



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW2040
UNIQUE ID NUMBER: 4PW073
COMBUSTOR:
ENGINE TYPE: TF
BYPASS RATIO: 5.5
PRESSURE RATIO (π_{00}): 29.4
RATED THRUST (F_{00}) (kN): 182.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	3.0	32.6	60.4	12.5
AS % OF ORIGINAL LIMIT	15.3	27.6	61.1	62.2
AS % OF CAEP/2 LIMIT (NO _x)			76.4	
AS % OF CAEP/4 LIMIT (NO _x)			91.5	
AS % OF CAEP/6 LIMIT (NO _x)			103.9	
AS % OF CAEP/8 LIMIT (NO _x)			122.6	

DATA STATUS

- PRE-REGULATION
- CERTIFICATION
x 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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	1.752	0.01	0.32	35.04	4.5
CLIMB OUT	85	2.2	1.445	0.02	0.41	26.62	9.5
APPROACH	30	4.0	0.496	0.10	1.42	10.49	3.6
IDLE	7	26.0	0.159	1.65	19.95	4.37	1.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			631	426	5219	9989	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				2.3	28.6	54.9	10.7
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.6-100.9
TEMPERATURE (K)	283.4-298.2
ABS HUMIDITY (kg/kg)	0.007-0.008

FUEL

SPEC	Jet A
H/C	
AROM (%)	

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: East Hartford, CT
TEST DATES: 08/08/1983-20/11/1998

REMARKS

1. Revision to add second engine test.

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)