



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PS-90A
UNIQUE ID NUMBER: 1AA005
COMBUSTOR:
ENGINE TYPE: MTF

BYPASS RATIO: 5.0
PRESSURE RATIO (π_{eo}): 30.9
RATED THRUST (F_{eo}) (kN): 156.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{eo} (g/kN) or SN	1.4	16.7	86.0	16.7
AS % OF ORIGINAL LIMIT	7.1	14.1	84.6	80.0
AS % OF CAEP/2 LIMIT (NO _x)			105.7	
AS % OF CAEP/4 LIMIT (NO _x)			125.2	
AS % OF CAEP/6 LIMIT (NO _x)			141.8	
AS % OF CAEP/8 LIMIT (NO _x)			166.0	

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 (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{eo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.739	0.12	0.35	37.00	
CLIMB OUT	85	2.2	1.431	0.12	0.40	31.50	
APPROACH	30	4.0	0.489	0.20	0.90	11.80	
IDLE	7	26.0	0.178	0.30	6.90	5.80	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			657	138	2123	11648	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F _{eo} (g/kN) or AVERAGE SN (MAX)				0.9	13.6	74.2	13.0
SIGMA (D _p /F _{eo} in g/kN, or SN)							
RANGE (D _p /F _{eo} 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)	102.9-104
TEMPERATURE (K)	281-285
ABS HUMIDITY (kg/kg)	0.00348-0.00607

FUEL

SPEC	TS-1
H/C	2
AROM (%)	19

MANUFACTURER: Aviadvigatel
TEST ORGANIZATION: AO 'Aviadvigatel'
TEST LOCATION: Perm City
TEST DATES: 17/04/1989-18/04/1989

REMARKS

1. For aircraft Il-96 and Tu-204

Compliance with Fuel Venting requirements:

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