



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: V2530-A5  
UNIQUE ID NUMBER: 1IA005  
ENGINE TYPE: MTF

BYPASS RATIO: 4.54  
PRESSURE RATIO ( $\pi_{00}$ ): 32.1  
RATED OUTPUT ( $F_{00}$ ) (kN): 133.4

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{00}$ (g/kN) or SN	0.4	24.2	67.2	11.6
AS % OF ORIGINAL LIMIT	2.0 %	20.5 %	64.5 %	53.0 %
AS % OF CAEP/2 LIMIT (NOx)			80.7 %	
AS % OF CAEP/4 LIMIT (NOx)			94.4 %	
AS % OF CAEP/6 LIMIT (NOx)			106.4 %	
AS % OF CAEP/8 LIMIT (NOx)			123.7 %	

### 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)  
- OUT OF PRODUCTION  
- OUT OF SERVICE

### MEASURED DATA

MODE	POWER SETTING (% $F_{00}$ )	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	1.331	0.045	0.45	33.8	4.9
CLIMB OUT	85	2.2	1.077	0.041	0.52	27.1	6.4
APPROACH	30	4.0	0.377	0.056	1.81	10.1	4.6
IDLE	7	26.0	0.138	0.1	10.95	5	2.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			504	35	2620	7732	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE $D_p/F_{00}$ (g/kN) or AVERAGE SN (MAX)				0.26	19.7	58	9
SIGMA ( $D_p/F_{00}$ in g/kN, or SN)				-	-	-	-
RANGE ( $D_p/F_{00}$ 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)