



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PS-90A2 BYPASS RATIO: 4.32
UNIQUE ID NUMBER: 13AA008 PRESSURE RATIO (π_{00}): 31.23
ENGINE TYPE: MTF RATED OUTPUT (F_{00}) (kN): 156.95

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	6.8	35.1	55.4	17.6
AS % OF ORIGINAL LIMIT	34.7 %	29.7 %	54.5 %	0.8 %
AS % OF CAEP/2 LIMIT (NOx)			68.1 %	
AS % OF CAEP/4 LIMIT (NOx)			80.7 %	
AS % OF CAEP/6 LIMIT (NOx)			91.7 %	
AS % OF CAEP/8 LIMIT (NOx)			105.4 %	

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
TAKE-OFF	100	0.7	1.380	0.11	0.44	32.7	15.45
CLIMB OUT	85	2.2	1.117	0.14	0.65	25.52	16.24
APPROACH	30	4.0	0.491	0.21	1.91	9.31	12.12
IDLE	7	26.0	0.171	2.88	16.79	4.3	1.17
LTO TOTAL FUEL (kg) or EMISSIONS (g)			590	820	4825	7902	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{00} (g/kN) or AVERAGE SN (MAX)				5.23	30.76	50.34	16.24
SIGMA (D_p/F_{00} in g/kN, or SN)				0	0	0	0
RANGE (D_p/F_{00} in g/kN, or SN)				4,98-5,55	28,46-31,84	46,70-53,60	14,75 - 17,96

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97,8-101,0
TEMPERATURE (K)	275,0-297,5
ABS HUMIDITY (kg/kg)	0,00267-0,01290

FUEL

SPEC	TS-1
H/C	1.95
AROM (%)	14,3

MANUFACTURER: Aviadvigatel
TEST ORGANIZATION: OJSC Aviadvigatel
TEST LOCATION: Perm City
TEST DATES: FROM 05 Jun 06 TO 27 Jun 06

REMARKS

1. 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' if complies, PR if pre-regulation)