



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

** DATA SUPERSEDED ** SEE SHEET: 8PW086

ENGINE IDENTIFICATION: JT9D-7 BYPASS RATIO: -
UNIQUE ID NUMBER: 1PW020 PRESSURE RATIO (π_{oo}): 21.5
ENGINE TYPE: TF RATED OUTPUT (F_{oo}) (kN): 202.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	65.1	147.9	60.7	14.0
AS % OF ORIGINAL LIMIT	332.1 %	125.3 %	73.1 %	71.7 %
AS % OF CAEP/2 LIMIT (NOx)			91.3 %	
AS % OF CAEP/4 LIMIT (NOx)			113.6 %	
AS % OF CAEP/6 LIMIT (NOx)			129.1 %	
AS % OF CAEP/8 LIMIT (NOx)			159.1 %	

DATA STATUS

x PRE-REGULATION
- CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
- DEDICATED ENGINES TO PRODUCTION STANDARD
x 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
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.083	0.1	0	37.9	11.9
CLIMB OUT	85	2.2	1.764	0.1	0	27.7	9
APPROACH	30	4.0	0.609	1.3	7.8	7.6	2.5
IDLE	7	26.0	0.210	36.5	84.1	3.1	0.7
LTO TOTAL FUEL (kg) or EMISSIONS (g)			794	12179	28691	11892	-
NUMBER OF ENGINES				10	10	10	10
NUMBER OF TESTS				10	10	10	10
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				60	141.8	58.8	11.9
SIGMA (D_p/F_{oo} in g/kN, or SN)				12.2	22.3	6.9	5.5
RANGE (D_p/F_{oo} in g/kN, or SN)				37.7-69.3	100.6-170.6	46.6-66.1	1.7-21.4

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.9-101.7
TEMPERATURE (K)	276 - 300
AWS HUMIDITY (kg/kg)	0.0030-0.0149

FUEL

SPEC	DERD2494
H/C	-
AROM (%)	-

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: NGTE, Pyestock, UK
TEST LOCATION: British Airways Engine Overhaul Ltd, Wales
TEST DATES: FROM Mar 76 TO Jul 77

REMARKS

Tests performed on in-service engine(s), after overhaul.

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

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