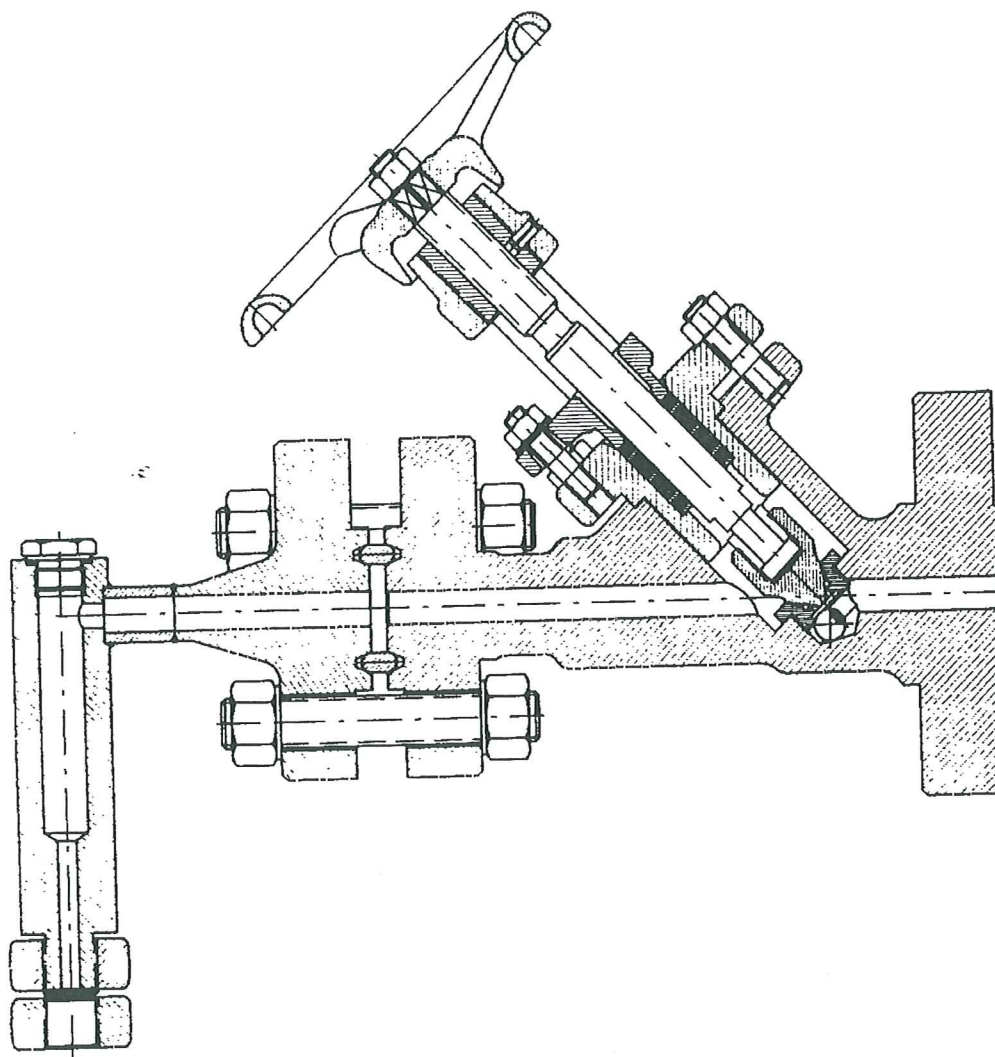

Installation and maintenance instructions for

KLINGER

liquid level gauge valves

DVK-2



Edition 11/87

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Ausgabe:

INSTALLATION AND MAINTENANCE INSTRUCTIONS
FOR KLINGER LEVEL GAUGE VALVES DVK/2

OPERATING PRINCIPLE

Klinger level gauge valves type DVK/2 are globe type valves with inclined seats. They can be rodded through and are intended specially for use on steam gauges.

Above all, these valves are notable for their excellent seal to atmosphere and are almost maintenance-free.

DVK/2 gauge valves are of forged steel construction with metal-to-metal sealing through inclined seats, the hardened ground piston and the soft stainless seat providing an outstanding seal through the valve. A triple stuffing box and a metallic gasket between body and bonnet provide a reliable seal to atmosphere.

A safety ball is provided in the upper and lower valve body so that escape of steam or hot water in the event of a glass breakage is largely prevented.

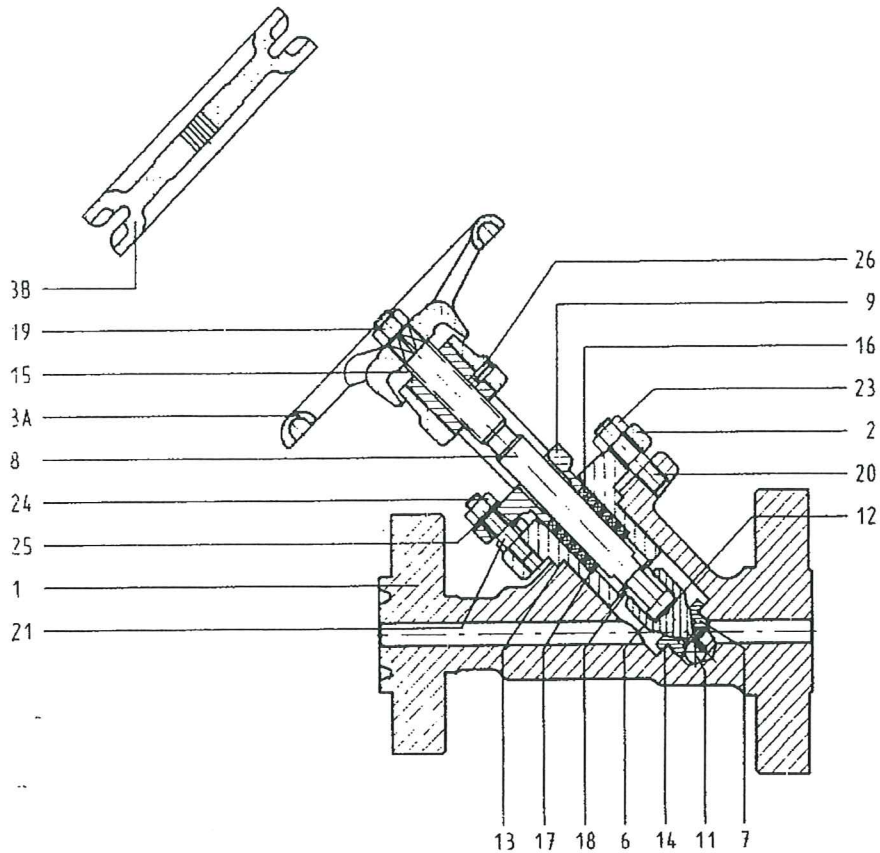
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AKTIENGESELLSCHAFT

Ausgabe:

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INSTALLATION INSTRUCTIONS

1	Body	15	Thrieded bush
2	Bonnet	16	Stuffing box ring
3a	Handwheel	17	Bottoming ring
3b	Chain-wheel	18	Split nut
6	Piston	19	Hexagon nut
7	Seating ring	20	Stud bolt
8	Spindle	21	Stud bolt
9	Gland retainer	23	Hexagon nut
11	Ball 1/2"	24	Hexagon nut
12	Shim washer	25	Belleville washer
13	Gasket 45/54x0,5	26	Tension pin
14	Gasket 28/32x0,5		

When dismantling, the body of the gauge valve need not be disconnected from the boiler connecting flange. However, the boiler must be shut down, unless a reserve shut-off valve is present.

Dismantling

- * Unscrew hex. nuts (23) from stud bolts (20)
- * Lift off complete bonnet (2) from body (1) and remove gasket (13)

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Dismantling stuffing box:

- * Unscrew hex. nut (24) from stud bolt (21) and lift off Belleville washer (25).
- * Unscrew hex. nut (19) from spindle (8) and remove handwheel (3a) or chain-wheel (3b).
- * Screw spindle downwards out of bonnet and pull it through the stuffing box.
- * Remove retainer (9) and extract stuffing-box rings (16)
Note: do not overlook bottoming ring (17).
- * Unscrew seating ring (7) by means of a socket wrench. Note: left-hand thread.
- * Lift off gasket (14).
- * Clean components and prepare new replacement items.
- * Lubricate spindle (with acme thread), piston suspension, stud bolts for bonnet and stuffing box with molykote-paste 1000.

Assembly of stuffing box:

- * Place bottoming ring (17) and stuffing-box rings (16) in stuffing box and place retainer (9) on top.
- * Screw Belleville washer (25) onto stud bolts (21) but do not screw down firmly.
- * Introduce spindle (8), with piston (6) mounted on it, upwards into the bonnet (2) through bottoming ring, stuffing-box rings and retainer.
- * Screw spindle through threaded bush (15) in bonnet, place handwheel or chain-wheel on top and secure with hex.nut (19)
- * Tighten hex. nuts (24) to a torque of 7,2 Nm.

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Ausgabe:

Assembly of seat ring:

- * Place gasket (14) in the recess provided in the body (1).
- * Screw in seat ring (7) to a torque of 180 Nm using a socket wrench.

Final assembly:

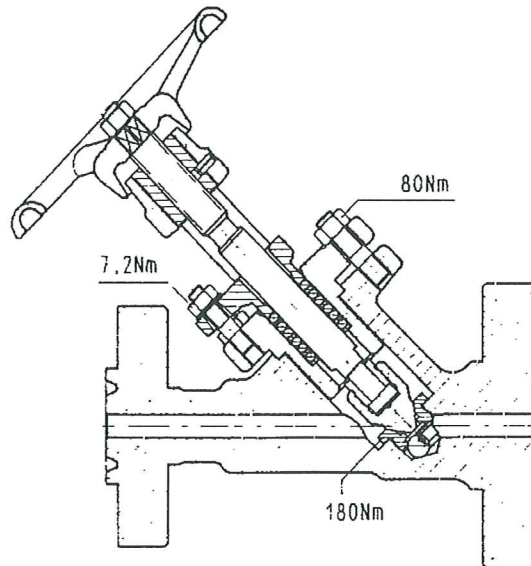
- * Place gasket (13) in the body (1), push bonnet into body and secure with hex. nuts (23) using a torque of 80 Nm.
- * Operate valve.

STORAGE

In accordance with DIN 3230 sheet 1, the valves should be stored in enclosed rooms in a non-aggressive atmosphere and be protected against dampness and dirt.

Replacement parts and stuffing box rings must be stored in dry, cool rooms.

Torques:

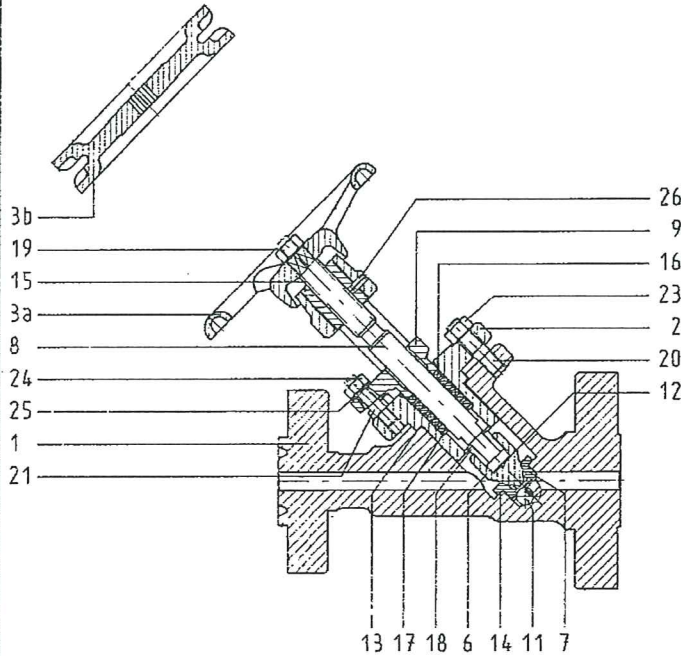


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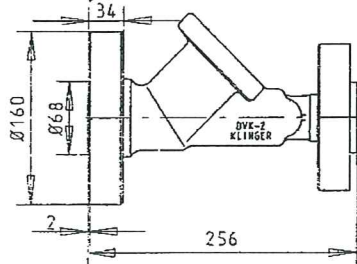
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Components of KLINGER gauge valve Type DVK-2

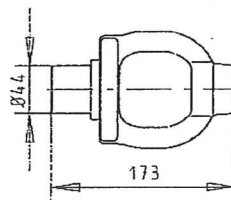


Part	Name	Material
1	Body	C22.8
2	Bonnet	C22.8
3a	Handwheel	GG-20
3b	Chain-wheel	GG-20
6	Piston	4526V
7	Seating ring	4571
8	Spindle	4104
9	Gland retainer	GGG-40
11	Ball 1/2"	4034
12	Shim washer	CuSn6F56
13	Gasket 45/54x0,5	soft nickel
14	Gasket 28/32x0,5	soft nickel
15	Threaded bush	Sinf C11-Special
16	Stuffing box ring	KFK
17	Bottoming ring	St12 03nickel-plated
18	Split nut	Sf 60 nickel-plated
19	Hexagon nut	5 black
20	Stud bolt	21CrMoV57
21	Stud bolt	Ck35
23	Hexagon nut	24CrMo5
24	Hexagon nut	C 35
25	Belleville washer	50CrV4
26	Tension pin	spring steel

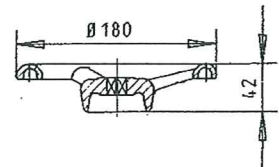
1 Body



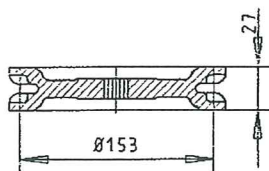
2 Bonnet



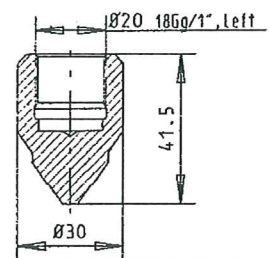
3 Handwheel



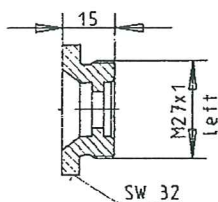
4 Chain-wheel



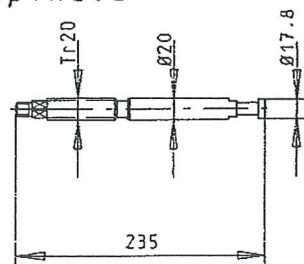
6 Piston



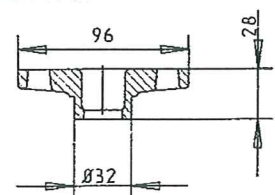
7 Seat ring



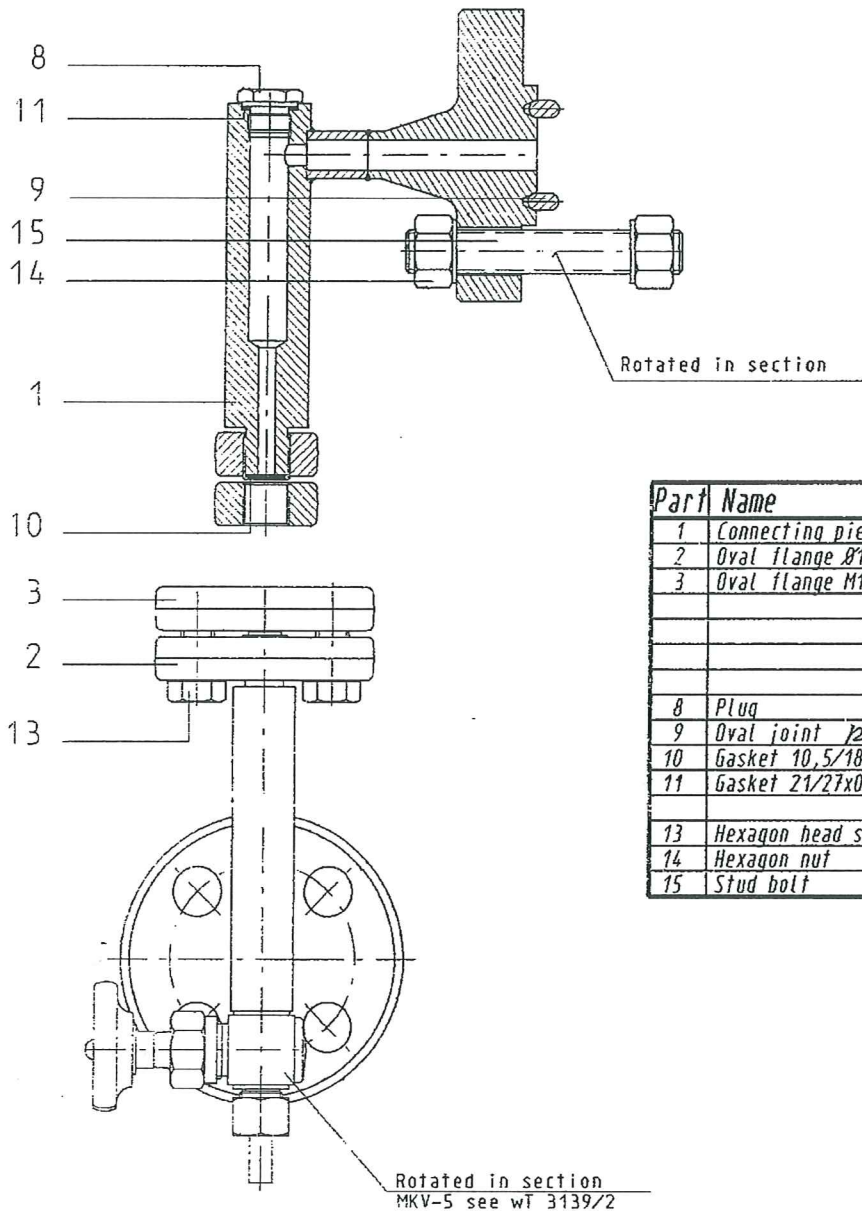
8 Spindle



9 Retainer

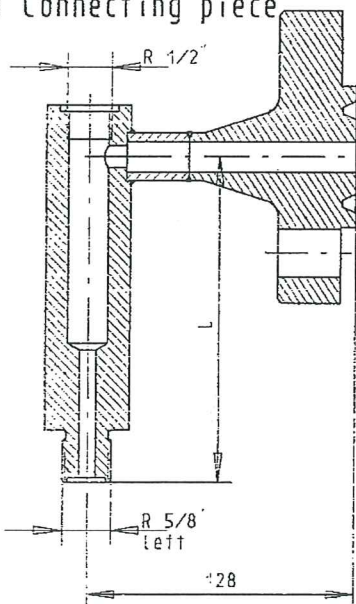


Components of KLINGER connecting-piece set Type DVK-2

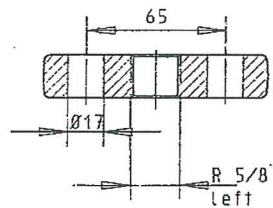


Part	Name	Material
1	Connecting piece	C22.8
2	Oval flange Ø17	St 42
3	Oval flange M16	St 42
8	Plug	9SMn28K chrome-plat.
9	Oval joint 12/13 D	soft iron
10	Gasket 10,5/18x0,5	soft nickel
11	Gasket 21/27x0,5	soft nickel
13	Hexagon head screw	8.8
14	Hexagon nut	C 35
15	Stud bolt	Ck 35

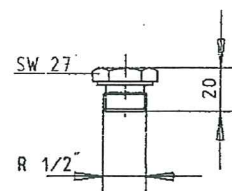
1 Connecting piece



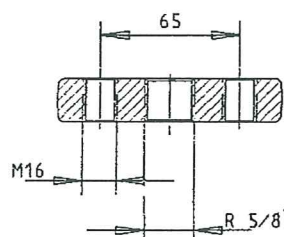
2 Oval flange Ø17



8 Plug

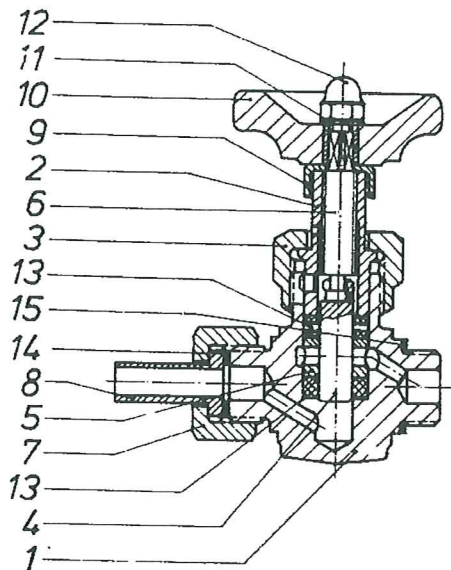


3 Flansch oval M16



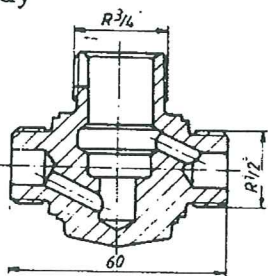
Components of KLINGER valve

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 Type MKV-5
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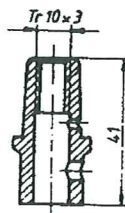


Part	Name	Material
1	Body	C 22.8
2	Bonnet	9S20
3	Union nut 3/4"	9SMn 28K
4	Piston	4523
5	Lantern bush	9SMn 28K
6	Spindle	4104
7	Union nut 1/2"	Steel
8	Tail pipe	Steel
9	Stroke indicator	4301
10	Handwheel	Synthetic
11	Washer	Steel
12	Cap nut	Chrome-plated brass
13	Valve ring set	Kor-P special
14	Gasket 12,7/18,5x1,5	Klingerit
15	Gasket 21/27x1,5	Soft nickel

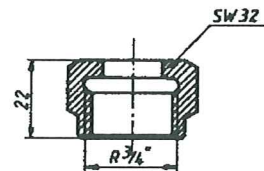
1 Body



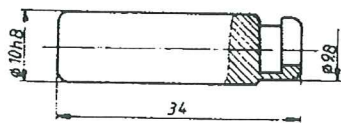
2 Bonnet



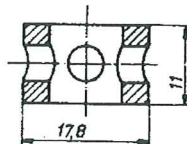
3 Union nut



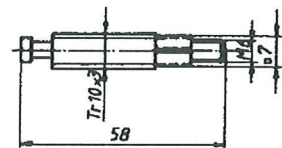
4 Piston



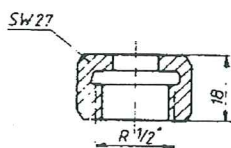
5 Lantern bush



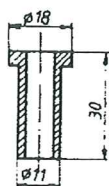
6 Spindle



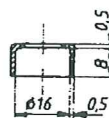
7 Union nut



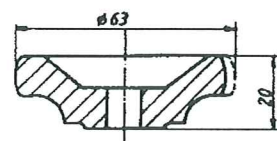
8 Tail pipe



9 Stroke indicator



10 Handwheel



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