



## Real experiences with MotorUP Industrial product applications



Spain										
Client	Year	Application	Equipment / Machine	Power	Work Hours	Test / application purpose	Oil / Grease used	MotorUP product used	Result	Savings
<b>Proloc, S.L. , Madrid.</b> Company owner of mobile phone antennas. Earth moving equipment rental.	1997	Power generation for celular phone antennas	Iveco 803li Diesel Engines. Used in 56 engines working 24hrs x 365 days.	40 H.P.	9.696	Lengthen the interval between oil changes to save labor, filter & oil costs.	7 liters, 15W40	MU 420 Engine Treatment at 5% concentration	The oil change is extended from every 500 hrs. to every 1,500 hrs. Wear is reduced between 42% and 58%	Direct savings for oil change interval extention account to €66,166/year. There are indirect savings for reduced maintenance and life extention of the engines as wear is reduced.
<b>Ertinsa - Subsidiary of Cepsa, Huelva.</b> Petroleum and Plastics. Cepsa is an ELF subsidiary, a major oil group. www.cepsa.com	1997	Phenol and melamine manufacture.	Sundyne speed multiplier gearbox - LMV 311.	90 H.P.	4,000 hrs	Reduce oil temperature and vibration	Odiel 46 - CEPSA. 8ltrs.	OilForce at 12.5% concentration	Vibration is reduced by 63% from 15.31 mm/sec to 5.68 mm/sec. Oil temperature reduced by 7°C, 10%.	Life extention of equipment due to vibration reduction
<b>Hidráulica Burgalesa, S.A.</b> Machinery repair. http://www.hibursa.com	1997	Hydraulic System	Hawe - RZ piston pump. Working pressure 300Bar.			Energy savings	Fuchs - revolin - BHV 15	OilForce at 10% concentration		9.25% average energy savings
<b>Concerveras Calvo, Esteiro</b> factory. Preservation of fish. www.calvo.es	1998	Hydraulic System	Set of Hydraulic Pumps			Reduce oil temperature and vibration		OilForce at 10% concentration	<u>Pump 1.</u> Vibration reduced from 51db to 22 db = 57%. Temperature reduction 13%. <u>Pump 3.</u> Vibration reduced from 43db to 23db = 47%. Temperature reduction 14%	Life extention of equipment due to vibration & temperature reduction
<b>Concerveras Calvo, Esteiro</b> factory. www.calvo.es	1998	Mussels cleaning machine	Conveyor chains			Lengthen the life of the trawling chains. Reduce chain oxidation problems		260M+ OilForce grease	Oxidation reduction by70%. The chain doesn't need to be replaced, its reusable.	Maintenace cost reduced.
<b>Fertiberia, S.A., Puertollano.</b> Leader in fertilizer production. www.fertiberia.es			Ruhrpumpen 6x 12RHC pump	300 H.P.		Reduce vibrations	ISO 46	OilForce	Vibration reduction from 5mm/sec to 2.1 mm/sec equal to 2.9 mm/sec, 58%. Temperature reduction 8°C	Life extention of equipment due to vibration reduction. Maintenance costs reduced.
<b>Ferlosa, S.L.,Lugo.</b> Stone production for construction, gypsum and slate.		Earth moving equipment	Caterpillar Dumper - 769C engine 3408TA.	450 H.P.	17,700 hrs.	Loss of engine power. Recover engine power.	15w40, 46 ltrs.	MotorUP 420 at 10% concentration	The engine power is recovered equivalent to 1 shift.	Postpone engine overhawl. Reduce maintenance costs.
<b>COFERSA-EXCO, S.L., Palencia.</b> Earth moving equipment rental.		Air compressor	Atlas Copco - BFM-1011 F	3 H.P.		Recover compressor effectiveness.	5 ltr. Oil reservoir.	Compressor-Safe	Loading time is reduced from 17' to 12' = 29%. Temperature reduction of 8%	
<b>Acerinox.</b> World's largest stainless steel manufacturer. http://www.acerinox.es	2000	Cold rolling	Large gearboxes and other equipment in the Algeciras, Spain facility.			Avoid breakdown of very large gears, protect, & prolong life.	6,000 ltrs oil in a sole gearbox.	Oilforce at 10% concentration for gearboxes. MU Xtreme 260M grease for other equipment.	Treating most of the equipment of the manufacturing plant for over8 years.	Replacement cost of main gears is €180,000. Manufacturing time of the gears is 8 months. MU products extend the life of the gearbox and other equipment.
<b>Maersk.</b> One of the largest shipping companies in the world. www.maerskline.com	2011	Transtainer cranes that move the containers in the port.	Diesel engine-generators.			Consumption of 95% of the engine oil in 400hrs of operation. Oil needs to be refilled every 2 days. Oil cannot stand working conditions & temperature. Oil viscosity drop.	40 ltrs.	OilForce at 5% concentration	Oil consumption is reduced by 82.5%. Oil + 5% OilForce keeps its viscosity unchanged all along the 400 hrs of use.	The unsustainable working conditions of the engines are corrected. Extends engine life, savings in maintenance & breakdowns.Savings in oil consumption. Environmental benefits, reduced pollution.

Pizarras Irosa S.A., Leon.	1997	Slate cutting. Very extreme working conditions, abrasive dust and water presence.	7mt long RS60AS Tsubaki stainless steel trawling chain of an Ochandiano cutting machine.			Reduce greasing, tensing & cutting frequency of the chain. Tensing frequency before usage of MU 260M grease: 15days, cutting frequency every 30 days.	Premium brand Lithium base grease.	260M+ OilForce grease	The stainless steel chain is replaced by steel chain. The trawling chain did not require to be tensed nor cut after 45 days of usage. There is no oxidation.	not estimated
Endesa. Central Compostilla II - Ponferrada.	1998	Coal power plant	Foster Wheeler D8B coal mill. Pinion-crown system.	930 H.P.	Produces 20 tons/hr.	Replace Lead (Pb) based grease, considered toxic and dangerous. Comply with environmental regulations.	Disvit grease with lead content and 25% perchloroethylene	MU180-0 grease	Grease consumption is reduced from 4.5 kg/day to 1.39 kg/day = 69%. Vibrations reduced from 16mm/sec. to 9.1 mm/sec. =43% Temperature reduced 9%. Volume of grease waste is reduced.	MU grease is more expensive than Disvit grease. By reducing the frequency of greasing, MU grease is competitive and also improves the performance.



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