



Think Big, We Do.

USER GUIDES

APHS MAINTENANCE INSTRUCTIONS

6.6 Maintenance & Inspection



! Maintaining and cleaning of the press brake requires greatest care. Before starting any maintenance work, the machine must always be switched off.

6.6.1 Inspection & maintenance and intervals

Inspection & Maintenance	Interval	Responsibility
Lubrication	See: Lubrication Diagram	Operator
Oil leaking from cylinders	Daily	Operator
Tool lubrication	Daily	Operator
Safety guards against any physical damage	Daily	Operator
Oil leakage from pipes, hoses and hydraulic components	Weekly	Operator
Hydraulic fluid level	Weekly	Operator
Cylinder mounting screws for looseness	Weekly	Operator
Safety and limit switches for loosening and damage	Weekly	Operator
Guide adjustment screws	Weekly	Operator
Overrun - time	Every 6 months	Approval Authority
Terminal connections of the electrical installation	Annually	Electrician
Function of the protective grid switches and emergency stop devices	Weekly	Electrician

6.6.2 Hydraulic System

The hydraulic system of the machines is flushed and filtered at the factory during commissioning. When the machine is delivered, the oil has **ISO quality class 14/11** (according to **ISO 4406**).

Be sure to protect the hydraulic system from contamination. The hydraulic oil is continuously filtered through the built-in micro filter.

6.6.3 Changing Oil

The oil must be changed for the first time after 2000 operating hours and then every 4000-6000 hours. (See **LUBRICATION INSTRUCTIONS** and **Figure 6.6.3.1**)

If unusual discoloration occurs (e.g. milky or flaky oil), the oil must be replaced or a sample must be taken and the chemical composition of the oil must be examined.

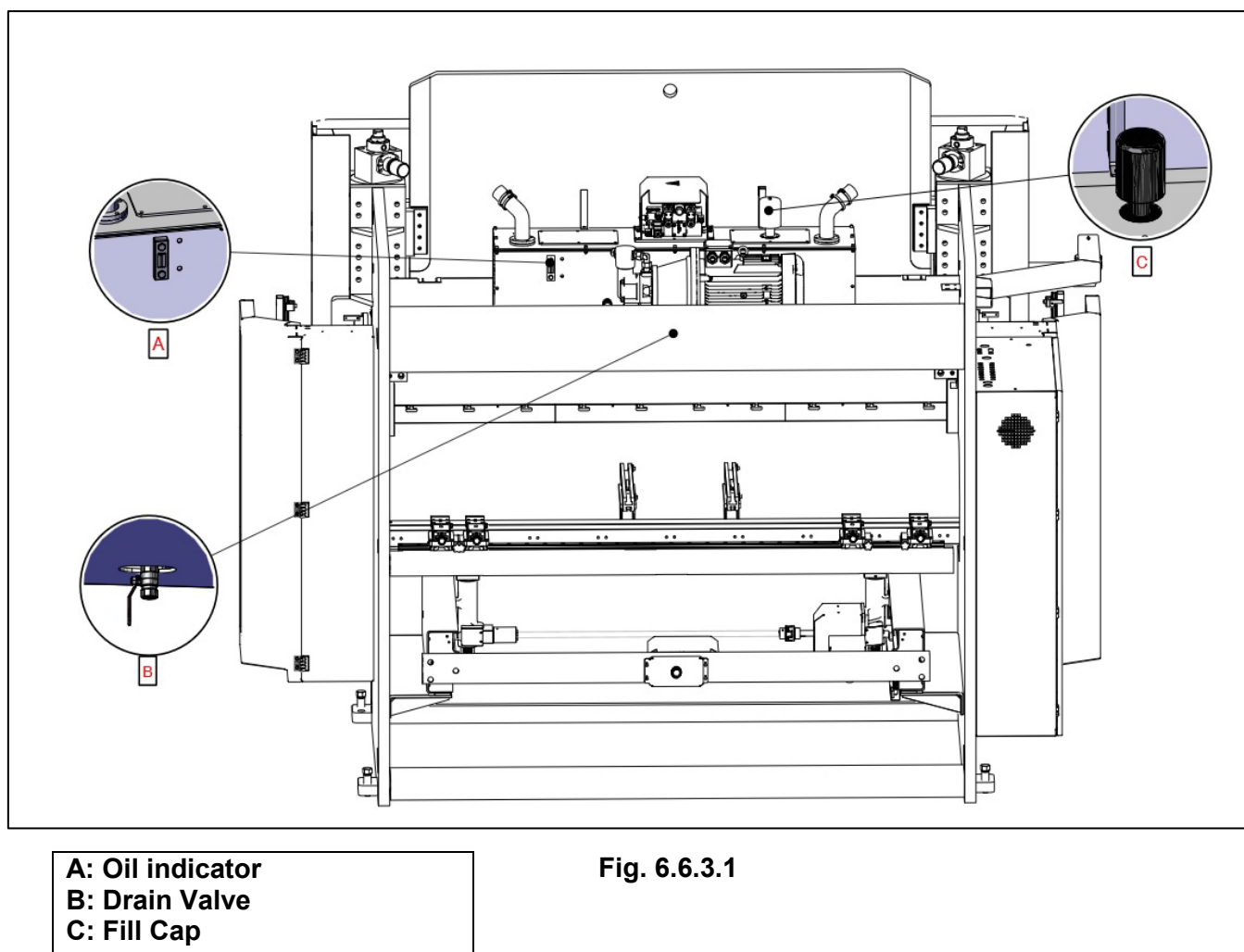


Fig. 6.6.3.1



- Before refilling with fresh oil, both piston rods must be retracted (=press bar at the top).
- The pressure filter cartridge must be replaced and the suction filter cleaned every time the oil is changed!

- Open the tank cap on the oil tank. (**Abb.6.6.3.1 -C-**)
- Connect a discharge hose to the drain valve and drain the old oil into a suitable oil barrel. (**Abb.6.6.3.1 -B-**)
- Clean the oil tank.
- Use an oil pump to fill the oil tank up to the middle of the upper oil indicator. (**Abb.6.6.3.1 -A-**)
- For the approved types of oil, see the lubrication instructions in **Chapter 6.6.6** of these user manual.

6.6.4 Changing Oil filter

- If the message “Oil filter dirty” appears on the oil filter indicator light for a long time, the oil filter cartridge must be replaced.

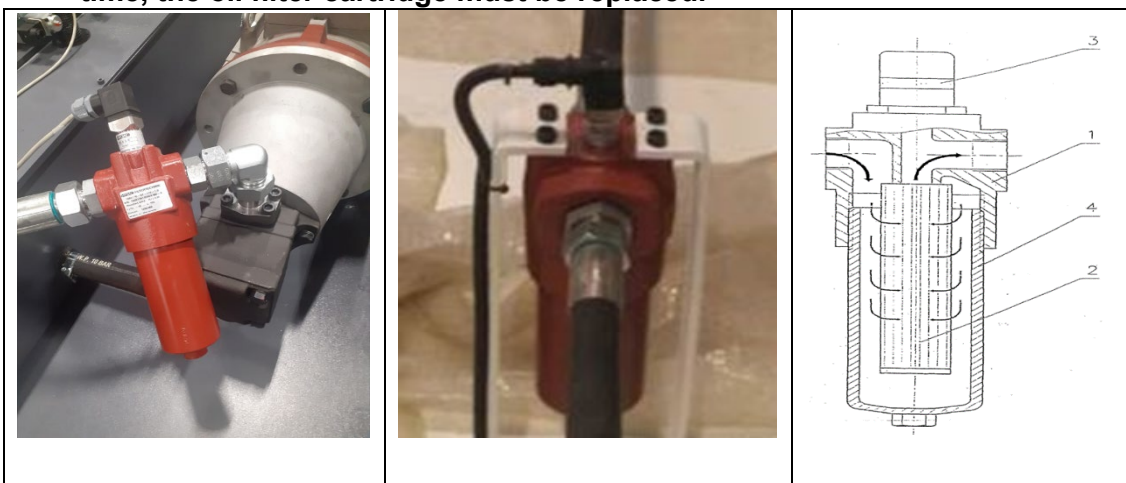


Fig. 6.6.4.1

- Remove the filter cap by turning the hexagon on the bottom with a suitable tool. The hexagon and the cap rotate together because it is part of the cap.
- Pull out the old filter element.
- Insert the new filter element.
- Put the cap on and tighten it.

Note: Recommended filter types and manufacturers are listed below.

MPFILT- APHS FİLTER			
APHS 40-120 TON	FMM0503FADA10NP01	APHS 160-1000 TON	FMP1352FAG2A10NP04
HYDAC - APHS FİLTER			
APHS 40-60 TON	FILT DFBN-HC-60	APHS 90-300 TON	FILT DFBN-HC-110
APHS 440-800 TON	FILT DFBN/HC/240	APHS 800-1000 TON	FILT DFBN/HC/330

6.7 Conditions of Storage, Re-utilization and Scrapping

6.7.1 Storage

If the machine is to be taken out of operation for a longer period of time, the following precaution must be taken:

- Disconnect the electrical leads to the machine and note this on the control panel for later use.
 - Store the machine in a closed room protected from moisture, dirt and fire.
 - Smear punches and dies with rust preventative and then place the punch to seat in a V-channel of the die.
 - Empty oil tank.
 - Smear pistons, guides and all surfaces with rust inhibitor.
 - Smear plastic hoses to prevent breakage.
 - Protect the machine against dust and contamination with a nylon cover.
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6.7.2 Re-utilization after storage

To restart the press brake after a long period of storage, the following precaution must be carried out:

- Before using the old machine oil, check whether the oil is still usable. If not, refill the tank with new oil.
 - Have all electrical components checked by a qualified electrician to ensure they are functioning properly.
 - Replace faulty components.
 - Have the machine housing and mechanical parts checked by qualified personnel and put the machine back into operation according to the operating instructions.
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6.7.3 Scrapping

When the press brake has reached the end of its normal life, drain the oil from the tank and cylinders and scrap the machine.

7 Lubrication diagram

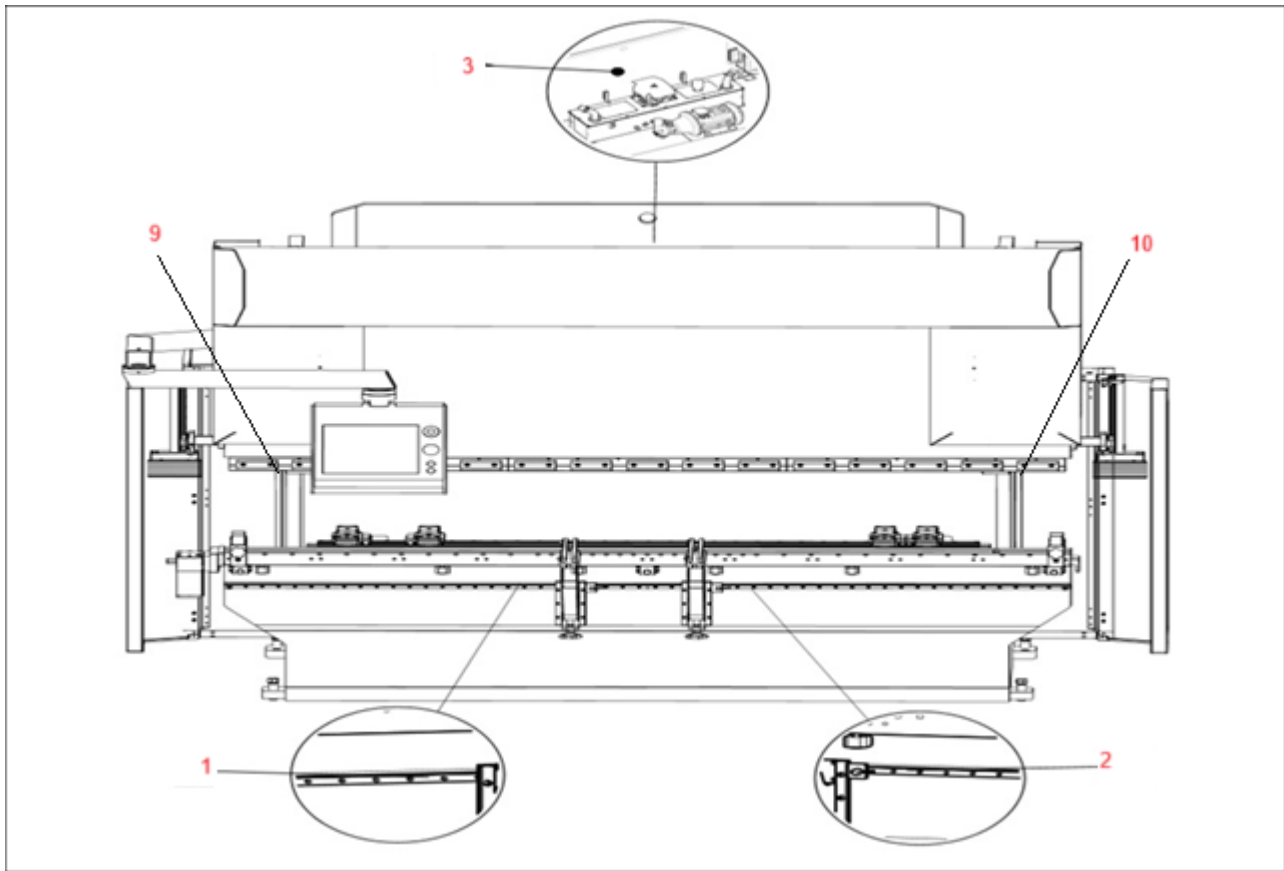


Fig. 7.1

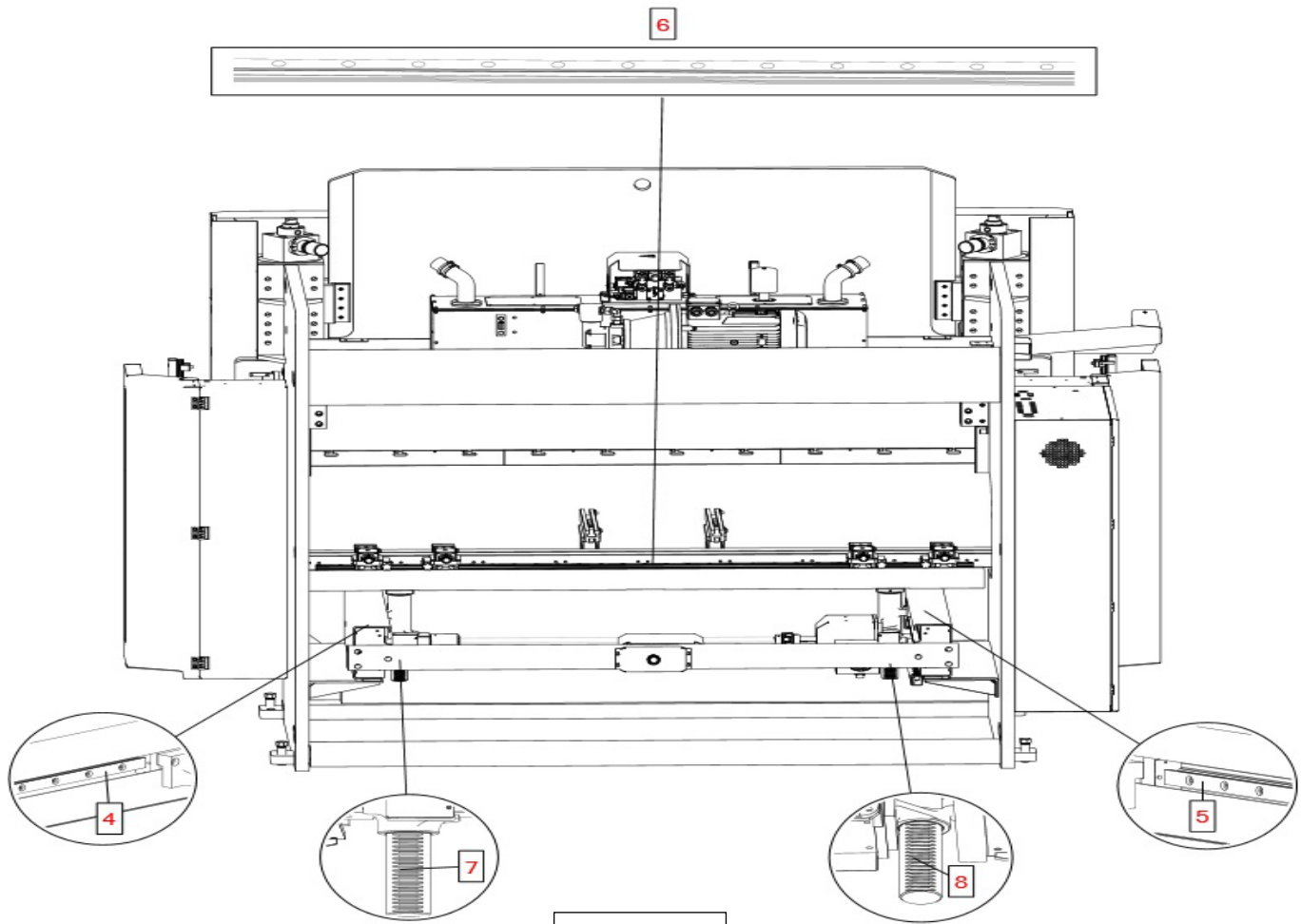


Fig. 7.2

No.	Lubrication Point	Oil Type	Equivalent Oil Type	Lubrication Interval
1 - 2	Front Arm Guides	KAP Grease-2	-	7 – 14 Day
3	Oil tank	t <10°C HLP 32 t >10°C HLP 46 t >30°C HLP 60	RANDO OIL 32 TELLUS 32 RANDO OIL 46 TELLUS 46 RANDO OIL 68 TELLUS 68	- Replace after the first 2000 hours of operation. - Then every 4000 – 6000 operating hours.
See also Lubrication Instructions Back Gauge stop assembly.				
4 - 5	X- Axis	KAP Grease-2	-	2 – 7 Day
6	B.G. Finger Rail	KAP Grease-2	-	2 – 7 Day
7 - 8	R- Axis	KAP Grease-2	-	2 – 7 Day
9 - 10	Top beam guides	KAP Grease-2	-	2 – 7 Day