

**ROTAX****TECHNICAL DATA**No. 567 - E  
11 1997**ROTAX engine type  
100 KART DS-E/R/L, model 1998**Design no.: 38.100.1501 DS-E/R, „O“-cylinder  
38.100.2501 DS-E/L, „O“-cylinder

HOMOLOGATION:	CIK: 100/M/06 model 100 DS-E/R/98 CIK: 101/M/06 model 100 DS-E/L/98 valid from 01.01.1998
CATEGORY:	FORMULA A, FORMULA SUPER A
DESCRIPTION:	ROTAX-single-cylinder, two-stroke, rotary valve engine, oil-in-fuel lubrication, free air cooled. DS E-R: right-side-drive DS E-L: left-side-drive
BORE:	49,54 mm
STROKE:	51,5 mm
DISPLACEMENT:	99,157 cm <sup>3</sup>
THEORETICAL MAX. BORE:	49,72 mm
CAPACITY:	no specification
TORQUE:	no specification
MAX. ALLOWED R.P.M.:	18.500 r.p.m.

**PISTON:** Aluminium cast piston with coating and one L-piston ring.

	part no.	tolerance group	diameter
Standard:	295 684	red	49,44 mm
	295 685	green	49,45 mm
1. oversize	295 686	-	49,46 mm
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18. oversize	295 682	-	49,62 mm

**CYLINDER:** Light-alloy-"O"-cylinder with grey cast iron sleeve

	part no.	tolerance group	diameter
Standard:	613 207	(1) red	49,54-49,55 mm
	613 207	(2) green	49,55-49,56 mm

**CYLINDER/PISTON CLEARANCE:** 0,10 mm - 0,12 mm

**CYLINDER HEAD VOLUME:** cylinder head (part no. 613 220)  
9,20 cm<sup>3</sup> (+2 cm<sup>3</sup> for the spark plug thread)

**VOLUME OF THE COMBUSTION CHAMBER:** 7,06 cm<sup>3</sup> (+2 cm<sup>3</sup> for the spark plug thread)

**SQUICH GAP:** 0,95 mm

**COMPRESSION:** theoretical: 15,1

**IGNITION UNIT:** breakerless PVL magneto generator 105 458

**IGNITION TIMING:** 2,3 mm (=21,8°) before T.D.C., at 10.000 r.p.m.  
adjustment to ignition timing mark.

**SPARK PLUG:** NGK BR 10 EG (part no. 297 830)  
thread M14 x 1,25

**ELECTRODE GAP:** NGK: 0,5 mm - 0,6 mm

**INTAKE SYSTEM:** rotary valve (adjustable)

ROTARY VALVE:	part no. 224 606, rotary valve cut-off section = 162,3°
ROTARY VALVE TIMING:	opens: 132° before T.D.C closes: 75° after T.D.C.
CARBURETOR:	according to reglementation (not extent of delivery of ROTAX)
FUEL PUMP:	diaphragm pump on carburetor
FUEL:	SUPER-gasoline (unleaded), octane number not below ROZ 98
LUBRICATION:	Oil-in-fuel lubrication, SHELL Super M Racing or equivalent, mixing ratio 1 : 20 (5 %)
COOLING:	free air by air stream
DIRECTION OF ROTATION:	DS E-R clockwise, viewed towards p.t.o.-side DS E-L counter clockwise, viewed towards p.t.o.-side
STANDARD SPROCKET:	10 teeth (Rotax part no. 236 031 DS E-R, 236 290 DS E-L) also available are sprockets with 9 and 11 teeth.
DIMENSION OF CHAIN:	7,75 x 4,6 x 4,5
INTAKE SILENCER:	homologated intake silencer (not extent of delivery of ROTAX)
EXHAUST SYSTEM:	homologated exhaust system (Rotax part no. 273 012)
STARTER:	no starting device, push start
WEIGHT:	11 kg without carburetor and exhaust system