SPECIAL ATTENTION

Number:	**747-27-2422**
Date:	October 30, 2008
ATA System:	2751

SUBJECT: FLIGHT CONTROLS - Trailing Edge Flap System - Transmission Positions 4 and 5 No-back Brake Replacement

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SPECIAL ATTENTION

Number:	**747-27-2422**	**Summary**
Date:	October 30, 2008	
ATA System:	2751	

SUBJECT: FLIGHT CONTROLS - Trailing Edge Flap System - Transmission Positions 4 and 5 No-back Brake Replacement

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS SERVICE BULLETIN IMMEDIATELY.

CONCURRENT REQUIREMENTS

None.

BACKGROUND

This service bulletin gives the instructions and the necessary parts to replace the inboard Trailing Edge (TE) flap transmission carbon disk no-back brakes with skewed roller no-back brakes at the TE flap transmission, positions 4 and 5. The new skewed roller no-back brake will improve the disk brake friction coefficient variation and brake pressure plate deflection under load, reducing potential inboard flap blow-back. The flap blow-back occurs when the no-back brake fails to hold the TE flap in the commanded position. A flap blow-back can result in a decrease of the aerodynamic controllability of the airplane, which could adversely affect the airplane's continued safe flight and landing.

Since 1999, four operators have reported that the inboard TE flaps blew back due to the failure of a transmission carbon disk no-back brake. The no-back brake did not hold the TE flaps in the commanded position. On approach, with landing flaps 25 or 30 selected, the inboard TE flaps failed to hold the commanded position and blew back to, approximately, flaps 10/15. This failure can cause an asymmetric flap blow-back if a torque tube becomes disconnected in combination with a failed no-back brake, or cause a symmetric flap blow-back if the hydraulic motor torque is lost in combination with two failed no-back brakes.

Boeing Service Related Problem (SRP) 747-SRP-27-0177 is related to this service bulletin.

ACTION

Airplane Work

1. Remove Flap Transmission (positions 4 and 5)

Component Work

1. Disassemble Flap Transmission

2. Replace Flap Transmission parts

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3. Assemble Flap Transmission

4. Change Flap Transmission part numbers

5. Do a functional test of the Flap Transmission

Airplane Work

1. Install changed Flap Transmission (positions 4 and 5)

2. Do a functional test of the Flap operation

EFFECTIVITY

747-100/200/300/400/SR airplanes and excluding 747SP airplanes. Refer to Paragraph 1.A.1, Airplanes, for the list of affected airplanes.

COMPLIANCE

Boeing recommends that this service bulletin be done not more than 5 years from the date on this service bulletin.

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in this service bulletin mandatory.

INDUSTRY SUPPORT INFORMATION

Boeing warranty remedies are available for airplanes in warranty as of December 13, 2001. Please refer to Paragraph 2.B, Industry Support Information.

MANPOWER

Airplanes	Total Task Hours	Elapsed Hours
All	22	11

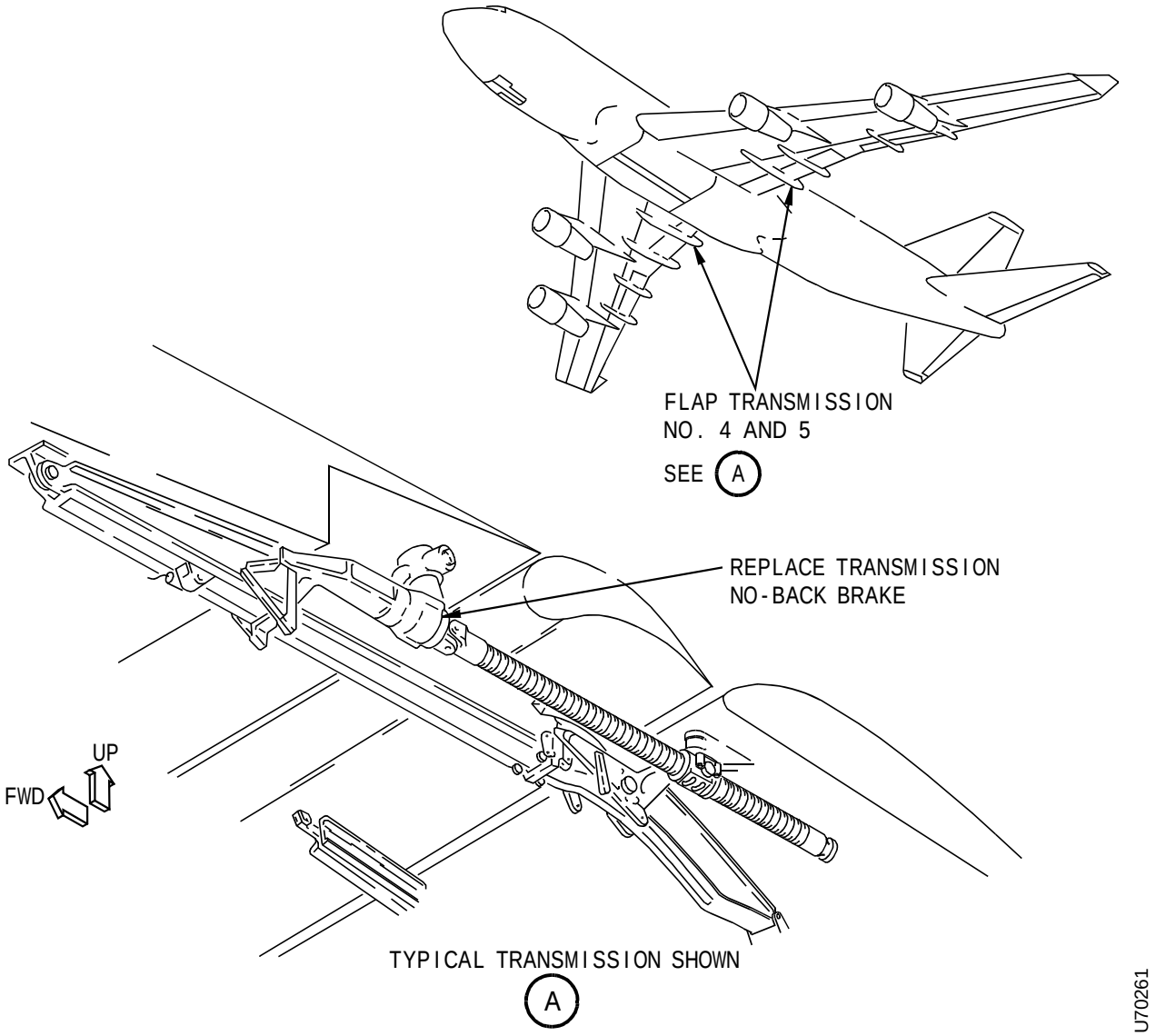
Components	Total Task Hours	Elapsed Hours
All	3	3

MATERIAL INFORMATION

Boeing Supplied Kits/Parts.

Refer to Paragraph 2.A, Material - Price and Availability.

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SPECIAL ATTENTION

Number: **747-27-2422**
Date: October 30, 2008
ATA System: 2751

SUBJECT: FLIGHT CONTROLS - Trailing Edge Flap System - Transmission Positions 4 and 5 No-back Brake Replacement

BOEING RECOMMENDS THAT EACH OPERATOR EXAMINE THIS SERVICE BULLETIN IMMEDIATELY.

1. PLANNING INFORMATION

A. Effectivity

1. Airplanes

Refer to Service Bulletin Index Document D6-30300 Part 3 for Airplane Variable Number, Line Number, and Serial Number data.

This service bulletin is for the airplanes shown below. An equivalent change is on subsequent production airplanes. Refer to PRR 85901-59S for data about this change.

GROUP	CONFIGURATION	DESCRIPTION
1	-	747 airplanes, line numbers 1-1405, except 747SP airplanes.

Airplane models:

747-100	747-100B	747-100B SUD	747-200B
747-200C	747-200F	747-300	747-400
747-400D	747-400F	747SR	

IDENTIFICATION BY CUSTOMER, CUSTOMER CODE, GROUP AND VARIABLE NUMBER

AAR A/C ENG. SALES & LEASING (AFD)
1 RB681–RB682

AERO CONTROLS (AEO)
1 RA722–RA723

AEROLINEAS ARGENTINAS (ARG)
1 RD122–RD127 RT701–RT702 RT704

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AEROSUR (REO)

1	RS235			

AFRICA UNITED HOLDING CO. (UHD)

1	RB010	RD513		

AFX (AXL)

1	RD201			

AGES AIRCRAFT SALES & LEASING (AGJ)

1	RB004			

AIR ATLANTA ICELANDIC (AID)

1	RB411–RB413	RB421	RD141–RD142	RD144
	RD414	RD456	RD647–RD648	RD755
	RD771	RD774	RR204	RR206
	RR332	RS211	RS233	RS237
	RS332–RS333	RT515	RT751	

AIR CANADA (ACN)

1	RA749–RA750	RD531		

AIR CHINA (BEJ)

1	RD782–RD783	RM341	RM811–RM813	RR451
	RT031–RT035	RT878–RT880		

AIR CHINA CARGO (CGC)

1	RL501–RL502	RT101	RT103	

AIR FRANCE (AFA)

1	RD655	RD657–RD659	RD721–RD722	RD791
	RL671–RL675	RM401–RM403	RR306	RR308–RR309
	RT071–RT075	RT121	RT591	RT711–RT716

AIR GULF FALCON (GFG)

1	RA535	RA537		

AIR INDIA (AIN)

1	RA729	RA731	RS781–RS782	RT749
	RU001–RU006			

AIR NEW ZEALAND (ANZ)

1	RM082	RM191–RM192	RT671–RT673	RT703
	RT932			

AIR PACIFIC (APC)

1	RT502	RT504		

AIR PULLMANTUR (PUL)

1	RS331	RT523	RT525	

AIR UNIVERSAL (UVL)

1	RD291	RD649		

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AIRBRIDGE CARGO (ABM)
1 RL576–RL577 RL579 RS762

ALBARAKA (AAB)
1 RB102

ALL NIPPON AIRWAYS (ANA)
1 RM231 RT753–RT755 RT776–RT777 RU831–RU841

AMERICAN AIRLINES (AAL)
1 RA266

AMIRI FLIGHT (ABD)
1 RM084 RT137

ARKIA ISRAELI AIRLINES (ARK)
1 RA253

ASIANA AIRLINES (AAR)
1 RM071 RM861–RM863 RR746–RR747 RT131–RT136
RU032

ATLAS AIR (TLS)
1 RD361–RD366 RD641 RD646 RD691–RD692
RD753–RD754 RJ333 RM891–RM899 RM901–RM906
RR301 RR748 RS722 RT752

AVIATION EXPOSURE MANAGEMENT (EXU)
1 RD131–RD132 RD143

AVION AIRCRAFT TRADING H.F. (VNG)
1 RT633–RT634 RT756

AWAS (AWW)
1 RJ321

BAHRAIN ROYAL FLIGHT (BHR)
1 RM426

BANC OF AMERICA LEASING (SBC)
1 RA106 RD001–RD002

BOEING (TBC)
1 RR222–RR223

BOEING AIRCRAFT HOLDING CO. (BHC)
1 RB691 RB693 RD181 RD451–RD454
RJ132

BOEING WICHITA MOD CENTER (WMC)
1 RD455

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BRITISH AIRWAYS (BAB)

1	RM096–RM097	RM136–RM145	RM261–RM264	RT471–RT499
	RU121–RU132			

C.A.L. CARGO AIR LINES (CRG)

1	RJ331–RJ332			

C.I.T. LEASING CORPORATION (TCI)

1	RB011	RD047		

CAPITAL ASSET MANAGEMENT (CPG)

1	RD053			

CARGAIR (CGL)

1	RD203			

CARGO B AIRLINES (CBO)

1	RD751	RR307	RR561	

CARGOLUX AIRLINES (CLX)

1	RM881–RM890	RR701	RR721–RR724	

CATHAY PACIFIC AIRWAYS (CAT)

1	RD358	RD581–RD583	RL581	RM856–RM859
	RR441–RR442	RR951–RR952	RT451–RT469	RT508
	RT511–RT512	RT514	RT517–RT518	RT522
	RT528–RT529	RT781–RT782		

CHINA AIRLINES (CHI)

1	RL411–RL430	RL481	RM021–RM024	RM441–RM443
	RM445	RT636–RT640		

CHINA CARGO (CIQ)

1	RL521–RL522			

CHINA SOUTHERN AIRLINES (GUN)

1	RL751–RL752			

CORSAIR (COR)

1	RS239–RS240	RT613–RT614	RT616	RT618–RT619
	RT621			

DRAGONAIR (DRG)

1	RR522	RS741	RS771	RT510
	RT513	RT516	RT524	

DUBAI AIR WING (DAW)

1	RD622	RM167–RM168	RT102	

EL AL ISRAEL AIRLINES (ELA)

1	RD442	RJ152	RM091	RR225–RR226
	RU081–RU083			

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EMIRATES (EAD)
1 RL533–RL534

EUROPEAN AVIATION AIR CHARTER (EUL)
1 RD135–RD138 RD311

EVA AIR (EVA)
1 RL401–RL403 RM116–RM117 RT162–RT163 RT165–RT168
RT951–RT955

EVERGREEN A/C SALES & LEASING (EVG)
1 RA371 RD056–RD057 RD241 RD243
RD254–RD255 RD257

EVERGREEN INTERNATIONAL A/L (EVR)
1 RA028 RA631 RA633 RB604
RB607 RD004 RD041–RD043 RD772–RD773
RJ131 RJ133 RT631–RT632 RT743
RT876

EXPORT RESTRICTED AIRPLANES (YWV)
1 RA101–RA103 RA112 RA161–RA163 RB711
RD681–RD682 RJ322 RR001–RR004 RS751–RS752
RT412 RT602 RT606 RT615
RT620 RT622

FINOVA (GRB)
1 RA651 RS761

FIRST CHICAGO CORP. (FCC)
1 RD260

GA TELESIS, LLC (GTG)
1 RB692 RB697

GARUDA INDONESIA (GIA)
1 RT931 RU061–RU062

GE (GEC)
1 RA016

GECAS (GEF)
1 RA007 RA013 RA027

GENERIC CUSTOMER/SUPPLIER (XXX)
1 RB696 RD104 RD233–RD235 RD261–RD262
RD382 RD592 RR202–RR203

GOVERNMENT OF JAPAN (JAG)
1 RT681–RT682

GRAND STAR (GCG)
1 RR861

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GREAT WALL AIRLINES (GWL)
1 RT520

HELLENIC IMPERIAL AIRWAYS (HLE)
1 RD231–RD232 RD292 RD775

HIS MAJESTY THE SULTAN'S FLIGHT (BWN)
1 RT440

IBERIA AIRLINES (IBE)
1 RD431–RD435

INTERNATIONAL AIR LEASES (IAL)
1 RB006

IRAQI AIRWAYS (IRQ)
1 RJ301–RJ303

JADE CARGO INTERNATIONAL (JDE)
1 RL511–RL516

JAL INTERNATIONAL (JAL)
1 RL461–RL462 RM126–RM132 RM316–RM318 RR265–RR266
RS251–RS252 RS254 RS256 RS259
RS265–RS267 RT641–RT657 RT861–RT864 RT966–RT967
RU801–RU809

JOHNSON SPACE CENTER (ZBR)
1 RA908 RB601

JUMBO JET LEASING (JJL)
1 RA526 RA532–RA534 RA539

KABO AIR (KAB)
1 RA305 RA316 RA560 RB008
RD121

KALITTA AIR (KAC)
1 RA401–RA402 RA524 RA546 RA548
RA635 RA913 RB605 RD054
RD082–RD083 RD221 RD224–RD225 RD571
RD621 RD623 RR261–RR262 RR361–RR362
RR501 RT021–RT022

KINGDOM HOLDING COMPANY (KBA)
1 RT877

KLM - ROYAL DUTCH AIRLINES (KLM)
1 RL681–RL684 RM801–RM803 RT001–RT014 RT531–RT535

KOREAN AIR (KAL)
1 RL451–RL456 RM011–RM013 RM871–RM880 RR862
RT061 RT571–RT588 RT590 RT811–RT814

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KUWAIT AIRWAYS (KUW)

1	RD202	RD204	RT151	

L-3 COMMUNICATIONS (LCS)

1	RD352			

LOGISTIC AIR, INC. (LGA)

1	RA015	RA217	RA910	RB722–RB723

LUFTHANSA GERMAN AIRLINES (DLH)

1	RM001–RM007	RT041–RT047	RT431–RT439	RT441–RT447

MALAYSIA AIRLINES (MAS)

1	RL491–RL492	RM036–RM040	RM366–RM367	RT744
	RT746	RT748	RT750	RU016–RU017

MARTINAIR HOLLAND (MTH)

1	RT501	RT506–RT507	RT509	

MIDEX AIRLINES (MIX)

1	RR310			

MK AIRLINES (MKA)

1	RD441	RD781	RR022–RR023	RR224
	RR336	RR421	RR504	

NEA HOLDINGS, INC. (NEA)

1	RB001	RD045–RD046		

NIPPON CARGO AIRLINES (NCA)

1	RD461	RL471–RL477	RR552–RR553	RR555–RR556

NORTHWEST AIRLINES (NWA)

1	RD242	RD251–RD253	RD258–RD259	RD301–RD302
	RM241–RM246	RR005	RR341–RR342	RR344–RR345
	RR431–RR432	RR503	RR566	RT401–RT410

OASIS HONG KONG AIRLINES (OHK)

1	RT503	RT505		

OMAN ROYAL FLIGHT (RFO)

1	RM010			

ORIENT THAI AIRLINES (OTH)

1	RA528	RA540	RA543–RA544	RD055
	RD222	RD516	RR264	RS001–RS002
	RS253	RS257	RS292	RS712

PAKISTAN INT'L AIRLINES (PIA)

1	RD701–RD702	RS301–RS306		

PHILIPPINE AIRLINES (PAL)

1	RT152	RU051–RU052	RU059–RU060	

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PHUKET AIRLINES (PHK)

1	RD381	RD421–RD424	RD605	RS238
	RS241	RS711		

POLAR AIR CARGO (PAO)

1	RD752	RL651–RL655		

PRONAIR (TXI)

1	RR221			

QANTAS (QAN)

1	RF001–RF006	RM331–RM333	RS272–RS276	RT551–RT568
	RT741–RT742	RU031		

ROYAL AIR MAROC (RAM)

1	RD671	RT717		

S583 (583)

1	RD166–RD167			

SATAIR (SAI)

1	RD606			

SAUDI ARABIAN AIRLINES (SVA)

1	RB741–RB746	RB748	RM156–RM157	RR526
	RS311–RS320	RU101–RU102		

SAUDI ROYAL FLIGHT (SRF)

1	RM158	RS699		

SIACARGO (SIT)

1	RL431–RL436	RM851–RM855	RR851–RR856	

SINGAPORE AIRLINES (SIA)

1	RM041–RM045	RT519	RT521	RT526–RT527
	RT530	RT747	RT831–RT835	RT837

SOUTH AFRICAN AIRWAYS (SAA)

1	RM081	RM083	RM146–RM147	RS212
	RS232	RS236	RT784	

SOUTHERN AIR (SOF)

1	RB695	RD227	RD272	RD383
	RD411–RD412	RD601–RD602	RD607	RD642–RD643
	RD792	RR024–RR025	RR267	RR302–RR305
	RR551	RR554	RS721	RS786

STAR AIRLINES (SRQ)

1	RD426			

SUO1 (UO1)

1	RB013–RB016			

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SURINAM AIRWAYS (SUR)
1 RS713

TAAG (ANGOLA AIRLINES) (ANG)
1 RS703 RS742

TESIS AVIATION ENTERPRISE (TEV)
1 RA784

THAI AIRWAYS INTERNATIONAL (TII)
1 RM026–RM030 RM431 RT691–RT699 RT801–RT803

TNT AIRWAYS (TNB)
1 RL531–RL532

TRADEWINDS AIRLINES (TWN)
1 RA726 RD052

TRANSAERO AIRLINES (TRX)
1 RD226 RD356 RD471–RD475 RS255
RS258 RS263 RS268 RS271
RT783

UNICAL AVIATION (UNL)
1 RS341–RS342

UNITED AIR LINES (UAL)
1 RM166 RM169–RM177 RT411 RT601
RT603–RT605 RT607–RT612 RT617 RT623–RT630

UPS (UPS)
1 RA026 RA029 RA033 RA902
RA912 RA915–RA916 RD051 RD058–RD059
RD593 RL561–RL565 RT161 RT164

US AIR FORCE (USF)
1 RM911

VIRGIN ATLANTIC AIRWAYS (VAA)
1 RD357 RM051–RM053 RM351–RM355 RT945–RT949

WELLS FARGO BANK (ZWR)
1 RM232–RM233

WHIRLPOOL FINANCIAL CORP. (ZZW)
1 RB005

WORLD AIRWAYS, INC. (WLD)
1 RT745

YANGTZE RIVER EXPRESS (YTH)
1 RT757

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IDENTIFICATION BY VARIABLE NUMBER

Variable	Group
RA001–RA034	1
RA101–RA115	1
RA161–RA164	1
RA201–RA203	1
RA216–RA217	1
RA245–RA246	1
RA251–RA266	1
RA301–RA318	1
RA351–RA360	1
RA369–RA373	1
RA401–RA418	1
RA501–RA502	1
RA521–RA528	1
RA532–RA548	1
RA551–RA552	1
RA559–RA561	1
RA581–RA582	1
RA585	1
RA601–RA602	1
RA631–RA635	1
RA651–RA652	1
RA671–RA677	1
RA701–RA702	1
RA721–RA731	1
RA741–RA745	1
RA749–RA750	1
RA761–RA762	1
RA781–RA784	1
RA901–RA916	1
RB001–RB016	1
RB041–RB044	1
RB071–RB075	1
RB101–RB102	1
RB411–RB413	1
RB421	1
RB601–RB607	1
RB681–RB697	1

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Variable	Group
RB711	1
RB721–RB723	1
RB741–RB748	1
RD001–RD004	1
RD021–RD022	1
RD041–RD059	1
RD071–RD072	1
RD081–RD083	1
RD091–RD092	1
RD101–RD104	1
RD121–RD127	1
RD131–RD144	1
RD166–RD167	1
RD171–RD172	1
RD181–RD183	1
RD201–RD204	1
RD221–RD227	1
RD231–RD235	1
RD241–RD243	1
RD251–RD262	1
RD271–RD272	1
RD291–RD292	1
RD301–RD302	1
RD311	1
RD351–RD358	1
RD361–RD366	1
RD381–RD383	1
RD411–RD414	1
RD421–RD426	1
RD431–RD435	1
RD441–RD442	1
RD451–RD456	1
RD461	1
RD471–RD475	1
RD513–RD519	1
RD531–RD533	1
RD551	1
RD561	1
RD571	1

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Variable	Group
RD581–RD583	1
RD591–RD593	1
RD601–RD607	1
RD621–RD623	1
RD641–RD649	1
RD651–RD659	1
RD661	1
RD671	1
RD681–RD682	1
RD691–RD692	1
RD701–RD702	1
RD721–RD722	1
RD741–RD742	1
RD751–RD755	1
RD761	1
RD771–RD775	1
RD781–RD783	1
RD791–RD792	1
RE001	1
RF001–RF006	1
RJ131–RJ133	1
RJ151–RJ152	1
RJ301–RJ303	1
RJ321–RJ322	1
RJ331–RJ333	1
RL401–RL403	1
RL411–RL436	1
RL451–RL456	1
RL461–RL462	1
RL471–RL477	1
RL481	1
RL491–RL492	1
RL501–RL502	1
RL511–RL516	1
RL521–RL522	1
RL531–RL534	1
RL561–RL565	1
RL576–RL577	1
RL579	1

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Variable	Group
RL581	1
RL651–RL655	1
RL671–RL675	1
RL681–RL684	1
RL751–RL752	1
RM001–RM007	1
RM010–RM013	1
RM021–RM024	1
RM026–RM030	1
RM036–RM045	1
RM051–RM053	1
RM071	1
RM081–RM084	1
RM091	1
RM096–RM097	1
RM116–RM117	1
RM126–RM132	1
RM136–RM147	1
RM156–RM158	1
RM166–RM177	1
RM191–RM192	1
RM231–RM233	1
RM241–RM246	1
RM261–RM264	1
RM316–RM318	1
RM331–RM333	1
RM341	1
RM351–RM355	1
RM366–RM367	1
RM401–RM403	1
RM426	1
RM431	1
RM441–RM443	1
RM445	1
RM801–RM803	1
RM811–RM813	1
RM851–RM859	1
RM861–RM863	1
RM871–RM899	1

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Variable	Group
RM901–RM906	1
RM911	1
RR001–RR005	1
RR021–RR025	1
RR031	1
RR201–RR206	1
RR221–RR226	1
RR261–RR267	1
RR301–RR310	1
RR331–RR332	1
RR336	1
RR341–RR345	1
RR361–RR362	1
RR421–RR422	1
RR431–RR432	1
RR441–RR442	1
RR451	1
RR501–RR504	1
RR521–RR522	1
RR526	1
RR531	1
RR551–RR556	1
RR561	1
RR566	1
RR701	1
RR721–RR724	1
RR746–RR748	1
RR851–RR856	1
RR861–RR862	1
RR951–RR952	1
RS001–RS002	1
RS201	1
RS211–RS212	1
RS221–RS222	1
RS231–RS241	1
RS251–RS259	1
RS263	1
RS265–RS268	1
RS271–RS276	1

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Variable	Group
RS291–RS292	1
RS301–RS306	1
RS311–RS320	1
RS331–RS333	1
RS341–RS342	1
RS699	1
RS701–RS703	1
RS711–RS713	1
RS721–RS722	1
RS731–RS732	1
RS741–RS743	1
RS751–RS752	1
RS761–RS762	1
RS771	1
RS781–RS782	1
RS786	1
RT001–RT014	1
RT021–RT022	1
RT031–RT035	1
RT041–RT047	1
RT061	1
RT071–RT075	1
RT101–RT103	1
RT121	1
RT131–RT137	1
RT151–RT152	1
RT161–RT168	1
RT401–RT412	1
RT431–RT447	1
RT451–RT469	1
RT471–RT499	1
RT501–RT535	1
RT551–RT568	1
RT571–RT591	1
RT601–RT657	1
RT671–RT673	1
RT681–RT682	1
RT691–RT699	1
RT701–RT704	1

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Variable	Group
RT711–RT717	1
RT741–RT757	1
RT776–RT777	1
RT781–RT784	1
RT801–RT803	1
RT811–RT814	1
RT831–RT837	1
RT861–RT864	1
RT876–RT880	1
RT931–RT932	1
RT945–RT949	1
RT951–RT955	1
RT966–RT967	1
RU001–RU006	1
RU016–RU017	1
RU031–RU032	1
RU051–RU052	1
RU059–RU062	1
RU081–RU083	1
RU101–RU102	1
RU121–RU132	1
RU801–RU809	1
RU831–RU841	1

2. Spares Affected

Examine your spares supply for the parts or components identified in Paragraph 2.C, Parts Necessary for Each Airplane. If any parts or components are found, refer to Paragraph 2.C for the recommended use.

B. Concurrent Requirements

None.

C. Reason

This service bulletin gives the instructions and the necessary parts to replace the inboard Trailing Edge (TE) flap transmission carbon disk no-back brakes with skewed roller no-back brakes at the TE flap transmission, positions 4 and 5. The new skewed roller no-back brake will improve the disk brake friction coefficient variation and brake pressure plate deflection under load, reducing potential inboard flap blow-back. The flap blow-back occurs when the no-back brake fails to hold the TE flap in the commanded position. A flap blow-back can result in a decrease of the aerodynamic controllability of the airplane, which could adversely affect the airplane's continued safe flight and landing.

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Since 1999, four operators have reported that the inboard TE flaps blew back due to the failure of a transmission carbon disk no-back brake. The no-back brake did not hold the TE flaps in the commanded position. On approach, with landing flaps 25 or 30 selected, the inboard TE flaps failed to hold the commanded position and blew back to, approximately, flaps 10/15. This failure can cause an asymmetric flap blow-back if a torque tube becomes disconnected in combination with a failed no-back brake, or cause a symmetric flap blow-back if the hydraulic motor torque is lost in combination with two failed no-back brakes.

Boeing Service Related Problem (SRP) 747-SRP-27-0177 is related to this service bulletin.

D. Description

Airplane Work

1. Remove Flap Transmission (positions 4 and 5)

Component Work

1. Disassemble flap transmission
2. Replace flap transmission parts
3. Change flap transmission part numbers
4. Do a functional test of the flap transmission

Airplane Work

1. Install changed flap transmission (positions 4 and 5)
2. Do a functional test of the flap operation

NOTE: Because the inboard flaps at positions 4 and 5 are susceptible to a blow-back due to higher aerodynamic loads, retrofit of the skewed roller no-back brake is provided at transmission positions 4 and 5 only.

E. Compliance

Boeing recommends that this service bulletin be done not more than 5 years from the date on this service bulletin.

The Federal Aviation Administration (FAA) will possibly release an Airworthiness Directive related to this service bulletin. The Airworthiness Directive will make the compliance tasks and times given in this service bulletin mandatory.

F. Approval

This service bulletin was examined by the Federal Aviation Administration (FAA). The changes specified in this service bulletin comply with the applicable regulations and are FAA approved, as well as European Aviation Safety Agency (EASA)/Joint Aviation Authorities (JAA) approved for all EASA/ JAA approved airplanes listed in the service bulletin effectivity. This service bulletin and its approval were based on the airplane in its original Boeing delivery configuration or as modified by other approved Boeing changes.

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If an airplane has a non-Boeing modification or repair that affects a component or system also affected by this service bulletin, the operator is responsible for obtaining appropriate regulatory agency approval before incorporating this service bulletin.

G. Manpower

The table below shows an estimate of the task-hours necessary to do this change for each airplane. This estimate is for direct labor only, done by an experienced crew. Adjust the estimate with operator task-hour data if necessary. The estimate does not include lost time. These are some examples of lost time:

— Time to adjust to the workplace
— Time to schedule the work
— Time to examine the work
— Time to cure the materials
— Time to make the parts
— Time to find the tools.

Airplane Work

Task	Number of Persons	Task-Hours	Elapsed Hours
Remove Transmission	2	4.50	2.25
Install Transmission	2	4.50	2.25
Test Flap Operation	2	2.00	1
Total for each Transmission		11.00	5.50
TOTAL FOR EACH AIRPLANE (Two transmissions for each airplane)		22.00	11.00

Component Work

Task	Number of Persons	Task-Hours	Elapsed Hours
Replace Transmission Parts	1	1.00	1.00
Test Transmission	1	0.50	0.50
TOTAL FOR EACH TRANSMISSION		1.50	1.50

H. Weight and Balance Changes

Airplane	Change in Weight (Pounds)	Change in Moment (Pound-Inches)
Group 1	+0.6 lbs.	+858.0 lb-in.

I. Electrical Load Data

Not changed.

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J. References

1. Existing Data:

   a. 747-100/200/300 Aircraft Maintenance Manual (AMM) 27-51-00, 27-51-33, 51-00, 51-33

   b. 747-400 Aircraft Maintenance Manual (AMM) 27-51-00, 27-51-33

2. Data supplied with this Service Bulletin:

   None.

3. Installation Drawings Used in the Preparation of this Service Bulletin:

   None.

K. Publications Affected

Publication	Chapter-Section
747 Illustrated Parts Catalog	11-13, 27-51
Component Maintenance Manual	27-52

L. Interchangeability and Intermixability of Parts

Refer to Paragraph 2.C, Parts Necessary For Each Airplane, for interchangeability and intermixability information.

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2. MATERIAL INFORMATION

A. Material - Price and Availability

Boeing can supply the kits shown in Paragraph 2.C., Parts Necessary For Each Airplane and Paragraph 2.D, Parts Necessary to Change Spares, as shown below. If there is a limit in the quantity (QTY) of kits, a supply sequence is given by Spares.

Kit Number	Name	Date	QTY	ROLT (Weeks)	Unit Price thru December 31, 2008
015U1793-1	Top Kit - Trailing Edge Flap Transmission No-Back Brake Revision	September 10, 2008	2	50	$30,335.00
015U1793-1	Top Kit - Trailing Edge Flap Transmission No-Back Brake Revision	December 12, 2008	185	50	$30,335.00
Note: One kit for each transmission position. Two kits per airplane.					

The kits are subject to the terms and conditions of the Boeing standard purchase order acknowledgment. After the Unit Price date, new price data is applicable. Prices are in United States dollars. Terms: Net 30 days.

Reference this service bulletin and submit your purchase order by one of the methods that follow:

1. Order on-line via ATA Spec 2000 or Boeing Part Page

2. Fax to (206) 662-7145

3. Spares Customer Support - MC 36-65
   Boeing Spares Department
   P.O. Box 3707
   Seattle, Washington 98124-2207 USA

B. Industry Support Information

Boeing warranty remedies are available for 747 airplanes in warranty as of December 13, 2001. For task hour reimbursement for airplanes in warranty as of that date, send a warranty claim to Boeing Commercial Airplanes Group - Warranties. The kits for airplanes in warranty as of that date will be supplied at no charge. Send a purchase order for the kits to Boeing Spares. Please refer to this service bulletin number and reference the airplane variable number(s) in your purchase order.

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C. Parts Necessary For Each Airplane

1. Kits/Parts:

To get the kits/parts shown below, refer to Paragraph 2.A, Material - Price and Availability.

	Figure Kit	Notes
Top Kit	**3**	
015U1793-1	2	(a)
(a) One kit for each Flap Transmission. Two kits per airplane.		

Kit 015U1793-1				
New Part Number	**Figure 3 Qty**	**Name**	**Existing Part Number**	**Notes**
256U3134-1	2	SKEWED ROLLER ASSY - INBD T.E. FLAP TRANSMISSION	69B81191-( )	(a)
256U3136-1	1	COLLAR - THRUST	69B81147-( )	(a)
256U3141-1	1	CURVED PLATE ASSEMBLY	TRA4458	(a)
256U3142-3	1	RING - BRAKE DRIVE	65B81996-( )	(a)
256U3144-1	1	BEARING SPACER		(a)
256U3170-1	1	RATCHET - NO BACK, INBD TRANSMISSION, INBD T.E. FLAP DRIVE	69B81193-( )	(a)
256U3347-1	1	PRESSURE PLATE		(a)
256U3445-1	1	THRUST RING ASSY	69B81142-( )	(a)
B-2816	1	NEEDLE BEARING	BACB10B28PLT OR BACB10BM28-16 OR B2816	(a)
B-2816	1	NEEDLE BEARING	B2812PLT OR B2812	(a)
FNT-75100	1	BEARING - THRUST NEEDLE ROLLER	NTA4458	(a)
(a) Discard the existing part				

2. Parts and Materials Supplied by the Operator:

None.

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3. Parts Modified and Reidentified:

The parts shown below are changed as shown in this service bulletin. The quantity (QTY) is the number of parts changed on each airplane.

Existing Part Number	QTY	Name	New Part Number	Notes
256U3270-1	1	Flap Transmission Assembly	256U3270-1001	(a) (b)
256U3270-2	1	Flap Transmission Assembly	256U3270-1002	(a) (b)
256U3270-3	1	Flap Transmission Assembly	256U3270-1003	(a) (b)
256U3270-4	1	Flap Transmission Assembly	256U3270-1004	(a) (b)
65B81129-1	1	Flap Transmission Assembly	65B81129-301	(a) (c)
65B81129-10	1	Flap Transmission Assembly	65B81129-310	(a) (d)
65B81129-101	1	Flap Transmission Assembly	65B81129-3001	(a) (c)
65B81129-102	1	Flap Transmission Assembly	65B81129-3002	(a) (c)
65B81129-103	1	Flap Transmission Assembly	65B81129-3003	(a) (d)
65B81129-104	1	Flap Transmission Assembly	65B81129-3004	(a) (d)
65B81129-105	1	Flap Transmission Assembly	65B81129-3005	(a) (d)
65B81129-106	1	Flap Transmission Assembly	65B81129-3006	(a) (d)
65B81129-107	1	Flap Transmission Assembly	65B81129-3007	(a) (d)
65B81129-108	1	Flap Transmission Assembly	65B81129-3008	(a) (d)
65B81129-109	1	Flap Transmission Assembly	65B81129-3009	(a) (d)
65B81129-110	1	Flap Transmission Assembly	65B81129-3010	(a) (d)
65B81129-111	1	Flap Transmission Assembly	65B81129-3011	(a) (d)
65B81129-112	1	Flap Transmission Assembly	65B81129-3012	(a) (d)
65B81129-113	1	Flap Transmission Assembly	65B81129-3013	(a) (d)
65B81129-114	1	Flap Transmission Assembly	65B81129-3014	(a) (d)
65B81129-115	1	Flap Transmission Assembly	65B81129-3015	(a) (d)
65B81129-116	1	Flap Transmission Assembly	65B81129-3016	(a) (d)
65B81129-117	1	Flap Transmission Assembly	65B81129-3017	(a) (d)
65B81129-118	1	Flap Transmission Assembly	65B81129-3018	(a) (d)
65B81129-119	1	Flap Transmission Assembly	65B81129-3019	(a) (d)
65B81129-120	1	Flap Transmission Assembly	65B81129-3020	(a) (d)
65B81129-121	1	Flap Transmission Assembly	65B81129-3021	(a) (d)
65B81129-122	1	Flap Transmission Assembly	65B81129-3022	(a) (d)
65B81129-123	1	Flap Transmission Assembly	65B81129-3023	(a) (d)
65B81129-124	1	Flap Transmission Assembly	65B81129-3024	(a) (d)
65B81129-125	1	Flap Transmission Assembly	65B81129-3025	(a) (d)
65B81129-126	1	Flap Transmission Assembly	65B81129-3026	(a) (d)
65B81129-127	1	Flap Transmission Assembly	65B81129-3027	(a) (d)
65B81129-128	1	Flap Transmission Assembly	65B81129-3028	(a) (d)
65B81129-129	1	Flap Transmission Assembly	65B81129-3029	(a) (d)

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Existing Part Number	QTY	Name	New Part Number	Notes
65B81129-130	1	Flap Transmission Assembly	65B81129-3030	(a) (d)
65B81129-131	1	Flap Transmission Assembly	65B81129-3031	(a) (d)
65B81129-132	1	Flap Transmission Assembly	65B81129-3032	(a) (d)
65B81129-133	1	Flap Transmission Assembly	65B81129-3033	(a) (d)
65B81129-134	1	Flap Transmission Assembly	65B81129-3034	(a) (d)
65B81129-135	1	Flap Transmission Assembly	65B81129-3035	(a) (d)
65B81129-136	1	Flap Transmission Assembly	65B81129-3036	(a) (d)
65B81129-139	1	Flap Transmission Assembly	65B81129-1139	(a) (d)
65B81129-140	1	Flap Transmission Assembly	65B81129-1140	(a) (d)
65B81129-141	1	Flap Transmission Assembly	65B81129-1141	(a) (d)
65B81129-142	1	Flap Transmission Assembly	65B81129-1142	(a) (d)
65B81129-143	1	Flap Transmission Assembly	65B81129-1143	(a) (d)
65B81129-144	1	Flap Transmission Assembly	65B81129-1144	(a) (d)
65B81129-145	1	Flap Transmission Assembly	65B81129-1145	(a) (d)
65B81129-146	1	Flap Transmission Assembly	65B81129-1146	(a) (d)
65B81129-147	1	Flap Transmission Assembly	65B81129-1147	(a) (d)
65B81129-148	1	Flap Transmission Assembly	65B81129-1148	(a) (d)
65B81129-149	1	Flap Transmission Assembly	65B81129-1149	(a) (d)
65B81129-150	1	Flap Transmission Assembly	65B81129-1150	(a) (d)
65B81129-151	1	Flap Transmission Assembly	65B81129-1151	(a) (d)
65B81129-152	1	Flap Transmission Assembly	65B81129-1152	(a) (d)
65B81129-153	1	Flap Transmission Assembly	65B81129-1153	(a) (d)
65B81129-154	1	Flap Transmission Assembly	65B81129-1154	(a) (d)
65B81129-155	1	Flap Transmission Assembly	65B81129-1155	(a) (d)
65B81129-156	1	Flap Transmission Assembly	65B81129-1156	(a) (d)
65B81129-157	1	Flap Transmission Assembly	65B81129-1157	(a) (d)
65B81129-158	1	Flap Transmission Assembly	65B81129-1158	(a) (d)
65B81129-159	1	Flap Transmission Assembly	65B81129-1159	(a) (d)
65B81129-160	1	Flap Transmission Assembly	65B81129-1160	(a) (d)
65B81129-161	1	Flap Transmission Assembly	65B81129-1161	(a) (d)
65B81129-162	1	Flap Transmission Assembly	65B81129-1162	(a) (d)
65B81129-163	1	Flap Transmission Assembly	65B81129-1163	(a) (d)
65B81129-164	1	Flap Transmission Assembly	65B81129-1164	(a) (d)
65B81129-165	1	Flap Transmission Assembly	65B81129-1165	(a) (d)
65B81129-166	1	Flap Transmission Assembly	65B81129-1166	(a) (d)
65B81129-167	1	Flap Transmission Assembly	65B81129-1167	(a) (d)
65B81129-168	1	Flap Transmission Assembly	65B81129-1168	(a) (d)
65B81129-169	1	Flap Transmission Assembly	65B81129-1169	(a) (d)
65B81129-170	1	Flap Transmission Assembly	65B81129-1170	(a) (d)

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Existing Part Number	QTY	Name	New Part Number	Notes
65B81129-171	1	Flap Transmission Assembly	65B81129-1171	(a) (d)
65B81129-172	1	Flap Transmission Assembly	65B81129-1172	(a) (d)
65B81129-175	1	Flap Transmission Assembly	65B81129-1175	(a) (d)
65B81129-176	1	Flap Transmission Assembly	65B81129-1176	(a) (d)
65B81129-177	1	Flap Transmission Assembly	65B81129-1177	(a) (d)
65B81129-178	1	Flap Transmission Assembly	65B81129-1178	(a) (d)
65B81129-179	1	Flap Transmission Assembly	65B81129-1179	(a) (d)
65B81129-180	1	Flap Transmission Assembly	65B81129-1180	(a) (d)
65B81129-181	1	Flap Transmission Assembly	65B81129-1181	(a) (d)
65B81129-182	1	Flap Transmission Assembly	65B81129-1182	(a) (d)
65B81129-183	1	Flap Transmission Assembly	65B81129-1183	(a) (d)
65B81129-184	1	Flap Transmission Assembly	65B81129-1184	(a) (d)
65B81129-185	1	Flap Transmission Assembly	65B81129-1185	(a) (d)
65B81129-186	1	Flap Transmission Assembly	65B81129-1186	(a) (d)
65B81129-187	1	Flap Transmission Assembly	65B81129-1187	(a) (d)
65B81129-188	1	Flap Transmission Assembly	65B81129-1188	(a) (d)
65B81129-189	1	Flap Transmission Assembly	65B81129-1189	(a) (d)
65B81129-190	1	Flap Transmission Assembly	65B81129-1190	(a) (d)
65B81129-191	1	Flap Transmission Assembly	65B81129-1191	(a) (c)
65B81129-192	1	Flap Transmission Assembly	65B81129-1192	(a) (c)
65B81129-193	1	Flap Transmission Assembly	65B81129-1193	(a) (d)
65B81129-194	1	Flap Transmission Assembly	65B81129-1194	(a) (d)
65B81129-195	1	Flap Transmission Assembly	65B81129-1195	(a) (d)
65B81129-196	1	Flap Transmission Assembly	65B81129-1196	(a) (d)
65B81129-197	1	Flap Transmission Assembly	65B81129-1197	(a) (c)
65B81129-198	1	Flap Transmission Assembly	65B81129-1198	(a) (c)
65B81129-199	1	Flap Transmission Assembly	65B81129-1199	(a) (d)
65B81129-2	1	Flap Transmission Assembly	65B81129-302	(a) (c)
65B81129-200	1	Flap Transmission Assembly	65B81129-1200	(a) (d)
65B81129-201	1	Flap Transmission Assembly	65B81129-1201	(a) (d)
65B81129-202	1	Flap Transmission Assembly	65B81129-1202	(a) (d)
65B81129-203	1	Flap Transmission Assembly	65B81129-1203	(a) (c)
65B81129-204	1	Flap Transmission Assembly	65B81129-1204	(a) (c)
65B81129-205	1	Flap Transmission Assembly	65B81129-1205	(a) (d)
65B81129-206	1	Flap Transmission Assembly	65B81129-1206	(a) (d)
65B81129-207	1	Flap Transmission Assembly	65B81129-1207	(a) (d)
65B81129-208	1	Flap Transmission Assembly	65B81129-1208	(a) (d)
65B81129-209	1	Flap Transmission Assembly	65B81129-1209	(a) (c)
65B81129-210	1	Flap Transmission Assembly	65B81129-1210	(a) (c)

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Existing Part Number	QTY	Name	New Part Number	Notes
65B81129-211	1	Flap Transmission Assembly	65B81129-1211	(a) (d)
65B81129-212	1	Flap Transmission Assembly	65B81129-1212	(a) (d)
65B81129-213	1	Flap Transmission Assembly	65B81129-1213	(a) (d)
65B81129-214	1	Flap Transmission Assembly	65B81129-1214	(a) (d)
65B81129-3	1	Flap Transmission Assembly	65B81129-303	(a) (d)
65B81129-4	1	Flap Transmission Assembly	65B81129-304	(a) (d)
65B81129-5	1	Flap Transmission Assembly	65B81129-305	(a) (d)
65B81129-6	1	Flap Transmission Assembly	65B81129-306	(a) (d)
65B81129-7	1	Flap Transmission Assembly	65B81129-307	(a) (d)
65B81129-8	1	Flap Transmission Assembly	65B81129-308	(a) (d)
65B81129-9	1	Flap Transmission Assembly	65B81129-309	(a) (d)
(a) Make the change given in Paragraph 3.B, Work Instructions - Component work, of this service bulletin.				
(b) Applicable CMM 27-52-71				
(c) Applicable CMM 27-52-41				
(d) Applicable CMM 27-52-42				

4. Parts Removed and Not Replaced:

None.

D. Parts Necessary to Change Spares

To get the kits shown below, refer to Paragraph 2.A, Material - Price and Availability.

Part Number	Name	QTY	Notes
015U1793-1	Top Kit - Trailing Edge Flap Transmission No-Back Brake Revision	1	(a)
(a) One kit for each transmission. Two kits per airplane.			

E. Special Tooling - Price and Availability

None.

F. Special Tooling Necessary to do this Service Bulletin

No special tools or equipment are necessary to do the change in this service bulletin. But, maintenance and overhaul tools in the manuals given in Paragraph 1.J, References, can be necessary. Examine operator tool supply to make sure all necessary tools are available.

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3. ACCOMPLISHMENT INSTRUCTIONS

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. Manual titles are referred to by acronyms. Refer to Paragraph 1.J, References, for definition of the acronyms.

2. Obey all of the warnings and cautions given in the specified manual sections.

3. These work instructions refer to procedures included on other Boeing documents. When the words "refer to" are used and the operator has an accepted alternative procedure, the accepted alternative procedure can be used. When the words "as given in" are included in the instruction, the procedure in the Boeing document must be used.

B. WORK INSTRUCTIONS

Airplane work

1. Remove the flap transmission on the left wing (position 4) as given in Figure 1.

2. Remove the flap transmission on the right wing (position 5) as given in Figure 2.

   NOTE: You can replace the right and left transmissions independently or two transmissions at the same time.

Component work

1. Change the flap transmission parts as given in Figure 3. Do a functional test of the transmissions as given in 747-100/200/300 AMM 27-51-33 for 747-100/200/300 airplanes or 747-400 AMM 27-51-33 for 747-400 airplanes.

Airplane work

1. Install the changed flap transmission on the left wing (position 4) as given in Figure 1.

2. Install the changed flap transmission on the right wing (position 5) as given in Figure 2.

   NOTE: You can replace the right and left Flap Transmissions independently or both transmissions at the same time.

3. Do an operational test of the Trailing Edge Flap System as given in 747-100/200/300 AMM 27-51-00 for 747-100/200/300 airplanes or 747-400 AMM 27-51-00 for 747-400 airplanes.

4. Put the airplane back to a serviceable condition.

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FIGURE 1: FLIGHT CONTROLS - Trailing Edge Flap Transmission Replacement - Left Wing

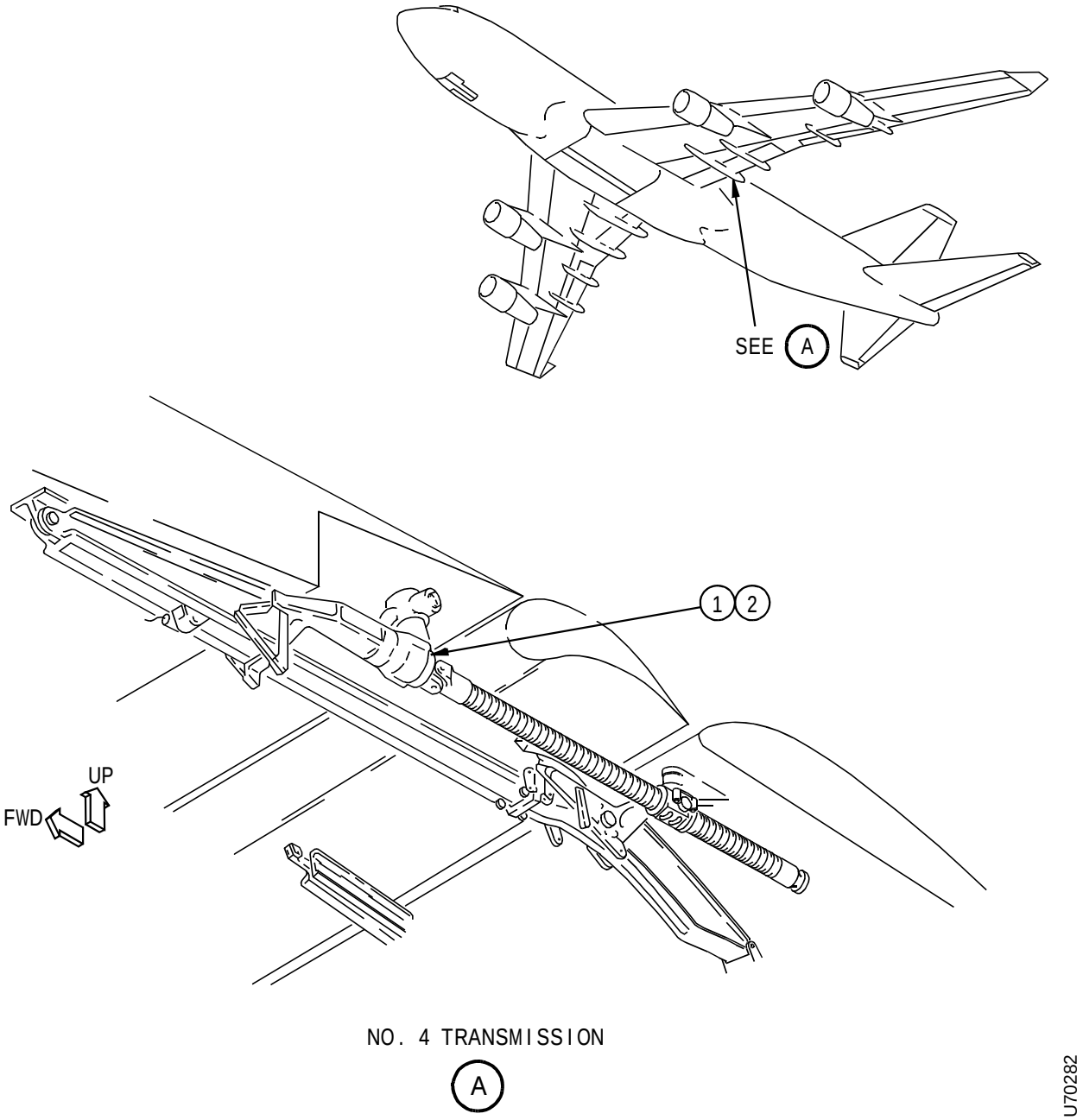


FIGURE 1: FLIGHT CONTROLS - Trailing Edge Flap Transmission Replacement - Left Wing
(SHEET 1 OF 2)

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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for one airplane.

STEP	TASK	NAME	IDENTIFICATION	QTY	MORE DATA
1	Remove	Flap Transmission Assembly	256U3270-( )	1	(a) (b) (c)
			65B81129-( )		
2	Install (Changed)	Flap Transmission Assembly	256U3270-( )	1	
			65B81129-( )		
(a) As given in 747-100/200/300 AMM 27-51-33 for 747-100-200/300 airplanes or 747-400 AMM 27-51-33 for 747-400 airplanes.					
(b) Transmission position 4 only.					
(c) Refer to Paragraph 2.C.3 for existing and new part numbers.					

FIGURE 1: FLIGHT CONTROLS - Trailing Edge Flap Transmission Replacement - Left Wing
(SHEET 2 OF 2)

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FIGURE 2: FLIGHT CONTROLS - Trailing Edge Flap Transmission Replacement - Right Wing

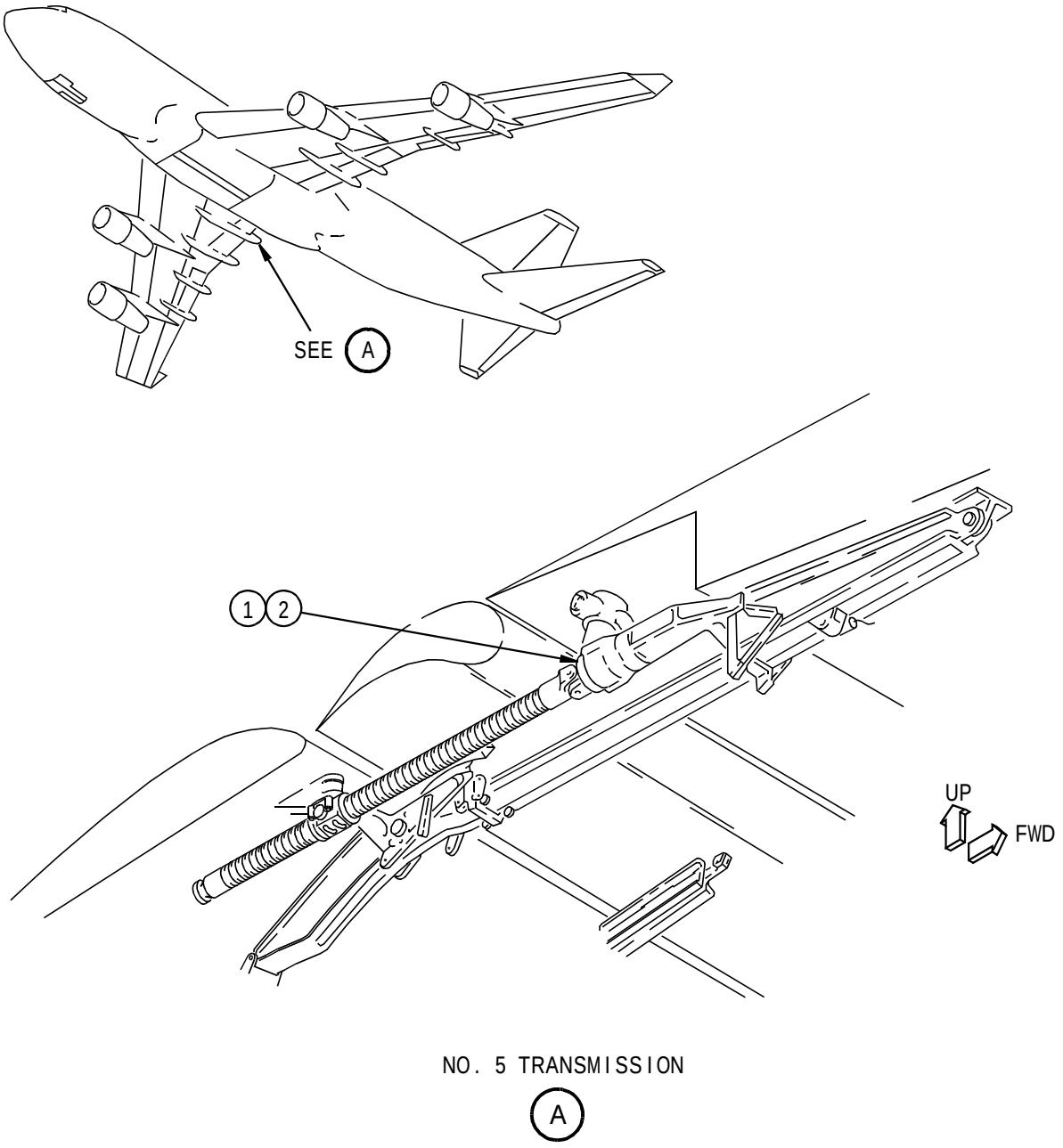


FIGURE 2: FLIGHT CONTROLS - Trailing Edge Flap Transmission Replacement - Right Wing
(SHEET 1 OF 2)

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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for one airplane.

STEP	TASK	NAME	IDENTIFICATION	QTY	MORE DATA
1	Remove	Flap Transmission Assembly	256U3270-( )	1	(a) (b) (c)
			65B81129-( )		
2	Install (Changed)	Flap Transmission Assembly	256U3270-( )	1	
			65B81129-( )		
(a) As given in 747-100/200/300 AMM 27-51-33 for 747-100-200/300 airplanes or 747-400 AMM 27-51-33 for 747-400 airplanes.					
(b) Transmission position 5 only.					
(c) Refer to Paragraph 2.C.3 for existing and new part numbers.					

FIGURE 2: FLIGHT CONTROLS - Trailing Edge Flap Transmission Replacement - Right Wing
(SHEET 2 OF 2)

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FIGURE 3: FLIGHT CONTROLS - Trailing Edge Flap Transmission No-Back Brake Replacement

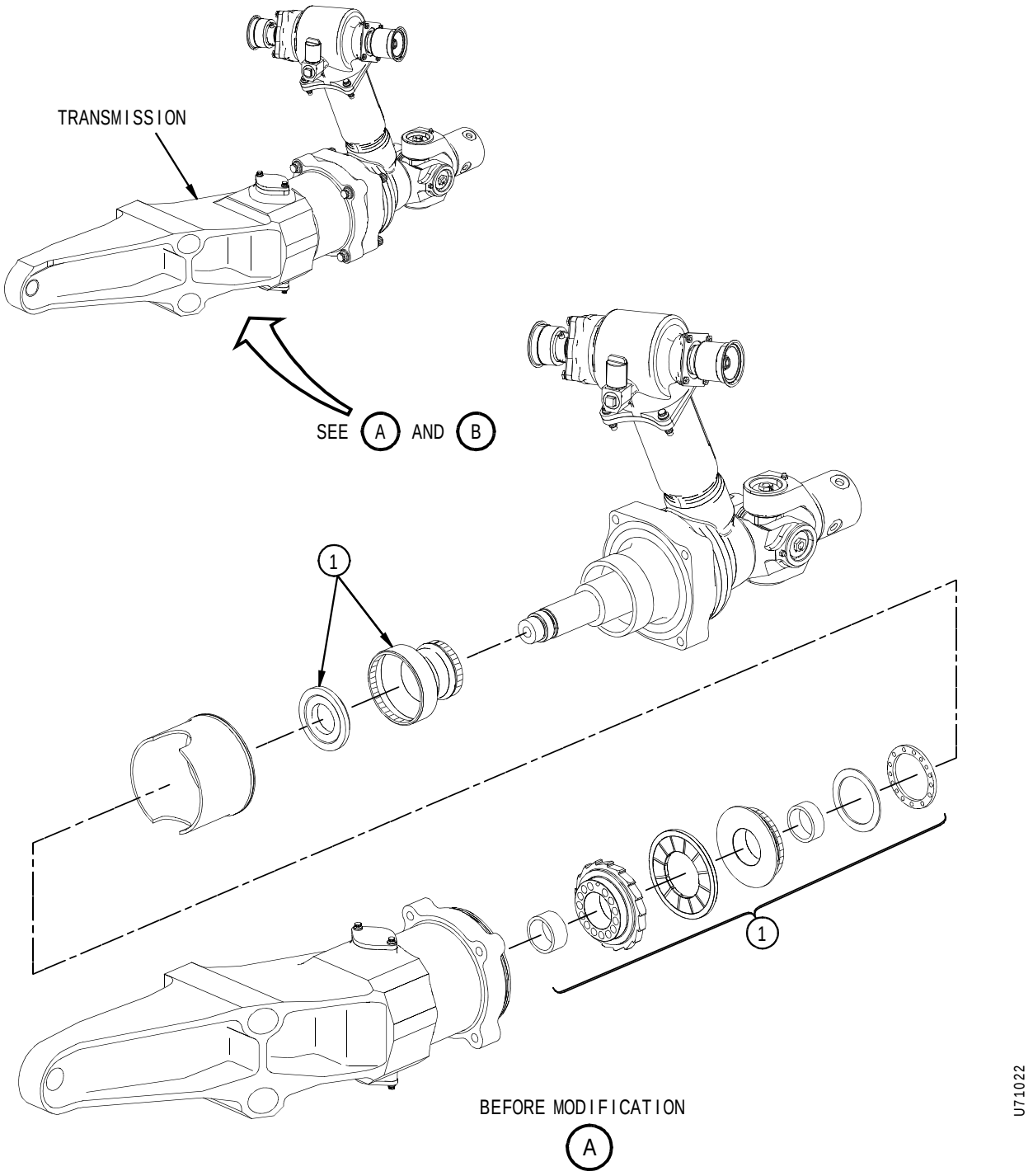


FIGURE 3: FLIGHT CONTROLS - Trailing Edge Flap Transmission No-Back Brake Replacement
(SHEET 1 OF 4)

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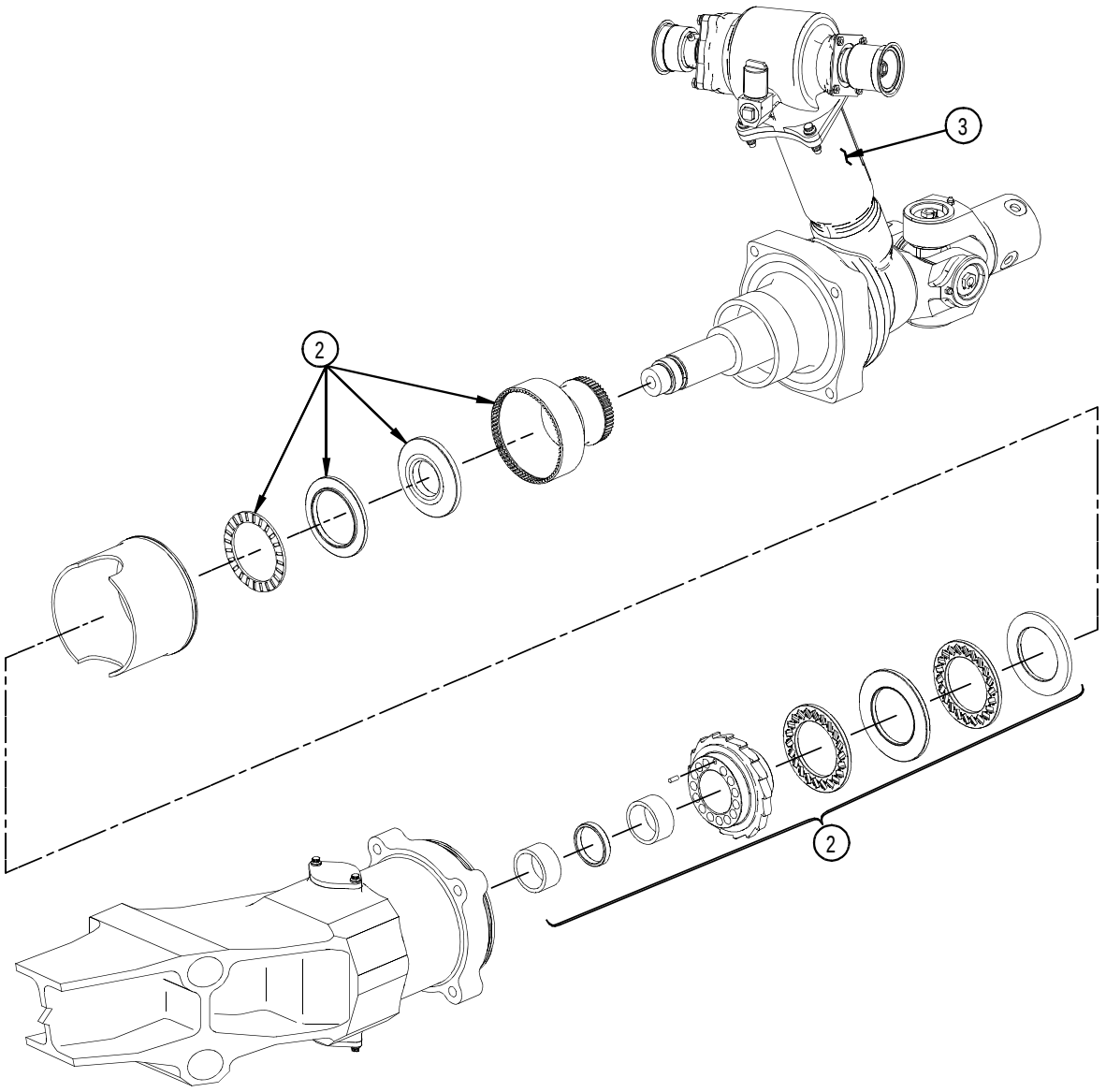


FIGURE 3: FLIGHT CONTROLS - Trailing Edge Flap Transmission No-Back Brake Replacement
(SHEET 2 OF 4)

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The step numbers shown below agree with the numbers shown in the circle symbols in the figure. The QTY numbers shown below are the number of parts necessary for each transmission.

STEP	TASK	NAME	IDENTIFICATION	QTY	MORE DATA
1	Remove	NEEDLE BEARING	BACB10B28PLT OR BACB10BM28-16 OR B2816	1	(a) (b)
		RATCHET ASSEMBLY	69B81193-( )	1	
		BRAKE DISC ASSEMBLY	69B81191-( )	1	
		PRESSURE PLATE	69B81142-( )	1	
		NEEDLE BEARING	B2812 OR B2812PLT	1	
		BEARING RACE	TRA4458	1	
		COLLAR	69B81147-( )	1	
		BRAKE DRIVE RING	65B81996-( )	1	
		NEEDLE BEARING	NTA4458	1	

FIGURE 3: FLIGHT CONTROLS - Trailing Edge Flap Transmission No-Back Brake Replacement

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STEP	TASK	NAME	IDENTIFICATION	QTY	MORE DATA
2	Install (New)	NEEDLE BEARING	B-2816	1	(a)
		BEARING SPACER	256U3144-1	1	
		RATCHET - NO BACK, INBD TRANSMISSION, INBD T.E. FLAP DRIVE	256U3170-1	1	
		SKEWED ROLLER ASSY - INBD T.E. FLAP TRANSMISSION	256U3134-1	1	
		THRUST RING ASSY	256U3445-1	1	
		PRESSURE PLATE	256U3347-1	1	
		BEARING - THRUST NEEDLE ROLLER	FNT-75100	1	
		CURVED PLATE ASSEMBLY	256U3141-1	1	
		COLLAR - THRUST	256U3136-1	1	
		RING - BRAKE DRIVE	256U3142-1	1	
3	Change	NAME PLATE	BAC27ECT11	1	(b) (c)
(a) As given in applicable CMM in Paragraph 2.C.3.					
(b) Refer to Paragraph 2.C.3 for existing and new Flap Transmission assembly part numbers.					
(c) To change part number, refer to Boeing Standard Overhaul Practices Manual (SOPM) 20-50-10.					

FIGURE 3: FLIGHT CONTROLS - Trailing Edge Flap Transmission No-Back Brake Replacement
(SHEET 4 OF 4)

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