



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT8D-17A  
UNIQUE ID NUMBER: 1PW014  
ENGINE TYPE: MTF

BYPASS RATIO: 1.05  
PRESSURE RATIO ( $\pi_{00}$ ): 16.87  
RATED OUTPUT ( $F_{00}$ ) (kN): 71.17

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	8.6	47.4	60.6	18.5
AS % OF ORIGINAL LIMIT	43.8 %	40.1 %	82.2 %	71.1 %
AS % OF CAEP/2 LIMIT (NOx)			102.7 %	
AS % OF CAEP/4 LIMIT (NOx)			121.7 %	
AS % OF CAEP/6 LIMIT (NOx)			132.4 %	
AS % OF CAEP/8 LIMIT (NOx)			156.9 %	

### 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	1.173	0.25	1.07	19.1	16.8
CLIMB OUT	85	2.2	0.934	0.3	1.16	14.3	-
APPROACH	30	4.0	0.330	0.64	2.88	6.7	-
IDLE	7	26.0	0.140	6.6	12.46	3.2	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			470	1543	3147	3935	-
NUMBER OF ENGINES				2	3	2	3
NUMBER OF TESTS				7	8	5	5
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				6.6	43.8	55.1	16.8
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)  
STAGE BLEED 0 % CORE FLOW

AT - POWER SETTINGS  
AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	-
TEMPERATURE (K)	266 - 297
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 07 Dec 79 TO 19 Jun 80

### REMARKS

1. Reduced Emissions Combustor incorporated 1/1/84

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

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