



## ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1129G-JM BYPASS RATIO: 12.0  
UNIQUE ID NUMBER: 01P18PW154 PRESSURE RATIO ( $\pi_{co}$ ): 34.0  
COMBUSTOR: TALON X, Block-C  
ENGINE TYPE: TF RATED THRUST ( $F_{eo}$ ) (kN): 130.1

## REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>eo</sub> (g/kN) or SN	0.5	31.8	29.3	15.7
AS % OF ORIGINAL LIMIT	3.0	27.0	27.0	71.0
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			34.0	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			39.0	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			44.0	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			50.0	

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 <sub>eo</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	0.880	0.02	0.21	20.98	14.3	
CLIMB OUT	85	2.2	0.730	0.04	0.25	16.84	12.1	
APPROACH	30	4.0	0.255	0.02	4.58	9.19	0.5	
IDLE	7	26.0	0.080	0.36	26.52	4.98	1.1	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			318	51	3617	3571	-	
NUMBER OF ENGINES				3	3	3	3	
NUMBER OF TESTS				9	9	9	9	
AVERAGE D <sub>p</sub> /F <sub>eo</sub> (g/kN) or AVERAGE SN (MAX)				0.5	29.4	27.2	14.3	
SIGMA (D <sub>p</sub> /F <sub>eo</sub> in g/kN, or SN)								
RANGE (D <sub>p</sub> /F <sub>eo</sub> 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)	100.9-103
TEMPERATURE (K)	266.2-298.7
ABS HUMIDITY (kg/kg)	0.00036-0.01437

## FUEL

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

MANUFACTURER: Pratt & Whitney  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: X7 Test Stand, East Hartford, CT  
TEST DATES: 02/03/2017-19/09/2017

NO<sub>x</sub> 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<sub>x</sub> 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)