



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-7 series
UNIQUE ID NUMBER: 1PW004
ENGINE TYPE: MTF

BYPASS RATIO: 1.05
PRESSURE RATIO (π_{00}): 15.82
RATED OUTPUT (F_{00}) (kN): 62.27

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	39.9	135.8	50.9	23.2
AS % OF ORIGINAL LIMIT	203.8 %	115.1 %	71.0 %	86.1 %
AS % OF CAEP/2 LIMIT (NOx)			88.7 %	
AS % OF CAEP/4 LIMIT (NOx)			101.8 %	
AS % OF CAEP/6 LIMIT (NOx)			108.6 %	
AS % OF CAEP/8 LIMIT (NOx)			125.5 %	

DATA STATUS

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

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
- DEDICATED ENGINES TO PRODUCTION STANDARD
x 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_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.989	0.4	1.5	17.1	22.2
CLIMB OUT	85	2.2	0.811	0.5	2	13.5	-
APPROACH	30	4.0	0.286	1.6	10.5	5.5	-
IDLE	7	26.0	0.129	10.6	35.5	2.7	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			419	2315	8147	3078	-
NUMBER OF ENGINES				13	13	13	13
NUMBER OF TESTS				14	14	14	14
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				37.2	130.9	49.5	22.2
SIGMA (D_p/F_{00} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{00} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 % CORE FLOW

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100-102
TEMPERATURE (K)	262 - 300
AHS HUMIDITY (kg/kg)	0.0005-0.0123

FUEL

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

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: E Hartford, CT, USA
TEST DATES: FROM Apr 76 TO Mar 77

REMARKS

- Smoke fix combustor in production prior to 1/1/84.
- Applicable to JT8D-7, -7A, -7B.
- Tests performed on in-service engine(s).

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

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