



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-9 series  
UNIQUE ID NUMBER: 1PW006  
ENGINE TYPE: MTF

BYPASS RATIO: 1.04  
PRESSURE RATIO ( $\pi_{00}$ ): 15.88  
RATED OUTPUT ( $F_{00}$ ) (kN): 64.5

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	37.6	129.0	53.7	24.0
AS % OF ORIGINAL LIMIT	191.7 %	109.3 %	74.8 %	90.0 %
AS % OF CAEP/2 LIMIT (NOx)			93.5 %	
AS % OF CAEP/4 LIMIT (NOx)			108.3 %	
AS % OF CAEP/6 LIMIT (NOx)			116.0 %	
AS % OF CAEP/8 LIMIT (NOx)			135.0 %	

### DATA STATUS

x PRE-REGULATION  
- CERTIFICATION  
- 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

### 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	1.040	0.47	1.24	17.92	-
CLIMB OUT	85	2.2	0.846	0.47	1.66	14.21	-
APPROACH	30	4.0	0.298	1.73	9.43	5.64	-
IDLE	7	26.0	0.132	10	34.5	2.9	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			433	2256	8018	3370	-
NUMBER OF ENGINES				13	13	14	14
NUMBER OF TESTS				14	14	14	14
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				35	124.3	52.3	23
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				8.4	11.2	5.7	2
RANGE ( $D_p/F_{00}$ 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)	100-102
TEMPERATURE (K)	262- 300
ABS HUMIDITY (kg/kg)	0.0005-0.0123

### FUEL

SPEC	Jet A
H/C	1.89
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-9, -9A.

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

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