



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

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

BYPASS RATIO: 5
PRESSURE RATIO (π_{oo}): 30.85
RATED OUTPUT (F_{oo}) (kN): 156.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (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 (NOx)			105.7 %	
AS % OF CAEP/4 LIMIT (NOx)			125.2 %	
AS % OF CAEP/6 LIMIT (NOx)			141.8 %	
AS % OF CAEP/8 LIMIT (NOx)			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

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	1.739	0.12	0.35	37	-
CLIMB OUT	85	2.2	1.431	0.12	0.4	31.5	-
APPROACH	30	4.0	0.489	0.2	0.9	11.8	-
IDLE	7	26.0	0.178	0.3	6.9	5.8	-
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_{oo} (g/kN) or AVERAGE SN (MAX)				0.9	13.6	74.2	13
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)	102.9-104
TEMPERATURE (K)	281 - 285
AWS HUMIDITY (kg/kg)	.00348-.00607

FUEL

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

MANUFACTURER: AO 'Aviadgatel'
TEST ORGANIZATION: AO 'Aviadgatel'
TEST LOCATION: Perm City
TEST DATES: FROM 17 Apr 89 TO 18 Apr 89

REMARKS

For aircraft Il-96 and Tu-204

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

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