

TKSA 40 Display Unit (Annex 1)



1. USB connection
2. "S" MU socket
3. "M" MU socket
4. Battery compartment lid (back)
5. ON/OFF
6. Cancel
7. Confirm
8. Selection arrows
9. Alphanumeric key

TKSA 40 Measuring Unit (Annex 2)



1. Laser emission
2. Laser warning signal
3. Laser detector
4. Vertical fine adjustment
5. Spirit levels
6. Release / Tightening knob
7. Connection rod
8. Chain fixation screw
9. Locking chain
10. Mechanical fixture

Settings

Date, time and measuring units can be adjusted in the settings menu.



Manage the saved files on the display unit

Switch the unit on (with or without the measuring units connected).

Select the file manager menu.

You can then open, delete or rename a file.



Copy saved results on the computer

Switch the unit on (with or without the measuring units connected). Wait for the first screen to be displayed.

Connect the USB cable to the display unit and the computer (see Annex 1). Launch the file explorer on the computer. TKSA 40 appears as 'removable disk'.

You can now copy and paste the files from the display unit to the computer.

Safety recommendations

- Always turn off the power of the drive machine before you start working.
- Do not expose the equipment to rough handling or heavy impacts.
- Always read and follow the operating instructions.
- The tool uses two laser diodes with an output power below 1 mW (class 2). Still, never stare directly into the laser transmitter.
- Calibrate the equipment regularly.
- Never aim the laser line into someone's eyes.
- Opening the housing of the measuring unit may result in hazardous light exposure and voids warranty.
- The equipment should not be used in areas where there is a risk for explosion.
- Do not expose the equipment to high humidity or direct contact with water.
- All repair work should be taken care of by an SKF repair shop.



EC Declaration of conformity

We, SKF Maintenance Products, Kelvinbaan 16, 3439 MT Nieuwegein, The Netherlands, declare that the

SKF Shaft Alignment Tool TKSA 40

has been designed and manufactured in accordance with EMC DIRECTIVE 2004/108/EC as outlined in the harmonized norm for Emission: EN 61000-6-3:2007 Immunity: EN 61000-6-2:2005, EN 61000-4-2, -3

Directive RoHS, 2002/95/EC

The laser is classified in accordance with the EN 60825-1:2007. The laser complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

The Netherlands, March 2010

Sebastien David
Manager Product Development and Quality

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SKF Maintenance Products

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Quick Start Guide

SKF Shaft Alignment Tool TKSA 40

1/ Attach the Measuring Units (MU) on the shafts
(see Fig. 1 and Annex 2)

The MU marked "S" on the Stationary machine.
The MU marked "M" on the Movable machine, usually the motor.
Connect the MU to the correct sockets on the Display Unit
(see Annex 1).

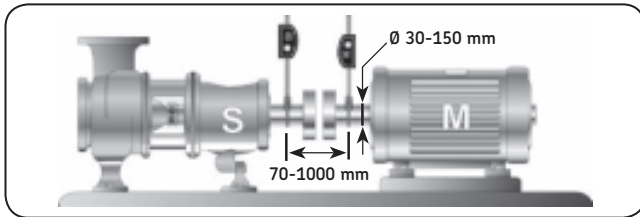
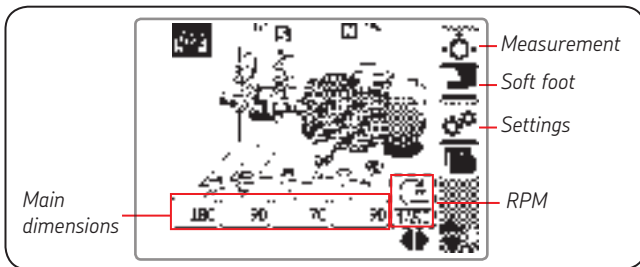


Fig. 1

2/ Switch the Display Unit (DU) ON

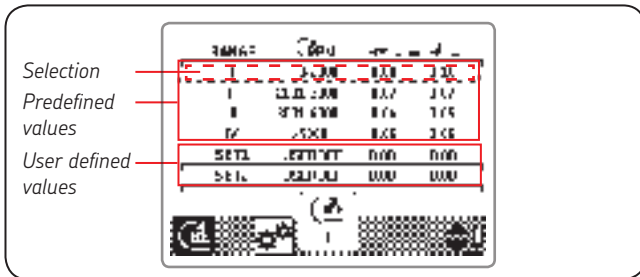
Aim the laser lines so that they hit the centre of the target of the opposite MU.
Use the vertical fine adjustment wheel if required. (see Annex 2).

3/ Enter the dimensions



Use the tape measure provided to measure the distances indicated on the screen, in millimeter or inches (the unit can be adjusted in Settings). Confirm each value with OK.

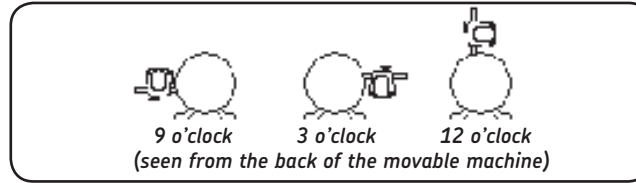
Enter a rotational speed or press OK on the RPM symbol to select the acceptable misalignment value from the predefined values. Define your own values, if required. Confirm with OK.



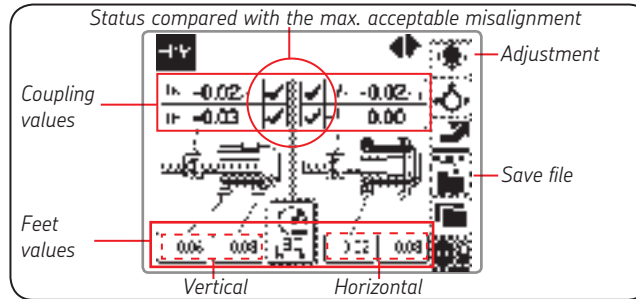
Navigate to "Measurement" and confirm with OK.

4/ Measure the alignment status

Three measurements are necessary to determine the misalignment values. Rotate the shafts, to position the MU as prompted on the display during each step. Confirm each measurement with OK.



5/ Display the results



✓	OK. Within the maximum acceptable misalignment values
≈	NOT OK. Within double the maximum acceptable misalignment values
✗	NOT OK. Out of double the maximum acceptable misalignment values

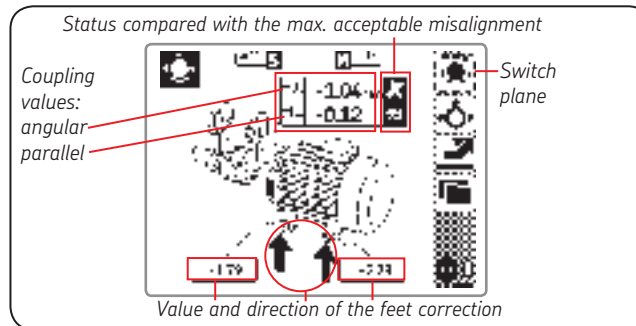
The results can be saved from the result screen. Navigate to the "Save file" icon and confirm with OK.

Exit the saved file, and navigate to "Adjustment". Confirm with OK.

6/ Correct the alignment with live values

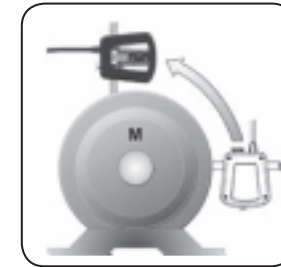
Correct the alignment as indicated by the animated arrows while live feet and coupling values are displayed.

Select the "Switch plane" icon, rotate the measuring units and confirm with OK to change plane.

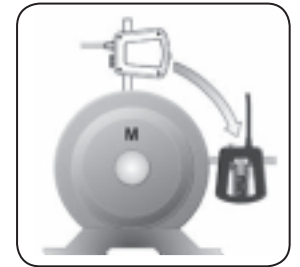


Position of the Measuring Units

Vertical result / adjustment
12 o'clock

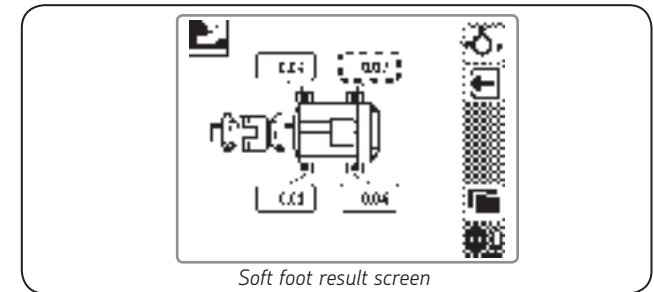


Horizontal result / adjustment
3 o'clock



7/ Soft foot

Before starting the alignment it is recommended to check the Movable machine for soft foot. Navigate to the soft foot icon and press OK to confirm.
Tighten all feet bolts and rotate the measuring units to the 12 o'clock and press OK to confirm
With the help of the directional arrows, navigate to the foot to be checked, and press OK.
Once the display is reset on the screen, loosen the selected foot and re-tighten. Press OK to confirm.
Check all feet going through the same process.



If the deviation is less than 0.05 mm (2 mils), the foot has a good support.
Check all feet, the one with the largest deviation is the soft foot.

It is normally worthwhile to try to improve the support of the soft foot by adding shims. Add the amount of shims corresponding to the largest deviation measured.

Check again all feet following the same procedure.