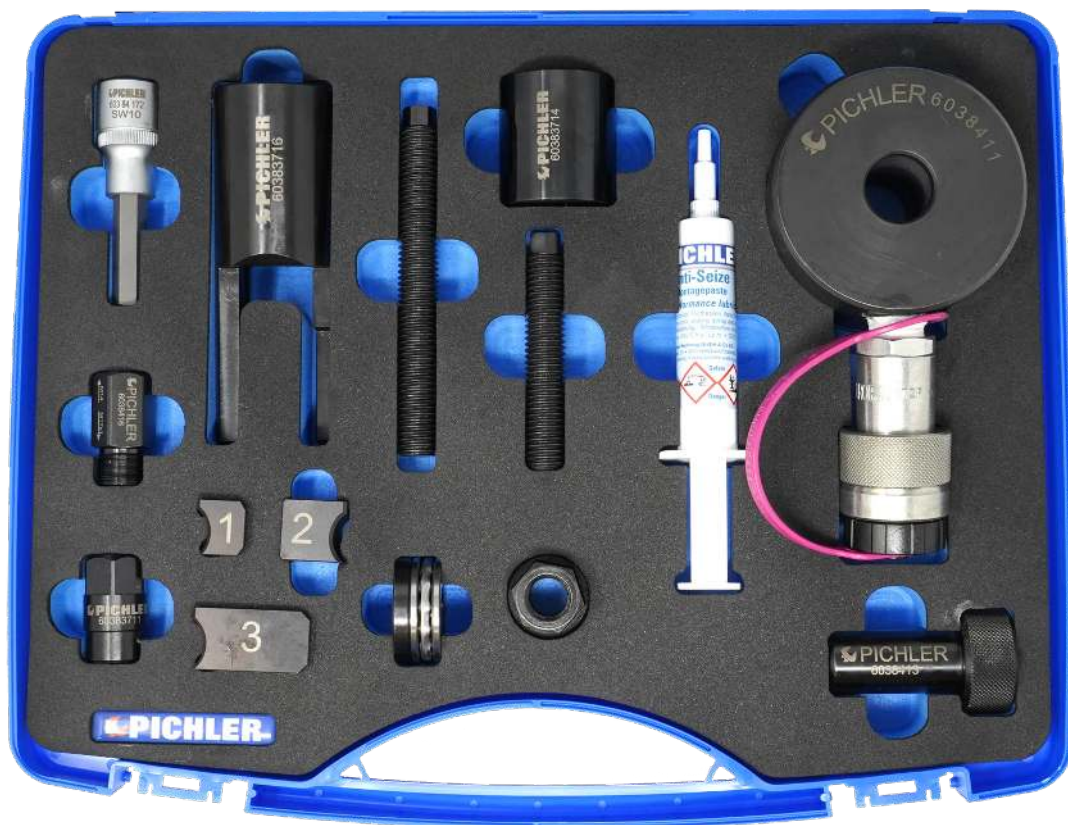




INJECTOR REMOVAL KIT MOD. MB

Manual

60383695



SAFETY NOTICE

To understand the functioning of the tools, it is necessary to read the manual first!

- > Read these instructions before assembling, during installation and throughout use and in the proper sequence
- > Always refer to the OEM manufacturer's instructions and service manuals for the latest data and to maintain the correct sequence
- > These work instructions and the recommended tools are meant to serve as aides only and are by no means a guarantee for certain results.
- > This tool kit is a special collection and it has been tested and used successfully on several occasions. It is of the utmost importance to maintain the correct procedure as per the instructions
- > The use of the tools should only be carried out by qualified personnel!



ATTENTION

Special caution



CORRECT



LIGHT BULB

Hint or recommendation



WRONG



SAFETY GOGGLES

Wearing safety goggles
necessary

CONTENT



PROBLEM: The injector can not be removed by hand.

A

**HYDRAULIC
REMOVAL WITH HOLLOW PLUNGER CYLINDER**

5



B

**MECHANICAL
REMOVAL WITH PULLING SPINDLE AND BALL BEARING**

9



RECOMMENDED ACCESSORIES

SEE REVERSE SIDE

INJECTOR REMOVAL KIT OM642

60383710 | 60383715



No.	Part. No.	Description	60383710	60383715
1	60383711	Adapter internal thread M14 x1.5 / internal thread M14	1	1
2	60383712	Support Sleeve	1	1
3	60383713	Pulling Spindle M14 x 78 mm	1	1
4	6038414	Pulling Spindle M14 x 107 mm	1	1
5	81601000	Anti-Seize Paste 10 g	1	1
6	6038419	Bearing Adapter	1	1
7	6176478	Bearing	1	1
8	60385033	Hex-nut M14	1	1
9	60383714	Distance sleeve	1	1
10	6038413	Pull Adapter with Internal Thread M14	1	1
11	6038411	Hollow Plunger Cylinder	1	–

A

HYDRAULIC REMOVAL WITH HOLLOW PLUNGER CYLINDER

A.1 Use a chisel or slotted screwdriver to remove the plastic electrical connection from the injector.



A.2 Screw the Adapter **60383711** on the diesel connection thread of the injector (19).



A.3 Screw the Pulling Spindle M14x78 mm **60383713** in the Adapter **60383711** and tighten it (10).



A.4 Place the Support Sleeve **60383712** over the injector on the cylinder head (see fig. 8).



Pay attention to the position: The long milling of the Sleeve must point towards the opposite cylinder bank!



A.5 Connect the Hollow Plunger Cylinder 12t **6038411** to a suitable hydraulic pump (700 bar) and bleed the system.

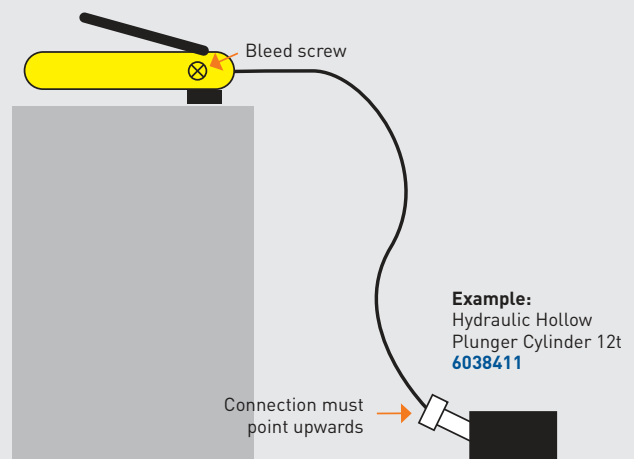
Bleeding the hydraulic system

Connected hydraulic Hollow Plunger Cylinder 12t **6038411** to the hydraulic pump.

Place the Hollow Plunger Cylinder lower than the hydraulic pump so that the air can rise through the hose to the hydraulic pump. Build up pressure till the max. stroke of Hollow Plunger Cylinder is reached.

Relieve the pressure by opening the relief valve. Repeat his procedure 4 to 5 times.

Top up the oil if necessary.



Example: hydraulic pump with hose **80255500**

A.6 Place the Hollow Plunger Cylinder 12t **6038411** on the Support Sleeve **60383712** and screw the Pull Adapter **6038413** onto the Pulling Spindle M14x78 mm and tighten it.



A.7 Pulling procedure of the injector:



At the start of the pulling procedure of the injector build up only slight pressure for 2 to 3 times. Release the pressure and tighten Pull Adapter **6038413**. This way the pulling unit get the various elements aligned and thereby slightly position itself.



Build-up the pressure, after approx. 8 mm the max. stroke of the Hydraulic Cylinder is reached. Then release the pressure, tighten the Pull Adapter and again build-up the pressure.



Attention: Do not continue pumping when the 8mm stroke is reached. But release the pressure, tighten the Pull Adapter and rebuild-up the pressure

A.8 Result of the pulling:

a The injector can be removed by hand.



b The Pull Adapter **6038413** is touching the Adapter **60383711** and yet the injector cannot be removed by hand.



The hydraulic cylinder is removed for a better view.

→ Continue with step A.9 on page 8

A.7 Pulling procedure of the injector:



At the start of the pulling procedure of the injector build up only slight pressure for 2 to 3 times. Release the pressure and tighten Pull Adapter **6038413**. This way the pulling unit get the various elements aligned and thereby slightly position itself.



Build-up the pressure, after approx. 8 mm the max. stroke of the Hydraulic Cylinder is reached. Then release the pressure, tighten the Pull Adapter and again build-up the pressure.



Attention: Do not continue pumping when the 8mm stroke is reached. But release the pressure, tighten the Pull Adapter and rebuild-up the pressure

A.8 Result of the pulling:

a The injector can be removed by hand.



b The Pull Adapter **6038413** is touching the Adapter **60383711** and yet the injector cannot be removed by hand.



The hydraulic cylinder is removed for a better view.

→ Continue with step A.9 on page 8

A.9 Remove the Pull Adapter **6038413** and the Hollow Plunger Cylinder **6038411** and place the Distance Sleeve **60383714** onto the Support Sleeve **60383712**.



A.10 Place the Hollow Plunger Cylinder 12t **6038411** on the Distance Sleeve **60383714**, screw the Adapter **6038413** tight on the Pulling Spindle M14x78mm **60383713**.



A.11 Repeat the pulling as described on **page 7, step A.7** and remove the injector.



B

MECHANICAL REMOVAL WITH PULLING SPINDLE AND BALL BEARING

B.1 Use a chisel or slotted screwdriver to remove the plastic electrical connection from the injector.



B.2 Screw Adapter **60383711** onto the diesel connection thread of the injector (19)



B.3 Screw the Pulling Spindle **6038414** tight in the Adapter **60383711** (10).



B.4 Position the Support Sleeve **60383712** over the injector on the cylinder head (see fig. 29).



Pay attention to the position: The long milling of the Sleeve must point towards the opposite cylinder bank!



B.5 Place the Bearing Adapter **6038419** with the Ball Bearing **6176478** on the Support Sleeve **60383712**, moisten the Pulling Spindle with Anti-Seize Paste **81601000** and screw the Hexagon Nut M14 **60385033** on the Pulling Spindle.



B.6 Pulling procedure of the injector:



ATTENTION: Pull out the fixed injector by turning the hexagon nut (22) and simultaneously holding the Pulling Spindle at the hexagon (10).



B.7 Result of the pulling:

a. The injector can be removed by hand.



b. The Pull Adapter is touching the Bearing Adapter and yet the injector cannot be removed.



The Bearing is removed for a better view.

→ Continue with step B.8

B.8 Remove the Hexagon Nut M14, place the Ball Bearing with Bearing Adapter in the Distance Sleeve **60383714** and place the unit on the Support Sleeve. Screw on the Hexagon Nut M14.



B.9 Pulling procedure of the injector:



ATTENTION: Pull the frozen injector out by turning the Hexagon Nut (22) and simultaneously holding the Pulling Spindle in place on the hexagon (10).



RECOMMENDED ACCESSORIES

INJECTOR REMOVAL SET CDI

6038375



UNIVERSAL REMOVAL KIT FOR BROKEN OFF INJECTORS

60382400



INJECTOR SHAFT CLEANING SET

9038100



HYDRAULIC HAND PUMP SET 700 BAR

80255500



AIR HYDRAULIC PUMP 700 BAR

80255585



PNEUMATIC HAMMER SET VIBRO-IMPACT

80257000



SEALING RING

60390510 1,56 mm

60390520 1,76 mm

60390530 1,96 mm



NOTES

NOTES



pichler.tools



/pichlerwerkzeug



/pichlerwerkzeug



/pichlerwerkzeug

AUSTRIA

✉ at@pichler.tools
☎ +43 512 344 552

GERMANY

✉ de@pichler.tools
☎ +49 8821 686 9780

SWITZERLAND

✉ ch@pichler.tools
☎ +41 61 981 33 55

FRANCE

✉ fr@pichler.tools
☎ +33 3 89 551 596

UK & IRELAND

✉ uk@pichler.tools
☎ +44 1335 360 759

BELGIUM

✉ be@pichler.tools
☎ +32 495 400 810

ITALY

✉ it@pichler.tools
☎ +39 0472 970 042

