



EASA Safety Information Bulletin

SIB No.: 2008-49
Issued: 10 June 2008

Subject: **Rolls-Royce Deutschland BR700-710 series engines – Re-use of Potentially Damaged Engine Parts and Components.**

Ref. Publication: Rolls-Royce Deutschland Ltd & Co KG Worldwide Communication Ref. WW/20209/1 dated 30 May 2008.

Description: Rolls-Royce Deutschland Ltd & Co KG (RRD), the Type Certificate (TC) holder of the BR700-710 series engine type design, has published the referenced advisory document (attached as pages 2 through 11 of this bulletin) to inform operators and aircraft manufacturers to make them aware of potential re-use of damaged BR700-710 engine material.

After reviewing the available information, EASA concurs with the advisory and fully supports the RRD recommendations contained therein. This SIB is published to ensure that all owners, operators and manufacturers of aircraft, that have BR700-710 engines installed, are aware of these recommendations.

Applicability: BR700-710 engine serial numbers 12533 and 12534; any parts or components of those individual engines held as spares, including those identified in the attached RRD advisory document; and any BR700-710 series engines which have parts or components installed that can be traced to having previously been installed on either of these individual engines.

BR700-710 engines are known to be installed on, but not limited to, Bombardier Inc. BD-700 'Global Express' and Gulfstream Aerospace Corporation GV and GV-SP (including the commercial designation G500 and G550 variants) series aircraft.

Contact: For further information contact the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA.
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Rolls-Royce

Rolls-Royce Deutschland Ltd & Co KG Worldwide Communication

ATA ref: 72

Reference No: WW/20209/1/30 May 08

Issued to: All BR 710 Operators
Bombardier Aerospace Gulfstream Aerospace Corporation
Rolls-Royce Service Representatives

Subject: **BR710, Re-use of Potentially Damaged Engine Material**

Attachment: No

Action: No

This communication is issued to all BR710 Operators and airframers to make them aware of potential re-use of damaged BR710 Engine material.

In December 2007, a BR710 powered aircraft was damaged during a landing attempt. Subsequent investigation has concluded that the engines, serial numbers 12533 and 12534, were not contributory to the incident, they are however unserviceable due to loads beyond their certified envelope.

Recently Rolls-Royce have been made aware that material from these engines might be offered for sale on the open market. The purpose of this communication is to make operators aware of the potential sale of such material and Rolls-Royce's position on this situation. This communication has been reviewed with the airframe manufacturer, which is not the seller of this material.

During the incident, the main landing gear collapsed sending the plane spinning and skidding on the runway. Having reviewed the available A/C data, the loads exerted on the engines during this event are concluded to be outside of the approved design and test criteria. The airframe manufacturer also advises that the engine and structural parts had not been declared serviceable. Therefore, any re-use of parts from these engines could present a potential safety issue. From our knowledge of the event, we believe that the engineering work required to declare any parts serviceable would be likely to exceed the value of the parts.

EASA are anticipated to follow up this worldwide communication with a safety information notice (SIN).

The attached sheets list the serial numbers of the major parts understood to be fitted to these two engines. Should any of these parts be contributory to a future operational event Rolls-Royce would have to advise the aviation authorities of the history of the parts involved. Additionally, if such an event were to occur, the use of these parts would certainly compromise if not negate Rolls-Royce's contractual obligations and liabilities to the operator involved.

If you have any questions regarding this communication, please contact your local Rolls-Royce representative or this office.

Kind regards

-valid without signature as electronically distributed-

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List of serialized parts

Engine 12533

Partnumber	Part Name	Serialnumber
BRR24368	FAIRING,NOSECONE-ASSY OF	BA81614
828200-2	PUMP, FUEL UNIT	1118
8910-214	MANIFOLD, SPLT.& O/S UNIT	14721983
6940426E14	BURNER-ASSY OF, FUEL	N20110
6940426E14	BURNER-ASSY OF, FUEL	N20111
6940426E14	BURNER-ASSY OF, FUEL	N20113
6940426E14	BURNER-ASSY OF, FUEL	N20112
6940426E14	BURNER-ASSY OF, FUEL	N20115
6940426E14	BURNER-ASSY OF, FUEL	N20117
6940426E14	BURNER-ASSY OF, FUEL	N20119
6940426E14	BURNER-ASSY OF, FUEL	N20121
6940426E14	BURNER-ASSY OF, FUEL	N20123
6940426E14	BURNER-ASSY OF, FUEL	N20129
6940426E14	BURNER-ASSY OF, FUEL	N20128
6940426E14	BURNER-ASSY OF, FUEL	N20127
6940426E14	BURNER-ASSY OF, FUEL	N20126
6940426E14	BURNER-ASSY OF, FUEL	N20125
6940426E14	BURNER-ASSY OF, FUEL	N20124
6940426E14	BURNER-ASSY OF, FUEL	N20122
6940426E14	BURNER-ASSY OF, FUEL	N20120
6940426E14	BURNER-ASSY OF, FUEL	N20118
6940426E14	BURNER-ASSY OF, FUEL	N20116
6940426E14	BURNER-ASSY OF, FUEL	N20114
8061-977	METER,FUEL UNIT (FMU)	14660368
83311-430242	ROTOR,DEDICATED GENERATOR	3318
83311-430117	GENERATOR,DEDIC. STATOR	3343
8910-312	VALVE,FUEL RETURN TO TANK	14635370
21SN04-430	SWITCH,FUEL FILTER DIFF P	G006091
21SN04-433	SWITCH,FUEL LOW PRESSURE	G004379
1122806	TRANSDUCER,FUEL/OIL TEMP	M8606
1122806	TRANSDUCER,FUEL/OIL TEMP	M8619
1122806	TRANSDUCER,FUEL/OIL TEMP	M9131
TC428-01	PROBE,T30 THERMOCOUPLE	RRAD0829
TC428-01	PROBE,T30 THERMOCOUPLE	RRAD0810
9-217-82	TRANSMITTER,FUEL FLOW	235682-37
1520KDC09-010	CONTROLLER,ELECTR.ENGINE	BX660244
LR47000C	PUMP,OIL UNIT	C0171
55007001-41	COOLER,OIL FUEL COOLED	55007-1101
PDCR300164001M1	TRANSDUCER,OIL DIFFR. PR	2249880
PDCR300164001M1	TRANSDUCER,OIL DIFFR. PR	2258022

21SN04-472	SWITCH,OIL FILTER DIFF PR	G016543
1122806	TRANSDUCER,FUEL/OIL TEMP	M8608
1122806	TRANSDUCER,FUEL/OIL TEMP	M8611
QA07508	INDICATER,OIL FLTR POP-UP	RQ4-2187
9060440-2	IGNITION,UNIT	06118763
9060440-2	IGNITION,UNIT	06118764
EB100420D	VALVE, HANDLING BLEED	EMG128
EB100420D	VALVE, HANDLING BLEED	EMG207
EB100420D	VALVE, HANDLING BLEED	EMG208
EB100420D	VALVE, HANDLING BLEED	EMG206
8100-115	ACTUATOR,VANE STATOR VAR	14678799
8910-512	VALVE,AIR BUFFER	14671603
EA100118G	SOLENOID,HANDL.BLEED VALV	EMG301
3505934-8	STARTER,AIR TURBINE	0506-1697
8TC60AAC1	PROBE,THERMOCOUPLE	MF004162
8TC60AAC1	PROBE,THERMOCOUPLE	MF004186
8TC60AAC1	PROBE,THERMOCOUPLE	MF004676
8TC60AAC1	PROBE,THERMOCOUPLE	MF004684
8TC60AAC1	PROBE,THERMOCOUPLE	MF004655
8TC60AAC1	PROBE,THERMOCOUPLE	MF004175
8TC60AAC1	PROBE,THERMOCOUPLE	MF004169
920-4-14	THERMOCOUPLE,TRB DISC O/H	2309
920-4-14	THERMOCOUPLE,TRB DISC O/H	2311
889-3-13	PROBE,N2 SHAFT SPEED,HPC	6109
889-3-13	PROBE,N2 SHAFT SPEED,HPC	6111
889-3-13	PROBE,N2 SHAFT SPEED,HPC	6112
889-3-13	PROBE,N2 SHAFT SPEED,HPC	6110
CV41-14-2	PUMP,DRAINS EJECTOR	06-0309168
473899	WIRE, FIRE CORE	0424
50043001-11	COOLER,VFG OIL AIR COOLED	50043-1104
50042001-11	COOLER,VFG OIL AIR COOLED	50042-1101
FW33927	DISC,ASSY	STDK34924
BRR22626	FILLER ASSY	HLAH35150
BRR22626	FILLER ASSY	HLAH35157
BRR22626	FILLER ASSY	HLAH35159
BRR22626	FILLER ASSY	HLAH35161
BRR22626	FILLER ASSY	HLAH35164
BRR22626	FILLER ASSY	HLAH49893
BRR22626	FILLER ASSY	HLAH49891
BRR22626	FILLER ASSY	HLAH49887
BRR22626	FILLER ASSY	HLAH49884
BRR22626	FILLER ASSY	HLAH49883
BRR22626	FILLER ASSY	HLAH49882
BRR22626	FILLER ASSY	HLAH49881
BRR22626	FILLER ASSY	HLAH35242

BRR22626	FILLER ASSY	HLAH35168
BRR22626	FILLER ASSY	HLAH49965
BRR22626	FILLER ASSY	HLAH49899
BRR22626	FILLER ASSY	HLAH49894
BRR22626	FILLER ASSY	HLAH35162
BRR22626	FILLER ASSY	HLAH35160
BRR22626	FILLER ASSY	HLAH35158
BRR22626	FILLER ASSY	HLAH35155
BRR22626	FILLER ASSY	HLAH35152
BRR22626	FILLER ASSY	HLAH35154
BRR22626	FILLER ASSY	HLAH35153
BRR24148	BEARING-ASSY OF	826
BRR12474	RING,BEARING,OUTER	952
BRR23643	BEARING-ASSY,INNER,REAR	770
BRR23914	SHAFT-ASSY OF FAN	CL20052
BRR22752	CASE ASSY,INTERMEDTE COMP	00860
BRR22056	BEARING ASSY OF - NO.3	1037
1022-1-11	PROBE,LPC TRIM BALANCE	2987
1022-1-11	PROBE,LPC TRIM BALANCE	2988
1022-1-11	PROBE,LPC TRIM BALANCE	2990
1022-1-11	PROBE,LPC TRIM BALANCE	2989
BRR24382	ROTOR-ASSY,HPC STG.1-6	2162
BRR24357	ROTOR-ASSY,HPC STG.7-10	3242
BRR21927	NOZZLE-ASSY OF, HPC	1457
BRH20340	RING,CURVIC HPT	6416
BRR23952	DISC,HPT STG.1	LDRQA00960
BRR22008	DISC,HPT STG.2	LDRQA01244
BRR24545	SHAFT-ASSY OF	404
BRR23504	HOUSING-ASSY OF,SUPPORT	00991
BRR19612	SHAFT, TURBINE LP	SBAN655
BRR15535	DISC,LPT STG.1	6370
BRR11896	DISC,LPT STG.2	6364
BRR40703	SHAFT-ASSY OF,STUB	831
39600219	GEARBOX-ASSY OF,ACCES.	629
07C0001-005	Nose Cowl Fully Equipped	E215
07D0001-013	Fan Cowl Door Upper	E215/SB2636
07D1001-017	Fan Cowl Door Lower	E215/SB2638
07E0001-023	Apron Assembly	E215
07G0001-009	Thrust Reverser	LH431
GL511-1103-5	VF Generator (BFE)	2252
GL511-1103-5	VF Generator (BFE)	2249
GX472-0010-1	Hydraulic Pump (BFE)	K0472
GG436-1002-3	Check Valve (BFE)	533
GG436-1003-9	Valve Press Regulating (BFE)	612
GG436-1001-7	Valve 8 th Stage (BFE)	587

GG436-1018-1	Pressure transducer (BFE)	696
APTE-257-1000-75G	Pressure transducer (KULITE)	7168-6-417
510-0020-5	Tai Valve - Grimes	D0395
540-1394-2	Valve in line pressure limiter	D0496
3291182-4	Valve Air Starter Control	0406-1859
BRR24405	Link Assy Front Mount	THEAP9885
BRR24405	Link Assy Front Mount	THEAP9886
BRR15812	Pin Mount to Beam Attach	155033027
BRR15812	Pin Mount to Beam Attach	155033004
BRR15835	Pin Mount Beam to Link	KWBB884
BRR15835	Pin Mount Beam to Link	KWBB882
BRR22163	Thrust Union Pin/Bearing Assy	K055950
BRR24413	Link Assy Rear Mount	THEAP9657
BRR24413	Link Assy Rear Mount	THEAP9660
BRR15838	Pin Link to Mount Ring	KWBC915
BRR15838	Pin Link to Mount Ring	KWBC918
BRR15824	Pin Thrust Strut to Pylon	147591039
BRR17672	Strut Assy - Thrust	D8076
BRR15809	Pin Thrust Struts Attach	153949006
BRR24391	Mount Beam Assy LH	BSTDK0111
BRR15805	Pin Pylon Attachment	KWBA903
BRR15805	Pin Pylon Attachment	KWBA906
BRR24407	Mount Assy of Beam Rear	EEAP5543
BRR15840	Pin Mount Beam to Pylon	KWBD917
BRR15840	Pin Mount Beam to Pylon	KWBD916

Engine 12534

Partnumber	Part Name	Serialnumber
BRR24368	FAIRING,NOSECONE-ASSY OF	BA81621
828200-2	PUMP, FUEL UNIT	1285
8910-214	MANIFOLD, SPLT.& O/S UNIT	14695755
6940426E14	BURNER-ASSY OF, FUEL	N20150
6940426E14	BURNER-ASSY OF, FUEL	N20151
6940426E14	BURNER-ASSY OF, FUEL	N20153
6940426E14	BURNER-ASSY OF, FUEL	N20152
6940426E14	BURNER-ASSY OF, FUEL	N20154
6940426E14	BURNER-ASSY OF, FUEL	N20156
6940426E14	BURNER-ASSY OF, FUEL	N20158
6940426E14	BURNER-ASSY OF, FUEL	N20160
6940426E14	BURNER-ASSY OF, FUEL	N20162
6940426E14	BURNER-ASSY OF, FUEL	N20169
6940426E14	BURNER-ASSY OF, FUEL	N20168
6940426E14	BURNER-ASSY OF, FUEL	N20167

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6940426E14	BURNER-ASSY OF, FUEL	N20166
6940426E14	BURNER-ASSY OF, FUEL	N20165
6940426E14	BURNER-ASSY OF, FUEL	N20164
6940426E14	BURNER-ASSY OF, FUEL	N20163
6940426E14	BURNER-ASSY OF, FUEL	N20161
6940426E14	BURNER-ASSY OF, FUEL	N20159
6940426E14	BURNER-ASSY OF, FUEL	N20157
6940426E14	BURNER-ASSY OF, FUEL	N20155
8061-977	METER,FUEL UNIT (FMU)	14647725
83311-430242	ROTOR,DEDICATED GENERATOR	3415
83311-430117	GENERATOR,DEDIC. STATOR	3420
8910-312	VALVE,FUEL RETURN TO TANK	14677836
21SN04-430	SWITCH,FUEL FILTER DIFF P	F046315
21SN04-433	SWITCH,FUEL LOW PRESSURE	G000670
1122806	TRANSDUCER,FUEL/OIL TEMP	M8607
1122806	TRANSDUCER,FUEL/OIL TEMP	M8622
1122806	TRANSDUCER,FUEL/OIL TEMP	M8609
TC428-01	PROBE,T30 THERMOCOUPLE	RRAD0830
TC428-01	PROBE,T30 THERMOCOUPLE	RRAD0807
9-217-82	TRANSMITTER,FUEL FLOW	235682-40
1520KDC09-010	CONTROLLER,ELECTR.ENGINE	BX660181
LR47000C	PUMP,OIL UNIT	C0172
55007001-41	COOLER,OIL FUEL COOLED	55007-1099
PDCR300164001M1	TRANSDUCER,OIL DIFFR. PR	2256644
PDCR300164001M1	TRANSDUCER,OIL DIFFR. PR	2256648
21SN04-472	SWITCH,OIL FILTER DIFF PR	F032117
1122806	TRANSDUCER,FUEL/OIL TEMP	M5410
1122806	TRANSDUCER,FUEL/OIL TEMP	M8616
QA07508	INDICATER,OIL FLTR POP-UP	RQ4-5543
9060440-2	IGNITION,UNIT	05502787
9060440-2	IGNITION,UNIT	05502789
EB100420D	VALVE, HANDLING BLEED	EMC454
EB100420D	VALVE, HANDLING BLEED	EMC456
EB100420D	VALVE, HANDLING BLEED	EMC457
EB100420D	VALVE, HANDLING BLEED	EMC455
8100-115	ACTUATOR,VANE STATOR VAR	14652400
8910-512	VALVE,AIR BUFFER	14688564
EA100118G	SOLENOID,HANDL.BLEED VALV	EMC399
3505934-8	STARTER,AIR TURBINE	0506-1696
8TC60AAC1	PROBE,THERMOCOUPLE	MF004152
8TC60AAC1	PROBE,THERMOCOUPLE	MF004170
8TC60AAC1	PROBE,THERMOCOUPLE	MF004200
8TC60AAC1	PROBE,THERMOCOUPLE	MF004197
8TC60AAC1	PROBE,THERMOCOUPLE	MF004181
8TC60AAC1	PROBE,THERMOCOUPLE	MF004178

8TC60AAC1	PROBE,THERMOCOUPLE	MF004167
920-4-14	THERMOCOUPLE,TRB DISC O/H	2313
920-4-14	THERMOCOUPLE,TRB DISC O/H	2312
889-3-13	PROBE,N2 SHAFT SPEED,HPC	7722
889-3-13	PROBE,N2 SHAFT SPEED,HPC	7725
889-3-13	PROBE,N2 SHAFT SPEED,HPC	7723
889-3-13	PROBE,N2 SHAFT SPEED,HPC	7724
CV41-14-2	PUMP,DRAINS EJECTOR	06-041229
473899	WIRE, FIRE CORE	0415
50043001-11	COOLER,VFG OIL AIR COOLED	50043-1101
50042001-11	COOLER,VFG OIL AIR COOLED	50042-1102
FW33927	DISC,ASSY	STDK34921
BRR22626	FILLER ASSY	HLAH49756
BRR22626	FILLER ASSY	HLAH49758
BRR22626	FILLER ASSY	HLAH49759
BRR22626	FILLER ASSY	HLAH49763
BRR22626	FILLER ASSY	HLAH49762
BRR22626	FILLER ASSY	HLAH49761
BRR22626	FILLER ASSY	HLAH49766
BRR22626	FILLER ASSY	HLAH49772
BRR22626	FILLER ASSY	HLAH49775
BRR22626	FILLER ASSY	HLAH49788
BRR22626	FILLER ASSY	HLAH49787
BRR22626	FILLER ASSY	HLAH49786
BRR22626	FILLER ASSY	HLAH49784
BRR22626	FILLER ASSY	HLAH49782
BRR22626	FILLER ASSY	HLAH49780
BRR22626	FILLER ASSY	HLAH49779
BRR22626	FILLER ASSY	HLAH49777
BRR22626	FILLER ASSY	HLAH49776
BRR22626	FILLER ASSY	HLAH49795
BRR22626	FILLER ASSY	HLAH49794
BRR22626	FILLER ASSY	HLAH49791
BRR22626	FILLER ASSY	HLAH49790
BRR22626	FILLER ASSY	HLAH49773
BRR22626	FILLER ASSY	HLAH49770
BRR24148	BEARING-ASSY OF	827
BRR12474	RING,BEARING,OUTER	965
BRR23643	BEARING-ASSY,INNER,REAR	763
BRR23914	SHAFT-ASSY OF FAN	CL20065
BRR22752	CASE ASSY,INTERMEDTE COMP	00847
BRR22056	BEARING ASSY OF - NO.3	1029
1022-1-11	PROBE,LPC TRIM BALANCE	2832
1022-1-11	PROBE,LPC TRIM BALANCE	2833
1022-1-11	PROBE,LPC TRIM BALANCE	2835

1022-1-11	PROBE,LPC TRIM BALANCE	2834
BRR24382	ROTOR-ASSY,HPC STG.1-6	2161
BRR24357	ROTOR-ASSY,HPC STG.7-10	3256
BRR21927	NOZZLE-ASSY OF, HPC	1453
BRH20340	RING,CURVIC HPT	6403
BRR23952	DISC,HPT STG.1	LDRQA01034
BRR22008	DISC,HPT STG.2	LDRQA01075
BRR24545	SHAFT-ASSY OF	388
BRR23504	HOUSING-ASSY OF,SUPPORT	00948
BRR19612	SHAFT, TURBINE LP	SBAN653
BRR15535	DISC,LPT STG.1	6350
BRR11896	DISC,LPT STG.2	6358
BRR40703	SHAFT-ASSY OF,STUB	837
39600219	GEARBOX-ASSY OF,ACCES.	623
07C0001-006	Nose Cowl Fully Equipped	E215
07D0001-014	Fan Cowl Door Upper	E215/SB2637
07D1002-017	Fan Cowl Door Lower	E215/SB2639
07E0001-024	Apron Assembly	E215
07G0001-011	Thrust Reverser	RH430
GL511-1103-5	VF Generator (BFE)	2251
GL511-1103-5	VF Generator (BFE)	2248
GX472-0010-1	Hydraulic Pump (BFE)	K0469
GG436-1002-3	Check Valve (BFE)	549
GG436-1003-9	Valve Press Regulating (BFE)	586
GG436-1001-7	Valve 8 th Stage (BFE)	589
GG436-1018-1	Pressure transducer (BFE)	517
APTE-257-1000-75G	Pressure transducer	7168-6-409
510-0020-5	Tai Valve – Grimes	D0394
540-1394-2	Valve in line pressure limiter	D0483
3291182-4	Valve Air Starter Control	0206-1840
BRR24405	Link Assy Front Mount	THEAP9750
BRR24405	Link Assy Front Mount	THEAP9751
BRR15812	Pin Mount to Beam Attach	155033030
BRR15812	Pin Mount to Beam Attach	155033039
BRR15835	Pin Mount Beam to Link	KWBB976
BRR15835	Pin Mount Beam to Link	KWBB974
BRR22163	Thrust Union Pin/Bearing Assy	K055951
BRR24413	Link Assy Rear Mount	THEAP9684
BRR24413	Link Assy Rear Mount	THEAP9683
BRR15838	Pin Link to Mount Ring	KWBC973
BRR15838	Pin Link to Mount Ring	KWBC976
BRR15824	Pin Thrust Strut to Pylon	147591022
BRR15817	Strut Assy - Thrust	D8087
BRR15809	Pin Thrust Struts Attach	153949018
BRR24400	Mount Beam Assy RH	BSTDK0120

BRR15805	Pin Pylon Attachment	KWBA950
BRR15805	Pin Pylon Attachment	KWBA949
BRR24407	Mount Assy of Beam Rear	EEAP5544
BRR15840	Pin Mount Beam to Pylon	KWBD910
BRR15840	Pin Mount Beam to Pylon	KWBD915