ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: D-30KU-154   BYPASS RATIO: 2.3
UNIQUE ID NUMBER: 1AA004   PRESSURE RATIO (π_{oo}):   17
ENGINE TYPE: MTF   RATED OUTPUT (F_{oo}) (kN):   107.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	53.1	292.8	40.4	–
AS % OF ORIGINAL LIMIT	270.9 %	248.1 %	54.5 %	#VALUE!
AS % OF CAEP/2 LIMIT (NOx)			68.2 %	
AS % OF CAEP/4 LIMIT (NOx)			87.4 %	
AS % OF CAEP/6 LIMIT (NOx)			99.3 %	
AS % OF CAEP/8 LIMIT (NOx)			127.0 %	

DATA STATUS   TEST ENGINE STATUS

   -    PRE-REGULATION   -   NEWLY MANUFACTURED ENGINES
   -    CERTIFICATION   -   DEDICATED ENGINES TO PRODUCTION STANDARD
   x   REVISED (SEE REMARKS)   x   OTHER (SEE REMARKS)

EMISSIONS STATUS   CURRENT ENGINE STATUS

   -    DATA CORRECTED TO REFERENCE   (IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
        (ANNEX 16 VOLUME II)   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) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	1.420	0.4	3	14.5	–
CLIMB OUT	85	2.2	1.100	0.5	3.6	11.6	–
APPROACH	30	4.0	0.420	1.9	18.2	5.1	–
IDLE	7	26.0	0.207	12.7	77.7	2.9	–
LTO TOTAL FUEL (kg) or EMISSIONS (g)			629	4389	27627	4000	–
NUMBER OF ENGINES				2	2	2	–
NUMBER OF TESTS				2	2	2	–
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				40.8	257	36.7	–
SIGMA (D_p/F_{oo} in g/kN, or SN)				5	21.8	2.5	–
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   FUEL

BAROMETER (kPa)	102.3-102.6
TEMPERATURE (K)	289 - 291
ABS HUMIDITY (kg/kg)	0.01119

SPEC	TS-1
H/C	2
AROM (%)	18

MANUFACTURER: AO 'Aviadgatel'
TEST ORGANIZATION: State Inst for Civ Aviation
TEST LOCATION: Sheremetjevo, Moscow
TEST DATES: FROM 04 Jul 89   TO   -

REMARKS

1. Data obtained on aircraft (Tu-154M)
2. In-service engine(s), tested before overhaul

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0   ('x' if complies, PR if pre-regulation)