



## ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW812GA BYPASS RATIO: 4.5  
UNIQUE ID NUMBER: 05P25PW206 PRESSURE RATIO ( $\pi_{co}$ ): 34.8  
COMBUSTOR: TALON X  
ENGINE TYPE: MTF RATED THRUST ( $F_{oo}$ ) (kN): 61.0

## REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>oo</sub> (g/kN) or SN	0.4	30.5	51.2	0.0
AS % OF ORIGINAL LIMIT	1.8	25.9	46.7	0.0
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			58.4	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			62.8	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			66.4	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			72.6	

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

x 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 <sub>oo</sub> )	(minutes)	(kg/s)	HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.645	0.02	0.05	21.40	0.0
CLIMB OUT	85	2.2	0.529	0.03	0.04	17.31	0.0
APPROACH	30	4.0	0.182	0.04	2.51	12.68	0.0
IDLE	7	26.0	0.071	0.13	14.48	5.42	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			252	18	1722	2946	–
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				6	6	6	6
AVERAGE D <sub>p</sub> /F <sub>oo</sub> (g/kN) or AVERAGE SN (MAX)				0.3	28.2	48.3	0.0
SIGMA (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)				0.1	1.2	1.3	0.0
RANGE (D <sub>p</sub> /F <sub>oo</sub> in g/kN, or SN)				0.2–0.4	27.2–29.5	46.8–49.2	0.0

## ACCESSORY LOADS

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

## ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	99-101.6
TEMPERATURE (K)	279.6-300.8
ABS HUMIDITY (kg/kg)	0.0024-0.0138

## FUEL

SPEC	Jet A-1
H/C	1.91
AROM (%)	17.2-18.1

MANUFACTURER: Pratt & Whitney Canada  
TEST ORGANIZATION: PW800 Development Engineering  
TEST LOCATION: Longueuil, Quebec, Canada  
TEST DATES: 06/05/2020-31/07/2022

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

- Export classification: US EAR: 9E991, Outside US EAR: NSR, EIPA (ECL): NSR.
- P&WC ER 9208 Rev. B.
- Engines tested: E5756B01, GD0016B02, GB0005B01.
- Smoke Number below limit of detection for smoke number measurement technique.
- Data acquired using procedures & systems prescribed in Annex 16, Vol. II, Amd. 10.
- Fuel venting report: P&WC ER9207 Rev. A.

Compliance with Fuel Venting requirements:

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