

Fixturlaser Alignment System



MACHINE TRAIN ALIGNMENT

INTRODUCTION

A machine train is three or more units with rotating shafts connected to each other with couplings, i.e. driving unit - gearbox - driven unit. With an ordinary shaft alignment system you will have to make an alignment for each machine and then calculate which one to adjust. A cumbersome task with a large risk to make errors. With a Fixturlaser Shaft Alignment System you do all the measurements and then the system makes the calculations and gives you the option to choose the machine you want as the stationary machine.

See also Shaft Alignment Horizontal Machines.

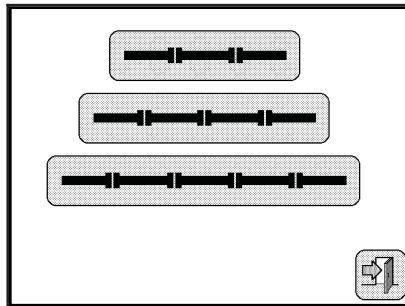
START THE PROGRAM



Start the program by touching the Machine Train Alignment icon in the Main Menu.

MEASUREMENT PROCEDURE

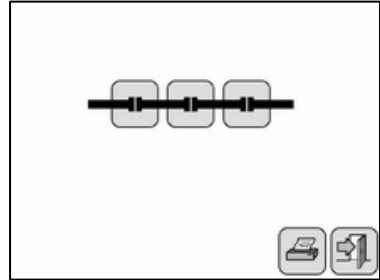
The screen displays three different applications: 3, 4 or 5 units (2, 3 or 4 couplings). Touch the icon corresponding to your specific alignment.





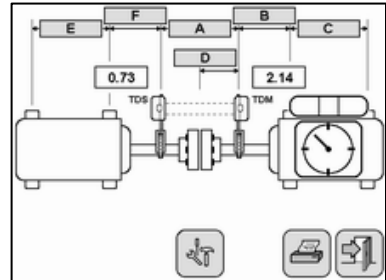
Touch the coupling icon corresponding to the first coupling to measure.

Each coupling is measured in the same way as in the Horizontal Shaft Alignment program.



- A
- B
- C
- D
- E
- F

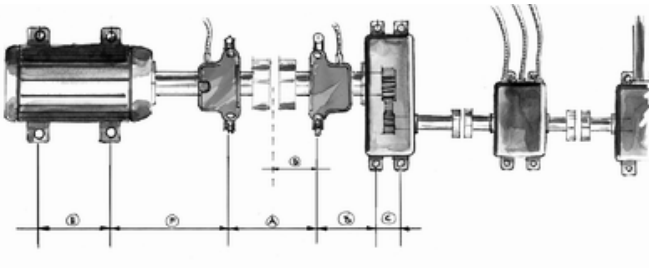
Enter dimensions and follow the procedure in the Horizontal Shaft Alignment chapter. E and F dimensions are also required in a machine train. (The E dimension correspond to the C dimension at the next coupling)



Go to the Application Set-up for selecting measurement method and other settings



Touch the OK icon to proceed to select the next coupling to measure





APPLICATION SET-UP

Settings unique for this application can be made in the Application Set-up. Which functions that are available depend on which system you have selected.



Displayed measurement value resolution

0.1, 0.01 and 0.001 mm / 1, 0.1, 0.01 mils (0.01 mils angle only).



Sampling time

Sampling time from 1-99 seconds.



Screen filter

From 0 to 10, where 0 is filter off and 10 is max filter. This slows down the update frequency of the screen values without reducing the accuracy.



Measurement method

The Clock method or the Tripoint™ method.



Repeatability Test

Starts the sub-function for repeatability test.



Contrast

Touching respectively on each side of the symbol increases and decreases the screen contrast.



Backlight

Turns on and off the screen backlight.



Confirmation

Confirms made selections and returns to the application program.



MEASUREMENT RESULT

When the last coupling is measured and the final touch on the OK icon is made the result is displayed. The screen displays the measurement result in graphics and numerals. The plotted curve represents the measured machine train. The unit that does not have a grey background is by default set to reference (stationary machine). To alter the reference unit just touch a unit symbol. The measurement result displayed beneath the curve are automatically recalculated. To alter between horizontal and vertical result or between coupling values and feet values, touch the change view icons.



View coupling values.



View feet values.



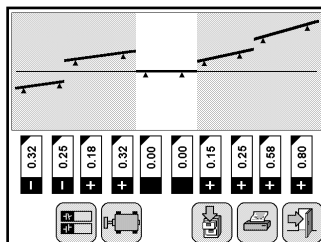
View horizontal result.



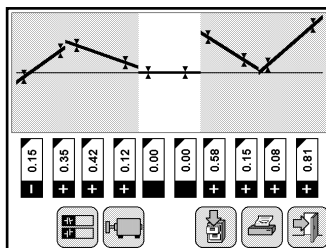
View vertical result.



Save the measurement. See Memory Manager.



Vertical result - feet values



Horizontal result - feet values



Print a screen dump.



Exit from the program.

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ALIGNMENT

After you have decided which machine to use as a reference, you use the Horizontal Shaft Alignment program to align the machine.

DOCUMENTATION

There are three possibilities to document the measurement.



Save the measurement in the system memory.



Print the result.



Export saved measurements to a computer.

RESUME FUNCTION

The Machine Train Alignment program is supported by a resume function, which stores all the necessary data temporarily. The resume function enters when the system is shut off automatically (auto off) or when the low battery warning is shown.



When the system is restarted after resume a selection box appears. Touch the Machine Train Alignment icon to get back to the saved data or touch the Main Menu icon to cancel and go to the Main Menu.