Product range

We offer the following products for the optimum brake maintenance:

- Stahlbus bleeder valve with protective cap
- Bleeder tubes in several lengths
- Stahlbus vacuum filling and bleeding pump
- Brake linings

TOST
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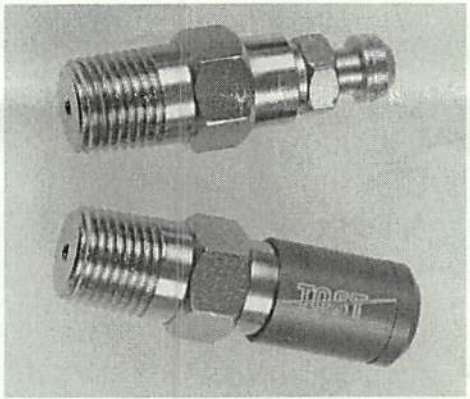
Operation Manual
Stahlbus bleeder valve

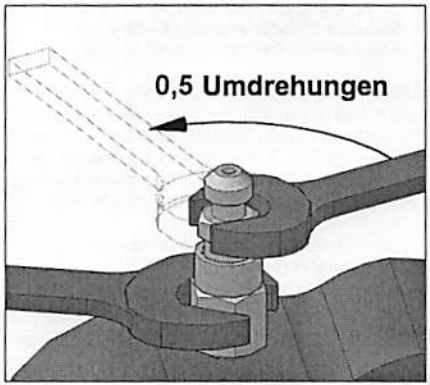
p/n 059200
for hydraulic fluid
to specification MIL H 5606



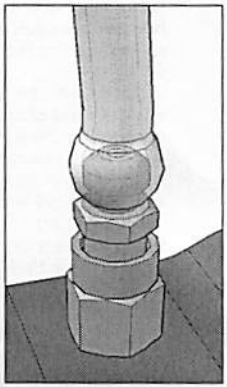
with NPT 1/8“ thread

Picture 6 - 9: Bleeding

Picture 6:



Picture 7:



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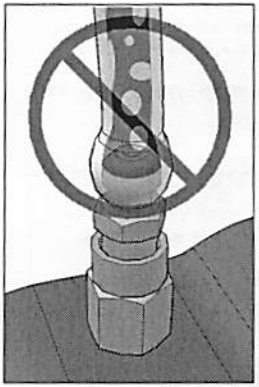
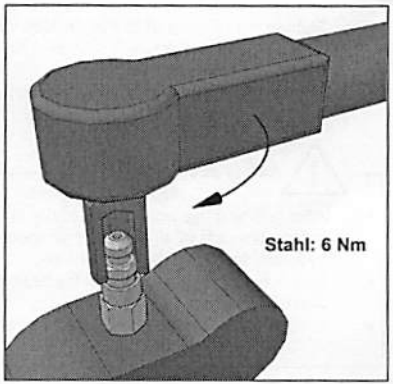


Picture 9: Fastening torque upper part



1 Safety advise

Please read this safety advise carefully, observe it and store it. Give the instruction to other users to read. In case of uncertainty, do not start to work on the brake system.

- The ***Stahlbus bleeder valve*** may only be used for the correct application. In all other cases, no liability will be taken.
- All indicated fastening torques must be preserved.
- The ***Stahlbus bleeder valve*** needs not to be dismanteled under normal circumstances. If the upper part and the lower part are separated for any reason, they may be reconnected carefully. Please watch for contamination within the ***Stahlbus bleeder valve.*** In case of doubt, please contact us or send the valve for a check with a description of the problem.
- Contamination of the brake system can disturb the correct function of the ***Stahlbus bleeder valve*** and lead to failure of the brake system.
- Hydraulic fluid is very acid and toxic. Avoid contact with the skin unconditionally. Wear protective glasses during the work at the brake system. Contact a doctor immediately when your eyes get in contact with the hydraulic fluid or when it is swallowed. Also pay attention to the safety advises of the manufacturer.
- Hydraulic fluid is very harmful for the environment. Please handle with care while using and disposing it.
- After finishing the work on the brake system, check the whole system to the correct fit of all bolts and connections. The reservoir for the hydraulic fluid must be filled correct. Please check before every take off if the brakes work properly and hold the brake pressure. In case of any doubt, do not use or approve!
- No liability is taken in case of an incorrect installation and improper use of our products.

2 Function of the Stahlbus bleeder valve

The function of the ***Stahlbus*** bleeder valve is simple. There are three modes of operation:

1. Normal operation
   The ***Stahlbus bleeder valve*** is completely closed and seals the brake system reliably. Only in this operational mode the brakes may be used.

2. Filling
   The ***Stahlbus bleeder valve*** is open as wide as necessary that the hydraulic fluid can flow through. In this mode you can use vacuum filling or bleeding accessoires. Thanks to the integrated gasket in the ***Stahlbus bleeder valve*** the brake system is sealed against the intrusion of air through the thread.

3. Bleeding
   The ***Stahlbus bleeder valve*** is open as wide as necessary so that the integrated non-return valve can take effect. Any other usual bleeder valve must be closed after each operation, eg the actuation of the brake flat lever, to prevent the intrusion of air or old brake fluid. However, the ***Stahlbus bleeder valve*** will do this automatically. The seal prevents from intrusion of air and from leaking of brake fluid during operation.

Attention: in some brake systems, the hydraulic fluid can spread out of the reservoir fountainlike when actuating the brake lever. Therefore, lay the cover lose over it!

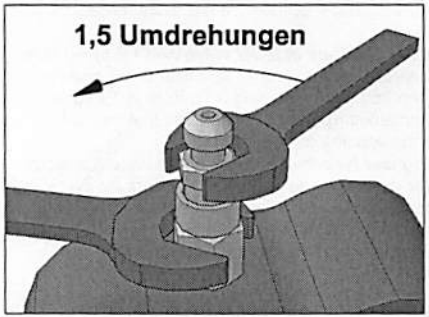
- Loosen the upper part of the ***Stahlbus bleeder valve*** by half a turn; hold the lower part of the ***Stahlbus bleeder valve*** tight with a ring spanner so that is does not loosen from the brake caliper (picture 6 = 0,5 turns).
  In this position, the ball in the non-return valve will close the opening with the effect of the spring in such a way that the brake system is without pressure. No hydraulic fluid can extrude from the ***Stahlbus bleeder valve*** and no air can intrude the system. If the upper part is opened too far, the non-return valve function does not work. If it is not opened wide enough, the ball hits its seat (you hear a clack) and no hydraulic fluid can get through.
- Plug a recipient for used hydraulic fluid and a hose into the hose adapter of the ***Stahlbus bleeder valve*** (picture 7).
- Actuate the master cylinder (eg pulling the brake flaps lever) and press the hydraulic fluid through the ***Stahlbus bleeder valve*** into the recipient.
- Return the brake flaps lever in the basic position.
  The ball in the non-return valve closes the opening immediately and no air or used hydraulic fluid can intrude in the brake system.
- Repeat action until you get to satisfying results (hydraulic fluid comes out without air bubbles) (picture 8); pressure point of the brake is optimal.
- Tighten the upper part of the ***Stahlbus bleeder valve*** with the correct fastening torque (picture 9 = Steel 6 Nm); check afterwards for correct seat in the brake calliper.
- Repeat the work on all bleeder valves of the brake system. Put on the protective caps.

Safety advise

- After finishing the work on the brake system, check the whole system to the correct fit of all bolts and connections. The reservoir for the hydraulic fluid must be filled correct.
- Check before every take off if the brakes work correct and hold the brake pressure.
- In case of any doubt, do not use or approve!

Picture 2 - 5: Filling

Picture 2:



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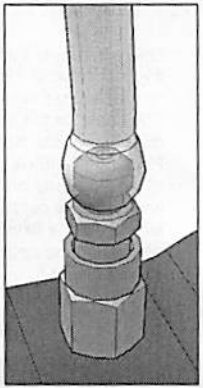

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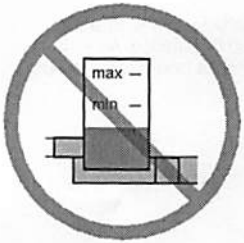

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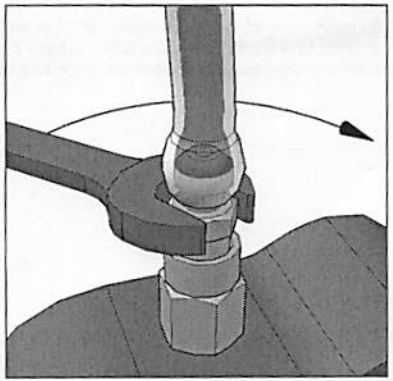
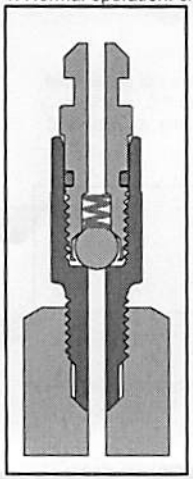
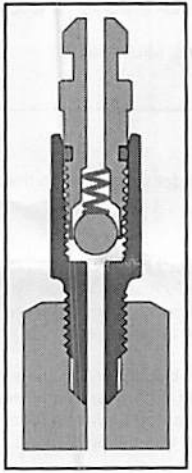


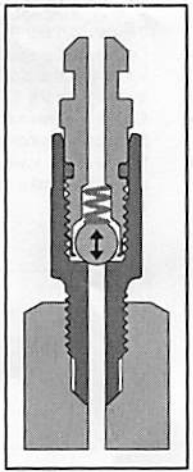
1. Normal operation: closed



2. Filling: open the valve by one and a half turns



3. Bleeding: open the valve by half a turn



3 Stahlbus bleeder valve

Mounting and operation in a few steps

The ***Stahlbus bleeder valve*** consists of an upper part with the active components and a lower part. The lower part is the adapter for the installation in the brake calliper. The correct function is ensured only in the interaction of upper and lower part.

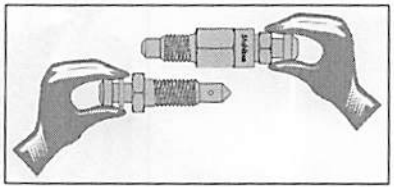
Important: the colour of the seal indicates for which kind of fluid the valve is appropriate:
Green = hydraulic fluid to spec. MIL H 5606
Black = brake fluid DOT 4

Installation

Exchange of the existing bleeder valve through the ***Stahlbus bleeder valve*** on the brake calliper

- Empty the brake system acc. to manufacturer's advice (we suggest to use the ***Stahlbus vacuum filling and bleeding pump***); take care of the environmental friendly disposal of the hydraulic fluid.
- Demount the existing bleeder valve; compare the threads of the existing valve and the ***Stahlbus bleeder valve***; use only the corresponding thread (picture 1).
- Check the thread of the bleeder drill in the brake calliper and the snug fit for contamination and damages; clean if necessary.
- Screw in the lower part of the ***Stahlbus bleeder valve*** into the bleeder drill in the brake calliper with the corresponding tool; use a ring spanner size 7/16".

Picture 1:



Filling

If the brake system is completely empty (eg after an exchange of the hydraulic fluid, the hydraulic hoses or the master cylinder), it has to be refilled.

- Open the upper part of the ***Stahlbus bleeder valve*** with 1,5 turns; hold the lower part of the ***Stahlbus bleeder valve*** tight with a ring spanner so that is does not loosen from the brake caliper (picture 2=1,5 turns). The upper part is now loosened from the lower part so that the non-return valve ball clears the opening completely.
- Plug the ***Stahlbus filling and bleeding pump*** into the hose connector of the ***Stahlbus bleeder valve*** (picture 3) and fill the hydraulic system while sucking out the air. Watch that the fluid in the reservoir does not sink under the minimum marker (picture 4).
- After fluid drops out, close the upper part of the ***Stahlbus bleeder valve*** (picture 5).
- Unplug the hose from the ***Stahlbus bleeder valve*** and tighten the upper part again with the correct fastening torque (picture 9 = steel 6 Nm).
- Put the protective cap onto the bleeder valve.

Bleeding

After each filling of the brake system or after an exchange of the hydraulic fluid (acc. to manufacturer), the brake system has to be bleeded. Air in the system can lead to weakened brake force or a complete failure of the brakes.