ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT9D-7R4E, -7R4E1
UNIQUE ID NUMBER: 1PW027
ENGINE TYPE: TF

BYPASS RATIO: 5
PRESSURE RATIO (π_{oo}): 24.2
RATED OUTPUT (F_{oo}) (kN): 222.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	2.3	15.7	70.3	5.4
AS % OF ORIGINAL LIMIT	11.9 %	13.3 %	79.6 %	28.5 %
AS % OF CAEP/2 LIMIT (NOx)			99.5 %	
AS % OF CAEP/4 LIMIT (NOx)			121.9 %	
AS % OF CAEP/6 LIMIT (NOx)			138.5 %	
AS % OF CAEP/8 LIMIT (NOx)			167.6 %	

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) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	2.118	0.16	0.57	41.6	5
CLIMB OUT	85	2.2	1.724	0.13	0.53	34.2	-
APPROACH	30	4.0	0.653	0.13	1.23	10.4	-
IDLE	7	26.0	0.221	1.11	8.27	4.1	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			818	447	3215	14527	-
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)				2.1	14.9	67.3	5
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)