



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4164-1D
UNIQUE ID NUMBER: 9PW092
COMBUSTOR: Talon IIB
ENGINE TYPE: TF

BYPASS RATIO: 5.1
PRESSURE RATIO (π_{00}): 31.3
RATED THRUST (F_{00}) (kN): 286.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	3.0	29.3	52.1	7.5
AS % OF ORIGINAL LIMIT	15.2	24.8	50.7	42.1
AS % OF CAEP/2 LIMIT (NO _x)			63.4	
AS % OF CAEP/4 LIMIT (NO _x)			74.8	
AS % OF CAEP/6 LIMIT (NO _x)			84.5	
AS % OF CAEP/8 LIMIT (NO _x)			98.8	

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 (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	2.721	0.00	0.16	26.31	5.8
CLIMB OUT	85	2.2	2.239	0.00	0.17	20.97	5.1
APPROACH	30	4.0	0.775	0.06	1.55	12.10	0.2
IDLE	7	26.0	0.243	1.44	17.13	3.79	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			975	556	6851	12895	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				1.9	23.9	44.9	5.8
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)	100.8-101.4
TEMPERATURE (K)	282-285.6
ABS HUMIDITY (kg/kg)	0.00362-0.00455

FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	17

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: East Hartford, CT
TEST DATES: 12/05/2008-13/05/2008

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

1. Talon IIB combustor with improved exit temperature profile.

Compliance with Fuel Venting requirements:

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