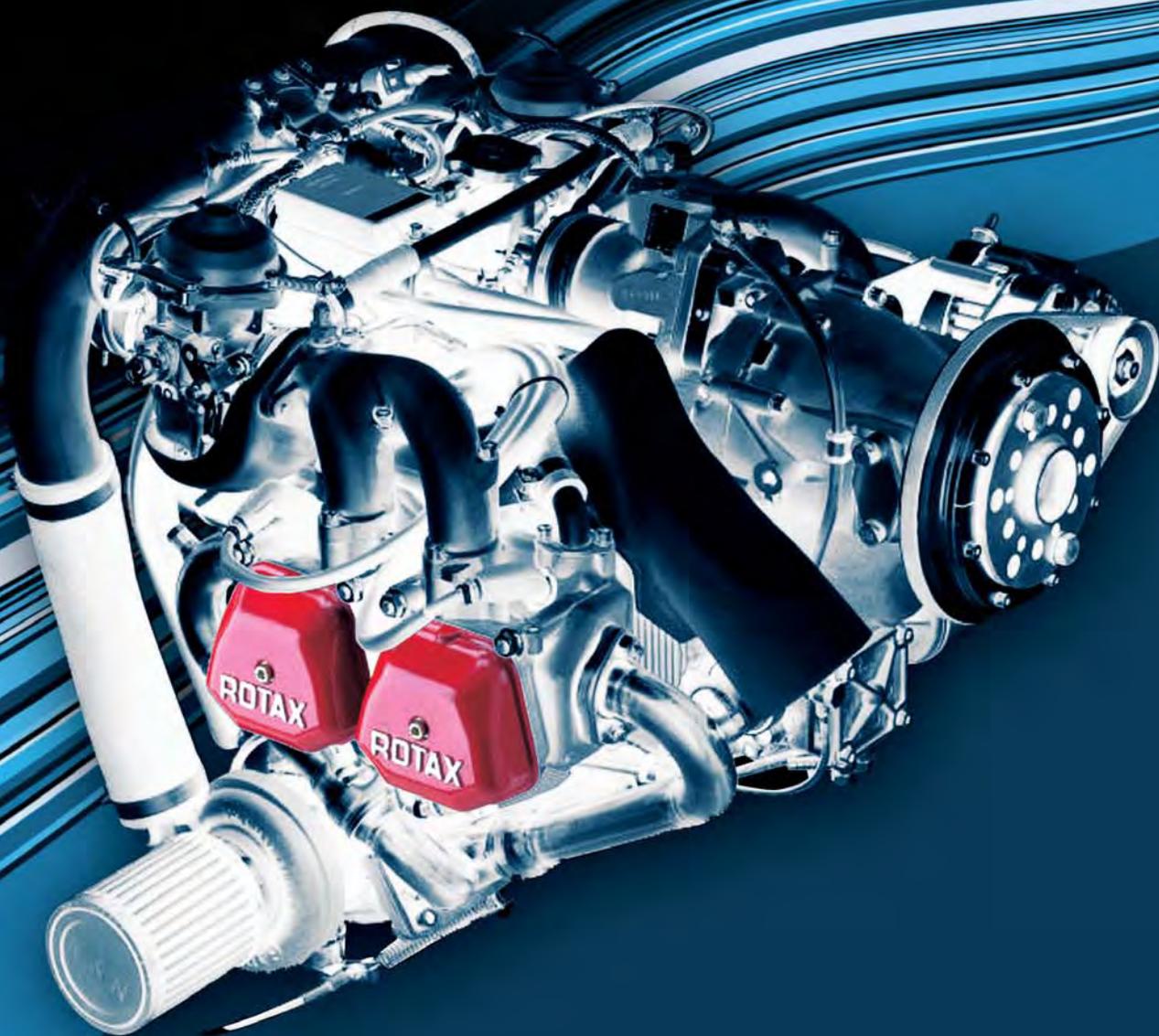


ROTAX[®]
AIRCRAFT ENGINES



THE SKY IS THE LIMIT
AIRCRAFT ENGINES

From past to tomorrow

ROTAX history

- 1920** Formation of the „Rotax-Werk AG“ in Dresden, Germany
- 1943** Relocation to Wels, Austria
- 1962** Start of production of Rotax engines for Ski-Doo[®] snowmobiles
- 1970** Bombardier takes over Rotax
- 1971** Production of the millionth Rotax engine
- 1973** 2 Rotax 2-stroke engines 642 used in motor glider (twin spark plugs!), certification according to JAR 22 - yearly delivery 10 - 20 pcs.
- 1975** Certification of the first Rotax aircraft engine
- 1977** High orders of snowmobile spare engines Rotax 185, 248, 284, 294 - used in microlite aircrafts
- 1978** Ultralight engines 501, 505 developed (based on snowmobile engine 503)
- 1983** Belt drives were replaced by special designed gearbox. Delivery of 10.000 2-stroke engines yearly for UL (Rotax type 377, 503, 532)
- 1984** Start of development of Rotax 912
- 1988** Start of production of Rotax engines for Sea-Doo[®] watercrafts
- 1989** Type certificate for Rotax 912A
- 1993** Start of production of Rotax engines for BMW²⁾ motorcycles
- 1994** Type certificate for Rotax 912F
- 1996** Type certificate for Rotax 914F
- 1998** Type certificate for Rotax 912S
- 1998** Start of production of Rotax engines for Bombardier¹⁾ ATV
- 2001** First Rotax 4-stroke engine from the 4-TEC platform for Sea-Doo
- 2001** Production of the 5-millionth Rotax engine
- 2002** First Rotax 2-stroke engine with electronic injection under the brand 2-TEC for Ski-Doo
- 2003** Sale of the Recreational Products Group by Bombardier Inc.; formation of the new company Bombardier Recreational Products Inc. (BRP)
- 2003** 912 Series'TBO increased from 1200 hrs to 1500 hrs
- 2003** 914 Series'TBO increased from 1000 hrs to 1200 hrs
- 2003** Design Organisation Approval by JAA
- 2005** 912/914 Series compliant to Light Sport Aircraft Norm ASTM
- 2005** Production Organisation Approval by EASA
- 2006** 582 engine compliant to Light Sport Aircraft Norm ASTM

The success story of the ROTAX Aircraft Engine Division, started in 1973 as the company's products began to revolutionise the Ultralight market. Since then, ROTAX has established itself through ground breaking innovations, consistent further

development and the highest standards of quality, as one of the worlds leading manufacturers of aircraft engines. (More than 125.000 sold since 1973)



Safety black on white

Certificates of approval are only a small part of the proof of quality and safety that all products offer. Our efforts are not just to fulfill minimum standard requirements, but to offer the customer technically the best we possibly can.



Production Organisation Approval



Type Certificate 912



Type Certificate 914



Design Organisation Approval



ISO 9001 Certificate



Making missions possible

Breaking records is not a marketing gag as far as we are concerned. Records are much more a measure of our endeavours to strive to break down barriers and set new standards in aviation. Only those who today believe in achieving the impossible can make it possible tomorrow.



Competence - groundwork for success



The sky is the limit

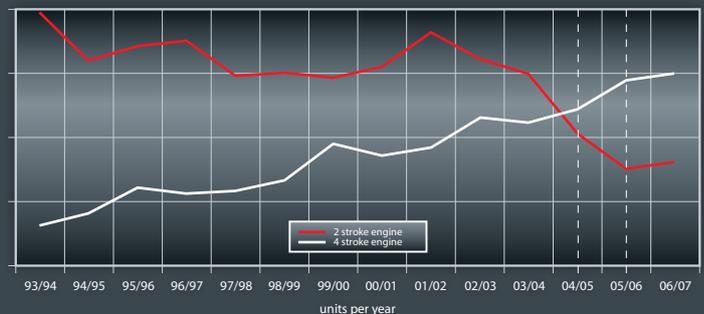
ROTAX engineers can rely on an incredible wealth of experience as far as the business of manufacturing aircraft engines is concerned. ROTAX produces annually more than 200.000 engines for Personal Watercraft (PWC), All Terrain Vehicle (ATV), Snowmobile, Motorcycle, Kart and Aircraft. Out of this extensive know-how arise top quality products: Maintaining fixed value, maturity and being continually at the forefront of technology – equipped with a class leading power to weight ratio! It goes without saying that development, manufacturing and assembly fulfill applicable FAA/ EASA regulations.

In addition, the highest quality ROTAX[®] products are complemented by a worldwide distribution network, guaranteeing service and availability of parts. With this in mind, ROTAX offers a number of different engine types and accessories for the customer's various requirements. Over and above that ROTAX offers a minimum 10 year availability guarantee on all spares.

- Starting in 1973 ROTAX has revolutionized the UL market
- Worldwide Distribution network guarantees availability of parts and service
- 10 year availability guarantee on all ROTAX spares
- Development, manufacturing and assembly according to Aviation Standards
- Class leading power to weight ratio
- All ROTAX engines maintain their value over many years
- More than 125.000 aircraft engines sold since 1973
- ROTAX produces annually more than 200.000 engines for PWC, ATV, Snowmobile, Motorcycle, Kart and Aircraft, 70% are 4 strokes
- Fulfilling applicable standards of aviation (FAA/ EASA-JAA regulations)

ROTAX Aircraft Engines 4 stroke versus 2 stroke

ANNUAL QUANTITIES PRODUCED



914 · 115hp

1,200 hrs.
TBO
ROTAX
AIRCRAFT ENGINES

IN COMPLIANCE WITH ASTM 2339 L5A
AIRCRAFT
ENGINE
ROTAX
AIRCRAFT ENGINES

STATE OF THE ART
ROTAX
WORLD STANDARD



Picture: 914 UL 3 - DCDI with options

DESCRIPTION

4-cylinder, 4-stroke liquid/air cooled engine with opposed cylinders, with turbo charger, with automatic waste gate control, dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappet, 2 carburetors, dual electronic ignition, electric starter, propeller speed reduction unit, engine mount assembly, air intake system, exhaust system

VERSION	PERFORMANCE			TORQUE			MAX RPM
	kW	hp	1/min	Nm	ft. lb.	1/min	1/min
914 UL ¹⁾ /F ²⁾	84.5	115	5800	144	106	4900	5800

Limited for max. 5 min.

BORE		STROKE		DISPLACEMENT		FUEL
79.5 mm	3.13 in	61 mm	2.4 in	1211.2 cm ³	73.91 cu. in.	min. MON 85 RON 95* min. AKI 91*

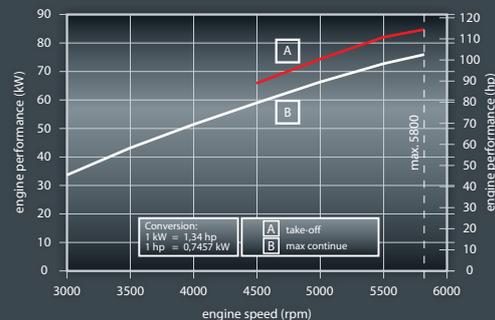
* leaded or unleaded or AVGAS 100LL

WEIGHT	kg	lb
engine with propeller speed reduction unit i = 2.43	64.0	140.8
exhaust system	4.0	8.8
engine mount assembly	2.0	3.7
overload clutch	1.7	3.7
vacuum pump	0.8	1.8
hydraulic propeller governor	2.7	5.9
external alternator	3.0	6.6

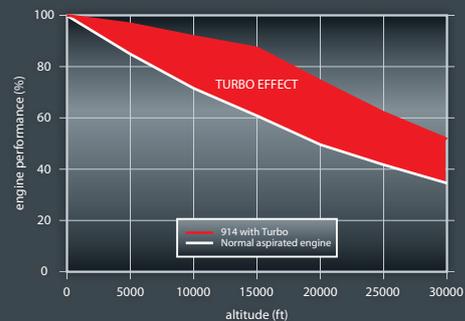
- turbo-power for altitude
- available as certified and non certified engine
- class leading power to weight ratio

1) UL = non certified, 2) F = certified acc. to FAR 33 and JAR-E

ENGINE PERFORMANCE



ALTITUDE PERFORMANCE



912 · 100 / 80 hp

DESCRIPTION

4-cylinder, 4-stroke liquid/air cooled engine with opposed cylinders, dry sump forced lubrication with separate oil tank, automatic adjustment by hydraulic valve tappet, 2 carburetors, mechanical fuel pump, dual electronic ignition, electric starter, propeller speed reduction unit, engine mount assembly, air intake system, exhaust system



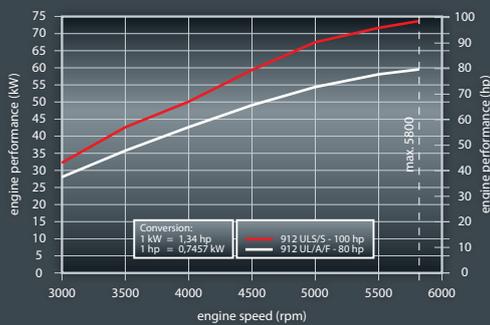
1.500 hrs.
TBO
ROTAX
AIRCRAFT ENGINES

IN COMPLIANCE WITH ASTM 2339 L5
AIRCRAFT
ENGINE
ROTAX
AIRCRAFT ENGINES

STATE OF THE ART
ROTAX
WORLD STANDARD

Picture: 912 ULS - DCDI with options

ENGINE PERFORMANCE



- 5 configurations available
- 2 engine standards 80/100 hp
- available as certified and non certified engine
- light, quiet and smooth
- world standard since 18 years
- more than 20.000 units sold worldwide
- low running costs
- class leading power to weight ratio

VERSION	PERFORMANCE			TORQUE			MAX RPM
	kW	hp	1/min	Nm	ft. lb.	1/min	1/min
● 912 ULS ¹⁾ /S ²⁾	73.5	100	5800	128	94	5100	5800
● 912 UL ¹⁾ /A ³⁾ /F ²⁾	59.6	80	5800	103	75.9	4800	5800

Limited for max. 5 min.

	BORE		STROKE		DISPLACEMENT		FUEL
	mm	in	mm	in	cm ³	cu. in.	
●	84 mm	3.31 in	61 mm	2.4 in	1352 cm ³	82.6 cu. in.	min. MON 85 RON 95* min. AKI 91*
●	79.5 mm	3.13 in	61 mm	2.4 in	1211.2 cm ³	73.91 cu. in.	min. MON 83 RON 91* min. AKI 87*

* leaded or unleaded or AVGAS 100LL

WEIGHT	kg	lb
● engine with propeller speed reduction unit $i = 2.43$	56.6	124.5
● engine with propeller speed reduction unit $i = 2.27$ (opt. $i = 2.43$)	55.4	122.0
● overload clutch	1.7	3.7
● exhaust system	4.0	8.8
● vacuum pump	0.8	1.8
● hydraulic propeller governor	2.7	5.9
● external alternator	3.0	6.6

- 912 - 100 hp
- 912 - 80 hp

1) ULS and UL = non certified, 2) F/S = certified acc. to FAR 33,
3) A = certified acc. to JAR 22



582 · 65 hp

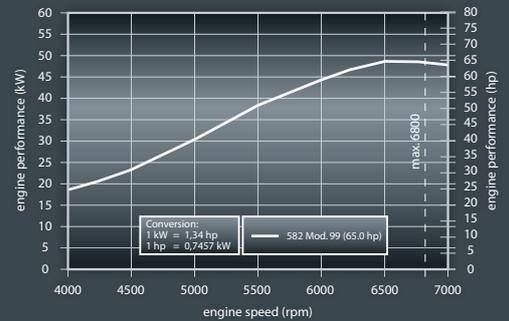


Picture: 582 with options

DESCRIPTION

2-cylinder, 2-stroke liquid cooled engine with rotary valve intake, with dual electronic ignition, integrated water pump and thermostat, exhaust system, carburetors, rewind starter

ENGINE PERFORMANCE



- highly reliable 2 stroke engine
- class leading power to weight ratio
- liquid cooled
- 20 years in production and still state of the art

VERSION	PERFORMANCE			TORQUE			MAX RPM
582 Mod. 99	kW	hp	1/min	Nm	ft. lb.	1/min	1/min
	48	65	6500	75	55.3	6000	6800

BORE		STROKE		DISPLACEMENT	
76 mm	2.99 in	64 mm	2.52 in	580 cm ³	35.4 cu. in.

FUEL	Super 2-stroke motoroil	MIXING RATIO
min. MON 83 RON 91*	API - TC - Classification	582: 1 : 50
min. AKI 87*		or optional with fresh oil pump

* leaded or unleaded

WEIGHT	kg	lb
engine	29.1	64.0
2 carburetors	1.8	4.0
exhaust system	5.1	11.2
electric starter	3.5	7.7
propeller speed reduction unit "B" / i = 2.58	4.5	9.9
propeller speed reduction unit "C" / i = 2.62/3.0/3.47/4.0	8.0	17.6
propeller speed reduction unit "E" / i = 2.62/3.0/3.47/4.0	11.2	24.7



503 · 50 hp

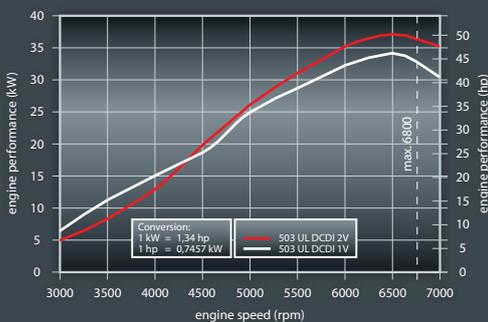
DESCRIPTION

2-cylinder, 2-stroke fan cooled engine with piston ported intake, with electronic single-ignition or dual-ignition exhaust system, carburator(s), rewind starter



Picture: 503 UL with options

ENGINE PERFORMANCE



- highly reliable 2 stroke aircooled engines
- best selling UL engine
- more than 40.000 units sold
- light weight

VERSION	PERFORMANCE			TORQUE		MAX RPM	
	kW	hp	1/min	Nm	ft. lb.	1/min	1/min
503 UL-1V (single carb.)	34.0	45.6	6500	51.0	37.6	5900	6800
503 UL-2V (dual carb.)	37.0	49.6	6500	56.0	41.3	6000	6800

BORE		STROKE		DISPLACEMENT	
72 mm	2.84 in	61 mm	2.40 in	497 cm ³	30.3 cu. in.

FUEL	Super 2-stroke motoroil	MIXING RATIO
min. MON 83 RON 91*	API - TC - Classification	1 : 50**
min. AKI 87*		

* leaded or unleaded
 ** variable with fresh oil pump

WEIGHT	kg	lb
engine	31.4	69.2
1 carburator	0.9	2.0
2 carburators	1.8	4.0
exhaust system	5.1	11.2
electric starter	3.5	7.7
propeller speed reduction unit "B" / i = 2.58	4.5	9.9
propeller speed reduction unit "C" / i = 2.62/3.0/3.47/4.0	8.0	17.6
propeller speed reduction unit "E" / i = 2.62/3.0/3.47/4.0	11.2	24.7





WORLD WIDE DISTRIBUTION & SERVICE NETWORK
www.rotax-aircraft-engines.com

WARNING: The ROTAX UL aircraft engines do not comply with federal safety regulations for standard aircraft. This engine is for use in experimental and ultralight uncertified aircraft only and only in circumstances in which an engine failure will not compromise safety. Before operating the engine read operator's manual. Information is available from your local authorized ROTAX®-distributor.

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