

**Yacht &
Commercial Steering**

Safety Relief Valve DARB

The DARB (Double Acting Relief and Bypass) Valve is a protective device.

Each steering gear system, regardless of its size, should be equipped with a DARB to protect the rudder and the actuator from possible external damage due to grounding or excessive wave force action.



Design Features

- The Double Acting Relief Bypass Valve is available in three models (10 gpm, 30 gpm and 50 gpm).
- The DARB valve has two modes of operation:
 In the normal mode the crossover relief valve protects the steering system against hydraulic shock and over-pressurization. If impact occurs between the rudder and an underwater object, or if there is an internal pressure build-up that causes the hydraulic pressure to exceed the pre-set limit of the relief valve the DARB Valve allows oil to bypass. This helps prevent damage to the steering gear or its associated equipment.
 In the bypass mode the DARB Valve opens across the port and starboard lines allowing for emergency steering. This is also very helpful when “bleeding” (purging) the hydraulic steering system of air.

For further details please consult the technical manual MAN 00401.

Part number	Description	Capacity gpm	Lbs (Kg)
JA-401003-1	DARB 10 *	10	6.6 (3.0)
JA-401003-2	DARB 30	30	6.8 (3.1)
JA-401047-1	DARB 50	50	28.0 (12.7)

(* see drop-in replacements)

Sailboat Steering

Helm Control Valve HCV

The Helm Control Valve will allow the Helmsman the opportunity to "feel the wheel." When the valve is put into the "sail mode" the helmsman will feel the rudder in a similar way to what he or she would feel if they were steering with a tiller. Upon release of the steering wheel the force on the rudder will cause the wheel to turn or "motor". This is similar to how a tiller would react if it were released.

When the autopilot mode or standard manual hydraulic steering mode is required a simple turn of the knob on the HCV Valve will reactivate the helm pump lock valves. This locks the rudder into whatever its current position is.

Multiple HCV's can be installed, however, only one helm station should be in "sail mode". The HCV can even be installed as an addition to existing standard hydraulic steering systems when only the added feature of "feel the wheel" is desired.



Design Features

- Large knob. Easy to use even with gloved, wet, or cold hands.
- In-line design, allowing for simple installation at a place close to the helm.
- Conventional 3/8" NPT port connections for easy plumbing.
- Anodized aluminum body.
- Standard lock valve components.

Part number	Description	Lbs (Kg)
JA-401046-1	HCV-1 Helm Control Valve	4.4 (2.0)