

Appendix to Overhaul Manual 912 Series 914 Series

Engine S/N:						
Engine Type:						
Engine Version:	2		3		4	
Time Since New (TSN):						
Time Since Overhaul (TSO):						
Number of Overhauls already performed:						

▲ WARNING:

Before starting with the engine overhaul, read the Overhaul Manual in its entirety. Failure to do so could result in personal injury or even death.

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1) Engine Owner/Overhaul Facility

Engine Owner	
Name	
Address	
Telephone	
Fax	
e-mail	
Overhaul Facility	
Company Name	
Address	
Telephone	
Fax	
e-mail	

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2) List of current pages

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3) Table of amendments

Approval*

The technical content of this document is approved
under the authority of DOA ref. EASA.21J.048.

Number	Chapter	Pages	Date of change	Remark of approval	Date of approval from authorities	Date of inclusion	Signature
0	1-9	all	Jan. 01/2005			Jan. 01/2005	
1	2 3 5	2-1	July 01/2006	DOA*			
		3-1	July 01/2006				
		5-9	July 01/2006				
		5-11	July 01/2006				
		5-19	July 01/2006				
	8	8 -1	July 01/2006				
2	5	5-1	Sept. 01/2008	DOA*			
		5-2	Sept. 01/2008				
		5-3	Sept. 01/2008				
		5-9	Sept. 01/2008				
		5-10	Sept. 01/2008				
		5 -13	Sept. 01/2008				
		5-14	Sept. 01/2008				
		5 -16	Sept. 01/2008				
		5-19	Sept. 01/2008				
		5 -20	Sept. 01/2008				
5-22	Sept. 01/2008						
5 -23	Sept. 01/2008						
3	1-9	all	March 01/2010	DOA*			
4	1-9	all	November 01/2012	DOA*			
5	1-9	all	March 01/2016	DOA*			
6	1-9	all	February 01/2017	DOA*			

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4) Visual incoming inspection

See Overhaul Manual chapter 9.2.

4.1) Leak / tightness

Description	Remarks	Checked
Cooling system		
Fuel system		
Lubrication system		

4.2) Damaged components

Description	Remarks	Checked
Engine and cylinder		
Engine suspension frame (912 Series optional)		
Gear box		
Fuel pumps		
Carburetors		
Electric system		
Cooling air baffle (optional)		
Exhaust system		
Oil radiator		
Coolant radiator		
Turbocharger (914 Series only)		
Airbox (912 Series optional)		

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5) Selection and Inspection of Parts

See Overhaul Manual chapter 13.

5.1) 100% replacement parts

See Overhaul Manual chapter 13.1.

100% replacement parts				Engine Type			
				912			914
quantity	part description (in alphabetic sequence)	replace only if	usage	A/JUL	F	S/ULS/ ULSFR	F/JUL
all	ball and roller bearing		engine	X	X	X	X
1	bayonet cap		oil tank	X	X	X	X
1	bowden cable		waste gate				X
1	brush holder		electric starter	X	X	X	X
1	bushing	part no. 845420 is installed (bronze material) ¹⁾	dog gear	X			
1	camshaft		engine	X	X	X	X
1	carbon brush assy.		electric starter	X	X	X	X
2	carburetor flange		carburetor	X	X	X	X
1	circlip	part no. 845420 is installed (diameter 68) ²⁾	sprag clutch housing	X	X	X	X
2	circlip		carburetor	X	X	X	X
1	clamp	part no. 851310 is installed (not reinforced) ³⁾	muffler				X
16	clamp	part no. 251875 is installed ⁴⁾	coolant hoses	X	X	X	X
2	clamp 5/M5		carburetor		X	X	X
5	clamp		turbo oil lines				X
all	clamp		ruber hose 4x7				X
1	compression spring		oil pump	X	X	X	X
1	compression spring		turbo check valve				X
1	connector sheath		electric starter	X	X	X	X
all	coolant hose		engine	X	X	X	X
1	crankshaft set		engine	X	X	X	X
1	cyl. screw M10x110		engine suspension frame	X	X	X	X
3	cyl. screw M10x35		engine suspension frame	X	X	X	

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100% replacement parts				Engine Type			
				912			914
quantity	part description (in alphabetic sequence)	replace only if	usage	A/UL	F	S/ULS/ ULSFR	F/UL
1	cyl. screw M10x35		engine suspension frame				X
2	cyl. screw M10x50		engine suspension frame				X
4	cyl. screw M6		valve cover	X	X	X	X
2	diaphragm		carburetor	X	X	X	X
all	disk spring	without new spring washer centering ⁵⁾	gear box	X			
1	dog hub	part no. 251875 is installed (not 7° conical) ⁶⁾	gear box				X
1	drive sleeve	part no. 847770 or 847772 is installed (without dogs) ⁷⁾		X			
1	engine suspension frame (912 Series optional)			X	X	X	X
1	exhaust manifold	part no. 979410 is installed (without manifold bracket) ⁸⁾	turbocharger				X
4	exhaust tube	part no. 979420, 979430, 979440, 979450 is installed (1mm wall thickness) ⁹⁾	exhaust. manifold				X
4	exhaust valve		cylinder head	X	X	X	X
4	float		carburetor	X	X	X	X
2	float bracket		carburetor	X	X	X	X
2	float needle clip		float needle valve	X	X	X	X
2	float needle valve		carburetor	X	X	X	X
1	friction washer		drive gear	X	X	X	X
1	fuel pump (mechanic)			X	X	X	
2	fuel pump (electric)						X
1	gear box housing	part no. 911748 is installed (without machining for wide dog gear) ¹⁰⁾	gear box				X
1	gear set	part no. 911748 is installed (narrow) ¹¹⁾	gear box				X
1	governor		version 3	X	X	X	X
1	hex. nut		drive gear	X	X	X	X

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100% replacement parts				Engine Type			
				912			914
quantity	part description (in alphabetic sequence)	replace only if	usage	A/UL	F	S/ULS/ ULSFR	F/UL
1	hose nipple M6	part no. 940557 is installed ¹²⁾	airbox				X
8	hydro tappets		crankcase	X	X	X	X
8	lock nut		exhaust flange	X	X	X	X
1	magnetic plug	part no. 241783 is installed (without Torx head)	crankcase	X	X		X
2	main jet	diam. 162 is installed ¹⁵⁾	carburetor				X
8	mono hook circlip		piston pin	X	X	X	X
1	needle bearing		governor drive	X	X	X	X
2	needle jet		carburetor	X	X	X	X
2	oil filter		oil pump	X	X	X	X
1	oil radiator	Avgas is used	—	X	X	X	X
4	piston pin	part no. 916420 (nitrated) is installed	piston	X	X	X	X
4	piston ring set		piston	X	X	X	X
6	plain bearing		crank shaft	X	X	X	X
1	plug screw M12x1	part no. 841981 or 841982 is installed ²³⁾	oil pump pressure relief valve	X	X	X	X
all	protection hose		cooling hose				X
8	push rod	part no. 854155 is installed (without stronger press fit of ball head) ¹⁶⁾	valve train	X			
1	radiator cap		expansion tank	X	X	X	X
2	ring half		propeller shaft	X	X	X	X
all	rubber buffer		ignition, airbox	X	X	X	X
all	rubber hose 4x7		airbox, solenoide valve				X
1	rubber plate		expansion tank	X	X	X	X
all	shims		gear box	X	X	X	X

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100% replacement parts				Engine Type			
				912			914
quantity	part description (in alphabetic sequence)	replace only if	usage	A/UL	F	S/ULS/ ULSFR	F/UL
1	silicon hose		tension spring turbo				X
8	spark plug		cylinder head	X	X	X	X
8	spark plug connector		spark plug	X	X	X	X
1	sprag clutch		starter drive	X	X	X	X
1	stator	without isolating hose for each wire ¹⁷⁾	ignition	X	X	X	X
16	stud	no thread trough bolts	crank case	X	X	X	X
1	tension spring		waste gate				X
1	thrust washer ¹⁸⁾		gear box	X	X	X	X
all	tie raps		engine	X	X	X	X
1	turbo oil pressure line	part no. 956475 is installed (without modified shape) ¹⁹⁾	oil pump				X
1	type plate	made of aluminium	engine description	X			
1	vacuum pump drive gear	part no. 834242 is installed (without dogs) ²⁰⁾	vacuum pump drive	X			
16	valve cotter		valve	X	X	X	X
8	valve spring	part no. 838142 and 838152 are installed (double version) ²¹⁾	cylinder head				X
8	valve spring retainer	part no. 854182 is installed (not reinforced) ²²⁾	cylinder head	X	X	X	X
1	V-belt		ext. alternator	X	X	X	X

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5.2) Engine Serial Number Ranges in case of additional “100% replacement parts”

Only applicable if part is affected according to chapter 5.1.

If not already replaced, part has to be replaced up to and including following engine serial number:										
selected engines	912 A	912F	912 UL	912 S	912 ULS	912 ULSFR	914 F	914UL	relevant documentation (see always latest revision)	
									Certified	non-certified
1)	4.076.171	-	4.152.533	-	-	-	-	-	SB-912-005	SI-27-1994
2)	4.410.429	4.412.809	4.404.188	4.922.660	4.426.723	4.429.601	4.420.267	4.417.988	SI-912-006 / SI-914-008	SI-912-006/ SI-914-008
3)	-	-	-	-	-	-	4.420.085	4.417.768	SI-25-1997	SI-25-1997
4)	4.410.418	4.412.807	4.404.019	4.922.605	4.426.394	4.429.588	4.420.234	4.417.948	SI-25-1997	SI-25-1997
5)	4.076.009	-	4.005.323	-	-	-	-	-	SB-912-005	SI-27-1994
6)	-	-	-	-	-	-	4.420.163	4.417.790	SL-914-002	SL-914-002
7)	4.380.556	-	4.153.002	-	-	-	-	-		
8)	-	-	-	-	-	-	4.420.007	4.417.579		
9)	-	-	-	-	-	-	4.420.007	4.417.579		
10)	-	-	-	-	-	-	4.420.172	4.417.805	SL-914-002	SL-914-002
11)	-	-	-	-	-	-	4.420.163	4.417.790	SL-914-002	SL-914-002
12)	-	-	-	-	-	-	4.420.085	4.417.668		
13)	-	-	-	-	-	-	4.420.010	4.417.579		
14)	4.410.377	4.412.794	4.403.362	4.922.503	4.425.129	-	4.420.163	4.417.790		
15)	-	-	-	-	-	-	4.420.118	4.417.717	SI-914-002	SI-914-002
16)	3.792.710	-	3.792.710	-	-	-	-	-		
17)	4.410.366	4.412.791	4.403.282	-	-	-	4.420.157	4.417.783	SB-912-026/SB-914-014	SB-912-026/SB-914-014
18)	4.076.191	-	4.152.659	-	-	-	-	-	SB-912-005	SI-27-1994
19)	-	-	-	-	-	-	4.420.058	4.417.630	SB-914-007	SI-02-1998
20)	4.380.556	-	4.153.002	-	-	-	-	-		
21)	-	-	-	-	-	-	4.420.038	4.417.597	SI-14-1997	SI-14-1997
22)	4.410.421	4.412.807	4.404.123	4.922.636	4.426.604	4.429.597	4.420.253	4.417.977	SB-912-022/SB-914-011	SB-912-022/ SB-914-011
23)	4.410.857	4.412.976	4.409.715	4.923.891	6.775.789	6.775.798	4.420.908	6.773.778	SB-912-057/SB-914-039	SB-912-057/SB-914-039

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5.3) Serialized parts

Part Description (in alphabetic sequence)	State of engine receipt		State of engine departure	
	part number	serial number	part number	serial number
Airbox (912 optional)				
Alternator (optional)				
Camshaft				
Carburetor 1/3				
Carburetor 2/4				
Cooling air baffle (optional)				
Crankcase				
Crankshaft				
Electric starter				
Engine suspension frame (912 optional)				
Fuel pressure regulator (914)				
Fuel pump 1 electrical (914)				
Fuel pump 2 electrical (914)				
Fuel pump mechanical (912)				
Gear set				
Governor (optional)				
Magneto generator/stator				
Muffler (914)				
Propeller gear box				
Propeller shaft				
Servo motor (914)				
SMD modul A				
SMD modul B				
Turbocharger (914)				
Turbo control unit (TCU) (914)				
Vacuum pump (optional)				
Wiring harness (914)				

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5.4) Limited life parts

See Overhaul Manual chapter 8.1.

5.5) On condition parts

See Overhaul Manual chapter 13.2.

In principle all parts other than “**100% replacement parts**” are to be assumed as “**on condition parts**” and have to be inspected.

5.6) Parts with limited Operation Time

Description	Remarks	Checked

Engine S/N:	
Date:	

5.7) Applicable Service Bulletins and Service Instructions performed

No. of SB/SI	Description	Remarks	Checked

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5.8) Dimension sheets

See Manual chapter 12.1.3.

Description	Code	Reading new		Wear limit	Wear limit	Readings
		min.	max.	100%	50%	
Crankshaft Overhaul Manual chapter 12.2, 15.1.1, 15.6.3						
Crankshaft main journals	(H1) CS01					actual renewed
	(H2) CS02	44,440 1,7496	44,450 1,7500	44,400 1,7480	44,420 1,7488	actual renewed
	(H3) CS03					actual renewed
Journal at power take off end	(S1) CS04	27,990 1,1020	28,000 1,1024	27,950 1,1004	27,970 1,1012	actual renewed
Journal at magneto side	(S2) CS05	31,990 1,2594	32,000 1,2598	31,950 1,2579	31,970 1,2587	actual renewed
Crankshaft out of round supported on the outer main bearings CS01 and CS03	(S1) CS14					actual renewed
	(S2) CS12	0,00 0,000	0,04 0,002	0,06 0,002		actual renewed
	(H2) CS15					actual renewed
Crankshaft axial clearance	CS07	0,08 0,0031	0,32 0,0126	0,50 0,0197	0,41 0,0161	actual renewed
Crankshaft out of round assembled in crankcase, drive gear mounted	CS24	0,00 0,000	0,06 0,002	0,08 0,003		actual renewed
						Cyl. 1 Cyl. 2 Cyl. 3 Cyl. 4
Upper conrod bore	CS06	20,010 0,7878	20,027 0,7885	20,040 0,7890	20,034 0,7887	actual renewed
Crankshaft distortion	GB20			2°		actual renewed

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Description	Code	Reading new		Wear limit	Wear limit		Readings
		min.	max.	100%	50%		

Crankcase Overhaul Manual chapter 13.3.2, 12.3.3

						Ø A	Ø B1	Ø B2	average			
Main bearing bore (without bearing halves)	(H1)	CC01	48,120 1,8945	48,140 1,8953	48,100	48,110	actual					
					1,8937	1,8941	renewed					
	(H2)	CC02			to			actual				
								renewed				
	(H3)	CC03			48,170	48,155			actual			
					1,8965	1,8959			renewed			
Main bearing bore (with bearing halves fittet)	(H1)	CC11	44,474 1,7509	44,502 1,7520			actual					
							renewed					
	(H2)	CC12			44,560	44,531			actual			
					1,7543	1,7532			renewed			
	(H3)	CC13							actual			
									renewed			
Camshaft bearing bore	(N1)	CC21	30,000 1,1811	30,021 1,1819			actual					
							renewed					
	(N2)	CC22			30,100	30,061			actual			
					1,1850	1,1835			renewed			
	(N3)	CC23							actual			
									renewed			
Thickness of thrust ring halves	CC04	2,31	2,36	2,25	2,28	actual						
		0,091	0,093	0,089	0,090	renewed						

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Description	Code	Reading new		Wear limit	Wear limit		Readings			
		min.	max.	100%	50%		Ø A	Ø B1	Ø B2	average
Crankcase Overhaul Manual chapter 12.2, 12.3, 12.3.2, 12.4										
							Ø A	Ø B1	Ø B2	average
Crank shaft radial clearance	(H1)	CC11/CS01					actual			
							renewed			
	(H2)	CC12/CS02	0,024	0,062	0,120	0,091	actual			
			0,0009	0,0024	0,0047	0,0036	renewed			
	(H3)	CC13/CS03					actual			
							renewed			
Camshaft radial clearance	(N1)	CC21/CA01					actual			
							renewed			
	(N2)	CC22/CA02	0,030	0,064	0,120	0,092	actual			
			0,0012	0,0025	0,0047	0,0036	renewed			
	(N3)	CC23/CA03					actual			
							renewed			
Bearing half projection ¹⁾ from 06.0010 on	(H1)	CC31	0,22	0,40	0,22	0,40	actual			
			0,009	0,016	0,009	0,016	renewed			
	(H2)	CC32	0,25¹⁾	0,43¹⁾	0,25¹⁾	0,43¹⁾	actual			
			0,0098	0,0169	0,0098	0,0169	renewed			
	(H3)	CC33					actual			
							renewed			

Camshaft Overhaul Manual chapter 12.4

Diameter of bearing journal	(N1)	CA01					actual	
							renewed	
	(N2)	CA02	29,957	29,970	29,920	29,939	actual	
			1,1794	1,1799	1,1779	1,1787	renewed	
	(N3)	CA03					actual	
							renewed	
Camshaft out of round supported on the outer bearings CA01 and CA03	(N2)	CA12	0,00	0,05	0,08	0,07	actual	
			0,0000	0,0020	0,0031	0,0026	renewed	

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Description	Code	Reading new		Wear limit	Wear limit	Readings
		min.	max.	100%	50%	
Piston Overhaul Manual chapter 12.7, 12.7.1, 12.8, 12.9						

						Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4	
Piston red 79,5 mm / 3,1 in.	PI01	79,488	79,502	79,390	79,439	actual				
		3,1294	3,1300	3,1256	3,1275	renewed				
Piston green 79,5 mm / 3,1 in.	PI01	79,498	79,512	79,390	79,444	actual				
		3,1298	3,1304	3,1256	3,1277	renewed				
Piston red 84mm / 3,3 in.	PI01	83,988	84,002	83,890	83,939	actual				
		3,3066	3,3072	3,3027	3,3047	renewed				
Piston green 84mm / 3,3 in.	PI01	83,998	84,012	83,890	83,944	actual				
		3,3070	3,3075	3,3027	3,3049	renewed				
Clearence cyl. A" with Piston "red"	CY01/ PI01	0,002	0,024	0,130	0,077	actual				
		0,0001	0,0009	0,0051	0,0030	renewed				
Clearence cyl. B with Piston "green"	CY01/ PI01	0,002	0,026	0,130	0,078	actual				
		0,0001	0,0010	0,0051	0,0031	renewed				
Piston pin bore	PI02	20,001	20,005	20,040	20,023	actual				
		0,7874	0,7876	0,7890	0,7883	renewed				
Piston pin	PI03	19,992	19,995	19,970	19,981	actual				
		0,7871	0,7872	0,7862	0,7867	renewed				

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Description	Code	Reading new		Wear limit	Wear limit	Readings
		min.	max.	100%	50%	
Piston Overhaul Manual chapter 12.7, 12.7.1, 12.7.2, 12.8						

						Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4	
Piston pin clearance in piston pin bore	PI02/ PI03	0,006 0,0002	0,013 0,0005	0,050 0,0020	0,032 0,0012	actual				
						renewed				
Piston pin clearance in con rod	CS06/ PI03	0,015 0,0006	0,035 0,0014	0,050 0,0020	0,043 0,0017	actual				
						renewed				
Piston ring groove clearance rectangular ring 1	PI04	0,03 0,001	0,06 0,002	0,10 0,004	0,08 0,003	actual				
						renewed				
Piston ring groove clearance tapered compression ring 2	PI05	0,03 0,001	0,06 0,002	0,10 0,004	0,08 0,003	actual				
						renewed				
Piston ring groove clearance oil scraper ring 3	PI06	0,02 0,0008	0,06 0,0022	0,10 0,0039	0,08 0,0031	actual				
						renewed				
Piston ring end gap rectangular ring 1	PI07	0,15 0,0059	0,35 0,0138	1,00 0,0394	0,68 0,0266	actual				
						renewed				
Piston ring end gap tapered compression ring 2	PI08	0,15 0,0059	0,35 0,0138	1,00 0,0394	0,68 0,0266	actual				
						renewed				
Piston ring end gap oil scraper ring 3	PI09	0,15 0,0059	0,40 0,0157	1,00 0,0394	0,70 0,0276	actual				
						renewed				

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Description	Code	Reading new		Wear limit	Wear limit		Readings			
		min.	max.	100%	50%		Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4
Cylinder Overhaul Manual chapter 12.9										
Cylinderbore A 79,5 mm / 3,1 in.	(D1) CY01	79,500 3,1299	79,512 3,1304	79,580 3,1331	79,546 3,1317	actual				
		renewed								
	(D2) CY02	CY01 +0,015 CY01 +0,0006		CY01 +0,015/-0,008 CY01 +0,0006/-0,0003		actual				
		renewed								
	(D3) CY03	CY01 +/- 0,008 CY01 +/- 0,0003		CY01 +0,020/-0,008 CY01 +0,0008/-0,0003		actual				
		renewed								
Cylinderbore B 79,5 mm / 3,1 in.	(D1) CY01	79,512 3,1304	79,524 3,1309	79,590 3,1335	79,557 3,1322	actual				
		renewed								
	(D2) CY02	CY01 +0,015 CY01 +0,0006		CY01 +0,015/-0,008 CY01 +0,0006/-0,0003		actual				
		renewed								
	(D3) CY03	CY01 +/- 0,008 CY01 +/- 0,0003		CY01 +0,020/-0,008 CY01 +0,0008/-0,0003		actual				
		renewed								
Cylinderbore A 84mm / 3,3 in.	(D1) CY01	84,000 3,3071	84,012 3,3075	84,080 3,3102	84,046 3,3089	actual				
		renewed								
	(D2) CY02	CY01 +0,015 CY01 +0,0006		CY01 +0,015/-0,008 CY01 +0,0006/-0,0003		actual				
		renewed								
	(D3) CY03	CY01 +/- 0,008 CY01 +/- 0,0003		CY01 +0,020/-0,008 CY01 +0,0008/-0,0003		actual				
		renewed								
Cylinderbore B 84mm / 3,3 in.	(D1) CY01	84,012 3,3075	84,024 3,3080	84,090 3,3106	84,057 3,3093	actual				
		renewed								
	(D2) CY02	CY01 +0,015 CY01 +0,0006		CY01 +0,015/-0,008 CY01 +0,0006/-0,0003		actual				
		renewed								
	(D3) CY03	CY01 +/- 0,008 CY01 +/- 0,0003		CY01 +0,020/-0,008 CY01 +0,0008/-0,0003		actual				
		renewed								
Cylinder-ovality		0,000 0,0000	0,007 0,0003	0,050 0,0020	0,029 0,0011	actual				
		renewed								
Rework of sealing surface Cylinder/Cylinder head		0,000 0,0000	0,000 0,0000	0,100 0,0039		actual				
		renewed								

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Description	Code	Reading new		Wear limit	Wear limit	Readings					
		min.	max.	100%	50%						
Cylinder head Overhaul Manual chapter 12.10.5, 12.10.8, 12.10.9											
						Cyl. 1 Cyl. 2 Cyl. 3 Cyl. 4					
Valve guide bore inner diameter	Int. V.	CH01	7,006 0,2758	7,018 0,2763	7,150 0,2815	7,084 0,2789	actual renewed				
	Exh. V.	CH01	7,006 0,2758	7,018 0,2763	7,150 0,2815	7,084 0,2789	actual renewed				
Valve seat width	Int. V.	CH02	1,4 0,06	1,9 0,07	2,4 0,09	2,2 0,08	actual renewed				
	Exh. V.	CH02	1,5 0,0591	2,0 0,0787	2,5 0,0984	2,3 0,0886	actual renewed				
Wear on valve seat ,rework of valve seat	Int. V.	CH03	0,0 0,00	0,0 0,00	0,3 0,01	0,2 0,01	actual renewed				
	Exh. V.	CH03	0,0 0,00	0,0 0,00	0,3 0,01	0,2 0,01	actual renewed				
Valve seat diameter (for rework of valve seat)	Int. V.	CH04	34,7 1,37	35,1 1,38			actual renewed				
	Exh. V.	CH04	29,0 1,14	29,4 1,16			actual renewed				
Valve stem diameter	Int. V.	VT01	6,965 0,2742	6,980 0,2748	6,940 0,2732	6,953 0,2737	actual renewed				
	Exh. V.	VT01	6,965 0,2742	6,980 0,2748	6,940 0,2732	6,953 0,2737	actual renewed				
Valve stem clearence	Int. V.	CH01/ VT01	0,026 0,0010	0,053 0,0021	0,150 0,0059	0,102 0,0040	actual renewed				
	Exh. V.	CH01/ VT01	0,026 0,0010	0,053 0,0021	0,150 0,0059	0,102 0,0040	actual renewed				
Out of round of valve head	Int. V.	VT02	0,00 0,0000	0,03 0,0012	0,04 0,0016	0,035 0,0014	actual renewed				
	Exh. V.	VT02	0,00 0,0000	0,03 0,0012	0,04 0,0016	0,035 0,0014	actual renewed				

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Description	Code	Reading new		Wear limit	Wear limit		Readings				
		min.	max.	100%	50%		Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4	
Cylinder head Overhaul Manual chapter 12.10.3, 12.10.9, 12.10.10, 12.10.13											
Wear on valve head	Int. V.	VT03	0,0 0,0000	0,0 0,0000	0,2 0,0079	0,1 0,0039	actual				
	Exh. V.	VT03	0,0 0,0000	0,0 0,0000	0,2 0,0079	0,1 0,0039	renewed				
Spring length at test load, inner	Int. V.	VT04	30,4 1,1968	31,6 1,2441	30,0 1,1811	30,2 1,1890	actual				
	Exh. V.	VT04	30,4 1,1968	31,6 1,2441	30,0 1,1811	30,2 1,1890	renewed				
Spring length at test load, outer	Int. V.	VT04	32,4 1,2756	33,6 1,3228	32,0 1,2598	32,2 1,2677	actual				
	Exh. V.	VT04	32,4 1,2756	33,6 1,3228	32,0 1,2598	32,2 1,2677	renewed				
Spring length at test load, SINGLE	Int. V.	VT04	32,4 1,2756	33,6 1,3228	32,0 1,2598	32,2 1,2677	actual				
	Exh. V.	VT04	32,4 1,2756	33,6 1,3228	32,0 1,2598	32,2 1,2677	renewed				
Rocker arm shaft support bore	Int. V.	CH05	12,000 0,4724	12,018 0,4731	12,090 0,4760	12,054 0,4746	actual				
	Exh. V.	CH05	12,000 0,4724	12,018 0,4731	12,090 0,4760	12,054 0,4746	renewed				
Rocker arm shaft support bore "oversize"	Int. V.	CH05	12,200 0,4803	12,218 0,4810	12,290 0,4839	12,254 0,4824	actual				
	Exh. V.	CH05	12,200 0,4803	12,218 0,4810	12,290 0,4839	12,254 0,4824	renewed				
Rocker arm shaft	Int. V.	VT05	11,983 0,4718	11,994 0,4722	11,950 0,4705	11,967 0,4711	actual				
	Exh. V.	VT05	11,983 0,4718	11,994 0,4722	11,950 0,4705	11,967 0,4711	renewed				

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Description		Code	Reading new		Wear limit	Wear limit	Readings			
			min.	max.	100%	50%				
Cylinder head Overhaul Manual chapter 12.10.3, 12.10.13										
							Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4
Rocker arm shaft "oversize"	Int. V.	VT05	12,183 0,4796	12,194 0,4801	12,150 0,4783	12,167 0,4790	actual			
	Exh. V.	VT05	12,183 0,4796	12,194 0,4801	12,150 0,4783	12,167 0,4790	renewed			
Rocker arm shaft radial clearance support bore	Int. V.	CH05/ VT05	0,006 0,0002	0,035 0,0014	0,150 0,0059	0,093 0,0036	actual			
	Exh. V.	CH05/ VT05	0,006 0,0002	0,035 0,0014	0,150 0,0059	0,093 0,0036	renewed			
Rocker arm shaft radial clearance support bore "oversize"	Int. V.	CH05/ VT05	0,006 0,0002	0,035 0,0014	0,150 0,0059	0,093 0,0036	actual			
	Exh. V.	CH05/ VT05	0,006 0,0002	0,035 0,0014	0,150 0,0059	0,093 0,0036	renewed			
Rocker arm bore (for plastic bushing)	Int. V.	VT06	16,000 0,6299	16,018 0,6306	16,038 0,6314	16,028 0,6310	actual			
	Exh. V.	VT06	16,000 0,6299	16,018 0,6306	16,038 0,6314	16,028 0,6310	renewed			
Rocker arm bore (with bronze bushing)	Int. V.	VT07	12,000 0,4724	12,027 0,4735	12,150 0,4783	12,089 0,4759	actual			
	Exh. V.	VT07	12,000 0,4724	12,027 0,4735	12,150 0,4783	12,089 0,4759	renewed			
Rocker arm bore (with bronze bushing) "oversize"	Int. V.	VT07	12,200 0,4803	12,227 0,4814	12,350 0,4862	12,289 0,4838	actual			
	Exh. V.	VT07	12,200 0,4803	12,227 0,4814	12,350 0,4862	12,289 0,4833	renewed			
Rocker arm radial clearance (with bronze bushing)	Int. V.	VT07/ VT05	0,006 0,0002	0,044 0,0017	0,160 0,0063	0,102 0,0040	actual			
	Exh. V.	VT07/ VT05	0,006 0,0002	0,044 0,0017	0,160 0,0063	0,102 0,0040	renewed			
Rocker arm radial clearance (with bronze bushing) "oversize"	Int. V.	VT07/ VT05	0,006 0,0002	0,044 0,0017	0,160 0,0063	0,102 0,0040	actual			
	Exh. V.	VT07/ VT05	0,006 0,0002	0,044 0,0017	0,160 0,0063	0,102 0,0040	renewed			

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Description	Code	Reading new		Wear limit	Wear limit		Readings
		min.	max.	100%	50%		
Cylinder head Overhaul Manual chapter 12.5, 12.6, 12.10.4, 12.10.6							

						Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4		
Wall thickness of rocker arm plastic bushing	Int. V.	VT08	1,95	1,98	1,90	1,93	actual				
			0,0768	0,0780	0,0748	0,0758	renewed				
plastic bushing	Exh. V.	VT08	1,95	1,98	1,90	1,93	actual				
			0,0768	0,0780	0,0748	0,0758	renewed				
Push rod deflection	Int. V.	VT09	0,00	0,10	0,20	0,15	actual				
			0,000	0,004	0,008	0,006	renewed				
Exh. V.	VT09	VT09	0,00	0,10	0,20	0,15	actual				
			0,0000	0,0039	0,0079	0,0059	renewed				
Valve guide outside dia. "new"	Int. V.	CH06	12,064	12,075			actual				
			0,4750	0,4754			renewed				
Exh. V.	CH06	CH06	12,064	12,075			actual				
			0,4750	0,4754			renewed				
Guide bore in cylinder head	Int. V.	CH07	12,000	12,018	12,025	12,022	actual				
			0,4724	0,4731	0,4734	0,4733	renewed				
Exh. V.	CH07	CH07	12,000	12,018	12,025	12,022	actual				
			0,4724	0,4731	0,4734	0,4733	renewed				
Interference fit in cyl. Head	Int. V.	CH07/CH06	0,046	0,047	0,039	0,043	actual				
			0,0018	0,0019	0,0015	0,0017	renewed				
Exh. V.	CH07/CH06	CH07/CH06	0,046	0,047	0,039	0,043	actual				
			0,0018	0,0019	0,0015	0,0017	renewed				
rework of exhaust port	CH09	CH09			36,8		actual				
					1,449		renewed				

Oil pump Overhaul Manual chapter 12.12

Clearance main pump (pump cover/rotor)	OP01	0,00	0,05	0,20	0,13	actual	
		0,0000	0,0020	0,0079	0,0049	renewed	
Clearance suction pump (pump cover / rotor)	OP01	0,00	0,05	0,20	0,13	actual	
		0,0000	0,0020	0,0079	0,0049	renewed	

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Description	Code	Reading new		Wear limit	Wear limit		Readings
		min.	max.	100%	50%		

Intermediate gear of electric starter Overhaul Manual chapter 12.14

Idle gear bore Ø	ES01	12,000 0,4724	12,035 0,4738	12,057 0,4747	12,046 0,4743	actual renewed	
Idle gear shaft Ø	ES02	11,973 0,4714	11,973 0,4714	11,950 0,4705	11,962 0,4709	actual renewed	
Radial clearance	ES01/ ES02	0,016 0,0006	0,062 0,0024	0,107 0,0042	0,085 0,0033	actual renewed	

Propeller gear box

1) Bearing bush in gear cover Overhaul Manual chapter 12.2, 12.15.1

Bore	GB01	28,040 1,1039	28,050 1,1043	28,100 1,1063	28,075 1,1053	actual renewed	
Radial clearance	GB01/ CS04	0,030 0,0012	0,050 0,0020	0,120 0,0047	0,085 0,0033	actual renewed	

2) Propeller shaft Overhaul Manual chapter 12.2, 12.15.1

Propeller shaft dia. 35 mm	GB02	35,009 1,3783	35,020 1,3787	35,003 1,3781	35,006 1,3782	actual renewed	
Propeller shaft dia. 31,5 mm	GB03	31,470 1,2390	31,481 1,2394	31,460 1,2386	31,465 1,2388	actual renewed	
Out of true on prop shaft flange, dia. 122 mm	GB04	0,00 0,000	0,05 0,002	0,06 0,002	0,06 0,002	actual renewed	
Bore at back end of prop shaft (on version 3 only)	GB05	11,000 0,4331	11,020 0,4339			actual renewed	
Spigot dia. On oil inlet flange, (on version 3 only)	GB06	10,935 0,4305	10,960 0,4315			actual renewed	
Radial clearance of spigot	GB05/ GB06	0,040 0,0016	0,085 0,0033	0,160 0,0063	0,123 0,0048	actual renewed	

3) Dog gear, Thrust washer Overhaul Manual chapter 12.15.1

Thickness of thrust washer	GB11	1,08 0,0423	1,33 0,0522	1,00 0,0394	1,04 0,0408	actual renewed	
Free height of disk spring	GB13	5,2 0,20	5,4 0,21	4,8 0,19	5,0 0,20	actual renewed	

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Description	Code	Reading new		Wear limit	Wear limit		Readings
		min.	max.	100%	50%		
4) Tooth profile Overhaul Manual chapter 12.15.2							
Crankshaft	CS07	0,95 0,037	1,00 0,037	0,8 0,03	0,9 0,03	actual renewed	
Drive gear	GB14	0,95 0,037	1,00 0,037	0,8 0,03	0,9 0,03	actual renewed	
Propeller shaft	GB15	1,50 0,059	1,60 0,063	1,1 0,04	1,3 0,05	actual renewed	
Clutch / Dog hub	GB16	1,50 0,059	1,60 0,063	1,1 0,04	1,3 0,05	actual renewed	
5) gear set, Backlash on gear set Overhaul Manual chapter 15.6.3							
Drive gear pitting up to 5 % of flank area		0,0	0,0	5,0%	2,5%	actual renewed	
Dog gear pitting up to 5 % of flank area		0,0	0,0	5,0%	2,5%	actual renewed	
Backlash of teeth	GB18	0,07 0,003	0,15 0,006	0,20 0,008	0,18 0,007	actual renewed	
6) Overload clutch Overhaul Manual chapter 12.15.1, 12.15.4							
Axial gap	GB07	1,0 0,039	1,2 0,047	0,5 0,020	0,8 0,030	actual renewed	
Wear on dog hub	GB08	0,0 0,000	0,0 0,000	0,2 0,008	0,1 0,004	actual renewed	
Set height of clutch plates (8 inner-, 9 outer plates)	GB09	23,00 0,906	24,15 0,951	21,00 0,827	22,00 0,866	actual renewed	
Bronze thrust washer	GB10	0,90 0,035	1,10 0,043	0,60 0,024	0,75 0,030	actual renewed	
Break away torque [Nm]	GB17	600	650	600 to 800		actual renewed	
Friction torque in backlash [Nm]	GB17	30	60	60		actual renewed	

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Description	Code	Reading new		Wear limit	Wear limit	Readings
		min..	max.	100%	50%	
Ignition housing Overhaul Manual chapter 12.2, 12.18, 15.10						

Bearing bush in ignition housing	IH01	32,030	32,040	32,100	32,070	actual	
		1,2610	1,2614	1,2638	1,2626	renewed	
Radial clearance	IH01/ CS05	0,03	0,05	0,12	0,09	actual	
		0,001	0,002	0,005	0,003	renewed	

						A 1/2	A 3/4	B 1/2	B 3/4
tigger coil gap "old type"	IH02	0,4	0,5			actual			
		0,016	0,020			renewed			
trigger coil gap (with clamps)	IH02	0,3	0,4			actual			
		0,012	0,016			renewed			

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Description	Code	Reading new		Wear limit	Wear limit	Readings
		min.	max.	100%	50%	

Electric starter Overhaul Manual chapter 12.23, 12.23.2

Commutator	ES03	27,5 1,083	28,0 1,102	27,0 1,063	27,3 1,075	actual	
						renewed	
Armature shaft	ES04	9,77 0,385	9,79 0,385	9,75 0,384	9,76 0,384	actual	
						renewed	
Armature bushing	ES05	9,82 0,387	9,84 0,387	9,86 0,388	9,84 0,387	actual	
						renewed	
Bearing seat on shaft	ES06	14,991 0,590	15,005 0,591	14,987 0,5900		actual	
						renewed	
Bearing seat on shield	ES07	32,000 1,2598	32,036 1,2613	32,069 1,2626	32,035 1,261	actual	
						renewed	
Axial clearance	ES08	0,1 0,004	0,4 0,016	0,4 0,016		actual	
						renewed	
Length of plus brush	ES09	12,0 0,472	12,5 0,492	8,5 0,335	10,00 0,394	actual	
						renewed	
Length of minus brush	ES09	12,0 0,47	12,5 0,49	8,5 0,33	10,00 0,394	actual	
						renewed	
Radial clearance armature shaft / armature bushing	ES05/ ES04	0,03 0,001	0,07 0,003	0,11 0,0043	0,09 0,0035	actual	
						renewed	

Sprag clutch Overhaul Manual chapter 15.3

Axial clearance	ES10	0,50 0,020	1,10 0,043	0,20 0,008	0,35 0,014	actual	
						renewed	

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Description	Code	Reading new		Wear limit	Wear limit		Readings
		min.	max.	100%	50%		

Water pump Overhaul Manual chapter 15.7, 15.11

gauge dim.	WP01	8,55	8,85			actual	
		0,337	0,348			renewed	
impeller clearance	WP02	0,3	0,5	0,7	0,6	actual	
		0,012	0,020	0,028	0,024	renewed	

External alternator Overhaul Manual chapter 15.27.3

Deflection of V-belt at a force of 50 N	AL01		6,0			actual	
			0,236			renewed	
length of coal brush	AL02		30,0	23,0	26,5	actual	
			1,181	0,906	1,043	renewed	

Turbo charger Overhaul Manual chapter 12.30

axial clearance	TC01			0,025	0,040	actual	
				0,0010	0,0016	renewed	
radial clearance	TC02			to	to	actual	
				0,084	0,070	renewed	
turbine housing flange	TC03			0,056	0,074	actual	
				0,0022	0,0029	renewed	
				to	to	actual	
				0,127	0,109	renewed	
				0,0050	0,0043	actual	
				0,5		renewed	
				0,020		actual	
						renewed	

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5.9 Ignition

See Overhaul Manual chapter 12.28.10

Inspection protocol for ignition unit																											
Engine type, S/N:		TSO:				Measurement values for the ignition unit The following measurement values can be checked at the appropriate point after detaching the plug connections																					
Visual check:		Rem.																									
Pick-up coordination:		Type	Ignition circuit				Part			Connection			Resistance			1			2			3			4		
Ignition coil: start r.p.m. max. 220 r.p.m.			A 1/2	A 3/4	B 1/2	B 3/4																					
		912	1T / 2T	3B / 4B	1B / 2B	3T / 4T	Primary ignition coil			against ground			0.1 ÷ 0.4 kΩ														
		914	1T / 2T	3T / 4T	1B / 2B	3B / 4B	Secondary ignition coil			High voltage			6.1 ÷ 6.7 kΩ														
							Resistance spark plug connector						4.4 ÷ 6.0 kΩ														
Stator tested with Ohmmeter:																											
Stop check: Circuit A Ignition		Spark plug "OFF"				Charging coils (2 pieces) Ignition				Circuit A red			against ground			nom.											
Stop check: Circuit B Ignition		Spark plug "OFF"								Circuit B red			against ground			3.2 ÷ 4.5 Ω											
Ignition variation at: (max. 1000 rpm)			A 1/2	A 3/4	B 1/2	B 3/4	Lighting coils (8 pieces)			in series (yel-yel)			0.1 ÷ 0.8 Ω														
										yellow-ground			∞														
										against ground																	
Test run with external regulator and 12V 36 Ah (loaded)																											
SMD-modul, top S/N, p/n:		new/old	Rem.				Speed R.P.M			Load / bulbs			Voltage nomin.			Voltage actual											
SMD-modul bottom S/N, p/n:		new/old					4000 1/min						14.0 ± 0.3 V														
Wire connection checked according Maintenance Manual, current issue							4000 1/min			150W			13.2 ± 0.5 V														
Remarks:							Pick-up resistance (with open connector) Pick up old 115-123 Ω / Pick up new 230-250 Ω			A 1/2			A 3/4			B 1/2			B 3/4			Rev.					
Note: measurements at ambient temperature between +20°C (68 °F) and +30°C (86 °F)																											
Signature Tester:										Date:																	

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5.10 Turbo Control Unit (only 914 series)

See Overhaul Manual chapter 16.1.11.

Inspection protocol for turbocharger control unit					
Engine type					
Engine serial no.:			TSO:		
TCU part no.			TNO:		
TCU Program-Version	TLR 4.3		TLR 4.5		TLR 4.6
Visual Check:					
Check dongle, serial no.:					
Check with:	Testcase		on engine		
Carburetor 2/4, serial no.:					
Lamp control					
Lamps flash during switch on:	Yellow lamp		Red lamp		
Solenoid control					
Solenoid operates at :		1250 mbar (966 470 / 966470)	Airbox pressure		
		1260 mbar (966 473 / 966 741)			
Remarks					
Over-boost-control					
Red lamp flashes at :			Airbox pressure >1550 mbar		
Plausibility-control MONITOR-menu					
LOAD ¹⁾ (idle)	0±10 % (Target value)			%	
LOAD ¹⁾ (full):	115 % (Target value)			%	
ambient pressure ²⁾ :				mbar	
airbox pressure ²⁾ :				mbar	
airbox temperature ³⁾ :				°F	
servoposition (idle) ⁴⁾ :	100 %±3 (Target value)			%	
<small> ¹⁾ linear values of load ²⁾ +/- 10 mbar difference between the two values (comp. actual pressure of the day) With new ambient pressure sensor part.no. 274051 Wear limit: + 50 mbar/+ 70 mbar ³⁾ temperature should be equal to ambient temperature ⁴⁾ Servoposition at IDLE = 100% servoposition = Waste-Gate closed </small>					
Calibration control					
	966 470		966 473		
	966471		966 741		
Servo OFFSET	10		60		
Servo RANGE	1003		900		
Throttle OFFSET	60		60		
Throttle RANGE	710		710		
Airbox pressure sensor calibration parameter A	12219		12219		
Airbox pressure sensor calibration parameter B	250		250		
Ambient pressure sensor calibration parameter A	6720		6720		
Ambient pressure sensor calibration parameter B	-37		-37		
		TLR 4.3	TLR 4.5		
			TRL 4.6		
Signature Tester			Date:		

Engine S/N:	
Date:	

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5.11 Inspection on cracks

See Overhaul Manual chapter 8.4.1

Description	Findings		Remarks	Checked
	yes	no		
Flywheel hub				
Propeller shaft				
dog gear				
dog hub				
drive gear				

5.12 Hardness test

See overhaul Manual chapter 8.4.1, 12.4, 12.9, 12.10.1.

Description	Code	Readings view min.	Actual readings				Remarks	Checked
			Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4		
Camshaft	CA05	630 HV10						
	CA04	900 N/mm2						
Cylinder head	CH08	85 HB						
Cylinder	CY04	90 HB						

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7. Supervising during assembly

See Overhaul Manual chapter 15.

Description	Remarks	Checked
Check crankshaft for easy rotation		
Check crankcase for alignment		
Check both rocker arms for easy movement on		
Cyl. 1		
Cyl. 2		
Cyl. 3		
Cyl. 4		
Check the 8 hydraulic valve tappets for easy slide fit		
Check both piston pin circlips for correct position and proper fit on		
Piston 1		
Piston 2		
Piston 3		
Piston 4		
Check gap between valve covers		
Check proper match of dog gear with drive gear (serial number)		
Check axial position of water pump shaft		
Check gap adjustment of trigger coils		
Verify ignition wiring in accordance with wiring diagram		
Check V-belt tension (optional)		

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Engine S/N:	
Date:	

8) Final Test Run

See Overhaul Manual chapter 16.

8.1) Test conditions

Description	Remarks
Test bench type	
Ambient temperature [°C]	
Ambient pressure [mbar]	
Fuel type	
Oil type / viscosity	
Coolant type / mixing ratio	
Airbox	
Exhaust system	

8.2) Carburetor jetting and jet needle position

See Overhaul Manual chapter 16.1.10.

Carburetor	main jet size	idle jet size	jet needle position
1/3			
2/4			

8.3) Visual Check of ignition timing by verification of flywheel position

See Overhaul Manual chapter 16.1.13.

Description	Remarks	Checked
Check of Position		

8.4) Check of stop switch

See Overhaul Manual chapter 16.3.2.

Description	Remarks	Checked
Ignition circuit "A" OFF		
Ignition circuit "B" OFF		
Ignition circuit "AB" OFF		
Ignition circuit "AB" ON		

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8.5) Break in procedure

See Overhaul Manual chapter 16.1.10.

Description	Remarks	Checked
Break in procedure carried out as per Overhaul Manual		

8.6) Ignition check

See Overhaul Manual chapter 16.4.1.

◆ NOTE Speed drop is checked at 4000 1/min engine speed or approximately 1700 1/min propeller speed.

Description	Nominal readings	Checked
Speed drop ignition circuit "A"	300 1/min (engine speed)	
Speed drop ignition circuit "B"		
rpm difference between "A" and "B"	115 1/min (engine speed)	

8.7) Measurement of CO (carbon monoxide) content in exhaust gas

See Overhaul Manual chapter 16.4.2.

rpm	Actual readings			
	Cyl.1	Cyl.2	Cyl.3	Cyl.4
Full load				
5500 1/min				

8.8) Check of compression (pressure difference method)

See Overhaul Manual chapter 16.7.

◆ NOTE The compression test is performed at a test pressure of 5 - 7 bar.

Description	Nominal pressure loss	Actual pressure loss
Cylinder 1	Pressure drop max. 15% of test pressure	
Cylinder 2		
Cylinder 3		
Cylinder 4		

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8.9) Visual inspection for leaks

See Overhaul Manual chapter 16.8.

Description	Remarks	Checked
Cooling System		
Fuel system		
Lubrication system		

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8.10) Test run protocol

See Overhaul Manual chapter 16.4

Test Run Protocol																	
Operation time	Performance				Air intake		Fuel			Oil		Cyl. Head temp.		Exhaust gas temp			
	Speed	Torque	P	P corr.	manif. Pr.	Airbox pr.	Pressure	Consumpt	Consumpt	Pressure	Temp	Cyl. 2	Cyl. 3	Cyl. 1	Cyl. 2	Cyl. 3	Cyl. 4
[min]	[1/min]	[Nm]	[KW]	[KW]	[in.HG]	[mbar]	[mbar]	[l/h]	[g/KWh]	[bar]	[°C]	[°C]	[°C]	[°C]	[°C]	[°C]	[°C]

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8.11) Check of hydraulic governor (if fitted)

See Overhaul Manual chapter 16.4.3.

Description	Remarks	Checked
Operational check of hydraulic governor		

8.12) Check of the external alternator (if fitted)

See Overhaul Manual chapter 16.4.5.

◆ NOTE

Check of the external alternator is performed at 4000 rpm engine speed.

Description	Load	Nominal readings	Actual readings
Charge control lamp		„OFF“	
Output voltage	0 W	14.5 (±0.3) V	
Output voltage	150 W	13.5 (±0.6) V	

8.13) Check of oil filter

See Overhaul Manual chapter 16.9.

Description	Remarks	Checked
Check of oil filter		
Change of oil filter		

8.14) Engine data plate

See Overhaul Manual chapter 16.10.

Description	Remarks	Checked
Data plate marked		

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9) General Data

The Assembly of the engine was done in accordance with the latest valid documents (Maintenance- and Overhaul Manual as well as applicable Service Bulletins and Service Instructions).

General overhaul, repair work and modifications as well as renewal of components are in compliance with and executed to all regulations and requirements presently in force for this type of equipment.

All work (e.g. cleaning, rework of sealing faces, polishing and fitting of parts etc.) in correlation with dis- and reassembly of aircraft engines in the course of a general overhaul, repair, modifications or renewal of components as specified on repair or overhaul list, but not stated in this repair report, has been performed.

Owing to the work carried out, the engine with S/N
is declared as:

Modified	Repaired	Overhauled	Inspected	Safe to operate

and can be put into service for another
up to a total operating period (TSN) of

hours until the next overhaul,
hours.

Repair work done by	Date	Checked	Date

Engine S/N:	
Date:	

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Engine S/N:	
Date:	