ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT9D-7F
UNIQUE ID NUMBER: 1PW022
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{oo}): 22.8
RATED OUTPUT (F_{oo}) (kN): 213.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	48.1	96.1	72.0	4.3
AS % OF ORIGINAL LIMIT	245.4 %	81.5 %	84.2 %	22.1 %
AS % OF CAEP/2 LIMIT (NOx)			105.2 %	
AS % OF CAEP/4 LIMIT (NOx)			129.8 %	
AS % OF CAEP/6 LIMIT (NOx)			147.5 %	
AS % OF CAEP/8 LIMIT (NOx)			180.1 %	

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 ($\%F_{oo}$)	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	2.167	0.3	0.4	46	-
CLIMB OUT	85	2.2	1.764	0.3	0.4	34.4	-
APPROACH	30	4.0	0.624	0.5	2.9	7.8	-
IDLE	7	26.0	0.219	26	54	3.1	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			815	9055	19012	14424	-
NUMBER OF ENGINES				7	7	7	7
NUMBER OF TESTS				7	7	7	7
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				43.6	91.4	69.4	4
SIGMA (D_p/F_{oo} in g/kN, or SN)				5.9	5.9	4	1
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)	99-103
TEMPERATURE (K)	266 - 290
ABS HUMIDITY (kg/kg)	0.0007-0.0068

FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	-

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: E Hartford, CT, USA
TEST DATES: FROM Nov 75 TO Dec 75

REMARKS

1. Mod V combustor

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)