

**Prolong AFMT™ The Most Powerful Oil in the World™** 

PROLONG ÄR ETT PATENTERAD SMÖRJMEDEL SOM TAR NORMAL SMÖRJNING ETT STEG LÄNGRE.

VAD HAR NÅGRA AV VÄRLDENS STÖRSTA FÖRETAG ATT SÄGA OM PROLONG?



# Lordstown Assembly, Lordstown, OH



We have learned that our cheapest maintenance is proper lubrication. Therefore, we continue to explore methods to upgrade our lubrication systems, extend intervals and be the most cost effective. Our standards are rigid with all emphasis being placed on Material Safety Standards in order to protect employees required to work with these products. *Our testing may have seemed slow over the last few weeks, but the end results merit the highest rating of your quality products.* 

Some tests that helped to convince us of the claims made of the Prolong AFMT, SPL100 and EP 2 Grease were mixing your oil conditioners into water, extreme heat, extreme pressure bearings, cat chains, air tools and air guns. **These products not only performed well, but surpassed every expectation.** 

In summary, I thank you for the opportunity to research and pioneer PROLONG products. I truly believe a lubrication breakthrough has been made, thus reducing friction and removing barriers which will enable us to become more productive.

At the present time, ALL lubrication applications are accomplished most effectively by enhancing our lubrication oils with PROLONG products. We are continuing to experiment. World Class Quality is our goal. To achieve this we must have the finest lubricants and oils.



# HONG KONG CASE STUDIES: COST REDUCTION AND PRODUCTIVITY IMPROVEMENT WITH PROLONG SUPER LUBRICANTS

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Introduction: The success of conventional lubricating oils is predicated upon maintaining a high, film strength, oil barrier between two surfaces moving relative to each other. Resistance to the movement of these surfaces is defined as friction, which can be either sliding, or rolling, or which can be caused by the shearing action of a lubricant attempting to separate the two surface areas.

Hydrodynamic, hydrostatic, and boundary lubrication typically occur in some combination in virtually all mechanisms which require lubrication. Most commercial lubricants are reasonably capable of doing the job for which they are intended.

**PROLONG AFMT** is a world wide, patented new lubricant which takes normal lubrication a step further, in that it not only has a superior film strength, but also appears to impregnate the steel itself, at a metallurgic level, at the friction surface.

As the result of this new breakthrough in tribology, PROLONG products have accomplished, in the industrial setting:

Reduction of electricity consumption by as much as 30% Increases in tool life by 500% Improvements in productivity by 50% Increases in equipment life up to 10 times

All in all, PROLONG has proved to be superior to all conventional lubricants in Hong Kong as well as other parts of the world. The ability of Prolong Lubricants to bond to the metal surfaces virtually assures a non-corrosive environment.





Posted by IM-admin On June 23, 2014

### Prolong Super Lubricants' EP-2 Grease a success at El Teniente



For over a decade, one of the world's largest underground mining operations has been using Prolong EP-2 Grease to increase equipment longevity and reduce service downtime. Codelco's El Teniente division, located 80 km south of Santiago and 2,500 m above sea level, operates the one of the largest underground mines on earth, producing over 330,000 t/y of copper.

Prolong's Chilean distributor Super Lubricants initially introduced Prolong EP-2 Grease to operations management at El Teniente for use in 100-t LHDs. The mine was looking for a solution to the serious problem of brass bearings at the pivot points of the scoops failing at a high rate, causing costly downtime and refurbishing. Once Prolong lubrication technology was applied, bearings have ceased to fail and continuous production time between scheduled maintenance downtime has more than doubled.

Prolong formulates EP-2 with the company's exclusive AFMT™ (Anti-Friction Metal Treatment) technology which reduces heat and friction in harsh, demanding environments. A calcium sulphonate grease that delivers exceptional corrosion protection, high dropping point and mechanical stability, EP-2 provides excellent resistance to water and oxidation, high load carrying ability and superior performance in a wide temperature range.

Codelco's success with the loader bearings led the mine management to try Prolong grease in other applications, with equally impressive results. During a visit to El Teniente operations, both management and line operators reported favourable results when EP-2 Grease was used for bearings in the grinding mills, some 10 m in diameter. These bearings were becoming so heated that they failed, bringing the mills to a standstill halt and seriously backing up production. The application of Prolong grease radically lowered the bearing temperatures and kept the mills operating efficiently. The benefits of EP-2 were also seen when the company used it in the hydraulic lube network and in stand-along applications on timing systems.

Jeff Victer, Director of Sales - Global, Prolong Super Lubricants: "It's extremely satisfying to be able to demonstrate such significant savings in an operation of this scale, magnitude and technological level, and our company is proud to be able to provide the Codelco mine with the benefits of EP-2 technology."



# TOYOTA, Japan

### Kinuura Plant

By adding Prolong EP-2 Grease to several machines, which were on the verge of failure and breakdown, they were able to keep those machines running, without repair, and all symptoms of damage were unobservable.

They were able to keep certain bearings working properly, which in the past have historically been changed every three months, due to coolant leaking onto the bearing/shaft interface. A doubling of bearing life was observed at the time, with no end in sight.

### Toyota Koki Gear Cutter

The Toyota staff were instructed to apply the Prolong AFMT onto the end mill slides (full strength), every so often, the first day of application; then every day, thereafter, only two or three times. Ordinarily, a new slide requires 8KgFt/sec-sec of force to move the slide per revolution. Since these slides were requiring 11KgFt/sec-sec, they knew the slides were at an end point.

Within one week, the pressure required had dropped to normal and no regrinding was necessary for at least a ten month period! Furthermore, partially oxidized, or "dirty" lubricants tend to show streaking where there is scuffing as the slide moves up. At the end of the week, the streaking was no longer evident. After careful inspection, it was determined that the Prolong oil properties allowed a smoothing, or folding over of these ridges, not a loss of surface metal.



### STATUS: Approved-FORD TOX Numbers



Prolong AFMT increased productivity by \$500,000.00 per month for 8 years on the production-line of 4.5-5 Million air conditioning motors annually. 3-4 gear box failures per month were reduced to ZERO for over 8 years.

### FORD MOTOR/VISTEON TOX NUMBERS

Due to the long-term efforts of Gary Palmer of AGI Petroleum- Indianapolis, PROLONG Super Lubricants has been awarded TOX number status by Ford Motor Company on the following products.

This allows the introduction and sale of the *PROLONG* product line to all Ford Motor and VISTEON plants in North America. It will also give distributors access into other types of major manufacturers that require this type of product qualification.

Having a TOX number means that the product meets all disposability, human contact, equipment compatibility and profitability/savings requirements deemed necessary by Ford Motor Company.

	<u>TOX #</u>	TRACKING #
PROLONG AFMT	153244	C-2174
PROLONG SPL100 12 oz. aerosol	155832	C-20127
PROLONG SPL100 24 oz. Spray Trigger	172819	C-27514
PROLONG Gear & Differential Treatment	156215	C-20128
PROLONG EP-2 Grease	172671	C-26843
PROLONG Ultra-Cut 1 Water Soluble Cutting Fluid	172826	C-27591



An automotive part assembly plant, operating a leased, 42 lift truck, "5 year throw-away" fleet, was experiencing so many gearbox failures, downtime and repair-related issues, finally decided in the third year of operation of this fleet, to install 10% PROLONG AFMT into each truck- dual gearboxes.

#### Results

The fleet is now in its ninth year of operation. The fleet was running so well, that in the eighth year, the entire fleet was outright purchased.

The directive from this plant, recently, was to tour the two million square foot facility, and indicate everywhere PROLONG products can be utilized.

Solenoid valve sticking, and failure, due to moisture in the plant-wide air line system, results in costly repairs, or simply parts being thrown away as too time consuming to rebuild. Prolong SPL100, an aerosol penetrating lubricant, with "No Equal in the World," has resolved this matter completely.

#### Results

Within seconds, solenoid valves (single and dual systems) that were stuck completely are moving freely. SPL 100 will also eliminate solenoid wear. At a cost of as much as \$300.00 per part the savings is phenomenal. There are literally hundreds of these solenoids.





Serving Louisiana's Construction Industry Since 1947



ANGELLE Attn: Belin Landry

PO Box 1076

Lake Charles, LA 70601

Subject: Prolong Anti-Friction Metal Treatment

Mr. Landry:

After our area Manager, Terry Blair witnessed the impressive demonstration of Prolong AFMT on your friction machine there in Lake Charles, LA, we decide to run some real life test on our cement trucks. We have historically changed oil on 300 hr intervals and had the wear metals analyzed. In one case, the wear metals analysis showed 35 parts per million of iron before adding Prolong AFMT.

After the initial 10% treatment, the iron wear metals dropped to 17 parts per million. After the second treatment, the iron wear metals dropped to ( 13 parts per million. The third treatment produced results of only 9 parts per million. This was an astounding 74% drop in wear metals from the baseline of 35 ppm. We were so satisfied that we then extended our oil change interval to 400 hours and still maintained 10 parts per million of iron wear metals, or 71% drop.

We have decided to treat our fleet of approximately 60 concrete trucks with Prolong AFMT, based on your recommendation of 10% initially, followed by 5% booster treatments. Over time, reducing wear metals should certainly increase the life of our equipment, and reduce downtime.

Thank you and the SAFETY HOUSE for introducing us to Prolong Anti-Friction Metal Treatment. Sincerely,
John Dauzat





4.5- 5 million air conditioning motors are produced annually for FORD Motor Company at this 2 million square feet manufacturing facility. At \$30,000.00 production cost per hour, any delay is extremely costly. 480 gear boxes operate this production drive line and experience 3-4 gear box failures per month, requiring 4 hours repair/replacement down time (\$500,000 loss in productivity).

Prolong AFMT was added in a 20% volume to each of the 480 gear boxes. Temperatures that were so high the gear box could only be touched momentarily, were running lukewarm. **ZERO** gear box failures were reported for over 5 years.

RESULT: Productivity increase of over \$500,000 per month. It was determined Prolong should Be used in all conceivable applications- lift trucks, airline solenoids, gear boxes, tool & die equipment, etc.

### The SEAWAY PELICAN

A ship, used by Mobil Oil to service offshore oil rigs in the North Sea, had a problem with large German-made transmission while on duty. The transmission gears were failing and a trip back to base for repairs would have cost Mobil Oil \$20,000 per day for an estimated 6 months.

A few drums of prolong AFMT were flown to the ship via helicopter. The transmission oil was drained and flushed to get rid of the bits and pieces. Fresh oil and 15% Prolong AFMT were added to the transmission.

The ship was restored to duty long enough to complete its normal rounds, servicing dozens of off-shore rigs, after which it sailed into port for repairs, on its normal rotation schedule. This gave the German company long enough to build a new transmission and down-time for the SEAWAY PELICAN was reduced to a minimum.







When two samples of grease were tested by the South African Bureau of Standards, Prolong Super Lubricants met, or exceeded, all of their test criteria.

# SABSREPORT 361/84172/M1147A Properties

	Prolong EP-2 Results	Requirements
Penetration (IP 50), tenths mm	290	265-295
Copper Corrosion (IP 112) discoloration after 24 hr. at 100°C	Pass	Light Brown Stain
Drop Point (IP 132) 0 <sup>o C</sup>	332°C	170°C min
Evaporation loss @ 100° C (ASTM D972) m/m	0.17%	5% max
Oil Separation (ASTM D1742 %m/m	0.04%	10% max
Rust Prevention (Appendix X2, motor speed of 1425 rpm @ 50 Hz	Pass	Pass
Water Wash-Out (ASTM D1264 @ 38°C %m/m	1.1%	10% max
Wheel Bearing Leakage (ASTM D1263) Leakage gram	5.0	7.0 max
Appearance of bearing after grease removal	Pass	No Varnish
Working Stability (IP 50)		
Penetration after 20,000 double-strokes	298	
Change in penetration between 60 and 20,000 double-stroke	es % 2.8	10 max
Timken OK-Value (ASTM D2509) Kg	> 20	20 min
Wear-Scar Diameter (ASTM D22 6.6) mm	0.52	1.0 max



### "ZERO-WEAR" Technology

40 conveyors operate at this site, each having 4-16 pillow block bearings. Bearing size ranges from 2 7/16" to 5 15/16" shaft diameter and cost upwards of \$200.00 per bearing. Tail and head pulleys are fairly easy to change out and may require an hour of labor. If it is necessary to remove a gear box, labor may add up to 4 hours.

Prior to Prolong Grease, at least one bearing per week was being replaced, smaller bearings more frequently.72 bearing replacements annually was not uncommon. In the first 6-7 months using Prolong, NO bearings were replaced. Less than a dozen are replaced now, on an annual basis.

Prolong AFMT, and EP 2.5 Grease, are now being used throughout the site. The rock crusher, the most vital component, has been treated with 10% Prolong AFMT, as well as the Prolong grease, and is showing lower temperatures, reduction in amperage and a longer coast-down time.



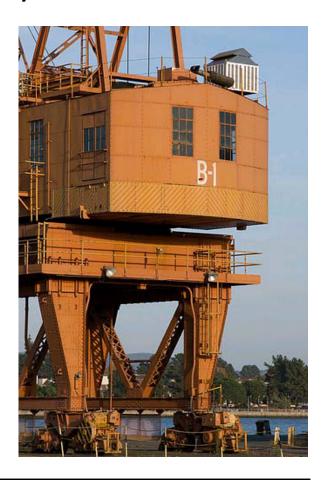
### 1,200,000 lb. Navy Dry Dock Crane

A giant crane rolls on railroad tracks set 20 ft. apart. It travels alongside a straight section of the dry dock, makes a big turn, and runs down the other side of the dry dock. The dry dock is sized to handle destroyer class ships. The control cab of the machine is 85 ft. above the ground and the crane tower reaches another 50 ft. above that. The crane moves on double-flanged multiple steel wheels, powered by large electric motors.

The ganged pairs of railroad-type wheels are not sufficiently articulated to accommodate the sweeping turn at the end of the dry dock. The result is tremendous screeching noise and massive wear of the track rails. Replacing the rails would cost at least \$1,000,000.00. All previous efforts to solve the problem had failed.

The double-flanged wheels were treated with a light coating of Prolong EP-2 Grease and Prolong AFMT was applied to the tracks.

The crane moved from a straight section of the track, all the way around the big curve, then back again, with NO noise. The crane operator climbed down and said that the ammeters monitoring the electric motors had dropped from 50 amps to 20 amps, a highly significant decrease in power consumption of 60%. This treatment will also handle the constant contamination from blowing sand.



### Preliminary Tests at National Training Center (NTC) Fort Irwin, CA



HET's, used to haul tanks, tank extractors and other heavy equipment to field operations over unimproved roads in the Mohave Desert, are experiencing a high rate of transmission failures and blown engine head gaskets. These failures are ascribed to operations in ambient temperatures often exceeding 120° F. The entire engine is replaced when a head gasket blows, leaving the vehicle deadlined until the replacement occurs. To remedy overheating problems at the NTC would be of benefit to military operations worldwide.



#### **Recommendation:**

If Prolong were used in HET vehicles during operations, this reduction in oil temperature would produce less stress on the engine and transmission resulting in more completed missions and fewer deadlines. Serious consideration should be given to get approval to use Prolong in all HET vehicles in hot environments.

### Reduction in Unscheduled Down Time Maximized with PROLONG

### UNDERGROUND AGGREGATE MINE

**PRODUCTION BUCKET LOADERS:** 5 production loaders (Caterpillar) consisting of 988 series F, G & H.

The cost to replace bucket pins could range from \$10,000 to \$30,000. If all pins were replaced on a loader, the labor, cost of pins and line boring could easily amount to \$30,000 and require 2-3 days of downtime, with a resultant lack of productivity.

Historically, every single pin in the Loader fleet must be replaced at least once each year. Since using Prolong EP-2 Grease, there have been NO pin replacements in 24 months, nor has there been any pin "wear." Nor has there been any need for line boring, a costly, and time consuming task.

The center pins require greasing every day, due to the standing water in the underground mine. If the equipment is not being maintained by an experienced, conscientious operator, a suboptimal amount of grease might be applied. Prolong Grease offers more 'forgiveness' and protection, in this regard. Four pumps of the Prolong Grease do the job of 12-14 pumps of the previous greases used.







# **BOOST YOUR PRODUCTIVITY**



Historically, 5 Caterpillar, 988 series, front - end loaders operating underground must have all (12) pins replaced at least once per year. This cost ranges from \$10,000 - \$30,000 and a 2-3 day downtime.

In the first 18 months of Prolong Grease use, NO pin replacements were necessary. In fact, no wear was evident. There was no need for line boring, a very costly procedure.



# SOUTHWEST SERVICE CENTER

# SUBJECT: PROLONG LUBRICANTS VERIFICATION ON VEHICLE NUMBER 23445



During the month of April (1997), Prolong Super Lubricants AFMT was used on vehicle number 23445. Prolong AFMT was added to the engine oil and hydraulic system, with the results being an overall temperature reduction of approximately 40° F in the engine oil and 100° F in the hydraulic oil.

In conclusion, test results were very positive and our recommendation is to place Prolong on the lubricant contract and do what is necessary to purchase this product for servicing heavy trash and collection fleets (other parts of the fleet, as necessary).



# Morton Salt Production Facility Cape Canaveral, FL

Prolong EP-2 Grease and SPL100 have been utilized by the Morton Salt International Production Facility for 7 years.

Every piece of equipment is in direct contact with a "salt water" environment.

Superior lubrication and virtual elimination of corrosion has dramatically reduced unscheduled down time and maintenance costs.





PROLONG Super Lubricants are being utilized by many divisions within the Middletown, Zanesville and Coshocton, OH and Butler, PA facilities. For over a decade, Prolong EP-2 Grease and Prolong AFMT oil products have been notably reliable at reducing cost of operations and increasing productivity.

World's most productive cold mill -- Middletown Works

Most productive blast furnace in the world -- Middletown Works

Most powerful coating lines in the world -- Middletown Works

World's largest AOD (Argon Oxygen Decarburization) unit for refining specialty steels -- Butler Works

World record holders for casting stainless and carbon steel



# INDIANAPOLIS POWER & LIGHT STEAM PLANT, INDIANAPOLIS, INDIANA

Prolong AFMT and EP-2 Grease were used at this P&L facility beginning in 1977. The AFMT was utilized in order to reduce some of the bearing failure and wear problems the equipment had encountered for years. Improved bearing life and reduced energy costs have been realized in virtually all applications.

**Pulverizors:** An immediate amp drop of 5-15% was

recognized

**Speed Reducers:** After addition of only 3-5% of

Prolong AFMT, noise was reduced markedly

Vertical Pumps: Continual loss of bearings prior to

**Prolong AFMT** 

Other areas of application and benefit:

Babbited Bearings Fluid Drive Couplings

Boiler Feed Pumps Fans

**Reciprocating Air Compressors** 

Coal Conveyors and Gearboxes

Air Preheaters

Vacuum Pumps





# **Hydraulic Grove Crane**

- Crane #1 is a 140-ton TMS 1400
   Grove hydraulic crane. We put a
   10% solution in the upper and
   lower engines... our engine
   temperature dropped from
   around 200 to 205 degrees to
   around 180 to 185 degrees under
   identical working conditions.
- Also, one planetary in particular, was running around 200 to 270 degrees. Now, after Prolong AFMT, the temperature is about 145 to 170 degrees, a 100 degree drop or more .... unbelievable."





We have been using Prolong in the transmission and engine of some of our Moxy 30 ton off-road trucks. The trucks treated with Prolong have had no over-heating problem and a noticeable drop in the normal operating-temperature of the engine and transmission. Since our service department maintains 70+ Moxy trucks, we make fewer heat problem calls on these trucks... and save money.

It is our intention to phase your product into all of our lines of equipment. If it continues to perform well, we should see a substantial savings in the cost of operating and maintaining our equipment.

# **Boost Your Productivity**



# Total Savings per year using PROLONG Engine Treatment: 42 Volvo diesel engines used in Straddle Carrier Cranes Extended rebuild time Extended oil change intervals \$106,928.00





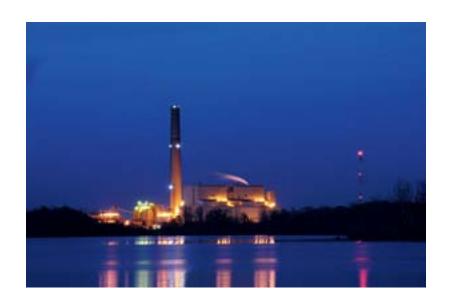
### INDIANA POWER PLANT

**Merom Generating Station** 

At full load levels, the power plant's two generating units use more than 10,000 tons a day of coal local mines. Trucks and trains deliver coal to the plant.

This Generating Station and power facility has begun using PROLONG Super Lubricants over much of 2009.

Prolong AFMT, Prolong EP-2
Grease, Prolong AFMT and Prolong
SPL100 have been the initial
products to be utilized, with much
satisfaction...they have just begun
using the new Prolong AFMT
Grease to even better meet their
extreme demands.



# Airline Ground Equipment Tugs

(Tested: 20 Vehicles- 10 Control/ 10 Tested with Prolong Engine Treatment)



Control vehicles received standard 30 day preventative maintenance and oil change. Prolong treated vehicles were treated with Pennzoil motor oil and 15% Prolong Engine Treatment initially, and 10% Prolong, on subsequent oil changes. The oil change interval was extended 50%, to 45 days, from the standard 30 day cycle.

Prolong treated vehicles experienced decreases in wear metals when compared to the control group. The airline is expected to reduce their preventative maintenance costs, through increasing service intervals and reduced engine replacement costs, by a conservative estimate of 9.6%, or \$68,000.00 in the first year.

# Sebring Container Corp.

"We began using Prolong products in 1989, and today I can honestly say, I do not remember the last bearing failure in any machine using Prolong AFMT. Chain replacements have been absolutely minimized.

Regarding both our truck fleet and plant operations, Prolong was the best thing I've done in the last 7 years!"

Richard W. Smith-Maintenance Supervisor Sebring Container Corp. When the partition slotter-gear boxes had Prolong AFMT added, and the steel rotating slotting knives were sprayed with Prolong SPL100 Penetrating Lubricant, the power consumption, at idle speed, dropped from 11 amps to 9.5 amps within seconds.

Regarding the open chains on Curioni Flexo-Gluer machine, the chain replacement necessity within 6-9 months, became necessary only after 24 months.

All gear boxes and gear cases, as well as all hand pump oilers for general lubrication in the plant, have received Prolong AFMT added in a 10% by volume.

We are using Prolong EP-2 Grease throughout the plant in all grease fittings.

It is very hard to measure immediately the success with this kind of product and I was determined to verify, over the long run, just how effective Prolong was. So, already having an aggressive PM program in place, we added Prolong products to our routine.

The kicker in this whole experience came in July of 1996. In the early 90s' we stared using Prolong AFMT in the engines, wheel bearings and lube points of our tractor-trailer fleet, consisting of three Mack trucks and five 45 ft. van trailers.

In 1992, we purchased two brand new Mack CH-612 class 8 trucks with V-Mac 250HP engines. At the first oil change, 1 gallon of Prolong AFMT was added to each truck... thereafter, ½ gallon at each oil change.

Previously, we were changing oil and filters at 10,000-12,000 mile intervals, since we were considered a short haul operation. We have since extended our oil change interval to 25,000 miles and recently started using Prolong Diesel Fuel Treatment in our fuel tanks. In July of this year, we had an oil analysis performed on both trucks by CITGO Performance Monitoring Used Oil Analysis Testing Laboratory. The ensuing results were outstanding.

After an extended discussion with Mr. Long and Ms. Jamie Burleson of CITGO, they agreed that we had virtually no wear, whatsoever, in these engines according to the elemental concentration in the analysis.

# AFRICA MINING APPLICATION: LOCOMOTIVE (TRAIN) AREA: KLOOF GOLD MINE - SHAFT 3

# **Underground Mine Loco**



By using Prolong AFMT with the loco oil, the temperature dropped by 10° C, even though the ambient temperature went up. It is, however, essential to mix our top-up oil with Prolong, as well.

An underground Locomotive powered by a 5 cylinder Deutz engine was used for this test. On test day one, the loco engine operating temperature recorded 80°C with an ambient temperature of 30°C. We blended 2 liter (10%) of Prolong AFMT to the engine oil and the unit was put into operation again. After one hour of operation with oil and Prolong Blend in the loco engine, the engine temperature recorded, had decreased to 72°C, while the ambient temperature had increased to 35°C. The vibration was also measured using a Prolong meter with readings of 60 on scale 1 before Prolong was used and being reduced to 30 on scale 1 after Prolong was used.

The temperature was taken again 120 hours later. Although the temperature rose to 90° C (ambient 35° C), it was found that the loco used 5 liters top-up oil, which meant the Prolong concentration which was added was incorrect. Another 500 ml Prolong was added after which the temperature dropped again to 81° C, at an ambient temperature of 40° C.



# Vilken skillnad är på Prolong och konkurrerande produkter

#### PROLONG OCH KONKURENTERNA:

Det är viktigt att veta att Prologs produkter INTE innehåller de skadliga kemiska, metall- eller plastelementen som finns i tekniken från flesta konkurrerande produkter. Det är icke- frätande, Prolong innehåller inga fasta partiklar som PTFE (teflon) Molybdendisulfid, Bly, Mollys, Zink, Koppar, Plast, Grafit, Silicon, Klorerade klorparaffiner (CP) eller några andra fasta ämnen som kan skada motorer eller utrustning. Det frigör inte saltsyra (HCI)

PTFE eller Teflon (registrerat varumärke DuPont) är en bra produkt för matlagnings utrustning, förutsatt att rätt verktyg används. Men i kontakten metall mot metall kan det leda till avlagrings flagor som inte är säkra för mat .... eller maskiner. Var försiktig med produkter baserade på denna teknik. Om nödvändiga filter och smörjkanaler blockeras då kan det bli ett allvarligt problem. PTFE kan lämna skadliga rester. Fasta ämnen kan också brytas ner på grund av värme snarare än att hjälpa till att minska värmen.

Koppar, Zink, Grafit och "Molly" (molybden) tekniken bildar inte skydd vid maximalt belastning. De bryts snarare ner än att bilda ett skydd mot skadlig värme och kan bilda ett skadligt slitage i motorns smörjsystem.

Ostabil klorerad paraffin ("CP") ger ökad risk för korrosion vid upphettning. CP-smörjning är mycket effektiv, men i de uppvärmda förhållandena i en motor kan de kortkedjiga molekylära egenskaperna brytas ner och bilda saltsyra. Dessutom är klorerad paraffin ("CP") förbjudna i smörjprodukter i hela EU. Prolong har en stabil teknik som inte finns i någon annan produkt som är lika extremt effektiv och säker. Denna teknik har testats (i över 18 år) och i miljoner motorer.

**Lösningsmedel** annonseras i bland som smörjmedel. De innehåller vanligtvis mineraloljor, vilket minskar viskositeten hos det flytande smörjmedlet. Lösningsmedel kan vara rengöringsmedel och en renare motor ger viss förbättring av prestanda, men lösningsmedel eller rengöringsmedel ger inte smörjskydd och kan torka ut motorn eller växellådan. Ännu viktigare är att lösningsmedel bryter ner oljans viskositet och försämrar smörjnings förmågan.

De flesta av tjockmaterial även kallade balanserade material som ersätter en fjärdedel eller mer av oljan innehåller inte nödvändiga tillsatser som de bästa motoroljor nuförtiden har och är faktiskt att beröva motorn 20-25 % av dess fördelar av rengöring och antioxidantämnen.

Tänk på att moderna mineral och syntetiska oljor och automatiska transmissionsoljor är bättre än någonsin, men de har sina begränsningar. Prolong uppmuntrar användare att följa tillverkarens rekommendationer om oljans viskositet och serviceintervaller. Prolong produkter ändrar inte motoroljans eller transmissionsoljans viskositet i stället bildas ett "socialt smörjmedel" genom att tillhandahålla bindsmörjning på ytor som är utsatta för extrem tryckfriktion, eller där flytande smörjning inte ens kan vara närvarande. Prolong tekniken hjälper till att göra vanliga mineral eller syntetiska oljor till ett "Super Smörjmedel".

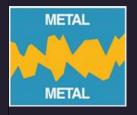
### **AFMT™ Tekniken:**

AFMT <sup>™</sup> -tekniken förbättrar inte bara kvalitén på motoroljan transmissionsoljan växellådsoljan och andra glidmedel, en annan stor unik fördel är att den faktiskt skyddar och behandlar metallens yta. AFMT <sup>™</sup> Är ett mycket specialiserad, högteknologiskt smörjmedel och klassifeceringen av smörjmedlet är allmänt känd som "Extrem-högtrycks smörjmedel" som innehåller (EP agenter). Ursprungligen var en form av detta smörjmedel utvecklad för luftkylda flygmotorer, Det formuleras genom kemisk behandling av parafinbaserade kolväten. Prolong AFMT <sup>™</sup> är organiserat med en unik lång molekylkedja som uppnår en stor kemisk stabilitet. Denna metod uppnår en så hög kvalité på stabiliteten att den har fått högsta betyg eller "1a i oberoende testlaboratorium . Syftet med testet är att bestämma den korrosionsskyddförmåga på glidytor som ämnet har. Prolong AFMT söker sig till metallytan och binder sig molekylärt vid den och sitter kvar efter att motorn stängs av.



# Prolong AFMT™ The Most Powerful Oil in the World™

# Hur det fungerar!



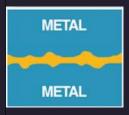
### **OLJA VID NORMAL BELASTNING**

Under idealiska förhållanden arbetar konventionella oljor med att minska friktion och värme, mellan ytorna, genom att behålla en film av olja - en kudde - mellan metallytorna.



#### **OLJA VID EXTREMT BELASTNING**

Vid extrema trycktoppar pressas konventionell olja ut från lager- och kontaktytor. Då ökar friktionen med värme med slitage som följd. Metallpartiklar slits då loss från kontaktytorna, som på så vis skadas svårt. Dessa partiklar följer med oljan, runt i maskinen, vilket leder till ännu mer skada.



#### OLJA MED PROLONG VID EXTREMT HÖGTRYCK

Prolong aktiveras på alla metallytor genom bildning av molekyler som täcker och slätar ut metallen och gör den "halare". På så vis skapas ett mycket starkt skyddande skikt som skyddar alla ytor även vid extrema tryckförhållanden och varvtal. Prolong sitter kvar på metallytorna och skyddar motorer och växlar, vid t.ex. kallstarter, då oljan inte är fullt cirkulerande. Molekylerna i Prolong-tekniken dras till metallytorna, som magnet mot stål, och sitter kvar.

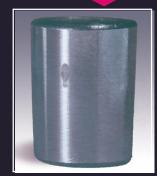


# Jämför!





Extrem lagerskada vid 3,5, ton pr. m<sup>2</sup>



Minimal lagerskada vid 140, ton pr. m<sup>2</sup>

De två stål lager rullarna visar resultatet efter provning i bänk med användning av en SPAK-FRICTION MASKIN MED EN ROTERANDE METALL BANA. Lagret till VÄNSTER hade STANDARD SMÖRJNING OCH "var tydligt märkt vid bara 3,5, ton, pr. m². På Lagret till HÖGER användes PROLONG AFMT SMÖRJMEDEL och det visade knappt några skador även vid 140, ton, pr. m<sup>2</sup>

### Svar på några frågor om Prolong AFMT:

#### Anti Friction Metal Treatment.

- Varför skal jag använda Prolong AFMT Smörjmedel?
- Prolong AFMT reducerar framgångsrikt friktion och värme i alla motorer, växlar och hydraulsystem med sin avancerade och unika smörjteknik. Ditt fordon, eller din maskin, är en stor investering och det är klokt att skydda detsamma för att behålla optimal prestanda och livslängd.
- Hur skiljer sig Prolong AFMT från andra Smörjmedel?
- Prolong AFMT har en extremt avancerad smörjteknik som inte finns i någon annan smörjoljeprodukt. Förväxla inte denna produkt med oljetillsatser. Prolong är ett smörjmedel! Visserligen "tillsätts" Prolong i oljan men oljan tjänar som "bärare" för att Prolong skall komma ut till samtliga ytor i motorn, växeln eller hydrauliksystemet. Prolong är inte frätande. Innehåller inga fasta partiklar som PTFE, hartser, Molybdendisulfid, Bly (Teflon) Mollys, Zink , Koppar, Plast, Grafit eller några andra fasta partiklar som kan skada motorer eller utrustning. Det frigör heller inte saltsyra (HCL) som många andra oljetillsatser gör.
- Kan jag använda Prolong AFMT Smörjmedel i alla motorer?
- Prolong AFMT Smörjmedel är säkert och effektivt för nya och begagnade bensin- och dieselmotorer samt växlar och hydraulsystem. Kan även användas i alla roterande motorer. Prolong gör dessutom att mindre aska bildas vid bränslets förbränning och minskar därigenom partikel-koldioxidutsläpp.
- Har det betydelse vilken olja jag använder?
- Prolong AFMT Smörjmedel är kompatibel med alla mineral och syntetiska oljor.
- Hur ofta och i vilka mängd används Prolong AFMT Smörjmedel?
- Vid första inblandningen används 10-15 % Prolong i oljemängden. Därefter 8% vid varje oljebyte. Prolong kan blandas i oljan när som helst. Viktigt är att följa tillverkarens rekommendationer om serviceintervaller och oljebyten.
- Kan Prolong AFMT Smörjmedel användas i mindre maskiner?
- Ja, blanda 10% Prolong AFMT Smörjmedel i oljemängden. Om din maskin använder en våtkoppling och / eller oljan delas av både motor och växellåda, används 5% av till oljevolymen.

18,9% MINSKAD

38,7% MINSKAD

