0 General

0.1 Amendments

No.	Page	Description	Date
0.1	all	Combination of the initial Maintenance Manuals of the Variants DG-600M and DG-600/18M, new standardized format	December 2009
0.2	0.11, 1.2, 1.4, 1.11, 1.12, 1.14, 1.18, 1.22, 1.24, 2.1, 2.3, 2.5, 3.1-3.3, 3.7, 4.2 4.7, 5.1, 6.2 - 6.4; 8.1-8.3, diagram 1	Miscellaneous changes to the contents of the latest amendments of the initial maintenance manuals	December 2009
1	0.1, 0.3 – 0.6, 0.11, 3.4, 3.7, 8.2, diagram 11	Fuel hoses TN DG-SS-02	October 2016

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0.2 List of effective pages

Section	page	issued	replaced	replaced	replaced
0	0.0	December 09	See manual amendments		
	0.1	"	"		
	0.2	"	"		
	0.3	"	"		
	0.4	"	"		
	0.5	"	"		
	0.6	"	"		
	0.7	"			
	0.8	"			
	0.9	"			
	0.10	"			
	0.11	"	October 2016		
	0.12	"			
1	1.1	December 09			
	1.2	"			
	1.3	"			
	1.4	"			
	1.5	"			
	1.6	"			
	1.7	"			
	1.8	"			
	1.9	"			
	1.10	"			
	1.11	"			
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	1.23	"			
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	1.25	"			
	1.26				
	1.27				

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List of effective pages (continued)

Section	page	issued	replaced	replaced	replaced
2	2.1	December 09			
	2.2	"			
	2.3	"			
	2.4	"			
	2.5	"			
	2.6	"			
3	3.1	December 09			
	3.2	"			
	3.3	"			
	3.4	"	October 2016		
	3.5	"			
	3.6	"			
	3.7	"	October 2016		
4	4.1	December 09			
	4.2	"			
	4.3	"			
	4.4	"			
	4.5	"			
	4.6	"			
	4.7	"			
	4.8	"			
	4.9	"			
	4.10	"			
	4.11	"			
	4.12	"			
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	4.21	"			
	4.22	"			
	4.23	"			

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List of effective pages (continued)

Section	page	issued	replaced/	replaced	replaced
4	4.24	"			
	4.25	"			
	4.26	"			
	4.27	"			
	4.28	"			
	4.29	"			
	4.30	"			
5	5.1	December 09			
	5.2	"			
6	6.1	December 09			
	6.2	"			
	6.3	"			
	6.4	"			
7	7.1	December 09			
8	8.1	December 09			
	8.2	"	October 2016		
	8.3	"			

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List of effective pages (continued)

Diagrams

No.	issued	replaced/	replaced	replaced
1	December 09			
2	Nov. 90			
3	Nov. 90			
4	Nov. 90			
5	Nov. 90			
6	Mai 91			
7	Dez. 91			
8	Nov. 90			
9	Nov. 90			
10	Nov. 90			
11	Nov. 90	October 2016		
12	Nov. 90			
13	Nov. 90			
14	Nov. 90			

Enclosures

No.	issued	replaced/	replaced	replaced
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6EP28	06.05.91			
6E1	19.06.90			
6E2	13.06.90			

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0.4 Airworthiness limitations

0.4.1 Repairs

Repair or replace damaged parts prior to next flight. Follow the instructions of the DG-600M repair manual for repairs of the airframe. Repairs outside the scope of the repair manual and major repairs must be accomplished at an approved repair station or by an approved mechanic rated for composite aircraft structure work in accordance with DG repair methods.

Use only genuine spare parts.

For all aircraft under EASA regulations the following applies: According to part 21, subpart M to accomplish major repairs an approved repair instruction is required, see also TN DG-G-01 “Approved repair methods according to EU Commission Regulation 1702/2003 part 21, subpart M”

0.4.2 Life time of the airframe

The maximum allowable operating time for the Variants DG-600M and DG-600/18M is 12000 flight hours. Therefore inspections according to section 2.4 of this manual have to be executed at 3000 h, 6000 h, 9000 h and every 1000 hours following thereafter.

0.4.3 Life time of equipment and components

a) The **fabric straps of the safety harness** have to be exchanged according to the instructions of the respective manufacturer. If no limitations are given, exchange after 12 years.

b) Other components:
All other components such as tow hook, wheels, gas struts, control system parts, bolts, pins etc. have no life time limitation, but should be replaced when worn, damaged or disqualified by excessive corrosion.

c) The following **parts of the powerplant** have to be exchanged after 300 hours engine time:
   1. all bolts and nuts of the powerplant
   2. all relays (starter, extension-retraction)

d) The flexible **fuel lines** have to be exchanged after 6 years.
TN DG-SS-02: When instructions 2 and 3 of this TN have been accomplished the life time of the flexible fuel lines is 10 years.

e) The **spark plug** has a life time of 12.5 engine hours.

f) The **spark plug connector** has a life time of 25 engine hours.

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3.5 Maintenance of the powerplant

Note: In your aircraft log you will find stickers where you can enter the next maintenance dates. Fix these stickers at a visible place in the cockpit, preferably near the elapsed time indicator. Checklists for this maintenance work are in the enclosures of this manual.

3.5.1 After 1 hour engine time

and 1 hour engine time after every mounting of the propeller.

1.a) Tighten the six mounting bolts of the propeller.

1.b) Check the propeller positioning according to sect. 1.11.5. If necessary readjust according to sect. 4.9. Tighten the bolt which secures the propeller flange to the reduction gear (24 mm wrench, left hand thread) with 12 daNm (87 ft.lb.).

2. Roughen the brake pad of the propeller brake with abrasive paper, clean the braking surface.

3.5.2 Every 12 1/2 hours:

1. + 2. see 3.5.1
3. Replace the spark plug (with 25 hours maintenance execute this work together with item 10). Use only spark plugs type see section 8. The spark plug should not have a cap which can be screwed off.
4. Check the reduction gear oil level (see sect. 4.10.1). With the first 25 hour maintenance proceed according to item 29.

3.5.3 Every 25 hours:

If the engine was operated less then 25 hours in 1 year the items 1, 2, 5, 6, 7 and 8 should be executed once a year. This should be combined with the yearly inspection.

1. - 4. see 3.5.1 and 3.5.2
5. Visual control.
6. Clean the engine and the engine compartment.
7. Replace the fuel filter in the fuselage. Paper filters should under no circumstances be used.
8. Check fuel lines for any wear, kinks, tight fit and leaks.
   any wear, fissures, kinks, tight fit and leaks. For the check switch on the ignition to run the electric fuel pump to demonstrate operating fuel pressure.
9. Check all electrical wiring and terminals. Check especially the terminals of the positive wire to the starter motor and the earth wiring.
   Caution: Critical points may be covered by heat shrink tubing. Check the whole electric system for wear and tight fit of all terminals and connectors. Check the rubber sleeve at the hole for wires and bowden cables in the fuselage floor near the mounting of the powerplant.
   Check the whole system, fuses and circuit breakers for proper function.

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31. Ground test run:

Warning: Never run the engine without wings assembled.

Run the engine. Adjust the idle RPM with its stop screw if necessary to appr. 3000 RPM when the engine is warmed up.

32. Check the max. engine RPM, min. 6600 RPM.
33. Switch the change over switch at the DEI to position "Avionik" with the engine running at full throttle. By this action the electrical fuel pump is switched off.
    There should be no drop pf RPM, otherwise the fuel system has to be checked once more.

3.5.4 After 300 engine hours the power plant

The engine must undergo a major overhaul.

Apart from the items listed in section 3.5.1, the following items also need to be done:

1. Remove the power plant: Disassemble the power plant Ship the engine with the muffler loose to an approved repair station approved for Rotax engine overhaul.
2. Replace all the nuts and bolts on the engine
3. Replace all the relays

3.5.5 After 6 years

The flexible fuel lines have to be exchanged.

TN DG-SS-02: When instructions 2 and 3 of this TN have been accomplished the above mentioned fuel lines must not be exchanged after 3 years. But after 6 years all fuel hoses are to be inspected visually thoroughly and completely for any damage especially fissures, kinks or leaks. For the check switch on the ignition to run the electric fuel pump to demonstrate operating fuel pressure.

Repeat this inspection every following year.

Caution: The new fuel lines must be flushed thoroughly with fuel after assembly.

3.5.6 When required

1. If the fuel tank is exessively dirty or when the fuel gauge gives false indications, a thorough flushing of the fuel tank is required (see sect. 1.13.2)
2. If the engine runs rough between idle and full throttle even after all the points in sect. 3.5.1 are OK, then it is possible that the membrane in the carburettor is hardened. It should then be replaced.

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60000527 Fuel cock KH 1067-T

60507550 Drainer CAV 110 (1/8" NPT

Warning: Replace the sealing ring of the drainer against partno. 60504402 prior to installation

60507550 Sealing ring for drainer CAV 110 (for automotive fuel)

40470300 Probe for CHT 4M30

39001008 Service kit fuel lines (necessary every 6 years)

Note: When instructions 2 and 3 of **TN DG-SS-02** have been accomplished the fuel lines must not be exchanged after 6 years but have a life time of 10 years.

60507604 Coupling KL-006-2-SL009 for fuel filler hose

Parts for the electrical system

60510891 Battery 6V / approx. 10Ah equipped with screw - terminals

60510830 Regulator Ducati 434.36.6200 or GR4 with filter according to TN866/11

60510350 Extension-retraction relay 0.7.330.00 with diode

60510816 Starter relay 0332002160 with diode

40575200 Control system 5 E 20 for automatic extension-retraction

40675270 Anti interference filter 6 E 27 for extension-retraction mechanism

60510463 Limit-switch engine extended 164-564

60510462 Limit-switch engine retracted 164-594 (push button) or 107-072 Ö2 / GL (terminal 4 removed)

60510476 Manual extension-retraction switch APR 20 - 647 N

60510475 Switch to switch over from manual to automatic extension-retraction APR 20 - 646 N

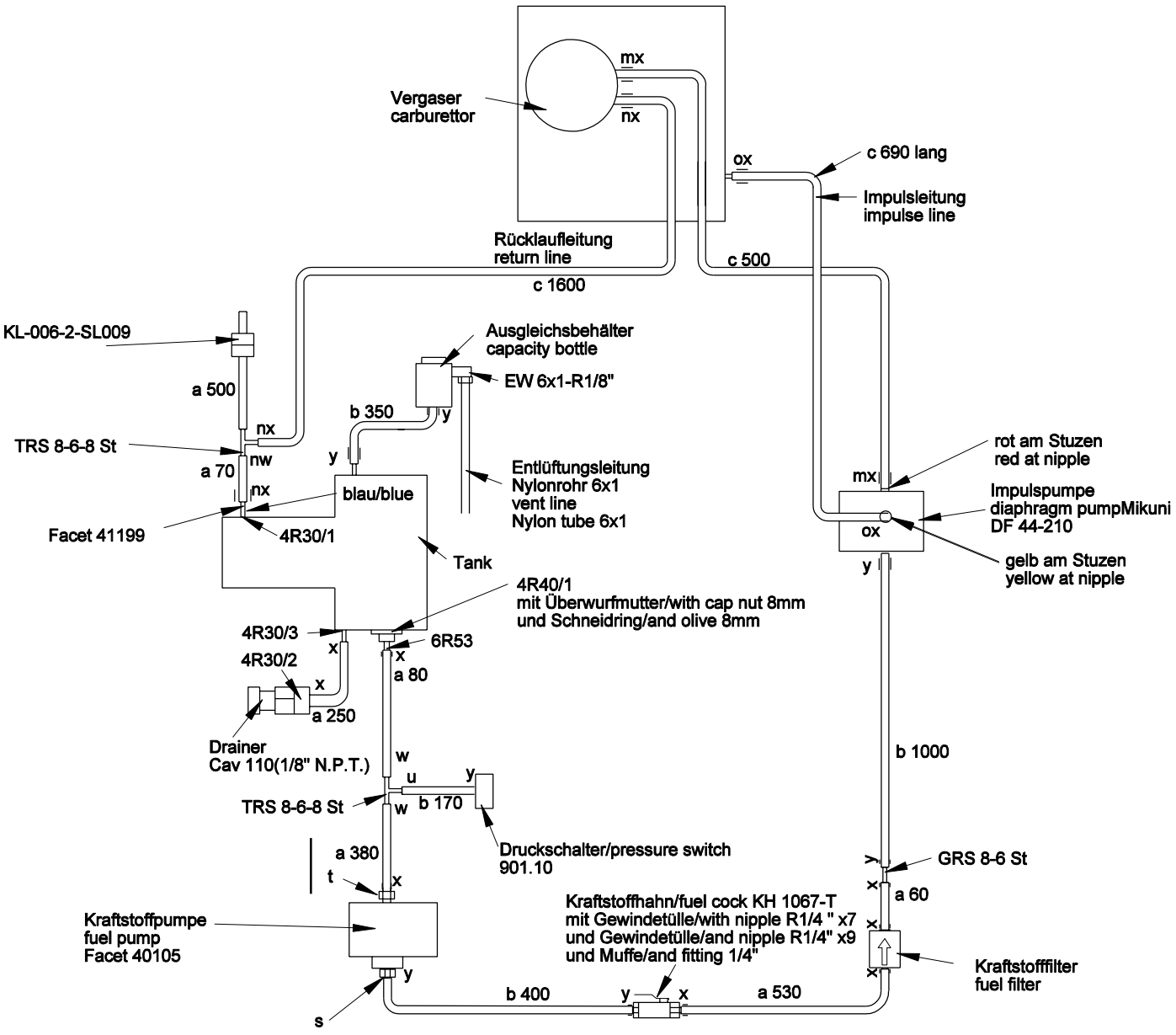
60510813 Main switch Bosch 0341001001

60510812 Key for main switch Bosch 0341001001

60510370 Starter button SECME 07 17801 21

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Kraftstoffanlage/fuel system



Kraftstoffschläuche
fuel hoses

a= DIN 73379-2A ∅ 8mm innen/inside dia. 8 mm
b= DIN 73379-2A ∅ 6mm innen/inside dia. 6 mm
c= ISO 7840-A1 ∅6mm innen/inside dia. 6 mm

500
Länge [mm]
length [mm]

Verbindungsstücke und Klemmen
Fittings and clamps

m Schrumpfschlauch rot20mm lang
heat shrink tubing red 20 mm long
n Schrumpfschlauch blau20mm lang
heat shrink tubing blue 20 mm long
o Schrumpfschlauch gelb20mm lang
heat shrink tubing yellow 20 mm long
s Einschraubnippel/nipple SAG06/R 1/8" MS
t Einschraubnippel/nipple SAG08/R 1/8" MS
u 1-Ohrklemme/ear clamp 145.3
w 1-Ohrklemme/ear clamp 157.3
x Schlauchschelle/hose clamp S70/7 14/9
y Schauchschelle/hose clamp S70/6 13/9