



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1127GA-JM BYPASS RATIO: 12.3
UNIQUE ID NUMBER: 01P18PW152 PRESSURE RATIO (π_{co}): 31.7
COMBUSTOR: TALON X, Block-C
ENGINE TYPE: TF RATED THRUST (F_{eo}) (kN): 120.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{eo} (g/kN) or SN	0.6	35.1	27.3	14.8
AS % OF ORIGINAL LIMIT	3.1	30.0	26.0	66.0
AS % OF CAEP/2 LIMIT (NO _x)			33.0	
AS % OF CAEP/4 LIMIT (NO _x)			39.0	
AS % OF CAEP/6 LIMIT (NO _x)			44.0	
AS % OF CAEP/8 LIMIT (NO _x)			51.0	

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

MEASURED DATA

MODE	POWER SETTING (%F _{eo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	0.800	0.02	0.22	18.82	13.4	
CLIMB OUT	85	2.2	0.670	0.04	0.30	15.30	10.5	
APPROACH	30	4.0	0.232	0.02	5.36	9.07	0.5	
IDLE	7	26.0	0.080	0.43	27.93	4.84	1.2	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			303	59	3819	3096	-	
NUMBER OF ENGINES				3	3	3	3	
NUMBER OF TESTS				9	9	9	9	
AVERAGE D _p /F _{eo} (g/kN) or AVERAGE SN (MAX)				0.5	32.4	25.3	13.4	
SIGMA (D _p /F _{eo} in g/kN, or SN)								
RANGE (D _p /F _{eo} in g/kN, or SN)								

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99.6-101.7
TEMPERATURE (K)	265.6-278.2
ABS HUMIDITY (kg/kg)	0.00071-0.00203

FUEL

SPEC	Jet A
H/C	1.86
AROM (%)	15.1-16.6

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: X8 Test Stand, East Hartford, CT
TEST DATES: 11/03/2014-14/03/2014

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-11521, 3 engines tested, block C combustor
2. Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
3. 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)