



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: BR700-725A1-12
UNIQUE ID NUMBER: 01P11BR016
COMBUSTOR: Z-ring
ENGINE TYPE: MTF

BYPASS RATIO: 4.4
PRESSURE RATIO (π_{00}): 26.2
RATED THRUST (F_{00}) (kN): 75.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	8.1	95.7	39.3	5.8
AS % OF ORIGINAL LIMIT	41.3	81.1	42.6	22.5
AS % OF CAEP/2 LIMIT (NO _x)			53.2	
AS % OF CAEP/4 LIMIT (NO _x)			61.7	
AS % OF CAEP/6 LIMIT (NO _x)			67.9	
AS % OF CAEP/8 LIMIT (NO _x)			78.3	

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)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.789	0.00	0.40	16.92	4.2
CLIMB OUT	85	2.2	0.650	0.00	0.32	13.32	4.5
APPROACH	30	4.0	0.221	0.00	5.93	7.81	0.0
IDLE	7	26.0	0.085	3.00	41.90	3.38	0.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			305	398	5899	2565	-
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)				5.3	77.9	33.9	4.5
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.6	1.6	2.5	0.3
RANGE (D _p /F ₀₀ in g/kN, or SN)				4.6-5.6	76.1-79.2	31.2-36.2	4.3-4.9

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.5-101
TEMPERATURE (K)	294.7-297.9
ABS HUMIDITY (kg/kg)	0.0076-0.00815

FUEL

SPEC	Def. Stan. 91-92
H/C	1.94
AROM (%)	18

MANUFACTURER: Rolls-Royce Deutschland
TEST ORGANIZATION: Rolls-Royce Deutschland
TEST LOCATION: Dahlewitz
TEST DATES: 06/08/2008-06/08/2008

REMARKS

1. Data from Certification Report O-TR0053/12-ISS02.
2. Certification in accordance with Part III, Chapter 2, of Amendment 6 of ICAO Annex 16 Vol. II.
3. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)