



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-17AR
UNIQUE ID NUMBER: 1PW015
ENGINE TYPE: MTF

BYPASS RATIO: 0.96
PRESSURE RATIO (π_{oo}): 17.28
RATED OUTPUT (F_{oo}) (kN): 77.42

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	6.1	40.2	71.0	21.6
AS % OF ORIGINAL LIMIT	31.0 %	34.1 %	95.3 %	84.9 %
AS % OF CAEP/2 LIMIT (NOx)			119.1 %	
AS % OF CAEP/4 LIMIT (NOx)			144.6 %	
AS % OF CAEP/6 LIMIT (NOx)			159.6 %	
AS % OF CAEP/8 LIMIT (NOx)			193.2 %	

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)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.365	0.21	0.93	24.5	19.6
CLIMB OUT	85	2.2	1.047	0.27	1.08	16	-
APPROACH	30	4.0	0.357	0.55	2.68	8	-
IDLE	7	26.0	0.148	1.33	10.7	3.2	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			512	403	2898	5039	-
NUMBER OF ENGINES				3	3	2	3
NUMBER OF TESTS				8	8	5	5
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				5.2	37.2	64.6	19.6
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

BAROMETER (kPa)	-
TEMPERATURE (K)	266 - 297
ABS HUMIDITY (kg/kg)	-

FUEL

SPEC	Jet A
H/C	-
AROM (%)	-

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: E Hartford, CT, USA
TEST DATES: FROM 07 Dec 79 TO 19 Jun 80

REMARKS

1. Reduced Emissions Combustor incorporated 1/1/84

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)