





### THIS NEWSLETTER

Which topics are in this newsletter:

- 1) Wencon more than only a product. A range of products that holds Class Approval. Customer based repair advise from our specialists.
- 2) With Wencon less downtime due to high quality repairs in less time. Repair instead of renew saves money and reduce significant CO<sup>2</sup> emission.
- 3) Exhaust gas compensators (bellows) emergency repairs, new compensators and how to store a spare bellow.
- 4) LKAB Netherlands goes completely for a green and sustainable future with high preformance LED illumination.
- 5) Soccer fields durable and energy efficient illuminated according to the KNVB regulations.
- 6) NS (Nederlandse Spoorwegen, Dutch Railways) and energy efficient doublepower!! SEA LED luminaires in their maintenance plants for a decent illumination under the trains during maintenance.
- 7) Energy savings on an offshore fleet of platform supply vessels, more light with an enormously lower energy consumption contributes to a significantly better CO<sup>2</sup> footprint.
- 8) StreetPlug an unique underfloor charge system for electrical vehicles. An unprecedented technology developed and produced in the Netherlands.







Wencon Repair Kits are a repair and maintenance system on board, direct available when needed. Unique long shelf life time of at least 3 years.

Wencon repairsystems for less renewal of parts, long lasting repairs and protection. This contributes to a significant lower CO<sup>2</sup> emmission of your vessel.

The Wencon Repair Kits holds an easy refill system when products are used. Keep your Repair Kit up-to-date for the moment it is needed. Wencon is the First Aid Kit on board for mechanical issues. The Wencon manual guides the crew through many repair jobs at sea and reduces

down time of your vessel.





### **WENCON MORE THAN ONLY A PRODUCT**



#### RMN WENCON FOR REPAIR ADVISE

Many long lasting maintenance and repair jobs can be done by using the Wencon Metal-free Epoxy Repair Products. All the products holds Class Type approval Certificates from "Bureau Veritas (BV), American Bureau of Shipping (ABS), DNV-GL and RINA.

Using our Repair Manual "which is a standard item in each Wencon Repair Kit" many repairs can easily be done by the crew on board. There are also possibilities to get service engineers on board to assist you with your repair.

Extend the service life of your expensive and important components as Sea Water Filters, End Covers, Pumps, Wear plates etc. **RMN can also offer new Sea Water Filters**, if needed custom made and protected with the 600 micron Wencon Coating. Wencon products as protection against bi-metallic corrosion and more.







### WITH WENCON LESS DOWNTIME



#### RMN WENCON GRE PIPE REPAIR

These days many vessels have GRE Piping Systems on board. They are used for ballast pipes and for exhaust gas scrubber systems. With having this systems on board the demand for repairs is also growing. Wencon developed a repair system using the Wencon UW Coating Products to make a fast an reliable repair of these pipes. Less downtime and strong repairs. Especially due to the demand of this products there are 3 special developed GRE-Pipe Repair Kits. The Kits contains the right amount of products to repair 1 meter length of DN250 - DN500 - DN1000. Repair is done by the Wencon Wrapping Method with 4 layers of UW Coating and 3 layers of Wencon Reinforcement tape. Wencon UW Coating is also used to glue the GRE Pipe Connectors to the GRE Pipe. The method is described at the Wencon Video.

https://wencon.com/sealing-leaks-on-gre-pipes/







**RMN and WENCON** are also involved in many Exhaust gas scrubber repairs. We developed a repair method for corrosion pittings in the different areas of the scrubber system. Due to the extreme harsh environment inside the scrubbers with a very low Ph value we use the Wencon Hi-Temp and Wencon Ceramic Products to withstand the temperatures and Ph values.

Both products are also used to protect the open loop outlet pipe and the hull surrounding.





### WENCON EMERGENCY REPAIR ON BELLOW



#### **RMN WENCON BELLOW EMERGENCY REPAIR**

The exhaust gas compensator or bellow is designed as a flexible part between engine and exhaust pipe. This part has its limitations on movement axial and lateral and is designed for approx. 10.000 cycles. The moment that life time is over and a crack will occure will always be on an unexpected moment. Beside that there can also be another issue that causes the crack. For emergency repair Wencon developed a repair method with its unique **Wencon Exhaust Repair Kit**, a 1-Component product that withstand temperatures of max. 1300 °C. When the crack it repaired and gas tight you can order a new bellow (in case there is no spare on board). RMN can offer any Exhaust Gas Bellow, with or without inner sleeve. Our bellows are manufactured in Europe.

TIP: When you store a spare bellow on board please fixate it well to ensure that there is zero movement in it otherwise your spare bellow will be worthless the moment you need it. Always place it on the flange and not on its side as showed in the picture.

Wencon 1070 Exhaust Repair Kit the miracle stuff that helps you to enclose the crack temporary. The product can also be used to repair a crack or hole in an exhaust gas pipe. In the box is also a piece of strong metal mesh to cover the bigger damaged areas before applying the Wencon product. Application data sheets for both repair types are available.





### LKAB FOR A GREEN SUSTAINABLE FUTURE



#### RMN ENERGY SAVING LIGHTING PROJECT LKAB MOERDIJK

For our trusted customer LKAB Minerals at Moerdijk Port the Energy Savings Project on lighting is finished with the supply of the seconde phase of doublepower SKY GEN2 LED high performance luminaires. After installed in the first hall a year ago now the entire factory halls are equipped with this special luminaires that can withstand an enormously dusty environment.

This Linear Light luminaires are suitable for halls up to a heigth of 30 meters. The luminaires are modular and available in a high efficiency and a high output version. LKAB was in Januari this year worldwide news due to the discovery of Europe's largest deposit of rare earth elements in their mines in Sweden. A visit of RTL (Business) News showed this Dutch full subsidairy of LKAB SWEDEN. During this RTL broadcast it was very visible how the doublepower!! LED luminaires installed inside the halls provide a pleasant bright light without shadows. The challenge of this type of areas is the black dust caused by the production process and which covers walls, ceiling, floor etc. It was very visible that the floor area was equal illuminated. The company and their employees are extremely satisfied about the outcome of this light project. Beside this we also supplied previously all LED lighting for their offices and also replaced the conventional floodlights outside to LED versions.





### SPORT FOR A GREEN SUSTAINABLE FUTURE



#### RMN AND NTE SOCCER FIELDS WITH LED FLOODLIGHTS NOW ENERGY EFFICIENT

RMN delivered the new NTE-SISTEMAS LED Floodlights PM-TITAN for two soccer fields in Rotterdam. The extremely energy efficient new developed LED fixtures combines a high power with its versatility of orientation and the multiple optics available makes it possible to provide a lighting solution in the most demanding areas. The used PCB with 3535 L90B10 LED, with efficiency of over **180 Lm/W** is developed for an estimated life superior to >100.000h. There is a dimming system for each pair of projectors for a better light projection.

A unique Extreme low light polution, Upper hemisphere flow <1%.

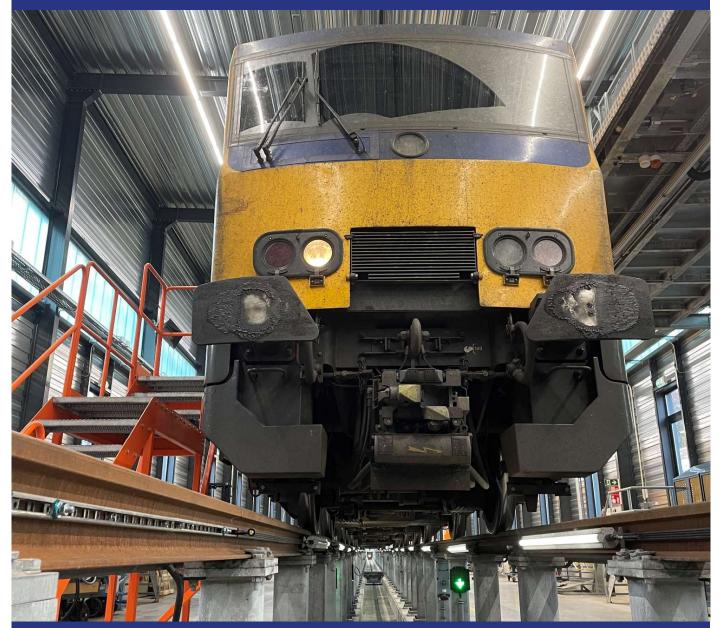
Control system and bidirectional telemetry that allows the user to know in real time the status of the luminaire, turn it on, turn it off, regulate its power or program several operating modes so that the behavior of the luminaire adapts to each situation. It allows the inclusion of light and presence sensors for decision making. Optional with the NTE Smart App for monitoring and control from via a Smartphone.

The fixtures hold a number of certificates and are tested and certified by entity acredited ENAC.





### **NS FOR A GREEN SUSTAINABLE FUTURE**



#### RMN AND DOUBLEPOWER!! FOR NS ALSO YELLOW/BLUE GOES GREEN

RMN is awarded to supply the **NS (Nederlandse Spoorwegen, Dutch Railways)** with the double-power!! SEA LED IP68 luminaires for several train maintenance locations. They had serious problems with water inside the current LED luminaires. RMN delivered approx. 1.5 year ago a test luminaire which was custom made for this project because the light system under the trains runs on 24Vdc and the luminaires had not a standard length. The major problem with the existing light fixtures was that the maintenance pit is frequently cleaned with a high pressure cleaner. This caused water entrapped in the luminaire and gave major failures. The doublepower!! SEA LED test luminaire was for that 1.5 year tested under the same circumstances and had no water issues at all. An extra bennefit with the doublepower!! SEA LED is that there is a breather valve fitted to equal air pressure inside and outside the luminaire and prevent moisture trapped into the luminaire. For the first two locations the luminaires are supplied and will be soon installed.

The **doublepower!! SEA LED IP68** is a proven concept at sea where the environment is extremely harsh and demanding. This makes the luminaire ultimate suitable for many other applications.





### **OFFSHORE SUPPLY FLEET GOES GREEN**



#### RMN AND NTE REPLACEMENT CONVENTIONAL FLOODLIGHTS TO LED

RMN is awarded for the replacement of conventional floodlights to LED floodlights on board of the first of a series Offshore Platform Supply Vessels. The replacement of the lights is given by the fact that the owner goes **GREEN** for all lighting fixtures on board. More industries today are convinced that it is important to change to a more sustainable future. One of the elements is energy savings on the light sources. Savings can be achieved up to >70% by replacing conventional light fixtures to high performance LED. The range we use for this seagoing vessels is very suitable for the harsh environment at sea especially with this salt water environment. By reducing energy consumption the CO<sup>2</sup> emission will be significant lower. Another important benefit is that there is no need for replacing light sources anymore. Halogen and high pressure light sources does have a significant lower service life and they are also vulnerable for vibrations. The power factor of the LED much better than with conventional light sources especially when the light source is aging. Where a light output of an high quality LED as with the NTE LED Floodlights is >96%, it is for a conventional light source significant lower after already a quarter of its service life. Conclusion LED light sources with a high power factor provides more light over its entire service life. Degradation is a lot less over the lifespan of the LED. In our previous newsletter you can read the new EU-regulation for LED and light sources. Pay attention on this and especially on the light sources that will be faced out this year and manufacturers are no longer allowed to produce them. This regulations comes quicker than you expect. Be prepared.





### STREETPLUG UNDERGROUND CHARGING



#### RMN AND STREETPLUG THE UNDERGROUND CHARGING SYSTEM FOR ELECTRIC VEHICLES

The StreetPlug is a flexible charging solution suitable for every location with an eye to keeping the original appearance of the street. An intelligent technology with a smart design. The StreetPlug makes it possible to recharge without worry at home or on the road, with a few important benefits. The StreetPlug SP1 Smart has a payload of 3,7kW, 7,4kW 11kW and 22kW. The two-plug system consisting of a Type 2 (Mennekes) and a Schuko outlet makes multifunctional charging possible. A unique water management system with a water sensor stops the charging process as long as water is detected. The StreetPlug can easily be connected to the rainwater drainage system and as alternative with a Hydroblock. The Hydroblock under the Streetplug ensures a rapid drainage and release the water to the ground. In addition, the diving bell principle ensures that the electrical components (when in a closed state) are in a bubble and thus remain dry. Operation is possible via a charging tag,remote controle (Homelink) or the StreetPlug App (mobile App), equipped with an EV Cloud backoffice with a 24/7 helpdesk support. The StreetPlug can withstand a pressure load of 12.500 kg according to NEN-EN 124 Class B125. StreetPlug can also supply a stainless steel post model charging station with a nice appearance and a possibility for one or two Type 2 (Mennekes) sockets.

#### STREETPLUG A UNIQUE CHARGING SYSTEM FOR A GREEN FUTURE.

For more information about this products contact our sales representative Infra and Industry:

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