

# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

# **SUBSONIC ENGINES**

ENGINE IDENTIFICATION: JT8D-15 BYPASS RATIO: 1.03 UNIQUE ID NUMBER: 1PW010 PRESSURE RATIO  $(\pi_{oo})$ : 16.81 ENGINE TYPE: MTF RATED OUTPUT  $(F_{oo})$  (kN): 68.94

## REGULATORY DATA

CHARACTERISTIC VALUE:	НС	СО	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	7.1	46.1	65.5	17.3
AS % OF ORIGINAL LIMIT	36.3 %	39.0 %	89.0 %	65.9 %
AS % OF CAEP/2 LIMIT (NOx)			111.3 %	
AS % OF CAEP/4 LIMIT (NOx)			130.7 %	
AS % OF CAEP/6 LIMIT (NOx)			141.4 %	
AS % OF CAEP/8 LIMIT (NOx)			166.2 %	

## DATA STATUS

- PRE-REGULATION

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

	POWER	TIME	FUEL FLOW	EMI	SSIONS INDICES	(g/kg)	
MODE	SETTING	minutes	kg/s	HC	CO	NOx	SMOKE NUMBER
	(%F <sub>00</sub> )						
TAKE-OFF	100	0.7	1.178	0.24	1.03	19.4	15.7
CLIMB OUT	85	2.2	0.945	0.28	1.15	15.1	_
APPROACH	30	4.0	0.340	0.55	2.77	6.9	_
IDLE	7	26.0	0.148	1.46	11	3.2	_
LTO TOTAL FUEL (kg) or EMISSIONS (g) 486			428	2955	4144	-	
NUMBER OF ENGINES				3	3	2	3
NUMBER OF TESTS				8	8	5	5
AVERAGE D <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)			6.1	42.6	59.6	15.7	
SIGMA $(D_p/F_{oo} \text{ in } g/kN, \text{ or } SN)$			1	1	1	_	
RANGE $(D_p/F_{oo} \text{ in } g/kN, \text{ or } SN)$			-	-	_	-	

# ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

# ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	-
TEMPERATURE (K)	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)