


# Short operating instructions - Unbalance exciter Type F 17 UE 50,58,65-6 F17 and UE 67,80-8 F17

Issue 11.18

The Short operating instructions are a technical article which supplements the Operating instructions. All persons in whose area the oscillating machine and the unbalance exciter are set up must be familiar with safety notes described in the Operating instructions.

You can download the Assembly and operating instructions from the following website address.

Internet:  Homepage <http://www.friedrich-schwingtechnik.de>

## 1. Fastening

### Fastening bolts

Type	Bolts 8.8	Nuts 8	Number	Tightening torque [ Nm ]
UE 50-6 F17 UE 58-6 F17 UE 65-6 F17	M 36	M 36	8	2530
UE 67-8 F17 UE 80-8 F17	M 36	M 36	8	2530

The tightening torque of the bolts must be first checked after 40 operating hours. Further checks must be carried out every 1,000 hours of operation.

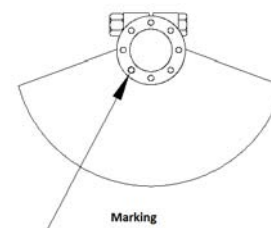
#### Tightening torque of the protective box bolts

Bolts	Tightening torque
M 8	22 Nm
M 12	80 Nm
M 16	210 Nm

## 2. Coupled unbalance exciters

If two unbalance exciters are coupled together, following notes must be respected:

Unbalances of both exciters must be provided with the same additional weights. Be sure the unbalances of both exciters are exactly in the same position after mounting the propeller shaft. There are marks on the connection piece. The marks must be situated under the shaft.



## 3. Protective boxes

**The unbalance exciter may not be taken into use without a completely mounted protective box. This also applies to test runs. The protective box protects against malfunction of the unbalance exciter as well as from rotating parts. Operation without the protective box will release FRIEDRICH Schwingtechnik from any liability.**

The protective box must be completely mounted to be enough rigid. Otherwise damage of the protective box cannot be excluded.

## 4. Oil

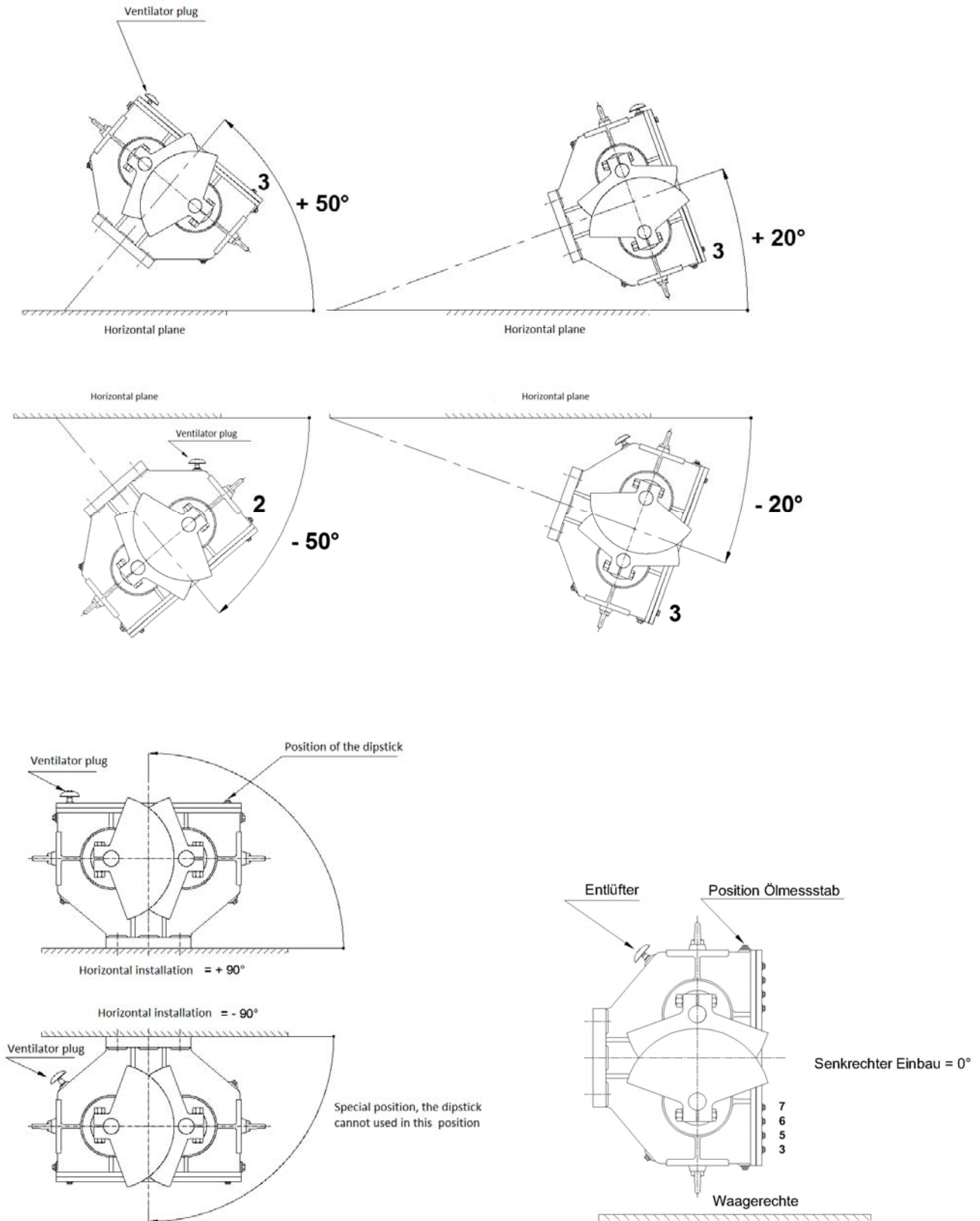
### Selection of used gear oils

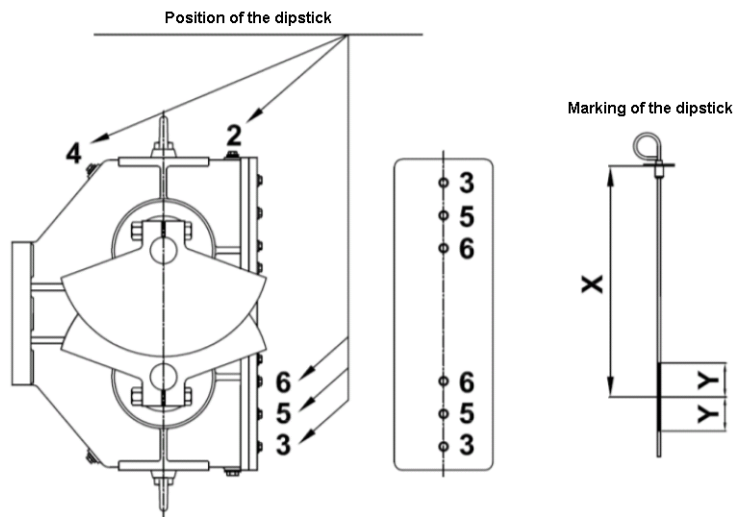
#### Viscosity class depending on environmental and operating temperatures

Environmental temperature °C	Operating temperature °C	Identification to DIN 51519 ISO 3498	Identification to DIN 51502
-40°C to -25°C	-10°C to +5°C	VG 5	
-30°C to -10°C	0°C to +20°C	VG 10	
-15°C to +20°C	+15°C to +50°C	VG 68	CLP 68
+15°C to +50°C	+45°C to +80°C	VG 100	CLP 100



Depending on various mounting options of the unbalance exciters, there are possible various angles of installation, where the dipstick must be used to ensure correct oil level.  
**Warning!** Angle from horizontal plane is decisive, you must add angle of the girder and tilt angle of the machine.  
**Warning!** The illustrated position for the dipstick is an example only. Correct positions are mentioned in the tables.





	UE 50-6 F17 UE 58-6 F17 UE 67-8 F17 UE 80-8 F17 UE 65-6 F17		
	Oil quantity 2,6 – 7,8 l		
Install. angle	X [ mm ]	Y [ mm ]	Position of dipstick/ closure screw
90°	318	6	3
85°	304	6	3
80°	290	6	3
75°	275	6	3
70°	261	6	3
65°	248	6	3
60°	234	7	3
55°	220	7	3
50°	207	8	3
45°	194	8	3
40°	178	8	3
35°	159	8	3
30°	136	10	3
25°	105	11	3
20°	735	12	2
15°	715	12	2
10°	699	11	2
5°	683	11	2
0°	0	0	5
-5°	655	11	2
-10°	643	11	2
-15°	630	11	2
-20°	619	12	2
-25°	607	12	2
-30°	0	0	6
-35°	0	0	6
-40°	574	7	2
-45°	562	7	2
-50°	549	8	2
-55°	535	9	2
-60°	518	10	2
-65°	498	12	2
-70°	472	14	2
-75°	432	19	2
-80°	360	27	2
-85°	156	51	2

## Unbalance exciters are delivered without oil

The dipstick is delivered with maximum length and without marking. It is necessary to provide marking according to the table and to cut the dipstick cca 5 mm under the minimum mark.

The ventilator plug must be fitted as high as possible. If a "0" is entered at the X and Y values, such as at the installation angle of 0°, then the oil level is not measured with the dipstick. In these positions the oil level is determined using the overflow. Remove the closure screw (the closure screws 5 in the case of an installation angle of 0°) and carefully pour in oil until the oil flows out of the threaded hole of the closure screw. Screw the closure screw back in as soon as oil begins to flow out. With that it is always the right amount of oil.

**Important!** The oil level should be checked once a month. We recommend following oil change intervals:

First oil change after cca 500 operating hours, no later than 3 months.

Second oil change after cca 1,000 operating hours, no later than 6 months.

All other oil changes after 1,000 operating hours.

The above mentioned oil change intervals are reference values. These intervals can be reduced or extended if necessary, according to environmental conditions. Exact oil change intervals can be set on consultation with the oil supplier and the respective oil checks can be carried out by taking occasional samples.

The oil should be changed at shorter intervals if the oil is heavily soiled by unfavourable operating conditions by the time the first oil change is carried out.

**More frequent oil changes increase the life span of the unbalance exciter.**