



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-7 series  
UNIQUE ID NUMBER: 8PW085  
COMBUSTOR: Reduced emissions  
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	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 (NO <sub>x</sub> )			100.3	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			115.1	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			122.7	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			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 (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>oo</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	0.989	0.25	0.90	17.20	9.5
CLIMB OUT	85	2.2	0.811	0.25	1.10	14.00	
APPROACH	30	4.0	0.286	0.40	2.20	6.30	
IDLE	7	26.0	0.129	3.80	14.30	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 <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)				13.2	50.9	52.3	9.5
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)	
TEMPERATURE (K)	270-311
ABS HUMIDITY (kg/kg)	

### FUEL

SPEC	Jet A
H/C	
AROM (%)	

MANUFACTURER: Pratt & Whitney  
TEST ORGANIZATION: P&WA  
TEST LOCATION: East Hartford, CT  
TEST DATES: 26/02/1980-18/06/1980

### REMARKS

1. Reduced emissions combustor.
2. Applicable to JT8D-7, -7A, -7B.
3. Factor used for calculation of D<sub>p</sub>/F<sub>oo</sub> CO [1PW005] was based on number of tests not engines.
4. Corrected in version15

Compliance with Fuel Venting requirements:

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