft component is considered ready for release to service, (*Delete not applicable) EASA.145,0442 VIAE.145.0010 (OLD:GCAA-EMG/4873 OTHER VAE: 145.12073 ▼ OTHER INDEPENDENT INSPECTION REQUIRED YES X NOTE: INDEPENDENT INSPECTIONS MUST BE RECORDED AND CERTIFIED IN AN APPROVED MANNER.

NRC's	NRC NO(S):	Add, Work Sheets	AWS NO(s)	CARD OLEAN
Raised		raised;		CARD CLEAR
YES		YES		
ио Д]	NO 🗀		

ORIGINAL CO	PY						DEVINO	19/00 OCT 17
1	וענב			JOB CAR	D		REV NO. CARD SEQ:	13/ 09-OCT-17 194
	-IAT		EY	777-27A0059-	PART-1		PAGE	3/4
8 1 11	W X Y S		V	VORK PACK REFE			VISIT NO.	1697830
Abu Ohabi Internations	I Airport	A/C TYPE	B777-20	DLR REGN.	A6-LRC MSN	36302	CHARGEABLI NON-CHARGE	
PO Box 35566 New Airport Road Abu Dhabi United Arab Emiral	es	WORK ORDER		*TEV213		A	F	
		LOCATION	/ DEPT.	Teruel Airpo	rt/Teruel Airport	Line		
							CATION	
STEP		TA	SK DESC	RIPTION / REQUIR	EMENT		MECH Sign/Emp.No Date	INSP Sign/Stamp Date
98	1000000	Amana A A A A A A A A A A A A A A A A A A				29/NOV/2018 PMI Mal		
	1			s clear of all		uipment		
99		Manage of the Control				29000 14		
		INFORAMT		***		h		
				SUE OR SUGGEST				
	IMPROVE	MENT WITH	REGARI	S TO THE CONT	ENT OF THI	S EO/EWI		
		FleetMGT@		ae"			29/1001/2018	-
100		he aircr		a serviceable	condition		PMI High	
TICK AS APP	i.0002	acc	ordance wi	ne work specified, exce th CAR 145 / EASA Pa nent is considered read	irt 145* and in res	spect to that wo	rk, the aircraft /	
UAE.145		3CAA-EM/G/4 145.12	87)					
OTHER INDEPENDEN					YES [NO X	
NOTE: INDE	ENDENT IN	SPECTIONS I	NUST BE F	ECORDED AND CER	TIFIED IN AN AF	PROVED MAI	NNER.	
REFEREN								
EY_777-2	7A0059-PA	RT-1_EO E	DOC RE	V:08				
APPLICAE	BLE ZONES	3						
NRC's Raised	NRC NO(S)				Add. Work Sheets raised:	AWS NO(s)		CARD CLEAR

YES

NO

YES

NO

ORIGINAL COPY	1								
W. Achteste			JOB CA	RD			0.00	V NO.	13/ 09-OCT-17 194
الإنجار		EV 75			1		1971	RD SEQ:	4/4
ETIHAD			77-27A005		-1		P	AGE	n/4
ATENALA			RK PACK RE				VIS	IT NO.	1697830
		TO ACCOUNT OF THE CONTRACT OF						CHARGEABLE	<u> </u>
Abu Dhabi International Airport PO Box 35566	A/C TYPE	8777-200LR	REGN.	A6-LRC	MSN	36302		NON-CHARGE	
New Airport Road Abu Dhabi United Arab Emirates	WORK ORDER	*TEV21355891*						A	F
	LOCATION	/ DEPT.	Teruel Al	rport/Teruel	Airport Li	ne		<i>M</i> •	
ASSOCIATED DOCUM	MENTS / RE	LATED CA	RDS						
2009-14-06 REV:00						m = 10			
777-27A0059 REV:05	OUEDIII	DEV/2004							
MS_MAINTENANCE S EY 777-27A0059-PAF	T-1 FO P	KEV:001	Y 777-27A	0059-PAR	T-1 EO	: R/I 05 : 2	25.09.2	2014 : ATA	27
EY 777-27A0059-PAF			-(_111-217	0000-1711	1-1_0	. 101 00 1 1	20.00.2		
EY_777-27A0059-PAF									
AMM_AIRCRAFT MAI	NT MANUA	L REV:001							
CMM_MISC REV:001									
ACCESS PANEL REC	UIREMEN	TS						¥0.	
No Access Panel assig	ned to this	task							
MATERIAL REQUIRE	EMENTS								
PART NUMBER	1		DESCRIPT	ION		QTY F	REQD	AS REQ	D BATCH NUMBER
251W4110	HS	TRIM ACTUA	TOR				1	Yes	
TOOLING REQUIRE	MENTS								
PART NUMBER	3		DESCRIP	rion			Q	TY REQU	IRED
J55002-37	TE	ST EQPMN	Γ-THSA FRE	EPLAY					li li
A OTHER PROPUSTION	201 884 AL LI	OUDE DEC	OBDING						
ACTUAL PRODUCTION	JN WAN-H	DUKS RECU	JRDING						
Skill			ACT Per	son			AC	T Mhrs (H	rs:Min)
			ı.						

NRC's Raised	NRC NO(S):	Add. Work Sheets	AWS NO(s)	CARD CLEAR
		raised:		OAING CELTIN
YES		YES	1	
NO D		NO 🗆		



Engineering Order

EO NO: EY_777-27A0059-PART-1 REV: 08 REV DATE: 09/04/2017

EO Number :	EY_77	7-27A0059-PART	-1	Version	20	Revision:	08
		CONTROLS- HO	ORIZONTAL STAB I	ILIZER TRIM ACT	TUATOR E	BALLSCREW	ND BALLNUT
Source Docum	nents			Villa Parameter		00	
Document Number		Company of Acade as	A SEE CALSELED IN	SUL HELD SELECTION			
B:777-27A0059:05		CONTROLS-HORIZ	ONTAL STABILIZER, T	RIM ACTUATOR, BA	LLSCREWA	IAINTENANCE AN	ND LUBRICATION.
D: 2009-14-06:00	-	Alberta	FAILURE OF THE PR				420000000000000000000000000000000000000
Reference Do	cumer	nts			ALCO VIEWS		THE STATE OF THE S
ocument Number	ounton	110	Title				Affected Items
S:MS MAINTENA	NCE SCI	HEDULE:001	MAINTENANCE SO	CHEDULE (MISC)			YES
MM:AMM_AIRCRA	FT MAIN	IT MANUAL:001		ENANCE MANUAL (YES
MM:CMM_MISC:00	01		COMPONENT MAI	NTENANCE MANUA	AL		YES
Customer :		ETIHAD AIRWAY	S(EY)	Repetitive :		es	
hargeable :	hargeable: 2.0 HOURS			Whichever:	F	IRST	
ategory:		AIRCRAFT		Copy Accomplishe	nent: Y	es es	
rogram Type :		EO-MANDATORY	Y	Service Type:	0	N	
TOPS:		No		Program Sub Type	e: A	D	
ime Span :	k.	2.5 HOURS		Warrantable:	N	0	
				Down Time :	2.	5 HOURS	
tevision Comment		5. Revision 05 of I and TAT data a 6. Revision 07 of I 7. Revision 08 of I	A0059-PART-1 Rev (his EO is being issue nd update some infor his EO is being issue his EO is being issue ound that an MD-80 a	ed to reflect the requirements. In the reflect Rev.04 and to reflect Rev.05.	of SB 777-2 of SB 777-2	n the Etlhad EO 27A0059. 27A0059 and up	format, update MH
actuator. Also, or The 777 actuator prevent an under horizontal stabilization of control of the I			e 757 alrplane was for has similar configural cled failure of the pri er and subsequent was prizontal stabilizer an for the detailed inspe-	tion to the 757 actual mary load path for the ear and failure of the d consequent loss of	ator, as suc the ballscre e secondar of control of	h, AD 2009-14-0 w in the drive me y load path, which the airplane.	06 was issued to echanism of the ch could lead to lose
Description :		ball screw, b. Clean the actua c. Inspect actuato d. Inspect the ball e. Inspect the exte Note: If any dis	ection of any metal p stor ball screw. r ballnut	uator. eplacement of the a	-1 1 € 1875 No. 1885 No. 2010	ore further flight	
Authored By			0	Şignature /	ETIE		Date
Ace Evangelista 3777 Lead Engine	eer		h	warm	Clickles Heighause	lista	09 April 2017
Checked By/Desig	in sian	atory		Olamatura F	nton Dukov	10	Date
Anton Dukov B777 Lead Engineer		- D		ead Engineer		9 APR 2017	
Management Sign	atory		1 -	Signature	The same		Date
Najeeb H. Ansari B777 Fleet Manager		Si	324	SI III	3/	10 Apr 17	
National authority: NOT REQUIRED APPROVED SB.		R FAA	15	Signature	ATRIVAYS Joed Hassen An MANAGER	vari)	o Apr 17
QA400 Rev. 0		- €	>,	Nov. 2014			Page 1 o



Engineering Order

EO NO: EY_777-27A0059-PART-1

REV : 08

REV DATE: 09/04/2017

	· · · · · · · · · · · · · · · · · · ·	Assigned visit type
	Type Description Item Details COMPLIANCE TEXT: Comply with this EO before accumulation of 15000 total FH or within 18 months after 12 August 2009, whichever occurrent at intervals not to exceed 3500 FH or 12 months whichever occurs first.	Description
国		Item Details
Comment	Comply with this EO before accum Repeat at intervals not to exceed 3 NOTE: 1. If any discrepancies found, as sp flight.	9500 FH or 12 months whichever occurs first. pecified in the listed accomplishment instructions, the HSTA must be replaced before further

Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	
777F-APPLICABLE					365		Days(DSN-Ac)	
Item :B777-FFX				15000	3500		Hours(TSN-Ac)	
Due date:	Exclude	Serial From		Serial '	Го	Ren	narks	
	N	39582		99999				
								4
							-	_
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	4
777ER-APPLICABLE		STATE OF THE STATE			365		Days(DSN-Ac)	_
Item:B777-3FXER				15000	3500		Hours(TSN-Ac)	
Due date:	Exclude	Serial From		Serial '	Го	Ren	narks	
	N	34597		99999				
		Stop Date	Earliest Due	Start	Interval	Stop	UOM	4
	Start Date	otop muta	e-mine-i-me				Days(DSN-Ac)	
	Start Date	Stop Butt			365			
777LR-APPLICABLE	Start Date			15000	365 3500		Hours(TSN-Ac)	
777LR-APPLICABLE Item :B777-200LR	Start Date Exclude	Serial From		15000 Serial	3500	Ren		
Effectivity : 777LR-APPLICABLE Item :B777-200LR Due date:					3500 To	Ren	Hours(TSN-Ac)	

Electrical Load / Weight & Balance						
Effect on weight	0 Kg	Effect on Balance	0 Kg.m	Electrical Load Change	NO	

		Electrical Loa		Tell
Type(AC/DC)	Type of change	Flight Config		Date
			*	•
Bus	Bus Bar	AMPs	KVA	PF
				•
Watts KVA	KVAR	Phase	Nominal W	Nominal VA
•				
Min W	Min V	Max W	Max V	Delta VA
			-	
Weight & Balance Notes	No change			
Electrical Load Notes	No change			

			Configuration Chang	e		
Pre Modification P/N	Post Mod	ification P/N	Plate markings	Interchangeability Codes	Intermixability codes	
-	-		-	-		
Configuration Change C	omments	No change				



Engineering Order

EO NO: EY_777-27A0059-PART-1

REV : 08

REV DATE: 09/04/2017

		Material Requireme	ent		
Item	Part Number	Description	Qty/Unit	UOM	Main Part
1	251W4110	HS TRIM ACTUATOR	1	Each	4
Engine	eering Material Comme	Boeing warranty remedies are not avail Production Planning to ensure availabil expendables as listed in AMM 12-21-03. In case of adverse findings HSTA replaints NOTE: As Of 12 Aug 2009, HSTA that is not in a airplane. HSTA which meets the requirem detailed inspection, freeplay check and lu	lity of necessary tools, e 5, 27-41-13 and 29-11-0 acement may be require "known serviceable cor nents of this EO must be	equipment and 10. d. adition" cannot procured for s	consumables / be installed on a

		Tool Requiremen		
Item	Part Number		Qty/Unit	Duration
1	J55002-37		1	-
Engin	eering Tools Comments	Special tooling necessary to do this EO; 1. Tool Kit: J55002-37 - Horizontal stabilize accomplish the ball nut freeplay inspecting the first of this EO is satisfactory. 2. Dial indicator with magnetic v-base, rode 3. The Tool Kit J55002-37 can be obtained address: Spares Customer Support, MC 36-65, Boeing Spares Dept, P.O.BO Washington 98124-2207, USA.	on. However, any inspection do s, and clamps or equivalent dial from Boeing on rental or purch	ne earlier using tool in rev I indicator tool.



E.O.No.:	EY_777-27A0059-PART-1		
Orig. Date:	02/04/2007	Date: 0	09/04/2017
Rev No:	08	Page 4	l of 17

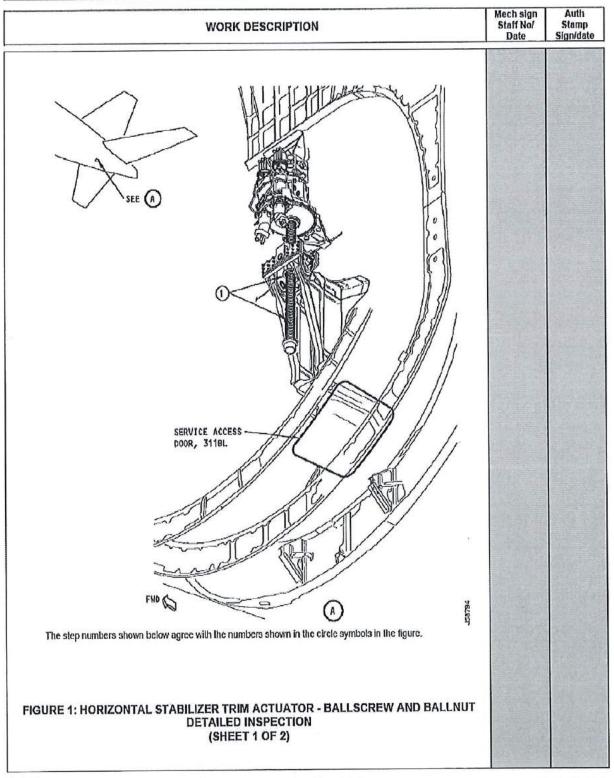
WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
A. GENERAL INFORMATION		
CAUTION: KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE. NOTE:		
Obey all of the warnings and cautions given in the specified manual sections.		
 2. Unless shown differently, these dimensions and tolerances are used: a. Linear dimensions are in inches b. Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch c. Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch d. Angular tolerance is plus or minus 2 degrees 		
3. A General Visual Inspection is defined as: A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normal available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.		
4. A Detailed Inspection is defined as: An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary. Surface cleaning and elaborate procedures may be required.		
5. A replacement Horizontal Stabilizer Trim Actuator is in a known serviceable condition if records agree with one these conditions: a. The unit is new 		
b. The unit is overhauled in accordance with the applicable Linear Molion CMM 27-41- 15, or Ratier Figeac CMM 27-44-02, or Umbra Cuscinetti CMM 27-41-06 and Boeing CMM 27-41-03		
 c. The ballscrew assembly on the unit is new, or overhauled in accordance with the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02, or Umbra Cuscinetti CMM 27-41-06 and the unit is found satisfactory in accordance with the tests given in Boeing CMM 27-41-03 d. The condition of unit is found satisfactory in accordance with the tests and checks 		
given in the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44- 02, or Umbra Cuscinetti CMM 27-41-06 and the tests given in Boeing CMM 27-41- 03.		
Boeing Message ETI-ETI-17-0204-02B provides clarification that the ballscrew and ballnut inspection reference is AMM task 27-41-13/601.		

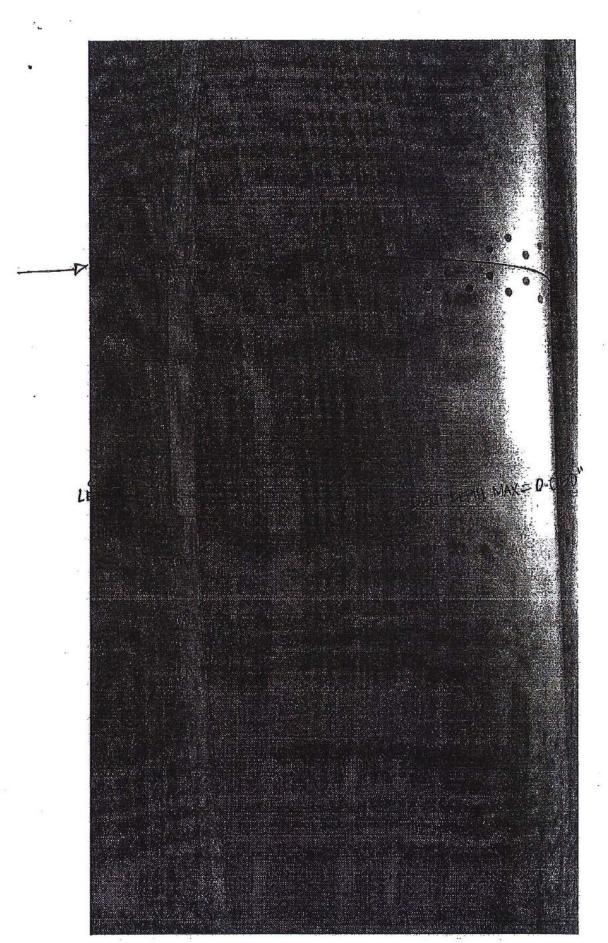


E.O.No.:	EY_777-27A0059-PART-1			
Orig. Date:	02/04/2007	Date:	09/04/2017	
Rev No:	08	Page	5 of 17	

WORK DESCRIPTION	Mech sign Staff No! Date	Auth Stamp Sign/date
B. WORK INSTRUCTIONS PART 1-Horizontal stabilizer trim actuator ballnut and ballscrew detailed Inspection: 1. Do the Detailed Inspection of the Ballnut and Ballscrew as shown in FIGURE 1. Record any findings:No_FinDinO65	ENT PAR	
Note: a. If any of the listed conditions in FIGURE 1 and the referenced AMM is noted, replacement of the actuator is necessary. Refer to 777 AMM 27-41-13 as an accepted procedure. b. Refer to Paragraph A.5 for the applicable known actuator serviceable conditions. c. Record the component change data as applicable: PN Off:		29 rend
PN On: SN On: 2. If you remove a worn or damaged actuator and install a unit that is not in a known serviceable condition, then you must do these inspections before a subsequent flight: NOTE: Refer to Paragraph A.5 for the applicable known serviceable conditions. a. The Detailed Inspection as shown in FIGURE 1. Record any findings:	N/A	plot
Note: If any of the listed conditions in FIGURE 1 and on the referenced AMM is noted, replacement of the actuator is necessary		Kinery
b. Ballscrew-to-Ballnut Freeplay Inspection as shown in APPENDIX A.	PMI Novi	29acys







40.

.

-;

i

STIHAD AIRWAYS ENGINEERING

Technical Request

(Refer to EYEng/TS/8024A/Instructions in eDOC for filling Instructions)			
Code: B7 cMRO Seq No: 8555368	Page No:	8 of 8	
ATA No: 54 Manual Seq No: 212638	Customer: ETIHAD	•	
Mintes 22 manda 204 mm			
Aircraft / Engine / Component & Registration / SN: B777	200LR / A6-LRD / 36303		
PART (19) Design, Engineering and Innovation FINAL (Sheet 1 of 1) This TR is CLOSED - X Yes 1 100	Response Group: X	SY DE	
Received: Date: 21/03/2016 Time: 11:00	Replied: Date: 24/03/2016 Time	08:30	
REFERENCES:/A/ Boeing SR #: 3-3465294247; /B/ Boeing	DR No.: GMO-ETI-16-0024-108 dated 23	March 2016	
ACTION:	OTE: This TR response is fer one lime use on		
In response to Part G:	•		
 Performed repair is approved as MINOR law Boeing No.: GMO-ETI-16-0024-10B dated 23 March 2016, provided following conditions are met; a) Accomplish a Fluorescent Penetrant Inspection per SOPM 20-20-02 or HFEC inspection per 777 NDT Manual Part 6, 51-00-01 on the outside of the reworked area every 2A-Check or 4,000 flight hours (whichever pomes first) until the next C-Check equivalent or 1,125 days or 18,000 flight hours (whichever comes later) to ensure no cracks exist. b) If no cracks are present, accomplish a Fluorescent Penetrant Inspection per SOPM 20-20-02 or HFEC inspection per 777 NDT Manual Part 6, 51-00-01 on the outside of the reworked area at the subsequent C-Check equivalent or 1,125 days or 18,000 flight hours (whichever comes first). If no cracks are found, the repair is structurally acceptable as permanent. c) If cracks are found from any inspection above, notify Engineering for further repair instructions or replace the part before further flight. 2. Raise an MR and T-defect reflecting para. 1.a), 1.b) and 1.c) requirements, 			
For ETIHAD AIRWAYS aircraft - Maintenance Requirement	[Legacy fleet] Work Order (WO)	noc JIC) [New fleet]	
	Aircraft Technical Log (ATL) Entry		
) / Aircraft Technical Log (ATL) Entry ***	-	
L Limitations/Threshold/Interval /Inspection method: REFE	= 10 PAPA 1. CAP		
Structural Damage/Repair Record (SDRR) (Form QA871 is for E	had only) *** Gabin Deferred Defects (CDD)		
E Reflect on the D & B and (External Damage Record Sheet (EDF	Reflect on the Fan Damage Cl	nart (FDC)	
☐ For 3 rd Party Customer only — If Corrosion, Level: ☐ 1 ☐ 2		Net	
Note: If corrosion is Level 2, customer is responsible to upgrade	s maintenance program to Level 1. Reflect this no	te in repair records.	
*** For 3 rd Party Customer, the recording is the responsibility of the reflected by EYEng when closing the performed repair i card. If	estomer unless contracted. This recording regulier	nentis) must be	
THE TECHNICAL CONTENT OF THIS DOCUMENT IS APPRO	EDPER 'STRIKE ho	i which is not applicable)	
☐ EASA Part 145.A.45() ☐ FAA AR / FAA DER*	□EASARDAS/RAS* □TA	□ NAA	
☐ GEAA CAR 145.45() ☐ ROR	☐ DOA Part/CAR 21.J ☐ TV	OTHER	
	DOC Ref. GMO-ETI-	16-0024-10B	
EYEng Document Raised RS / RB* DDO EO EO Drawing(s) Tech Pubs Amndmt Dothers (Specify)			
(frapplicable): DOCUMENT No: n/a		Ditte: Marie	
Customer approval for deferred inspection or deferred permanent r	pair is required Yes	□ No ⊠.N/A.	
Customer Name / Signature: n/a	Date: n/a		
Engineering M/Hrs : 4.0 Chargeable to:	Related PO Raised Ref / Cost: C	hargeable to:	
Eng. Drafting M/Hrs: 0.0 AFS/CS Customer	n/a (as per contract)	IAFS/CS Customer	
Initiated by:	Approved by:	S L.	
Svetoslav Stanishev /LDE	Irene D. Visita /ME	Aut	
	The state of the s	Signature	
MamerTitle Signature IMPORTANT: 1. ANY DEVIATION OUTSIDE THE SCOPE OF APPROVALS H	Name/Title: D.BY EYEng MUST BE APPROVED BY THE APPLICA	ABLE AIRWORTHINESS	
ANT DEVALUE OF THE SCOPE OF A THE SCOPE OF A THE SCOPE OF A THE SCOPE OF THE SCOPE			



Airworthiness Directive(AD) Review (FIJI Airways)

AD N	o.: 2018- 0291_FJ_ADR	Rev: 00 Applicable TRENT 700 Issue Date:	Effective
ATA:	72	Subject: Engine - High Pressure Turbine Blades - Replacement	
Date	24-Dec-2018	By: Ariel San Diego 37250 Priority: URGEN	T Sent to Engr: 23-Dec-2018
Engi	neering Review		
Relat	ed Document:	Document Number:	Scope:
V	Service Bulletin		Inspection
Ō	Vendor Service		Inspection & Modification
	Service Information		Modification Documentation Amendment
	Others		J
	Alert Operators Transmission	on	
Effecti	ivity:	ALL TRENT 700 ENGINES	
Comp	liance:	 Engines with HPT blades life greater than 4400 Flight cycles remove the engine from service not later than 01/January/2019. Engines with HPT blades life greater than 3500 Flight cycles but less than 4400 flight cycles remove the engine from service not later than 01/May/2019. From 01/May/2019 HPT blades life installed on Trent 700 engines should not exceed 3500 flight cycles. Engines removed for HPT life should not be returned to service before the HPT blades replaced. 	
Action	Required:	 ON-WING Remove the affected engine from service per EO No. EY-RB.211-72-AK165. OFF-WING Replace the HPT blades greater than 3500 flight cycles in the shop per EO No. EY-RB.211- 72-AK165_1. 	Amend: MEL FCOM AFM AMP Other
			Action Document:
Propos	sed Course of Action:	 1 - To issue EO No. EY-RB.211-72-AK165 to remove the affrcted engines from service. 2 - To issue EO No. EY-RB.211-72-AK165_1 to effect replacement of HPT blades which are greater than 3500 flight cycles. 	Engineering Order Engineering Work Instruction Technical Notice Other
			Document Number: 1 - EO No. EY-RB.211-72-AK165 2 - EO No. EY-RB.211-72-AK165_1



Mech sign

Staff No!

Stamp

			JKK BESOKII HON	Date	Sign/dat
STEP	TASK	NAME	PROCEDURE	REFERENCES	MORE DATA
1		Horizontal Stabilizer Trim Actuator Ballscrew and Ballnut	Detailed Inspection	777 AMM 27-41-13/601	(a)(b)(c)

- (a) Do a Detailed inspection for each of these conditions:
 - 1. Corrosion particles or metal particles in the grease or the ballscrew or ballnut.

WORK DESCRIPTION

- 2. Damage or cracking of the ballnut.
- 3. Corrosion on the ballnut.
- 4. Obvious signs of wear on the ballnut.
- Obvious differences in thread shape on the ballscrew.
- 6. Metal flaking on the ballscrew.
- 7. Cross threading, distortion, or stripping of the ballscrew threads.
- 8. Corrosion on the ballscrew.
- 9. Damage or cracking of the ballscrew.
- 10. Lifted or damaged ballnut return tubes.
- 11. Ball bearings that have escaped from the ballnut.

If the Detailed Inspection finds one or more of these conditions, then the condition must be corrected.

- (b) A ballscrew and ballnut lubrication is included as a part of step 1.
- (c) If It is necessary to replace the actuator, refer to 777 AMM 27-41-13 as an accepted procedure.

FIGURE 1: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW AND BALLNUT DETAILED INSPECTION (SHEET 2 OF 2)



E.O.No.:	EY_777-27A0059-PART-1			
Orig. Date:	02/04/2007	Date:	09/04/2017	
Rev No:	08	Page	8 of 17	

WORK DESCRIPTION	Mech sign Staff No! Date	Auth Stamp Sign/date
Horizontal Stabilizer Trim Actuator - Ballscrew-to-Ballnut Freeplay Inspection		
a. General (1) Use this test to inspect the freeplay between the ballscrew and the ballnut of the horizontal stabilizer trim actuator assembly.		
 b. References 777 AMM 12-21-05, Horizontal Stabilizer Ballscrew, Ballnut, and Gimbal - Servicing 777 AMM 27-41-13, Stabilizer Trim Actuator - Removal/Installation 777 AMM 29-11-00, Main Hydraulic System - Maintenance Practices 		
c. Tools/Equipment J55002-37, Test Equipment - Horizontal Stabilizer Freeplay Dial Indicator (commercially available)		
d. Location Zones 311, Area Aft of Bulkhead, Left 312, Area Aft of Bulkhead, Right		
e. Access Panels 311BL, Service Access Door	, 0	5
f. Prepare for the Procedure (1) Lubricate the Horizontal Stabilizer Ballscrew Actuator Assembly. Refer to 777 AMM 12- 21-05 as an accepted procedure.	PMI 19901 29/NOV/ 2018	12.00 K
(2) Pressurize the main hydraulic system. Refer to 777 AMM 29-11-00 as an accepted procedure.	PMI Wall 21/NOV/ 2018	29/103/4
(3) Use the STAB TRIM levers or switches to move the stabilizer to 6 units of trim on the stab trim position indicator.	PMI Hall	JOHNS OF
(4) Remove power from the main hydraulic system. Refer to 777 AMM 29-11-00 as an accepted procedure.	PMI Muh 29/NOV/ 2018	Sandy.
 (5) On the control stand, set the C STAB cutout switch and the RSTAB cutout switch to the CUTOUT position. (a) Attach DO-NOT-OPERATE tags to the switches. 	PMI Muh 29/NOV/ 2018	1876
 (6) Open these circuit breakers and attach DO-NOT-CLOSE tags: (a) On the E5-1 rack: 1) CBB2, STAB TRIM CNTL – R (b) On the E2-6 rack: 1) CBB2, STAB TRIM CNTL - C 	29/NOV/ 29/NOV/ 2018	21400

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 1 OF 10)



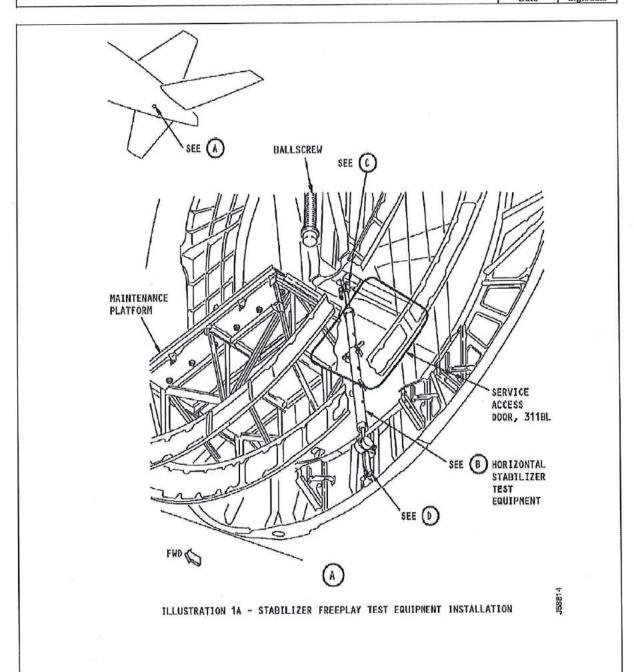
E.O.No.:	EY_777-27A0059-PART-1			
Orig. Date:	02/04/2007	Date:	09/04/2017	
Rev No:	08	Page	9 of 17	

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
(7) Get access to the stabilizer frim actuator through access panel 311BL.	PMI MAN 29/NOV/2018	1AE 08500
(8) Do these steps to install the horizontal stabilizer freeplay test equipment between the horizontal stabilizer and the lower fuselage (see Illustration 1A thru 1C):	PMI HOLD 29/MOV/2018	TAE S DB5/
(a) Measure the distance between the attachment points for the horizontal stabilizer freeplay test equipment.	SIOZÍAONIEZ SIOZÍAONIEZ	Durasis.
(b) Use the distance you measured to set the horizontal stabilizer freeplay test equipment to the correct of the three positions shown in Illustration 1B.	PMI 1/2018	19roole
(c) Connect one end of the horizontal stabilizer freeplay test equipment to the airplane.	PMI Mah	12000
(d) Turn the horizontal stabilizer freeplay test equipment to adjust it, until the other end can be attached. NOTE: Adjust it so that approximately the same number of threads show at both ends of the horizontal stabilizer freeplay test equipment.	WI WALL	20 rocks
(9) Do these steps to install a dial indicator between the stabilizer ballscrew and the ballnut (see Illustration 2A thru 2C).	PMI Mul	mal
(a) Attack a magnetic base (appropriate available) to the stabilizer believes below	that Mal	make
(b) Install the dial indicator on the support arm of the magnetic base so that the end of the dial indicator touches a flat spot on the ballnut. NOTE: The dial indicator must be installed so that it can measure the downward movement of the ballnut relative to the ballscrew.	CALLANIZONS	(THE)

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 2 OF 10)



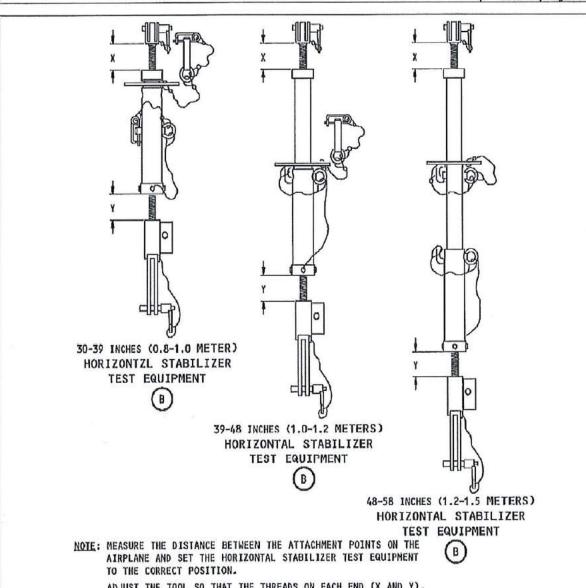
	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
Home Broom Non	Date	SignIdate



Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 3 OF 10)



WORK DESCRIPTION	Mech sign Staff No/	Auth Stamp
	Date	Sign/date



ADJUST THE TOOL SO THAT THE THREADS ON EACH END (X AND Y), ARE APPROXIMATELY THE SAME LENGTH.

ILLUSTRATION 1B - STABILIZER FREEPLAY TEST EQUIPMENT INSTALLATION



Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 4 OF 10)

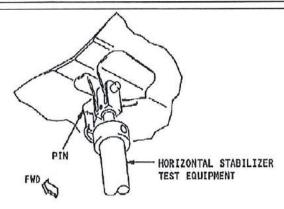


E.O.No.: EY_777-27A0059-PART-1

Orig. Date: 02/04/2007 Date: 09/04/2017

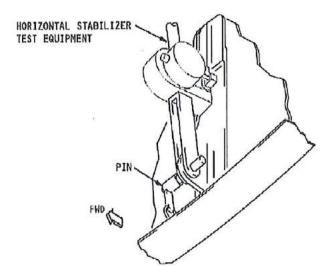
Rev No: 08 Page 12 of 17





UPPER ATTACHMENT





LOWER ATTACHMENT



ILLUSTRATION 1C - STABILIZER FREEPLAY TEST EQUIPMENT INSTALLATION

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 5 OF 10)



E.O.No.: EY_777-27A0059-PART-1

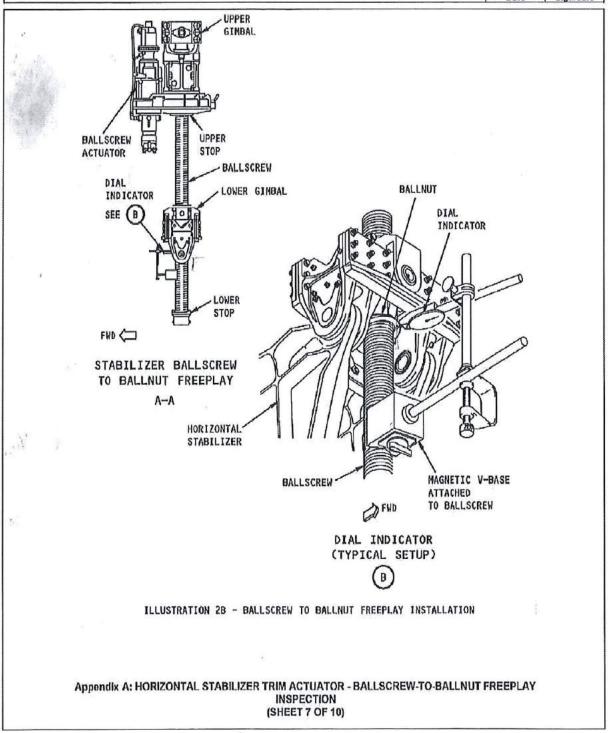
Orig. Date: 02/04/2007 Date: 09/04/2017

Rev No: 08 Page 13 of 17

WORK DESCRIPTION	Mech sign Staff No! Date	Auth Stamp Sign/date
	CONTAL	
Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT I INSPECTION (SHEET 6 OF 10)	FREEPLAY	



	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date





	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
HOIN BEGOIN TON	Date	Sign/date

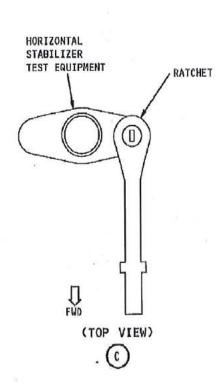


ILLUSTRATION 2C - BALLSCREW TO BALLNUT FREEPLAY INSTALLATION

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 8 OF 10)



E.O.No.:	EY_777-27A0059-PART-1			
Orig. Date:	02/04/2007	Date:	09/04/2017	
Rev No:	08	Page	16 of 17	

	WORK DESCRIPTION	Mech sign Staff No! Date	Auth Stamp Sign/date
	rocedure 1) Set the dial indicator to zero. NOTE: On the ground with the stabilizer at the neutral position, the stabilizer center of gravity loads the ballscrew in the upward direction which puts the ballscrew in compression.	PINT HULK	TAE 085 Miron K
	Slowly apply a downward force on the ballscrew by doing the following: (a) Turn the horizontal stabilizer freeplay test equipment until the dial indicator stops	ENT Mach	Moore Angle
	moving. NOTE: To apply a downward force on the stabilizer, the test equipment must be turned in a clockwise direction that shortens the test equipment length.	- iterAs	TAEN-
	(b) Use a ratchet to turn the horizontal stabilizer freeplay test equipment to apply 2250 pounds as indicated on the force gauge.	PMI HPULL ENOVIONINS	1947CU
(3)	Record the indication on the dial indicator. This is the ballscrew-to-ballnut freeplay.	PHE HELLA 29/NOV/2018	TAE
(4)	Slowly release the downward force that was applied by the horizontal stabilizer freeplay test equipment.	PHIE MAND	TAE 085
(5)	If the freeplay is less than 0.0016 inch (0.04 mm), then the stabilizer ballscrew-to-ballnut freeplay measurement may be incorrect.	PMI Mah	Q TAE 085
	(a) Verify that the procedure was done correctly by checking that the stabilizer was loaded in the correct direction and that the dial indicator is functioning normally.		Somer
(6)	If the ballscrew-to-ballnut freeplay is greater than or equal to 0.0016 inch (0.04 mm) and less than 0.016 inch (0.40 mm), then the stabilizer ballscrew-to-ballnut freeplay is within the permitted limit. Freeplay is within limit: Yes No	PMI Mal	TAEN 085
(7)	If the ballscrew to ballout freeplay is greater than or equal to 0.016 inch (0.40 mm), then	PAI Noots	0
	Replacement done:YesX No If yes, record the following actuator details:	29/1/01/10	13100,
	PN Off:SN Off:		
	PN On:SN On:		



E.O.No.:	EY_777-27A0059-PART-1			
Orig. Date:	02/04/2007	Date:	09/04/2017	
Rev No:	08	Page	17 of 17	

WORK DESCRIPTION	Mech sign Staff No/ Date A	Auth Stamp Sign/date
h. Put the Airplane Back To Its Usual Condition (1) Remove the dial indicator base and dial indicator from the ballscrew and ballnut.	Syportonia man	Jaron Kg
(2) Remove the horizontal stabilizer freeplay test equipment from between the lower fuselage and the horizontal stabilizer.	PMI Mah	99 NOVYE
(3) Close access panel 311BL.	PMI MAN-	MAN
(4) Remove the DO-NOT- OPERATE tags, and set the C STAB cutout switch and the R STAB cutout switch to the NORM position.	PMI Abulh 29/Novizors	
(5) Remove the DO-NOT-CLOSE tags, and close these circuit breakers:	PMI Wal	
(a) On the E5-1 rack:	29/NOV/2018	580 D
1) CBB2, STAB TRIM CNTL - R	29/100.	题 i
(b) On the E2-6 rack:		Elow 9
1) CBB2, STAB TRIM CNTL - C		

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 10 OF 10)



TARMAC ARAGON
CTRA A-1512 DE ALBARRACIN KM6
44396 Teruel - Spain
VAT # ES B-44241933

Print date 28/11/2018 14:42 SCAN REF: 60128_560_1

WORK ORDER

page 1 of 3

Y/Ref EY	0-60128 7777-27A0059-PART-1 IGHT CONTROLS	Title HORIZONTAL S Date 28/11/2018 14:4		A ACTUATOR BALLSO	REW AND BALLNUT DI
	AIRCRAFT	COMPONENT		WO-6012	8
	Reg. A6-LRC Type B777-237LR	OPERAT	OR	Mandatory (Y/N) Y WP-560 MNT.PROG:	ETOPS (Y/N) N
LIMIT FH FC Date	NEXT DUE MAN	GED BY THE OPERAT		Prepared by Received by	Juan Antonio MARTIN eSigned
DEFECT / F	REQUESTED WORK)	T	ASK PERFORMED	
10W. E1_111 &	7A0059-PART-1 •				29/NOV/2018
Engineer ID	#5	hh:mm Deferred Ref:		NON ROUTINE NI Ref:	Complied With C/W (NRC possible)
Engineer ID PM I PA S	hh:mm Engineer ID	Ref:	DESC	Ref:	(NRC possible) VALID UNTIL
Engineer ID PMI PAS PAS	hh:mm Engineer ID #5 #6 #7 #8	Ref:	DESC DESC	Ref: S/N S/N	(NRC possible) VALID UNTIL VALID UNTIL
Engineer ID PM I PA S	#5 #6 #7 #8 REMOVED DESC	Ref: P/N - 908 POS P	DESC DESC COMPONENT INS	Ref: S/N S/N STALLED DESC	VALID UNTIL VALID UNTIL POS
Engineer ID #1 PM T #2 PA S #3 #4 COMPONENT P/N	hh:mm Engineer ID #5 #6 #7 #8 REMOVED DESC	Ref: P/N - P/N -	DESC DESC COMPONENT INS	Ref: S/N S/N STALLED DESC	VALID UNTIL VALID UNTIL POS



WORK ORDER

Reference: WO- 60128

Title HORIZONTAL STABILIZER TRIM ACTUATOR BALLSCREW AND BALLNUT DI

Date

28/11/2018 14:40:25

ATA

FLIGHT CONTROLS 2700

page 2 of 3

AIA 2100 FEIGHT GONTHOLD	rear and a second
COMPLAINT / REQUESTED WORK (FULL TEXT)	COMPLETED TASK & RESULTS DATE / ID / SIGN
DO A DETAILET INSPECTION OF: HORIZONTAL STABILIZER TRIM ACTUATOR BALLSCREW AND BALLNUT	
IAW: EY_777-27A0059-PART-1 •	



TARMAC ARAGON CTRA A-1512 DE ALBARRACIN KM8 44398 Teruel - Spain VAT # ES B-44241933

WORK ORDER

page 3 of 3

Order Ref.: WO-60128

Title HORIZONTAL STABILIZER TRIM ACTUATOR BALLSCREW AND BALLNUT DI

COMPONENT REMOVAL

P/N

NIL

DESCRIPTION

SERIAL

REASON

POS

COMPONENT INSTALLATION

P/N

NIL

DESCRIPTION

SERIAL

CERTIFICATE

POS

MATERIAL ISSUED

QUANTITY P/N

DESCRIPTION

FIN

IPC

OR <mark>IGINAL CO</mark>	PY			/_					0.04.14.0.45
	m() {}			JOB CA	RD			REV NO.	9/ 24-MAR-15 514
	ajųi į		EV	777-27A005	O DADT-2			PAGE	1/3
	ーヘコ			ORK PACK REF		-			
				I+Cabin Retro		se		VISIT NO.	981305
						CHARGEABL	E X		
O Box 35566	D Box 35566 A/C TYPE B777-200LR REGN. A6-LRC MSN 36302					NON-CHARG			
New Airport Road Abu Dhabi Jnited Arab Emirate	es	WORK ORDER *AUH13143264*					Δ	F	
		LOCATION	I / DEPT.	EYEng AUH O	perations/EYE	ng AIR	FRAME		. .
				CONTROLS - HOR	SERVICES IZONTAL ST	rabil:			
CUSTOMER CODE	EY	TITLE	TRIM AC	TUATOR BALLSC	REW AND BA	ALLNUT	r	PROGRAM TYPE	EO-MANDATOR
MAN HOURS	7.00	٠		INTERVAL	-			TASK	INS
MEN	2	Fh		FC		DY		ATA	27-41
LAPSED TIME ZONE D	7.00 DESC:	180 Empennag				182	<u> </u>	ZONE	300
NSURE THA	T ALL SETU			ETY PRECAUTIO	NS IDENTIFIE	D WITH	IIN THE APP	LICABLE TASKS A	RE FOLLOWED
									ICATION
STEP	P TASK DESCRIPTION / REQUIREMENT						MECH Sign/Emp.No Date	INSP Sign/Stamp Date	
er e	1. Boein configur 2. Produ necessar	ration chaction Play tools,	nty remenanges ganning equipm	dies are not iven in this to ensure are ent and cons	s EO. vailabili sumables/	ty o: exper	f ndables	EYEng 2598	EYEng 2598
	,	•		indings HST					
e e e	-						•		
ļ	NOTE: As	of 12 A	ug 2009	, HSTA that	is not i	na '	"known		
	servicea	ble cond	lition"	cannot be in	nstalled	on ar	n.		
	airplane	e. HSTA w	vhich me	ets the requ	uirements	of t	this EO	,	
				ocks, otherw					
	inspecti	on, free	eplay ch	eck and lub	rication	of t	hat	2	
UAE.145.	<u>ICABLE</u>	Ce	rtifies that the	e work specified, ex n CAR 145 / EASA ent is considered re	cept as otherw Part 145* and	ise spe	cified, was co	rk, the aircraft /	
EASA.14	5.0442 .0010 (OLD:G						,	,	
							_	NO X	
OTHER NDEPENDEN	T INSPECTION			CORDED AND CE	YES	<u> </u>			<u> </u>

NRC's	NRC NO(S):		AWS NO(s)	CARD CLEAR
Raised	. *	Sheets raised:	,	
YES	. ,	YES		EYEng 2598
NO 🔽		NO 🔽	, ,	2598

ORIGINAL CC	PY						•	_					
***				J	OB CA	RD	e days	. 0	——	REV NO	+	9/ 24-MAI 514	R-15
		EY 777-27A0059-PART-2						PAGE		2/3			
	-AD		-		PACK RE				_				
74	(* 45 k d				abin Retro				− ۷	ISIT N	o.	9813	05
Abu Dhabi Internationa	l Airport	A/C TYPE	B777-200	0LR	REGN.	A6-LRC	MSN	36302			GEABLE HARGE		X
New Airport Road Abu Dhabi United Arab Emirat	es	WORK ORDER			CARRETO LA A ESCACIO EN EN EL CA	113 <u>1432</u> 64*					Α	F	
	LOCATION / DEPT. EYEng AUH Operations/EYEng AIRFRAME SERVICES												
												CATION	
STEP		TASK DESCRIPTION / REQUIREMENT					Sig	MECH gn/Emp Date	1	_	amp		
	HSTA mus	st be per	formed	WAI	this EC).							
	Special	tooling	necessa	ary t	to do th	is EO:							
	1. Tool	Kit: J55	002-37	- Hc	rizonta	ıl stabi	lizer					Sign/Stamp Date EYEng 2598	
	freeplay	test eq	uipment	., is	s the co	rrect t	ool to						
	accompli	ish the b	all nut	: fre	eplay i	.nspecti	on. Ho	wever,		EYEng 2598	3	EYEn	g
	any insp	ection d	one ear	clier	using	tool in	rev 1	of		_550		2598	-
	this EO	is satis	factory	7.									1./
	2. Dial	Dial indicator with magnetic v-base, rods, and							/ u				
	clamps or equivalent dial indicator tool.												
	3. The Tool Kit J55002-37 can be obtained from Boeing												
	on renta	al or pur	chase b	pasis	from f	ollowin	g addr	ess:					
	Spares (Customer	Support	:,									
	MC 36-65	, Boeing	Spares	Dep	t, P.O.	вох 370	7, Sea	ttle,					
	Washingt	on 98124	-2207,	USA.									
	I TOTAL PROTECTION OF THE PROT	CENTAL MENGERHAL POLITICA DAN KUMBUNUN DAN	Bildhiiri										
20 .	111811111111111111111111111111111111111		***************************************									ENE	na
	Carry ou	ıt attach	ed EO N	10: E	EY_777-2	7A0059-	PART-2			72		2 598	в
								•	<u> </u>	10/15		14/10	w
T101/ 10 155	10.151.5							16. 1				- (1.	
TICK AS APP UAE.145		acce	ordance wit	h CAR	specified, e 145 / EA SA considered r	Part 145° a	ที่d in respe	ect to that v	work, the	aircraft			
EASA.14			•			-		•		· -	-	·	<i>~</i> '
OTHER	UAE.145.0010 (OLD:GCAA-EM/G/487) OTHER												
INDEPENDEN NOTE: INDEP				FCOP	DED AND C	YES	N AN ADD	ROVED M	ΔΝΝΕΡ	NO	X		•
REFEREN(SPECTIONS IV	- DER	LOURI	CED WIND C	FUTILIED II	AN APP	NO VED IVI	MININEK.			:	
		RT-2_E0 E	DOC RE	V:07									
	<u>-</u>						 						

NRC's	NRC NO(S):	Add. Work Sheets	AWS NO(s)	CARD CLEAR
Raised		raised:		OARD GELFUR
YES		YES		EYEng
NO 🔽	·	NO 🔽		2598

ORIGINAL COPY			
	IOD CADD	REV NO.	9/ 24-MAR-15
الإنجارا	JOB CARD	CARD SEQ:	514
	EY_777-27A0059-PART-2	PAGE	3/3
	WORK PACK REFERENCE		00400
	C3+C1+Cabin Retrofit 2nd Phase	VISIT NO.	981305

Abu Dhabi International Airport PO Box 35566 New Airport Road Abu Dhabi United Arab Emirates A/C TYPE B777-200LR

LOCATION / DEPT.

REGN. A6-LRC

CHARGEABLE NON-CHARGEABLE

X

Dhabi
ted Arab Emirates

WORK
ORDER

AUH13143264
ing AUH Operations/EYEng

EYEng AUH Operations/EYEng AIRFRAME SERVICES

MSN

36302

AF

APPLICABLE ZONES

311

ASSOCIATED DOCUMENTS / RELATED CARDS

2007-17-12 REV:00

2009-14-06 REV:00

777-27A0059 REV:03

777-27A0059 REV:04

MS_MAINTENANCE SCHEDULE REV:001

EY 777-27A0059-PART-2 EO REV:05 EO : EY 777-27A0059-PART-2 EO : R/I 05 : 21.09.2014 : ATA 27

EY 777-27A0059-PART-2 EO REV:06

AMM AIRCRAFT MAINT MANUAL REV:001

ACCESS PANEL REQUIREMENTS

No Access Panel assigned to this task

MATERIAL REQUIREMENTS

PART NUMBER	DESCRIPTION	QTY REQD	BATCH NUMBER
251W4110	HS TRIM ACTUATOR	1	
J55002-37	TEST EQPMNT-THSA FREEPLAY	1	

TOOLING REQUIREMENTS

PART NUMBER	DESCRIPTION	QTY REQUIRED
No tools assigned to this task		

NRC's	NRC NO(S):	Add. Work	AWS NO(s)	CARD CLEAR
Raised		Sheets raised:		CARD CLEAR
YES		YES		EYEng
NO 🔼		NO 🗹	:	259 ₈

QA190 Rev 1 Dec 2013



EO NO : EY_777-27A0059-PART-2

REV : 07

REV DATE: 14/07/2015

EO Number :	EY_777-27A0059-PART-2	Version	19	Revision:	07
I ITIA '	FLIGHT CONTROLS-HORIZONTAL STABILIZE FREEPLA Y INSPECTION.	ZER TRIM A	CTUATOR	BÀLLSCREÑ	AND BALL NUT

Source Docum	ents
Document Number	Title:
*	FLIGHT CONTROLS-HORIZONTAL STABILIZER, TRIM ACTUATOR, BALLSCREW MAINTENANCE AND LUBRICATION.
AD: 2009-14-06:00	PRÉVENT AN UNDETECTED FAILURE OF THE PRIMARY LOAD PATH FOR THE BALLSCREW IN THE DRIVE MECHANISM.

Reference Documents		The second of th
Document Number	Title	Affected Items
MS:MS_MAINTENANCE SCHEDULE:001	MAINTENANCE SCHEDULE (MISC)	YES
AMM:AMM_AIRCRAFT MAINT MANUAL:001	ĄIRCRAFT MAINTENANGE MANUAL (MISC)	YES

Customer:	ETIHAD AIRWAYS(EY)	Řepetitivé :	Yes	
Chargeable :	2.0 HOURS	Whichever:	FIRST	
Category :	AIRCRAFT	Copy Accomplishment :	Yes	
Program Type:	EO-MANDATORY	Service Type:	ÓN ·	
ETOPS:	No	Program Sub Type:	AD	
Time Span:	7.0 HOURS	Warrantable::	No.	
		Down Time:	4:5 HOURS	
Řevision Comment :	 EO M27-A0059EY Issued at Rev 02 to link/comply with AD 2009-14-06. EO EY_777-27A0059-PART-2 issued at Rev 03 to implement requirements of SB 777-27A0059 Rev:03 and to add new aircraft. EO EY_777-27A0059-PART-2 issued at Rev 04 to add LRs. EO EY_777-27A0059-PART-2 issued Rev 05 to add new aircraft A6-JAA through A6-JAF. Revision 06 of this EO is being issued to reflect the requirements on the Etihad EO format; update MH and TAT data and update some information. Revision 07 of this EO is being issued to reflect Rev.04 of SB 777-27A0059. 			
Ańalÿsis :	An investigation found that an MD-80 accident was caused by a prematurely worn horizontal stabilizer actuator. Also, one 757 airplane was found to have an actuator with severe corrosion. The 777 actuator has similar configuration to the 757 actuator, as such, AD 2009-14-06 was issued to prevent an undetected failure of the primary load path for the ballscrew in the drive mechanism of the horizontal stabilizer and subsequent wear and failure of the secondary load path, which could lead to loss of control of the horizontal stabilizer and consequent loss of control of the airplane. This EO is issued for the freeplay inspection of the horizontal stabilizer actuator ballnut and ballscrew.			
Description:	Ballscrew-to-Ballnut Freeplay Inspection -Part 2 a. Measure the freeplay between the actuator ballnut and ballscrew. Note: If the freeplay if found to be more than the specified limit, actuator replacement is necessary, before further flight. b. Lubricate the actuator ballnut and ballscrew.			

Authored By	Signature AIRWAYS Ace Evangelista	Date
Ace Evangelista B777 Lead Engineer Systems	Working Lead Engineer	14 Jul 2015
Checked By/Design signatory	Signature	Date
Najeeb H. Ansari B777 Fleet Manager		16 July 15
Management Signatory	Signature ETILIAD	Date
Mohamed Alfardan Head of Fleet Engineering	Najeeb Hassan Auser MANASEE	16 July 15
National authority:	Signature nerresident	Date
NOT REQUIRED AS PER FAA APPROVED SB.		16 July 15

QA400 Rev. 0

CFFECTIVE DATE 12 AUG 2009

ADIASBIAUT 2009 - 14-06

AMENDMENT NO. 00

Nov. 2014

Page 1 of 15



EO NO: EY_777-27A0059-PART-2

REV : 07

REV DATE: 14/07/2015

		ssigned wisit type
	Туре	Description
		Item Details
Comment .	Repeat at intervals not to exceed 18000 FH of NOTE: 1. If any discrepancies found, as specified in flight.	15000 total FH or within 18 months after 12 August 2009, whichever occurs later. or 60 months whichever occurs first. the listed accomplishment instructions, The HSTA must be replaced before further compliance with AMS task EY B777 27-440-00-01.

Effectivity: B777-35RER	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	1
Item :B777-35RER					1825		Days(DSN-Ac)	
Due date:				15000	18000		Hours(TSN-Ac)	
	Exclude	Serial From	the standard	Şerial	Γο	Rem	iarks	<u> </u>
	N	35157		35164				
Effectivity :	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	ÚOM	
777F-APPLICABLE					1825		Days(DSN-Ac)	1
Item:B777-FFX				15000	18000		Hours(TSN-Ac)	
Due date:	Exclude	Serial From		Serial	Го	Rem	arks	
	N	39682		99999	·			
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	Tuom	-
777ER-APPLICABLE	otale out	GLOD DULC	Edinesi bac	Julie	1825	July	Days(DSN-Ac)	1
Item:B777-3FXER				15000	18000		Hours(TSN-Ac)	1
Due date:	Exclude	Serial From		Serial	Γο	Rem	arks	
	N	34597		99999	· · · · · · · · · · · · · · · · · · ·] .,
] '
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	
777LR-APPLICABLE					1825		Days(DSN-Ac)	
Item :B777-200LR				15000	18000		Hours(TSN-Ac)] :
Due date:	Exclude	Serial From		Serial	Го	Rem	arks] .
•	N	36300	-	36304				

THE THE POST OF TH	ST THE STATE OF TH	Electrical L	oad / Weight & B	alance 2	the second of th
Effect on weight	0 Kg	Effect on Balance	0 Kg.m	Electrical Load Change	NO .

Type(AC/DC)	Type of change	Flight Config		Date
Bus	Bus Bar	AMPs	KVA	PF
Watts KVA	KVAR	Phase .	Nominal W	Nominal VA
Min W	Min V	Max W	Max V	Delta VA
Weight & Balance Notes	No change	<u></u>	·	
Electrical Load Notes	No change			

Configuration Change						
Pre Modification P/N	Post Mod	lification P/N	Plate markings	Interchangeability Codes	Intermixability codes	
-		-	_	*	-	
Configuration Change Co	omments	No chang	e			



EO NO: EY_777-27A0059-PART-2

REV : 07

REV DATE: 14/07/2015

733	Material Requirement						
ltem	Part Number	Description	Qty/Unit	UOM	Main Part		
1	251W4110	HS TRIM ACTUATOR	1	Each	-		
2	J55002-37	TEST EQPMNT-THSA FREEPLAY 1 Each		Each			
Engine	eering Material Comme	 Boeing warranty remedies are not available to a production Planning to ensure availability of expendables as listed in AMM 12-21-05, 27-3. In case of adverse findings HSTA replacements NOTE: As Of 12 Aug 2009, HSTA that is not in a "know airplane. HSTA which meets the requirements detailed inspection, freeplay check and lubricat 	necessary tools, e 41-13 and 29-11-0 ent may be require vn serviceable con of this EO must be	equipment and 200. ed. addition" cannot a procured for s	consumables / be installed on an stocks, otherwise		

, , , , , , , , , , , , , , , , , , ,		Tool Requirement	the second section and the second section of the section of the second section of the second section of the section of the second section of the section of th	The state of the s
Item	Part Number		Qty/Unit	Duration
1	J55002-37		1	-
Engin	eering Tools Comments	 Special tooling necessary to do this EO: 1. Tool Kit: J55002-37 - Horizontal stabilizer accomplish the ball nut freeplay inspection 1 of this EO is satisfactory. 2. Dial indicator with magnetic v-base, rods, 3.The Tool Kit J55002-37 can be obtained fraddress: Spares Customer Support, MC 36-65, Boeing Spares Dept, P.O.BOX Washington 98124-2207, USA. 	n. However, any inspection do and clamps or equivalent dial om Boeing on rental or purch	ne earlier using tool in rev indicator tool.



E.O.No.:	EY_777-27A0059-PART-2			
Orig. Date:	02/04/2011	Date:	14/07/2015	
Rev No:	07	Page	4 of 15	

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
A. GENERAL INFORMATION		
CAUTION: KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE		
BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE. NOTE: 1. Obey all of the warnings and cautions given in the specified manual sections.		
Unless shown differently, these dimensions and tolerances are used: a. Linear dimensions are in inches		
 b. Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch c. Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch 		
d. Angular tolerance is plus or minus 2 degrees 3. A General Visual Inspection is defined as: A visual examination of an interior or exterior	· · · · · · · · · · · · · · · · · · ·	
area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normal available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.		
4. A Detailed Inspection is defined as: An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary. Surface cleaning and elaborate procedures may be required.		
5. A replacement Horizontal Stabilizer Trim Actuator is in a known serviceable condition if records agree with one these conditions: a. The unit is new		
 b. The unit is overhauled IAW the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02; and Boeing CMM 27-41-03 c. The ballscrew assembly on the unit is new, or overhauled in accordance with the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02; and the 		
unit is found satisfactory in accordance with the tests given in Boeing CMM 27-41-03 d. The condition of unit is found satisfactory in accordance with the tests and checks given in the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02; and the tests given in Boeing CMM 27-41-03		
B. WORK INSTRUCTIONS	Te	EYEng
PART 2- Horizontal Stabilizer Trim Actuator Ballscrew-To-Ballnut Freeplay Inspection: 1. Do the Horizontal Stabilizer Trim Actuator – Ballscrew-to-Ballnut Freeplay Inspection as shown in APPENDIX A.	13251	2598 14/10/V



E.O.No.:	EY_777-27A0059-PART-2	
Orig. Date:	02/04/2011	Date: 14/07/2015
Rev No:	07	Page 5 of 15

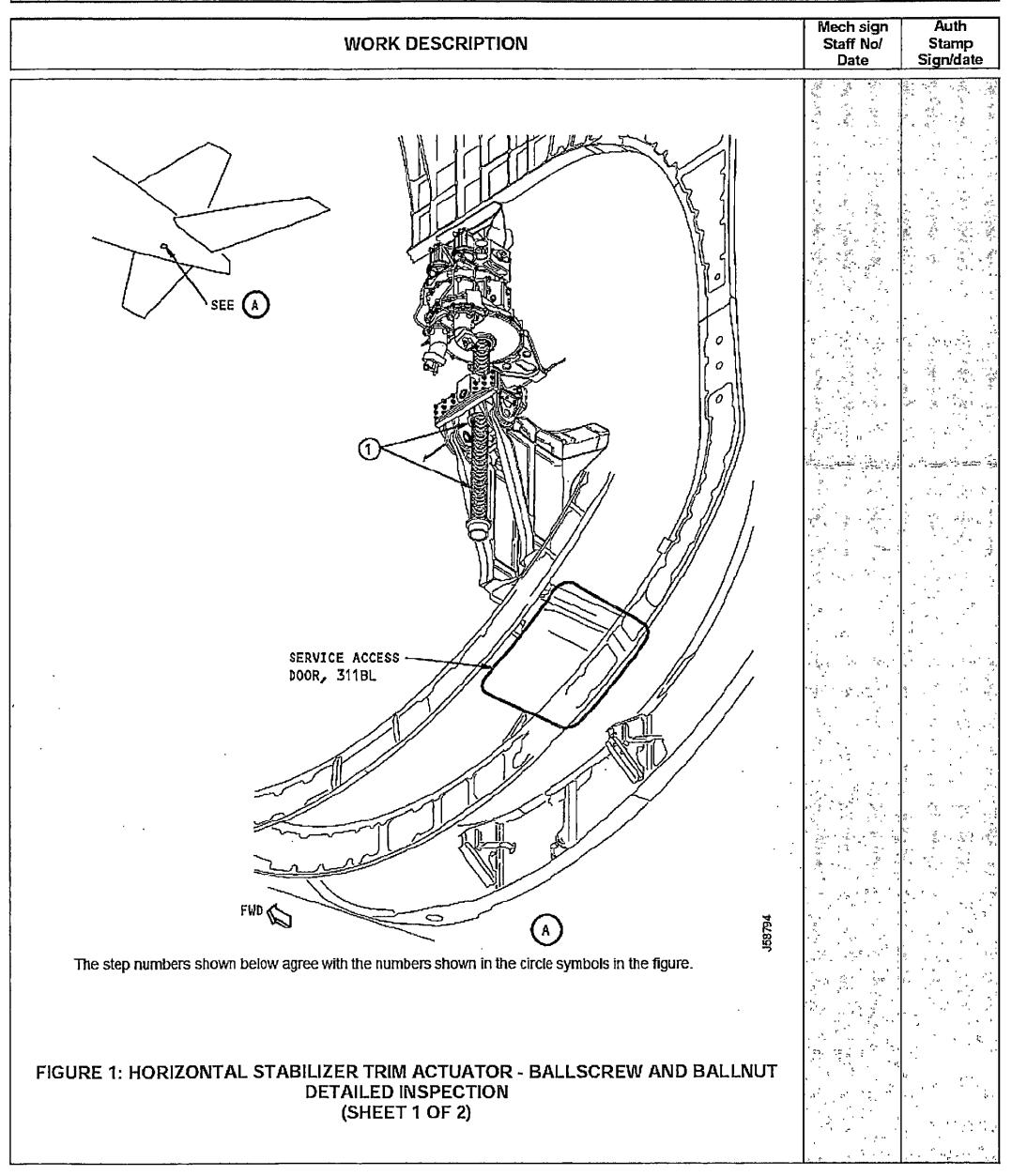
WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
2. If you remove a worn or damaged actuator and install a unit that is not in a known serviceable condition, then you must do these inspections before a subsequent flight: NOTE: Refer to Paragraph A.5 fer the applicable known serviceable conditions. a. The Detailed Inspection as shown in FIGURE 1. NA SINCE NO REPLACEMENT CARRIED OUT.	EYEng 2598	EYEng 2598 14 loli
b. Ballscrew-to-Ballnut Freeplay Inspection as shown in APPENDIX A.	13551	EYEng 2598 141011
3. Make sure that the work areas are clean and clear of tools and other items/ equipment	13051	EYEng 2598 14/10/1/
4. Put the airplane back to a serviceable condition.	13/31	EYEng 2598 14/10/11



E.O.No.: EY_777-27A0059-PART-2

Orig. Date: 02/04/2011 Date: 14/07/2015

Rev No: 07 Page 6 of 15





	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date_

STEP	TASK	NAME	PROCEDURE	REFERENCES	MORE DATA
1	'	Horizontal Stabilizer Trim Actuator Ballscrew and Ballnut	•	777 AMM 27-41-13/601	(a)(b)(c)

- (a) This step must include a Detailed Inspection for each of these conditions:
- 1. corrosion particles or metal particles in the grease or the ballscrew or ballnut
- 2. damage or cracking of the ballnut
- 3. corrosion on the ballnut
- 4. obvious signs of wear on the ballnut
- 5. obvious differences in thread shape on the ballscrew
- 6. metal flaking on the ballscrew
- 7. cross threading, distortion, or stripping of the ballscrew threads
- 8. corrosion on the ballscrew
- 9. damage or cracking of the ballscrew
- 10. lifted or damaged ballnut return tubes
- 11. ball bearings that have escaped from the ballnut

If the Detailed Inspection finds one or more of these conditions, then the condition must be corrected.

- (b) A ballscrew and ballnut lubrication is included as a part of step 1.
- (c) If it is necessary to replace the actuator, refer to 777 AMM 27-41-13/401 for the procedure.

FIGURE 1: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW AND BALLNUT DETAILED INSPECTION
(SHEET 2 OF 2)



E.O.No.:	EY_777-27A0059-PART-2	
Orig. Date:	02/04/2011	Date: 14/07/2015
Rev No:	07	Page 8 of 15

	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date

- 1. Horizontal Stabilizer Trim Actuator Ballscrew-to-Ballnut Freeplay Inspection
 - a. General

Use this test to inspect the freeplay between the ballscrew and the ballnut of the horizontal stabilizer trim actuator assembly.

- b. References
 - 777 AMM 12-21-05/301, Horizontal Stabilizer Ballscrew, Ballnut, and Gimbal Servicing
 - 777 AMM 27-41-13/401, Stabilizer Trim Actuator Removal/Installation
 - 777 AMM 29-11-00/201, Main Hydraulic System Maintenance Practices
- c. Tools/Equipment

J55002-37, Test Equipment - Horizontal Stabilizer Freeplay Dial Indicator (commercially available)

- d. Location Zones
 - 311, Area Aft of Bulkhead, Left
 - 312, Area Aft of Bulkhead, Right
- e. Access Panels
 - 311BL, Service Access Door
- f. Prepare for the Procedure
 - (1) Lubricate the Horizontal Stabilizer Ballscrew Actuator Assembly. Refer to 777 AMM 12-21-05/301.
 - (2) Pressurize the main hydraulic system. Refer to 777 AMM 29-11-00/201.
 - (3) Use the STAB TRIM levers or switches to move the stabilizer to 6 units of trim on the stab trim position indicator.
 - (4) Remove power from the main hydraulic system. Refer to 777 AMM 29-11-00/201.
 - (5) On the control stand, set the C STAB cutout switch and the RSTAB cutout switch to the CUTOUT position.
 - (a) Attach DO-NOT-OPERATE tags to the switches.
 - (6) Open these circuit breakers and attach DO-NOT-CLOSE tags:
 - (a) On the E5-1 rack:
 - 1) CBB2, STAB TRIM CNTL R
 - (b) On the E2-6 rack:
 - 1) CBB2, STAB TRIM CNTL C
 - (7) Get access to the stabilizer trim actuator through access panel 311BL.
 - (8) Do these steps to install the horizontal stabilizer freeplay test equipment between the horizontal stabilizer and the lower fuselage (see Illustration 1):
 - (a) Measure the distance between the attachment points for the horizontal stabilizer freeplay test equipment.
 - (b) Use the distance you measured to set the horizontal stabilizer freeplay test equipment to the correct of the three positions shown in Illustration 1b.
 - (c) Connect one end of the horizontal stabilizer freeplay test equipment to the airplane.
 - (d) Turn the horizontal stabilizer freeplay test equipment to adjust it, until the other end can be attached.
 - NOTE: Adjust it so that approximately the same number of threads show at both ends of the horizontal stabilizer freeplay test equipment.
 - (9) Do these steps to install a dial indicator between the stabilizer ballscrew and the ballnut (see Illustration 2).
 - (a) Attach a magnetic base (commercially available) to the stabilizer ballscrew below the ballnut.
 - (b) Install the dial indicator on the support arm of the magnetic base so that the end of the dial indicator touches a flat spot on the ballnut.

NOTE: The dial indicator must be installed so that it can measure the downward movement of the ballnut relative to the ballscrew.

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 1 OF 8)



		WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
--	--	------------------	--------------------------------	----------------------------

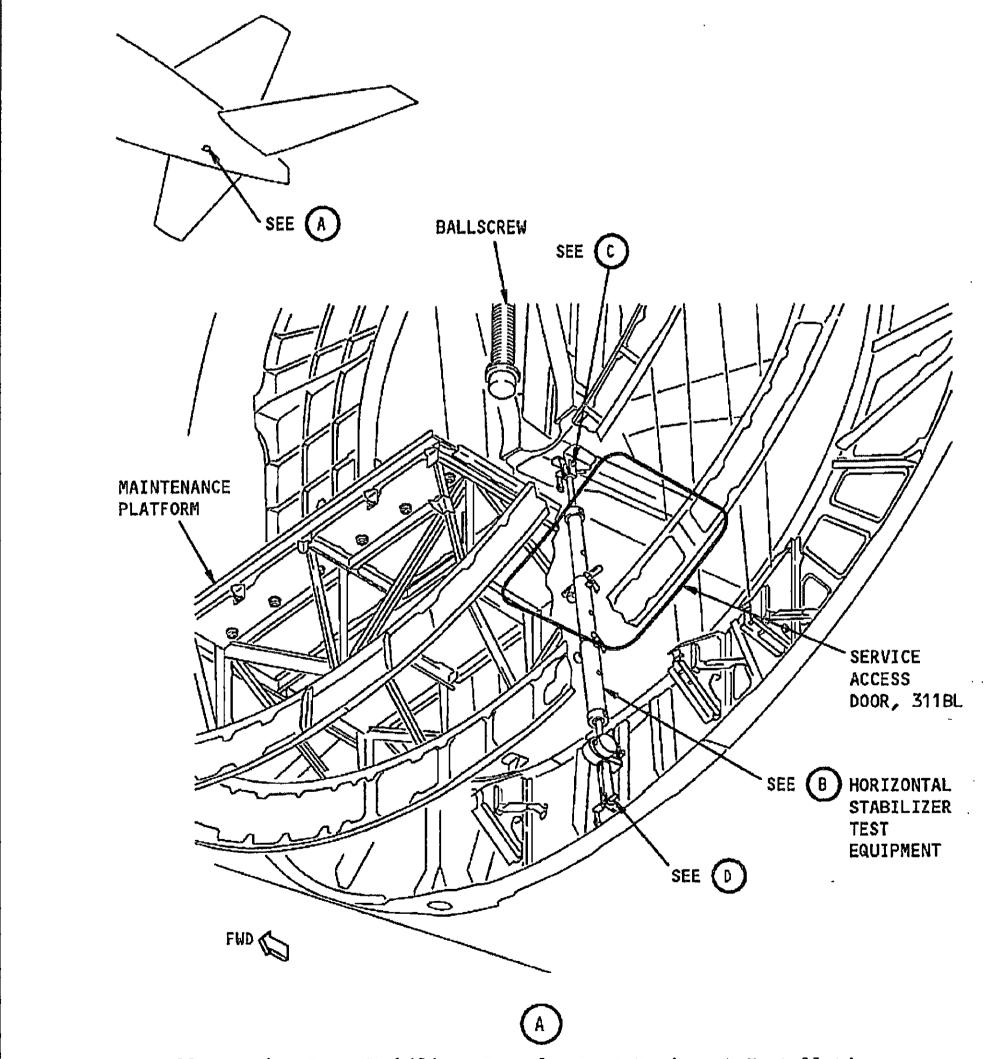
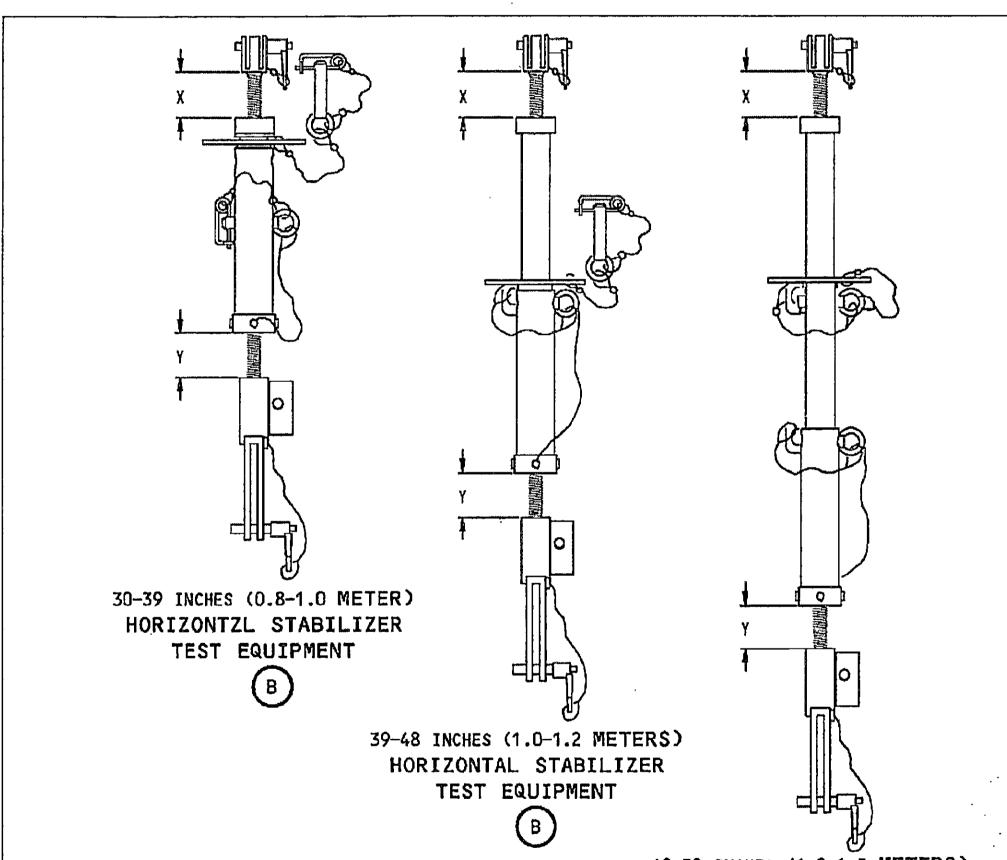


Illustration la - Stabilizer Freeplay Test Equipment Installation

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 2 OF 8)



	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date



48-58 INCHES (1.2-1.5 METERS)
HORIZONTAL STABILIZER
TEST EQUIPMENT

B

NOTE: MEASURE THE DISTANCE BETWEEN THE ATTACHMENT POINTS ON THE AIRPLANE AND SET THE HORIZONTAL STABILIZER TEST EQUIPMENT TO THE CORRECT POSITION.

ADJUST THE TOOL SO THAT THE THREADS ON EACH END (X AND Y), ARE APPROXIMATELY THE SAME LENGTH.

Illustration 1b - Stabilizer Freeplay Test Equipment Installation

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 3 OF 8)

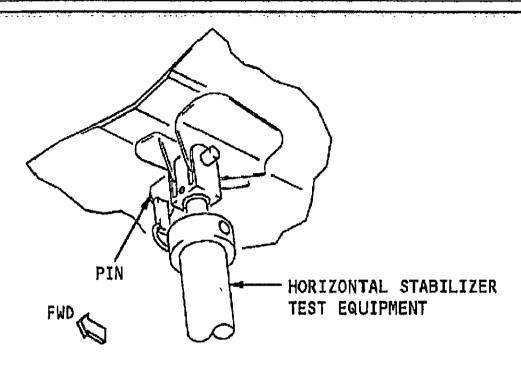


WORK DESCRIPTION

WORK DESCRIPTION

Staff No/
Date

Sign/date



UPPER ATTACHMENT



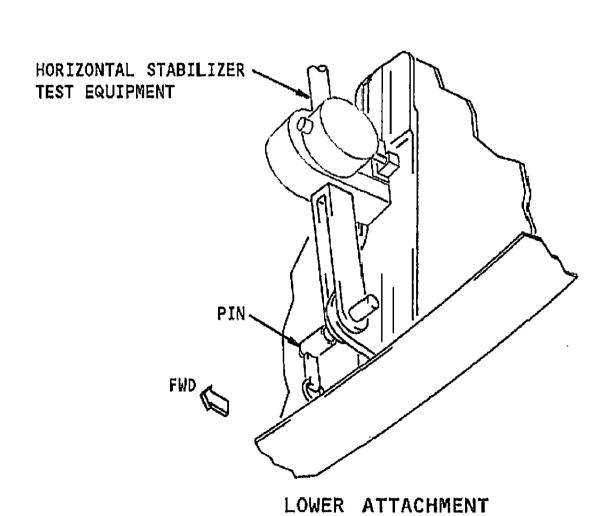
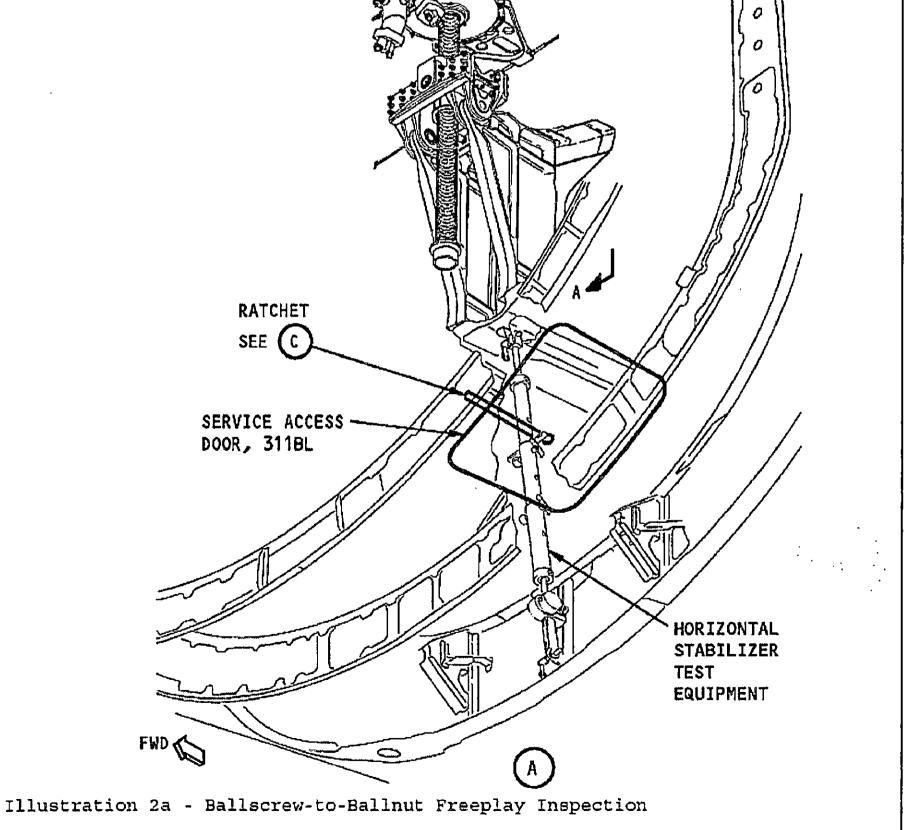


Illustration 1c - Stabilizer Freeplay Test Equipment Installation

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 4 OF 8)



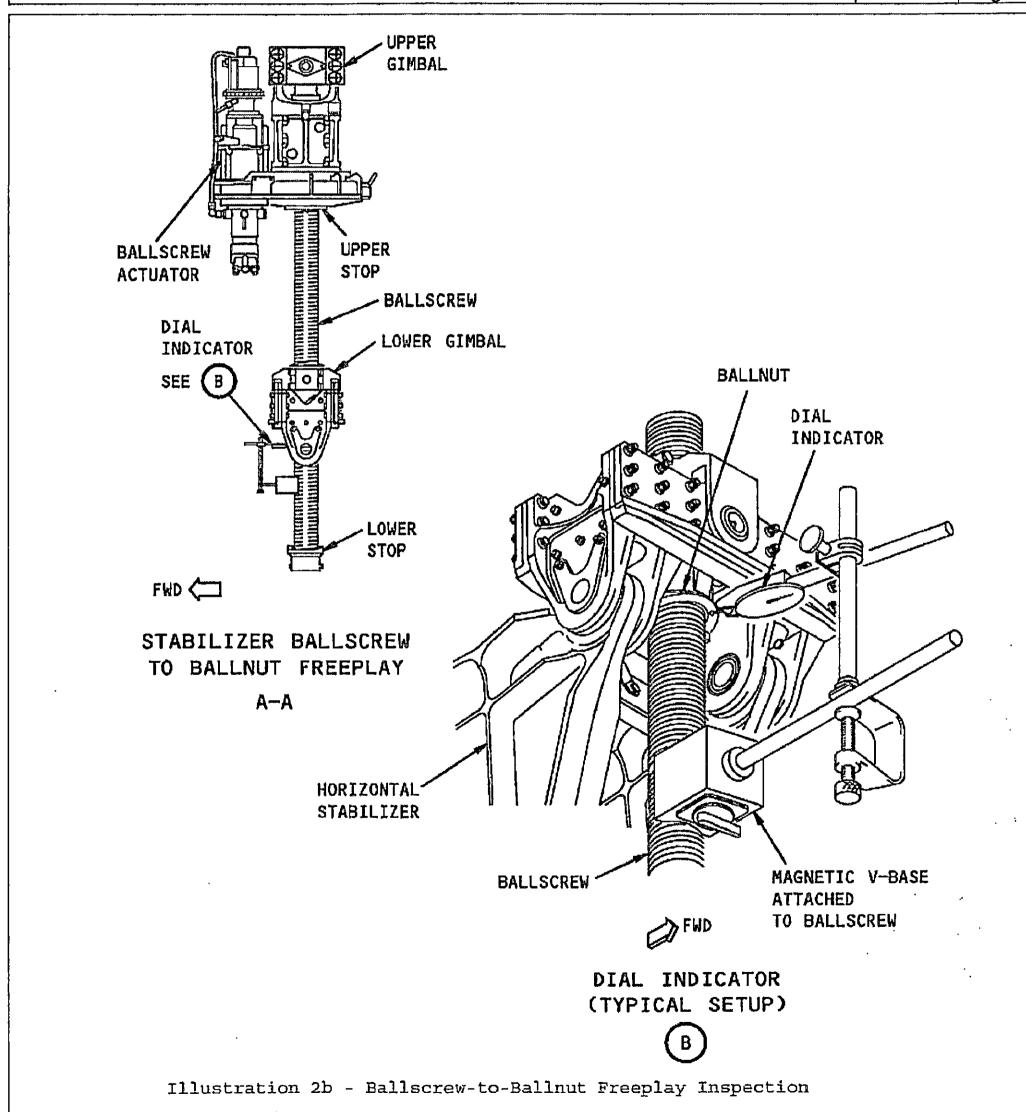
WORK DE	SCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
SEE A	A		



Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 5 OF 8)



	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date



Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 6 OF 8)



E.O.No.:	EY_777-27A0059-PART-2	
Orig. Date:	02/04/2011	Date: 14/07/2015
Rev No:	07	Page 14 of 15

•	Mech sign	Auth	
WORK DESCRIPTION	Staff No/	Stamp	
	Date	Sign/date	

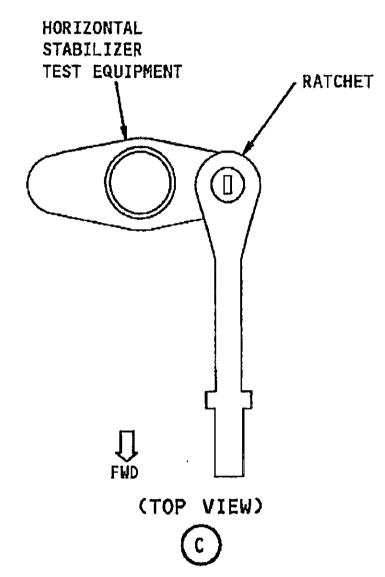


Illustration 2c - Ballscrew-to-Ballnut Freeplay Inspection

g. Procedure

(1) Set the dial indicator to zero.

NOTE: On the ground with the stabilizer at the neutral position, the stabilizer center of gravity loads the ballscrew in the upward direction which puts the ballscrew in compression.

CAUTION: DO NOT APPLY MORE THAN 2500 POUNDS AS INDICATED ON THE FORCE GAUGE OF THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT. ALSO, DO NOT APPLY POWER TO THE STABILIZER TRIM ACTUATOR WITH THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT INSTALLED. THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT CAN BREAK OR CAUSE DAMAGE TO THE AIRCRAFT.

- (2) Slowly apply a downward force on the ballscrew by doing the following:
 - (a) Turn the horizontal stabilizer freeplay test equipment until the dial indicator stops, moving.
 - NOTE: To apply a downward force on the stabilizer, the test equipment must be turned in a clockwise direction that shortens the test equipment length.
 - (b) Use a ratchet to turn the horizontal stabilizer freeplay test equipment to apply 2250 pounds as indicated on the force gauge.
- (3) Record the indication on the dial indicator. This is the ballscrew-to-ballnut freeplay.
- (4) Slowly release the downward force that was applied by the horizontal stabilizer freeplay test equipment.

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 7 OF 8)



E.O.No.: EY_777-27A0059-PART-2

Orig. Date: 02/04/2011 Date: 14/07/2015

Rev No: 07 Page 15 of 15

	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date

- (5) If the freeplay is less than 0.0016 inch (0.04 mm), then the stabilizer ballscrew-to-ballnut freeplay measurement may be incorrect.
 - (a) Verify that the procedure was done correctly by checking that the stabilizer was loaded in the correct direction and that the dial indicator is functioning normally.
- (6) If the ballscrew-to-ballnut freeplay is greater than or equal to 0.0016 inch (0.04 mm) and less than 0.016 inch (0.40 mm), then the stabilizer ballscrew-to-ballnut freeplay is within the acceptable limit.
- (7) If the ballscrew-to-ballnut freeplay is greater than or equal to 0.016 inch (0.40 mm), then the ballscrew-to-ballnut freeplay is beyond the maximum in-service wear limit. If the ballscrew-to-ballnut freeplay is beyond the maximum in-service wear limit, then replace the horizontal stabilizer trim actuator assembly. Refer to 777 AMM 27-41-13/401.
- h. Put the Airplane Back To Its Usual Condition
 - (1) Remove the dial indicator base and dial indicator from the ballscrew and ballnut.
 - (2) Remove the horizontal stabilizer freeplay test equipment from between the lower fuselage and the horizontal stabilizer.
 - (3) Close access panel 311BL.
 - (4) Remove the DO-NOT- OPERATE tags, and set the C STAB cutout switch and the R STAB cutout switch to the NORM position.
 - (5) Remove the DO-NOT-CLOSE tags, and close these circuit breakers:
 - (a) On the E5-1 rack:
 - 1) CBB2, STAB TRIM CNTL R
 - (b) On the E2-6 rack:
 - 1) CBB2, STAB TRIM CNTL C
 - (6) If necessary, remove the DO-NOT-OPERATE tags, and set the three FLT CONTROL HYD VALVE POWER switches to the SHUT OFF position.

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 8 OF 8)

QA400a Rev. 0 Nov. 2014 Page 15 of 15

ORIGINAL CO	PY			, .e.		- -		<u> </u>			***	
a.	້ ຄຸກ ຈັ້ ເ ຄື 3				e ca	DD.	٠.,٠				REV NO.	13/ 09-OCT-17
			EV				TC	· 2 2	, (2000-21)	terinda de la compansión d	CARD SEC:	1/4
				777-2			-	·~			PAGE	1/4
V & 13 ALC V	na der 15 eile.	•		VORK PA 25A-CH						• ARKK	VISIT NO.	1510896
4t. St. 1 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	f &1				· / · · · · · · · · · · · · · · · · · ·	T				,	CHARGEABL	E X
Abu Dhabi International PO Box 35566	Airport	A/C TYPE	B777-20	OLR I	REGN.	A6-LR	CARROLD CONTRACT	MSN	363	302	NON-CHARGE	Service Servic
New Airport Road Abu Dhabi United Arab Emirate	2 5	WORK ORDER			WWW. HUA*	1890230	9*			•	Δ	
		LOCATION	/DEPT.					NTENAN	CE	•	₽	A 8
CUSTOMER CODE	EY	TITLE	FLIGHT TRIM AC LUBRICA	TUATOR						<u> </u>	PROGRAM TYPE	EO-MANDATORY
MAN HOURS	2.00		·	<u>.</u>	NTERVA	L		: .		·	TASK	LUBRICATE
MEN	1	FH			FC			D'			ATA	27-41
ELAPSED TIME ZONE D		200 Empennag			-7			36	5	.	ZONE	300
				FETY PRE	CAUTIC)NS IDEN	TIF	IED WIT	HIN TH	E AP	LICABLE TASKS A	RE FOLLOWED
												ICATION
STEP		TASK DESCRIPTION / REQUIREMENT					MECH Sign/Emp.No Date	INSP Sign/Stamp Date				
	1. Boein configur 2. Produnecessar consumat	S COMMENT of warrant ation charaction Play tools, ples/experies, AND 29-ase of additional ations.	anges of anning equipmendables	given i to ens ment an	n thi sure a d	s EO. vailal in AM	oil Mi	lity o	e£		Andro [29 WILLIAM B339
	As Of 12	Aug 200	9, HST	A that	is no	t in a	a '	" known	L			
		ble cond										
TICK AS APPI UAE.145.	.0002	acc	ordance wit	th CAR 14	5 / E AS A	Part 145	* an	ıd in resp	ect to th	at wo	arried out in rk, the aircraft / not applicable)	En made taalouskus 2000 estimate principan (PP Non-Strictus) (P

NRC's	NRC NO(S):	Add. Wor Sheets	k AWS NO(s)	CARD CLEAR
YES		raised: YES NO ~~		CA-III-
QA190 Rev 1		Dec 2013	· · .	2796A

YES

NOTE: INDEPENDENT INSPECTIONS MUST BE RECORDED AND CERTIFIED IN AN APPROVED MANNER.

X

OTHER

INDEPENDENT INSPECTION REQUIRED

The second second				JOB C/	IDN			REV NO.	13/09-OCT-17
			· · · · · · · · · · · · · · · · · · ·	*				CARDISED	231
				77-27A00		-3		PAGE	2/4
· · · · · · · · · · · · · · · · · · ·	8 A X X	WORK PACK REFERENCE 25A-CHECK+BRIDGE		· ·		-VISIT NO.	1510896		
Abu Dhabi Internationa PO Box 35566	i Airport	A/C TYPE	B777-200LR	REGN.	A6-LRC	MSN	36302	CHARGEABL NON-CHARG	
New Airport Road Abu Dhabl United Arab Emirat	ès	WORK ORDER		*AUI	H18902309*				
		LOCATION	/ DEPT.	/ETIHA	d Light Mai	intenan			8. 188
÷ 2		CHARLES AND		and the second and th			· · · · · · · · · · · · · · · · · · ·	CERTIF	ICATION
STEP	, 1980 1 (1980)	TAS	SK DESCRI	PTION / REQ	UIREMENT	- -		MECH Sign/Emp.No Date	INSP Sign/Stamp Date
	airplane	. HSŢA w	hich meet	ts the red	quiremen	ts of	this EO		
	must be	procured	for sto	cks, other	rwise de	tailed		· · · · · · · · · · · ·	
	inspecti	on, free	play che	ck and lul	bricatio	n of t	hat		
•	HSTA mus	t be per	formed II	AW this E).	.*			
		'as _e		- *		6 *.	•		
. 11	SPECIAL	TOOLS:	. "						
	Special	tooling :	necessary	y to do ti	nis EO:				
	}			Horizont		lizer	, .		
	freeplay	test eq	uipment,	is the co	orrect t	ool to			
	accompli	sh the b	all nut	freeplay :	inspecti	on. Ho	wever,		
				ier using	~			4	
	this EO	is satis	factory.	_		•		prolono	
	2. Dial	indicato	r with ma	agnetic v	-base, r	ods, a	nd	ETHAD	ETHAD
				l indicate				502101	B339
	_	_		7 can be			Boeing	29-11-17	2 9 NOV 2011
	on renta	l or pur	chase bas	sis.			-		
		•							·
30									
	Carry ou	t attach	ed EO No	: EY_777-:	27A0059-	PART-3			
				T value in					
	1						***		
TICK AS APP	L LICABLE	Cert	ifies that the v	vork specified,	except as oth	erwise spe	ecified, was o	carried out in	<u>L</u>
UAE.145		acc	ordance with C	CAR 145 / EAS	4-Part 145° a	nd in respe	ect to that we	ork, the aircraft / e not applicable)	
EASA.14		GCAA-EM/G/48			•				
	CONTROL (ULLIA)	シュースペード マン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン・アン	3 f I						

	NRC NO(S):	Add. She	AWS NO(s)	CARD CLEAR
YES		YES NO		PALAU AIRWAYS DI
				< 96a /

ORIGINAL CE	PY	•							
the State of				JOB CA	2017			REV NO.	13/ 09-OCT-17
	illi -	<u> </u>					,	CYBD SEC	231
		·		77-27A005	 	-3	*	PAGE	3/4
AGAN	PAFS One		 	RK PACK RE				VISIT NO.	1510896
			25/	A-CHECK+I	BRIDGE	-	ė.	violi ito.	1010000
Abu Dhabi Internationa	l Airport	A/C TYPE	B777-200LR	REGN.	A6-LRC	MSN	36302	CHARGEABL NON-CHARGI	American .
PO Box 35566 New Airport Road Abu Dhabi United Arab Emirat	es	WORK ORDER		TAUH*	18902309*		au Nato	Δ	
*	• • •	LOCATION	/ DEPT.		LIGHT MAI	NTENANCE		68	1.8
98		<u> </u>	****	na andre an New announce and any thirt he beautiful at the other and the angeline at the constitution of t					
, 	Englise	-bo work	omoo ia a	Januaria	ll boole			Prolemo	
		•		lear of a			ment	MIHAD ALEWAYS	
	and any	other ex	terneous	parts and	. materia	al.	1 - 72-3	[502101]	Q JETHAN
			• ,	*				Va-11-17	1 8333
•		•	•			v			
99		, ·							2 9 NOV 2017
	"***FOR	INFORAMT	ION ONLY.	NO SIGN	OFF REO	ITRED***			
			•	OR SUGGE					
-							_		
	IMPROVEN	MENT WITH	REGARDS	TO THE CO	NTENT OF	THIS E	O/EWI		
	TO B777	FleetMGT@	etihad.ae	11					
			•						
100	Return t	the aircra	aft to a	serviceab	le condi	ition.		Prolano (1550 502101 201-11-17	29 NN 2017
TICK AS APP UAE 145				ork specified, e AR 145 / EASA					
UAE. 145	.0002							not applicable)	
EASA.14		CAA ENAIOIAG	171						
OTHER	OUTO (OLD:C	3CAA-EM/G/48) <i>(</i>)						
INDEPENDEN	T INSPECTI	ON REQUIRE			YES			NO X	
		SPECTIONS M	UST BE REC	ORDED AND C	ERTIFIED IN	AN APPRO	VED MAN	NER.	
REFERENC	ES	· · · · · · · · · · · · · · · · · · ·		- Carlos - C		· · · · · · · · · · · · · · · · · · ·	<u> </u>		
EY_777-27	'A0059-PA	RT-3_EO EI	DOC REV:0	8					
APPLICAB	I E ZONES								
			<u> </u>					· · · · · · · · · · · · · · · · · · ·	<u>, , , , , , , , , , , , , , , , , , , </u>
	:		,						
ASSOCIATI	ED DOCUM	MENTS / RE	LATED CA	RDS					
2009-14-06					· · · · · · · · · · · · · · · · · · ·				
777-27A00			,						
MS_MAINT					***************************************				
The second secon				EY_777-27A	0059-PAR	T-3_EO :	R/I 05 : 2	21.09.2014 : ATA	1 27
EY_777-27									
CT_///-2//	HUUDA-LAL	NI-J_EUKE	LV.U/					,	

	NRC NO(S):	Add. Work Sheets raised:	AWS NO(s)	CARD CLEAR
YES		YES		Aleways of
				9621</th

4				. 494 24	,		*	* *	
ORIGINAL COPY			· 4/2	3				e e e e e e e e e e e e e e e e e e e	
		aan ah kumaan in 14 maa mininto ministrikaan kidol middi ka maa maali	IOD CAI	rs es	4	**************************************	R	EV NO.	13/ 09-OCT-17
			Job cai	*			CAL	en sen:	23 A
CILIAD		EY_77	7-27A0059	9-PART	-3		F	PAGE	4/4
ATROAYS		WOR	K PACK REF	ERENCE		.,			4 T 4 A A A A
		25A	-CHECK+B	RIDGE			VIS	SIT NO.	1510896
Abu Dhabi International Airport PO Box 35566	A/C TYPE	B777-200LR	REGN.	A6-LRC	MSN	36302		CHARGEABLE NON-CHARGE) and the same of
New Airport Road Abu Dhabi United Arab Emirates	WORK ORDER		AUH1	89023 0 9°				A	
	LOCATION	I/DEPT.	/ETIHAD	LIGHT MAI	INTENAN	C E		2007 *100 .	***
ASSOCIATED DOCUM AMM_AIRCRAFT MAI CMM_MISC REV:001			RDS		•				
AMM_AIRCRAFT MAI CMM_MISC REV:001 ACCESS PANEL REC	NT MANUA	TS	eds .						
AMM_AIRCRAFT MAI	NT MANUA QUIREMEN gned to this	TS	RDS						
AMM_AIRCRAFT MAI CMM_MISC REV:001 ACCESS PANEL REC No Access Panel assign	NT MANUA QUIREMEN gned to this EMENTS	TS	DESCRIPTI	ON		QTY	REQD	AS REQI	BATCH NUMBER
AMM_AIRCRAFT MAI CMM_MISC REV:001 ACCESS PANEL REC No Access Panel assignments MATERIAL REQUIRE	NT MANUA QUIREMEN gned to this EMENTS	TS	DESCRIPTI	ON		QTY	REQD	AS REQI	NUMBER
AMM_AIRCRAFT MAI CMM_MISC REV:001 ACCESS PANEL REC No Access Panel assign MATERIAL REQUIRE PART NUMBER 251W4110	NT MANUA QUIREMEN gned to this EMENTS HS	TS task	DESCRIPTI	ON		QTY	REQD 1		NUMBER
AMM_AIRCRAFT MAI CMM_MISC REV:001 ACCESS PANEL REC No Access Panel assig MATERIAL REQUIRE PART NUMBER	NT MANUA QUIREMEN gned to this EMENTS HS	TS task	DESCRIPTI			QTY	1		NUMBER

ACT Person

ACT Mhrs (Hrs:Min)

	raised:	· ·	
YES NO D	YES		TIHAD Aleways

QA190 Rev 1

Skill



EO NO: EY_777-27A0059-PART-3
REV : 08

REV DATE: 09/04/2017

EO Number :	EY_777-27A0059-PART-3	Version	19	Revision:	08
Title :	FLIGHT CONTROLS- HORIZONTAL STABILIZATION.	ZER TRIM A	CTUATOR	BALLSCREW	AND BALLNUT

Source Docum	ients
Document Number	TRIS
SB:777-27A0059:05	ment Number Title
AD: 2009-14-06:00	PREVENT AN UNDETECTED FAILURE OF THE PRIMARY LOAD PATH FOR THE BALLSCREW IN THE DRIVE MECHANISM.

Reference Documents		
Document Number	Title	Affected Items
MS:MS_MAINTENANCE SCHEDULE:001	MAINTENANCE SCHEDULE (MISC)	YES
AMM:AMM_AIRCRAFT MAINT MANUAL:001	AIRCRAFT MAINTENANCE MANUAL (MISC)	YES
CMM:CMM_MISC:001	COMPONENT MAINTENANCE MANUAL	YES

<u> </u>	ETILIAD AIDMAYO/EVA	Repelitive:	Yes
Customer:	ETIHAD AIRWAYS(EY)		
Chargeable:	2.0 HOURS	Whichever:	FIRST
Category:	AIRCRAFT	Copy Accomplishment :	Yes
Program Type :	EO-MANDATORY	Service Type:	ON
ETOPS:	No	Program Sub Type:	AD
Time Span :	2.0 HOURS	Warrantable	No
Alleganic Company of the Company of		Down Time :	2.0 HOURS
Revision Comment:	and to add new aircraft LRs int 3. EO EY_777-27A0059-PART-3 4. Revision 06 of this EO is being and TAT data and update som 5. Revision 07 of this EO is being 6. Revision 08 of this EO is being	to effectivity. It issued Rev 05 to add new aircre issued to reflect the requirement is information. It issued to reflect Rev.04 of SB 7 It issued to reflect Rev.05 of SB 7	nts on the Etihad EO format; update MH 777-27A0059. 777-27A0059 and update effectivity.
Analysis :	actuator. Also, one 757 airpiane The 777 actuator has similar con prevent an undetected failure of	was found to have an actuator was found to the 757 actuator, as the primary load path for the ball sent wear and failure of the second and consequent loss of contract and consequent loss of contract.	such, AD 2009-14-06 was issued to screw in the drive mechanism of the indexy load path, which could lead to loss of of the airplane.
Description :	Ballscrew to Ballnut Lubrication- - Lubricate the actuator ballnut Note: If any discrepancies for must be replaced befo	and ballscrew, ound, as specified in the listed ac	complishment instructions, the HSTA

Authored By	Signature / Signature	Date
Ace Evangelista B777 Lead Engineer	him Signification	09 Apr 2017
Checked By/Design signatory	Signature AIRWAR	Date
Anton Dukov B777 Lead Engineer	Anton Dukov Lead Engineer	09 APR 2017
Management Signatury Najeeb H. Ansari B777 Fleet Manager		9 Apr 17
National authority: NOT REQUIRED AS PER FAA APPROVED SB.	Nojcob Hassan Assani Managen 10	9 Apr 17.



EO NO: EY_777-27A0059-PART-3 REV : 08

REV DATE: 09/04/2017

		Туре	Assigned visit type Description		
-			Rem Celais		
	Comment	occurs later.	ion of 15000 total FH or within 18 months after	12 August 2009,	whichever
,			FH or 12 months whichever occurs first. constitute compliance with AMS task EY_8777	_12-006-00-01	

Effectivity:	Start Date	Stop Date	Earliest Due	Start	interval	Stop	UOM	
777F-APPLICABLE	Andrew with a destruction of the section of a destruction		Color to the special desiration of signal desiration is not seen as the latter of	The state of the s	365		Days(DSN-Ac)	
Item :8777-FFX		***************************************		15000	2000		Hours(TSN-Ac)	
Due date:	Exclude	Serial From		Serial	C	Ren	wiks	
^	N	39682		99999				
			·				;	
neri provinci de la Colonia de la Colonia La Colonia de la Colonia de								
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	
777ER-APPLICABLE	**************************************		***************************************		365		Days(DSN-Ac)	
Item :8777-3FXER				15000	2000		Hours(TSN-Ac)	
Due date:	Exclude	Serial From	rispiensen ja kerien die deut die jak die delegen ja eleminen en een die en ja best	Serial 1	والمتالية والمراجع والمتحادث والمتالة والمتالة	Ren	narks	
	N	34597		99999	de amendês de san an an an an an			
			, , , , , , , , , , , , , , , , , , , 			·		
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	
777LR-APPLICABLE					365		Days(DSN-Ac)	
Item :9777-200LR				15000	2000		Hours(TSN-Ac)	
Due date:	Exclude	Serial From		Serial	To	Ren	Remarks	
	N	36300		36304				
		una la manarana manar	************************		*****			

Effect on weight	Electrical L Effect on Balance	*****		NO
			Electrical Load Change	

Type(AC/DC)	Type of change	Flight Config		Date
Bus .	Bus Bar	AMPs	<u> </u>	PF
Walls KVA	KVAR	Phase	Nominal W	Nominal VA
Man VV	Min V	Max W	MaxV	Della VA
Weight & Balance Notes	No change			
Electrical Load Notes	No change			

			Configuration Change		
Pre Wodification P/N	Post Modification P/N		Plate markings	Interchangeability Codes	Intermixability codes
-	-		-	•	••
Configuration Change Comments No chang			e		



EO NO: EY_777-27A0059-PART-3
REV : 08
REV DATE: 09/04/2017

-		* Material Requirement			
Rem	Part Number	Description	Qty/Unit	UOM	Main Part
1	251W4110	HS TRIM ACTUATOR	1	Each	ato
Engin	sering Material Commi	Boeing warrantly remedies are not available for 2. Production Planning to ensure availability of ne expendables as listed in AMM 12-21-05, 27-41 3. In case of adverse findings HSTA replacements.	cessary tools, e -13 and 29-11-0	quipment and XI.	
		NOTE: As Of 12 Aug 2009, HSTA that is not in a "known airplane. HSTA which meets the requirements of detailed inspection, freeplay check and lubrication	this EO must be	procured for s	clocks, otherwise

		Tool Requiremen	it	
Item	Part Number		Qly/Unit	Duration
1	J55002-37		1	*
Engin	eering Tools Comments	Special tooling necessary to do this EO: 1. Tool Kit: J55002-37 - Horizontal stabilize accomplish the ball nut freeplay inspecting the first of this EO is satisfactory. 2. Dial indicator with magnetic v-base, rod 3. The Tool Kit J55002-37 can be obtained address: Spares Customer Support, MC 36-65, Boeing Spares Dept, P.O.BC Washington 98124-2207, USA.	ion. However, any inspection o is, and clamps or equivalent di I from Boeing on rental or purc	fone earlier using tool in revial indicator tool.



E.O.No.:	EY_777-27A0059-PART-3			
Orig. Date:	02/04/2011	Date:	09/04/2017	
Rev No:	08 •	Page	4 of 17	•

WORK DESCRIPTION	tisch sign Staff No/ Date	Auth Stamp Sign/date
GENERAL INFORMATION		
<u>:AUTION:</u> KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL		
PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED		
MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE		
BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE		
BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE.		
OTE: 1. Obey all of the warnings and cautions given in the specified manual sections.		
2. Unless shown differently, these dimensions and tolerances are used:		
a. Linear dimensions are in inches		
 Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch 		
c. Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch		
d. Angular tolerance is plus or minus 2 degrees		
3. A General Visual Inspection is defined as: A visual examination of an interior or exterior		
area, installation or assembly to detect obvious damage, failure or irregularity. This		
level of inspection is made from within touching distance unless otherwise specified. A		
mirror may be necessary to ensure visual access to all surfaces in the inspection area.		
This level of inspection is made under normal available lighting conditions such as		
daylight, hangar lighting, flashlight or drop-light and may require removal or opening of		
access panels or doors. Stands, ladders or platforms may be required to gain proximity		
to the area being checked.		
4. A Detailed Inspection is defined as: An intensive examination of a specific item,		
installation, or assembly to detect damage, failure, or irregularity. Available lighting is		
normally supplemented with a direct source of good lighting at an intensity deemed		
appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary.		
Surface cleaning and elaborate procedures may be required.		
5. A replacement Horizontal Stabilizer Trim Actuator is in a known serviceable condition if		
records agree with one these conditions:		
a. The unit is new		
b. The unit is overhauled in accordance with the applicable Linear Motion CMM 27-41- 15, or Ratier Figeac CMM 27-44-02, or Umbra Cuscinetti CMM 27-41-06 and		
Boeing CMM 27-41-03		
c. The ballscrew assembly on the unit is new, or overhauled in accordance with the		
applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02, or Umbra		
Cuscinetti CMM 27-41-06 and the unit is found satisfactory in accordance with the		
tests given in Boeing CMM 27-41-03 d. The condition of unit is found satisfactory in accordance with the tests and checks		
given in the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-		
02, or Umbra Cuscinetti CMM 27-41-06 and the tests given in Boeing CMM 27-41-		
13.		
6. Boeing Message ETI-ETI-17-0204-02B provides clarification that the ballscrew and		
ballnut inspection reference is AMM task 27-41-13/601		



E.O.No.:	EY_777-27A0059-PART-3		v .,	
Orig. Date:		Date:	09/04/2017	
Rev No:	. 08	Page	5 of 17	

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
3. WORK INSTRUCTIONS PART 3- Horizontal Stabilizer Trim Actuator Ballscrew-To-Ballnut Lubrication: 1. Lubricate the horizontal stabilizer ballscrew and ballnut as shown in 777 AMM 12-21-05.	Pulano 502101 20-11-17	129 WW
2. If you remove a worn or damaged actuator and install a unit that is not in a known serviceable condition, then you must do these inspections before a subsequent flight:	<i>(</i>)	63
NOTE: Refer to Paragraph A.5 for the applicable known serviceable conditions. a. The Detailed Inspection as shown in FIGURE 1. Record any findings:		
Note: If any of the listed conditions in FIGURE 1 and on the referenced AMM is noted, replacement of the actuator is necessary		
b. Ballscrew-to-Ballnut Freeplay Inspection as shown in APPENDIX A.		



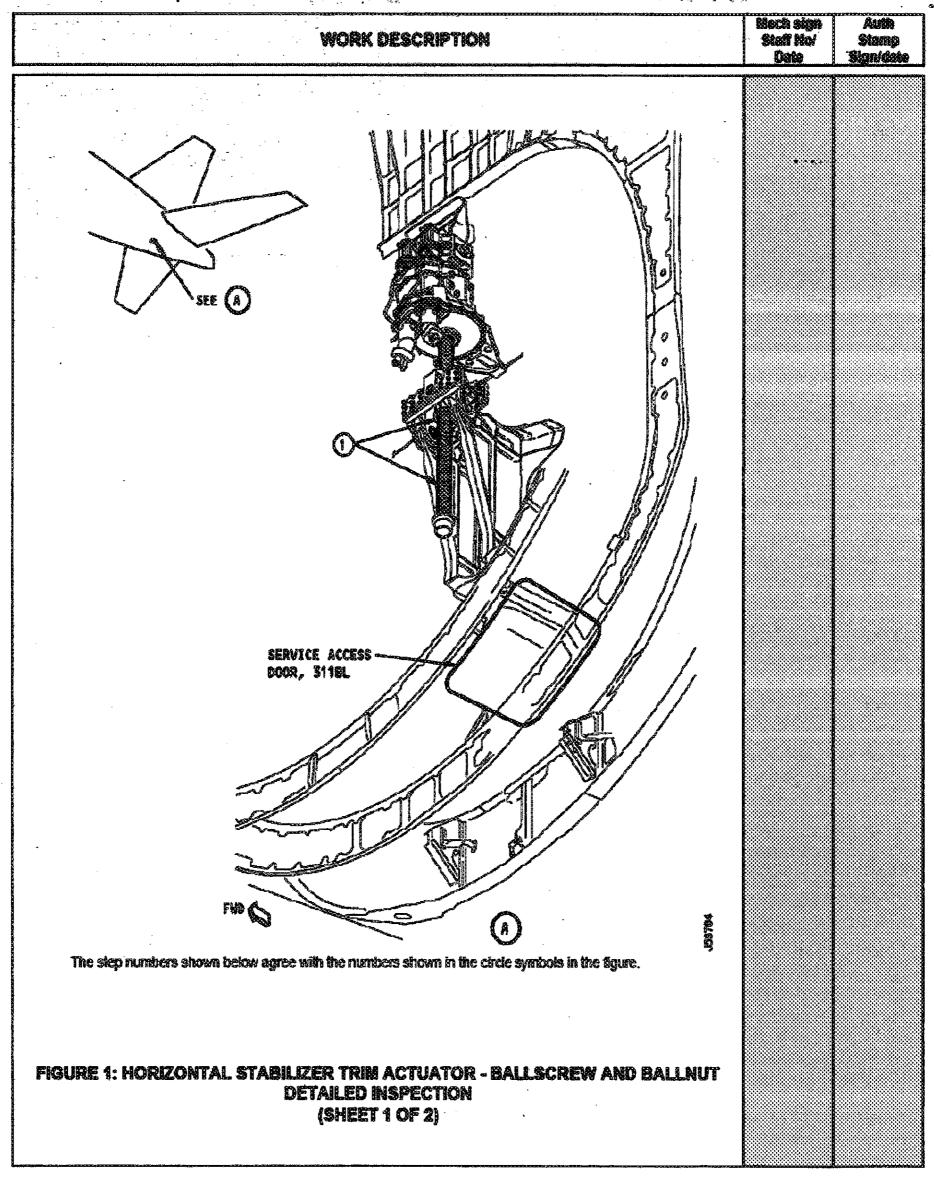
E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Date: 09/04/2017

Rev No: 08

Page 6 of 17





E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Rev No: 08

Page 7 of 17

		w.	ORK DESCRIPTION	Staff No.	Stamp Sign/date
STEP	TASK	NAME	PROCEDURE	REFERENCES	MORE DATA
1:	Inspect	Horizontal Stabilizer Trim Actuator Ballscrew and Ballnut	Detailed inspection	777 AMM 27-41-13/601	(a)(b)(c)

- (a) Do a Detailed inspection for each of these conditions:
 - 1. Corrosion particles or metal particles in the grease or the ballscrew or ballnut.
 - 2. Damage or cracking of the ballnut.
 - 3. Corrosion on the ballnut.
 - 4. Obvious signs of wear on the ballnut.
 - 5. Obvious differences in thread shape on the ballscrew.
 - 6. Metal flaking on the ballscrew.
 - 7. Cross threading, distortion, or stripping of the ballscrew threads.
 - 8. Corrosion on the ballscrew.
 - 9. Damage or cracking of the ballscrew.
 - 10. Lifted or damaged ballnut return tubes.
 - 11. Ball bearings that have escaped from the ballnut.

If the Detailed Inspection finds one or more of these conditions, then the condition must be corrected.

- (b) A ballscrew and ballnut lubrication is included as a part of step 1.
- (c) If it is necessary to replace the actuator, refer to 777 AMM 27-41-13 as an accepted procedure.

FIGURE 1: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW AND BALLNUT DETAILED INSPECTION (SHEET 2 OF 2)



E.O.No.:	EY_777-27A005	9-PART-3				**********		
	02/04/2011		Date:	09/04/2017	a e			
Rev No:	08			8 of 17		ti nga minjingi haji da	10, 1 p = 11 2 p = 10 1 f 11 = 10 f 1	

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stemp Sign/date
Horizontal Stabilizer Trim Actuator - Ballscrew-to-Ballnut Freeplay Inspection		
a. General (1) Use this test to inspect the freeplay between the ballscrew and the ballnut of the horizontal stabilizer trim actuator assembly.		
 References 777 AMM 12-21-05, Horizontal Stabilizer Ballscrew, Ballnut, and Gimbal - Servicing 777 AMM 27-41-13, Stabilizer Trim Actuator - Removal/Installation 777 AMM 29-11-00, Main Hydraulic System - Maintenance Practices 		
c. Tools/Equipment J55002-37, Test Equipment - Horizontal Stabilizer Freeplay Dial Indicator (commercially available)		
d. Location Zones 311, Area Aft of Bulkhead, Left 312, Area Aft of Bulkhead, Right		χ ^e
e. Access Panels 311BL, Service Access Door		
f. Prepare for the Procedure (1) Lubricate the Horizontal Stabilizer Ballscrew Actuator Assembly. Refer to 777 AMM 12-21-05 as an accepted procedure.		
(2) Pressurize the main hydraulic system. Refer to 777 AMM 29-11-00 as an accepted procedure.		
(3) Use the STAB TRIM levers or switches to move the stabilizer to 6 units of trim on the stab trim position indicator.		And Anther Section (1984) and Anther Section
(4) Remove power from the main hydraulic system. Refer to 777 AMM 29-11-00 as an accepted procedure.		
(5) On the control stand, set the C STAB cutout switch and the RSTAB cutout switch to the CUTOUT position. (a) Attach DO-NOT-OPERATE tags to the switches.	<u>'</u>	
(6) Open these circuit breakers and attach DO-NOT-CLOSE tags: (a) On the E5-1 rack: 1) CBB2, STAB TRIM CNTL – R (b) On the E2-6 rack: 1) CBB2, STAB TRIM CNTL - C		

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 1 OF 10)



E.O.No.:	EY_777-27A0059-PART-3	0,
Orig. Date:	02/04/2011	Date: 09/04/2017
Rev No:	08	Page 9 of 17

WORK DESCRIPTION	Mech sign Staff Mo/ Date	Auth Stemp Sign/date
(7) Get access to the stabilizer trim actuator through access panel 311BL.		
(8) Do these steps to install the horizontal stabilizer freeplay test equipment between the horizontal stabilizer and the lower fuselage (see Illustration 1A thru 1C):		OPERATOR NOTE IN PERSON NAMED IN PROPERTY OF THE PERSON NAMED
(a) Measure the distance between the attachment points for the horizontal stabilizer freeplay test equipment.	·	
(b) Use the distance you measured to set the horizontal stabilizer freeplay tes 339 equipment to the correct of the three positions shown in Illustration 1B.		
(c) Connect one end of the horizontal stabilizer freeplay test equipment to the airplane.	·	
(d) Turn the horizontal stabilizer freeplay test equipment to adjust it, until the other end can be attached. NOTE: Adjust it so that approximately the same number of threads show at both ends of the horizontal stabilizer freeplay test equipment.		
(9) Do these steps to install a dial indicator between the stabilizer ballscrew and the ballnut (see Illustration 2A thru 2C).		
(a) Attach a magnetic base (commercially available) to the stabilizer ballscrew below the ballnut.		
(b) Install the dial indicator on the support arm of the magnetic base so that the end of the dial indicator touches a flat spot on the ballnut. NOTE: The dial indicator must be installed so that it can measure the downward movement of the ballnut relative to the ballscrew.		

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 2 OF 10)



E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011 , Date: 09/04/2017

Rev No: 08 Page 10 of 17

		-	Mech sign	Auth
***	 WORK DESCRIPTION		Staff No!	Stamp
			Date	Signidate

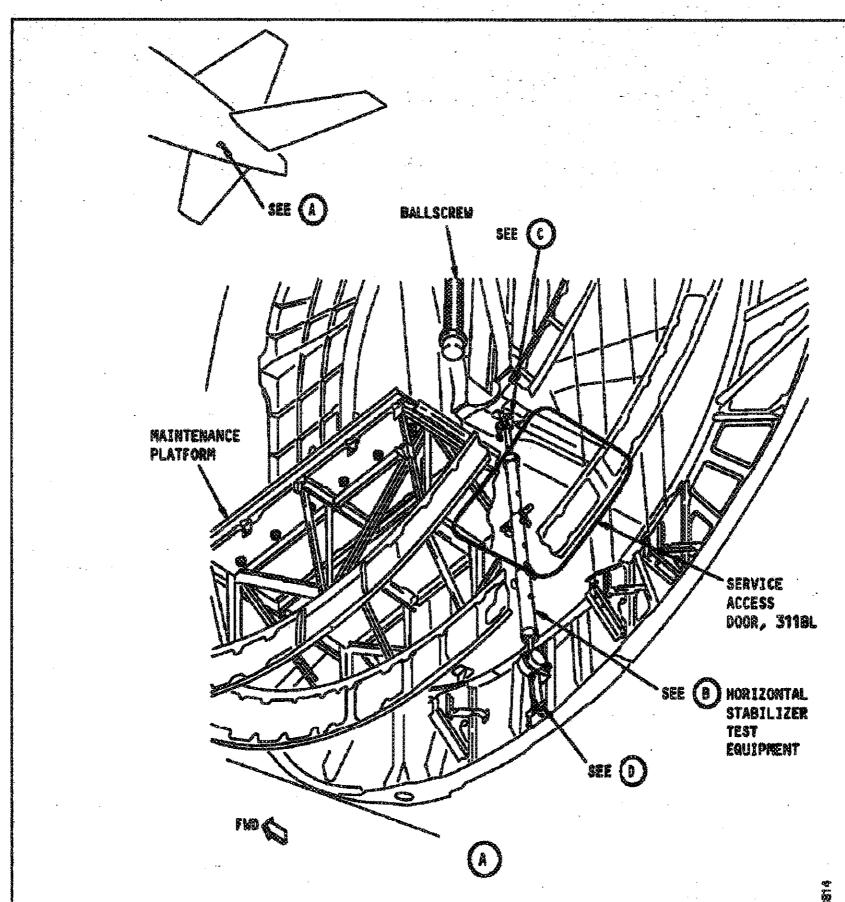


ILLUSTRATION 1A - STABILIZER FREEPLAY TEST EQUIPMENT INSTALLATION

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 3 OF 10)

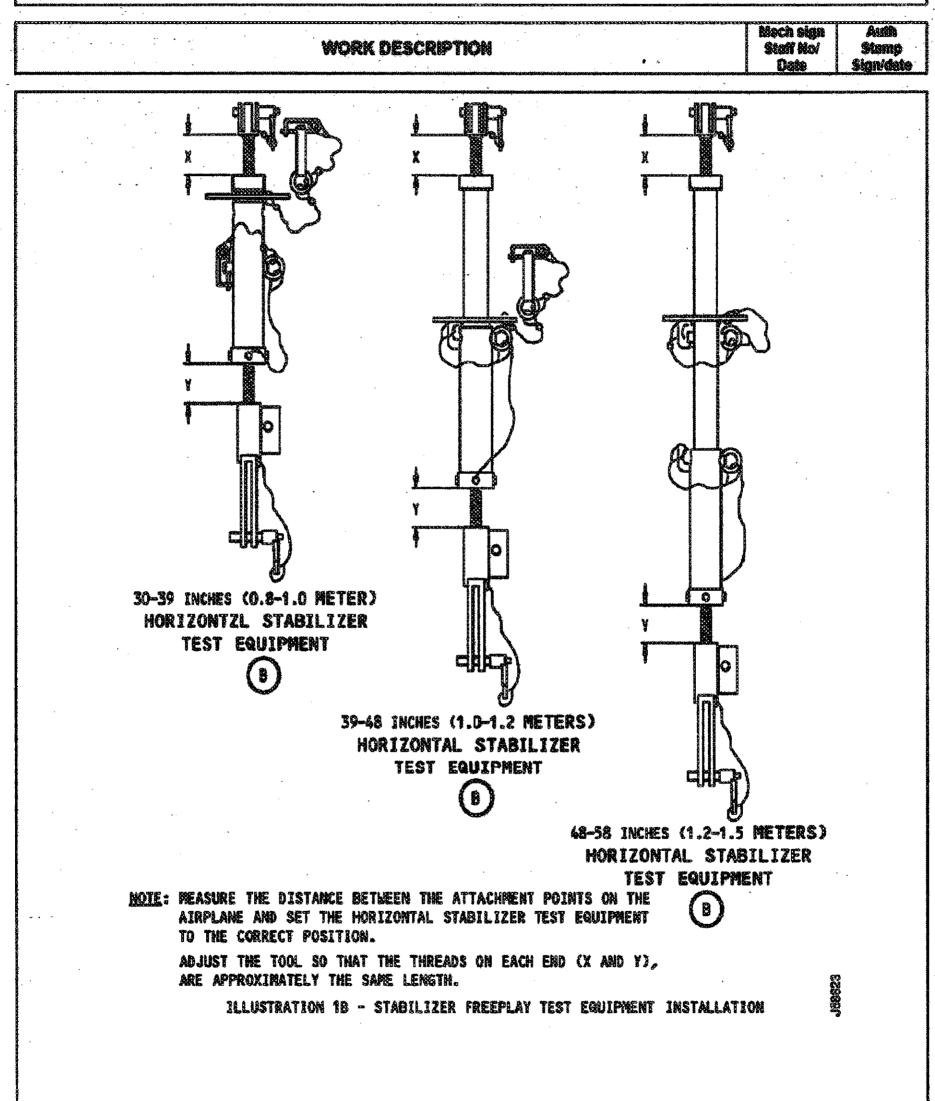


E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Rev No: 08

Page 11 of 17



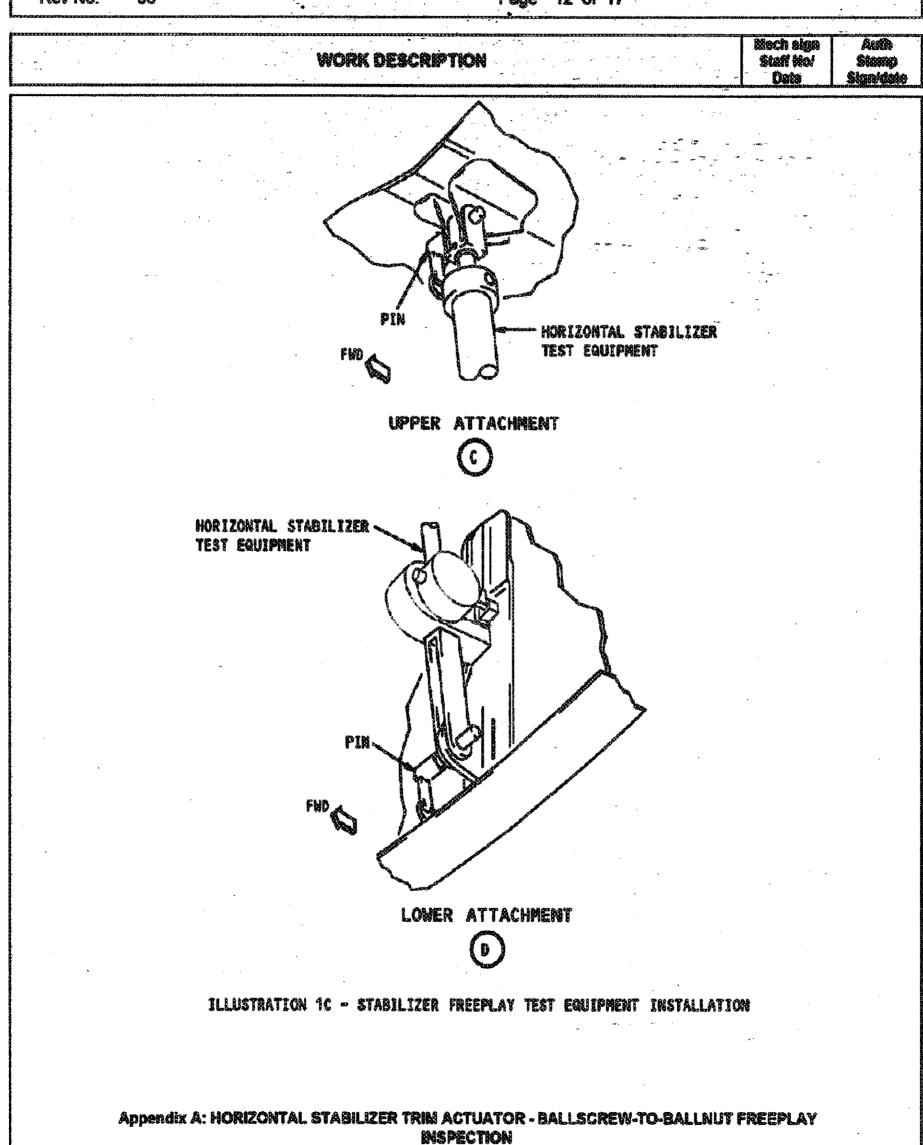


E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Rev No: 08

Page 12 of 17



(SHEET 5 OF 10)

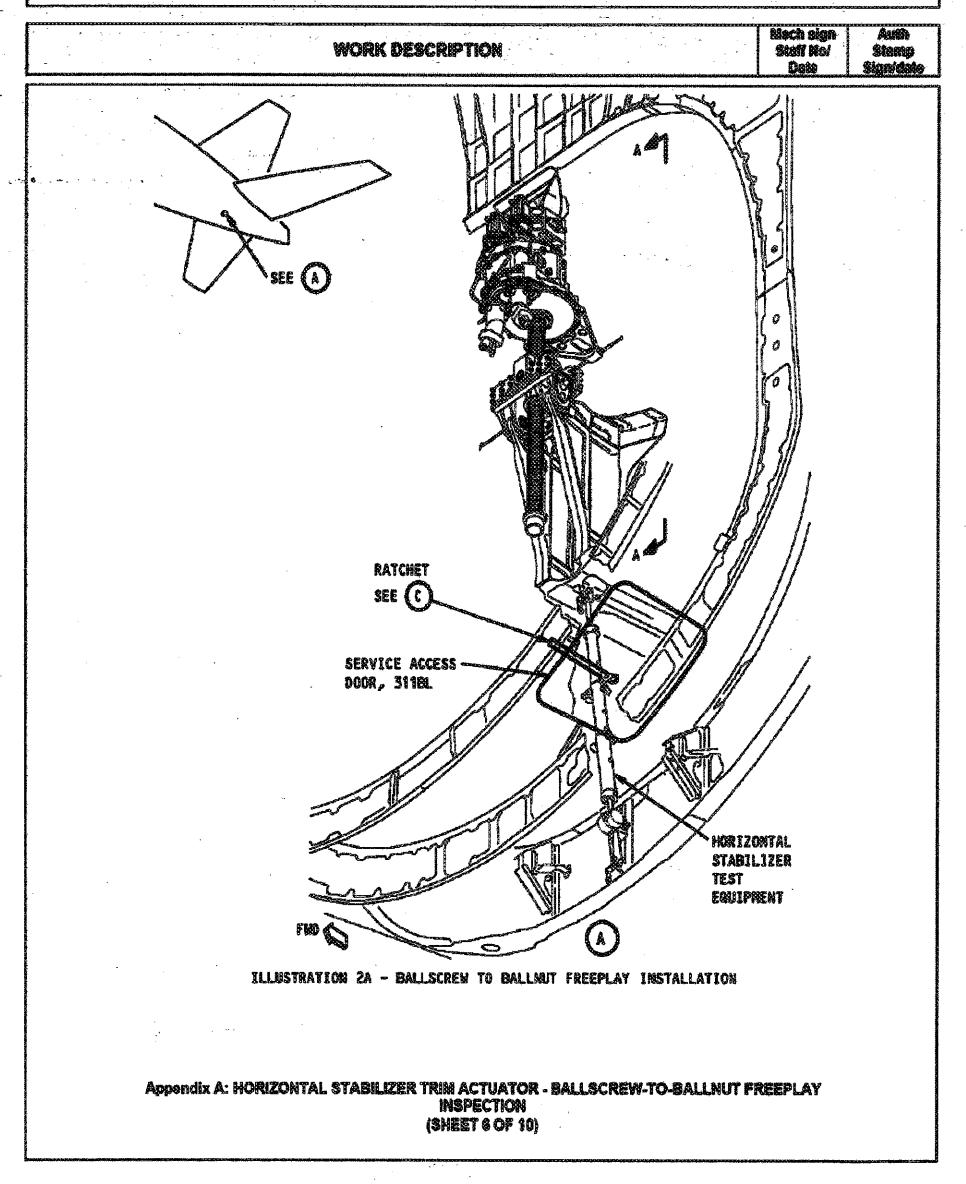


E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Rev No: 08

Page 13 of 17



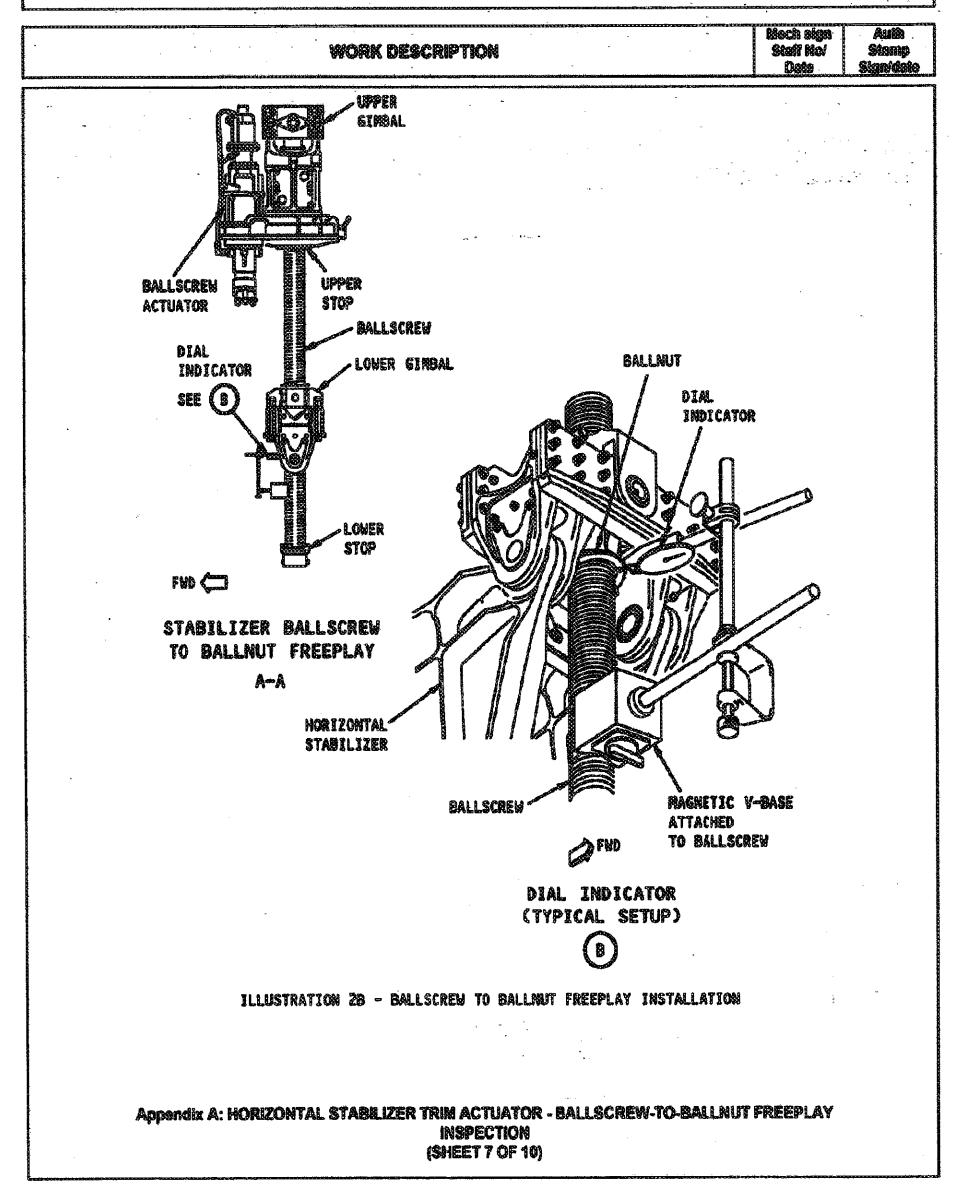


E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Rev No: 08

Page 14 of 17





Mech sign Staff Ho/ Date

Auth Stamp

Signidate

E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011

Rev No: 08

Page 15 of 17

WORK DESCRIPTION

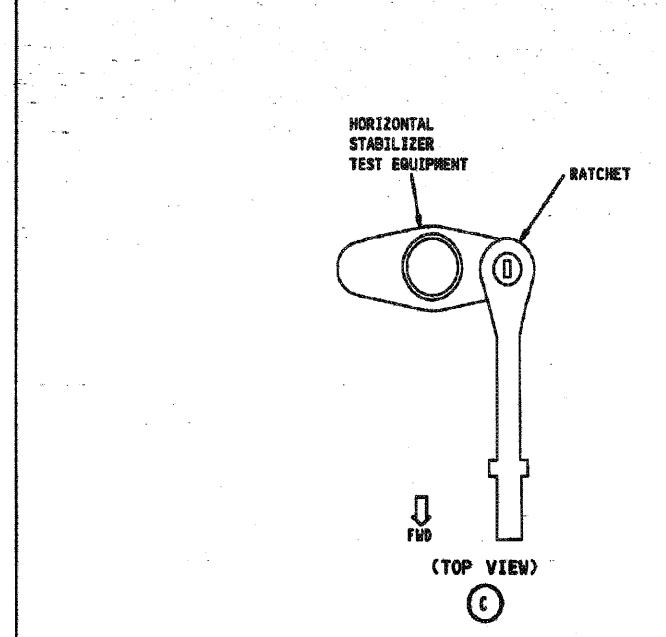


ILLUSTRATION 2C - BALLSCREW TO BALLNUT FREEPLAY INSTALLATION

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 8 OF 10)



1	EY_777-27A0059-PART-3 .		*	
Orig. Date:	02/04/2011	09/04/2017		
Rev No:	08	 16 of 17		_

8-		Work description	Mech sign Staff No <i>i</i> Date	Auth Stamp Sign/date
g.	* *	e dial indicator to zero. : On the ground with the stabilizer at the neutral position, the stabilizer center of gravity loads the ballscrew in the upward direction which puts the ballscrew in compression.		
	FORCE G ALSO, DO HORIZON HORIZON DAMAGE (2) Slowly (a) Tur	DO NOT APPLY MORE THAN 2500 POUNDS AS INDICATED ON THE AUGE OF THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT. NOT APPLY POWER TO THE STABILIZER TRIM ACTUATOR WITH THE TAL STABILIZER FREEPLAY TEST EQUIPMENT INSTALLED. THE TAL STABILIZER FREEPLAY TEST EQUIPMENT CAN BREAK OR CAUSE TO THE AIRCRAFT. TO THE AIRCRAFT. Tapply a downward force on the ballscrew by doing the following: The horizontal stabilizer freeplay test equipment until the dial indicator stabilizer. TE: To apply a downward force on the stabilizer, the test equipment must be turned in a clockwise direction that shortens the test equipment length.		
	(b) Use pou	e a ratchet to turn the horizontal stabilizer freeplay test equipment to apply 2250 inds as indicated on the force gauge.	,	
	(3) Record t	the indication on the dial indicator. This is the ballscrew-to-ballnut freeplay.		
	(4) Slowly re test equi	elease the downward force that was applied by the horizontal stabilizer freeplay ipment.		
	freeplay (a) Verify	eplay is less than 0.0016 inch (0.04 mm), then the stabilizer ballscrew-to-ballnut measurement may be incorrect. That the procedure was done correctly by checking that the stabilizer was to in the correct direction and that the dial indicator is functioning normally.		
	(6) If the ba less than the perm	Escrew-to-ballnut freeplay is greater than or equal to 0.0016 inch (0.04 mm) and 0.016 inch (0.40 mm), then the stabilizer ballscrew-to-ballnut freeplay is within nitted limit. y is within limit: Yes No		Managari di Albi (Mille Albi di na mi di Albi (Mille Albi di Albi di Albi (Mille Albi di Albi
	(7) If the balls the ballscrev replace if an accellace if yes, reserved.	Ilscrew-to-ballnut freeplay is greater than or equal to 0.016 inch (0.40 mm), then crew-to-ballnut freeplay is more than the permitted in-service wear limit. If the w-to-ballnut freeplay is more than the permitted in-service wear limit, then the horizontal stabilizer trim actuator assembly. Refer to 777 AMM 27-41-13 as pted procedure. ment done:Yes No ecord the following actuator details: SN Off:		
Арр	PN On:_ endix A: H	ORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FRE	EPLAY INS	PECTION
[(SHEET 9 OF 10)	****	



E.O.No.: EY_777-27A0059-PART-3 Orig. Date: 02/04/2011									
	02/04/	/2011			Date:	09/04/2017	•	-	
Rev No:	08 .				Page	17 of 17			,

WORK DESCRIPTION	Mech sign Staff He/ Date	Auth Stamp Sign/date
h. Put the Airplane Back To Its Usual Condition (1) Remove the dial indicator base and dial indicator from the ballscrew and ballnut.		
(2) Remove the horizontal stabilizer freeplay test equipment from between the lower fuselage and the horizontal stabilizer.		ı
(3) Close access panel 311BL.	502101	
(4)Remove the DO-NOT- OPERATE tags, and set the C STAB cutout switch and the R STAB cutout switch to the NORM position.		
(5)Remove the DO-NOT-CLOSE tags, and close these circuit breakers:		
(a) On the E5-1 rack:		
1) CBB2, STAB TRIM CNTL - R	·	
(b) On the E2-6 rack:		
1) CBB2, STAB TRIM CNTL - C		

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION
(SHEET 10 OF 10)

ORIGINAL CO	PY									
. 1	5111			J	OB CA	RD				
=31:	3181		F	/ B7	777 12-0	06-00-0	1			
	PAY 1						•		17.02	INT.
					2 (2) (2) (3) (4) (4) (5)	C-111-34-11 - 3-3-11			VISIT NO.	1697830
Abu Dhabi Internationa	Aiport	A/C TYPE	B777-20	OI R	REGN	ASJEC	MSN	36302		
PO Box 35566 New Airport Road		TOTAL STREET,	Dirrie	OLIV .		III will know the territory of	III	90002	NON-CHARGE	EABLE
Abu Dhabi United Arab Emiral	Q5	13) 10 - 11 10 10 14 20 15			100 110		JII			_
		UNDER			*TEV	21355893*			A	
		LOCATION	I / DEPT.		Teruel Al	rport/Teruel	Alrport Li	ne		
CUSTOMER CODE	EY	TITLE	HORIZON	ITAL :	STABILIZE	R BALLSO	REW ACT	UATOR	PROGRAM TYPE	AMS - MANDATORY
MAN HOURS	0.75	58			INTERVA	L			TASK	LU
MEN	1				FC		DY		ATA	12
ELAPSED TIME ZONE I							300		ZONE	300
ENSURE THA	T ALL SETU	PROCEDUR	RE AND SA	FETY	PRECAUTIO	NS IDENTIF	IED WITH	IN THE API	PLICABLE TASKS A	RE FOLLOWED
									CERTIF	CATION
STEP		TA	SK DESC		MECH Sign/Emp.No Date	INSP Sign/Stamp Date				
10 99	NOTE: TAS DIRECTIV	EK INTENT	RIZONTA OR.as p ART-3	AL SI	PABILIZE)	R BALLSO		di.	29/wow/2018	Who de
	*** FOR	JOB CARD REV NO. 44/08-NOV-18 CARD SEQ: 1877 PAGE 1/3 WORK PACK REFERENCE Return to Service Return to Service ALG TYPE B777-200LR REGN. A6-LRC MSN 36302 WORK ORDER *TEV21355893'* LOCATION / DEPT. Teruel AlroritTeruel Alrorit Line EY TITLE HORIZONTAL STABILIZER BALLSCREW ACTUATOR PROGRAM TYPE MANDATORY 0.76 INTERVAL TASK LU 1 FH FC DY ATA 12 2000 366 ZONE 300 ALL SETUP PROCEDURE AND SAFETY PRECAUTIONS IDENTIFIED WITHIN THE APPLICABLE TASKS ARE FOLLOWED TASK DESCRIPTION / REQUIREMENT TASK DESCRIPTION / REQUIREMENT ADD OTE: TASK INTENT ALSO SATISFIES ALRWORTHINESS UNBRICATE THE HORIZONTAL STABILIZER BALLSCREW AND Date ALLSCREW ACTUATOR. AS PER attached EO Y 7777-27A0059-PART-3 WUSHT NO. 1697830 **FOR INFORMATION ONLY, NO SIGN OFF REQUIRED *** LOBERT Certifies that the work specified, except as otherwise specified, was carried out in accordance with CAR 146 / EASA Part 145° and in respect to that work, the aircraft / aircraft component is considered ready for release to service, C'heelen on lopplicable)								
OTHER	0002 5.0442 0010 (OLD:G UAF 1	acc alro CAA-EM/G/4	ordance wit raft compor 37)	h CAR	145 / EASA	Part 145* an	d in respec	ct to that wo	ork, the aircraft / e not applicable)	
				ECOPI	DED AND CE		AN ADDD	OVED MAN	The second secon	
NOTE: INDEP	FIADEIAL IIAS	FEG HONS N	IOO I DE R	LOOKI	DED AND GE	INTIFIED IN	AN APPR	OVED WAT	MINER.	

NRC's	NRC NO(S):		AWS NO(s)	DADD OLEAD
Raised		Sheets ralsed:		CARD CLEAR
YES		YES	1	
NO 🔀		NO 🗆		

ORIGINAL CO)PY												
	err)			J	OB CA	RD				-	EV NO. RD SEQ:	- 64 September 25	NOV-18 87
-5L	aiñi		E	V B	777 12-0)06 <u>-</u> 00.	01		- 22		PAGE		2/3
											TAGE		
						4 12 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16				VI	SIT NO.	169	7830
	l Airport	A/C TYPE	B777-20	OLR	REGN.	A6-LRC	MS	N	36302		CHARGEABL NON-CHARGE		Х
New Airport Road Abu Dhabi	EY_B777 WORK PA Return Disabilitational Alignett Box 35560 Valport Road Chinabi Location / DEPT. TASK DESCRIPTION PLEASE FEEDBACK ANY ISSUE OR IMPROVEMENT WITH THE CONTENT ETIHAD MAINTENANCE PROGRAM TE ampfeedback@etihad.ae CK AS APPLICABLE JUAE.145.0002 EASA.145.0442 JUAE.145.0010 (OLD:GCAA-EM/G/487) JOTHER JAF 145 1203 DEPENDENT INSPECTION REQUIRED OTHER JAF 145 1203 DEPENDENT INSPECTION REQUIRED OTT-27A0059 EDOC REV:05 Y_777-27A0059-PART-3_EO EDOC REV:08 DEPLICABLE ZONES BOCIATED DOCUMENTS / RELATED CARDS of associated documents/related cards defined CCESS PANEL REQUIREMENTS PART NUMBER DES BAOTIZ2 CLOTH, LINT FREE, 9-1 EROSHELLGREASE7-3KG GREASE, ASG7, 3KG/6.								AF				
		LOCATION	/ DEPT.		Teruel Ai	irport/Ter	ıel Airpo	rt Lir	ne		<i>II</i> V		
	<u> </u>										CERTIF	CATION	
EY_B777_12-006-00-4 WORK PACK REFERENCE Return to Service Return to	т			Sign	MECH II Sign/Emp.No Sign Date								
	IMPROVEM	MENT WITH	THE CO	ONTE	NT OF TH	IS TAS		D T	О			() 29 ov) () pulls
		acc	ordance wi	th CAF	145 / EASA	Part 145*	and in re	spec	t to that w	ork, the a	ircraft /		
UAE.146 OTHER INDEPENDEN	ODIO (OLD:O LIAE 1 IT INSPECTION	45 120 ON REQUIRE	3]			10 X		
Service and the service and th	CONTRACTOR STATE	PECTIONS N	IUST BE R	ECOR	DED AND C	ERTIFIED	IN AN A	PPR	OVED MA	NNER.			
		14.00											
			DOC RE	V:08									
APPLICAB	LE ZONES												
ASSOCIAT	ED DOCUM	MENTS / RE	LATED	CAR	DS								
No associa	ted docume	nts/related	cards de	fined									
ACCESS P	ANEL REC	UIREMEN	TS										
311BL													
MATERIAL	REQUIRE	MENTS									20		
PAR	T NUMBER	ı		1	ESCRIPT	ION			QTY	REQD	AS REC		ATCH JMBER
7340T22		CLC	OTH,LINT	FREE	9-1/2"X20)				1	No		
AEROSHEL	LGREASE7	-3KG GRI	EASE,ASC	G7,3K	G/6.6LBS (CA				. 1	No		
ASG33-140	Z	GRI	EASE 33,	140Z	CARTRID	GE				1	No		
											L.		
NRC's Raised	NRC NO(S):						d. Work Sheets raised:	AV	VS NO(s)			CARE	CLEAR
YES	l .					YE	0					I	

NO

NO

Control de				OD CA	DD			R	EV NO.	4	4/ 08-NOV-18
الإقارة			J	OB CA	KD			CAI	RD SEQ:		187
CTHAD		E.	Y_B7	777_12-0	006-00-0	1		I	PAGE		3/3
AIRWAYS		,	WORK	PACK RE	FERENCE			000			207020
			Re	turn to S	ervice] VIS	SIT NO.	1	697830
Abu Dhabi International Airport PO Box 35566	A/C TYPE	B777-20	OOLR	REGN.	A6-LRC	MSN	36302		CHARGEAB NON-CHARG		LE X
New Airport Road Abu Dhabi United Arab Emirates	WORK	8		7,400,000	/21355893 *				Δ	F	
	LOCATIO	ON / DEPT.		Teruel A	irport/Terue	Airport L	ine				
MATERIAL REQUIRE	MENTS			10 100	III., elli						
PART NUMBER	1		ľ	DESCRIPT	TION		QTY I	REQD	AS REC	QD	BATCH NUMBER
MILPRF23827	G	REASE, CN	ΛL 04-	004 (SEE N	1			1	No		
TOOLING REQUIRE	VIENTS										
PART NUMBER	1		I	DESCRIPT	TION			Q	TY REQU	JIRE	D
J53001-1	L	ADDER, E	PMT	EMPERNI	NAGE						1
ACTUAL PRODUCTION	ON MAN-	HOURS R	ECOF	RDING							
Skill				ACT Pers	son			AC.	T Mhrs (l	Irs:l	Min)
											7/
									2		

NRC's	NRC NO(S):	Add. Work Sheets	AWS NO(s)	CARD CLEAR
Raised		ralsed:		GAND GELAN
YES	1	YES	1	
NO [NO 🗀		



Engineering Order

EO NO: EY_777-27A0059-PART-3 REV : 08 REV DATE: 09/04/2017

AIRWA	TG			100	New Production and State of St				
EO Number :	EY_777-27A0059-	PART-3	Version	19 R	evision: 08				
Title :	FLIGHT CONTRO LUBRICATION.	LS- HORIZONTAL	STABILIZER TRIM AC	TUATOR BAL	LSCREW AND BALLNUT				
Source Docui	nents	Land Hill Committee		ME THE					
Document Number	Title								
SB:777-27A0059:05	FLIGHT CONTROLS-	HORIZONTAL STABIL	IZER, TRIM ACTUATOR, BA	LLSCREW MAINT	TENANCE AND LUBRICATION.				
AD; 2009-14-08:00	PREVENT AN UNDET	ECTED FAILURE OF	THE PRIMARY LOAD PATH	FOR THE BALLS	CREW IN THE DRIVE MECHANIS				
Reference Do	cuments								
Document Number		Title			Affected Items				
MS:MS_MAINTENAN	ICE SCHEDULE:001	MAINTENANCE SCI	IEDULE (MISC)		YES				
AMM:AMM AIRCRA	FT MAINT MANUAL:001	AIRCRAFT MAINTEN	NANCE MANUAL (MISC)		YES				
CMM:CMM_MISC;00		COMPONENT MAIN			YES				
Customer :	LETIHAD A	RWAYS(EY)	Repetitive:	Yes					
	2.0 HOUR		Whichever:	FIRST					
			Copy Accomplish						
			Service Type :	ON					
		MORT	Program Sub Type						
	eference Documents cument Number :MS_MAINTENANCE SCHEDULE:001 M:AMM_AIRCRAFT MAINT MANUAL:0 IM:CMM_MISC;001 stomer: ETIHAD argeable; 2.0 HOU tegory: AIRCRA pgram Type: EO-MAN OPS: No ne Span: 2.0 HOU 2. EO EY and to 3. EO EY 4. Revisit and TA 5. Revisit 6. Revisit An Invest actuator. The 777 prevent a horizonta of control This EO I Ballscrev - Lubric Note		Warrantable	No	1 - 1 - 3 12				
Time Span :			Down Time :		0 HOURS				
Analysis :	6. Revision An investig actuator. A The 777 ac prevent an horizontal s of control o	O8 of this EO is being allon found that an Mass, one 757 airplane tuator has similar coundetected failure of tabilizer and subseq fithe horizontal stabi	MD-80 accident was cause was found to have an act ofiguration to the 767 actu the orimary load path for	of SB 777-27AC d by a premature uator with sever ator, as such, Al the ballscrew in e secondary loa of control of the	1059 and update effectivity. Bely worn horizontal stabilizer corrosion. D 2009-14-06 was issued to the drive mechanism of the d path, which could lead to loss alimplane.				
Description :	- Lubrica Note:	o Ballnut Lubrication te the actuator ballnut fany discrepancies nust be replaced bef	it and ballscrew, found, as specified in the li	الإنجاريا	nment instructions, the HSTA				
Authored By			Signature	ETIHAD LAURWAYS	Date				
Ace Evangelista B777 Lead Engir	ieer		lu money	Ace Evangelista	09 Apr 2017				
Checked By/Des			Signature / A		Date				
Anton Dukov B777 Lead Engir			All All	aton Dukov and Engineer Actures – 1811	09 Are 2017				
Management Sty	nulory		Significan	And the Party and Party	Date				
Najeeb H. Ansar B777 Fleet Mana	ger			STIPAD	9 Apr 17				
National authority NOT REQUIRED APPROVED SB.	r:) AS PER FAA	-	Signatur	oleob Hassen Angerl MANAGER Our most	9 Apr 17.				



Engineering Order

EO NO: EY_777-27A0059-PART-3

REV : 08

REV DATE: 09/04/2017

THE STATE OF		Assigned visit type
	Type Description Item Details COMPLIANCE TEXT: Comply with this EO before accumulation of 15000 total FH or within 18 months after 12 August 2009, which occurs later. Repeat at intervals not to exceed 2000 FH or 12 months whichever occurs first. Note: Accomplishment of this EO will constitute compliance with AMS task EY_B777_12-006-00-01	
		Item Details
Comment	Comply with this EO before acc occurs later. Repeat at intervals not to excee	ed 2000 FH or 12 months whichever occurs first.

Effectivity :	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	
777F-APPLICABLE	337.7.0.00				365		Days(DSN-Ac)	1
Item:B777-FFX				15000	2000		Hours(TSN-Ac)	1
Due date:	Exclude	Serial From		Serial '	Го	Rer	narks	
	N	39682	99999			description of the second of t		
								7
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM	
77ER-APPLICABLE					365		Days(DSN-Ac)	
Item: B777-3FXER	r		100	15000	2000		Hours(TSN-Ac)	
Due date:	Exclude	Serial From	Serial '	Го	Rer	narks		
	N	34597	99999					
err w. a	[ni .i n .i	Tai n.i.	T coltate	T 011	Literard	Trans	LIDIA	+
Effectivity:	Start Date	Stop Date	Earliest Due	Start	Interval	Stop	UOM DOWN As)	-
777LR-APPLICABLE Item:8777-200LR		_		45000	365	-	Days(DSN-Ac)	-
	a 1 1	la de la constante		15000	2000	Ins	Hours(TSN-Ac)	-
Due date:	Exclude	Serial From		Serial		Kei	narks	-
	N	36300		36304				4
				18		- 1		

Effect on weight	0 Ka	Effect on B	alance	0 Kg.m	Electrical Load Cha	ange	NO
Lifett on Weight	ung	Literation	- Litario	o rigini	Eloonioa Esas on		1.,,-
		500 (1) E TATE		Electrical Load			
Type(AC/DC)	Type	of change	Flight	Config		Da	te
		*			•		
Bus	Bust	Bar	AMPs		KVA	PF	
Watts KVA	KVA	3	Phase		Nominal W	No	minal VA
•	-5,000				•		

Bus	Bus Bar	AMPs	KVA	PF
	•			
Watts KVA	KVAR	Phase	Nominal W	Nominal VA
,	•			
Min W	Min V	Max W	Max V	Della VA
•			-	
Weight & Balance Notes	No change			
Electrical Load Notes	No change			

			Configuration Chang	e		
Pre Modification P/N	Post Mod	ification P/N	Plate markings	Interchangeability Codes	Intermixability codes	
			•	_	4	
Configuration Change Comments		No change				



Engineering Order

EO NO: EY_777-27A0059-PART-3

REV : 08 REV DATE: 09/04/2017

Material Requirement								
Item	Part Number	Description	Qty/Unit	UOM	Main Part			
1	251W4110	HS TRIM ACTUATOR	1	Each	-			
Engine	eering Material Comm	Production Planning to ensure available expendables as listed in AMM 12-21-0 3. 1n case of adverse findings HSTA replients NOTE: As Of 12 Aug 2009, HSTA that is not in a airplane. HSTA which meets the requirem detailed inspection, freeplay check and lu	15, 27-41-13 and 29-11-0 lacement may be require n "known serviceable cor nents of this EO must be	oo. ed. adition" cannot e procured for s	be installed on a			

		Tool Requireme	nt	
Item	Part Number		Qty/Unit	Duration
1	J55002-37		1	-
Engin	eering Tools Comments	Special tooling necessary to do this EO; 1. Tool Kit: J55002-37 - Horizontal stability accomplish the ball nut freeplay inspect 1 of this EO is satisfactory. 2. Dial indicator with magnetic v-base, ro 3. The Tool Kit J55002-37 can be obtained address: Spares Customer Support, MC 36-65, Boelng Spares Dept, P.O.B. Washington 98124-2207, USA.	ction. However, any inspection do ds, and clamps or equivalent dia d from Boeing on rental or purch	one earlier using tool in r I indicator tool.



E.O.No.:	EY_777-27A0059-PART-3			
Orig. Date:	02/04/2011	Date:	09/04/2017	
Rev No:	08	Page	4 of 17	

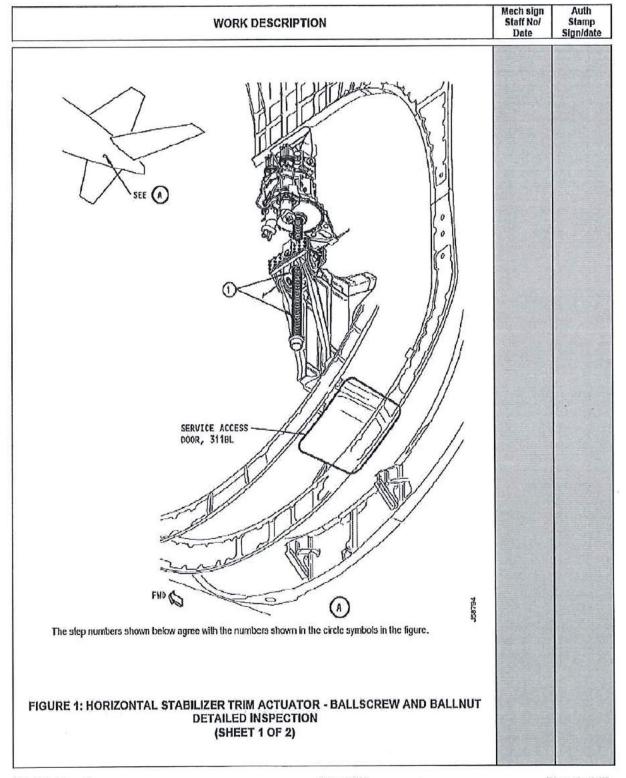
WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
A. GENERAL INFORMATION		
CAUTION: KEEP THE WORK AREA, WIRES AND ELECTRICAL BUNDLES CLEAN OF METAL PARTICLES OR CONTAMINATION WHEN YOU USE TOOLS. UNWANTED MATERIAL, METAL PARTICLES OR CONTAMINATION CAUGHT IN WIRE BUNDLES CAN CAUSE DAMAGE TO THE BUNDLES. DAMAGED WIRE BUNDLES CAN CAUSE SPARKS OR OTHER ELECTRICAL DAMAGE. NOTE:		
Obey all of the warnings and cautions given in the specified manual sections.		
 Unless shown differently, these dimensions and tolerances are used: Linear dimensions are in inches Tolerance on linear dimensions, other than rivet and bolt edge margins, is plus or minus 0.03 inch Tolerance on rivet and bolt edge margin is plus or minus 0.05 inch Angular tolerance is plus or minus 2 degrees 		
3. A General Visual Inspection is defined as: A visual examination of an interior or exterior area, installation or assembly to detect obvious damage, failure or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normal available lighting conditions such as daylight, hangar lighting, flashlight or drop-light and may require removal or opening of access panels or doors. Stands, ladders or platforms may be required to gain proximity to the area being checked.		
4. A Detailed Inspection is defined as: An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirrors, magnifying lenses, etc. may be necessary. Surface cleaning and elaborate procedures may be required.		
5. A replacement Horizontal Stabilizer Trim Actuator is in a known serviceable condition if records agree with one these conditions: a. The unit is new 		
 The unit is overhauled in accordance with the applicable Linear Motion CMM 27-41- 15, or Ratier Figeac CMM 27-44-02, or Umbra Cuscinetti CMM 27-41-06 and Boeing CMM 27-41-03 		
 c. The ballscrew assembly on the unit is new, or overhauled in accordance with the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02, or Umbra Cuscinetti CMM 27-41-06 and the unit is found satisfactory in accordance with the tests given in Boeing CMM 27-41-03 d. The condition of unit is found satisfactory in accordance with the tests and checks given in the applicable Linear Motion CMM 27-41-15, or Ratier Figeac CMM 27-44-02, or Umbra Cuscinetti CMM 27-41-06 and the tests given in Boeing CMM 27-41- 		
 Boeing Message ETI-ETI-17-0204-02B provides clarification that the ballscrew and ballnut inspection reference is AMM task 27-41-13/601 		



E.O.No.:	EY_777-27A0059-PART-3			
Orig. Date:	02/04/2011	Date:	09/04/2017	
Rev No:	08	Page	5 of 17	

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
B. WORK INSTRUCTIONS PART 3- Horizontal Stabilizer Trim Actuator Ballscrew-To-Ballnut Lubrication: 1. Lubricate the horizontal stabilizer ballscrew and ballnut as shown in 777 AMM 12-21-05.	PAS.	251,00071
2. If you remove a worn or damaged actuator and install a unit that is not in a known serviceable condition, then you must do these inspections before a subsequent flight: NOTE: Refer to Paragraph A.5 for the applicable known serviceable conditions. a. The Detailed Inspection as shown in FIGURE 1. Peccent any findings: NO. 5.893.65	e	
Record any findings: NO Freques	- 19/401/19	8 29 (NOV)
Note: If any of the listed conditions in FIGURE 1 and on the referenced AMM is noted, replacement of the actuator is necessary	-	
b. Ballscrew-to-Balinut Freeplay Inspection as shown in APPENDIX A.	24/NOV/ 7010	galvoulle







E.O.No.: EY 777-27A0059-PART-3 Orig. Date: 02/04/2011 Date: 09/04/2017 Rev No: 08 Page 7 of 17

	WORK DESCRIPTION				Auth Stamp Sign/date
STEP	TASK	NAME	PROCEDURE	REFERENCES	MORE DATA
1	Inspect	Horizontal Stabilizer Trim Actuator Ballscrew and Ballnut	Detailed Inspection	777 AMM 27-41-13/601	(a)(b)(c)

- (a) Do a Detailed Inspection for each of these conditions:
 - 1. Corrosion particles or metal particles in the grease or the ballscrew or ballnut.

- 2. Damage or cracking of the ballnut.
- Corrosion on the ballnut.
- Obvious signs of wear on the ballnut.
- Obvious differences in thread shape on the ballscrew.
- 6. Metal flaking on the ballscrew.
- 7. Cross threading, distortion, or stripping of the ballscrew threads.
- 8. Corrosion on the ballscrew.
- 9. Damage or cracking of the ballscrew.
- 10. Lifted or damaged ballnut return tubes.
- 11. Ball bearings that have escaped from the ballnut.

If the Detailed Inspection finds one or more of these conditions, then the condition must be corrected.

- A ballscrew and ballnut lubrication is included as a part of step 1.
- (c) If it is necessary to replace the actuator, refer to 777 AMM 27-41-13 as an accepted procedure.

FIGURE 1: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW AND BALLNUT DETAILED INSPECTION (SHEET 2 OF 2)



E.O.No.:	EY_777-27A0059-PART-3		
Orig. Date:	02/04/2011	Date:	09/04/2017
Rev No:	08	Page	8 of 17

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
Horizontal Stabilizer Trim Actuator - Ballscrew-to-Ballnut Freeplay Inspection		
 a. General (1) Use this test to inspect the freeplay between the ballscrew and the ballnut of the horizontal stabilizer trim actuator assembly. 		
 b. References 777 AMM 12-21-05, Horizontal Stabilizer Ballscrew, Ballnut, and Gimbal - Servicing 777 AMM 27-41-13, Stabilizer Trim Actuator - Removal/Installation 777 AMM 29-11-00, Main Hydraulic System - Maintenance Practices 		
c. Tools/Equipment J55002-37, Test Equipment - Horizontal Stabilizer Freeplay Dial Indicator (commercially available)		
d. Location Zones 311, Area Aft of Bulkhead, Left 312, Area Aft of Bulkhead, Right		
e. Access Panels 311BL, Service Access Door		Λ
f. Prepare for the Procedure (1) Lubricate the Horizontal Stabilizer Ballscrew Actuator Assembly. Refer to 777 AMM 12- 21-05 as an accepted procedure.	PAS 29	KOOLK
(2) Pressurize the main hydraulic system. Refer to 777 AMM 29-11-00 as an accepted procedure.	PAS. 29/1	onlie ()
(3) Use the STAB TRIM levers or switches to move the stabilizer to 6 units of trim on the stab trim position indicator.	Als 20/N	onlik ()
(4) Remove power from the main hydraulic system. Refer to 777 AMM 29-11-00 as an accepted procedure.	PAS 39/N	S) A
(5) On the control stand, set the C STAB cutout switch and the RSTAB cutout switch to the CUTOUT position.(a) Attach DO-NOT-OPERATE tags to the switches.	Pils oal	DOUGE DOUGE
 (6) Open these circuit breakers and attach DO-NOT-CLOSE tags: (a) On the E5-1 rack: 1) CBB2, STAB TRIM CNTL – R (b) On the E2-6 rack: 1) CBB2, STAB TRIM CNTL - C 	PD Soal	JAP OUD WOULK

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 1 OF 10)



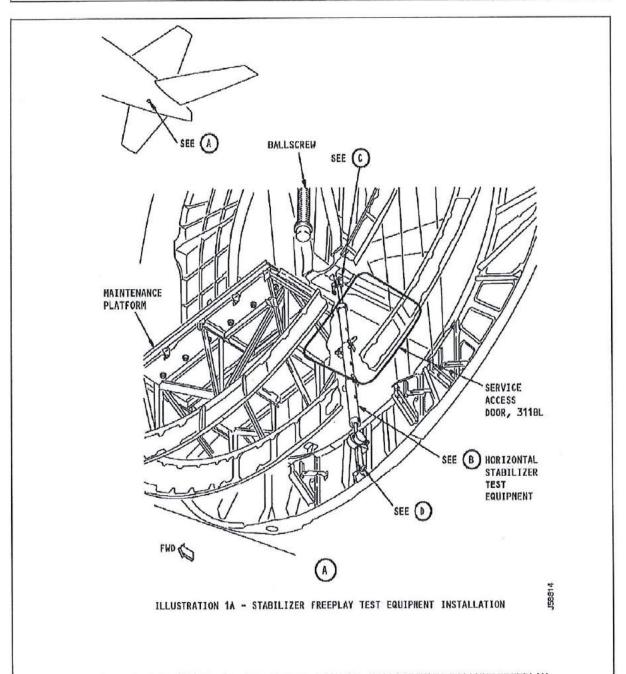
E.O.No.:	EY_777-27A0059-PART-3		
Orig, Date;	02/04/2011	Date:	09/04/2017
Rev No:	08	Page	9 of 17

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
(7) Get access to the stabilizer trim actuator through access panel 311BL.	PILS 201	Asilison
(8) Do these steps to install the horizontal stabilizer freeplay test equipment between the horizontal stabilizer and the lower fuselage (see Illustration 1A thru 1C):	PAS 24	mouls ()
(a) Measure the distance between the attachment points for the horizontal stabilizer freeplay test equipment.	Pils 20/N	anlır (A)
(b) Use the distance you measured to set the horizontal stabilizer freeplay test equipment to the correct of the three positions shown in Illustration 1B.	PAS 29/A	mlis)
(c) Connect one end of the horizontal stabilizer freeplay test equipment to the airplane.	Amo	palis ()
(d) Turn the horizontal stabilizer freeplay test equipment to adjust it, until the other end can be attached. NOTE: Adjust it so that approximately the same number of threads show at both ends of the horizontal stabilizer freeplay test equipment.	PAS 29/	ON IK
(9) Do these steps to install a dial indicator between the stabilizer ballscrew and the ballnut (see Illustration 2A thru 2C).	Pis 29/10	
(a) Attach a magnetic base (commercially available) to the stabilizer ballscrew below the ballnut.	Pels IV	Malk (B)
(b) Install the dial indicator on the support arm of the magnetic base so that the end of the dial indicator touches a flat spot on the ballnut. NOTE: The dial indicator must be installed so that it can measure the downward movement of the ballnut relative to the ballscrew.	PAS29	Naul R CORPO

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 2 OF 10)



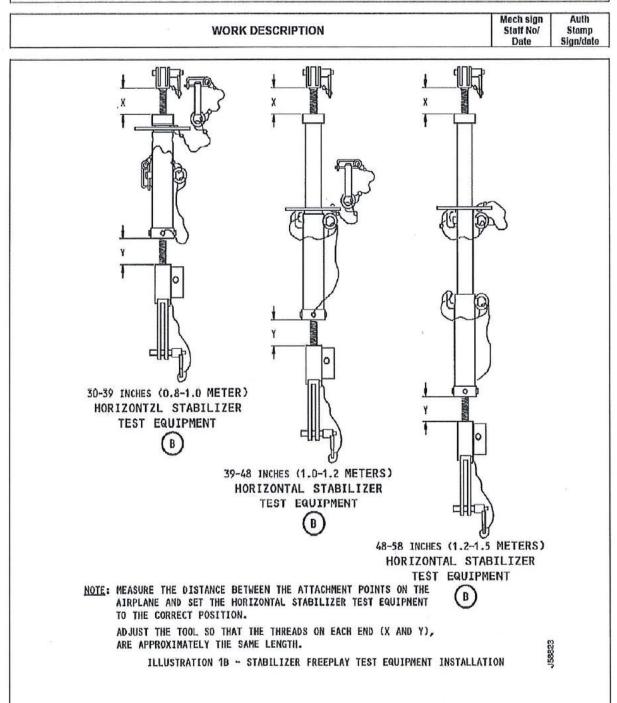
	Mech sign	Auth
WORK DESCRIPTION	Staff No/	Stamp
	Date	Sign/date



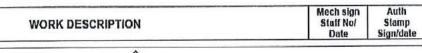
Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 3 OF 10)

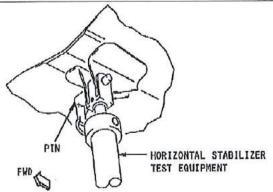


E.O.No.:	EY_777-27A0059-PART-3			
Orig. Date:	02/04/2011	Date:	09/04/2017	
Rev No:	08	Page	11 of 17	



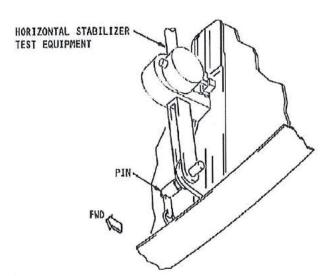






UPPER ATTACHMENT





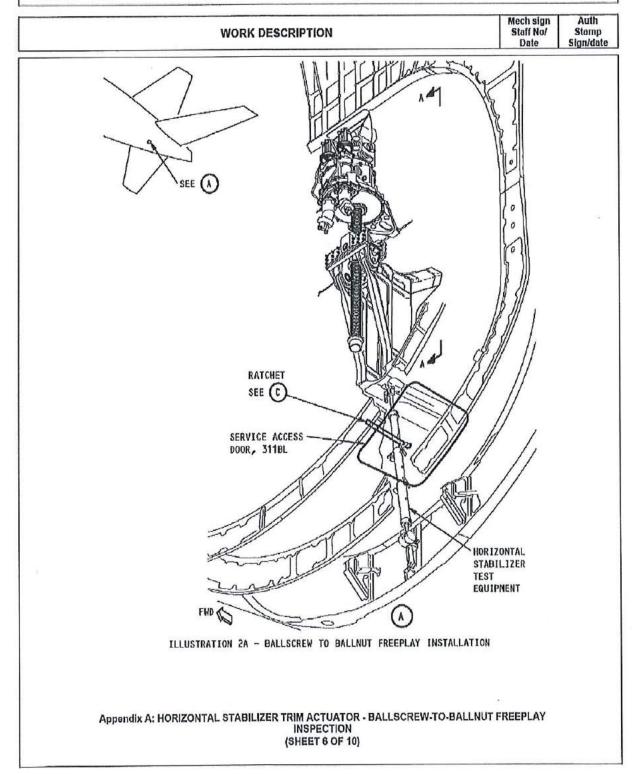
LOWER ATTACHMENT

0

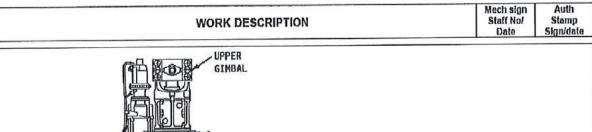
ILLUSTRATION 1C - STABILIZER FREEPLAY TEST EQUIPMENT INSTALLATION

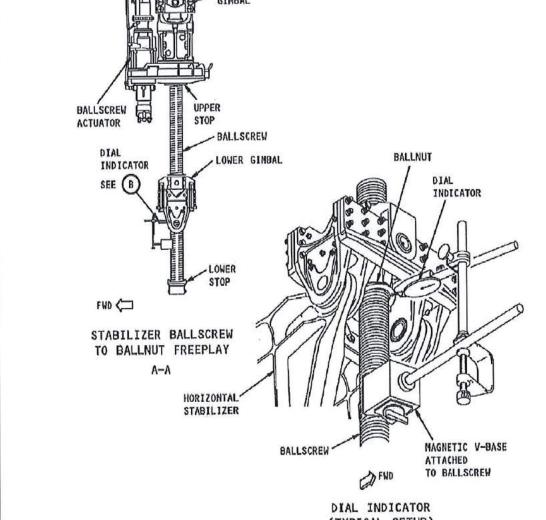
Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSGREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 5 OF 10)











DIAL INDICATOR (TYPICAL SETUP)

ILLUSTRATION 2B - BALLSCREW TO BALLNUT FREEPLAY INSTALLATION

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 7 OF 10)



E.O.No.: EY_777-27A0059-PART-3

Orig. Date: 02/04/2011 Date: 09/04/2017

Rev No: 08 Page 15 of 17

WORK DESCRIPTION

Mech sign Auth
Staff No/ Stamp
Date Sign/date

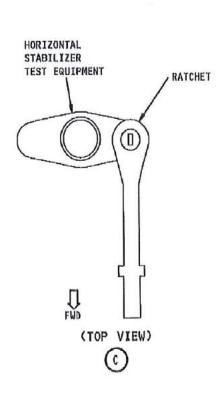


ILLUSTRATION 2C - BALLSCREW TO BALLNUT FREEPLAY INSTALLATION

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 8 OF 10)



E.O.No.:	EY_777-27A0059-PART-3			
Orig. Date:	02/04/2011	Date:	09/04/2017	
Rev No:	08	Page	16 of 17	

	WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
g.	Procedure (1) Set the dial indicator to zero. NOTE: On the ground with the stabilizer at the neutral position, the stabilizer center of gravity loads the ballscrew in the upward direction which puts the ballscrew in compression.	PUS 29/A	OUD J
	CAUTION: DO NOT APPLY MORE THAN 2500 POUNDS AS INDICATED ON THE FORCE GAUGE OF THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT. ALSO, DO NOT APPLY POWER TO THE STABILIZER TRIM ACTUATOR WITH THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT INSTALLED. THE HORIZONTAL STABILIZER FREEPLAY TEST EQUIPMENT CAN BREAK OR CAUSE DAMAGE TO THE AIRCRAFT. (2) Slowly apply a downward force on the ballscrew by doing the following: (a) Turn the horizontal stabilizer freeplay test equipment until the dial indicator stops moving. NOTE: To apply a downward force on the stabilizer, the test equipment must be	PIS.) (iii)
	turned in a clockwise direction that shortens the test equipment length.	29/1	ONI 18
	(b) Use a ratchet to turn the horizontal stabilizer freeplay test equipment to apply 2250 pounds as indicated on the force gauge.	PIS. 29/A	R Ilva
(3	Record the indication on the dial indicator. This is the ballscrew-to-ballnut freeplay.	PAS 24	D CO
(4	Slowly release the downward force that was applied by the horizontal stabilizer freeplay test equipment.	PAS	Wig (
(5	If the freeplay is less than 0.0016 inch (0.04 mm), then the stabilizer ballscrew-to-ballnut freeplay measurement may be incorrect.	6 Am	A
	(a) Verify that the procedure was done correctly by checking that the stabilizer was loaded in the correct direction and that the dial indicator is functioning normally.	P.115.	NIIR
(6	If the ballscrew-to-ballnut freeplay is greater than or equal to 0.0016 inch (0.04 mm) and less than 0.016 inch (0.40 mm), then the stabilizer ballscrew-to-ballnut freeplay is within the permitted limit. Freeplay is within limit:Yes No	PAS 21/NO	
(7	If the ballscrew-to-ballnut freeplay is greater than or equal to 0.016 inch (0.40 mm), then the ballscrew-to-ballnut freeplay is more than the permitted in-service wear limit. If the ballscrew-to-ballnut freeplay is more than the permitted in-service wear limit, then replace the horizontal stabilizer trim actuator assembly. Refer to 777 AMM 27-41-13 as an accepted procedure. Replacement done: Yes _X_ No If yes, record the following actuator details:	PHS.	2
	PN Off: SN Off:		
	PN On: SN On:	27/1	100/18
Appe	ndix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FI (SHEET 9 OF 10)	REEPLAY IN	SPECTION



E.O.No.:	EY_777-27A0059-PART-3			
Orig. Date:	02/04/2011	Date:	09/04/2017	
Rev No:	08	Page	17 of 17	

WORK DESCRIPTION	Mech sign Staff No/ Date	Auth Stamp Sign/date
h. Put the Airplane Back To Its Usual Condition (1) Remove the dial indicator base and dial indicator from the ballscrew and ballnut.	PAS: pol	A (185)
(2) Remove the horizontal stabilizer freeplay test equipment from between the lower fuselage and the horizontal stabilizer.	G Amo	100 (100) (100)
(3) Close access panel 311BL.	A Pas	(I)
(4) Remove the DO-NOT- OPERATE tags, and set the C STAB cutout switch and the R STAB cutout switch to the NORM position.	PAS 21	lawik (
(5) Remove the DO-NOT-CLOSE tags, and close these circuit breakers:	1	- 0
(a) On the E5-1 rack:	E March	
1) CBB2, STAB TRIM CNTL-R	PAUS	(100)
(b) On the E2-6 rack:	1	Y
1) CBB2, STAB TRIM CNTL - C	21/1	W/18

Appendix A: HORIZONTAL STABILIZER TRIM ACTUATOR - BALLSCREW-TO-BALLNUT FREEPLAY INSPECTION (SHEET 10 OF 10)



TARMAC ARAGON CTRA A-1512 DE ALBARRACIN KM6 44396 Teruel - Spain VAT # ES B-44241933

WORK CARD

Print date 28/11/2018 14:42 SCAN REF: 60103_560_1

page 1 of 2

Reference MR- 4484		MP 12- Repeat	006-00-01	Part. 1 R. Task code	. 0 Letter check
Order Ref Y/Ref Date	E	VO- 60103 Y_B777_12-006-00-01 8/11/2018	Title HORIZONTAL STABILIS ATA 1221	ZER BALLSCREW ACTU	ATOR
		AIRCRAFT	COMPONENT	<u> </u>	O-60103
		Reg. A6-LRC Type B777-237 GE90-110B MSN 36302	P/N- S/N-	MANDATORY WP-560 MNT.PROG: Prepared by	(Y/N) Y ETOPS (Y/N) N Juan Antonio MARTIN
LIMIT	FH FC Date	NEXT DUE MANAGE	D BY THE OPERATOR	Received by	eSigned

COMMENT

(OPIZO	ONE REQUESTED WORK	ACCESS	S WORK PERFORMED
1 311 312	Horizontal stabilizer ballscrew actuator Lubricate the stabilizer frim ballscrew and ballscrew actuator IAW AMM 12-21-05-600 TASK CARD 12-006-00-01 REFERENCE: AMM 12-21-05-600 REV 84 DATE 05 SEP,2018 TASK CARD 12-006-00-01 MATERIALS: QTY P/N: D00633 BMS3-33// GREASE AEROSHELL 33 //Rev.1/Rev.Date:15/06/2016 8:36:44 SKILLS: MEC /	311BL	LUBRICATE THE STABILIZER TRIN BALLSCREW AND BALLSCREW ACTUATOR PERFORMED. NO FINDING. DATE 29/11/2018 STAMPISIGN PLS. 2 Maries

Engineer ID h	h:mm Engineer ID	hh:mm	Deferred	DEF	NON ROUTINE	NRC Comp	lied with C/W
#1 PAS	#5		Ref:		Ref:	(NRC	possible)
#2 PNI	#6		n P/	N - DESC	S/N	VALI	OUNTIL
#3	#7		s	A ACT OF THE CASE		VALU	D UNTIL
#4	#8		원 전	N - DESC	S/N T INSTALLED	VALII	DONTIL
					REF		ainum tun
P/N	S/N	POS	.			N	100
DUPLICATE	safety inspection has been carried	5-5,4		ED AUTH N°	DATE	TRIG	SIGN/STAMP
control system of the aircra	it / component functions correctly, e control system is assembled and	and in respect of t	lhe				
CERTIFICATION		TRIG	CA	7	PLACE TEL		reserved
		DATE &	HOUR 22/10	119	SIGN/STAMP/	185)	for administration
		AGREEM	ENT NA E	145 120	3 0	109	11



TARMAC ARAGON CTRA A-1512 DE ALBARRACIN KM6 44396 Teruel - Spain VAT # ES B-44241933

WORK CARD

ROUTINE

page 2 of 2

Print date 28/11/2018 14:42

Order Ref.: WO-60103

Title HORIZONTAL STABILIZER BALLSCREW ACTUATOR

COMPONENT REMOVAL

P/N

NIL

DESCRIPTION

REASON

POS

SERIAL

COMPONENT INSTALLATION

P/N

NIL

DESCRIPTION

SERIAL

CERTIFICATE

POS

MATERIAL ISSUED

QUANTITY P/N

DESCRIPTION

FIN

IPC

العاملات							•		
ÖRIGINAL CO	PY						٠		
					JOB CARE	<u> </u>		REV NO.	24/ 04-MAY-15
to L	الات					CARD SEQ:	59		
	-JAD	EY_B777_27-440-00-01					PAGE	1/3	
X E JL	WAYS				K PACK REFER				004005
			C3+C	:1+C	abin Retrofit 2	2nd Phase		VISIT NO.	981305
Abu Dhabi International	l Airport	A/C TYPE	B777-20	00LR	, REGN. A	6-LRC MSN	36302	CHARGEABL NON-CHARG	
New Airport Road Abu Dhabi United Arab Emirate	es	WORK ORDER			*AUH1314	TITA ECONTRA MONTAL MANININA M		Δ	F
	,	LOCATION	I / DEPT.	E		tions/EYEng AIRI ERVICES	FRAME		.
CUSTOMER CODE	EY	TITLE	Stabili	izer	Freeplay			PROGRAM TYPE	AMS - MANDATORY
MAN HOURS	6.00				INTERVAL			TASK	FC
MEN ELAPSED TIME	6.00	FH 1800		<u> </u>	FC	DY 1825	<u></u>	ATA	27
ZONE		Upper Half		je				ZONE	200
ENSURE THA	T ALL SETU	PROCEDUR	RE AND SA	FETY	PRECAUTIONS I	DENTIFIED WITH	IN THE APP	PLICABLE TASKS A	RE FOLLOWED
/						•		CERTIF	ICATION
\ \									
STEP	. ,	TA	SK DESC	RIPT	ION / REQUIREI	MENT		MECH Sign/Emp.No Date	INSP Sign/Stamp Date
STEP	REF: FAA	AD 2009		RIPT	ION / REQUIREI	MENT		Sign/Emp.No	Sign/Stamp
STEP			0-14-06	RIPT	ION / REQUIRE	MENT		Sign/Emp.No Date EYEng	Sign/Stamp Date EYEng
		AD 2009	-14-06	,	,	MENT	LSCREW	Sign/Emp.No Date EYEng	Sign/Stamp Date EYEng 2598 EYEng 2598
	Function FREEPLAY	AD 2009	-14-06	,	,	·		Sign/Emp.No Date EYEng	Sign/Stamp Date EYEng 2598
	Function FREEPLAY	AD 2009	-14-06	,	,	LNUT to BAL		Sign/Emp.No Date EYEng	Sign/Stamp Date EYEng 2598 EYEng 2598
10	Function FREEPLAY	A AD 2009 ally che	ck the	STA	BILÍZER BÁL NO SIGN OFF	LNUT to BAL	í	Sign/Emp.No Date EYEng	Sign/Stamp Date EYEng 2598 EYEng 2598
10	Function FREEPLAY *** FOR PLEASE F	A AD 2009 ally che INFORMAT	ck the	STA	BILÍZER BÁL NO SIGN OFF OR SUGGESTI	LNUT to BAL	<i>*</i> *	Sign/Emp.No Date EYEng	Sign/Stamp Date EYEng 2598 EYEng 2598
10	Function FREEPLAY *** FOR PLEASE F IMPROVEMENT HAD METIHAD M	A AD 2009 Ally che INFORMAT EEDBACK IENT WITH IAINTENAN	CE PROC	STA: SUE (ONTE: GRAM	BILÍZER BAL NO SIGN OFF OR SUGGESTI NT OF THIS TEAM AT	LNUT to BAL REQUIRED *	** 'O	Sign/Emp.No Date EYEng 2598	Sign/Stamp Date EYEng 2598 EYEng 2598

UAE.145.0002	accordance with CAR 145 /-EASA-Part-1									
/	aircraft component is considered ready for release to service. (*Delete not applicable)									
EASA.145.0442										
UAE.145.0010 (OLD:GCAA-EM	/G/487)									
OTHER	·		,							
INDEPENDENT INSPECTION REQU	JIRED	YES		NO	X					
NOTE: INDEPENDENT INSPECTIO	NS MUST BE RECORDED AND CERTIFI	ED IN A	N APPROVED MANNER							
				•	ı					

NRC's Raised	NRC NO(S): NIC	Add. Work AWS Sheets ** raised:	NO(s)	CARD CLEAR
YES NO		YES NO		EYEng 2598

ORIGINAL COPY 24/ 04-MAY-15 **REV NO. JOB CARD CARD SEQ:** 59 الإتحار EY B777 27-440-00-01 2/3 **PAGE WORK PACK REFERENCE** 981305 VISIT NO. C3+C1+Cabin Retrofit 2nd Phase CHARGEABLE Abu Dhabi International Airport REGN. A6-LRC 36302 A/C TYPE B777-200LR **NON-CHARGEABLE** PO Box 35566 New Airport Road Abu Dhabi WORK United Arab Emirates ORDER *AUH13142954* EYEng AUH Operations/EYEng AIRFRAME LOCATION / DEPT. **SERVICES CERTIFICATION MECH INSP** TASK DESCRIPTION / REQUIREMENT **STEP** Sign/Emp.No Sign/Stamp Date **Date** ampfeedback@etihad.ae TICK AS APPLICABLE Certifies that the work specified, except as otherwise specified, was carried out in accordance with CAR 145+ EASA Part 145* and in respect to that work, the aircraft / UAE.145.0002 aircraft component is considered ready for release to service. (*Delete not applicable) EASA.145.0442 ✓ UAE.145.0010 (OLD:GCAA-EM/G/487) OTHER X INDEPENDENT INSPECTION REQUIRED YES NOTE: INDEPENDENT INSPECTIONS MUST BE RECORDED AND CERTIFIED IN AN APPROVED MANNER. REFERENCES TC_B777 JIC/B777/EY:27-440-00-01 TC REV No:2015/05 Date:2015-05-05 APPLICABLE ZONES ASSOCIATED DOCUMENTS / RELATED CARDS No associated documents/related cards defined ACCESS PANEL REQUIREMENTS 311BL MATERIAL REQUIREMENTS **BATCH NUMBER** QTY REQD DESCRIPTION PART NUMBER No materials assigned to this task

NRC's Raised	NRC NO(S):	Add. Work Sheets raised:	AWS NO(s)	CARD CLEAR
YES NO	,	YES NO		EYEng 2598

DESCRIPTION

QTY REQUIRED

TOOLING REQUIREMENTS

PART NUMBER

No tools assigned to this task

ORIGINAL COPY										
					DD			REV NO.	24/ 04-MAY	/-1 <u>5</u>
الاتحار			J	OB CA	KD			CARD SEQ:	59	
ETHAD		EY_B777_27-440-00-01							3/3	
A F R W A T S				PACK RE				WOIT NO	00420	15
		C3+C	1+Ca	abin Retro	ofit 2nd Pl	nase		VISIT NO.	98130	JO
Abu Dhabi International Airport PO Box 35566	A/C TYPE	B777-20	0LR	REGN.	A6-LRC	MSN	36302	CHARGEAB NON-CHARG		X
New Airport Road Abu Dhabi United Arab Emirates	WORK ORDER	*AUH13142954*						Δ	\F	
	LOCATION	/ DEPT.	ΕY	Eng AUH C	perations/E SERVICE		FRAME		\	

NRC's	NRC NO(S):	Add. Work AWS NO(s) Sheets	CARD CLEAR
Raised		raised:	OAND OLL/III
YES		YES	EYEng
NO 📈		NO 🗔	2598

ETI

BOEING 777 TASK CARDS

AIRLINE CARD NO.		Stal	^{ਜਜ਼} bilizer Free	BOEING CARD NO. 27-440-00-01		
DATE	TASK FUNCTIONAL				RELATED	CARD
TAIL NUMBER	WORKAREA STAB COMPT	version 1.1 1.2	THRESHOLD 25000 FH 1875 DY	25000 FH 1875 DY	APPLICAI AIRPLANE ALL	ENGINE ALL
STATION	SKILL AIRPL	NOTE	1070 51	10,001	ALL	MLL
		ACCESS 311BL			ZONE 211 212 311 312	***************************************

Functionally check the STABILIZER BALLNUT to BALLSCREW FREEPLAY.

INTERVAL NOTE: Whichever comes first

A. References

Reference	Title
AMM 12-21-05-600-801	Horizontal Stabilizer Ballscrew Actuator Assembly - Lubrication (P/B 301)
AMM 27-41-00-700-812	Horizontal Stabilizer Trim Actuator Freeplay - Test (P/B 501)
AMM 27-41-13-420-801	Stabilizer Trim Actuator - Installation (P/B 401)
AMM 29-11-00-860-801	Main Hydraulic System Pressurization (P/B 201)
AMM 29-11-00-860-808	Main Hydraulic System Power Removal (P/B 201)

B. Tools/Equipment

NOTE:

When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

Reference	Description					
SPL-4138	Assembly - Test Eqpt, Horizontal Stabilizer Freeplay					
	(Part #:]55002-37, Supplier: 81205)					
STD-1238	Indicator - Dial	ARISTON WATER				

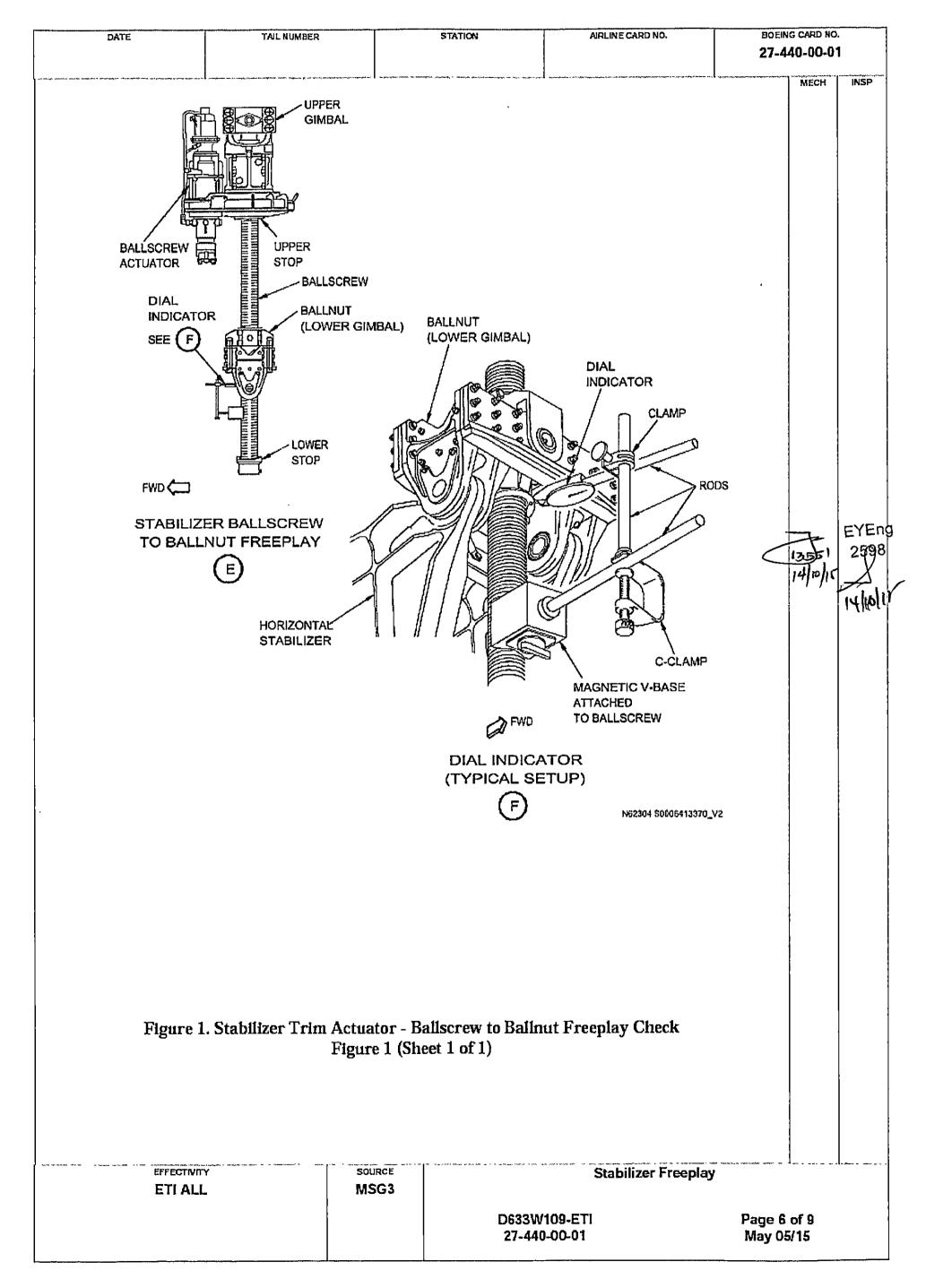
EFFECTIVITY ETI ALL	SOURCE MSG3	Stabilizer Fr	eeplay
		D633W109-ETI 27-440-00-01	Page 1 of 9 May 05/15

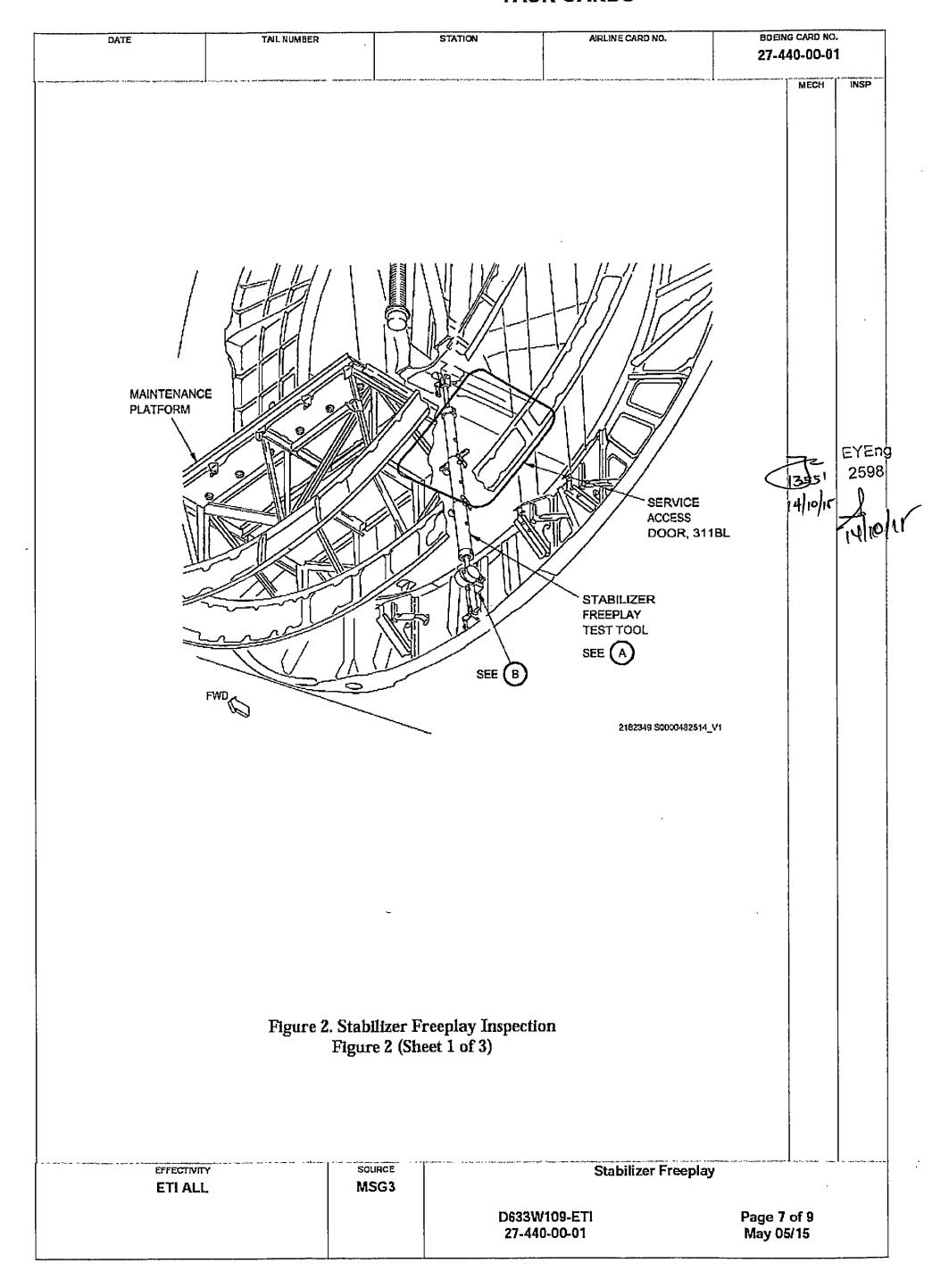
				ATION	AIKLINE CARD NO.	27-440-00-01		
	001 - (20-802 019, 021 - 025, 027 - 02 izer Trim Actuator Ba			lay Test	MECH	H INSP	
A.	Gene	eral						
1 1.	(1)	Use this test to check ballscrew and the ball	Inut. To che or and the ba	ck for freeplay allscrew, do th	horizontal stabilizer actory between the horizontal is task: Horizontal Stabi 7-41-00-700-812.	14/10/	EYEn 2598 V	
В.	Prep	are for the Procedure				130	_ EYEn 1 25∯8	
	SUBT	ASK 27-41-13-640-002 -				14/0)		
	(1)	Lubricate the stabilize Actuator Assembly -		·	Horizontal Stabilizer Ba (12-21-05-600-801.	allscrew	14/10	
	SUBT	'ASK 27-41-13-860-035 -					-EYEnd	
	(2)	Do this task: Main Hy TASK 29-11-00-860-	•	stem Pressuriz	ation, AMM	13/1	1 2508 15 14 10	
	SUBT	'ASK 27-41-13-860-036 -					- EY <u>E</u> ng	
	(3)	Use the STAB TRIM on the stab trim positi			ve the stabilizer to 6 unit	s of trim 14/10	25\$8 1410	
	SUBT	'ASK 27-41-13-860-037 -				132	EYEn	
	(4)	Do this task: Main Hy TASK 29-11-00-860-	_	stem Power Re	emoval, AMM	14/10)	25,08 14 10 l	
	SUBT	'ASK 27-41-13-860-038 -				-3-2	EYEnç	
	(5)	On the control stand, switch to the CUTOU			vitch and the R STAB co	10ut 13\f	ार्गापी	
		(a) Attach DO-NO	T-OPERA	TE tags to the	switches.	7	EYEn	
	SUBT	'ASK 27-41-13-860-039 -			(13)	2598		
	(6)	Open these circuit bre	eakers and a	ttach DO-NO	T-CLOSE tags:	17119	क्ष । त्रीरा	
		(a) On the E5-1 ra	ck:					
		[1] CBB2,	STAB TRIN	M CNTL - R				
	•	(b) On the E2-6 ra	ck:					
		[1] CBB2,	STAB TRIN	M CNTL - C			EYEng	
	SUBT	ASK 27-41-13-010-005 -				14/10	2030	
	(7)	Get access to the stab	ilizer trim a	ectuator throug	th this access panel:	(17)	14/10	
		Number		Name/Lo				
	arro	311BL	<u></u>	Service A	ccess Door		∠EΥΕπο 1 2598	
		ASK 27-41-13-480-014 -	all the CDI	A120 knotroe	ıtal stabilizer freeplay	test eggt 14/0		
	(8)	between the horizonta				test edpt, / /e/	" गिए	
EFF	ECTIVITY	SOL	IRCE		Stabilizer Freeplay		.a, ,,, ,, , , , , , , , , , , , , , , ,	
E	ri all	MS	G3		,			
•			l l					

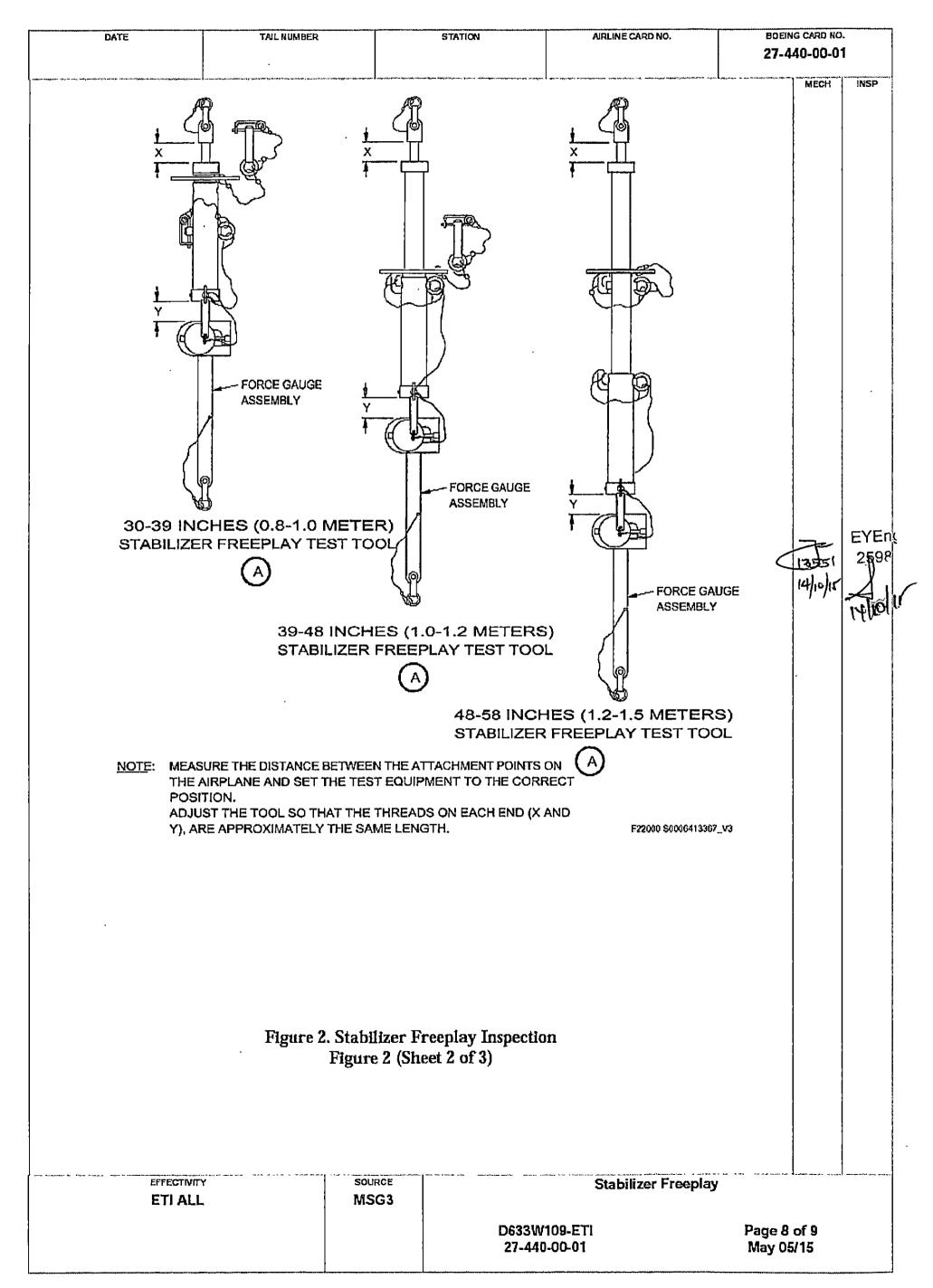
DATE	TAIL NUMBER	STAT	ION AIRLINE CARD	27-440	-00-01
es e empresa como como como como como como como com	, ,	e distance betwe stabilizer freep	en the attachment points follay test eqpt.	r the SPL-4138	EYEng
	, ,	₩	red to set the SPL-4138 ho prrect of the three positions	rizontal stabilizer ₁₄	2598
	(c) Connect on eqpt, to the		4138 horizontai stabilize	er freeplay test	
	* *	PL-4138 horizor ner end can be at	ital stabilizer freeplay tesi tached.	t eqpt to adjust it,	
	NOTE:	threads sho	that approximately the san wat both ends of the SPL-4 reeplay test eqpt.	•	
SUBTA	ASK 27-41-13-480-015	•			EYEng
(9)	Do these steps to i		cator between the stabilizer e 1:		10 K
	• •	_	nmercially available) to the (of the lower gimbal) for th		14/1010
			the support arm so that the on the top of the ballnut.	end of the dial	
	NOTE:		licator must be installed so I movement of the ballnut r		
C. Proce	<u>e</u> dure			-	EYEng
	ASK 27-41-13-970-003			(13	2598
(1)	Set the STD-1238	dial indicator to :	zero.	14,	13/10/11
	st	abilizer center of	h the stabilizer at the neutra gravity loads the ballscrew its the ballscrew in compres	in the upward	
SUBTA	ASK 27-41-13-750-002	•	and builded in our processing		
(2)	IN he N A fr st	NDICATED ON Orizontal stabiliz OT APPLY PO CTUATOR WI eeplay test eqpt abilizer freeplay	MORE THAN 2500 POUT THE FORCE GAUGE S zer freeplay test eqpt. AL WER TO THE STABILI TH THE SPL-4138 horize INSTALLED. THE SPL y test eqpt CAN BREAK HE AIRCRAFT.	PL-4138 SO, DO ZER TRIM ontal stabilizer -4138 horizontal	EYEng 2598 14/14/1
	Slowly apply a do	wnward force on	the ballscrew by doing the	following:	
•	` ·	PL-4138 horizon ops moving (Fig	ital stabilizer freeplay test ure 2).	t eqpt until the dial	
				i i	
EFFECTIVITY ETI ALL		SOURCE MSG3	Stabilize	r Freeplay	

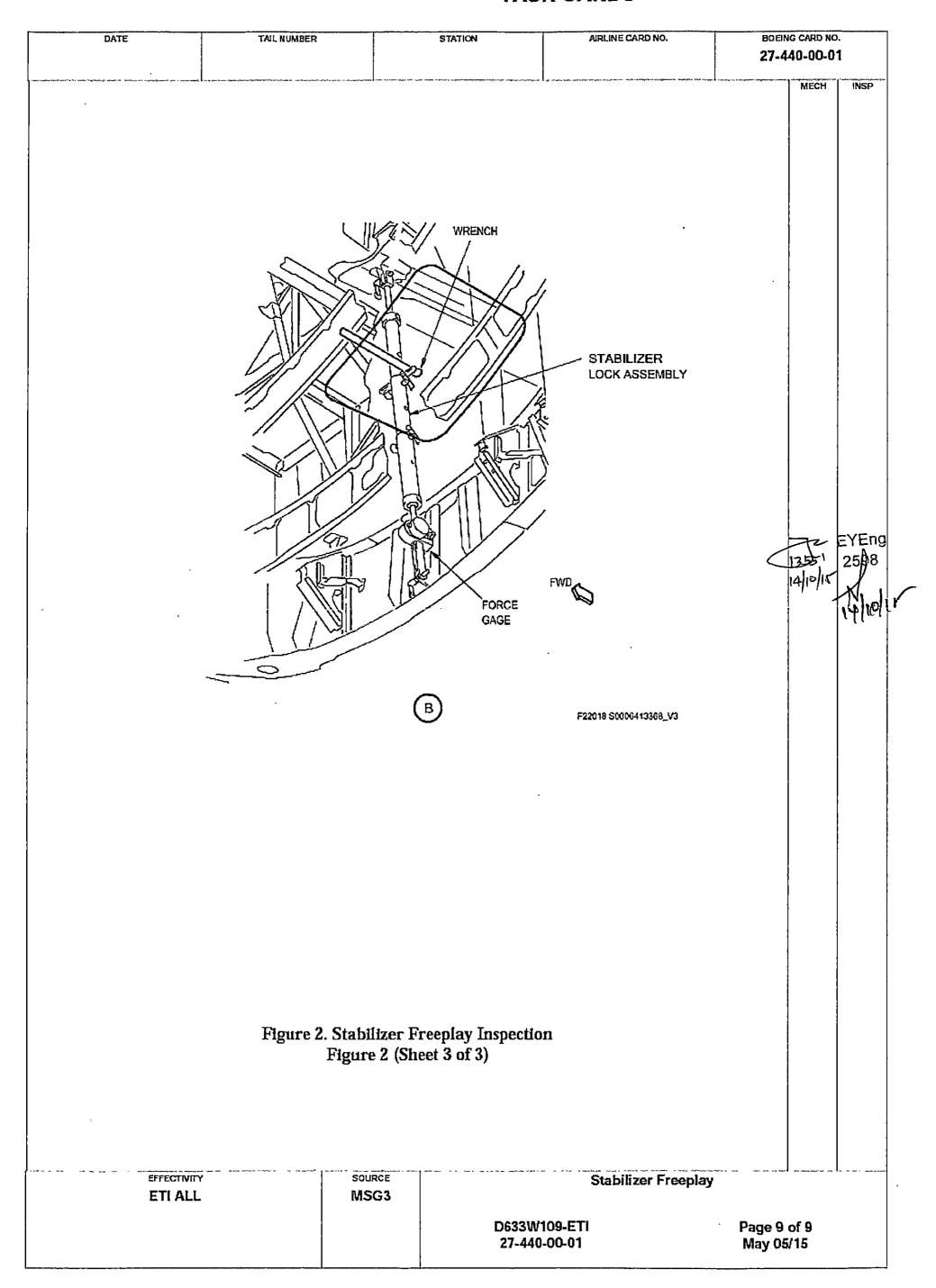
DATE		TAIL NUMBE	R	STATION	AIRLINE CARD NO.	BOEING CAP	
		-				27-440-0	U-U
man ut kirishan ung magangan af dagan. Sarah maga pendakan sayamada bengabbag u sa sada Amadem anga maga maga	garan yangariyang a Buunir	(b) Use a	ratchet to furn	the SPI _4138 hot	izontal stabilizer freepl		CH INSP
		• •		as indicated on the		13	
		<u>NOTI</u>	must	be turned in a clo	force on the stabilizer, the ckwise direction that sho	,	14000
	SUBT	'ASK 27-41-13-97		length.		130	EYEng 2598
	(3)				v, record the indication o to ballnut freeplay.	n the	relied
	SUBT	ASK 27-41-13-03	0-003 -				
•	(4)	CAUTION:	ON THE H EQUIPME CAUSE DA	IORIZONTAL S ENT. A COMPRE	PLY A COMPRESSION TABILIZER FREEPLACESION CONDITION VEHICLE HORIZONTAL STAN	AY TEST 139 WILL	1 7770
•				, slowly release the I stabilizer freepla	e downward force that wa ay test eqpt.	as applied	
				ge on the SPL-413 D-1238dial indicat	8 horizontal stabilizer i or.	reeplay	
		[1]	the STD-1238		and there is no movement ove the SPL-4138 horiz		
		[2]		to put a compress	ion load on the SPL-413 est eqpt.	8	
			NOTE:	eqpt can be dam	norizontal stabilizer free naged if it is in a compres	sion load	EYEnç
	SUBT	ASK 27-41-13-22	0-003 - NA SC	NIC A6-LLC	. IS NOT IN THIS CO	17AG ORY LEYEr	2508
•	** O	N A/C 022 - 0	22	EYEng 2598	Introlor	2598	
·	(5)	•		.004 in. (0.102 min nt may be in error	i), then the stabilizer ball	screw to	
		stabili		in the correct dire	ctly by checking that the ction and that the dial inc		
÷		ASK 27-41-13-22 N A/C 001 - 0		027 - 027, 201 - 20)5. 301 <i>-</i> 999	204	
	(6)	If the freepla	y is less than 0		nm), then the stabilizer b	allscrew 136	EYEn 2598
: `		stabili		in the correct dire	ctly by checking that the ction and that the dial inc		refuli
		ASK 27-41-13-22 N A/C 022 - 0					
	CTIVITY I ALL	ne vegetyphysge at to hid to administra	SOURCE MSG3		Stabilizer Freeplay		- Section 1973 Sections 1984 - Section
·	•				109-ETI)-00-01	Page 4 of 9 May 05/15	

DATE		FAIL NUMBER		STATION	AIRLINE CARD NO.	27-440-00-			
NA SINCE	46-6	LC UNOTIX	THIS CAT	ACORY, EYE	ng Sylvolv	MECH	INSP		
	(7)	II the parisciem	to bannar me	schian is Breater r	han or equal to 0.904 in	licerous to Tiens	EYEng		
		A Sept was well and common and in the case on the T		man to the second section of the second section of the second section	d this freeplay check is	יאאא	2598		
,	SUBT	ASK 27-41-13-220-0	06 -		•		14/10/		
	** O	N A/C 001 - 019	021 - 025, 0	27 - 027, 201 - 20	<u>05,</u> 301 - 999	13.5	EYEN 2598		
	(8)	(0.0406 mm) ar	id less than 0	.016 in. (0.406 m	han or equal to 0.0016 i m), then the stabilizer b I this freeplay check is	allscrew to "'/''	14/10/		
	SUBT	ASK 27-41-13-800-0							
THE PREC 16	If the ballscrew to ballout freeplay is greater than or equal to 0.016 inch (0.46 mm), then the stab trim actuator is beyond the maximum in-service wear lim and the actuator needs to be removed and overhauled. Do this task: Stabilized Trim Actuator - Installation, AMM-TASK 27-41-13-420-801.						EYENG 2588 14/10/		
0.016". EYEng	/ h / -	NOTE:			eplay is greater than 0.0	35 inch			
- 14/10/11 ²⁵⁹⁸	•	1,011.			actuator has excessive	j.			
14(1-10)			damaged.	10.00 day 2.200d	CEMENT DONE. 2	YEng	EYEn		
	SUBT		-74101 L 1355	2698					
	(10)	•		actuator assemble TASK 27-41-13	y, d o this task: St abilize 3-420-801.	er Trim	reliali		
D.	Put t	he Airplane Bac	k To Its Usu	al Condition		(2)	EYEng		
	SUBT	ASK 27-41-13-080-0	09 -			14/19	14101		
	(1)	(1) Remove the dial indicator base and dial indicator from the ballscrew and ballnut.							
:	SUBT	SUBTASK 27-41-13-410-004 -							
	(2)	Close this access panel:							
·		Number		Name/L	, ., , <u>, </u>	, ,	1 Aliel		
	CUDT	Service Access Door							
		TASK 27-41-13-860-040 - Remove the DO-NOT-OPERATE TAGS, and set the C STAB cutout switch and							
	(3)	the R STAB cut	switch and Pijioji	14101					
		TASK 27-41-13-860-041 -							
	(4)	Remove the DO-NOT-CLOSE TAGS, and close these circuit breakers:							
		(a) On the E	5-1 rack:			14/10/	14/16/		
		[1] C	BB2, STAB	TRIM CNTL - R					
	•	(b) On the E	2-6 rack:						
		[1] CBB2, STAB TRIM CNTL - C							
	SUBT	SUBTASK 27-41-13-860-042 -							
	(5)	If necessary, res	11441/121	1 HION					
				•		,			
			•		•		•		
,	ALL		SOURCE MSG3		Stabilizer Freepl	ay			
					7109-ETI 0-00-01	Page 5 of 9 May 05/15			











TRACE

Aircraft Readiness Log

Pgm Id/Model # 777 /237LR

Line Number: 629
Airplane Identification
W0629/WD013/W7389

Page 116
 Customer
 AIR INDIA

Zone MPD	Part Number Part Description Vendor Name	Used On/Alt Authority Cage Code/SRC/ATA/LL/PV/AD	Qty	Serial Number	Miscellaneous Location X-Station/Y-BL/Z-Wtr
DG006 312	401-09410-10 HYDRAULIC BRAKE MOOG INC MOOG AIRCRAFT GRO	251W4110/ 19156/SFE/27/ / /	1	4381	RH
DG007 311	7824300-4 BALL SCREW THOMSON SAGINAW BALLSCREW C	251W4110/ 0A335/SFE/27/ / /	1	Ø185	2248/BL0/256
DG009 311	251W411Ø-18 STAB TRIM ACTUATOR ASSY BOEING CO THE	251W4100/) 81205/SFE/27/ / /	1	ØØØ18ØØ9Ø)	2248/BL0/256
DG010 311	9000413-3 STAB TRIM XMTR	251W4380/ 96774/SFE/27/ / /	1	2001	2246/L31/306
311	HONEYWELL INTL. INC.	901/4/SFE/21/ / /	1	1999	2246/L18/306
DG011 312	9000413-3 STAB TRIM XMTR HONEYWELL INTL. INC.	251W4380/ 96774/SFE/27/ / /	1	1938	2246/R18/306
DG012		271W8603/	1	ØØ541	
313	ACCUMULATOR EMCO FLUID SYSTEM INC	61898/SFE/32/ / /	1	ØØ565	2368/L30/222 2368/L24/222
DG013 314	3Ø73Ø ACCUMULATOR EMCO FLUID SYSTEM INC	271W8603/ 61898/SFE/32/ / /	1	ØØ575	2368/R9/301