



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-15  
UNIQUE ID NUMBER: 1PW009  
ENGINE TYPE: MTF

BYPASS RATIO: 1.03  
PRESSURE RATIO ( $\pi_{00}$ ): 16.81  
RATED OUTPUT ( $F_{00}$ ) (kN): 68.94

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	43.4	137.4	60.1	25.3
AS % OF ORIGINAL LIMIT	221.2 %	116.4 %	81.6 %	96.6 %
AS % OF CAEP/2 LIMIT (NOx)			102.0 %	
AS % OF CAEP/4 LIMIT (NOx)			119.9 %	
AS % OF CAEP/6 LIMIT (NOx)			129.7 %	
AS % OF CAEP/8 LIMIT (NOx)			152.5 %	

### 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	1.178	0.25	0.7	19.1	-
CLIMB OUT	85	2.2	0.945	0.25	1	15	-
APPROACH	30	4.0	0.340	1.65	9.6	5.9	-
IDLE	7	26.0	0.148	11	35.2	3	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			486	2713	9054	3989	-
NUMBER OF ENGINES				7	7	7	7
NUMBER OF TESTS				8	8	8	8
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				39.3	130.6	57.9	23.8
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) AT - POWER SETTINGS  
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	-
TEMPERATURE (K)	269 - 302
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 Apr 76 TO Mar 77

### REMARKS

1. Smoke fix combustor in production prior to 1/1/84

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

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