



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4168  
UNIQUE ID NUMBER: 5PW075  
COMBUSTOR: Talon II  
ENGINE TYPE: TF

BYPASS RATIO: 5.1  
PRESSURE RATIO ( $\pi_{00}$ ): 31.8  
RATED THRUST ( $F_{00}$ ) (kN): 302.5

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.5	27.4	53.3	16.4
AS % OF ORIGINAL LIMIT	2.3	23.2	51.4	93.5
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			64.3	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			75.4	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			85.1	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			99.1	

### 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>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
TAKE-OFF	100	0.7	2.884	0.00	0.10	26.90	12.7
CLIMB OUT	85	2.2	2.363	0.00	0.20	20.20	11.0
APPROACH	30	4.0	0.809	0.00	2.40	12.10	0.6
IDLE	7	26.0	0.250	0.20	15.90	5.20	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1017	78	6741	13936	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.3	22.3	46.0	12.7
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> 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)	101.4-102.3
TEMPERATURE (K)	279-282
ABS HUMIDITY (kg/kg)	0.0021-0.00355

### FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.5

MANUFACTURER: Pratt & Whitney  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: East Hartford, CT  
TEST DATES: 10/04/2000

### 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 Report PWA-7138.
2. TALON II Combustor

Compliance with Fuel Venting requirements:

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