DG Aviation GmbH

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

MAINTENANCE MANUAL

FOR THE MOTORGLIDER

DG-808C

TYPE:	**DG-800**
VARIANT:	**DG-808C**
TC Data Sheet No.:	**EASA.A.067**
Issue:	**June 2015**
Owner:	
Ser. No.:	
Registration:	



Copyright DG Aviation GmbH any copy or publishing prohibited

DG Aviation
Otto Lilienthalweg 2
76646 Bruchsal
www.dg-aviation.de
Spare part- and material sales:

Telefon (07251) 3020-0
Telefax (07251) 3020-200
info@dg-aviation.de
Tel. 07251/3020-270
spareparts@dg-aviation.de

Revision 7, May 2023

0 General

0.1 Manual amendments

No.	Page	Description	Date
1	0.3, 0.6, 0.10, 1.11, 8.2, diagrams 5a, 11d, 8EP210	ÄM 800-17-07 Fin tank valve and operating handle, Refuelling pump	April 2007
2	0.3, 0.4, 0.6, 0.7, 0.10, 0.12, 1.28, 1.29, 2.7, 3.3, 3.5, 3.11, 4.2, 4.8, 4.11, encl. 2 page 1, TN 4600-2-2 Solo	TN800/34 Manual revision	September 2007
3	0.6, 8.1, diagram 10	TN800/35 Extension-retraction unit, rear fork of spindle-drive	April 2009
4	0.3 ÷ 0.12, 1.3, 1.5, 1.6, 1.8, 1.10, 1.11, 1.14 ÷ 1.16, 1.24, 1.27, 1.29, 1.30, 2.1, 2.2, 2.6, 2.7, 3.1, 3.3 ÷ 3.11, 4.1 ÷ 4.3, 4.6 ÷ 4.11, 4.13, 4.15, 4.16, 4.18 ÷ 4.23, 4.25 ÷ 4.31, 5.1, 5.2, 6.1 ÷ 6.3, 7.2, 8.1 ÷ 8.4, 9.2, diagrams 1 ÷ 5, 5a, 8, 9, 10, 11, 11d, 12, 13, 13b, 14, 17, 14a removed, 8M110, 8E250, SI 69-10	TN800/41 Manual revision, Coolant pump Pierburg	May 2012
5	0.0, 0.1, 0.3 - 0.6, 0.11, 0.12, 2.1, 2.2, 3.7, 4.33, 8.1 - 8.3, diagrams 3, 9, 8E250h, 8E256b	manual revision, TN800/45	July 2017
6	0.1, 0.3 - 0.7, 0.10 - 0.13, 2.6, 3.11, 8.2, diagram 11c, 8EP210, add diagram 11e, remove diagrams 11 and 11d, file working instruction No. 1 for TN 800/46 at the end of the MM	TN800/46 PU fuel hoses, limitation of life-time, replacement by new types of fuel hoses	February 2018
7	Title, 0.1, 0.3 – 0.6, 0.11, 0.12, 3.9 – 3.12, 4.1, 4.2, 4.11, 8.1, 8.4, diagrams 18 + 16	manual revision, life-time drive-belt TN800/49	May 2023

0.2 List of effective pages

Section	page	issued	replaced/	replaced/	replaced/
	Title	June 2005	July 2017	May 2023	
0	0.1	see manual amendments			
	0.2	"			
	0.3	"			
	0.4	"			
	0.5	"			
	0.6	"			
	0.7	June 2005	Sept. 2007	May 2012	Febr. 2018
	0.8	"	May 2012		
	0.9	"	May 2012		
	0.10	"	Sept. 2007	May 2012	Febr. 2018
	0.11	"	May 2012	July 2017	Febr. 2018
			May 2023		
	0.12	"	Sept. 2007	May 2012	July 2017
			Febr. 2018	May 2023	
	0.13	Febr. 2018			
1	1.1	June 2005			
	1.2	"	May 2012		
	1.3	"	May 2012		
	1.4	"			
	1.5	"			
	1.6	"	May 2012		
	1.7	"			
	1.8	"	May 2012		
	1.9	"			
	1.10	"	May 2012		
	1.11	"	April 2007	May 2012	
	1.12	"			
	1.13	"			
	1.14	"	May 2012		
	1.15	"	May 2012		
	1.16	"	May 2012	Febr. 2018	
	1.17	"			
	1.18	"			
	1.19	"			
	1.20	"			
	1.21	"			
	1.22	"			
	1.23	"			
	1.24	"	May 2012		
	1.25	"			

0.2 List of effective pages (continued)

Section	page	issued	replaced/	replaced/	replaced/
	1.26	June 2005			
	1.27	"	May 2012		
	1.28	"	Sept. 2007		
	1.29	"	Sept. 2007	May 2012	
	1.30	May 2012			
2	2.1	June 2005	May 2012	July 2017	
	2.2	"	May 2012	July 2017	
	2.3	"			
	2.4	"			
	2.5	"	May 2012		
	2.6	"	May 2012	Febr. 2018	
	2.7	"	Sept. 2007		
3	3.1	June 2005	May 2012		
	3.2	"			
	3.3	"	Sept. 2007	May 2012	
	3.4	"	May 2012		
	3.5	"	Sept. 2007	May 2012	
	3.6	"	May 2012		
	3.7	"	May 2012	July 2017	
	3.8	"	May 2012		
	3.9	"	May 2012	May 2023	
	3.10	"	May 2012	May 2023	
	3.11	"	Sept. 2007	May 2012	Febr. 2018
			May 2023		
	3.12	May 2023			
4	4.1	June 2005	May 2012	May 2023	
	4.2	"	Sept. 2007	May 2012	May 2023
	4.3	"	May 2012		
	4.4	"			
	4.5	"			
	4.6	"	May 2012		
	4.7	"	May 2012		
	4.8	"	Sept. 2007	May 2012	
	4.9	"	May 2012		
	4.10	"	May 2012		
	4.11	"	Sept. 2007	May 2012	May 2023
	4.12	"			
	4.13	"	May 2012		
	4.14	"			

0.2 List of effective pages (continued)

Section	page	issued	replaced/	replaced/	replaced/
	4.15	June 2005"	May 2012		
	4.16	"	May 2012		
	4.17	"			
	4.18	"	May 2012		
	4.19	"	May 2012		
	4.20	"	May 2012		
	4.21	"	May 2012		
	4.22	"	May 2012		
	4.23	"	May 2012		
	4.24	"			
	4.25	"	May 2012		
	4.26	"	May 2012		
	4.27	"	May 2012		
	4.28	"	May 2012		
	4.29	"	May 2012		
	4.30	"	May 2012		
	4.31	"	May 2012		
	4.32	"			
	4.33	"	July 2017		
	4.34	"			
	4.35	"			
	4.36	"			
	4.37	"			
	4.38	"			
5	5.1	June 2005	May 2012		
	5.2	"	May 2012		
6	6.1	June 2005	May 2012		
	6.2	"	May 2012		
	6.3	"	May 2012		
7	7.1	June 2005			
	7.2	June 2005	May 2012		
8	8.1	June 2005	May 2012	July 2017	May 2023
"	8.2	"	May 2012	July 2017	Febr. 2018
	8.3	"	May 2012	July 2017	
	8.4	"	May 2012	May 2023	
9	9.1	June 2005			
	9.2	"	May 2012		

0.2 List of effective pages (continued)

diagram	issued	replaced/	replaced/	replaced/
1	June 2005	May 2012		
2	June 2005	May 2012		
3	Nov. 2004	May 2012	July 2017	
4	Nov. 1993	May 2012		
5	Nov. 2004	May 2012	valid up to ser. No. 8-372	
5a	April 07	May 2012	valid from ser. No. 8-373 on	
6	May 2005			
7a	August 2005			
7b	August 2005			
8	August 2005	May 2012	May 2023	
9	August 2005	May 2012	July 2017	
10	August 2005	April 2009	May 2012	
11c	June 1999	Febr. 2018		
11e	Febr. 2018			
12	June 2005	May 2012		
13	Febr. 1999	May 2012		
13a	May 2012			
14	Nov. 2004	May 2012		
14a	June 2005	May 2012	no more effective	
15	Nov. 2004			
16	Nov. 2004	May 2023		
17	May 2012			
6EP27M	28.08.90			
8EP38	17.02.99			
8EP210	12.02.07	12.02.07		
8M110	23.10.02	5.07.11		
8M234	25.08.05			
8V96	19.12.94			
W40	30.11.99			
W51	20.11.96			
W57	10.09.99			
W59	18.06.02			
W60	25.10.04			
8E25	25.06.99			
8E210	15.05.97			
8E250	13.09.05	18.10.11	15.01.14	Valid from ser.no. 8-428 on without 431
8E256	24.06.05	15.01.14	Valid from ser.no. 8-428 on without 431	
Encl. 1	June 2005			
Encl. 2	Sept. 2007			
TN 4600-2-2 Solo	Jan. 2007			
SI 69-10	14.05.10			
Working instruction No. 1 for TN800/46		Febr. 2018		

0.4 Airworthiness limitations

0.4.1 Repairs

Repair or replace damaged parts prior to next flight. Follow the instructions of the DG-800B repair manual for repairs of the airframe.
Repairs exceeding those as defined as minor damage in the DG-800B repair manual section 2 and major repairs must be accomplished at a certified repair station or by a certified mechanic rated for composite aircraft structure work in accordance with DG repair methods or those methods approved by the national aviation authorities.
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 German composite sailplanes and motorgliders was proofed for 12000 flight hours.
The initial life time for the DG-808C is 3000 flight hours.
Extension of the life time to 12000 hours can only be achieved by implementing a comprehensive inspection program for the aircraft to be carried out in accordance with data that has been approved by an applicable aviation authority, see section 2.4 of this manual.

Only for USA
Note: *The Airworthiness Limitations section is FAA approved and specifies maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulation unless an alternative program has been FAA approved.*

0.5 Further service information

0.5.1 Life time of equipment and components

Use only genuine spare parts. For part. No.'s of all parts please refer to section 8.
Note: You will find detailed instructions for replacement of the life limited parts (if applicable) in section 4 of this manual.
After exchanging life limited parts change the "Summary of operating hours" for your motorglider by entering the replacement dates of the exchanged parts.

a) The following **components of the power plant** have to be replaced after 400 engine hours.
   1. All nuts and bolts on the engine (part No. 39001025)
   2. The bearings of the upper drive belt pulley (part No. 59332050 and 59320320)

b) All fuel lines and the gasket for the drainer valve (part No. 60504402) have to be exchanged after 6 years.
   TN 800/46: When instructions 3 of this TN have been accomplished the life time of the fuel lines (part. No. 39001075) is 10 years. the life time of the FPM fuel line (part. No. 30092048) between primer valve and carburettor (from ser. No. 8-432 on) is 6 years.

c) The **coolant hoses** (part no. 39001017 resp. 18) have to be exchanged after 6 years.

d) **Drive belt** (part. No. 60504012)**:**
   The life time of the **drive belt** is 50 engine hours (or 100 engine hours with optional BBSA friction/centrifugal clutch installed) and may be extended by special inspections according to section 3.5.3 of this manual for another 25 engine hours after each inspection.

e) The **spark plugs** (part. No. 40050360) have to be exchanged after 25 engine hours.

f) 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, approved types see section 6.3.

g) **Flexible fuel bags in the wings (option)**
   Type Uniroyal (rubber): these will have to be exchanged after 10 years.
   Type HFK (plastic): see Mounting and testing instructions for HFK TLF.

0.5.2 Service times for other than life limited parts

The **coolant ha**s to be exchanged after 6 years (type see section 1.12.2).
The **brake fluid of the wheel brake (option)** has to be exchanged after 4 years (types see section 1.6.4).
Note: All **other components** like 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.

16. Check the rubber engine mounts, especially for cracks. Therefore apply strong pressure to the propeller mount in forward, backward and sideways direction.

17. Check and grease the starter motor gear shaft (don't grease the starter motor gear) Check starter motor for tight mounting. There should be no excessive radial free play of the starter motor gear axle. With too much free play the starter must be exchanged.

18. Clean the starter ring gear and check for damage. Check if the starter ring gear was bent forwards by the starter motor. There should be approx. 1mm (.04 in.) clearance between starter ring gear and drive belt.

19. Remove the fairings which protect the drive belt.
    Check the drive belt for wear.
    To accomplish this remove the drive belt see section 4.12 a) and c).
    If not already existing apply a mark at the narrow side of the belt e.g. with a white Edding marker. Inspect the belt step by step until you reach the starting position again.
    Visually check each tooth and also the back and the sides of the belt for cracks especially at the tooth base or any unusual wear. For the check bend the belt also to the outside.
    If the drive belt shows signs of wear or if there are any cracks, the drive belt must be replaced. . In case of doubt you may send the belt to DG for inspection.

Caution: If no damage was detected the belt may be operated for another 25 engine hours. See section 3.5.3.
If damage was detected in addition to the change of the belt you must send a report giving the kind of damage, the operating time of the belt and the serial no. of the aircraft to DG Aviation.
In case a drive belt was torn off you must send a report to DG Aviation too.

Re-install the drive belt. In contrary to installation of a new belt use the marked position of the upper pulley see 4.12 a) 3.

Check the drive belt tension according to section 4.12 item g) and adjust if necessary.

Check the 6 rollers 8M171 which guide the drive belt for tight fit to their mounting brackets and for easy turning. If there is any significant friction in their bearings, the rollers have to be replaced.

20. Clean the spindle drive, function check. Check the connection of spindle drive and gas strut to engine and fuselage. To accomplish this extend the engine only so far, that you still can see the connection to the engine mount. Check especially for cracks in the spindle drive fork.

21. **Option BBSA slipping-centrifugal clutch:** Check the propeller stopper for wear and function, check especially the actuating spring.

22. Oil all hinge points of the powerplant

23. Check the time taken to extend the power plant. If it takes longer than described under sect.1.12.3 the gas strut has to be replaced.

24. Check the engine retaining cable for wear and kinks.
    Check thimble and bolt of the upper cable connection for wear.
    Check the adjustment of the retaining cable according to sect. 1.12.4. If necessary adjust the cable at the adjustment screw in the rear end of the engine bay.

25. Check the main bearings of the upper pulley for any free play.

26. Check the tension of the propeller bolts: remove the lockwire, loosen the propeller bolts and retorque them with a torque wrench, torque value see sect. 1.11.10.
    Secure again with lockwire according to section 4.19.

27. Check the propeller blades for any damage.

28. Check all electric cables and connectors. Check the terminals especially of the starter positive and earth wire for cracks.

Note: The critical spots may be covered by heat shrink tubing.

29. Check the whole electrical system wiring, ensure all equipment is secure and all connections are OK. Check proper functioning of all systems and fuses/circuit breakers.

30. Reinstall the engine bay doors.
    Check all the hinges on the engine compartment doors for proper fit and any cracks, tears etc. Check if hinge pins are secured properly.

Ground test run:
Warning: Never run the engine without the wings assembled.

31. If needed adjust the idle RPM (see sect. 1.13.7).
32. Check the magnetos - at 3000 RPM, drop should not be more than 300 RPM.
33. Check max. engine RPM - 5800 RPM minimum.
34. Check EGT's (only with optional EGT probes) EGT should be adjusted according to the instructions see sect. 1.13.7, item 5.
35. With engine running at full power press the test button for 10 seconds to switch off the first fuel pump. The engine must run with the same speed with the fuel supplied by the second pump.

Note: After completion of the 25 hour inspection reset the time until the next maintenance to zero in the DEI-NT set up menu, see section 4.23.

3.5.2 Every 3 years

Section not effective (Exchange the coolant only every 6 years together with the coolant hoses, see sect. 3.5.5).

3.5.3 After 50 resp. 100 engine hours then following every 25 engine hours

The life time of the **drive belt** is 50 engine hours (or 100 engine hours with optional BBSA friction/centrifugal clutch installed) and may be extended by special inspections according to section 3.5.3 of this manual for another 25 engine hours after each inspection.
It is recommended to perform this inspection together with the 25 h inspection see 3.5.1.
In case the operation time of the drive belt doesn´t match the 25 h periods the inspection must be performed and documented separately.
Damaged drive belts must be reported to DG Aviation.
The inspection and the reporting is detailed in section 3.5.1 item 19.

3.5.4 After 400 engine hours

After 400 engine hours the power plant 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 and remove the engine from the powerplant. Ship the engine to the manufacturer or an aircraft engine maintenance workshop approved by the manufacturer and by the authorities.
2. Replace all the nuts and bolts on the engine
3. Replace the bearings of the upper drive belt pulley.

3.5.5 After 6 years

1. Replace the gasket of the drainer valve every 6 years.
2. The FPM fuel hoses between primer valve and carburettor (from ser. No. 8-432 on) must be replaced every 6 years.
3. Replace all fuel lines every 6 years.
   TN800/46: When instruction 3 of this TN has been accomplished the rubber fuel lines must not be exchanged after 6 but after 10 years. To allow this 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 until the life time of the fuel lines (see section 0.5.1) is reached.

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

4. Replace all coolant hoses and the coolant, see section 4.16.

3.5.6 When required

1. If the fuel tank is excessively dirty or when the fuel gauge gives false indications, a thorough flushing of the fuel tank is required (see sections 1.13.2 and 1.13.6).
2. If the engine should run rough between idle and full throttle even after all the points in sect. 3.5.1. are OK, then it is possible that the membranes in the carburettors have hardened. They should then be replaced.
3. After sudden power loss at full throttle: Check pistons and cylinders for seizing marks, see sect. 3.5.1 item 12.

4 Detailed instructions for assembly and servicing work

4.1 Water-ballast system

see diagram 5 or 5a from ser.no. 8-373 on

Replacement of the water ballast bags:
Unscrew the bolt attaching the Perlon line to the root rib and attach an additional 6 m (20 ft) long Perlon line dia. 3 mm (.12 in.) to it. Also attach a line to the line which is fixed at the front of the root rib.
Unscrew the water ballast dump valve cap nut which is near the wing root. Remove the dump valve with attached water ballast bag out of its wing stand by pushing the valve towards the wingtip. Remove the valve and ballast tank through the hole in the wing root. Remove the Perlon line and loosen the hose clamp. Replace the ballast tank and reverse the above procedures to install the new tank.

Only Version DG-808C Competition: With the large wing tank 8F71 (75 l) the check valve at the parting of the tank has to be taken out and to be installed in the new tank.
Clean and test the check valve for proper function prior to reinstallation: When you turn the valve so that the spring loaded pin points downwards, the pin must be moved by the ball of the valve. Check both pins. For installation mount the check valve on a rod dia. 10 mm, 3 m (10 ft.) long. The side without the turned cut-out for the hose clamp is to be installed inboard.

All Versions: The lines holding the tank are to be fixed so that the key ring will remain 5 cm (2 in.) inside of the wing when the lines are just tensioned. By this method the tension of the lines will be satisfactory even if the lines strain.

Every 3 months, you should check that the lines are still tensioned. If not, undo the knot and tie it again to the key ring (see above).
The front line should not be tensioned.

Each time you unscrew the valve, grease its thread, otherwise you won't be able to open it again.

The seat of the valve ball (see diagram 5) should be greased.
Fill the new water ballast tank(s) and check for water-tightness and test the dump time.

4.2 Replacement of control circuit cables

The following cable connections are approved:
3.2 mm dia. control cable construction 7x19 with Nicopress-sleeves 28-3-M Copper and tool No. 51-M850 or 63-V-XPM or 64-CGMP where the M groove is to be used.

The above applies to the rudder cables, the tow release cable and the engine retaining cable.

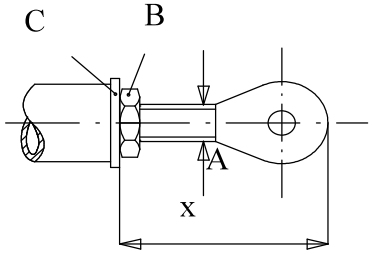
The cable for the rudder pedal adjustment and the fin tank valve are 1.6 mm dia. control cable construction 7x7 with Nicopress-sleeves 28-1C Copper and the C groove for tool 64-CGMP should be used.
The same type of cable is used for the control cables of throttle and manual propeller brake in Bowden outers with 2.6 mm inside diameter

Attachment of the Nicopress sleeves should only be done using the respective tool. All the procedures and checks noted by the tool manufacturers should be followed.
Please refer to aircraft inspection and repair FAA AC 43.13-1 B or later issues.

Caution: Control cables according to MIL-W-83420 I/A (was MIL-W-1511A) or ISO 2020 (was LN 9374) should be used.
Note: For the electric propeller brake a Bowden cable 1.5 mm 19 x 0.31 with Bowden outer with Teflon liner 2.5 mm inside diameter should be used instead of the material mentioned above.

4.3 Adjustment and servicing of the control circuit

a) In all cases, new self-locking nuts DIN 985-8.8 zn or LN 9348 should be used.
b) Bolts which are not secured with self-locking locking nuts have to be secured with Loctite 243. Before installing the bolt clean the thread and the inside thread. Apply only 1 drop of Loctite on the bolt thread. Too much Loctite may cause damage when you try to loosen the bolt again.
c) With all adjustment work, it should be ensured that the rod ends are not screwed out too far from the pushrod - see sketch below for allowable max. distances for the two sizes used.



A	max. of x	
	mm	inch
M 6	36	1.4
M 8	60	2.36

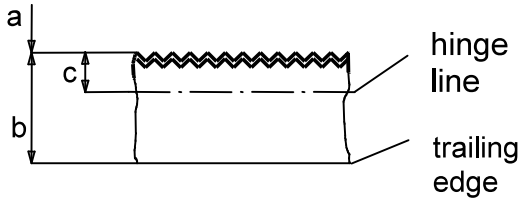
Caution: All lock nuts (B) are secured by a spring washer (C) DIN 6798 I. Be careful not to lose that washer!
Check all lock nuts for tight fit. If one or more came loose tighten those lock nuts firmly with an open end spanner.
Apply to all checked lock nuts a mark from nut to rod e.g. with securing paint to make it easy visible if the nut came loose.
In case you have to re- adjust a rod end you have to remove the existing mark and apply a new one.

4.7.5 Horizontal tailplane

a) Turbulator: 60° zig-zag turbulators are installed on upper and lower surface. Prior to removing the turbulators mark the position of the turbulator leading edge with a pencil on the stabilizer surface, otherwise see sketch:

y measured from fuselage centre line 1 in.=25.4 mm

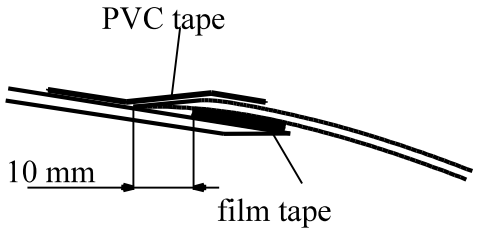
a = up to leading edge



Position	Y mm	a=b mm	c mm
centre	0	275	137,5
	72	267,5	134
turbulator tip	1160	155	77,5

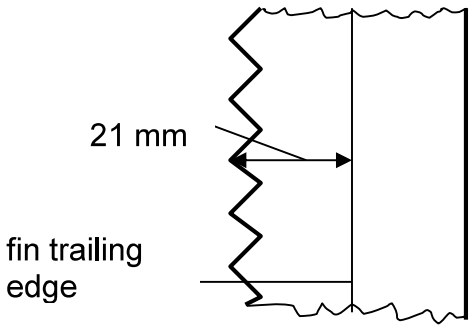
b) Sealing: As sealing 30 mm (1.2 in.) wide curved Mylar seals with scarfed leading edge are used, so that no step occurs.

Note: Don't glue the film tape to the leading edge of the seal.
The scarfed leading edge of the seals must be pressed to the stabilizer surface by a PVC tape.
Prior to removing the sealing mark the leading edge with a pencil to the stabilizer surface.

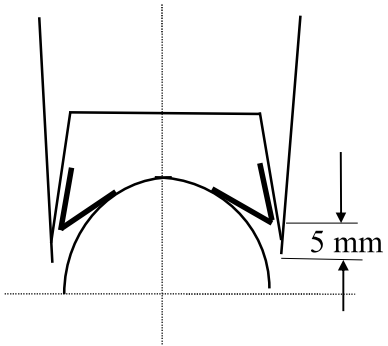


4.7.6 Vertical tailplane

a) Sealing with Combi tape 43/19/06, 1.1 m long.
The upper end of the tape should match the top of the fin.



b) Internal sealing
Additional internal sealing with V-sealing strips.
Install the V strips according to the sketch.



8 Part list

In this list you will find only parts of the powerplant, the electrical system and control surface sealings and turbulators.
Please find the part no's of the control-system parts and of the metal fittings of the powerplant in the following diagrams.

8.1 Parts for the powerplant

a) **necessary for the 25 hours inspection**

40050360	Spark plug S36 (Bosch W5AC electrode gap 0.7 mm) with screw cap fastened to the thread by crimping, marked with a red dot of paint on the insulator
60507569	Fuel filter elbow or
60507571	MANN-fuel- filter 500009180 WK 31/2(10)
60500150	Gaskets for exhaust manifold (2 pieces needed)
60500142	Air intake filter
70002200	Oil for air filters with cotton fabric K&N 99-05046

b) **Spare parts**

60510821	Spark plug connector Bosch 0356351032 1kΩ
45002085	Spark plug connector PVL 401222 5kΩ (alternative to Bosch)
45020850	Spark plug connector Champion pro-5U 5 kΩ (alternative to Bosch or PVL)
60500127	Nut for spring coupling M 8 for exhaust muffler
60500128	Spring for spring coupling M 8
60502500	Starter motor: DENSO 128 000-1671 12 V
60500155	Gasket for coolant outlet
60504012	Drive belt Poly Chain PC 8MGT 2400-36 with smoothed back
59332050	Front bearing for upper pulley 32205B
59320320	Rear bearing for upper pulley 320/32X
52200054	Securing washer 20 DIN462 for upper pulley front bearing
30002028	Special grease for upper pulley bearings SKF LGMT3
39001025	Exchange kit nuts and bolts for 400 h overhaul
60000157	Gas spring for ext.-retr. drive S47/2 with Ultra-bush
60000182	Gas strut for muffler frame E1 E1-76-040-130/150N
60505007	Ext.-retr. Spindle drive type Stross ATL10 modified with forks 8M230 and 8M333
60000330	Rubber mount at engine hinge axis Ultrabuchse 0118288
40872873	Brake pad for propeller brake (glued to mounting bracket)
60001115	Clamps XO for 6mm bungee (bungee for retaining cable)
52130011	Securing washer DIN 432 zn 13 for main powerplant mounts

8.3 Control surface sealings and turbulators

1. Wings - upper surface
   30003124 Mylar sealing 0.19 x 22 mm without glue, not curved, 2 x 5.64 m long
   30003125 Mylar sealing 0.19 x 22 mm without glue, curved, 2 x 2.7 m long
   70000253 Tesafix No. 4965, 9 mm wide, 50 m roll glue film
   70000229 Tesafilm 4104 white, 19 mm wide, 66 m roll PVC tape

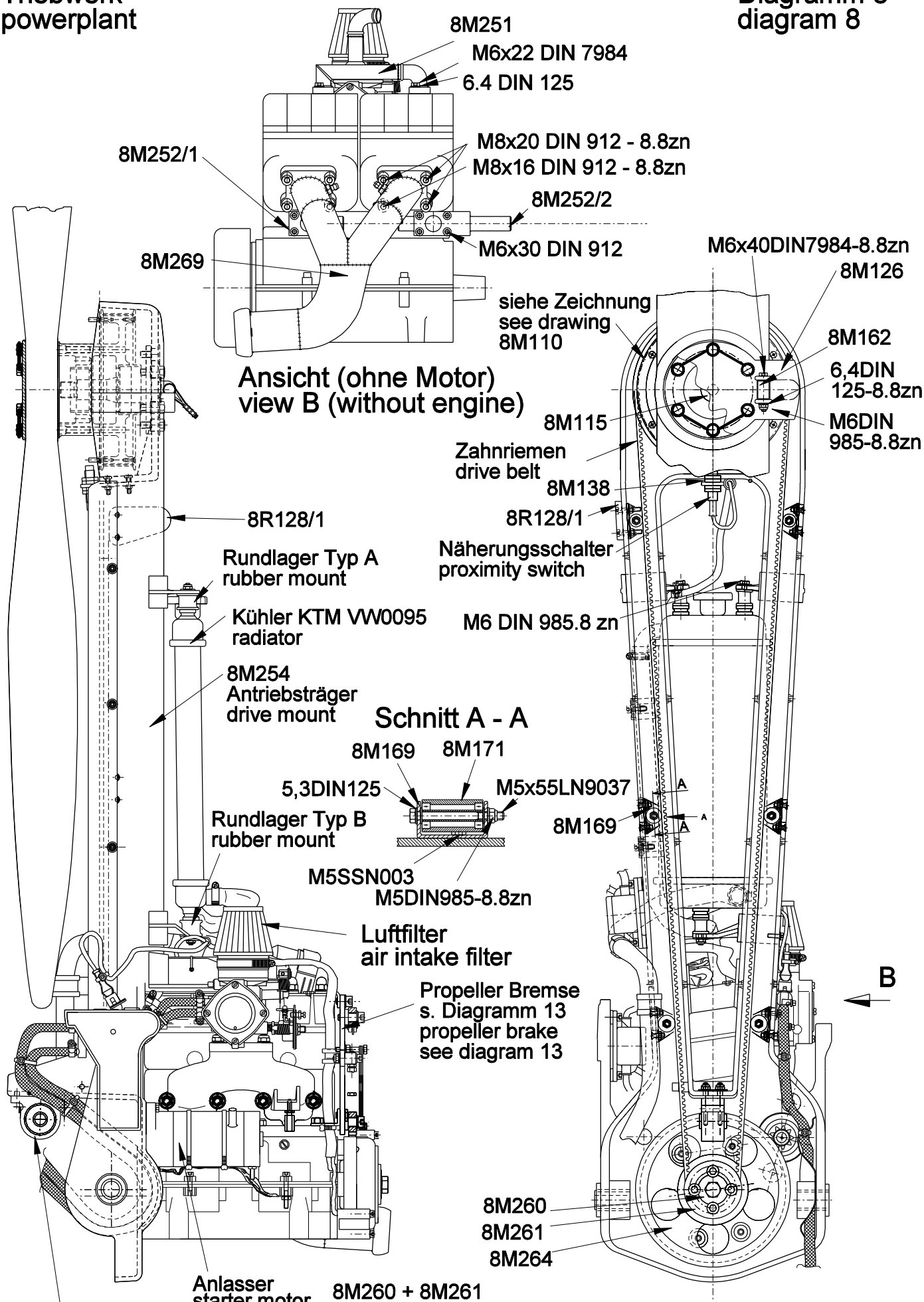
2. Wings - lower surface
   30003132 Combi sealing 43/19/06, 2 x 7 m (23 ft.)
   30003131 Combi sealing 38/19/06, 2 x 1.45 m (4.76 ft.)
   or
   30003300 Noppenband 10m roll (dimple turbulator tape)
   70000229 Tesafilm 4104 white, 19 mm wide, 66 m roll PVC tape

3. Flaperons (sliding surface and internal sealing)
   30003136 Teflon-glass fabric 0.08 x 38 mm, 33 m roll self-adhesive

4. Horizontal tailplane
   30003129 Zig-zag turbulator tape 60 degree 0.4 mm thick
   30003128 Mylar sealing 0.19 x 30 mm without glue, curved, leading edge scarfed, 2 x 2,5 m (9.2 ft.)
   70000253 Tesafix No. 4965, 9 mm wide, 50 m roll glue film
   70000237 Tesafilm 4104 white, 30 mm wide, 66 m roll PVC tape

5. Vertical tailplane
   30003123 Combi tape 43/19/06, 2 x 1,1 m long
   70000295 Internal sealing: 3M Scotch V-seal weatherstrip Cat.Nr.2101 white, 22mm, 5.2m roll (V-tape)

6. Winglets 18 m
   30003129 Zig-zag turbulator tape 60 degree 0.4 mm thick



Ansicht (ohne Motor)
view B (without engine)

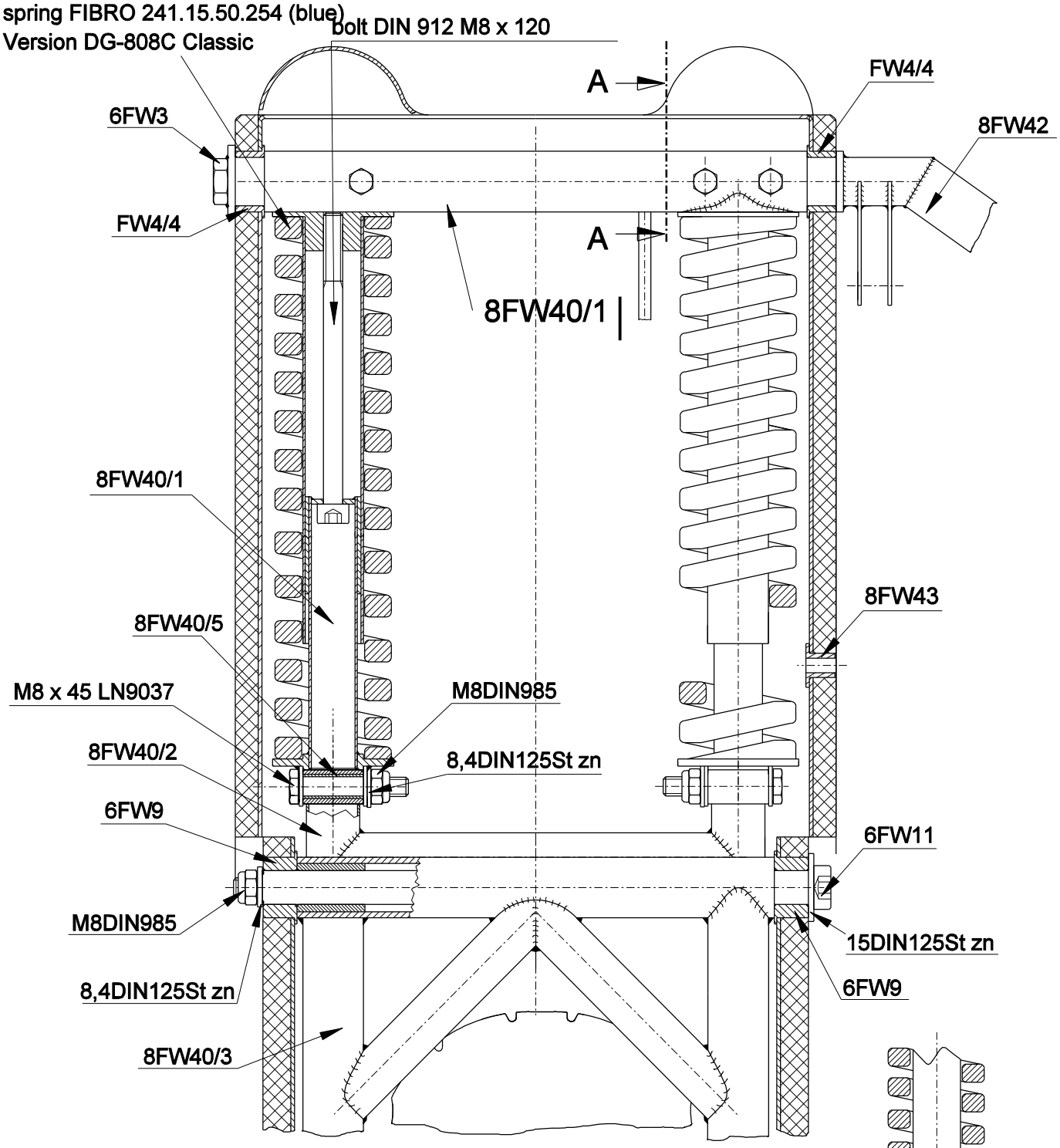
8M260 + 8M261
können in einem einzigen Teil 8M301kombiniert werden/
may be combined into 1 single part 8M301,
siehe/see TM/TN800/43

8M229/1 ohne BBSA Kupplung
without BBSA clutch
8M229/2 mit BBSA Kupplung
with BBSA clutch

Undercarriage

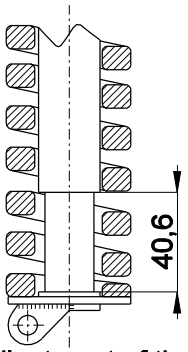
diagram 16

spring FIBRO 241.16.50.254 (red)
Version DG-808C Competition
spring FIBRO 241.15.50.254 (blue)
Version DG-808C Classic

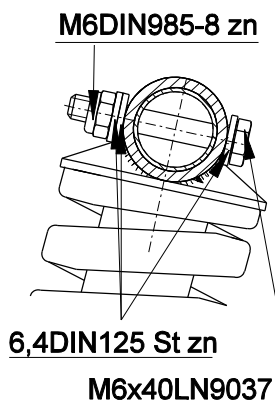


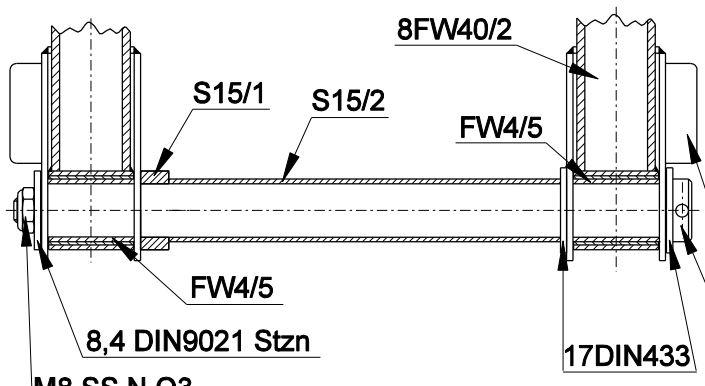
section A-A

assembly of the wheel axis



adjustment of the shock absorber leg (no load on the leg)





issued: May 2023
TN800/49