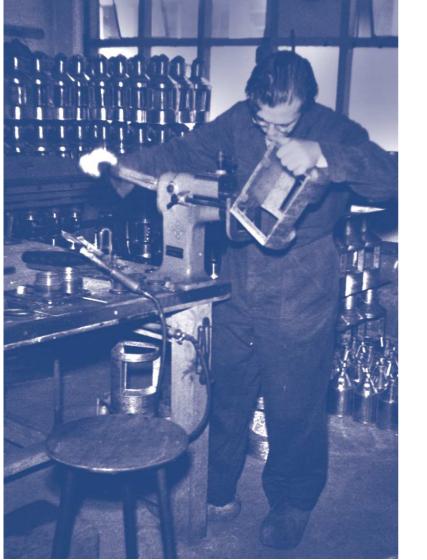
# THE STANDARD FOR NAVIGATION LIGHTING



SINCE 1922

**Den Haan Rotterdam** 



# A PIONEER SINCE 1922

In over 90 years the family owned business
Den Haan Rotterdam has grown from a small
tinsmith to a modern, worldwide known
manufacturer of maritime signalling
equipment. We have built up extensive
know-how and continuously improve our
navigation lighting products to guarantee
safety at the highest international standards.

Our navigation lights have undergone many transformations over the years, from oil lamps and lanterns using electrical bulbs to the next level: LED-technology. Today, we set the standard for the sustainable future with our new LED navigation lanterns. It is our uncompromising answer to robust durability at sea, especially in extreme temperatures and heavy weather.

Made in Holland.

1933 2013





In production since 1933 and still going strong

In production since 2013 and ready for the sustainable future









WE PROUDLY PRESENT THE DHR-LED NAVIGATION LIGHTS LONG OPERATIONAL LIFETIME, MAINTENANCE FREE AND ENERGY SAVING

#### **DHR-LED COLLECTION**



TYPE: DHR40 LED

One LED-module 5+ years lifetime

#### Application

Small vessels for inland navigation Seagoing vessels up to 20 m of length

Operational lifetime

50,000 hrs

Operation temperature

-25 up to 55°C



TYPE: DHR60 LED

Two LED-modules
Main & Spare
10+ years lifetime

#### Application

For all types of inland navigation vessels Seagoing vessels up to 50m of length

Operational lifetime

100 000 hrs

Operation temperature

-25 up to 55°C



TYPE: DHR80 LED

Two LED-modules
Main & Spare
10+ years lifetime

#### Application

For all types of inland navigation vessels Seagoing vessels with a length of 20m or more

Operational lifetime

100.000 hrs

Operation temperature

-25 up to 55°C



TYPE: DHR73 LED

One LED-module 5+ years lifetime

Application

General signalling purposes Obstacle lighting Helideck lighting

Operational lifetime

50 000 hrs

Operation temperature

-25 up to 55°C

## FACTS ABOUT **DHR-LED**

#### Robust electrical design

- · Luminous intensity and the colour of the emitted light is not affected in case of power input fluctuations of 19V - 32V
- · Use of ceramic components
- · Protection from indirect lightning strikes and other air discharges using transient voltage suppressors
- · Well-considered electrical design to minimize chance on failure

#### **Excellent** thermal management

· The whole housing is made of marine graded aluminium with a hard-coated anodized surface to manage high ambient temperatures. This ensures a long sustained operational lifetime

#### Reliable rugged design for heavy-duty applications

- · Use of precision machined components
- · Resistant to extreme shocks and vibrations
- · Water ingress protection of IP66 and higher to withstand beating of waves and water submersion
- · UV-radiation has no adverse effect, because of borosilicate glass lens and aluminium housing

#### No interference noise with radio or radar

· All DHR LED-products products comply with the imposed EMC-requirements. DHR also tested their LED-products in the vicinity of radio antennas at a distance of less than 1 meter. No interference noise was detected.

## ADVANCED NAVIGATION LIGHT SOLUTIONS BY DHR

Den Haan Rotterdam extends the offer of LED navigation lights to advanced navigation light solutions. Our experienced sales staff is able to advise you about the minimum required navigation light system for each specific type of vessel.





TYPE: DHR260RCN METAL HALIDE SEARCHLIGHT

BURTONE

AIR HORN

# DHR navigation light systems offer many advantages:

- Monitoring and control up to 48 navigation lights
- Connections for main and spare LED-modules
- Each single navigation light is controlled individually
- Continuous monitoring for failures and operational lifetime
- Main and back-up power supply
- · Class type approved

DHR NAVIGATION LIGHT MONITORING CONTROL SYSTEM



# Maintenance friendly design



We offer maintenance kits for replacing damaged components. This guarantees safety at sea.

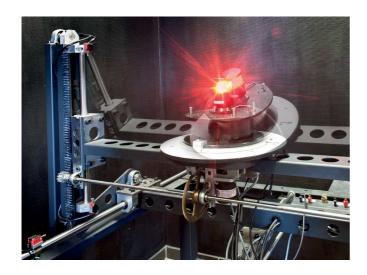


TYPE: DHR60 LED NAVIGATION

- (1) Starboard
- (2) Port
- (3) Masthead
- 4 Anchor light / all-round white
- (5) Not Under Command / all-round red
- 6 Towing light
- 7 Stern light
- 8 Searchlights
- 9 Air Horn

#### MADE IN HOLLAND

DHR LED navigation lights are designed and tested in our own R&D-lab. Since 1922, our factory houses all assembling and manufacturing. Over 90 years of product development and manufacturing has resulted in a vast experience of know-why and know-how.





#### FIRST CHOICE

For decades, Den Haan Rotterdam is the first choice for major players in the maritime industry and navies around the globe. Our personal and dedicated organization is known for its fast response and flexibility. In general, orders will be processed within 24 hours. We offer you customized solutions upon request.

references



















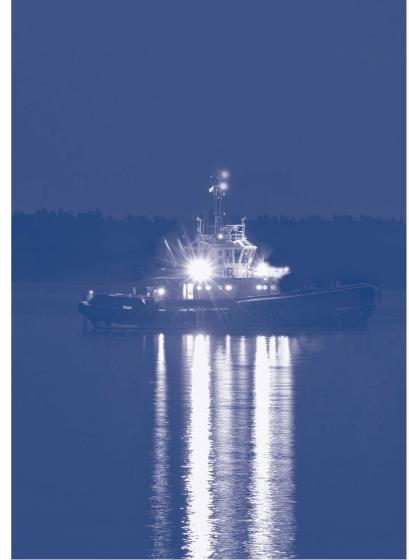












# FOR ADDITIONAL PRODUCT INFORMATION, PLEASE CONTACT DEN HAAN ROTTERDAM

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