ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-217 series   BYPASS RATIO: 1.73
UNIQUE ID NUMBER: 1PW018   PRESSURE RATIO (π_{oo}):   19.66
ENGINE TYPE: MTF   RATED OUTPUT (F_{oo}) (kN):   92.74

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	15.6	42.7	74.9	17.1
AS % OF ORIGINAL LIMIT	79.4 %	36.2 %	94.4 %	70.8 %
AS % OF CAEP/2 LIMIT (NOx)			118.0 %	
AS % OF CAEP/4 LIMIT (NOx)			148.4 %	
AS % OF CAEP/6 LIMIT (NOx)			168.6 %	
AS % OF CAEP/8 LIMIT (NOx)			210.6 %	

DATA STATUS   TEST ENGINE STATUS

-    PRE-REGULATION   -   NEWLY MANUFACTURED ENGINES
x   CERTIFICATION   x   DEDICATED ENGINES TO PRODUCTION STANDARD
-    REVISED (SEE REMARKS)   -   OTHER (SEE REMARKS)

EMISSIONS STATUS   CURRENT ENGINE STATUS

x   DATA CORRECTED TO REFERENCE   (IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
     (ANNEX 16 VOLUME II)   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	1.320	0.28	0.8	25.7	13.2
CLIMB OUT	85	2.2	1.078	0.43	1.23	20.6	–
APPROACH	30	4.0	0.383	1.6	4.17	9.1	–
IDLE	7	26.0	0.137	3.33	12.27	3.7	–
LTO TOTAL FUEL (kg) or EMISSIONS (g)			504	937	3229	5985	–
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)				10.1	34.8	64.6	13.3
SIGMA (D_p/F_{oo} in g/kN, or SN)				–	–	–	–
RANGE (D_p/F_{oo} in g/kN, or SN)				–	–	–	–

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS   FUEL

BAROMETER (kPa)	–
TEMPERATURE (K)	275 – 288
ABS HUMIDITY (kg/kg)	–

SPEC	Jet A
H/C	–
AROM (%)	–

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: E Hartford, CT, USA
TEST DATES: FROM   07 Nov 83   TO 30 Nov 83

REMARKS

1. All measurements by traverse.
2. SCH 46-16B combustor.
3. Applicable to JT8D-217, -217A, -217C.

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