

HAZET-WERK

HIGHEST TECHNOLOGY IN TOOL MANUFACTURE SINCE 1868



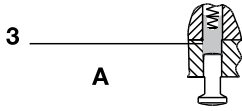
4900-2 A



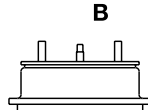
Safety Spring Vice



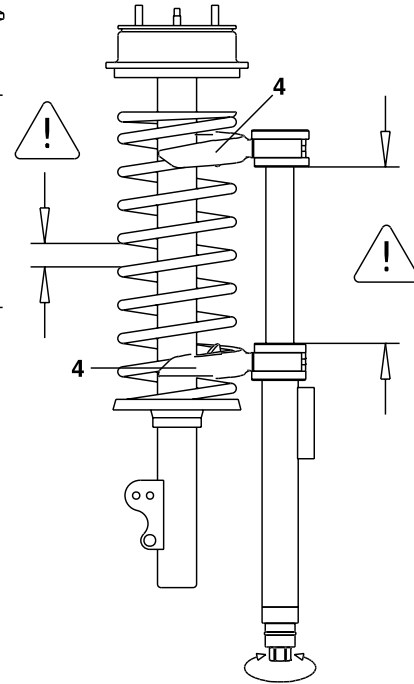
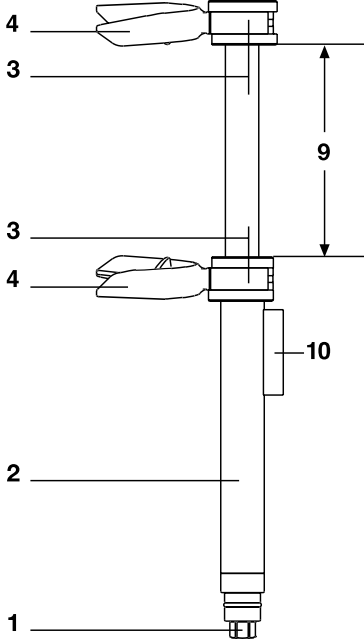
Operating Instructions
+  Safety Certificate



A

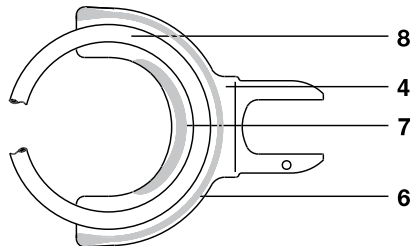
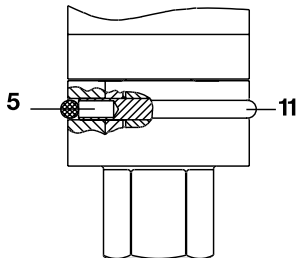


B



C

D



		HAZET No.			HAZET No.		
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ALFA ROMEO

Alfa 147	2003	4900-11 (2x)			4900-11 (2x)		
Alfa 156	1998–2003	4900-10 (2x)		*	*		*
Mito	2009	4900-11 (2x)			4900-11 (2x)		

AUDI

A2	2000	4900-11 (2x)		*	*		*
A3	2000–	4900-11 (2x)		*	4900-10 (2x)		*
A4	1996	4900-11 (2x)		*	*		*
A5	2007–	4900-12 (2x)		*	*		*
A6	1996	4900-11 (2x)		*	*		*
A8	1996	4900-11 (2x)		*	*		*

BMW






1 (E87) **: 116i / 118i / 120i / 118d / 120d	2004–	4900-11 (2x)		4900-110 (2x)	4902/6		-
3 (E46) **	1998–	4900-22 24		4900-220 240	*		-
3 (E90) **: 320i / 325i / 330i / 320d Limousine	2004–	4900-22 24		4900-243	4902/6		-
3 (E91) **: 320 / 325 / 330 / Touring	2005–	4900-22 24		4900-243	4902/6		-
3 (E92): 320 / 323 / 325 / 328 / 330 / 335	2005–	4900-22 24		4900-243			
3 (E93): 320 / 325 / 328 / 330 / 335	2006–	4900-22 24		4900-243			
5 (E39) **: 528i	1995–2000	4900-12 (2x)		4900-120 (2x)	*		*
5 (E60) **	2004–	4900-22 24		4900-220	*		*
7 (E38) **	1993–2000	4900-23 (2x)		4900-230 (2x)	*		*
7 (E65) **: 735i / 745i / 730d / 740d	2001–	4900-23 (2x)		4900-231 (2x)	4900-19 (2x)		4900-190 (2x)
7 (E66) **: 735Li / 745Li	2001–	4900-23 (2x)		4900-231 (2x)	4900-19 (2x)		4900-190 (2x)
E46, 318ti Compact	2001–	4900-12 (2x)					
Mini	2001	4900-11 (2x)			4900-10 11		
X3 (E83)	2006–	4900-31 33					

BMW




X5 (E70)	2006	4900-10 11		4900-100 110			
Z3 **	1996–	4900-12 (2x)		4900-120 (2x)	*		*

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CHRYSLER

300M (LH)	1998-2001	4900-12 (2x)		*	4900-11 (2x)		*
Jeep Wrangler (TJ)	1997-2006	4900-11 (2x)		*	*		*
Stratus (JA/JX)	1996-2001	4900-16 (2x)		*	*		*
Voyager (GS)	1996-2000	4900-13 (2x)		*	*		*












CITROEN

Jumper	1997-2002	4900-13 (2x)		*	*		*
Nemo	2008	4900-11 (2x)			4900-11 (2x)		










DACIA

Logan 1,6i	2005-	4900-11 (2x)		*	*		*
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FIAT

500	2007-	4900-12 (2x)					
Doblo	2010	4900-11 (2x)			4900-11 (2x)		
Ducato	1995-2002	4900-13 (2x)		*	4900-13 (2x)		*
Ducato	2006	4900-13 (2x)					
Grande Punto	2005-	4900-11 (2x)		*	4900-11 (2x)		*
Qubo	2009	4900-12 (2x)			4900-12 (2x)		
Stilo	2002	4900-11 (2x)		*	*		*

FORD

C-Max	2006	4900-12 (2x)					
Fiesta	2002-2005	4900-11 (2x)					
Fiesta	2005-2008	4900-11 (2x)					
Fiesta	2009-	4900-12 (2x)					
Focus	1998-2004	4900-11 (2x)		*	*		*
Focus	2004-2010	4900-12 (2x)			4900-10 (2x)		
Focus	2010-	4900-11 (2x)			4900-10 (2x)		

FORD

Fusion	2005	4900-11 (2x)					
Ka	1996-2008	4900-11 (2x)			4900-10 (2x)		
Mondeo	1996-2000	4900-12 (2x)		*	4900-11 12		*
Mondeo	2000-2007	4900-12 (2x)			4900-11 (2x)		
Mondeo	2008	4900-12 (2x)					

		HAZET No.			HAZET No.		
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S-Max	2006	4900-11 (2x)					
MERCEDES-BENZ							
A-Klasse Typ 168	1997-2004	4900-15 A (2x)		*	4900-14 A (2x)		*
A-Klasse Typ 169	2004-	4900-17 (2x)		*	4900-35 (2x)		*
Actros (MP-1) Nfz	1996-	Spezial-Anwendung: Füherhaus 4900-25 26 55					
Atego Nfz	1998-	Spezial-Anwendung: Füherhaus 4900-25 26 55					
B-Klasse Typ 245	2005	4900-17 (2x)			4900-35 (2x)		
C-Klasse / Typ 203	2000-	4900-17 18		4900-180	*		*
C-Klasse / Typ 204	2007-	4900-39/11 17		4900-393			
E-Klasse Typ 211 / Typ 219	2003-	4900-19 30		*	*		*
E-Klasse / Typ 212	2009-	4900-39/11 31		4900-395 310			
E-Klasse 4MATIC / Typ 210	1997-2002	4900-14 A (2x)		*	*		*
E-Klasse/Typ 212 Sportfahrwerk	2009-	4900-39/11 17		4900-396			
GLK-Klasse/Typ X204	2008-	4900-39/11 17		4900-394 120			
ML-Klasse Typ 164	2005-	4900-35 (2x)		*	*		*
ML-Klasse / Typ 163	1997-2005	*		*	4900-16 (2x)		*
SLK / Typ 171	2004-	4900-18 34		4900-180	*		*
Vito, V-Klasse / Typ 638	1996-2002	4900-17 (2x)		*	*		*
Vito/Viano Typ 639	2003-	4900-23 (2x)		4900-230 (2x)	*		*
NISSAN							
Primera (P11)	1996-2002	4900-10 11		*	4900-10 (2x)		*
OPEL							
Astra F	1991-2000	4900-11 (2x)		*	*		*
Astra G	1998-2004	4900-11 (2x)		*	4900-11 (2x)		*
Astra H	2004-2010	4900-12 (2x)		*	*		*
Corsa B	1993-2000	4900-11 (2x)		*	*		*
Corsa D	2006	4900-11 (2x)			4900-10		

		HAZET No.			HAZET No.		
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Meriva	2010-	4900-11 (2x)					
Omega B	1997- 2003	4900-12 (2x)		*	*		*
Tigra	1994- 2001	4900-11 (2x)		*	4900-11 (2x)		*
Vectra B	1995- 2002	4900-12 (2x)		*	*		*
Vectra C	2002- 2008	4900-12 (2x)		*	*		*
Zafira	1999- 2003	4900-12 (2x)		*	*		*
Corsa C	2000- 2006	4900-11 (2x)					

PEUGEOT

106	1997- 2003	4900-12 (2x)		*	*		*
307 SW	2002- 2008	4900-11 (2x)			4900-12 (2x)		
406	1997- 2004	4900-12 (2x)		*	*		*
806	1999- 2002	4900-13 (2x)		*	4900-11 (2x)		*
Boxer	*	4900-13 (2x)		*	*		*
Partner	1996- 2003	4900-12 (2x)			4900-12 (2x)		
Partner	2006-	4900-12 (2x)					

PORSCHE

911 Carrera RS (Typ 993)	1995-	4900-16 (2x)		*	4900-14 A (2x)		*
Boxster/Boxster S (Typ 986)	1996- 2004	4900-15 A 22		*	4900-11 (2x)		*
Boxster/Boxster S (Typ 987)	2004	4900-15 A 22		*	4900-22 (2x)		*
Carrera 2 / 4 (Typ 997)	2004	4900-15 A 22		*	4900-22 (2x)		*

PORSCHE

Carrera 2 / 4 / Turbo (Typ 996)	1998- 2004	4900-15 A 22		*	4900-16 (2x)		*
Cayenne	2004-	4900-16 (2x)		*	4900-16 (2x)		*
Cayman	2006-	4900-15 A 22		*	4900-22 (2x)		*

RENAULT

Clio 2	2001	4900-11 (2x)					
Clio 3 1,5 dci	2005	4900-12 (2x)		4900-120 (2x)	*		*
Espace 2	2004	4900-13 (2x)			4900-13 (2x)		
Espace 2,0 turbo	2003	4900-17 (2x)		*	*		*
Kangoo 1,5	2004	4900-15 A (2x)		*	*		*
Laguna 2,0 dci	2005-	4900-12 (2x)		*	4900-11 (2x)		*



		HAZET No.			HAZET No.		
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Megane	1996–2002	4900-12 (2x)		*	*		*
Megane	2008–	4900-12 (2x)					
Megane 2 1,9dci	2003–2008	4900-12 (2x)		4900-120 (2x)	*		*
Modus 1,5dci	2005–	4900-12 (2x)		*	*		*
Safrane B544	1996–2000	4900-11 12					
Scenic 1,5dci	2005–	4900-12 (2x)		4900-120 (2x)	*		*
Traffic	2005	4900-11 (2x)			4900-11 (2x)		
Twingo	2007–	4900-11 (2x)		*	*		*
Twingo 1,2	1998–2007	4900-11 (2x)		*	*		*

SAAB

93	2002	4900-12 (2x)			4900-12 (2x)		
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SEAT

Altea	2006	4900-11 (2x)					
Ibiza	2002	4900-11 (2x)		*	4900-10 (2x)		*
Ibiza	2006	4900-11 (2x)					
Leon	2002	4900-11 (2x)		*	4900-10 (2x)		*

ŠKODA

Fabia	2001	4900-11 (2x)		*	*		*
Oktavia	1996–2000	4900-11 (2x)		*	*		*
Roomster	2007	4900-11 (2x)			4900-11 (2x)		
Superb	2002	4900-11 (2x)		*	*		*

SMART

fortwo	2009	4900-10 (2x)					
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SUZUKI

Ignis	2000–2003	4900-10 (2x)		*	*		*
Wagon R+	2000–2006	4900-10 (2x)		*	*		*

TOYOTA

Corolla	1997–2002	*			4900-11 12		
Picnic	1996–2001	4900-11 (2x)			*		

VOLKSWAGEN

Amarok	2010	4900-11 (2x)					
Caddy	2006	4900-11 (2x)					

		HAZET No.			HAZET No.		
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Golf 4	1997-2003	4900-11 (2x)			4900-10 (2x)		
Golf 5	2003-2008	4900-11 (2x)					
Golf 6	2008-2012	4900-11 (2x)					
Lupo	1998-2005	4900-11 (2x)			4900-10 (2x)		
Passat 3C	2010-	4900-11 (2x)			4900-10 (2x)		
Passat B4	1993-1997	4900-11 (2x)			4900-10 (2x)		
Passat B5	1996-2005	4900-11 (2x)					
Passat B6	2005-	4900-11 (2x)					
Polo	2001-2009	4900-11 (2x)			4900-11 (2x)		
Polo 9N	2006	4900-11 (2x)					
Sharan	1995-2010	*			4900-12 (2x)		
Sharan	2010-				4900-10 (2x)		

VOLKSWAGEN

T5 (Transporter)	2003-	4900-13 (2x)					
Tiguan	2008	4900-11 (2x)					
Touran	2003-	4900-11 (2x)			4900-10 (2x)		
Touran	2010-	4900-11 (2x)					

Volvo

S 80	1998-2003	4900-12 (2x)			4900-12 (2x)		
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		<i>HAZET</i> No. _____			<i>HAZET</i> No. _____		
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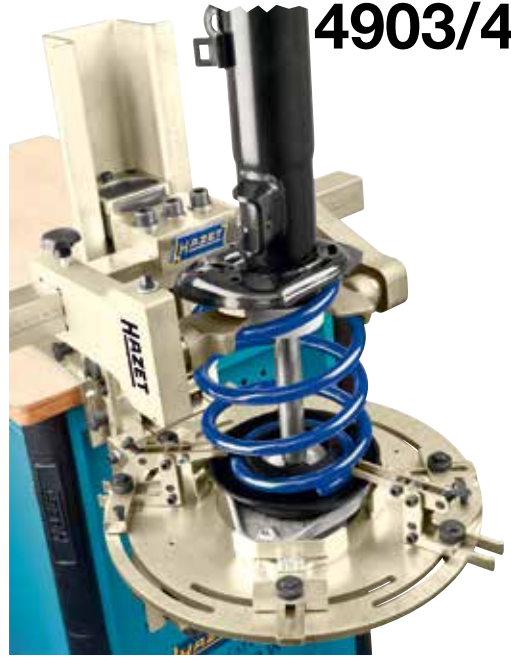
- = no Spring Vice necessary.
- * = no information available at the moment.
- ** = Only use BMW coil springs in combination with the corresponding plastic spring protection inserts.
BMW-regulations: Use Spring Vice with manual tools only!



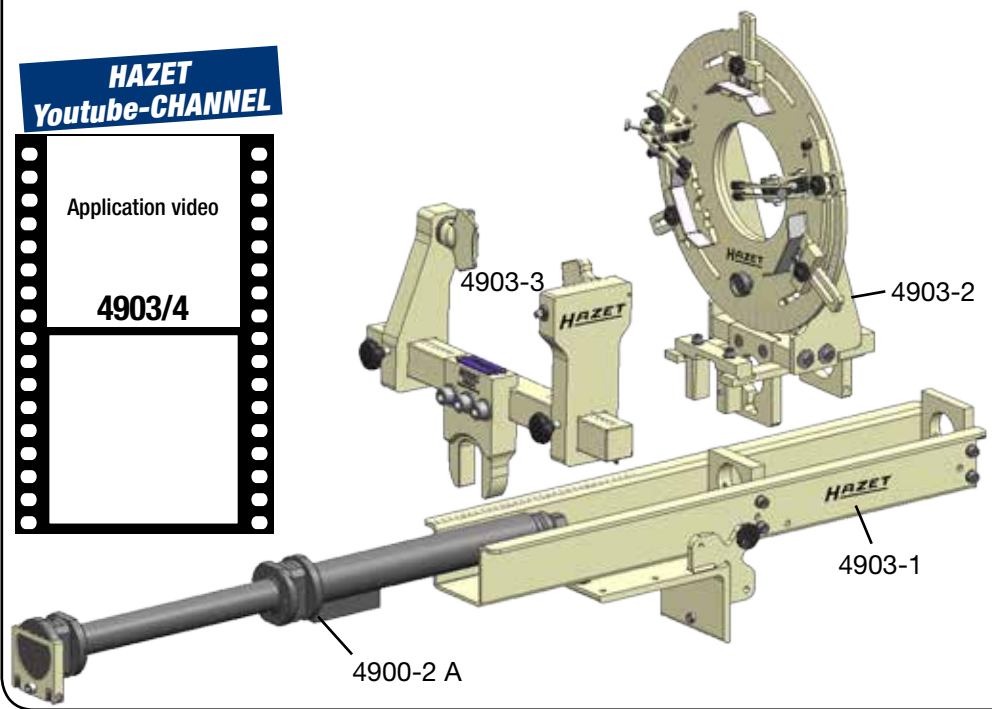
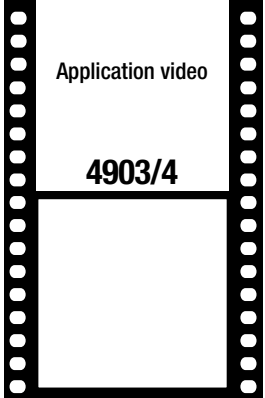
4903/4

Expansion to stationary universal spring vice.

With the components of the modular system the spring vice basic unit 4900-2 A may be expanded to stationary universal spring vice 4903/4



HAZET
Youtube-CHANNEL





For Your Safety



WARNING: Each plastic sheet of the enclosed laminated Safety Instructions affixed to the Spring Vice, must be separated from the Spring Vice and be displayed

conspicuously in every work-place where the Spring Vice will be used. The Spring Vice is exclusively constructed for the tensioning and expanding of cylindrical and conical coil springs. Working safely with this appliance is only possible if the operating instructions and safety information are read completely and the instructions contained therein are strictly followed. We are not liable for any damages to property and injuries to persons that are due to disregard of the operating instructions and safety informations.

1. Before each use check the Spring Vice for full operatability. Do not use the Spring Vice if the operatability cannot be ensured or if damage is detected. If the Spring Vice is used although the operatability cannot be ensured, you risk severe damages to property and injuries to persons.

Full operatability is given when:

- the O-ring **11** (C) is evenly fitted into the groove (if the O-ring is missing, the shearing pin may get lost);
- the location bar **10** (A) is tightly applied to the tube;
- the location bar is arrested;
- the appliance is easy-running.

2. When tensioning the spring, please make sure that neither the spring windings nor the tensioning jaws **4** (B) come into contact with each other, otherwise the appliance will get overloaded and the shearing pin will break.
3. The center line of the spring must always be parallel to the compressing device **2** (A), especially for conical springs. Otherwise the correct fit of the spring in the spring holders cannot be guaranteed.
4. Only use suitable tensioning jaws and plastic spring protection inserts **4** (B) (see also page 13). The spring **8** (D) must be installed securely between the outer rib **6** and the safety ridges **7** (D). Please make sure that the spring **8** (D) cannot slide out of the tensioning jaws **4** (A).
5. The tensioning jaws have to be used or replaced in pairs only. Before starting the spring tensioning the tensioning jaws **4** (A) have to be pinned and latched. Make sure that the locking pins **3** (A) are located properly. Otherwise there is a risk of the spring or the tensioning jaws sliding out of their location and causing serious injury.
6. For safety reasons it is not allowed to make any construction changes to the Spring Vice. Do not replace the shearing pin **5** (C) with a stronger one, since the overload protection can no longer be guaranteed and you risk an overcharge of the appliance.

Tool Specifications

MacPherson Spring Vice

Basic appliance:	4900-2 A
Max. force of pressure:	26 KN
Max. driving torque:	250 Nm
Max. length:	695 mm
Span:	309 mm
Weight w/o tensioning jaws:	8.4 kg
Replacement set:	4900-02 A/3
Drive DIN 475 –	mm: s 27
	mm/rotation 3

Test temperature /
Operational range
room temperature

-20° up to +40° C

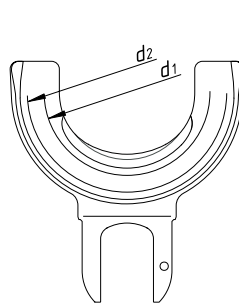
Operating Controls

- 1 Drive nut
- 2 Compressing device
- 3 Locking pins
- 4 Tensioning jaws
- 5 Safety shearing pin
- 6 Outer rib
- 7 Safety ridge
- 8 Spring
- 9 Span
- 10 Location bar
- 11 O-Ring

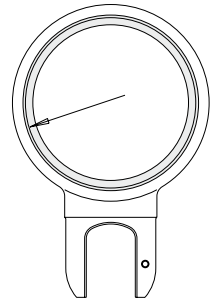
Basic Models and Accessories

Tensioning jaws

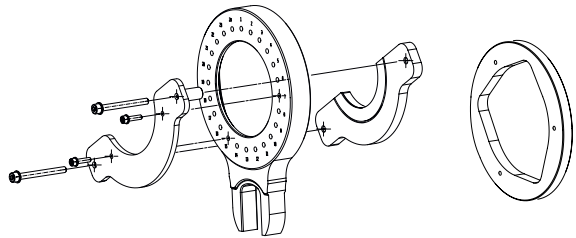
Article No	d ₁	d ₂
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4900-11	107.0	151.0
4900-12	121.0	173.0
4900-13	146.0	207.5
4900-14 A	81.0	114.0
4900-15 A	111.5	152.5
4900-16	80.5	119.5
4900-17	124.0	175.0
4900-18	145.0	186.0
4900-19	80.5	119.5
4900-22	126.0	173.0
4900-23	152.0	207.5
4900-24	140.0	154.0
4900-25	47.0	77.0
4900-26	47.0	77.0
4900-30	80.0	146.0
4900-31	136.0	189.5
4900-33	136.0	189.5
4900-34	121.0	173.0
4900-35	95.0	130.0



4900-10 up to 4900-23



4900-24



4900-39/11

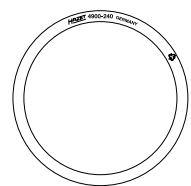
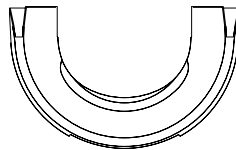
4900-393 up to 4900-396

Tensioning jaw with brake for MERCEDES-BENZ

4900-39/11

Centring insert for MERCEDES-BENZ

4900-393	95.0	130.0
4900-394	95.0	130.0
4900-395	95.0	130.0
4900-396	95.0	130.0



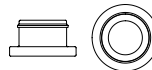
Plastic inserts

4900-100
4900-110
4900-120
4900-130
4900-180
4900-190
4900-220
4900-230
4900-231
4900-243
4900-310

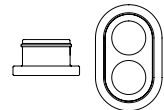
4900-100 up to 4900-231

4900-240

Sets of plastic plugs for the codification of the tensioning jaws as well as for the prevention of damage at the threads of the strut mounting.



4900-28/06
4900-30/03



4900-29/02

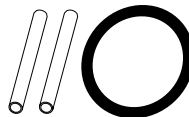
Plastic plugs

4900-28/06
4900-29/02
4900-30/03

Safety shearing pin

Set of spare parts

4900-02 A/3

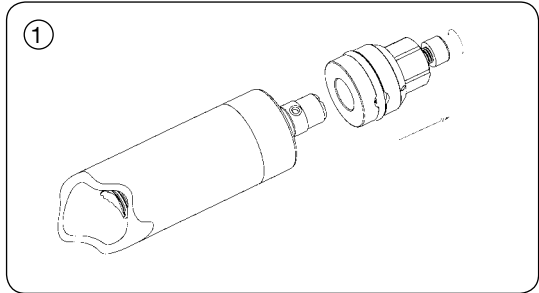


4900-02 A/3

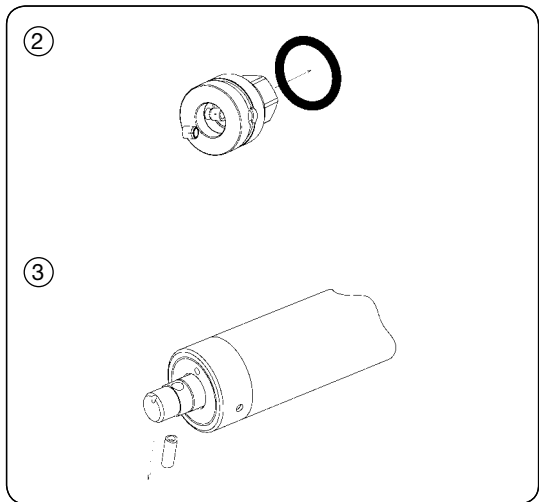
Safety Shearing Pin

The Safety Spring Vice is equipped with a safety shearing pin to protect the appliance against overcharge. An overcharge of the spindle can therefore be avoided.

1. Remove the drive from the spindle nut (with the aid of a screw M 10 x 30). Debur the shearing area if necessary.

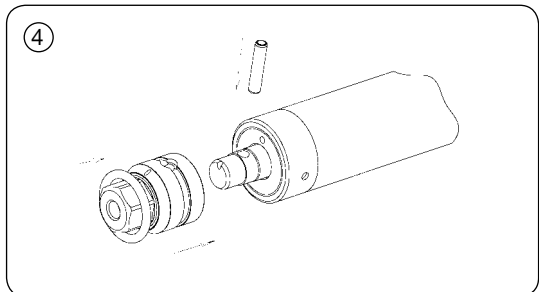


2. and 3. Remove the O-ring and the fragments of the shearing pin.




4. Replace the drive as shown in the illustration, insert a new safety shearing pin and put on the O-ring.

Note: Safe functioning can only be assured upon usage of the original HAZET replacement set 4900-02 A/3!



Operating Instructions

- Remove the MacPherson strut unit.
- Select a pair of tensioning jaws and plastic spring protection inserts **4** (see table page 19) to fit the spring (see table page 4 – 12), pin and latch.
Note: Please make certain the locking pins **3** are securely fastened. Drive the tensioning jaws **4** apart to match the length of the spring and to tension as many windings as possible.
- Fasten the location bar **10** of the HAZET Spring Vice into a suitable clamping device.
- Place the strut unit between the tensioning jaws and start tensioning.
Note: For safety reasons assure the precise position of the spring windings in the tensioning jaws. Otherwise you risk a sliding out of the spring which cause severe damages to property and injuries to persons.
- Actuate the drive using an impact screwdriver or another suitable hand tool. Stop tensioning process when the upper strut bearing is released.
 Further tensioning is not permitted when the spring windings are in contact with each other. Do not continue tensioning when the upper or lower stroke end of the piston is reached.
- Releasing the old spring or replacing with a new spring:
 - Release the old spring by turning the drive to the left.
 - Insert the new spring into the Spring Vice and start tensioning.
Note: For safety reasons assure the precise position of the spring windings in the tensioning jaws.
 - Place the Spring Vice with the spring inserted onto the strut unit. Take care that the position of the spring is correct. Mount the strut bearing.
 - Extend the Spring Vice until it can be taken off the spring.
- The strut unit can be remounted.

Conical Spring

The use of the Spring Vice on conical springs is permitted only when the spring center axle and the compressing device **2** are parallel. For this purpose, use the tensioning jaws that are suitable for conical springs.

Maintenance and Cleaning

- Always keep the Spring Vice clean. Do not use fat-free agents or water, the use of which could result in loss of self-lubrication of device and corrosion could set in.
- For questions and spare part orders please include the article number of the Spring Vice.
- The HAZET Spring Vice 4900-2 A is maintenance-free due to its closed system.
- Examination and repair can only be carried out by the manufacturer.

HAZET[®]



Safety Instructions Spring Vice 4900-2 A



WARNING: These Safety Instructions must be displayed conspicuously in every workplace where the Spring Vice will be used. It has to be stored in a place where it is visible to everybody! The Spring Vice is a tool designed exclusively for the tensioning and expanding of cylindrical and conical strut units.

Working safely with this appliance is possible only if the safety and operating instructions are read **in full** and are complied with **exactly**. The Spring Vice may be used only on automobiles specified in the list of authorized automobile makes and models that constitutes a part of the instructions. The Spring Vice may not be used on strut units that have been damaged or worn. The spring when compressed by the Spring Vice is under enormous pressure. Consequently, incorrect use may result in the compressed spring being ejected so explosively as to cause substantial damage to property, severe bodily injury or death.