


Short operating instructions - Unbalance exciter Type F 17 UE 88-6 F17 and UE 125-8 F17

Issue 03.19

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 88-6 F17 | M 36 | M 36 | 8 | 2530 |
| UE 125-8 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.

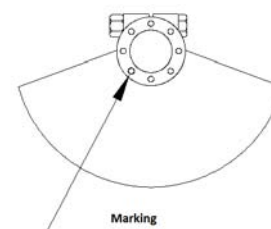
Tightening torque of the protective box bolts

| 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

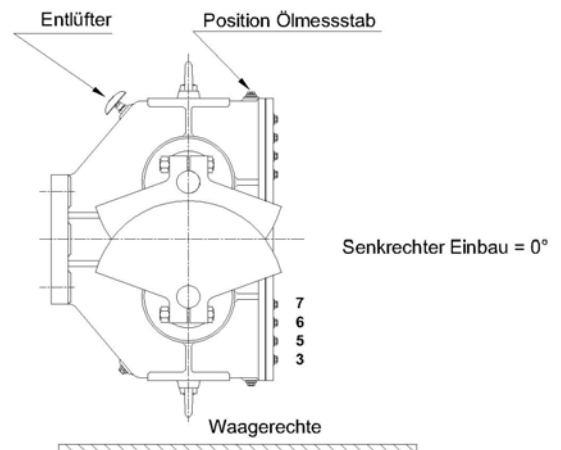
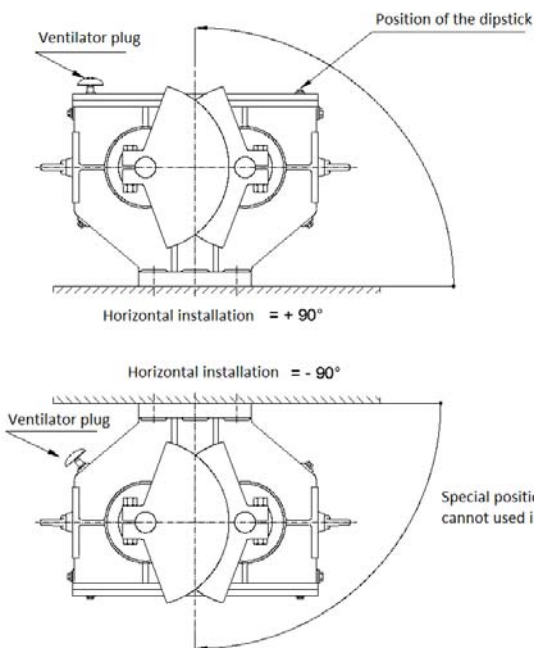
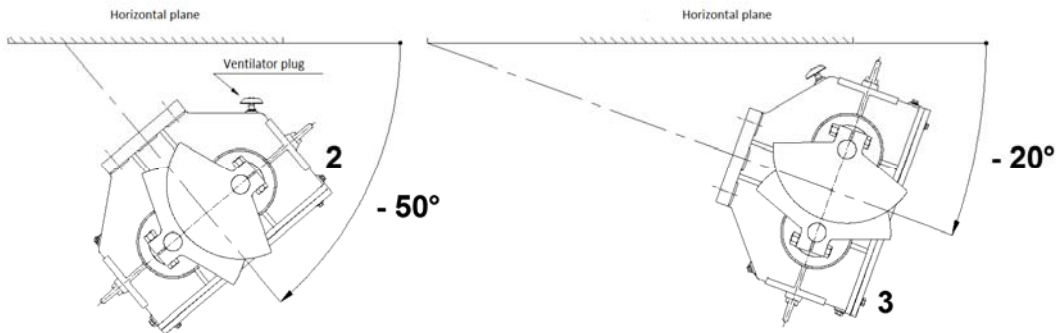
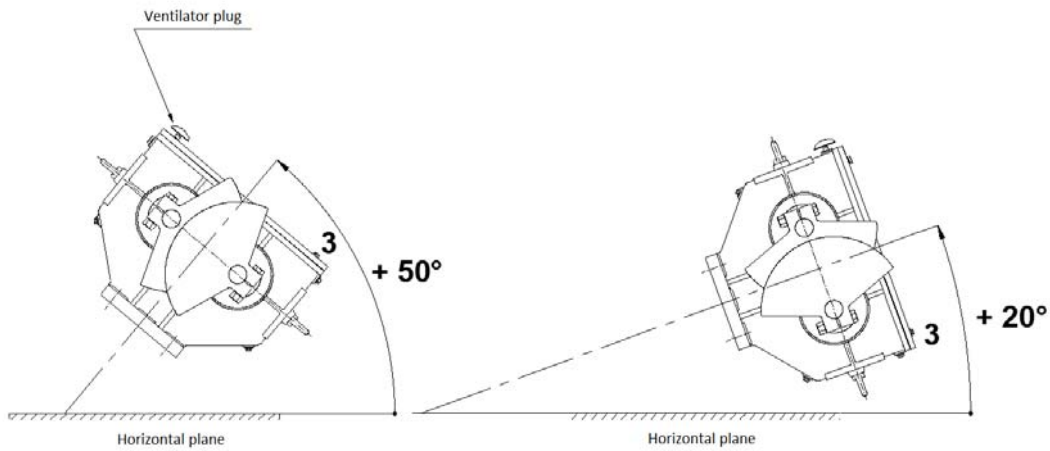
| Environmental temperature | Operating temperature | Identification to DIN 51519 ISO 3498 | Identification to DIN 51502 |
|---------------------------|-----------------------|--|--------------------------------|
| °C | °C | | |
| -40°C to -25°C | -10°C to +5°C | VG 5 | |
| -30°C to -10°C | 0°C to +20°C | 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 |
| | | | |

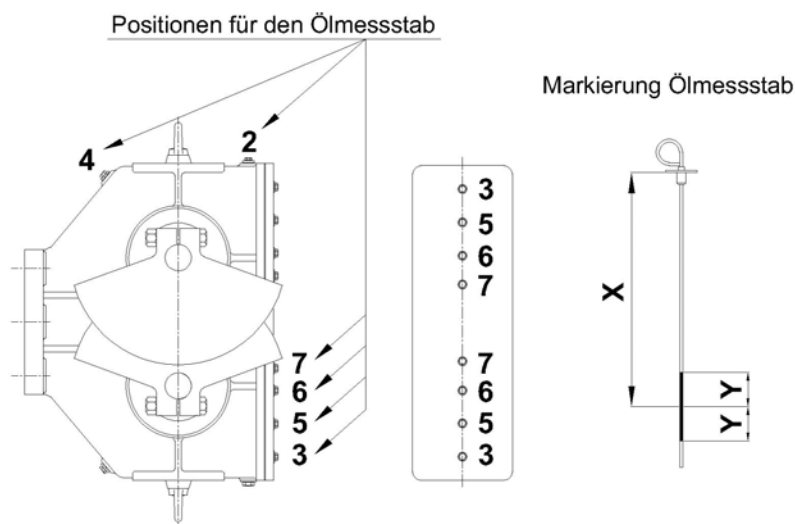


Depending on various mounting options of the unbalance exciter, there are possible various angles of installation, where the dipstick must be used to ensure correct oil level.

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 88-6 F17 UE 125-8 F17 | | | |
|-----------------------------|----------|----------|-------------------------------------|
| Oil quantity 4,0 – 13,7 l | | | |
| Install. angle | X [mm] | Y [mm] | Position of dipstick/ closure screw |
| 90° | 377 | 5 | 3 |
| 85° | 360 | 6 | 3 |
| 80° | 344 | 6 | 3 |
| 75° | 329 | 6 | 3 |
| 70° | 313 | 7 | 3 |
| 65° | 299 | 7 | 3 |
| 60° | 284 | 7 | 3 |
| 55° | 269 | 7 | 3 |
| 50° | 254 | 7 | 3 |
| 45° | 238 | 8 | 3 |
| 40° | 220 | 8 | 3 |
| 35° | 200 | 9 | 3 |
| 30° | 176 | 11 | 3 |
| 25° | 147 | 13 | 3 |
| 20° | 108 | 15 | 3 |
| 15° | 688 | 11 | 4 |
| 10° | 708 | 11 | 4 |
| 5° | 728 | 11 | 4 |
| 0° | 0 | 0 | 5 |
| -5° | 736 | 11 | 2 |
| -10° | 723 | 11 | 2 |
| -15° | 711 | 11 | 2 |
| -20° | 699 | 12 | 2 |
| -25° | 687 | 13 | 2 |
| -30° | 0 | 0 | 7 |
| -35° | 0 | 0 | 7 |
| -40° | 0 | 0 | 6 |
| -45° | 0 | 0 | 6 |
| -50° | 631 | 14 | 2 |
| -55° | 619 | 14 | 2 |
| -60° | 605 | 14 | 2 |
| -65° | 588 | 15 | 2 |
| -70° | 567 | 15 | 2 |
| -75° | 538 | 16 | 2 |
| -80° | 483 | 17 | 2 |
| -85° | 335 | 20 | 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.

Caution: Only use the lower closure screws.

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 unfavorable operating conditions by the time the first oil change is carried out.

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