

Expert Solutions

Your progress. Our priority.

By partnering with you to solve the problems you face today and tomorrow, we can help you move ahead and develop your business. Our insight-driven services help you improve reliability, reduce your operating costs and free up your potential – all because we share your goals and priorities. Expert Solutions from PETRONAS is your secret weapon in your mission to do more, use less and grow faster. It's how our passion for progress can help take you to an exciting and more sustainable future.

Equipment

Downtime is the enemy of progress. With predictive maintenance and support for your equipment and fluids, we can identify problems before they take hold – so you can plan ahead and focus on success.

- Diagnostics - Oil condition monitoring
- Fluid recommender



Operations

With so much happening in your business, it's easy to lose sight of what matters. Our Expert Solutions use tools, services and support to help you achieve greater progress more quickly – and improve efficiency while reducing operational costs.

- Fleet survey
- Fluid-i



People

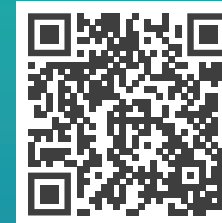
With the right knowledge in your team, you can progress further, faster. That's why we work with your people to build their skills and help them work more effectively day in, day out.

- Technical training programme



www.pli-petronas.com

Scan the QR code for more information



Strengthening progressive businesses from within

Modern steel industry faces enormous challenges in terms of productivity, cost reduction, and environmental sustainability, which is why quality lubricants have become an essential component. When you operate machinery continuously at high temperatures and pressures, high-quality lubricants improve the operating life of your equipment, extend maintenance intervals, and prevent unexpected breakdowns.

PPETRONAS Industrial Solutions shares the determined passion, focus and commitment of our customers to do business responsibly. Our approach to fluids is to focus on whole system performance, with bespoke fluids that protect and prolong the working life of every part of your vehicle or machine's system. Operating in state-of-the-art labs, our world-class technologists strive to develop lubricants that lead the field and earn the all-important endorsements of leading OEMs.

We're passionate about helping our customers stay focused on their progress no matter what and provide the services and support needed to overcome the challenges of today and tomorrow.

PETRONAS Industrial Solutions. Future Focused.



STEEL

PETRONAS
Industrial
Solutions
Future Focused

PETRONAS is ready for the world of tomorrow, today

PETRONAS Lubricants International (PLI) is part of the PETRONAS Group. With 10 blending plants, over 30 sales offices and products distributed in more than 90 countries worldwide, PLI's global network of over 240 scientists, technical professionals and engineers anticipate future mobility and mechanical challenges and opportunities, then research and develop advanced fluid technology solutions to meet tomorrow's challenges, today.

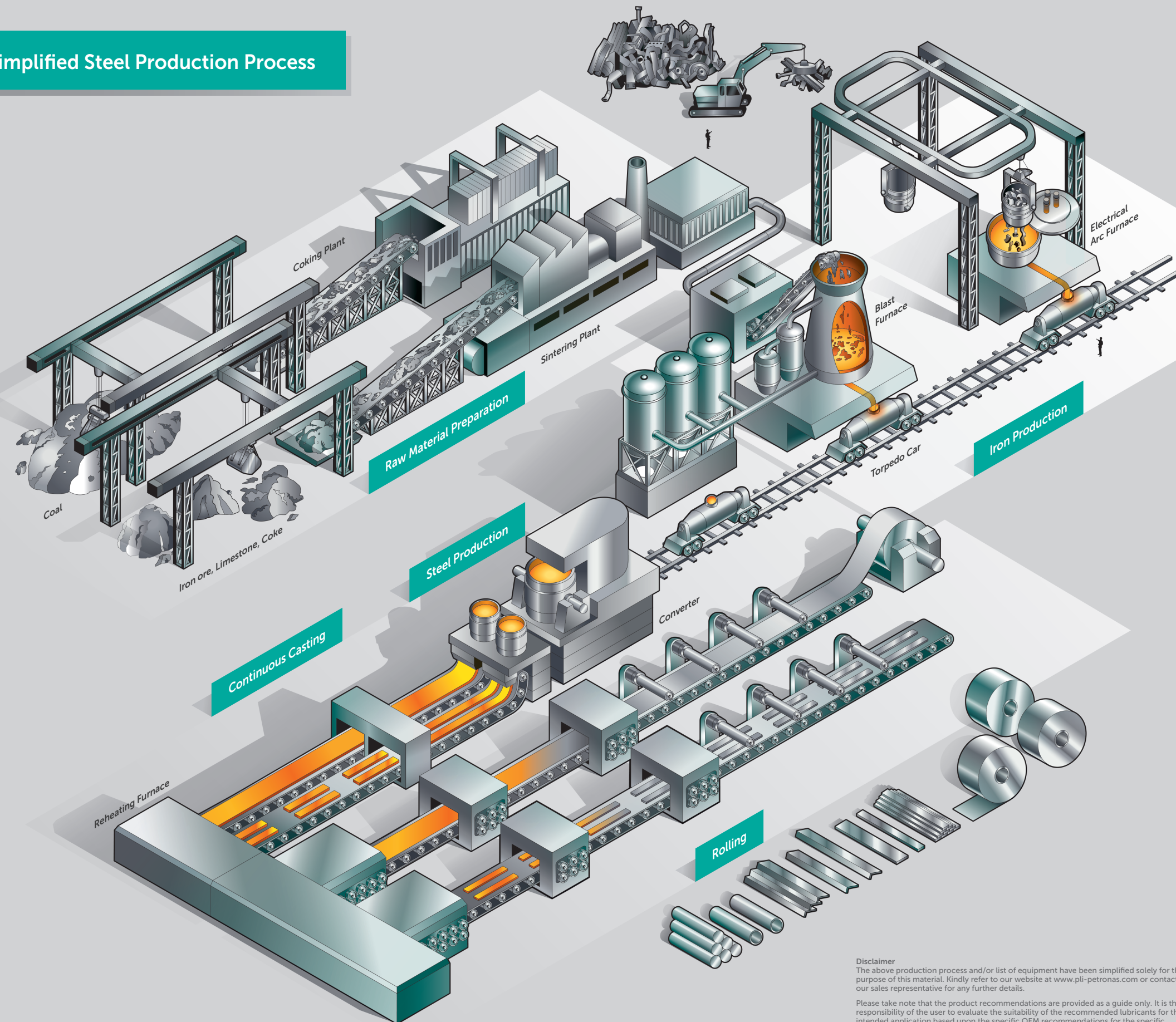


Your key to maximizing performance

With our expert knowledge and the latest advances in lubrication technologies, we have developed a comprehensive range of state-of-the-art lubricants to meet the requirements of your equipment. Contact your PETRONAS representative or visit www.pli-petronas.com to find out more.



Simplified Steel Production Process



Disclaimer
The above production process and/or list of equipment have been simplified solely for the purpose of this material. Kindly refer to our website at www.pli-petronas.com or contact our sales representative for any further details.
Please take note that the product recommendations are provided as a guide only. It is the responsibility of the user to evaluate the suitability of the recommended lubricants for the intended application based upon the specific OEM recommendations for the specific make and/or model of equipment or machinery as well as the actual operating conditions. We recommend contacting our Technical Team, who will assist you in making the final selection. Due to continual product research and development, the information contained herein is subject to change without any prior notification.

PRIMARY PROCESS	EQUIPMENT	LUBRICATION PARTS	LUBRICANT	STANDARD	PREMIUM	SUPREME
Raw Materials Preparation	Breaker Screen	Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220
		Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic	PETRONAS Hydraulic HV	PETRONAS Hydraulic ESF
	Conveyors	Bearings	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220
		Coupling	Grease	PETRONAS Grease Li 2	PETRONAS Grease PE HS	
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU	
		Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO
	Coke Oven	Butterfly / Actuator Valve	Grease	PETRONAS Grease LiCa GEP 2.5	PETRONAS Grease LIX MEP	PETRONAS Grease LiCa MG XHL
		Compressors	Compressor Oil	PETRONAS Compressor A M2	PETRONAS Compressor A M4	PETRONAS Compressor A Syn PAO
		Contact Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU	
Gearbox / Reducer		Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAG*	
Grease Points (Charge & Pusher Car)		Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460	
Cone / Gyratory / Impact / Jaw / Crushers	Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR		
	Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU		
	Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO	
	Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic HV	PETRONAS Hydraulic ESF		
	Plain Bearings (Oil)	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO	
	Plain Bearings / Roller Bearings ⁽¹⁾	Grease	PETRONAS Grease LIX EP 2/380		PETRONAS Grease LIX Syn 2/460	
Larry / Charge Car	Spider Bush Bearing	Grease	PETRONAS Grease LIX MEP	PETRONAS Grease LiCa MG HL	PETRONAS Grease LiCa MG XHL	
	Spider Bush Bearing (Oil)	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO	
	Contact Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220	
Mixer	Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU		
	Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO	
	Cooling System	Coolant Fluid	PETRONAS Parafu 11	PETRONAS Parafu Up Ready		
Quench Car	Diesel Engine (Two Stroke)	Engine Oil	PETRONAS Genrail V	PETRONAS Genrail Syn VI		
	Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO/PAG*	
	Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR		
	Journal Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460	
Quenching Tower	Journal Bearings (Oil)	Circulating Oil	PETRONAS Circula		PETRONAS Circula Syn	
	Bearings	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease LIX 2/170	PETRONAS Grease LIX Syn 2/220	
Screening Plant	Bearings (Oil)	Hydraulic Fluid	PETRONAS Hydraulic	PETRONAS Hydraulic HV	PETRONAS Hydraulic ESF	
	Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU		
Screening Plant	Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220	
	Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU		

PRIMARY PROCESS	KEY EQUIPMENT	LUBRICATION PARTS	LUBRICANT	STANDARD	PREMIUM	SUPREME
Raw Materials Preparation	Stacker / Reclaimer	Bearings	Grease	PETRONAS Grease Li EP 2	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220
		Cables	Grease	PETRONAS Grease LiCa GEP 2.5		
		Chains	Slideway Oil	PETRONAS Slideway		
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU	
		Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO
	Sintering Plant	Open Gears	Grease		PETRONAS Grease LiCa TMG	
		Contact Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Crusher and Vibrating Screens	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Electric Motor Bearings	Grease	PETRONAS Grease Li 2	PETRONAS Grease PU	
		Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAG*
Iron Production	Blast Furnace	Grease Points	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Sintering Strand Grease	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Actuator Valves	Grease	PETRONAS Grease LiCa GEP 2.5	PETRONAS Grease LIX MEP	PETRONAS Grease LiCa MG XHL
		Blower (Compressor)	Compressor Oil	PETRONAS Compressor A M2	PETRONAS Compressor A M4	PETRONAS Compressor A Syn PAO
		Blower (Fan)	Grease	PETRONAS Grease PU	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/220 and 2/100
	Electric Arc Furnace	Compressors (Tuyeres)	Compressor Oil	PETRONAS Compressor A M2	PETRONAS Compressor A M4	PETRONAS Compressor A Syn PAO
		Contact Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR	
		Tap Hole Drill	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR	
		Turbine (Tuyeres)	Turbine Oil	PETRONAS Jenteram	PETRONAS Jenteram G	PETRONAS Jenteram Syn
Steel Production	Torpedo Car	Mud Gun	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR	
		Compressor (Air Brake)	Compressor Oil	PETRONAS Compressor A M2	PETRONAS Compressor A M4	PETRONAS Compressor A Syn PAO
		Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR	
		Open Gears and Plates	Grease		PETRONAS Grease LiCa TMG	
		Support Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
	Converter / BOF	Contact Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Cooling System	Coolant Fluid	PETRONAS Parafu 11	PETRONAS Parafu Up Ready	
		Diesel Engine (Two Stroke)	Engine Oil	PETRONAS Genrail V		PETRONAS Genrail Syn VI
		Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAG*
		Grease Points (Rails)	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
Continuous Casting	Continuous Casting Machine	Journal Bearings (Oil)	Circulating Oil	PETRONAS Circula		PETRONAS Circula Syn
		Rail Bearing Support	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Contact Bearings	Grease		PETRONAS Grease CaSx	
		Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAG*
		Movable Seal				
Rolling	Rolling Machine	Compressor (Air Brake)	Compressor Oil	PETRONAS Compressor A M2	PETRONAS Compressor A M4	PETRONAS Compressor A Syn PAO
		Hydraulic System	Hydraulic Fluid	PETRONAS Hydraulic HFC	PETRONAS Hydraulic FR	
		Open Gears and Plates	Grease		PETRONAS Grease LiCa TMG	
		Support Bearings	Grease	PETRONAS Grease LIX EP 2/380	PETRONAS Grease CaSx	PETRONAS Grease LIX Syn 2/460
		Gearbox / Reducer	Gear Oil	PETRONAS Gear MEP ⁽²⁾	PETRONAS Gear FL	PETRONAS Gear Syn PAO/PAG*

⁽¹⁾ Jaw Crusher Only ⁽²⁾ Premium Product * Special Precaution Needed