

# DAMEN SHIPYARDS & DAMEN DEFENCE

DAMEN & METALTEC-1  
PROFESSIONAL LIQUID



HIGH-TECH  
MILITARY  
NANO  
TECHNOLOGY





# WHAT IS METALTEC-1® PROFESSIONAL LIQUID?

METALTEC-1® PROFESSIONAL LIQUID is a clear golden synthetic liquid resembling an SAE 10-weight oil. When METALTEC-1® PROFESSIONAL LIQUID is added to the primary lubricant of any machine, it will increase operating efficiency, extend equipment life, reduce downtime and cut unscheduled maintenance.

Even though METALTEC-1® PROFESSIONAL LIQUID is added to any fluid, it is not an additive. METALTEC-1® PROFESSIONAL LIQUID contains no viscosity enhancers or other oil augmentation compounds. It does not modify the primary lubricant in any way, instead METALTEC-1® PROFESSIONAL LIQUID is a metal conditioner. METALTEC-1® PROFESSIONAL LIQUID simply uses the circulating fluid as a means to reach the critical hot spots and metallic friction surfaces within the machinery.

When the fluid carries METALTEC-1® PROFESSIONAL LIQUID to these areas, METALTEC-1® PROFESSIONAL LIQUID exits the fluid, leaving the fluid completely unaffected and unchanged.



# WHERE IS METALTEC-1® PROFESSIONAL LIQUID USED?

METALTEC-1® PROFESSIONAL LIQUID can be used in all types of machinery. Typical uses include:

- Both two- and four- cycle diesel and gasoline engines of all sizes
- Automotive and industrial transmissions and differentials
- Compressors of all types including refrigeration
- Assembly line speed reduction gears
- Electric motors
- Pumps
- Etc.

It is also an excellent cutting fluid for the most difficult lathe and mill work from:

- Nuclear powered subs to dental drills
- Rock crushers to bicycles
- Air conditioners to sewing machines

*METALTEC-1® PROFESSIONAL LIQUID literally works anywhere two pieces of metal rub together.*







## HOW DOES METALTEC-1® PROFESSIONAL LIQUID WORK?



When TCTEK PROFESSIONAL LIQUID® (METALTEC-1®) is applied to a metal surface, it chemically reacts with, and is adsorbed by, the metal. The chemical reaction takes place at temperatures between 100°F and 150°F (38°C - 66°C) depending on friction and load conditions. The effect of the chemical reaction is stiffening (not hardening) of the metal surface - approximately **17 stiffer** when the reaction is complete. The increased stiffness dramatically reduces friction and parasitic drag, just as when an underinflated tire is pumped up.



# REDUCED FRICTION YIELDS MANY BENEFITS:

- Wear rates are greatly reduced.
- METALTEC-1® PROFESSIONAL LIQUID treated machines last longer.
- Lubricating oil becomes more effective and efficient.
- Piston rings seal better against cylinder walls for better compression and reduced tailpipe emissions.
- Bearings spin more freely.
- Gears mesh more effortlessly.
- METALTEC-1® PROFESSIONAL LIQUID treated machines run cleaner and use less energy to do the same work.
- Less heat is generated in the moving parts.
- METALTEC-1® PROFESSIONAL LIQUID treated machines run cooler. Additionally, the bond between METALTEC-1® PROFESSIONAL LIQUID and metal is remarkably durable.
- METALTEC-1® PROFESSIONAL LIQUID - treated machines are protected and will retain adequate lubrication for extended periods in extreme out-of-parameter temperature variations, or even if the primary lubricant is completely lost.





# BENEFITS OF METALTEC-1® PROFESSIONAL LIQUID:

- Reduction of harmful tailpipe emissions in all gasoline, diesel and two cycle engines
- Twenty-four-hour lubrication to all metal surfaces
- Reduced operating temperatures at all metal friction points
- Increased power using the same energy
- Reduced oxidation, thermal decomposition, corrosion and wear
- Greater efficiency in electric motors, alternators and generators
- Less energy required in engine start-ups, regardless of weather conditions
- Does not adversely affect the viscosity of the primary lubricant
- Long lasting - Remains bonded to metal surfaces even after several oil changes
- Protects for extended periods even if primary lubricant is lost, or is contaminated by fuel, anti-freeze or combustion by-products
- Reduces material build-up. Contaminants and wear metals cannot cement themselves to METALTEC-1® PROFESSIONAL LIQUID - protected surfaces.





# WHAT'S IN METALTEC-1® PROFESSIONAL LIQUID?

METALTEC-1® PROFESSIONAL LIQUID is a chemically-reacted synthetic-based hydrocarbon derivative. At the start of the manufacturing process, METALTEC-1® PROFESSIONAL LIQUID is composed of a blend of several extreme pressure lubricants, natural anti-corrosion ingredients, extremely stable chlorate esters, anti-wear components, and anti-oxidant compounds. This blend is then introduced into a chemical reactor. When METALTEC-1® PROFESSIONAL LIQUID emerges from our proprietary chemical reaction process, it is no longer a blend. It has been organically bound into a unique, pure, uniform single substance. In its finished form, METALTEC-1® PROFESSIONAL LIQUID is completely stable, so it does not require agitation before use.

*Just as important as knowing what's in METALTEC-1® PROFESSIONAL LIQUID is knowing what isn't.*





## 100% ECO FRIENDLY

METALTEC-1® PROFESSIONAL LIQUID does not contain chlorinated paraffin's, PTFE, fluorine, solvents, carrier oils, viscosity enhancers, metals, molybdenum disulphide, zinc, sulphur, graphite powders or other solids. It's also important to realize that METALTEC-1® PROFESSIONAL LIQUID is non-hazardous, non-toxic, and non-combustible. It is so safe that METALTEC-1® PROFESSIONAL LIQUID was even approved environmentally by the U.S. Navy Medical Command for use aboard nuclear-powered submarines.

- METAL CONDITIONER
- HI-TECH ANTI-FRICTION
- AUTOMATIC TRANSMISSION
- MANUAL TRANSMISSION
- GEARBOXES DIFFERENTIALS
- TREATMENT

MOTOR TREATMENT  
FOR GASOLINE  
MOTORS & DIESEL

250 ml

NASA

★ ★ ★  
**ECO  
FRIENDLY**  
🌿 🌿

NON  
PETROLIUM  
🐟

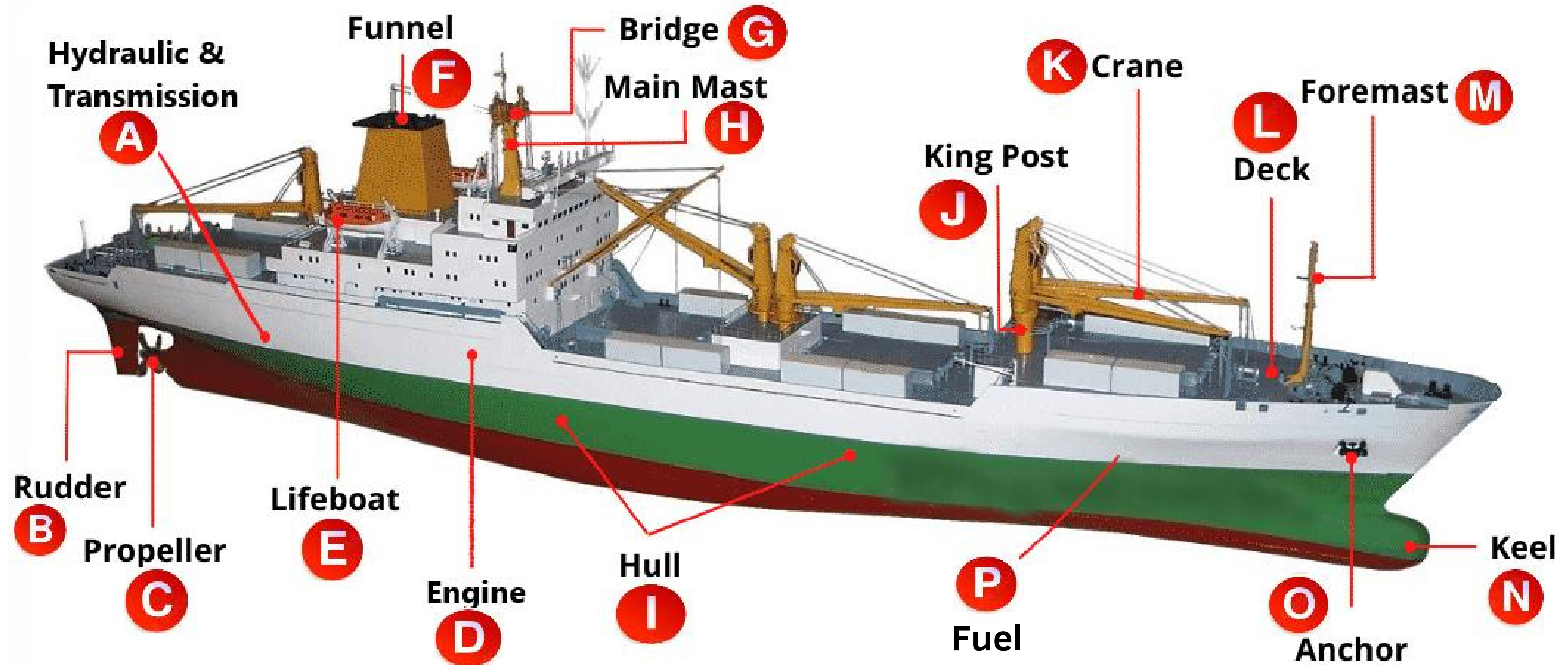
★ ★ ★  
**CHEMICAL  
FREE**  
🌿 🌿 🌿

NON FLAMMABLE

NON EXPLOSIVE



# WHERE METALTEC-1® PROFESSIONAL LIQUID CAN BE USED?





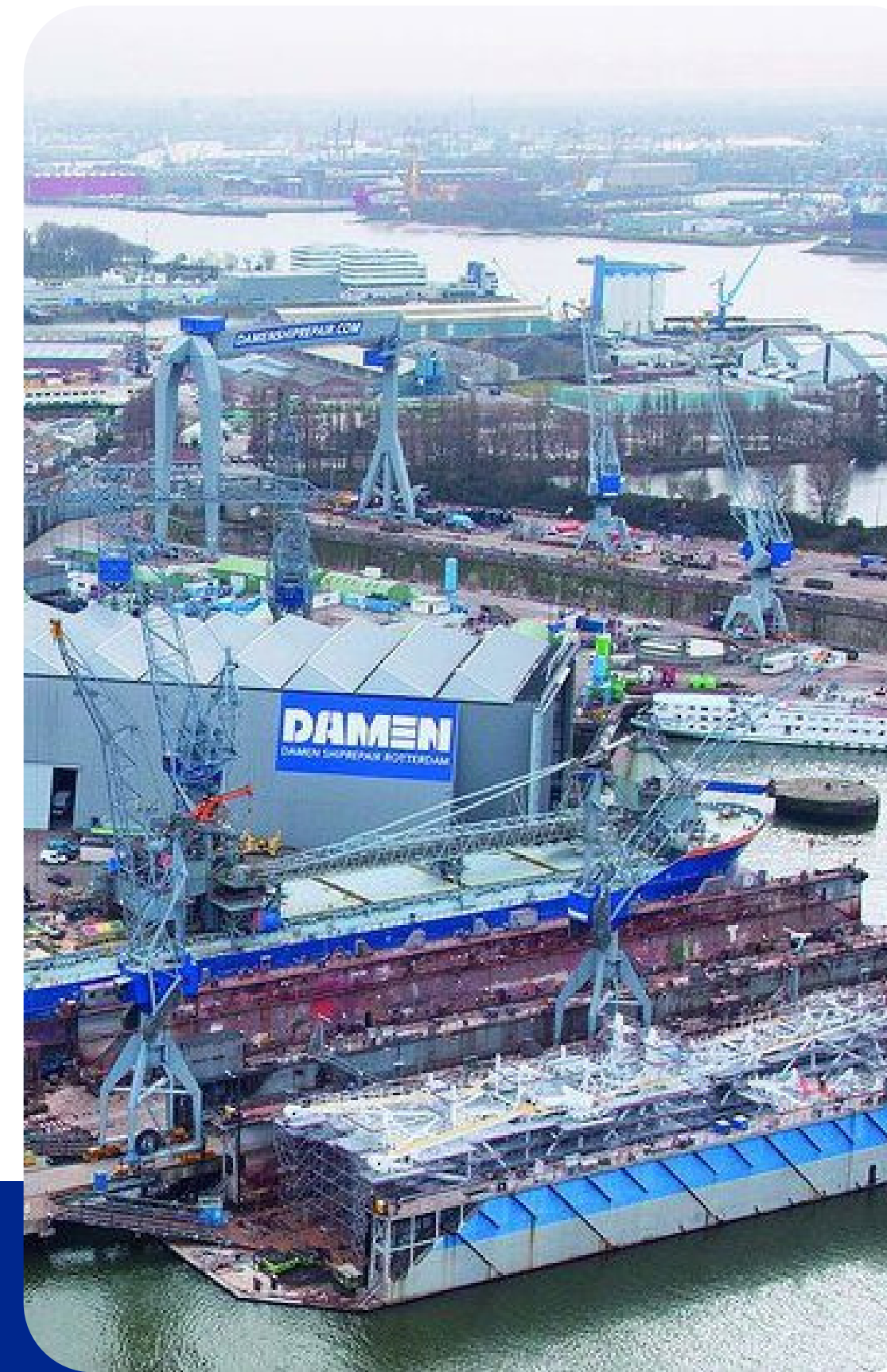


## HYDRAULIC & TRANSMISSION



## CRANE

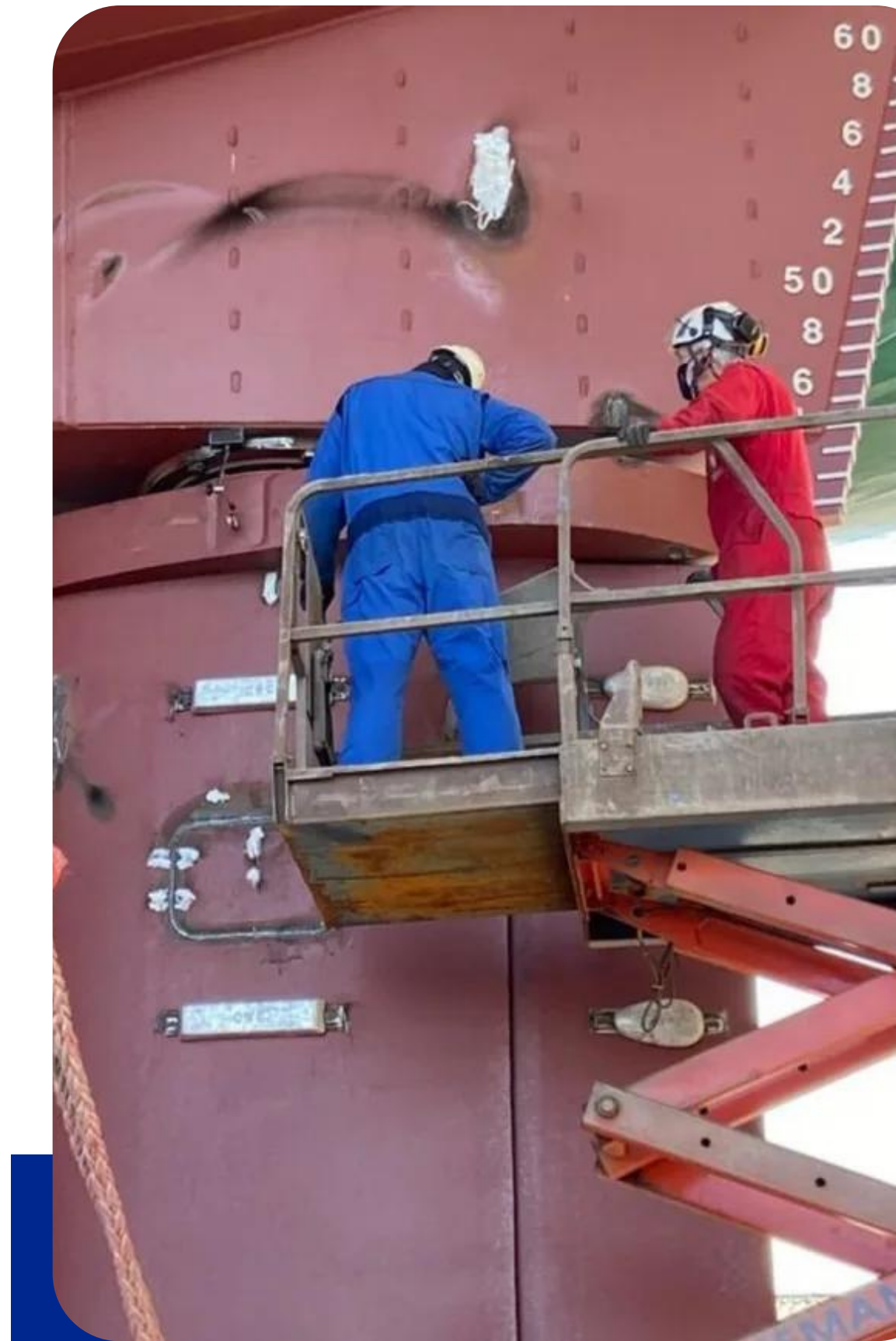
Transmission and hydraulic fluids can be used in many parts of the Ship's. As for hydraulic fluid it is recommended to use for every 20 liters adding METALTEC-1® PROFESSIONAL LIQUID 2 litres will last the life time and performance in huge differences. Not only extending the life span of the fluid it will keep the equipment where the hydraulic is pumped thru and save on service and parts.





- |          |                  |          |                  |
|----------|------------------|----------|------------------|
| <b>O</b> | <b>ANCHOR</b>    | <b>K</b> | <b>CRANE</b>     |
| <b>J</b> | <b>KING POST</b> | <b>H</b> | <b>MAIN MAST</b> |
| <b>G</b> | <b>BRIDGE</b>    | <b>F</b> | <b>FUNNEL</b>    |
| <b>B</b> | <b>RUDDER</b>    | <b>C</b> | <b>PROPELLER</b> |

Our 5 range of grease with its METALTEC-1® PROFESSIONAL LIQUID in it, is perfectly suitable for all weather, environment and machines Our lowest to highest temperatures for Professional Liquid is  $-43^{\circ}\text{C}$  to  $+1000^{\circ}\text{C}$  and for our grease types varies between  $-50^{\circ}\text{C}$  to  $220^{\circ}\text{C}$  from bearings to high speed electric motor bearings, Lithium plastic lubricant with MoS<sub>2</sub>. Apart from grease METALTEC-1® PROFESSIONAL LIQUID can be used on its own or mixed with the already used grease for high quality performance to rust free, from corrosion to water resistant. Most of all our METALTEC-1® PROFESSIONAL LIQUID is %100 Synthetic and %100 ecofriendly.





# ENGINE

One of the most important if not the most is the engine of the ship. Due to movement and performance and the heart is the engine of the machine. For every 1 litre of an engine oil adding METALTEC-1® PROFESSIONAL LIQUID will not only produce quality performance it will keep the engine clean and the life span of the oil that has been used for minimum of four times of next oil change. This will decrease the amount that is spent on changing oil to service, from spending money on oils to extending more time on sea rather than a port.





**E LIFEBOAT**

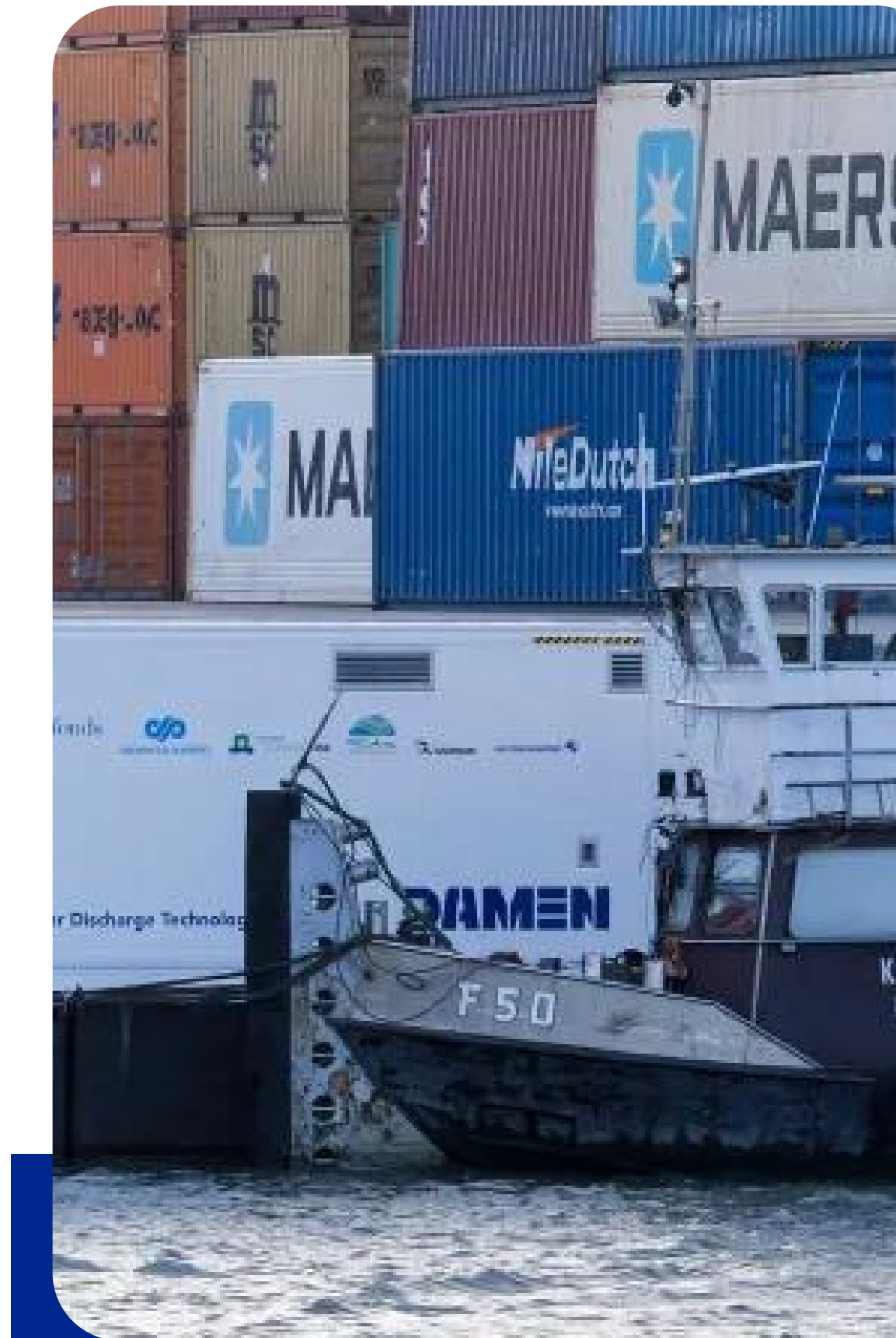
**L DECK**

**N KEEL**

**I HULL**

**M FOREMAST**

By treating the unpainted, untreated metal frames, parts, from deck to Hull and Keel by METALTEC-1® PROFESSIONAL LIQUID on a warm weather, will keep the treated area rust free even under water to extreme hot weather. Not only keeps it rust free it will longer last the treated area for a life span of the equipment. Most of all and most importantly, its %100 Eco friendly so their will be no environment hazard for the sea world.





## FUEL

According to our past and present customers from shipping industry there has been a test done (Company and request details hidden due to customer regulations on purchase). If a very small amount of METALTEC-1® PROFESSIONAL LIQUID added to the fuel, savings of -7% - 15% is been performed.





METALTEC-1®



METAL CONDIT

- METAL CON
- HI-TECH AN
- AUTOMAT
- MANUA
- GEARBO

By using the direction of use of METALTEC-1® PROFESSIONAL LIQUID, it will not only save on parts, liquids and services. There will be saving on:

- TIME OF SERVICE
- LABOR EXPENSE
- TIME OF DOCKING FOR SERVICE
- PIER OR DOCK EXPENSE
- ENGINE SHUT DOWN TIME EXPENSE
- AND MANY MORE...

**BEST QUALITY**



# THANK YOU

For more information please contact  
our distributor:



[www.range-technology.com](http://www.range-technology.com)

Main Supplier:



[www.tctek.com.tr](http://www.tctek.com.tr)

