



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: V2525-D5  
UNIQUE ID NUMBER: 1IA002  
ENGINE TYPE: MTF

BYPASS RATIO: 4.82  
PRESSURE RATIO ( $\pi_{oo}$ ): 27.2  
RATED OUTPUT ( $F_{oo}$ ) (kN): 111.2

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	0.4	30.6	56.2	11.6
AS % OF ORIGINAL LIMIT	2.3 %	25.9 %	59.6 %	50.4 %
AS % OF CAEP/2 LIMIT (NOx)			74.4 %	
AS % OF CAEP/4 LIMIT (NOx)			89.9 %	
AS % OF CAEP/6 LIMIT (NOx)			102.2 %	
AS % OF CAEP/8 LIMIT (NOx)			121.7 %	

### DATA STATUS

- PRE-REGULATION  
x CERTIFICATION  
- REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
- 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

### 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	1.053	0.041	0.53	26.5	5.2
CLIMB OUT	85	2.2	0.880	0.041	0.62	22.3	7.2
APPROACH	30	4.0	0.319	0.061	2.44	8.9	4.2
IDLE	7	26.0	0.128	0.105	12.43	4.7	2.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			437	32	2764	5382	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{oo}$ (g/kN) or AVERAGE SN (MAX)				0.29	24.9	48.5	9
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)  
STAGE BLEED 4.5 % CORE FLOW

AT - POWER SETTINGS  
AT 0.07 POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.0-101.8
TEMPERATURE (K)	288 - 296
ABS HUMIDITY (kg/kg)	.0086-.0114

### FUEL

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

MANUFACTURER: International Aero Engines  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: East Hartford, CT, USA  
TEST DATES: FROM 12 Aug 92 TO 13 Aug 92

### REMARKS

1. Engine Type description originally wrongly given as TF; amended in Issue 15 to MTF

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

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