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Type 526 API

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1 Purpose

This LESER Global Standard (LGS) describes the disassembly procedure for a LESER safety valve type 526 API.

2 Scope

This document must be applied to the dismantling an API safety valve in agencies and subsidiaries of LESER GmbH & Co. KG.

3 Disclaimer

LESER puts in a great deal of effort into making up-to-date and correct documentation available. Nevertheless, LESER GmbH & Co. KG gives no guarantee that the recommended actions presented here are entirely correct and error free. This document is to be applied exclusively to the specified type. LESER GmbH & Co. KG declines any liability or responsibility for the correctness and completeness of the content.

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4 Qualified fitting personnel

LESER safety valves may only be dismantled by trained or qualified fitters. The qualifications must be obtained through the appropriate training measures.

5 General Information



- Gloves must be worn during the entire dismantling process.

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6 General illustration

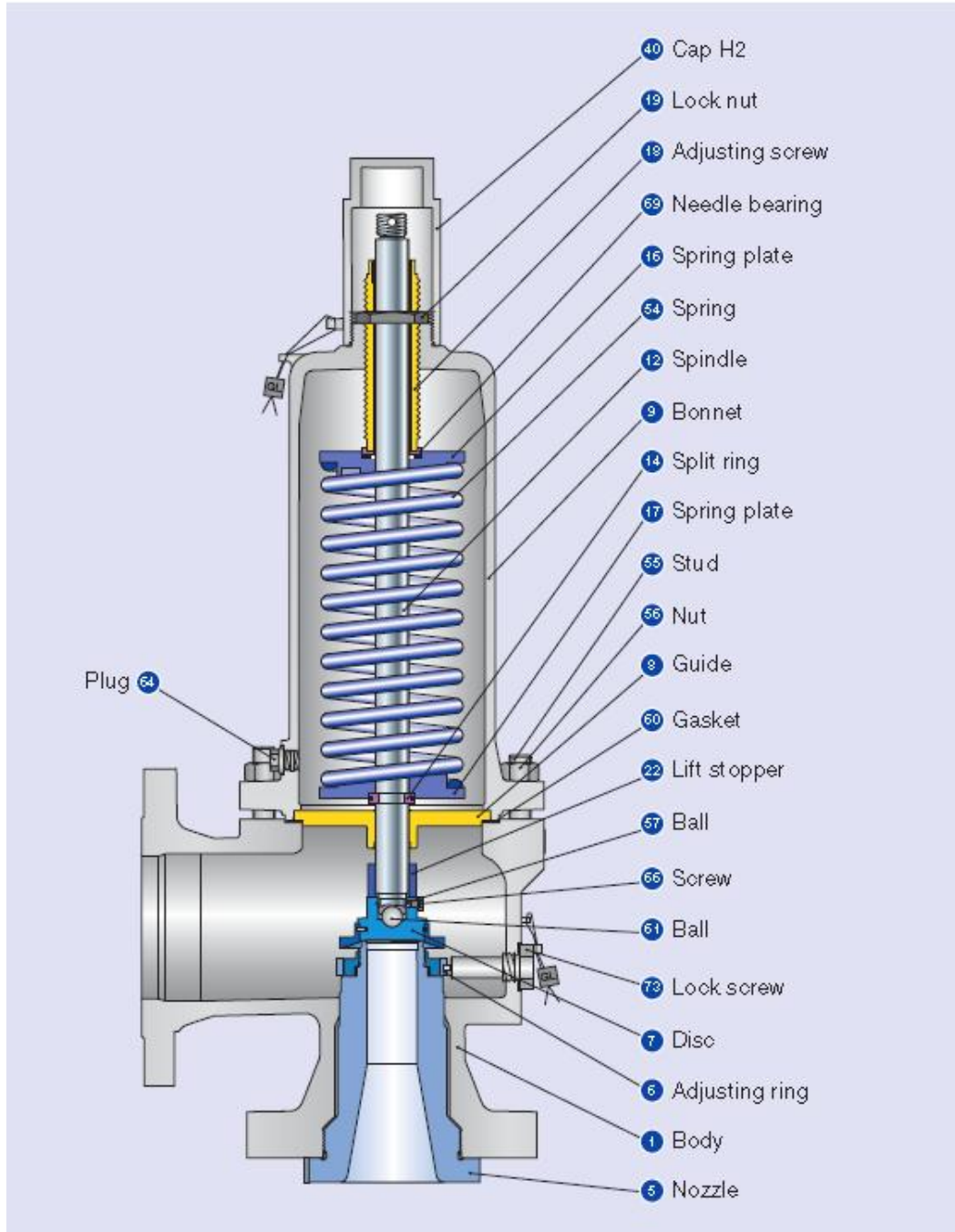


Figure 6-1: Cross-sectional view of type 526

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7 Dismantling type 526

7.1 Dismantling caps and lever

7.1.1 Dismantling cap H2


Illustrations	Description	Aids / Tools
 <p>Figure 7.1.1-1</p>	Loosen cap with a spanner and screw off.	Open-end spanner

7.1.2 Dismantling lever H3

Illustrations	Description	Aids / Tools
 <p>Figure 7.1.2-1</p>	Remove retaining washers	
 <p>Figure 7.1.2-2</p>	Pull out the pin and lever.	

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Illustrations	Description	Aids / Tools
 <p>Figure 7.1.2-3</p>	<p>Loosen the clamping screw and screw the cap off.</p>	<p>Ring spanner</p>
 <p>Figure 7.1.2-4</p>	<p>Completely unscrew the screw and remove the plastic ball.</p>	
 <p>Figure 7.1.2-5</p>	<p>Remove retaining clip and pin. Pull spindle cap off the spindle.</p>	

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7.1.3 Dismantling lever H4

Illustrations	Description	Aids / Tools
 <p>Figure 7.1.3-1</p>	Loosen lever with open-end spanner and screw it off. Remove spacer rings.	Open-end spanner
	Remove the retaining clip and pin. Pull the spindle cap off the spindle.	

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Figure 7.1.3-2

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7.2 Dismantling lift indicator

Illustrations	Description	Aids / Tools
 <p>Figure 7.2-1</p>	<p>Loosen the lock nut of the lift indicator</p> <p>Loosen first nut and screw out the lift indicator.</p>	

7.3 Removing the test gag (possible for H2 and H4)




Illustrations	Description	Aids / Tools
 <p>Figure 7.3-1</p>	<p>Loosen and unscrew the screw. Remove sealing ring from the screw.</p>	<p>Open-end spanner</p>

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7.4 Dismantling the O-ring damper

7.4.1 Dismantling O-ring damper H2

Illustrations	Description	Aids / Tools
 <p>Figure 7.4.1-1</p>	<p>Loosen the cap and unscrew it from the bonnet.</p>	<p>Open-end spanner</p>
 <p>Figure 7.4.1-2</p>	<p>Remove the retaining spring from the opposite ring.</p>	
 <p>Figure 7.4.1-3</p>	<p>Remove the opposite ring from the support sleeve (1)</p>	

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Illustrations	Description	Aids / Tools
 <p>Figure 7.4.1-4</p>	<p>Pull O-ring off the spindle over the support sleeve (2).</p>	
 <p>Figure 7.4.1-5</p>	<p>Remove the support sleeve from the spindle (3).</p>	

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7.4.2 Dismantling O-ring damper H4

Illustrations	Description	Aids / Tools
 <p>Figure 7.4.2-1</p>	Loosen cap and screw it off.	
 <p>Figure 7.4.2-2</p>	Remove spring, first O-ring, support sleeve, opposite ring and second O-ring from the spindle.	

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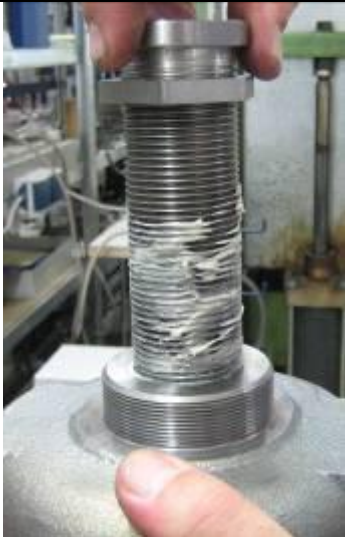
Illustrations	Description	Aids / Tools
 <p>Figure 7.4.2-3</p>	<p>Remove the retaining clip and pin. Pull the spindle cap off the spindle.</p>	
 <p>Figure 7.4.2-4</p>	<p>Individual parts of the O-ring damper</p>	

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7.5 Pressure spring and adjusting screw disassembly

Illustrations	Description	Aids / Tools
 <p>Figure 7.5-1</p>	Remove lock nut from adjusting screw.	Open-end spanner
 <p>Figure 7.5-2</p>	Secure the spindle from turning with a pin punch. Apply the open-end spanner in a clockwise direction until no more pressure can be felt from the spring.	Pin punch Open-end spanner
 <p>Figure 7.5-3</p>	Screw adjusting screw out of the bonnet	

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Illustrations	Description	Aids / Tools
 <p data-bbox="188 835 341 862">Figure 7.5-4</p>	<p data-bbox="639 376 927 405">Unscrew the lock nut.</p>	
 <p data-bbox="188 1364 341 1391">Figure 7.5-5</p>	<p data-bbox="639 884 959 913">Remove plastic bushing</p>	

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7.6 Dismantling the bonnet

Illustrations	Description	Aids / Tools
 <p>Figure 7.6-1</p>	<p>Loosen the nuts and unscrew them from the studs.</p> <p>Lift the bonnet off the bolts.</p>	<p>Open-end spanner</p>

7.7 Dismantling spindle/disc assembly

7.7.1 Removing the assembly (with stainless steel bellows)

Illustrations	Description	Aids / Tools
 <p>Figure 7.7.1-1</p>	<p>Pull the top spring plate and axial needle-bearing (if applicable) off the spindle.</p> <p>Remove the spring and bottom spring plate one after the other.</p>	

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Illustrations	Description	Aids / Tools
 <p>Figure 7.7.1-2</p>	<p>Lift the spindle/disc/cooling zone/guide washer out of the body.</p>	
 <p>Figure 7.7.1-3</p>	<p>Remove the retaining clip and half-washers from the spindle.</p>	
 <p>Figure 7.7.1-4</p>	<p>Unscrew the clamping screw.</p>	<p>Ring spanner</p>

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Illustrations	Description	Aids / Tools
 <p>Figure 7.7.1-5</p>	<p>Take the small balls out of the disc.</p>	
 <p>Figure 7.7.1-6</p>	<p>Pull the cooling zone off the spindle.</p> <p>The spindle and bellows cannot be disassembled because they are glued together.</p>	

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7.7.2 Dismantling spindle/disc assembly (without bellows)

Illustrations	Description	Aids / Tools
 <p>Figure 7.7.2-1</p>	<p>Remove the top spring plate, spring and bottom spring plate from the spindle one after the other.</p> <p>Lift the spindle with the guide washer out of body.</p>	
 <p>Figure 7.7.2-2</p>	<p>Remove the retaining clip and half-washers from the spindle.</p> <p>Pull the guide washer off the spindle.</p>	
 <p>Figure 7.7.2-3</p>	<p>Remove the lift stopper from the spindle, if applicable.</p>	

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Illustrations	Description	Aids / Tools
 <p>Figure 7.7.2-4</p>	Loosen and unscrew the clamping screw. Shake out the small ball.	Ring spanner
 <p>Figure 7.7.2-5</p>	Take the ball out of the disc.	

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7.8 Dismantling the disc assembly

7.8.1 Metallic seal





Illustrations	Description	Aids / Tools
 <p data-bbox="188 846 368 875">Figure 7.8.1-1</p>	<p data-bbox="730 483 1139 546">Unscrew the retaining ring with the C-spanner.</p>	<p data-bbox="1193 483 1378 517">Hook spanner</p>
 <p data-bbox="188 1272 368 1301">Figure 7.8.1-2</p>	<p data-bbox="730 891 1098 954">Remove lifting aid from disc body</p>	

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7.8.2 O-ring seal

Illustrations	Description	Aids / Tools
 <p>Figure 7.8.2-1</p>	Loosen nut and screw it off.	Open-end spanner
 <p>Figure 7.8.2-2</p>	Disc with washer and O-ring	
 <p>Figure 7.8.2-3</p>	Remove retainer and O-ring	
 <p>Figure 7.8.2-4</p>	Individual parts of the disc assembly with O-ring	

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7.8.3 Disc disassembly with sealing plate




Illustrations	Description	Aids / Tools
 <p>Figure 7.8.3-1</p>	<p>Loosen nut and screw it off.</p>	<p>Open-end spanner</p>
 <p>Figure 7.8.3-2</p>	<p>Remove the retainer from the sealing plate.</p>	
 <p>Figure 7.8.3-3</p>	<p>Take the sealing plate out of the disc.</p>	
 <p>Figure 7.8.3-4</p>	<p>Individual parts of the disc assembly with sealing plate</p>	

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7.9 Unscrewing the locking screw and screw plug

Illustrations	Description	Aids / Tools
 <p>Figure 7.9-1</p>	Loosen and remove the screw plug from the side of the body.	Open-end spanner
 <p>Figure 7.9-2</p>	Loosen and remove the locking screw from the back part of the body.	Open-end spanner
 <p>Figure 7.9-3</p>	Remove the spacer from each of the two screws.	

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7.10 Removing the studs from the body




Illustrations	Description	Aids / Tools
 <p data-bbox="188 864 352 889">Figure 7.10-1</p>	<p data-bbox="772 432 1163 577">Remove studs with impact wrench. Tip: Place the guide washer on the opening of the body so that no studs can fall on the seat.</p>	<p data-bbox="1195 432 1390 456">Impact wrench</p>

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7.11 Dismantling the nozzle and blow down ring

Illustrations	Description	Aids / Tools
 <p>Figure 7.11-1</p>	<p>Completely unscrew the blow down ring from the nozzle.</p>	
 <p>Figure 7.11-2</p>	<p>Remove nozzle with C-spanner (put a small protective slab between the nozzle and C-spanner).</p>	<p>Hook spanner</p>
 <p>Figure 7.11-3</p>	<p>Unscrew nozzle from the body.</p>	

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