



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1521GA BYPASS RATIO: 11.4
UNIQUE ID NUMBER: 01P20PW185 PRESSURE RATIO (π_{co}): 35.1
COMBUSTOR: TALON X, Block-C
ENGINE TYPE: TF RATED THRUST (F_{co}) (kN): 97.7

REGULATORY DATA

** DATA SUPERSEDED **

SEE FOLLOWING UID FOR REVISED DATA:

04P20PW198

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D_p/F_{co} (g/kN) or SN	0.3	28.4	37.2	3.1
AS % OF ORIGINAL LIMIT	2.0	24.0	34.0	13.0
AS % OF CAEP/2 LIMIT (NO _x)			42.0	
AS % OF CAEP/4 LIMIT (NO _x)			48.0	
AS % OF CAEP/6 LIMIT (NO _x)			54.0	
AS % OF CAEP/8 LIMIT (NO _x)			62.0	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

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)

- OUT OF PRODUCTION (DATE: -)
- OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER	TIME	FUEL FLOW	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
	SETTING (%F _{co})	(minutes)	(kg/s)	HC	CO	NO _x	
TAKE-OFF	100	0.7	0.690	0.00	0.00	22.10	2.4
CLIMB OUT	85	2.2	0.580	0.00	0.00	18.10	1.5
APPROACH	30	4.0	0.210	0.10	2.50	10.10	0.8
IDLE	7	26.0	0.070	0.10	19.30	5.60	0.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			265	20	2260	3139	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{co} (g/kN) or AVERAGE SN (MAX)				0.2	23.1	32.1	2.4
SIGMA (D _p /F _{co} in g/kN, or SN)							
RANGE (D _p /F _{co} in g/kN, or SN)				0.2-0.3	22.9-23.4	31.8-32.3	2.1-2.8

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	102-103.3
TEMPERATURE (K)	272-278.1
ABS HUMIDITY (kg/kg)	0.00122-0.00221

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	17.8-18.4

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: Mirabel Aerospace Centre - Quebec
TEST DATES: 25/03/2018-26/03/2018

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. Data from Certification Report PWA-11600
2. Block C combustor
3. Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
4. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements:

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