



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: BR700-730B2-14
UNIQUE ID NUMBER: 06P26RR149
COMBUSTOR: Advanced Rich Burn
ENGINE TYPE: MTF
BYPASS RATIO: 5.4
PRESSURE RATIO (π_{00}): 35.5
RATED THRUST (F_{00}) (kN): 81.7

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.6	41.6	51.8	5.8
AS % OF ORIGINAL LIMIT	2.8	35.3	46.6	23.2
AS % OF CAEP/2 LIMIT (NO _x)			58.3	
AS % OF CAEP/4 LIMIT (NO _x)			65.3	
AS % OF CAEP/6 LIMIT (NO _x)			71.7	
AS % OF CAEP/8 LIMIT (NO _x)			80.9	

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	0.787	0.00	0.41	30.39	1.9
CLIMB OUT	85	2.2	0.646	0.00	0.47	22.54	3.1
APPROACH	30	4.0	0.213	0.00	2.44	9.77	2.3
IDLE	7	26.0	0.081	0.28	22.22	3.34	1.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			296	35	2982	3846	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				0.4	36.5	47.1	5.0
SIGMA (D _p /F ₀₀ in g/kN, or SN)				0.1	1.0	1.5	0.3
RANGE (D _p /F ₀₀ in g/kN, or SN)				0.36-0.5	35.82-37.22	46.03-48.18	4.8-5.1

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.4-101.8
TEMPERATURE (K)	288.4-299.7
ABS HUMIDITY (kg/kg)	0.00736-0.00883

FUEL

SPEC	
H/C	1.89
AROM (%)	17.48

MANUFACTURER: Rolls-Royce Deutschland
TEST ORGANIZATION: Rolls-Royce Deutschland
TEST LOCATION: Dahlewitz
TEST DATES: 05/09/2021-09/09/2021

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. Emission Compliance with two engines tested. Report EDNS01000692129
2. Engine Build Numbers 72008 and 72009
3. Certification in accordance with Part III, Chapter 2, of Amendment 9 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 ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)