Intrinsically safe shaft alignment tool with printer

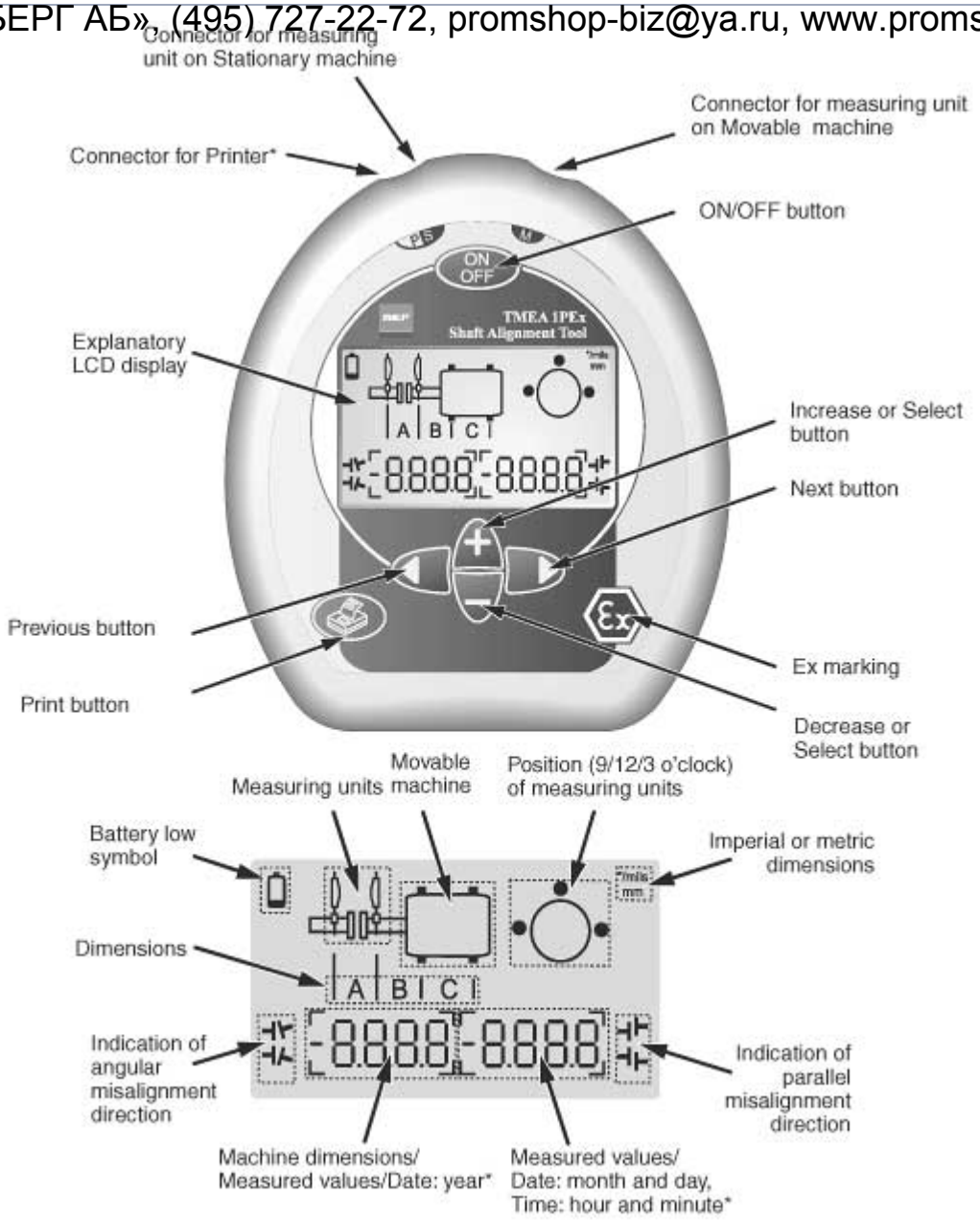
Intrinsically safe shaft alignment tool with printer TMEA 1PEx

Application
Perfect alignment of machinery shafts is crucial to prevent premature bearing failure, shaft fatigue, sealing problems and vibrations. It further reduces the risk of over-heating and excessive energy consumption. The SKF shaft alignment tool TMEA 1PEx offers an easy and accurate way of adjusting two units of rotating machinery so that the shafts of the units are in a straight line. The TMEA 1PEx has been tested and certified according to the latest ATEX standards in intrinsic safety zones generally found in industries such as the petrochemical, gas and pharmaceutical among others. The tool is supplied standard with a thermal printer for recording of alignment activities

Description
The TMEA 1P/Ex consists of two measuring units, a display unit and a thermal printer. The measuring units are fitted with brackets for attachment to the shafts and can be fixed using chains. Both measuring units emit laser, which is projected on the position sensor detector of the other unit. The measuring units are also equipped with spirit levels, which allows easy positioning in the 9, 12 and 3 o'clock positions. The display unit is operated using just 6 buttons, including the on/off button and provides clear "real-time" of measured values during the alignment process. The display unit is equipped with a printer port, which allows the connection to the thermal printer for documenting alignment activities. After measuring shaft misalignment, alignment is easily performed by adjusting the moveable machine(s).

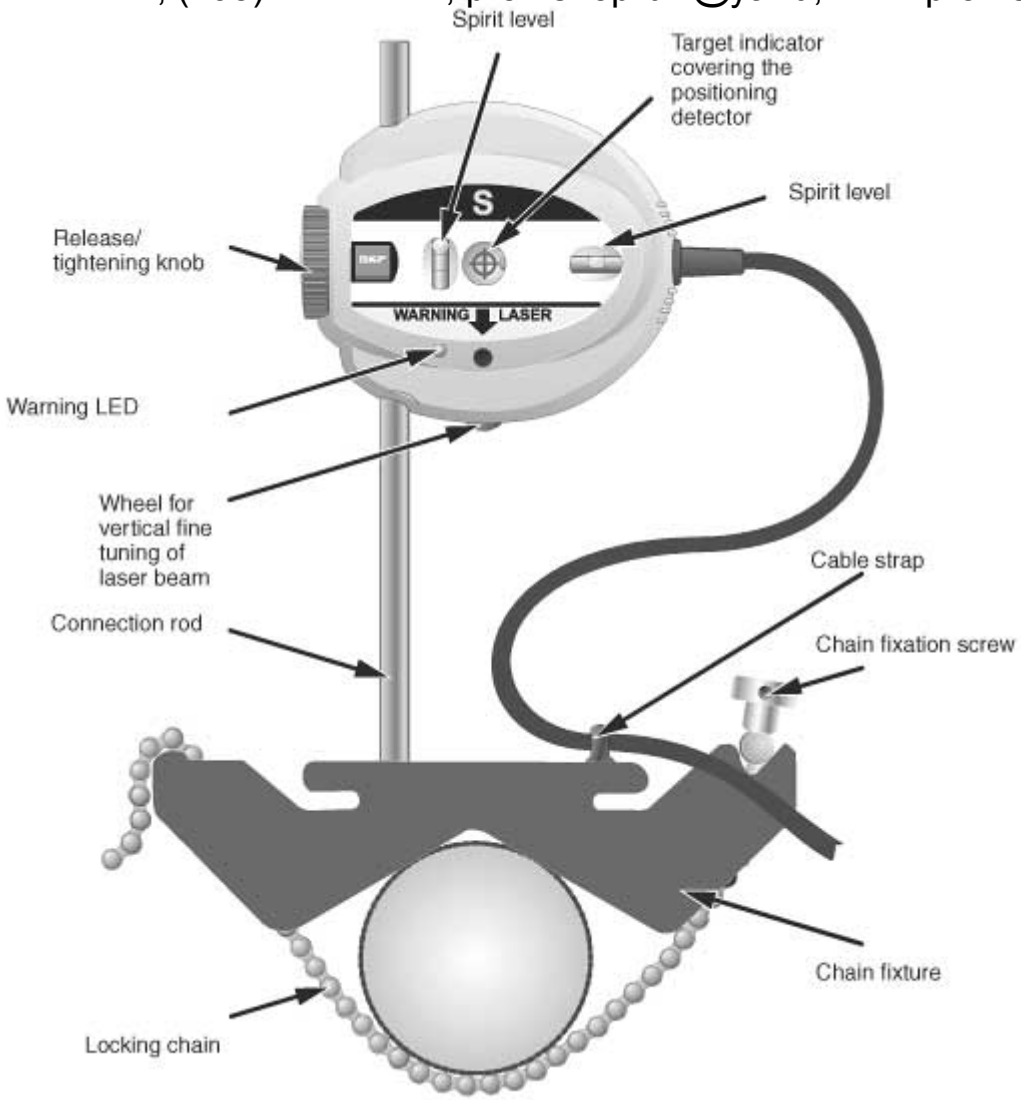
Display unit

ЗАО «БЕРГ АБ», (495) 727-22-72, promshop-biz@ya.ru, www.promshop.biz



Mechanical fixture with measuring unit

ЗАО «БЕРГ АБ», (495) 727-22-72, promshop-biz@ya.ru, www.promshop.biz



Tool components

1 Display unit	**9** Printer
2 2 measuring units with spirit levels	**10** Thermal paper roll
3 2 mechanical shaft fixtures	**11** Printer adapter
4 2 locking chains	**12** 5 sets of shims
5 2 extension chaines	Instructions for use
6 Measuring tape	Carrying case
7 Tightening tool	
8 Cable straps for both measuring units	

Technical data	
Denotation	1 mil = 1 thousandths of an inch
Measuring units	
Housing material	ABS Faradex XA 311
Type of laser	Diode laser
Laser wave length	670 - 675 nm
Laser class	2
Maximum laser power	1 mW
Maximum distance between measuring units	1 meter (3 ft)
Type of detectors	Single-axis PSD, 10 x 10 mm (0.4 x 0.4 in)
Cable length	1,8 m (6 ft)
Dimensions	118 x 101 x 30 mm (4.6 x 4.0 x 1.2 in)
Weight	200 gram (7 oz)
Display unit	
Housing material	ABS Faradex XA 311
Display type	LCD 55 x 77 mm (2.1 x 3.0 in)
Battery type	only use the following batteries: Duracell MN1400, LR14 Duracell Procell MN1400, LR14 Energizer I Industrial No EN 93, NEDA 14AC GP Super Alkaline 14A
Operating time	24 hours continuous operating
Displayed resolution	0,01 mm (0.1 mil with "inch" setting)
Dimensions	160 x 140 x 51 mm (6.3 x 5.5 x 2.0 in)
Weight	0,5 kg (1.1 lb)
Shims	
Size	50 x 50 mm (2.0 x 2.0 in)
Thickness	0,05 - 0,10 - 0,25 - 0,50 - 1,00 mm
Slot width	13 mm
Printer unit	
Printing system	Thermal dot matrix
Paper feed	Friction
DIP switches position	1 2 3 4 5 6 7 8 OFF = 0, ON = 1 0 1 0 0 1 1 0 0
Power	rechargeable battery - 12 V max.
Operation time	60 minutes continuous operation with fully charged battery
Adapter for charging the battery	
Continental European adapter	DC 12 V to 15 V - 400 mA (min.)
North American adapter	DC 12V - 500 mA
UK, Australian adapter	DC 12 V - 1,25 A with detachable primary plugs for UK and Australia
Length of connection cable	1,5 m (59 in)
Paper type	Standard thermal printer roll, 20 m x 112 mm, diameter 41,5 mm (65 ft x 4.4 in, diameter 1.6 in)
Operating temperature	5 - 35 °C (41 - 95 °F)
Operating humidity	20 - 70%
Dimensions	165 x 135 x 50 mm (6.5 x 5.3 x 2.0 in)
Weight	670 gr with 20 m paper roll (1.5 lb with a 65 feet paper roll)
Complete system	
Shaft diameter range	30 - 500 mm (1.2 - 20 in)
Accuracy of system	Better than 2%
Ex classification	Atex code: II 2 G, Eex ib IIC T4
Ex certificate number	NEMKO No. 03ATEX101X
Temperature range	0 - 40 °C (32 - 104 °F) without printer
Operating humidity	< 90 % without printer
Carrying case dimensions	534 x 427 x 157 mm (21.0 x 16.8 x 6.2 in)
Total weight (incl. case)	8,9 kg (19.6 lb)
Calibration certificate	valid for two years
Warranty	12 months

Spare parts and accessories	
Designation	**Description**
TMEA 1PEx-1	Display unit
TMEA 1P-2	Carrying case
TMEA C1	Locking chains, set (500 mm) + tightening tool
TMEA C2	Extension chains set (1020 mm)
TMEA F2	1 chain fixture, complete
TMEA F6	2 thin chain fixtures, complete set
TMEA F7	Set with 3 pairs of connection rods (short: 150 mm, standard: 220 mm, long: 320 mm)
TMEA M12Ex	Set of Ex measuring units - Movable and Stationary
TMEA P1	Printer + adapter + connection cable
TMEA P1-10	UK, Australian mains adapter (for the printer)
TMEA R1	3 spare rolls of thermal paper for the printer
TMAS 340	Complete kit of 340 pre-cut machinery shims
TMAS 360	Complete kit of 360 pre-cut machinery shims
TMAS 510	Complete kit of 510 pre-cut machinery shims
TMAS 720	Complete kit of 720 pre-cut machinery shims