ENGINEERING NEWS

LUBRICANTS FOR THE MARINE ENVIRONMENT ARE SUBJECTED TO VERY SPECIFIC AND OFTEN HARSH CONDITIONS. THEY THEREFORE NEED TO BE DESIGNED FOR THEIR SPECIFIC APPLICATIONS TO ENSURE THEY ARE EFFECTIVE AND SAFE.

CALLUM FORD, NATIONAL MARKETING MANAGER AT LUBRICATION ENGINEERS (LE) SOUTH AFRICA, SAYS THAT TYPICAL MARINE APPLICATIONS INCLUDE WIRE ROPES, MOVING CHAINS AND CABLE PARTS. HE STRESSES THAT USING NON-TOXIC PRODUCTS IS ALSO IMPORTANT FOR PRESERVING MARINE LIFE.

"PEOPLE TEND TO THINK THAT BIODEGRADABLE IS THE SAME AS NON-TOXIC TO MARINE LIFE, AND THAT'S NOT ALWAYS THE CASE," HE EXPLAINS. "WHILE ENVIRONMENTALLY FRIENDLY LUBRICANTS HAVE LONG AIMED TO BE BIODEGRADABLE, THE EARTHWISETM RANGE SUPPLIED BY LE IS SPECIFICALLY FOCUSED ON ALSO BEING NON-TOXIC. FOR EXAMPLE, LE'S EARTHWISE EAL WIRE ROPE GREASE (3353) IS A CERTIFIED ENVIRONMENTALLY ACCEPTABLE LUBRICANT AND IS RECOMMENDED FOR USE IN APPLICATIONS ON OR NEAR WATERWAYS. IT IS READILY BIODEGRADABLE, EXHIBITS MINIMAL AQUATIC TOXICITY AND WILL NOT ACCUMULATE IN THE CELLS OF FISH AND OTHER AQUATIC LIFE FORMS. OUR DUOLEC® ADDITIVE, WHICH IS USED IN GEARBOX APPLICATIONS, HAS ALSO BEEN SPECIALLY RE-ENGINEERED TO PERFORM BETTER IN SALTWATER CONDITIONS, GUARDING AGAINST LUBRICATION DEPOSIT AND ENGINE WEAR."

WIRE ROPE LUBRICATION IS ANOTHER ESSENTIAL PART OF MAINTENANCE IN THE MARINE SECTOR, BUT MANY PEOPLE AREN'T AWARE THAT BY SWITCHING TO MODERN LUBRICATION EQUIPMENT AND APPLICATION TECHNOLOGY, THEY CAN SUBSTANTIALLY IMPROVE THE SPEED OF APPLICATION AND THE EFFICACY OF THEIR LUBRICATION PRODUCTS. LE SUPPLIES THE VIPER WIRE ROPE LUBRICATOR, WHICH IS AVAILABLE IN THREE DIFFERENT SIZES TO ACCOMMODATE DIFFERENT ROPE THICKNESSES.

"AS THE WIRE ROPE IS PASSED THROUGH THE VIPER SYSTEM, THE LUBRICATION IS APPLIED," SAYS FORD. "IT PROVIDES GREASE PENETRATION, DISPLACES MOISTURE FROM THE ROPE'S CORE, PROVIDES TOTAL COVERAGE, EVEN FOR LARGE ROPES, AND PROLONGS THE LIFESPAN AND IMPROVES THE PERFORMANCE OF THE ROPES.

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THE REDUCED RISKS OF THIS SYSTEM, AS OPPOSED TO MANUAL GREASING, INCLUDE IT BEING SAFER FOR STAFF TO USE, USING SMALLER VOLUMES OF LUBRICANT AND LESS LEAKAGE AND MESS. ALL OF WHICH HAS A POSITIVE LONG-TERM BENEFIT FOR THE ENVIRONMENT."

LE ALSO SUPPLIES ENVIRONMENTALLY FRIENDLY CLEANING PRODUCTS THAT ARE SUITABLE FOR DEALING WITH OIL AND GREASE IN MARINE ENVIRONMENTS. OIL SPILL EATER II (OSE II) USES A BIOLOGICAL ENZYME TO CONVERT WASTE INTO A NATURAL FOOD SOURCE FOR BACTERIA FOUND IN AQUATIC ENVIRONMENTS. IT IS APPROVED BY THE US ENVIRONMENTAL PROTECTION AGENCY (AND FEATURED ON THE NATIONAL CONTINGENCY PLAN LIST) AND THE UK MARINE MANAGEMENT ORGANISATION, AND WORKS BY SPEEDING UP NATURE'S OWN SPILL REMEDIATION PROCESS.

"IN NATURE, BACTERIA RELEASE ENZYMES AND BIOSURFACTANTS THAT ATTACK THE SPILL," SAYS FORD. "THE BIOSURFACTANTS EMULSIFY THE SPILL, BREAKING IT DOWN TO BE USED AS A FOOD SOURCE FOR THE BACTERIA. THE END RESULT OF THIS PROCESS IS CO2 AND WATER. OSE II CAN BIOREMEDIATE MOST ORGANIC-BASED COMPOUNDS AND ALMOST ALL HYDROGEN-BASED COMPOUNDS." ASIDE FROM CLEANING UP SPILLS ON SHIP DECKS, FUEL TANK CLEANING, BALLAST WATER TANK CLEANING AND BILGE TANK CLEANING, OSE II IS ALSO SPECIFIED FOR CLEANING OIL SPILLS ON OCEANS AND LAKES, AS WELL AS FOR CLEANING OILED WILDLIFE AND MARINE LIFE.

"BECAUSE IT WORKS SO SWIFTLY AND IS NON-TOXIC, IT CAUSES THE OIL TO JUST EASILY SLOUGH OFF ONCE SPRAYED ON," SAYS FORD. "THIS CAUSES LESS TRAUMA FOR THE ANIMAL BEING CLEANED AND A MUCH FASTER AND EASIER CLEAN-UP PROCESS. THE SPILL IS DETOXIFIED TO THE POINT THAT INDIGENOUS BACTERIA CAN NOW USE THE OIL AS A FOOD SOURCE."

FORD SAYS LE IS ABLE TO DEVELOP A COMPREHENSIVE LUBRICATION SOLUTION FOR ALL MARINE AND SHIPPING NEEDS, AND ENCOURAGES BUSINESSES TO CONTACT LE SOUTH AFRICA FOR AN OBLIGATION-FREE CONSULTATION WITH A LUBRICATION SPECIALIST. "OUR ENHANCED LUBRICANTS ARE MADE OF HIGHLY REFINED BASE OILS AND PROPRIETARY ADDITIVES, WHICH MEANS THEY EXCEED THE PERFORMANCE OF CONVENTIONAL LUBRICANTS IN A VARIETY OF APPLICATIONS," HE SAYS.

"WE CAN HELP MARINE AND SHIPPING CUSTOMERS TO EXTEND LUBRICATION INTERVALS AND EQUIPMENT LIFE, AND SIGNIFICANTLY REDUCE WEAR, ENERGY USE, DOWNTIME AND MAINTENANCE, THEREBY RECOVERING THE INITIAL COST OF THE LUBRICANT MANY TIMES OVER."