ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: BR700-715A1-30
UNIQUE ID NUMBER: 4BR002
ENGINE TYPE: MTF

BYPASS RATIO: 4.66
PRESSURE RATIO (π_{oo}): 28.98
RATED OUTPUT (F_{oo}) (kN): 84.16

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.6	40.1	55.1	4.2
AS % OF ORIGINAL LIMIT	3.1 %	33.9 %	56.3 %	16.8 %
AS % OF CAEP/2 LIMIT (NOx)			70.3 %	
AS % OF CAEP/4 LIMIT (NOx)			82.9 %	
AS % OF CAEP/6 LIMIT (NOx)			93.2 %	
AS % OF CAEP/8 LIMIT (NOx)			108.7 %	

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)

- x OUT OF PRODUCTION (DATE: -)
- \- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING ($\%F_{oo}$)	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	0.836	0	0.78	23.97	3.24
CLIMB OUT	85	2.2	0.690	0.02	0.75	18.65	2.73
APPROACH	30	4.0	0.245	0.01	3.76	11.19	0.97
IDLE	7	26.0	0.096	0.21	16.27	5.37	0.91
LTO TOTAL FUEL (kg) or EMISSIONS (g)			335	34	2753	4002	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				0.39	32.64	47.54	3.24
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				0.32-0.47	31.93-33.86	47.19-48.08	3.04-3.40

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.3-101.9
TEMPERATURE (K)	288.8-294.4
ABS HUMIDITY (kg/kg)	0.0066-.0079

FUEL

SPEC	AVTUR
H/C	1.89
AROM (%)	17.7

MANUFACTURER: BMW Rolls-Royce GmbH
TEST ORGANIZATION: BMW Rolls-Royce GmbH
TEST LOCATION: BMW Rolls-Royce GmbH, Dahlewitz, Germany
TEST DATES: FROM 07 May 98 TO 08 May 98

REMARKS

Data from Certification Report E-TR484/98 (FR) ISS00

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)