

HIDE

Maintenance manual





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Maintenance manual of the HIDE air vent heads of John Gjerde AS

1. General:

The HIDE air vent head can be used for ventilating tanks containing fresh water, ballast tanks, fuel tanks, lubrication oil tanks etc. according the IACS Req. 1991/rev.3.2012, Air Pipe Closing Devices P3.

It is as a standard delivered without painting, but epoxy paint is an option.

The automatic closing mechanism in all HIDE valves is a cylindrical float, working together with a soft neoprene gasket which is mounted on the floater.

Under normal operating conditions the float is resting on the bottom of the inner chamber of the valve.

The ventilation opening in the top of the valve is in the open position, allowing free flow of air in and out of the tank.

If the valve is submerged in water, the float will ascend and the gasket on the floater will interact with the seat and close the valve to prevent water from flowing into the tank.

The valves are designed so that flying water do not have direct access to the vent opening. This protects the floater from being damaged by objects which might be in the water.

The valve can be equipped with a screen that can serve as a flame screen which protects the fuel oil and lubrication oil tanks. This screen can be used to protect the fresh water tanks for insects/bugs or rats falling into the tank as well. The insects and rats could contaminate the water and can cause illness of the crew on board.



2. Mounting and Lifting Instructions

Hide tank vent check valves size DN 40 - DN 600.



When mounting the valve to the vent pipe:

1. Place the valve on the vent pipe with the ventilation cover towards the centerline of the vessel.

2. Use a gasket between the valve and the vent pipe.

3. Use only galvanized or stainless-steel bolts/nuts.

When painting the valve, do NOT remove the ventilation cover.

Paint the outside of the valve only, do NOT paint the inside of the valve and/or the floater.

For Hide 2:

Arrange the valve to face the direction of the connecting pipe.

Use a gasket between the outlet pipe and the connecting pipe.



Fig1.

1. Fasten the lifting hook into the welded lifting lug (DIN582) on the valve top.
See Fig1.





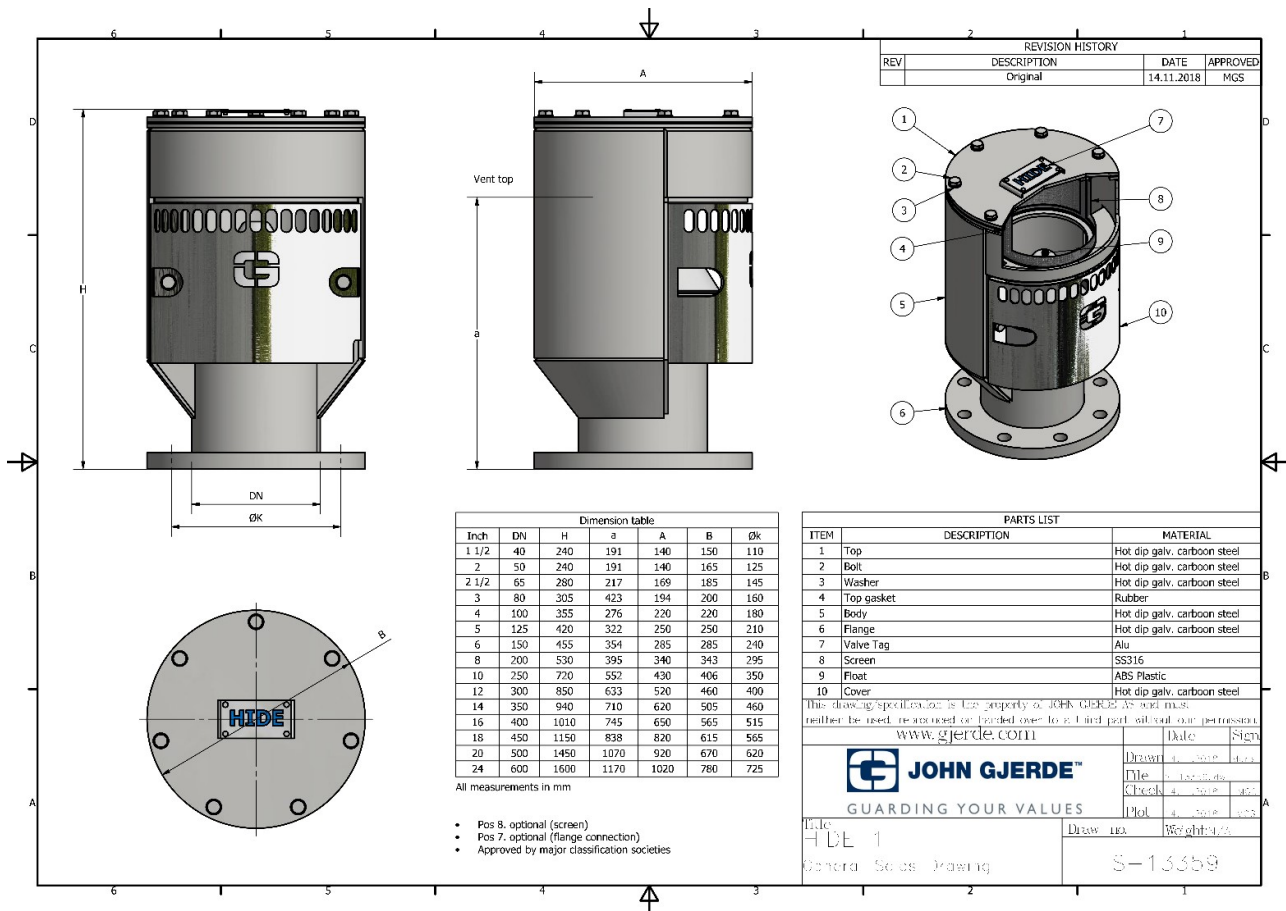
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3. HIDE-family

3.2 HIDE 1 Steel

The most commonly used air vent head for ships. Made for installation outside on-deck. Ventilating all tanks on board for cargo, ballast water, wastewater, fresh water, lubricating oil, fuel oil, etc. Prevents water from entering the tanks. Delivered in sizes from DN40 to DN600.



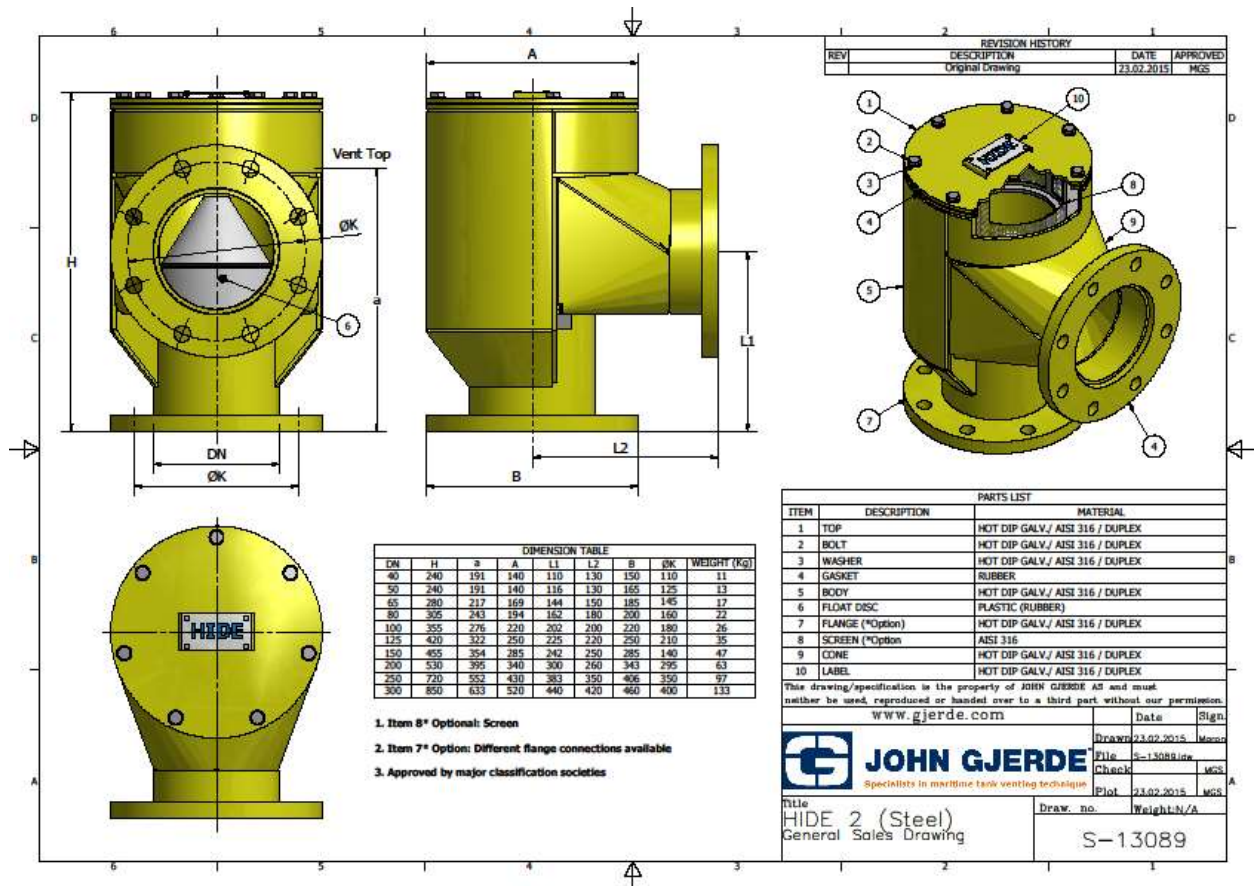


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3.3 HIDE 2

This air vent head is made for ventilation through superstructures. Commonly used in cases of longer distances to open deck, such as passenger vessels and accommodation areas.





4. Maintenance

Before any valve is shipped from the factory, it is checked to see that it operates properly.

However, due to the demanding environment that the valves operate in, it is necessary to perform regular inspection and maintenance of these valves. We recommend that an inspection is performed according to the following maintenance schedule.

4.1 Maintenance schedule

Monthly:

1. Visual inspection for damage on the body and the cover, any dirt must be removed.
2. Check if all the bolts, nuts and washers (4) are at its place, missing ones must be replaced.
3. Check by looking through the cover if the floater disk (9) is in the valve, check for damage.
4. Check if the gasket is still on the floater, when missing; replace it immediately as the closing function may be jeopardized and seawater may enter the tank.

Half yearly inspection:

1. Visual inspection for damage on the body and the cover, any dirt must be removed.
2. Check if all the bolts, nuts and washers are at its place, missing ones must be replaced.
3. Remove the top (1) of the valve by loosening the nuts (2). Check the gasket (5) and check if the flame screen (8) is undamaged and clean of contamination so it cannot clog the passage of liquid and/or air.
When damaged, replace the flame screen.
Replace the top (1) of the valve (check that the groove in the bottom of the lid is in the right place to fit in with the flame screen). Replace the pvc washers and fasten the nuts (2).
Warning: Do not tight the bolts too strong!
4. Remove the cover (7) on the front side of the valve by loosening the nuts. Check the following:
 - a) Is the floater (9) moving up and down freely?
 - b) Is the guiding pin in good condition and still locked?
 - c) Check the gasket on the floater for damage, replace if necessary.
 - d) Check if the floater is damaged and/or broken, replace if necessary.
 - e) Replace the cover and fasten the washers and nuts.



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Five yearly inspection:

Float and lip gasket recommended changed every five years.

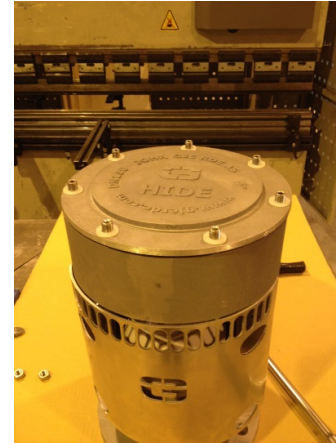
4.2 Instructions



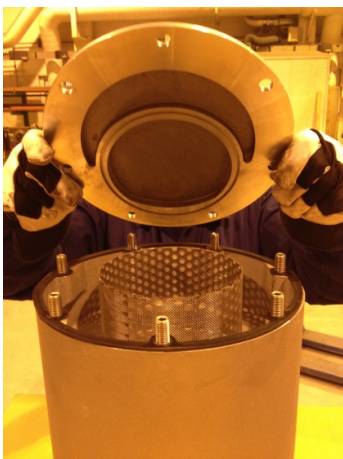
HIDE valve complete



Loosen the nuts on top



Check washers



Groove for flamescreen



Check gasket



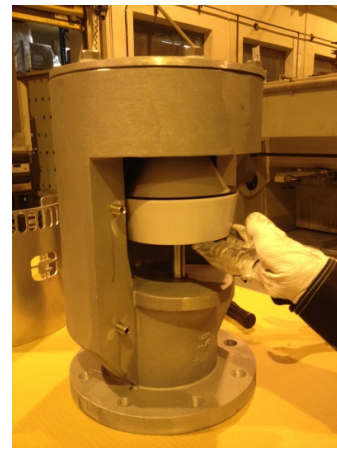
Check the screen



Loosen the cover



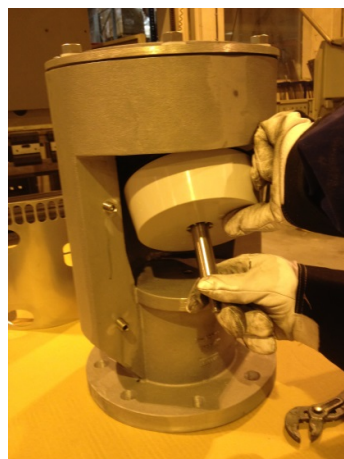
Take the cover off



Check movement of floater



Loosen the guiding pin



Take guiding pin and floater out



Check gasket on floater



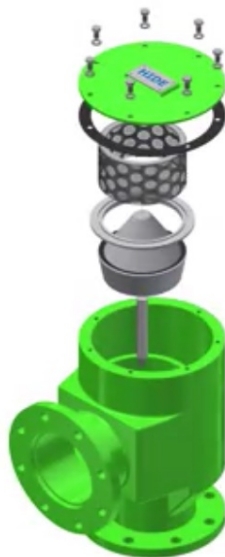
Loctite on guiding pin



Replace floater and guiding pin



Replace cover (washers!)

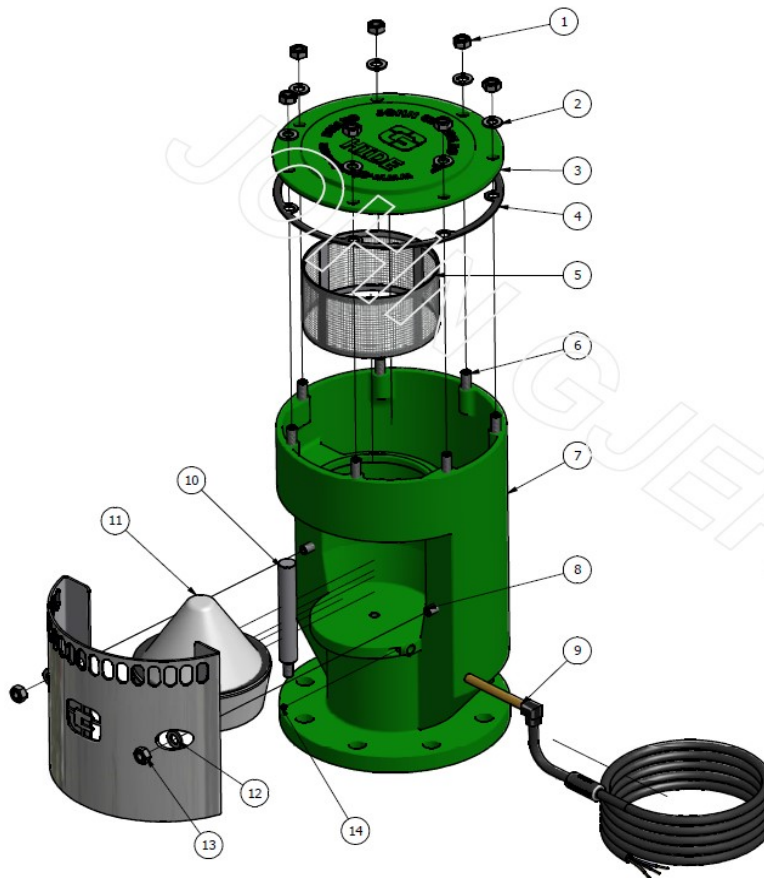


**Servicing your
HIDE 2**

For HIDE 2 the same operation from top.



5. Spare parts



Item	Qty	Description
1	7	Hex nut
2	7	Washer
3	1	Top
4	1	Top gasket
5	1	Screen
6	7	Pin
7	1	Body
8	2	Pin
9	1	PTC Heat element
10	1	Guiding pin
11	1	Floater
12	2	Washer
13	2	Hex nut
14	1	Set screw

Classification companies have no specific demands for spare parts for vent check valves.

We do however recommend a full set of spares according to the following key:

No of valves	Set of spares
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1-5	1
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6-10	2
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11-15	3
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We have spare parts in stock. To process an order we need the dimension, type of valve and the spare name.

Spare parts can be ordered via the agent network or directly at John Gjerde AS (see www.gjerde.com)

5.1 Spare part number list for HIDE tank vent valve

Item no 11

12839 Hide - 040 Float Assembly
12841 Hide - 050 Float Assembly
12842 Hide - 065 Float Assembly
12843 Hide - 080 Float Assembly
12844 Hide - 100 Float Assembly
12848 Hide - 125 Float Assembly
12845 Hide - 150 Float Assembly
12846 Hide - 200 Float Assembly
12813 Hide - 250 Float Assembly
12901 Hide - 300 Float Assembly

**Item no 4**

12786 Hide - Top gasket DN40 for Hide Alu
12787 Hide - Top gasket DN65 for Hide Alu
12788 Hide - Top gasket DN80 for Hide Alu
12789 Hide - Top gasket DN100 for Hide Alu
12790 Hide - Top gasket DN125 for Hide Alu
12791 Hide - Top gasket DN150 for Hide Alu
12792 Hide - Top gasket DN200 for Hide Alu
12793 Hide - Top gasket DN250 for Hide Alu
12904 Hide - Top gasket DN300 for Hide Alu

13282 Hide - Top gasket DN40 for Hide Steel
13295 Hide - Top gasket DN50 for Hide Steel
13308 Hide - Top gasket DN65 for Hide Steel
13321 Hide - Top gasket DN80 for Hide Steel
13333 Hide - Top gasket DN100 for Hide Steel
13345 Hide - Top gasket DN125 for Hide Steel
13357 Hide - Top gasket DN150 for Hide Steel
13369 Hide - Top gasket DN200 for Hide Steel
13374 Hide - Top gasket DN250 for Hide Steel
13386 Hide - Top gasket DN300 for Hide Steel
13398 Hide - Top gasket DN350 for Hide Steel
13410 Hide - Top gasket DN400 for Hide Steel
18365 Hide - Top gasket DN450 for Hide Steel
18366 Hide - Top gasket DN500 for Hide Steel
18367 Hide - Top gasket DN600 for Hide Steel

Item no 10

12802 Hide - 040 Guiding pin
12772 Hide - 050 Guiding pin
12803 Hide - 065 Guiding pin
12804 Hide - 080 Guiding pin
12805 Hide - 100 Guiding pin
12806 Hide - 125 Guiding pin
12807 Hide - 150 Guiding pin
12808 Hide - 200 Guiding pin
12809 Hide - 250 Guiding pin
12905 Hide - 300 Guiding pin

**Item no 5**

12776 Hide - 050 Flame Screen Assembly, for alu
12814 Hide - 040 Flame Screen Assembly, for alu
12815 Hide - 065 Flame Screen Assembly, for alu
12816 Hide - 080 Flame Screen Assembly, for alu
12817 Hide - 100 Flame Screen Assembly, for alu
12818 Hide - 125 Flame Screen Assembly, for alu
12820 Hide - 150 Flame Screen Assembly, for alu
12821 Hide - 200 Flame Screen Assembly, for alu
12822 Hide - 250 Flame Screen Assembly, for alu
12908 Hide - 300 Flame Screen Assembly, for alu

Item no 5

31487 Hide - 040 Flame Screen Assembly for steel
31488 Hide - 050 Flame Screen Assembly for steel
31489 Hide - 065 Flame Screen Assembly for steel
31490 Hide - 080 Flame Screen Assembly for steel
31491 Hide - 100 Flame Screen Assembly for steel
31492 Hide - 125 Flame Screen Assembly for steel
31493 Hide - 150 Flame Screen Assembly for steel
31494 Hide - 200 Flame Screen Assembly for steel
31495 Hide - 250 Flame Screen Assembly for steel
31496 Hide - 300 Flame Screen Assembly for steel
31497 Hide - 350 Flame Screen Assembly for steel
31498 Hide - 400 Flame Screen Assembly for steel
31499 Hide - 450 Flame Screen Assembly for steel
31500 Hide - 500 Flame Screen Assembly for steel
31501 Hide - 600 Flame Screen Assembly for steel

Item no

Main cover for HIDE 1 aluminum

12721 Hide - Cover DN50 Aluminium
12726 Hide - Cover DN65 Aluminium
12730 Hide - Cover DN80 Aluminium
12734 Hide - Cover DN40 Aluminium
12763 Hide - Cover DN100 Aluminium
12794 Hide - Cover DN125 Aluminium
12795 Hide - Cover DN150 Aluminium
12796 Hide - Cover DN200 Aluminium
12797 Hide - Cover DN250 Aluminium
12903 Hide - Cover DN300 Aluminium



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Item no

Main cover for HIDE 1 steel

- 31472 Hide - Cover DN40 steel
- 31473 Hide - Cover DN50 steel
- 31474 Hide - Cover DN65 steel
- 31475 Hide - Cover DN80 steel
- 31476 Hide - Cover DN100 steel
- 31477 Hide - Cover DN125 steel
- 31478 Hide - Cover DN150 steel
- 31479 Hide - Cover DN200 steel
- 31480 Hide - Cover DN250 steel
- 31481 Hide - Cover DN300 steel
- 31482 Hide - Cover DN350 steel
- 31483 Hide - Cover DN400 steel
- 31484 Hide - Cover DN450 steel
- 31485 Hide - Cover DN500 steel
- 31486 Hide - Cover DN600 steel

Item 1, 2, 12,13

- 13253 Hide - 040 Fastening kit
- 13254 Hide - 050 Fastening kit
- 13255 Hide - 065 Fastening kit
- 13256 Hide - 080 Fastening kit
- 13257 Hide - 100 Fastening kit
- 13258 Hide - 125 Fastening kit
- 13259 Hide - 150 Fastening kit
- 13260 Hide - 200 Fastening kit
- 13261 Hide - 250 Fastening kit
- 13262 Hide - 300 Fastening kit

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