



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW2040
UNIQUE ID NUMBER: 1PW040
COMBUSTOR:
ENGINE TYPE: TF

BYPASS RATIO:
PRESSURE RATIO (π_{oo}): 27.9
RATED THRUST (F_{oo}) (kN): 181.8

REGULATORY DATA

**** DATA SUPERSEDED ****

SEE FOLLOWING UID FOR REVISED DATA:

4PW073

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	5.1	43.2	63.9	15.2
AS % OF ORIGINAL LIMIT	25.9	36.6	66.6	75.6
AS % OF CAEP/2 LIMIT (NO _x)			83.3	
AS % OF CAEP/4 LIMIT (NO _x)			100.3	
AS % OF CAEP/6 LIMIT (NO _x)			113.9	
AS % OF CAEP/8 LIMIT (NO _x)			135.3	

DATA STATUS

- PRE-REGULATION
x 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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	1.761	0.03	0.40	34.30	
CLIMB OUT	85	2.2	1.448	0.04	0.40	27.30	
APPROACH	30	4.0	0.493	0.18	2.00	10.60	
IDLE	7	26.0	0.155	2.25	25.10	4.20	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			625	574	6412	10025	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				3.3	35.2	55.1	11.8
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)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.9
TEMPERATURE (K)	298
ABS HUMIDITY (kg/kg)	

FUEL

SPEC	Jet A
H/C	1.89-1.91
AROM (%)	

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION:
TEST LOCATION:
TEST DATES: 08/08/1983-10/08/1983

REMARKS

Compliance with Fuel Venting requirements:

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