

Pull-force measurement system



TABLE OF CONTENTS

1	SAFETY NOTES.....	5
1.1	INTENDED USE.....	5
1.2	BATTERY.....	5
2	PRODUCT DESCRIPTION.....	6
2.1	FUNCTION.....	6
2.2	DIMENSIONS.....	6
2.3	FEATURES.....	6
2.4	TECHNICAL DATA.....	7
2.5	VARIATIONS.....	8
3	OPERATION.....	12
4	MAINTENANCE.....	13
4.1	MAINTENANCE.....	13
4.2	BATTERY.....	13
5	RECEIVER.....	14
5.1	INTERFACE USB RADIO STICK.....	14

symbol explanation:



keep attention -
dangerous!



keep attention -
malfunction!

PRODUCT INFORMATION

Pull-force measurement system



PRODUCT COMPLIANCE

EUROPE



The product is compliant with the requirements of the RED Directive 2014/53/EU and the RoHS Directive 2011/65/EU.

WEEE Notice

Disposal instructions for waste electrical and electronic equipment



This product contains batteries or rechargeable batteries that must be disposed of correctly after use. Use a certified waste management company to dispose of the old electrical and electronic equipment.

If there is no possibility of correct disposal, you can return the old electrical and electronic equipment to OTT-JAKOB Spanntechnik.

Our registration number is: WEEE-Reg.-Nr.: DE 93666638

The Directive on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 13th February 2003, resulted in a major change in the treatment of electrical equipment at end-of-life.

To dispose the device, please return to OTT-JAKOB Spanntechnik GmbH. The OTT-JAKOB company will dispose of the device professionally with regard to all laws and conditions (ElektroG § 10.2). The user is NOT allowed to dispose of the POWER-CHECK II himself or to put it into normal dustbins or collection points.

RoHS Compliance

This product is in compliance with Directive 2011/65/EU of the European Parliament and of the Council of 08. June 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) and its amendments.

PRODUCT INFORMATION

Pull-force measurement system



USA

FCC Statement 15.21

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Statement 15.19

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

FCC ID: 2AXLG-OJ2500

Japan

Das Gerät erfüllt die Anforderungen der ARIB-STD T66
(LOW-Power Data Communication System/Wireless LAN System).



204-A00004

1 SAFETY NOTES

Always consider the following points:



- Follow the operating instructions
- Avoid impacts and vibrations to the system
- The system may be operated only within the specified technical values and limits.
- Commissioning, adjustments and operation is allowed only by qualified personnel.
- In the cases of improper system adjustment or use, the OTT-JAKOB company will not accept any liability.

1.1 INTENDED USE

The pull-force measurement system has been designed for an industrial environment. The pull-force measurement system **POWER-CHECK** measures the pull-force in power drawbars.

The pull-force measurement system is embedded in the tool holder. The force occurring after the clamping process is detected by the measurement system.

It is possible to use the measuring device in a tool magazine.

The measuring device sends the measuring value to the receiving device.

1.2 BATTERY



The **POWER-CHECK** contains a solid-state, non-replaceable Li/SOCl₂ battery. The battery must be replaced only by the equipment manufacturer. Always consider the following points:

- do not charge
- do not short-circuit
- do not throw in fire
- do not damage
- do not bring it in contact with water
- pay attention to the temperature range
- do not dispose in household waste

UL registration number of the battery: MH-12827

The battery contains 0,65 g lithium. Therefore, the battery is neither subject to the hazardous materials regulations.

2 PRODUCT DESCRIPTION

2.1 FUNCTION

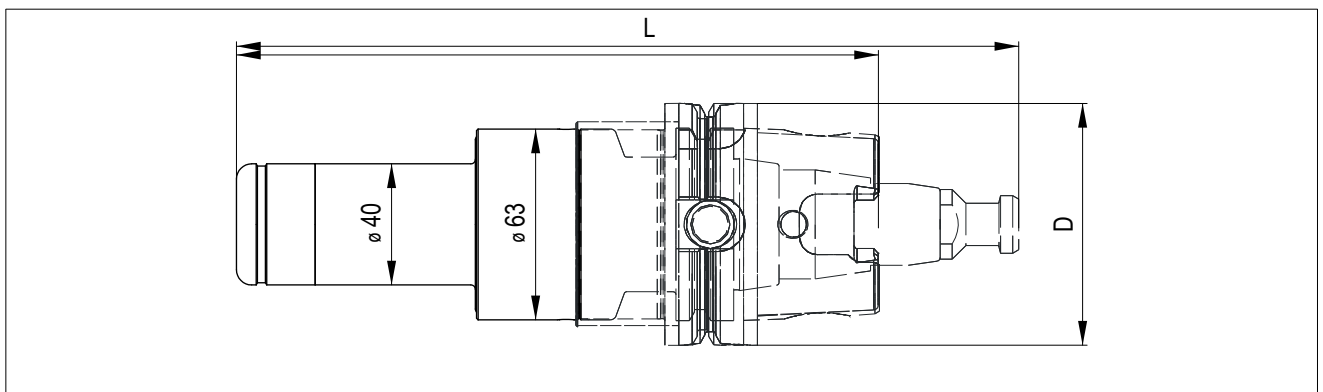
The pull-force measurement system **POWER-CHECK** measures the pull-force in power drawbars.

The pull-force measurement system is embedded in the tool holder. The force occurring after the clamping process is detected by the measurement system.

It is possible to use the measuring device in a tool magazine.

The measuring device sends the measuring value to the receiving device.

2.2 DIMENSIONS



L / D → VARIATIONS #2.5 // 8

2.3 FEATURES

- Pull force measuring mechanism integrated in base unit
- no power connection required
- useable in tool magazines; thereby at all times applicable
- wireless transmission of the measuring values
- automatic activation due to permanent clamping force detection

PRODUCT INFORMATION

Pull-force measurement system



2.4 TECHNICAL DATA

Accuracy class	2 % from max.-value of the measuring range
Temperature range	+15 °C to + 35 °C
Force limit:	130 % from max.-value of the measuring range
Break force	200 % from max.-value of the measuring range
Measuring system	Straingage
Battery lifetime	2 years / 30000 measurings
Type of protection	IP67
Frequency band	2407...2458 MHz
Antenna	Rufa 2,4 GHz
Modulation:	Proprietär 2,4 GHz Technologie (short range device)
Current supply :	3,6 VDC Lithium Batterie

PRODUCT INFORMATION

Pull-force measurement system



2.5 VARIATIONS

SK

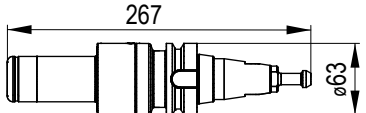
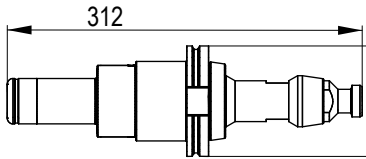
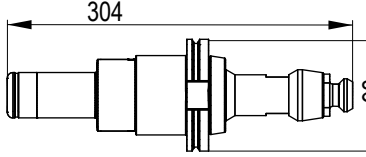
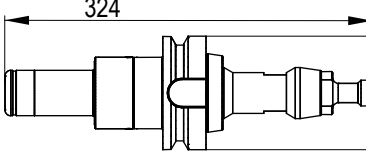
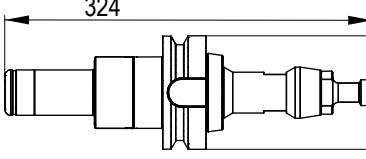
measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
3 - 9	2,3	SK30 ISO7388-1-A30	9510392622 V01	
2,8 - 8,2	2,3	SK30 ISO7388-1-U30	9510392622 V02	
2,8 - 8,2	2,3	SK30 ISO7388-2-J30-45	9510392622 V03	
2,8 - 8,2	0,6	SK30 ISO7388-2-J30-45 cone (BIGPLUS)	9526000735V01	
2,8 - 8,2	2,3	SK30 ISO7388-2-J30-30	9510392622 V04	
2,8 - 8,2	0,6	SK30 ISO7388-2-J30-30 cone (BIGPLUS)	9526000735V02	
6 - 18	2,5	SK40 ISO7388-1-A40	9510392622 V11	
6 - 18	2,5	SK40 ISO7388-1-A40 cone (BIGPLUS)	9510392622V21	
5,5 - 15,5	2,5	SK40 ISO7388-1-U40	9510392622 V12	
5,5 - 15,5	2,5	SK40 ISO7388-2-J40-45	9510392622V13	

95100422PE_2020-09-22

Subject to modification due to technical advance!

PRODUCT INFORMATION

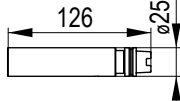
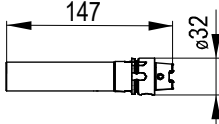
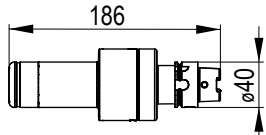
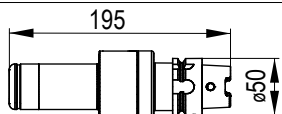
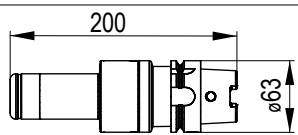
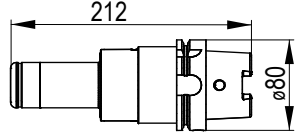
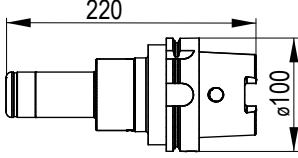
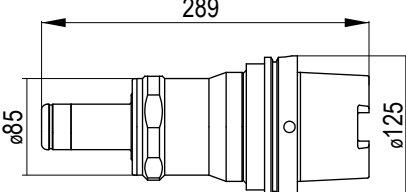
Pull-force measurement system

measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
5,5 - 15,5	2,5	SK40 ISO7388-2-J40-30	9510392622V14	
12,5 - 37	5,0	SK50 ISO7388-1-A50	9510392722V21	
11,5 - 34	5,0	SK50 ISO7388-1-U50	9510392722V22	
11,5 - 34	5,0	SK50 ISO7388-2-J50-45	9510392722V23	
11,5 - 34	5,0	SK50 ISO7388-2-J50-30	9510392722V24	

PRODUCT INFORMATION

Pull-force measurement system

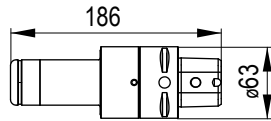
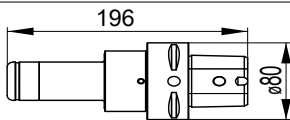
HSK

measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
1,5 - 4,5	0,25	HSK25	9560290512	
2,5 - 7,5	0,38	HSK32	9560331212	
3,5 - 10	1,8	HSK40	9510392622V52	
5,5 - 16	2,0	HSK50	9510392622V53	
10 - 27	2,4	HSK63	9510392722V61	
14 - 42	3,1	HSK80	9510392722V62	
25 - 65	4,2	HSK100	9510392722V63	
35 - 105	9,2	HSK125	9510395412V01	

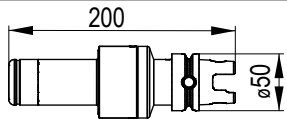
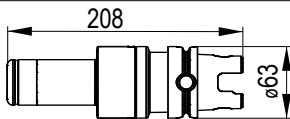
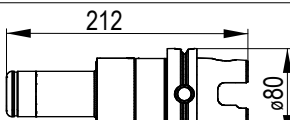
PRODUCT INFORMATION

Pull-force measurement system

PSC

measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
20 - 40	2,0	PSC63	9510392722V92	
30 - 55	2,8	PSC80	9510392722V93	

KM

measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
16 - 45	2,0	KM50	9510392722V81	
25 - 70	2,4	KM63	9510392722V82	
35 - 75	3,0	KM80	9510392722V83	

3 OPERATION



The **POWER-CHECK** is a precision instrument → Please handle with care!

Spindle rotation with the measuring device is not allowed!

Measuring conditions: the following requirements must definitely be fulfilled in order to get accurate measurements

- observe measuring range: → **VARIATIONS #2.5 // 8**
- temperature range: +15 °C to +35 °C

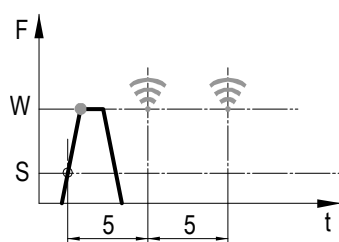
It is possible to use the measuring device in a tool magazine.

As soon as the measuring device is embedded in the tool holder and the threshold value is overstepped, the device switched into the sending mode.

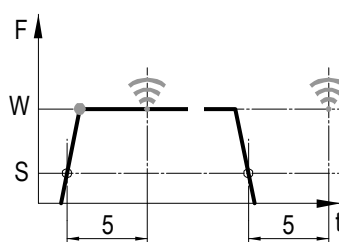
- threshold value: = min.-value of the measuring range → **VARIATIONS #2.5 // 8**

Time sequence: recording and sending

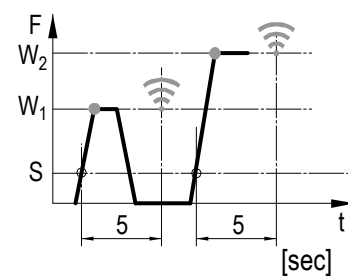
short clamping process



long clamping process



repetitions of short clamping processes



- record the measured value W

- 📶 send the measured value W

S = threshold value

4 MAINTENANCE

4.1 MAINTENANCE

Inspection by OTT-JAKOB

- yearly
- after a fall or a similar incident

4.2 BATTERY

The battery charge can not be controlled. Therefore, an annual maintenance is recommended.

If the battery is empty, the value 3276,7 kN is sent.



The **POWER-CHECK** contains a solid-state, non-replaceable Li/SOCl₂ battery. The battery must be replaced only by the equipment manufacturer. Always consider the following points:

- do not charge
- do not short-circuit
- do not throw in fire
- do not damage
- do not bring it in contact with water
- pay attention to the temperature range
- do not dispose in household waste

UL registration number of the battery: MH-12827

The battery contains 0,65 g lithium. Therefore, the battery is neither subject to the hazardous materials regulations.

5 RECEIVER

(not included in delivery volume)

5.1 INTERFACE USB RADIO STICK

The receiver Interface USB-Radio-Stick is equipped with a USB interface. It receives the data that the POWER CHECK sends.

The measuring values can be graphically displayed, logged and exported by the PC software (via a USB interface). *

Designation	Order number
INTERFACE USB RADIO STICK	9580000530

* The following parameters are not relevant for the Power-Check Magazine:

- Sleeve Position Power-Check
- Battery Loading Status Measurement System