ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: BR700-715B1-30   BYPASS RATIO: 4.6
UNIQUE ID NUMBER: 4BR003   PRESSURE RATIO (π_{oo}):   30.47
ENGINE TYPE: MTF   RATED OUTPUT (F_{oo}) (kN): 89.68

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.5	36.9	59.2	4.6
AS % OF ORIGINAL LIMIT	2.3 %	31.3 %	58.7 %	18.9 %
AS % OF CAEP/2 LIMIT (NOx)			73.3 %	
AS % OF CAEP/4 LIMIT (NOx)			87.2 %	
AS % OF CAEP/6 LIMIT (NOx)			98.9 %	
AS % OF CAEP/8 LIMIT (NOx)			115.9 %	

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	0.905	0	0.78	27.21	3.55
CLIMB OUT	85	2.2	0.743	0.01	0.76	20.34	2.9
APPROACH	30	4.0	0.259	0	3.38	11.38	1.03
IDLE	7	26.0	0.098	0.17	15.56	5.54	0.89
LTO TOTAL FUEL (kg) or EMISSIONS (g)	351			27	2693	4583	-
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)				0.3	30.08	51.1	3.55
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				0.24-0.37	29.44-31.21	50.79-51.54	3.24-3.80

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)