



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: BR700-710C4-11
UNIQUE ID NUMBER: 01P06BR014
COMBUSTOR: Annular
ENGINE TYPE: MTF
BYPASS RATIO: 4.1
PRESSURE RATIO (π_{00}): 25.0
RATED THRUST (F_{00}) (kN): 68.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	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 (NO _x)			66.7	
AS % OF CAEP/4 LIMIT (NO _x)			76.0	
AS % OF CAEP/6 LIMIT (NO _x)			82.2	
AS % OF CAEP/8 LIMIT (NO _x)			93.7	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

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 (DATE: -)
- OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	0.747	0.02	1.04	19.52	14.3
CLIMB OUT	85	2.2	0.617	0.02	0.92	15.43	12.4
APPROACH	30	4.0	0.215	0.05	4.92	7.71	0.4
IDLE	7	26.0	0.083	2.29	31.57	4.50	0.5
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)				4.4	64.4	41.4	14.3
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)				4.19-4.47	63.78-64.19	40.63-41.9	13.08-14.37

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

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

FUEL

SPEC	AVTUR
H/C	1.89
AROM (%)	16.4-18

MANUFACTURER: Rolls-Royce Deutschland
TEST ORGANIZATION: BMW Rolls-Royce GmbH
TEST LOCATION: Dahlewitz
TEST DATES: 19/10/1996-20/10/1996

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

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

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)