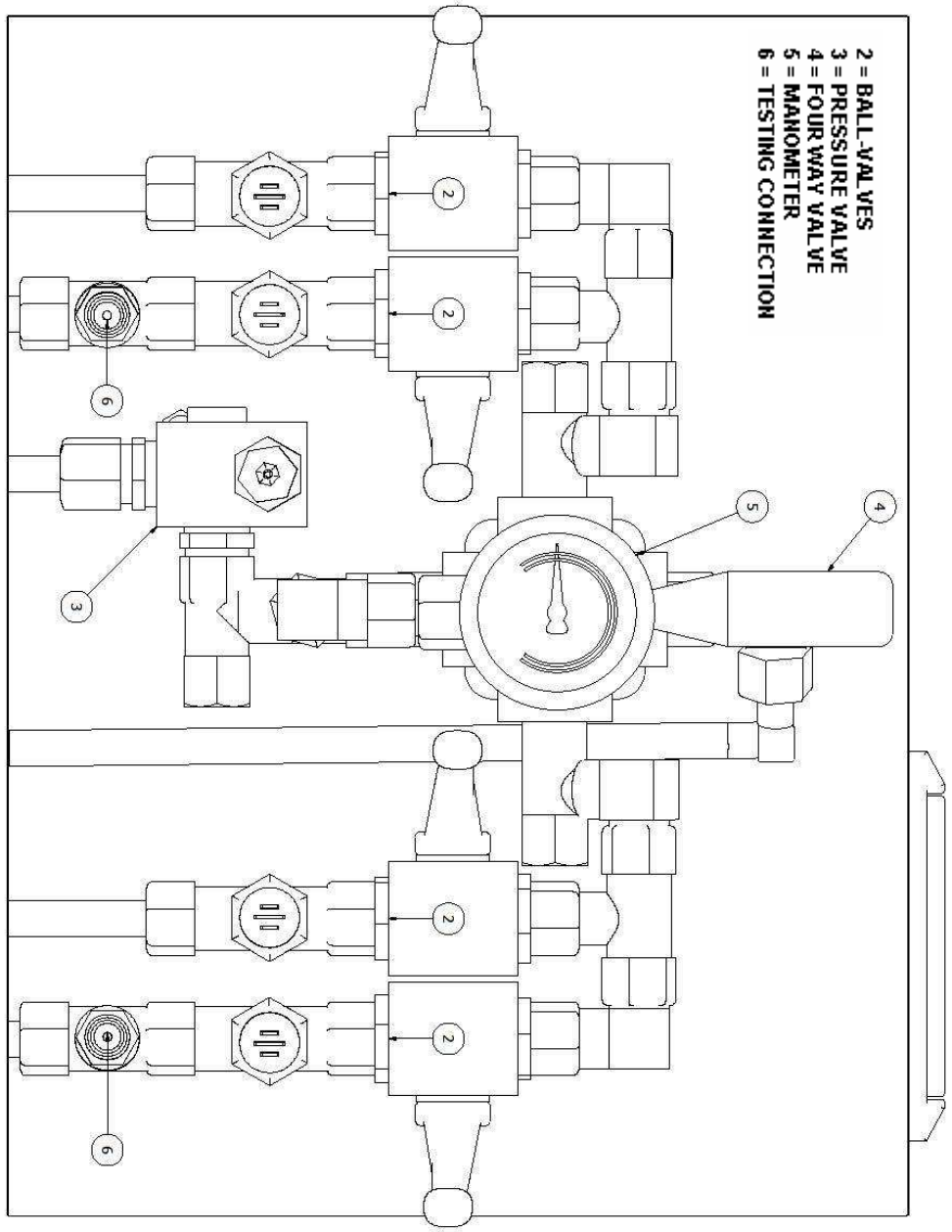
Description of the ESVE hydraulic steeringsystem

The system consists of a two circuit displace system, meaning that in case of leakage in one circuit, the axle will be steered normally by the other circuit.
The system is filled with hydraulic oil with a viscosity of 1.7 degrees Engler at 50 degrees Celsius.



Filling and pressurizing the system.

Fill up the oil tank (see looking glass), open all the ball-valves (pos.2) and operate the handpump.
The pressure will rise until the outlet valve (pos.3) opens and a pressure of approximately 40 bar has reached.
Open all bleed-taps on the end of the cylinders an keep pumping until there are no more air bubbles in the system.
After closing all bleed-taps, pump a few strokes until the pressure of approximately 40 bar is reached again.

Alignment of the rear axle.

Check if the truck is properly aligned to the trailer, therefore see the marker at the steering unit.
Open all ball-valves (pos.2) and place the four-way valve (pos.4) to the right or to the left, as necessary, and keep pumping until the right position of the wheel is achieved. (see by checking the markers on the rear axle).
Now place the four-way valve to the centre position, shutdown all ball-valves and close the controlbox.

Checking the pre-stressing pressure in the system.

Turn on the parklights, the controllight with the orange glass will burn.
If not, than the pre-stressing pressure will be to low.
This can be cured by opening all the ball-valves, the four-way valve must stay in the middel, and pump a few strokes.
Shutdown the ball valves, and close the controlbox

While driving the hydraulic controlbox must be closed at all times

Once a week the alignment has to be checked.
See markers on the steering unit and on the steered axle.

Warning

When the steering unit is turned 90 degrees in relation to the trailer the driver will begin to feel a resistance to turning. At this stage the front turntable will be prevented from rotating by a mechanical stop. In order to prevent possible damage the driver must reduce some of his steering angle (lock). This is especially important when reversing. When the driver should avoid getting the tractor/trailer into a ‘Jack knife’ position.

Greasing points

MAINTENANCE: GREASE EVERY 2-4 WEEKS

(WHEN USING AN AUTOMATIC GREASING SYSTEM, DON'T USE POINT NR. 8, 9, 10 AND 11)

1: GREASING POINT V-PLATE
2-5: GREASING POINTS INSIDE THE BEARING
6-7: GREASING POINTS BALL-BEARING STEERING UNIT
8-11: GREASING POINTS OUTSIDE THE BEARING
10-13: GREASING POINTS BALL-BEARING STEERING UNIT
14-17 GREASING POINTS BALL-BEARING STEERING AXLE