

HYDRAULIC POWER STEERING

For larger boats, VETUS hydraulic power steering is a most comfortable and extremely safe steering system. The effort required at the helm is only about 10% of a non-powered steering system. In other words: the boat can be steered literally with one finger. Because of this, the steering wheel diameter can be considerably smaller than normal; a wheel diameter of just Ø 360 mm will usually suffice.



HT1018

HT1020

HT1025

VETUS hydraulic power steering is extremely safe. Should there be a power assistance failure, then the steering system will still operate unassisted, only with somewhat greater effort. The pump unit is in fact a rotating proportional valve. By turning the wheel, this control valve opens and directs oil under pressure to the steering cylinder connected to the rudder. The volume of hydraulic fluid that is circulated, is dependent on the model of steering pump, the number of wheel revolutions and the speed at which the wheel is turned. The VETUS steering pump has a closed mid position, ensuring that there will be no oil flow as long as the wheel remains untouched. To connect one or more VETUS steering pumps and/or an automatic pilot to a VETUS hydraulic system, a control unit model HT 1019 must be used.

The external flange of the steering pump is made of seawater resistant aluminium, hand polished and anodised. The steering wheel shaft is made of stainless steel, type I-4462, Ø 19 mm, taper 1:12.

The VETUS hydraulic power steering has been developed for application within the "VETUS Power Hydraulics" programme, which is based on the "constant pressure" (load sensing) principle. If your boat is equipped with a hydraulic system which does not operate on this principle, VETUS will gladly advise on how to adapt your system, in order to enable installation of this type of steering.

Type	Specifications
HT1020	Hydraulic power steering 75 cm ³ /rev for cylinders up to MTC175
HT1018	Hydraulic power steering 95 cm ³ /rev for cylinders up to MT230
HT1025	Hydraulic power steering 145 cm ³ /rev for cylinders up to MT345
HT1019	Steering and control unit for hydraulic power steering and autopilot
HT1021	Dual non-return valve for hydraulic power steering

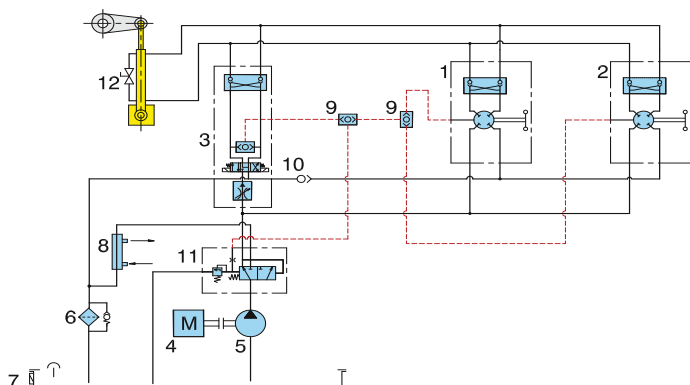
HT1019

Solenoid control unit (24 Volt) for use with a hydraulically powered steering system or an automatic pilot.



HT1019

Schematic based on Fixed Pump



1. Steering pump with non-return valve
2. Steering pump with non-return valve (second steering position)
3. Control unit
4. Propulsion engine
5. Hydraulic pump
6. Filter
7. Hydraulic tank
8. Oil cooler
9. Shuttle valve
10. Non-return valve
11. Priority valve
12. Cylinder with by-pass