



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-7 series
UNIQUE ID NUMBER: 8PW085
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	17.2	58.0	57.5	11.1
AS % OF ORIGINAL LIMIT	87.6 %	49.1 %	80.3 %	41.3 %
AS % OF CAEP/2 LIMIT (NOx)			100.3 %	
AS % OF CAEP/4 LIMIT (NOx)			115.1 %	
AS % OF CAEP/6 LIMIT (NOx)			122.7 %	
AS % OF CAEP/8 LIMIT (NOx)			141.7 %	

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_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.989	0.25	0.9	17.2	9.5
CLIMB OUT	85	2.2	0.811	0.25	1.1	14	-
APPROACH	30	4.0	0.286	0.4	2.2	6.3	-
IDLE	7	26.0	0.129	3.8	14.3	3.15	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			419	830	3186	3281	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				7	7	4	4
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				13.2	50.9	52.3	9.5
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)	-
TEMPERATURE (K)	270 - 311
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 26 Feb 80 TO 18 Jun 80

REMARKS

1. Reduced emissions combustor.
2. Applicable to JT8D-7, -7A, -7B.
3. Factor used for calculation of D_p/F_{00} CO [1PW005] was based on number of tests not engines.
4. Corrected in version15

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

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