SPEARMAN ENTERPRISES

Campbell River, B.C. Canada

Model 413 Bilge Pump Power & Control Hub Features

Best Electrical Practice for Wet Locations:

Connections are made in a waterproof enclosure rated IP67.[1]
Wire and cable penetrations are sealed to IP67.

Best Electrical Efficiency:

Improved electrical architecture permits a much shorter load current path.[2]

Best Materials Economy:

Shorter load current path requires less wire length *and* smaller wire gauge.
Installation does not require crimp terminals, heat shrink, etc.

Best Reliability:

Because connections are made in a sealed enclosure, there is no chance of bilge pump failure due to wet or corroded connections.
The Spearman 413 uses the float switch as a pilot device (good practice) and not as a power switch (bad practice). Because of this, the float switch does not carry the bilge pump load current. This imposes less electrical stress on the float switch, extending both it's service life and reliability.

Best Maintenance:

Replacement of a bilge pump or float switch is simplified, requiring only a screwdriver and no additional parts such as butt connectors, terminals or shrink sleeve.

Best Control Logic:[3]

When a 413 RDL or RWL optional remote control is connected to the 413 Hub, the remote: Indicates power is present at the pump connections (AUTO-MAN mode).
Mode switch defaults to AUTO – must be deliberately turned off.
Indicates when OFF is selected.
If no remote is connected, the 413 Hub operates the pump in AUTO mode.

Best Protection:

Faulty or failed bilge pump systems cause tremendous damage to vessels, not only by failing to prevent flooding, but also by way of impressed current corrosion due to wires becoming immersed in water.
Sometimes faulty bilge pumps lead to sinking and loss of life.

[1] IP means Ingress Protection. IP 67 means Dust tight, Submersible 15cm to 1m.

[2] This is because the Spearman mode switch doesn't carry the load current of the pump as the Rule and other bilge pump systems do. Hence, the distance between power source and the load is much shorter.

[3] The Rule and Blue Sea type controls involve a 3 position (AUTO-OFF-MAN) switch with a pilot light intended to indicate when the pump is running. Unfortunately, when in the MAN mode the pilot light only indicates power at the switch itself – not at the pump. These switches use a momentary position for manual operation or test. When released from the momentary position the switch defaults to the OFF position and must be moved again to select the AUTO position for normal float switch operation. Needless to say, many bilges are flooded because people forget to select the AUTO switch position. The Rule and Blue Sea type switches provide no warning that the bilge pump system is turned OFF.

Considering the important role bilge pumping systems play in the security of the vessel and the safety of those aboard, should the installations look like

This?

Or This?

MODEL 413 SPECIFICATIONS

Application:
Any vessel equipped with DC bilge pumps

Dimensions: inches (mm):
L 6.89 (175) W 6.37 (162) H 2.91 (74)

Product Weight: 495grams

Shipping weight: 740 grams

Environment Protection IP67

Max Load 20A cont. Voltage 12 or 24VDC

Model 413 HUB
M.S.R.P. $285.00 each

Model 413RDL*
M.S.R.P. $90.00 each

*Remote controls are optional - the 413 hub can be used as a standalone pump control without a remote. The remote control illustrated (413RDL) is for dry locations. A wet location version (413RWL) is also available. Contact Spearman for information on custom single or cluster array remote control panels.

Standard 413RDL/RWL dimensions are 3.25 x 2.00 (82.6mm x50.8mm).

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