



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4062  
UNIQUE ID NUMBER: 12PW102  
ENGINE TYPE: TF

BYPASS RATIO: 4.6  
PRESSURE RATIO ( $\pi_{oo}$ ): 31  
RATED OUTPUT ( $F_{oo}$ ) (kN): 275.8

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	17.0	59.8	58.0	10.0
AS % OF ORIGINAL LIMIT	86.5 %	50.7 %	56.7 %	56.0 %
AS % OF CAEP/2 LIMIT (NOx)			71.1 %	
AS % OF CAEP/4 LIMIT (NOx)			84.0 %	
AS % OF CAEP/6 LIMIT (NOx)			95.1 %	
AS % OF CAEP/8 LIMIT (NOx)			111.2 %	

### 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  
- OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (% $F_{oo}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.725	0.08	0.61	34.36	8.5
CLIMB OUT	85	2.2	2.125	0.07	0.5	25.98	6
APPROACH	30	4.0	0.718	0.09	1.93	12.17	0.5
IDLE	7	26.0	0.210	10.86	42.61	3.78	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			894	3594	14475	14555	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE $D_p/F_{oo}$ (g/kN) or AVERAGE SN (MAX)				13.03	52.49	52.78	8.5
SIGMA ( $D_p/F_{oo}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{oo}$ 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)	101.90-102.55
TEMPERATURE (K)	173.21-279.79
ABS HUMIDITY (kg/kg)	0.002189-0.003801

### FUEL

SPEC	Jet A
H/C	-
AROM (%)	18.6

MANUFACTURER: Pratt & Whitney  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: P7 Production Test Cell, Middletown, CT  
TEST DATES: FROM 30 Nov 12 TO 12 Mar 13

### REMARKS

1. Data from Report PWA-9720 with Phase 3 reduced pressure loss combustor
2. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
3. NOx levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

If REVISED, this data supersedes databank UID  
Compliance with fuel venting requirements:

X ('x' if complies, PR if pre-regulation)