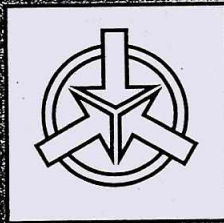


Ref:- P.I. NO:- 830200002 Date:- 07/09/20

Detail of P.I. Item No. 1 from manual
of OEM.

**Hydraulik chucking cylinder
OSKL 35**



BERG

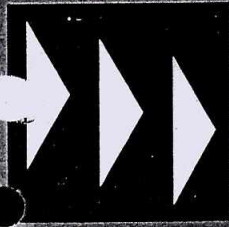
SPANNTECHNIK

QUALITÄT SPANNTECHNIK QUALITY CLAMPS QUALITY



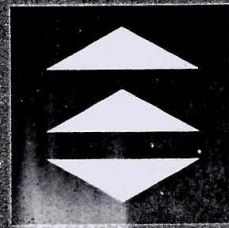
SPANNSYSTEME
Werkstückspannung

CLAMPING SYSTEMS
Workpiece Holding



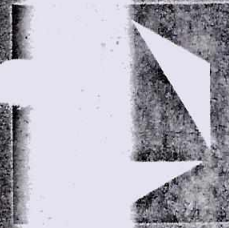
SPANNSYSTEME
Handhabungstechnik

CLAMPING SYSTEMS
Handling Technology



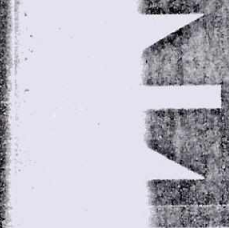
SPANNSYSTEME
Werkzeugspannung

CLAMPING SYSTEMS
Tool Clamping



SPANNSYSTEME
Spezialanwendung

CLAMPING SYSTEMS
Special Application



SPANNSYSTEME
Spanntechnik

CLAMPING SYSTEMS
Forming Technology

BETRIEBSANLEITUNG

OPERATION MANUAL

NOTICE D'EMPLOI

ISTRUZIONI PER L'USO

INSTRUCCIONES PARA MANEJO

Руководство

These operating instructions replace the identically numbered edition dd.
01.12.1986.

These operating instructions apply to all sizes of the product series OSKL. They also apply to special designs differing only in dimension from the standard products (the relevant drawings or data sheets for the particular special designs also apply).

1. Description of the chucking cylinders

The rotating hydraulic chucking cylinders OSKL are, among other things, intended for the hydraulic actuation of the chucking set from the quick chucking system SSK. A central connection permits the supply of cooling lubricant during operation or of compressed air when changing tools (when spindle is stationary!).

If the hydraulic oil supply fails a non-return valve positioned in the work piston maintains the chucking pressure. The oil pressure in the pressure pipe in the direction of actuation "chucking" must be monitored by a pressure switch.

The outer edges of the rotary transmission lead-through are suitable for chucking stroke monitoring via an inductive proximity switch. These must be provided on the machine.

2. Mounting and operating of the chucking cylinder

2.1 Requirements

In order to guarantee the running accuracy of the working spindle in particular in the upper rotational speed range, at the end of the spindle or intermediate flange a run-out of 0,005 mm and a concentricity of 0,01 mm must be maintained.

In order to permit an accurate alignment of the chucking cylinder on the work spindle, the adaption of the centring seat on the spindle side must have play (e.g. adaption quality E 8).

2.2 Fastening

Screw tensioning tube or tensioning rod into the cylinder piston and mount onto the spindle. Check the concentric running on the control edge A. If necessary, align to the intermediate flange. An M12 pin which can slide within a 12 mm groove parallel to the axis serves as a torque support. The machine must be provided with a hood covering for the rotating parts.

2.8 Rotational speed

constant rotational speed $n = 4000 \text{ min}^{-1}$
 maximum rotational speed (momentary) $n_{\text{max}} = 6300 \text{ min}^{-1}$

2.9 Non-return valve

The non-return valve is effective in the direction of actuation "chucking".

Test criteria. After switching off or in the event of failure (emergency) of the hydraulic oil supply the remaining oil pressure in the chucking cylinder may not fall below 50 % of the set operating pressure during a holding time of 15 seconds.

The remaining chucking pressure in the chucking cylinder can either be measured directly using a pressure gauge on the test connection (M10 x 1) or indirectly by measuring the power at the pulling tube or at the rod.

3. Coolant supply

A Deublin supply 1106 can be screwed in for the supply of compressed air or coolant. The screw connection M16 x 1.5 left provided for this purpose is situated in the center of the oil supply.

4. Maintenance

The chucking cylinders are maintenance-free.
 Any fitting position is possible.

In the possible event of dismantling, all parts must be thoroughly cleaned, and all sealing elements and sliding surfaces must be carefully moistened with oil before reassembly.

5. Orders

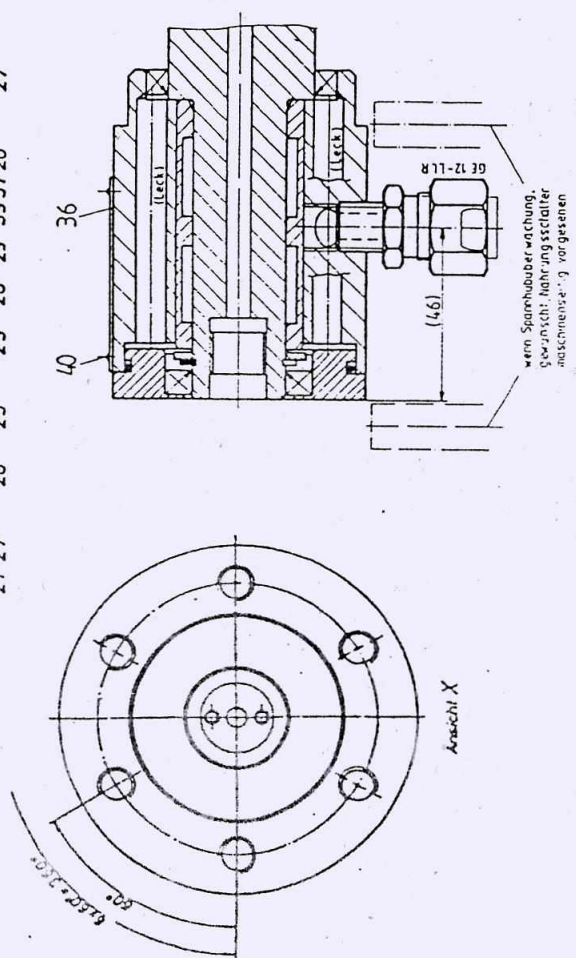
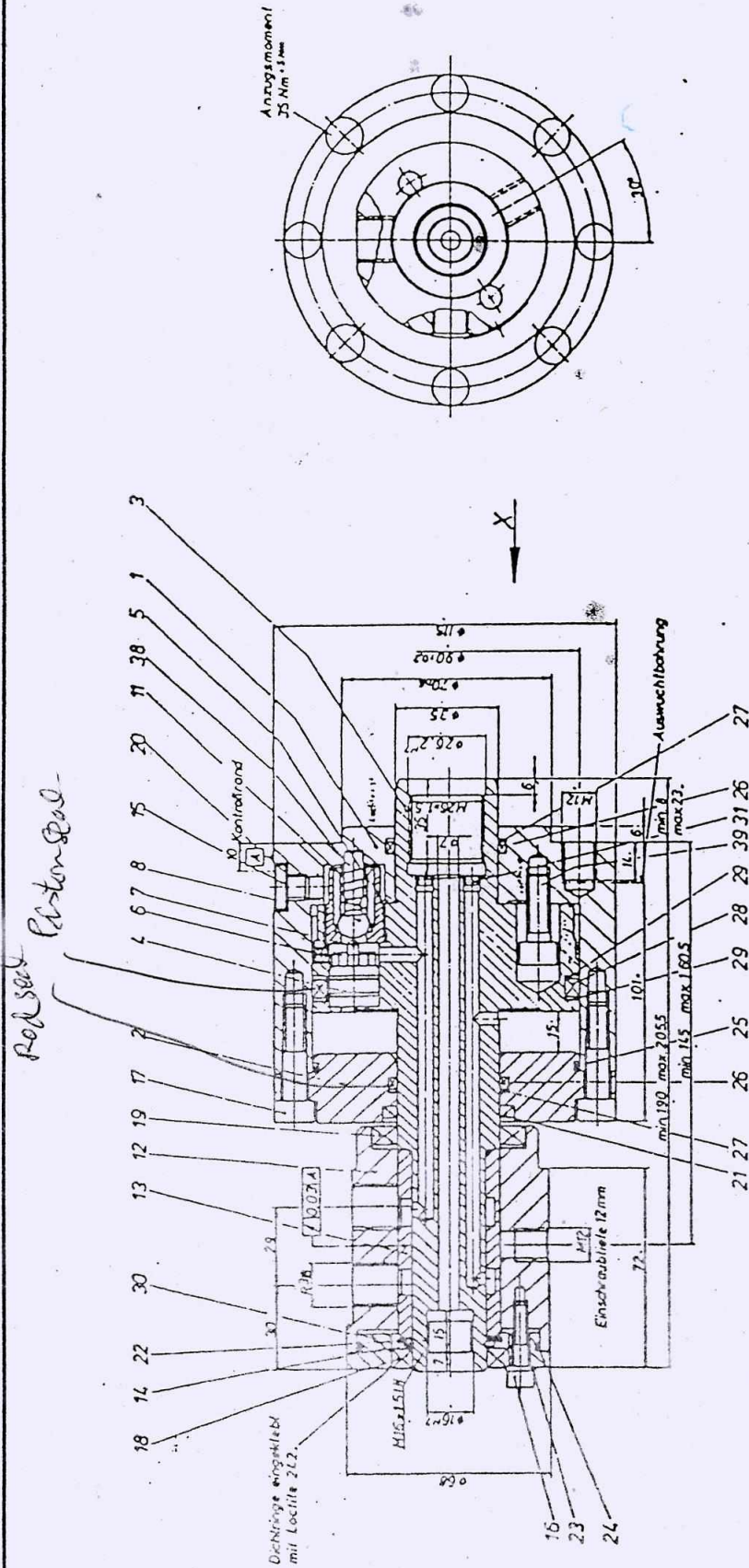
When requesting information or ordering spare parts please state the identity no. and works no. of the chucking cylinder and the position no. of the required part.

Replacement seals are available as a complete set (see table).

Chucking cylinder	Seal set
OSKL 35	739.09812.100.2
OSKL 70	739.11070.100.0

Address: BERG & CO. GmbH
Spanntechnik
Postfach 11 01 44
D-33661 Bielefeld

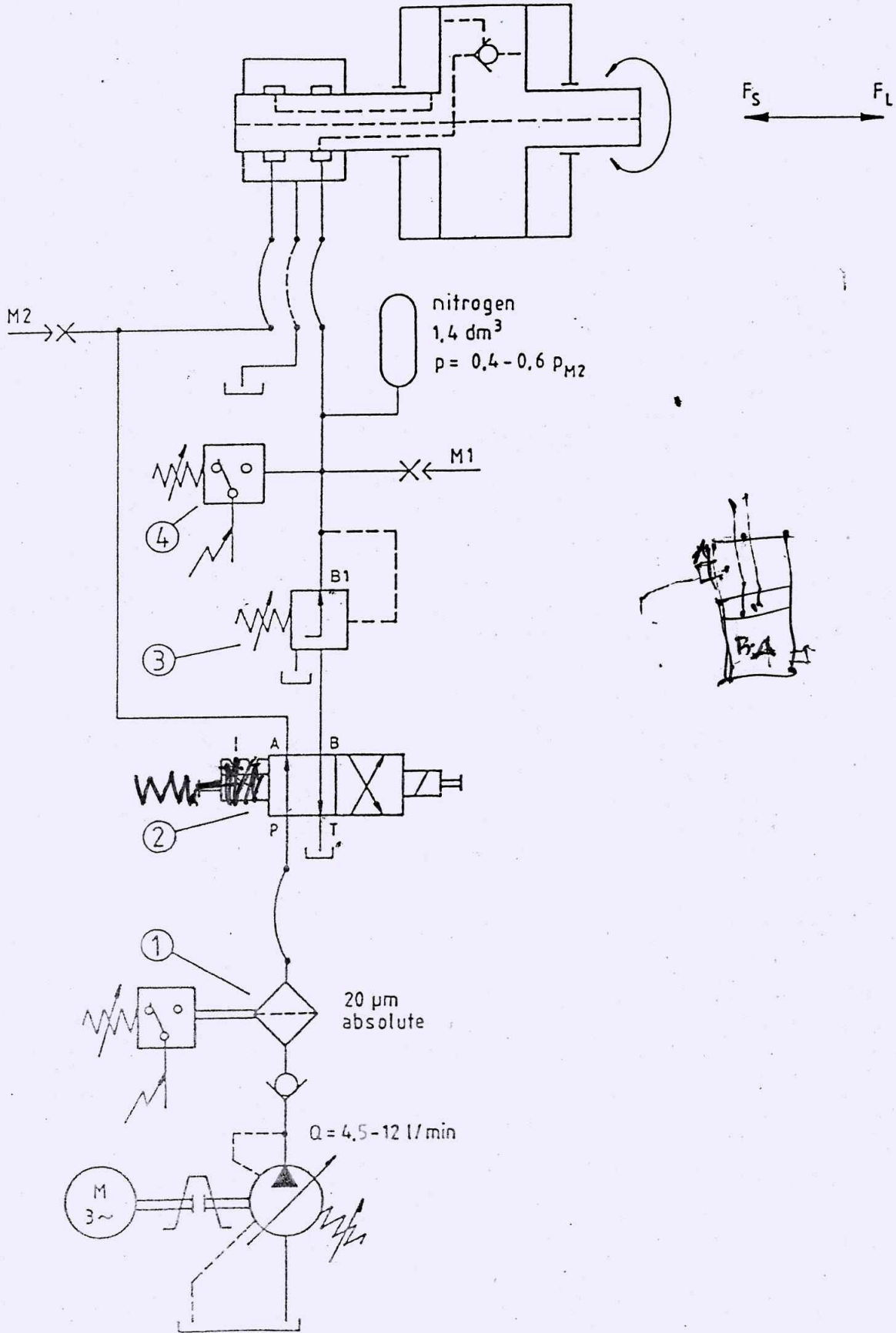
These operating instructions include:
the drawing OSKL 35 or OSKL 70 or
the drawing of the special design,
the basic hydraulic circuit diagram T 627/2 and
the drawing of the relevant chucking set.



If the straight screw connection GE 12-LLR, featuring a tapered screw-in thread G 1/4 A has to be replaced by a screw connection with cylindrical screw-in thread, ensure that the length of the screwed end is shortened to 8 mm!

Muß die gerade Einschraubverschraubung GE 12-LLR, die ein kegeliges Einschraubgewinde G 1/4 A hat, gegen eine Einschraubverschraubung mit zylindrischem Einschraubgewinde ausgetauscht werden, so ist unbedingt darauf zu achten, daß die Länge des Einschraubzapfens auf 8 mm gekürzt wird!

Red Seal
Platten Seal



F_S : Chuckling force

F_L : Release force

M_1 : Chuckling pressure p max. = 70 bar

M_2 : Release pressure p max. = 140 bar

Oil specification:

H-LP 32 or H-LP 46 DIN 51525 (corresponds to ISO VG 32 or VG 46; 32 or 46 cSt at 40 °C).

If pressure peaks in the pump and in the pressure reduction valve cannot be avoided by other means, provide a pressure accumulator to protect the SSK clamping set.

Due to the rotary transmission lead through of the chucking cylinder a pressureless return flow of the leak oil to the container must be guaranteed. Max. counter pressure 0.2 bar. For this reason, throttling elements such as return flow filter, return valve etc. are to be avoided in this line.

Internal return flow of the rotary transmission lead through of the chucking cylinder max. 2 dm³/min.

In the case of an equal chucking and release pressure the pressure release valve is no longer required.