



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: BR700-710C4-11
UNIQUE ID NUMBER: 6BR010
ENGINE TYPE: MTF

BYPASS RATIO: 4.05
PRESSURE RATIO (π_{00}): 24.95
RATED OUTPUT (F_{00}) (kN): 68.77

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	6.7	79.0	48.0	18.5
AS % OF ORIGINAL LIMIT	34.2 %	67.0 %	53.4 %	70.4 %
AS % OF CAEP/2 LIMIT (NOx)			66.7 %	
AS % OF CAEP/4 LIMIT (NOx)			76.0 %	
AS % OF CAEP/6 LIMIT (NOx)			82.2 %	
AS % OF CAEP/8 LIMIT (NOx)			93.7 %	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
x DEDICATED ENGINES TO PRODUCTION STANDARD
- OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
(ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
- OUT OF PRODUCTION
- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (% F_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.747	0.02	1.04	19.52	14.34
CLIMB OUT	85	2.2	0.617	0.02	0.92	15.43	12.36
APPROACH	30	4.0	0.215	0.05	4.92	7.71	0.35
IDLE	7	26.0	0.083	2.29	31.57	4.5	0.45
LTO TOTAL FUEL (kg) or EMISSIONS (g)			294	301	4449	2850	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				4.36	64.37	41.41	14.34
SIGMA (D_p/F_{00} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{00} in g/kN, or SN)				4.19 - 4.4	63.78-64.19	40.63-41.90	13.08-14.37

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.9 - 101.2
TEMPERATURE (K)	282.9 - 286.7
AHS HUMIDITY (kg/kg)	0.0064 - 0.0087

FUEL

SPEC	AVTUR
H/C	1.89
AROM (%)	16.4 - 18.0

MANUFACTURER: Rolls-Royce
TEST ORGANIZATION: Rolls-Royce
TEST LOCATION: Dahlewitz
TEST DATES: FROM 19 Oct 96 TO 20 Oct 96

REMARKS

1. Certification report E-TR554/01 - (FR) - 01
2. For Gulfstream G550 application
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NOx levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)