ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-17
UNIQUE ID NUMBER: 1PW012
COMBUSTOR: Smoke fix
ENGINE TYPE: MTF

BYPASS RATIO: 1.0
PRESSURE RATIO (π_{oo}):   17.0

RATED THRUST (F_{oo}) (kN):   71.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO$_X$	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	41.0	118.3	62.5	25.5
AS % OF ORIGINAL LIMIT	209.4	100.3	84.4	98.2
AS % OF CAEP/2 LIMIT (NO$_X$)			105.5	
AS % OF CAEP/4 LIMIT (NO$_X$)			125.0	
AS % OF CAEP/6 LIMIT (NO$_X$)			135.9	
AS % OF CAEP/8 LIMIT (NO$_X$)			161.0	

DATA STATUS

- x   PRE-REGULATION
- - CERTIFICATION
- x   REVISED (SEE REMARKS)

TEST ENGINE STATUS

- x   NEWLY MANUFACTURED ENGINES
- - 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   (DATE: -   )

MEASURED DATA

MODE	POWER SETTING (%F$_{oo}$)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO$_X$	
TAKE-OFF	100	0.7	1.245	0.69	0.74	19.20	
CLIMB OUT	85	2.2	0.997	0.79	1.00	15.23	
APPROACH	30	4.0	0.354	1.96	8.54	6.10	
IDLE	7	26.0	0.147	10.20	31.00	3.30	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			498	2646	8005	4283	-
NUMBER OF ENGINES				7	7	7	7
NUMBER OF TESTS				8	8	8	8
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				37.2	112.5	60.2	24.0
SIGMA (D_p/F_{oo} in g/kN, or SN)				9.3	12.4	7.2	3.0
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

BAROMETER (kPa)	
TEMPERATURE (K)	269-303
ABS HUMIDITY (kg/kg)	0.0029-0.0093

FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: East Hartford, CT
TEST DATES: 01/04/1976-01/03/1977

REMARKS

1. Smoke fix combustor in production prior to 1/1/84

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

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