



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT9D-7R4D, -7R4D1
UNIQUE ID NUMBER: 1PW026
ENGINE TYPE: TF

BYPASS RATIO: 5
PRESSURE RATIO (π_{oo}): 23.4
RATED OUTPUT (F_{oo}) (kN): 213.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	2.4	16.2	64.7	5.0
AS % OF ORIGINAL LIMIT	12.5 %	13.7 %	74.5 %	26.0 %
AS % OF CAEP/2 LIMIT (NOx)			93.2 %	
AS % OF CAEP/4 LIMIT (NOx)			114.6 %	
AS % OF CAEP/6 LIMIT (NOx)			130.3 %	
AS % OF CAEP/8 LIMIT (NOx)			158.5 %	

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_{oo})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
TAKE-OFF	100	0.7	2.055	0.15	0.51	38.5	4.6
CLIMB OUT	85	2.2	1.678	0.12	0.48	30	-
APPROACH	30	4.0	0.659	0.13	1.36	9.8	-
IDLE	7	26.0	0.205	1.25	8.84	4.1	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			810	464	3231	13067	-
NUMBER OF ENGINES				6	6	5	4
NUMBER OF TESTS				7	7	6	5
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				2.2	15.3	61.9	4.6
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} 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)	276 - 304
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 06 Mar 80 TO 03 Nov 81

REMARKS

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

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