



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

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

BYPASS RATIO: 1.1  
PRESSURE RATIO ( $\pi_{oo}$ ): 15.8  
RATED THRUST ( $F_{oo}$ ) (kN): 62.3

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>oo</sub> (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 (NO <sub>x</sub> )			88.7	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			101.8	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			108.6	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			125.5	

### DATA STATUS

x PRE-REGULATION  
- CERTIFICATION  
x 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 (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>oo</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.989	0.40	1.50	17.10	22.2
CLIMB OUT	85	2.2	0.811	0.50	2.00	13.50	
APPROACH	30	4.0	0.286	1.60	10.50	5.50	
IDLE	7	26.0	0.129	10.60	35.50	2.70	
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 <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)				37.2	130.9	49.5	22.2
SIGMA (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>oo</sub> 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
ABS HUMIDITY (kg/kg)	0.0005-0.0123

### FUEL

SPEC	Jet A
H/C	
AROM (%)	

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

### REMARKS

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

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation,  
'- ' if information is not available)