



# OTT-JAKOB Pull-Force Measurement System Instruction Manual

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# OTT

OTT-JAKOB Pull-Force Measurement System



## **symbol explanation:**

keep attention – dangerous!

keep attention – malfunction!

## **PRODUCT INFORMATION**

### **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.-No: 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.

### **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:

### **Japan**

Das Gerät erfüllt die Anforderungen der ARIB-STD T66

(LOW-Power Data Communication System/Wireless LAN System).

204-A00004

## **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.

## **INTENDED USE**

The pull-force measurement system has been designed for an industrial environment. The pullforce 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.

## **BATTERY**

The POWER-CHECK contains a solid-state, non-replaceable Li/SOCI<sub>2</sub> 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.

## **PRODUCT DESCRIPTION**

### **FUNCTION**

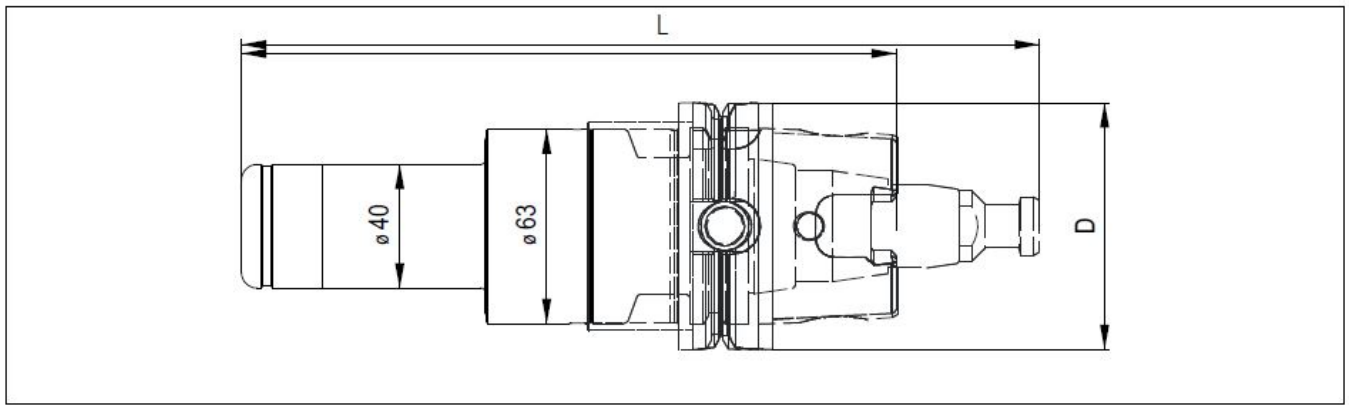
The pull-force measurement system POWER-CHECK measures the pull-force in power drawbars.

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.

### **DIMENSIONS**



L / D → VARIATIONS #2.5 // 8

## FEATURES

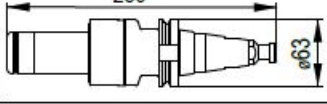
- Pull force measuring mechanism integrated in base unit
- no power connection required
- useable in tool magazines; thereby at all times applicable
- wireless transmission of the measuring values
- automatic activation due to permanent clamping force detection

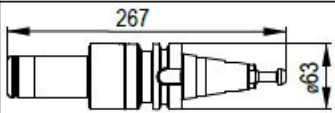
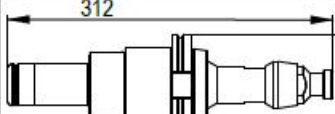
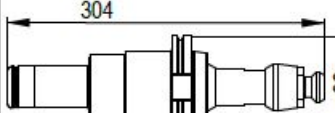
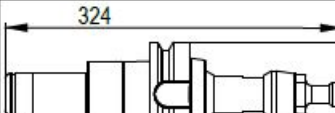
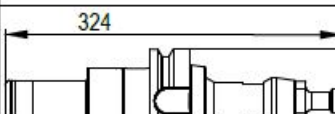
## TECHNICAL DATA

Accuracy	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
Brake force	20 % from max.-value of the measuring range
Measuring system	Strain gauge
Battery lifetime	2 years / 300 measurements
Type of protection	IP67
Frequency band	2407...2458 MHz
Antenna	Ruba 2,4 GHz
Modulation:	Proprietär 2,4 GHz Technologie (short range device)
Current supply:	3,6 V DC Lithium Batterie


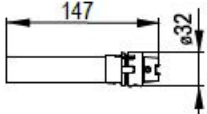
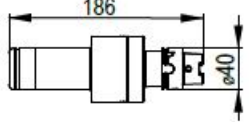
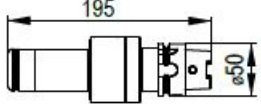
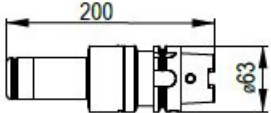
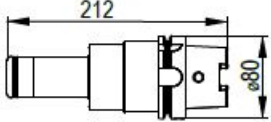
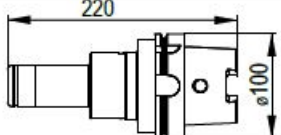

## VARIATIONS

SK

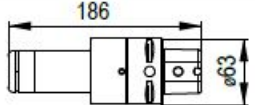
measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
3 - 9	2,3	SK30 ISO7388-1-A30	9510392622 V01	
2,8 - 8,2	2,3	SK30 ISO7388-1-U30	9510392622 V02	
2,8 - 8,2	2,3	SK30 ISO7388-2-J30-45	9510392622 V03	
2,8 - 8,2	0,6	SK30 ISO7388-2-J30-45 cone (BIGPLUS)	9526000735V01	
2,8 - 8,2	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	

measuring range min. - max. [kN]	Weight [kg]	interface	order number	dimensions
5,5 – 15,5	2,5	SK40 ISO7388-2-J40-30	9510392622V14	 Technical drawing of the SK40 interface showing a total length of 267 and a mounting hole diameter of $\varnothing 63$ .
12,5 - 37	5,0	SK50 ISO7388-1-A50	9510392722V21	 Technical drawing of the SK50 interface (A50) showing a total length of 312 and a mounting hole diameter of $\varnothing 98$ .
11,5 - 34	5,0	SK50 ISO7388-1-U50	9510392722V22	 Technical drawing of the SK50 interface (U50) showing a total length of 304 and a mounting hole diameter of $\varnothing 98$ .
11,5 - 34	5,0	SK50 ISO7388-2-J50-45	9510392722V23	 Technical drawing of the SK50 interface (J50-45) showing a total length of 324 and a mounting hole diameter of $\varnothing 100$ .
11,5 - 34	5,0	SK50 ISO7388-2-J50-30	9510392722V24	 Technical drawing of the SK50 interface (J50-30) showing a total length of 324 and a mounting hole diameter of $\varnothing 100$ .

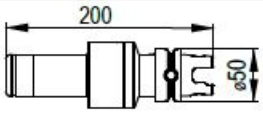
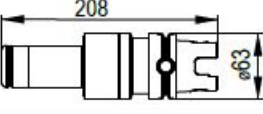
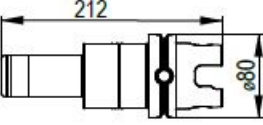
HSK

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	

## 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	

## 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

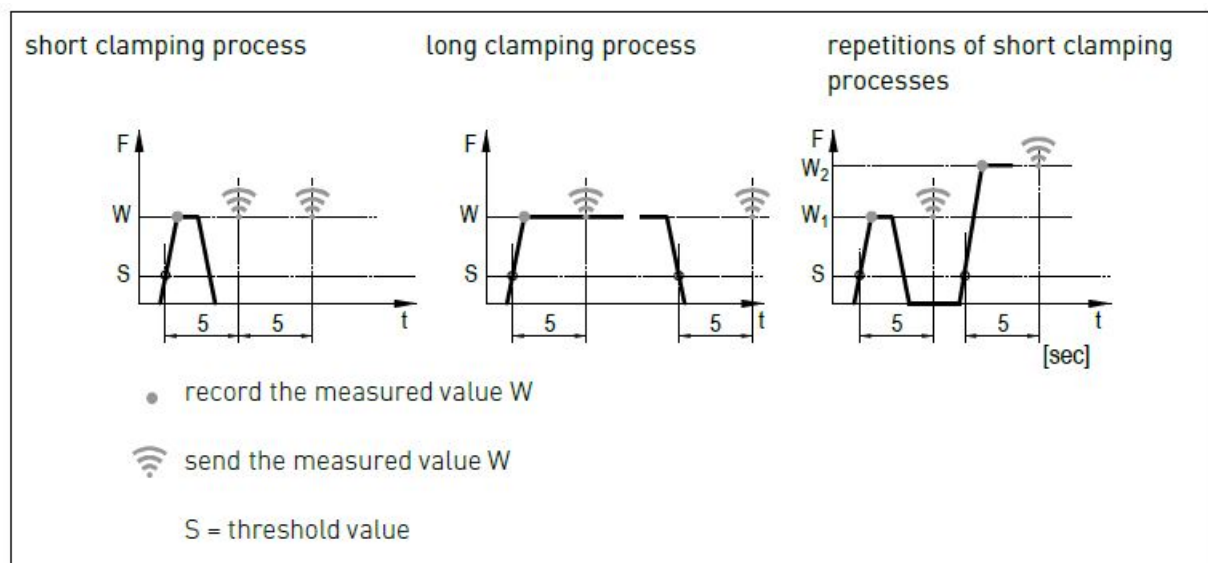
- observe measuring range: → VARIATIONS # 2.5 // 8
- temperature range: +15 °C to + 35 °C

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



## MAINTENANCE

### MAINTENANCE



- yearly
- after a fall or a similar incident

## **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/SOCl<sub>2</sub> 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.

## **RECEIVER**

### **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	Ordernumber
INTERFACEUSBRADIOSTICK	95800530

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

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

Subject to modification due to technical advances!

## **Documents / Resources**



**[OTT-JAKOB Pull-Force Measurement System](#)** [pdf] Instruction Manual  
OJ2500, 2AXLG-OJ2500, 2AXLGOJ2500, Pull-Force Measurement System

## References

- [Herzlich Willkommen bei der Jakob GmbH - World of Home-Entertainment](#)
- [OTT-JAKOB Spanntechnik GmbH](#)