



BULLETIN

Number: UFM-13 UL – 1/2017

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Applicable for UFM-13 version UL from s.n. 1 to 126, from s.n. 128 to 133, s.n. 135, s.n. 138

The company Distar CZ a.s. hereby issues the summary of precautions which are necessary for the operation of the type UFM 13 without airspeed limitations issued in the mandatory bulletin UFM13-1/2009.

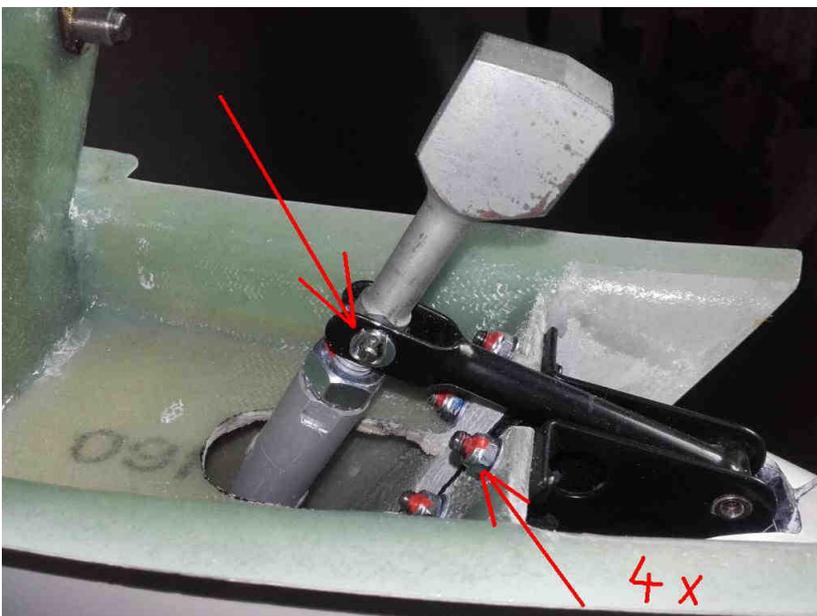
In order to increase the flutter resistance of the aircraft it is necessary to use:

- reinforced horizontal stabilizer (dwg. no. L-STAB-2016)
- lighter mass balanced rudder (dwg. no. L-SK-2016)
- lighter mass balanced elevator (dwg. no. L-VK-2016)
- lighter elevator push tube (dwg. no. L-13NO1513)

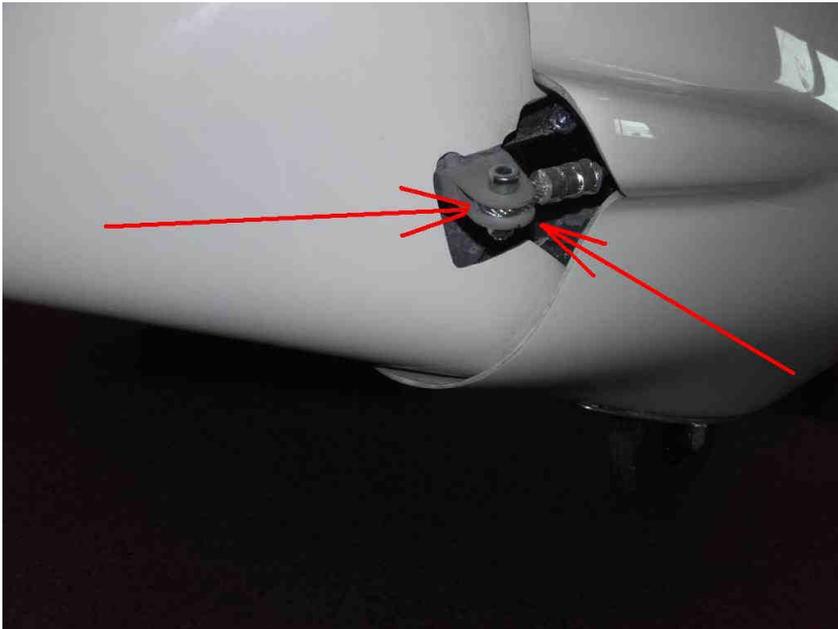
These new and original parts must be ordered and purchased from Distar CZ a.s., certificate holder for the UFM 13 gliders. **!!! Due to its technical demands the below described replacement may be carried out only by the manufacturer or by a specially designated person !!!**

A. Dismounting of the rudder, elevator and elevator push tube:

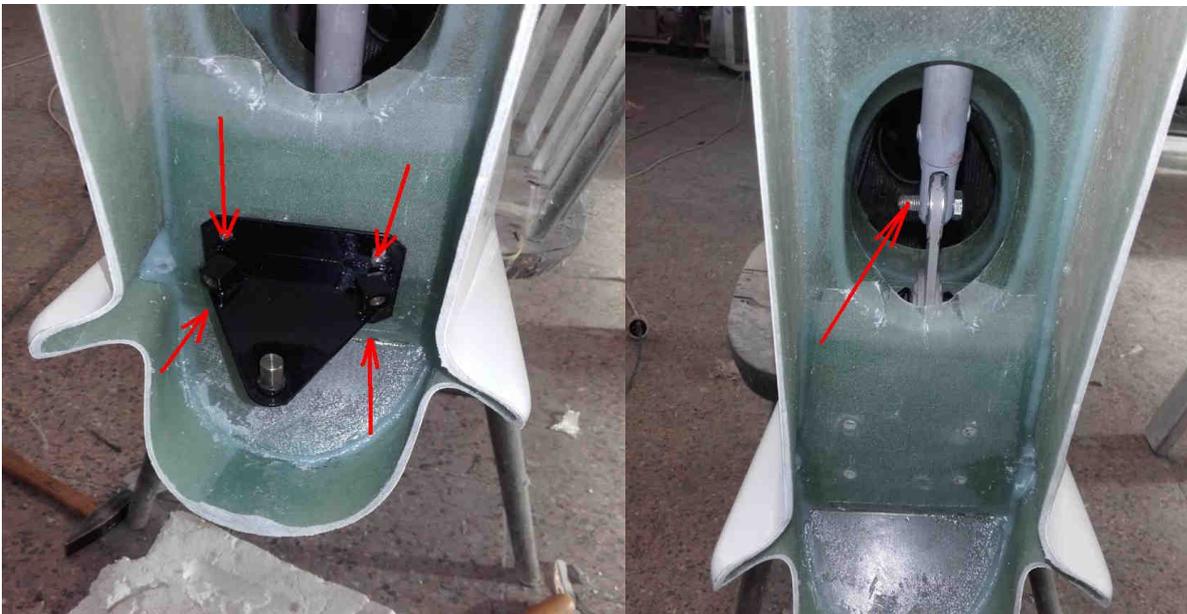
1. Remove the safety pin from the horizontal stabilizer locking screw. Remove the horizontal stabilizer M8 locking screw. Dismount the horizontal stabilizer from the top of the rudder.
2. Remove the cotter pin of the swing arm pivot and remove the pin.



3. Dismount the upper rudder hinge mount from vertical stabilizer (4x M5 nuts)
4. Disconnect the rudder cables from the rudder bell crank assembly (2x M5 screws)

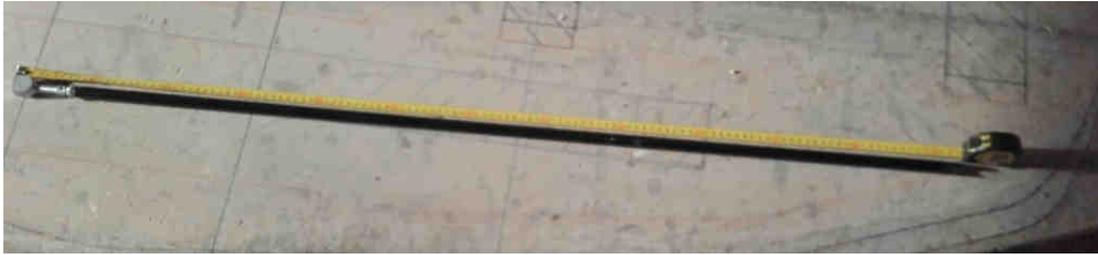


5. Disconnect the tail wheel steering push rods of the bell crank (2x M6 nuts). This action is not applicable with the tricycle landing gear version.
6. Remove the rudder from the vertical stabilizer
7. Dismount the lower rudder hinge (4x M5 nuts)



8. Pull the elevator push tube up exposing the bell crank assembly. Make a note of the screw position holding the elevator push tube to the bell crank and number of threads exposed. Remove the screw connecting the bell crank to the elevator push tube (1 M6 screw)

9. Measure the elevator push tube with the quick connect in place. Note this measurement. It will allow easier setting of deflection of the elevator.



10. Remove the quick connect from the push tube.



11. Remove the push tube from the vertical stabilizer

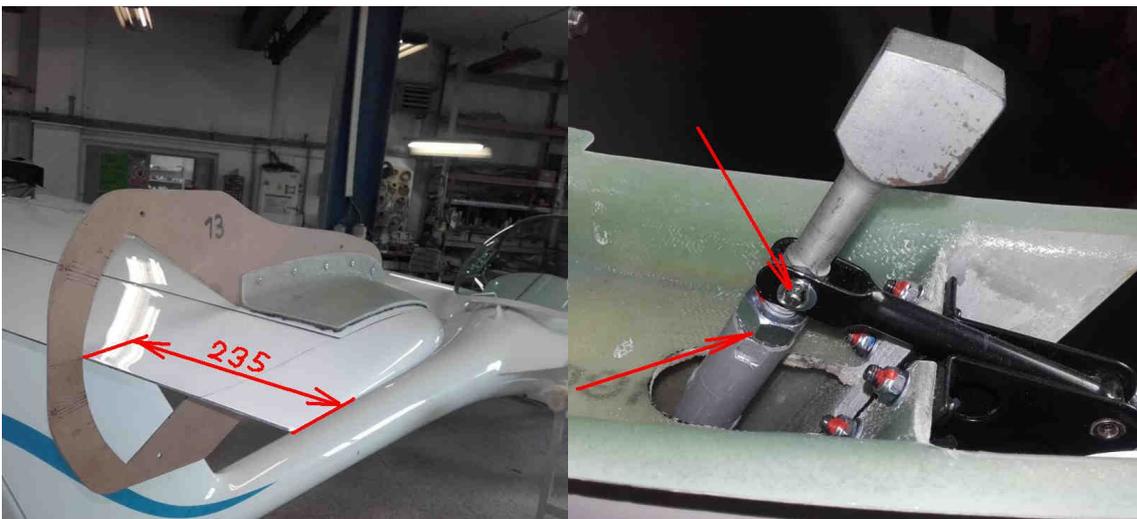
B. Mounting of the new rudder, elevator and elevator push tube

1. Use new self-locking nuts for all assemblies, secured by a thread glue (CYBERBOND TM44)!!!
Clean all slide surfaces and elements and apply new grease. (MOGUL A4 TN 23-241)
2. Screw the quick connect with a proper locking washer and nut into the top of the new elevator push tube
3. Insert the new push tube into the vertical stabilizer. Connect the push tube to the bell crank. Insert the screw in the same position as noted at disassembly.
4. Insert the push tube into the secondary spar, then insert the lower hinge of the vertical stabilizer from the other side and secure the assembly with a nut (4x M5)
5. Attach the steering bell crank to the bottom of the rudder. Then assemble the lower rudder hinge.

6. Attach the tail wheel push tubes to the lower bell crank on the rudder (2x M6 nuts)
7. Connect the rudder cables to the bell crank on the bottom of the rudder (2x M5 screws)
8. Insert and secure the upper rudder hinge assembly (4x M5 nuts)
9. Check the deflection of the rudder, reset if necessary.
Deflection $25^{\circ} \pm 2^{\circ}$ (162mm \pm 13mm) measured 280mm from the upper edge.



10. Assemble the swing arm pivot from the upper rudder hinge mount to the elevator push tube. Only insert the pin.
11. Mount the new horizontal stabilizer and elevator assembly and secure with a screw.
12. Check the deflection of the elevator. Adjust deflection by tightening or loosening of the quick connect on the top of the elevator push tube. Zero position – elevator is in line with the stabilizer.
Deflection upward $24^{\circ} \pm 2^{\circ}$ (73mm \pm 6mm)
Deflection downwards $12^{\circ} \pm 2^{\circ}$; (38mm \pm 6mm)
Measured 235mm from the right trailing edge of the elevator!



13. Dismount the elevator and fasten the locking nut M10 on the quick connect and secure the swing pivot arm to the quick connect assembly and secure with a new cotter pin.

14. Mount the elevator assembly and check deflection again.

C. Perform new weight and balance to determine a new empty weight C.G.

Weigh the plane again in order to find the centre of gravity of the empty plane in accordance to the maintenance manual of UFM13. Allowed empty weight C.G. must fall within 31%-35% of SAT

D. Reinstall the airspeed indicator markings and placards in the cockpit.

1. Reinstall the airspeed indicator markings to the original values:

UFM-13 version UL with flaperon:

Marking	Range or value [IAS km/h]	Significance
Green arc	70 – 110	Normal Operating Range
White Arc	80-145	Flap Operating Range
Yellow arc	145-190	Manoeuvres must be conducted with caution and only in smooth air.
Red Red line	190	Never exceed speed

2. Reinstall the main placard in the cockpit to the original speed value and specify the new value of the empty weight.

DISTAR CZ a.s. -			
Empty weight	kg	Never exceed speed	Vne 190 km/h
Max. take-off weight	472,5 kg	Max. speed with flaps	Vfe 110 km/h
Min crew weight	65 kg	Stalling speed	Vso 70 km/h
Max. baggage weight	4 kg	Fuel tank volume	2 x 50 L

E. Pilot's operating handbook (POH)

1. Remove any temporary changes from POH.
2. Write notification to the airspeed chart in the POH:

CAS 200km/h = IAS 190km/h

3. Place the correction chart in the POH:

V IAS	δV	V CAS
[km/h]	[km/h]	[km/h]
70	-5	65
80	-3	77
90	-2	88
100	-1	99
110	0	110
120	1	121
130	2	132
140	3	143
150	4	154
160	5	165
170	6	176
180	7	187
190	9	199
200	10	210
215	13	228

4. Record the implementation of the bulletin **UFM-13 UL – 1/2017** in the POH and the plane's log book.

F. Pre-flight check

1. Carry out the inspection of the overall plane assembly according to the procedure in the POH.
2. Carry out the inspection of the correct installation and operation of steering.

In case you find excessive clearances or hinge damage inform the manufacturer immediately.

Appendix: none

For further information please contact:

Distar CZ a.s.

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Bulletin UFM-13 UL - 1/2017

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