

TAKE CONTROL OF EQUIPMENT HEALTH

SANDVIK PERFORMANCE FLUIDS





SANDVIK PERFORMANCE FLUIDS

PUTTING YOUR SAFETY FIRST

The mining and rock excavation industries continue to demand even better safety and more productivity. In order to meet these requirements, we work continuously to develop even safer products and to produce comprehensive manuals enabling for safer and effective use of our products.

IT'S ALL ABOUT HEALTH AND SAFETY

Helping you to ensure a safer workplace and healthier workforce is of the utmost importance to us. The well-being of any person coming into contact with our products is paramount. Therefore, we strive to identify and assess potential risk factors that could threaten your health or the health of your employees.

All of the products in this catalogue are designed to meet relevant and essential safety requirements.

ANALYZE RISKS BEFORE YOU START

Keep safety top of mind when planning all of your work. Before you start, always take your time to review all operations. Identify any potential risks and take appropriate measures to avoid them. If necessary, seek expert advice for minimizing risks. Finally, make sure that you have the right resources to perform all tasks in the safest manner possible.

EHS IS IN OUR DNA

At Sandvik, Environment, Health and Safety (EHS) have long been vital focuses for our company. Even before we first referred to EHS in 1985, we worked with environmental, health and safety issues, with the aim to develop solutions that could benefit our customers.

To us, "safety first" is more than an expression. It's a part of our DNA and we believe it shows in our work. Sandvik had an industry-low LTIFR record of 0.7 for our mining services operations in 2016. Safety is integrated in our business operations — every single day, 365 days a year.

"TAKE FIVE" TO IDENTIFY HAZARDS

Our "Take Five" app is a helpful tool to use before you start working. The app consists of a simple, step-by-step checklist with five questions that you should ask yourself to identify potential hazards. The app is free to download for smartphones and tablets, both on the App Store and Google Play.



SAFER OIL HANDLING

When you purchase Sandvik oils, you can be assured that our containers are designed to meet relevant safety standards, and our labels are up-to-date and compliant with relevant legal directives. We provide information about its use, storage, transport and waste handling, as well as advice on personal protective equipment and proper first aid measures.

PERSONAL PROTECTIVE EQUIPMENT

Adequate on-site safety measures can help prevent injury or illness resulting from exposure to chemical hazards. Necessary arrangements should be made in the workplace to ensure safe and healthy use, handling, storage and transport of chemicals.

There are a number of possible control measures, including engineering controls. If these controls have not eliminated or significantly reduced the risk, the use of personal protective equipment (PPE) may need to be implemented. The recommended PPE is:

- (a) Protective clothing;
- (b) Hand (nitrile gloves) and foot protection (oil resistant);
- (c) Eye protection (safety glasses) and/or face protection (face shield)

In case of chemical emergency (spill, leak, fire, exposure or accident), please check your Safety Sheet (SDS), for assistance and required technical information. SDS information is available at mining.sandvik.com/en/sds. Assistance is available 24 hours a day/7 days a week.



STORAGE

There are several important factors to consider in order to safely store Sandvik oils.

- Do not store oil near drains or waterways.
- Use spill containment (spill pallets) where possible.
- Containers must be compatible with the type of oil stored, temperature and pressure, and should be clearly labeled. Store in the original Sandvik container if possible.
- Containers must not leak or have severe rusting, structural defects or signs of deterioration.
- Use lighting and locked compounds if storage area must be located near water or drain.
- If storage area is provided with means to collect spilled product, the containment structure should be examined for oil prior to emptying. If sorbent material is used to collect spill oil, those should be disposed of correctly.
- Conduct inspections of oil storage areas regularly.

WASTE

Used oil (or waste oil) is any petroleum-based or synthetic oil that has been used. During normal use, impurities like dirt, metal scrapings, water or chemicals can be mixed in with oil. Over time, this reduces the performance of the oil and means that it is no longer suitable for its original purpose. Clearly mark containers with the words "used oil" or "waste oil," and do not mix it with anything else, including antifreeze, solvent or paint. Used oil is normally considered a hazardous waste. Some used oil is dirty rather than worn out, so it can be recycled. It should be disposed of at a recycling or disposal facility to avoid creating an environmental or health and safety hazard. Used oil that is improperly disposed of in landfills, ditches, waterways and storm sewers or dumped on the ground can migrate into surface and groundwater, and negatively impact the environment.



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THE COMPLETE PACKAGE FOR HEALTHY EQUIPMENT

Sandvik equipment is a vital part of your operation — safe, productive and reliable workhorses in your toughest applications. In order to preserve peak performance and ensure smooth operations throughout equipment lifetime, use of high-quality consumables, including Sandvik oils and filters, is crucial. These types of consumables play a big role in the safety, reliability and durability of your equipment. Low-quality fluids and non-genuine parts can reduce the working life of your equipment and negatively affect production.

Using our complete package of oils, filters and fluid analysis will have a significant impact on your operations. It extends service intervals, helps you avoid expensive repairs and can reduce your total cost of ownership (TCO).

As the original equipment manufacturer, we have an intimate understanding of your equipment. Every Sandvik oil, filter and kit has been designed for ideal fit with your equipment to eliminate leakage, minimize the possibility of equipment failure and enable you to reach expected efficiency. Our offering is engineered to improve your productivity and, in turn, your profitability.

This is supported by a worldwide service network offering on-site service, training and round-the-clock support. We have technical service specialists strategically located around the world to provide help quickly, whenever you need it.



BETTER RELIABILITY, FEWER BREAKDOWNS

The right oil can make a major difference in equipment lifetime. Low-quality fluids can reduce productivity and shorten equipment life. All oils in our Sandvik range were specifically designed and carefully tested, paying close attention to extreme operating conditions. As a result, Sandvik Performance Fluids are long lasting, ideal for different climate conditions and, most importantly, formulated based on the specific needs of your Sandvik equipment. They ensure increased reliability, higher availability and reduced breakdown risk.

All our high-quality oils are the same oils we use for factory fill, which means that you never risk mixing oil types. Oils are compatible with all of the components we use, and help you derive first-day benefits throughout your equipment lifetime.

If you work with Sandvik you know we pay close attention to all details to ensure top product quality. Our oils are no exception. Every oil and lubricant is carefully tested in extreme operational conditions to ensure maximum performance. Our representatives can help you select the most suitable oil for your operation based on equipment design and site conditions.

Quite simply, we ensure that you use the right oil for each specific application — every time.





SANDVIK PERFORMANCE FLUIDS LONG-LIFE HYDRAULIC OIL

Sandvik long-life hydraulic oils offer superior protection for your hydraulic pumps and circuit at both ends of the temperature spectrum, especially during start-up. All of our hydraulic oils are multi-grade and have a high viscosity index to ensure good cold flow properties, and high film strength at higher operating conditions.

In fact, Sandvik hydraulic oils typically have a 50 percent higher viscosity index than traditional monograde oils. And they maintain their viscosity and viscosity index throughout the whole lifetime, avoiding extra wear.

Sandvik oils also offer better protection against oxidation, sludge and varnish formation, reducing the risk of serious damage to your filters, pumps and valve gear. This leads to longer component life, minimizing your maintenance costs.

We offer a range of different viscosities to cater to different ambient temperatures and equipment loads: the higher the temperature and the load, the higher the viscosity should be.

Our zinc- and ash-free hydraulic oil is a multi-purpose hydraulic and lubrication fluid, which shows better extreme pressure properties (FZG of >12) compared to our zinc-containing hydraulic fluids (mostly reach FZG >11). This means that with a higher FZG, you have better performance to prevent from scuffing.

Additionally our zinc-free alternative shows gear oil performance according to DIN 51524-3 CLP. So it can be used as multifunctional hydraulic and gear oil. Using our zinc-free alternative can also reduce environmental impact.

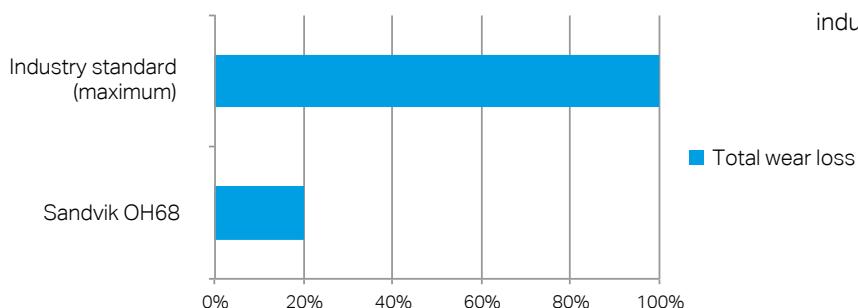
SANDVIK PERFORMANCE FLUIDS LONG-LIFE HYDRAULIC OIL

Product name	Viscosity grade	Item number	Size	Additional information
Sandvik OH32	ISO VG32	BG00635953	1,000 L	
Sandvik OH32	ISO VG32	BG00635952	205 L	
Sandvik OH32-A	ISO VG32	BG00862575	1,000 L	Arctic
Sandvik OH32-A	ISO VG32	BG00862574	205 L	Arctic
Sandvik OH46	ISO VG46	BG00635951	1,000 L	
Sandvik OH46	ISO VG46	BG00635950	205 L	
Sandvik OH46	ISO VG46	BG00929095	20 L	
Sandvik OH46-ZF	ISO VG46-ZF	BG00861814	1,000 L	Zinc-free
Sandvik OH46-ZF	ISO VG46-ZF	BG00861815	205 L	Zinc-free
Sandvik OH68	ISO VG68	BG00635949	1,000 L	
Sandvik OH68	ISO VG68	BG00635947	205 L	
Sandvik OH68	ISO VG68	BG00929094	20 L	
Sandvik OH100	ISO VG100	BG00861749	1,000 L	
Sandvik OH100	ISO VG100	BG00861751	205 L	
Sandvik OH150	ISO VG150	BG00861753	1,000 L	
Sandvik OH150	ISO VG150	BG00861755	205 L	

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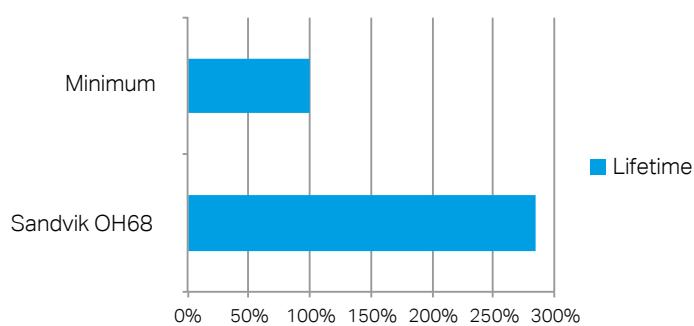
INDUSTRIAL PUMP TEST



LESS WEAR

Sandvik OH68 shows up to 80 percent less wear than the maximum allowed in industry-standard hydraulic pump test.

OXIDATION STABILITY/LIFETIME



LONGER LIFE

Sandvik OH68 reaches up to 300 percent of the minimum lifetime compared to standard hydraulic fluids.

SANDVIK PERFORMANCE FLUIDS LONG-LIFE ENGINE OIL

Sandvik long-life engine oils deliver reliable lubrication and protection for engines installed on your Sandvik equipment.

Sandvik OE15W40-C protects engine during cold starts, ensuring oil quickly reaches crucial parts of the engine. At high temperatures the oil provides excellent cleanliness control.

Sandvik OE15W40-C best-in-class wear control maximizes efficiency and engine life. Even after longer test hours Sandvik OE15W40-C prevents harmful soot, debris and impurities from contacting vital engine components.

Sandvik OE15W40-C protects the valve train under a severe off-highway duty cycle and in a stressed excavator cycle.

Sandvik OE10W40-LA has outstanding wear control, piston cleanliness, sludge control and soot dispersion. It also provides superior wear protection of the valve train.

Sandvik OE10W40-LA offers very high neutralization potential even with poor fuel quality. It also boasts higher TBN retention than conventional high-ash oils, protects from acidification and prevents corrosion.

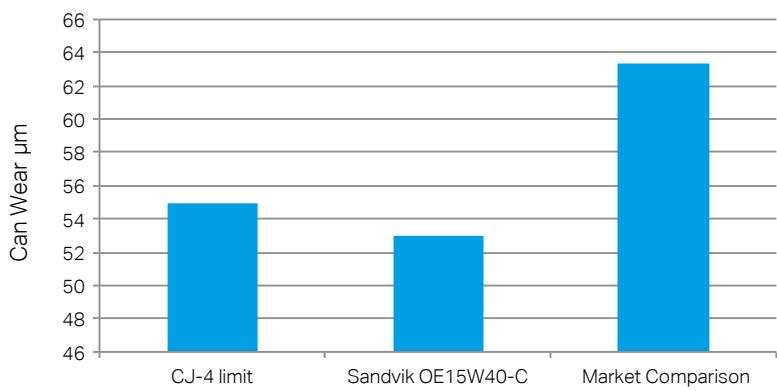
You'll consume less fuel and benefit from cleaner pistons using Sandvik OE10W40-LA. The oil has excellent cold-start properties even with oil aging, and grants an optimal oil supply to all engine parts, providing ideal engine wear protection.

SANDVIK PERFORMANCE FLUIDS LONG-LIFE ENGINE OIL

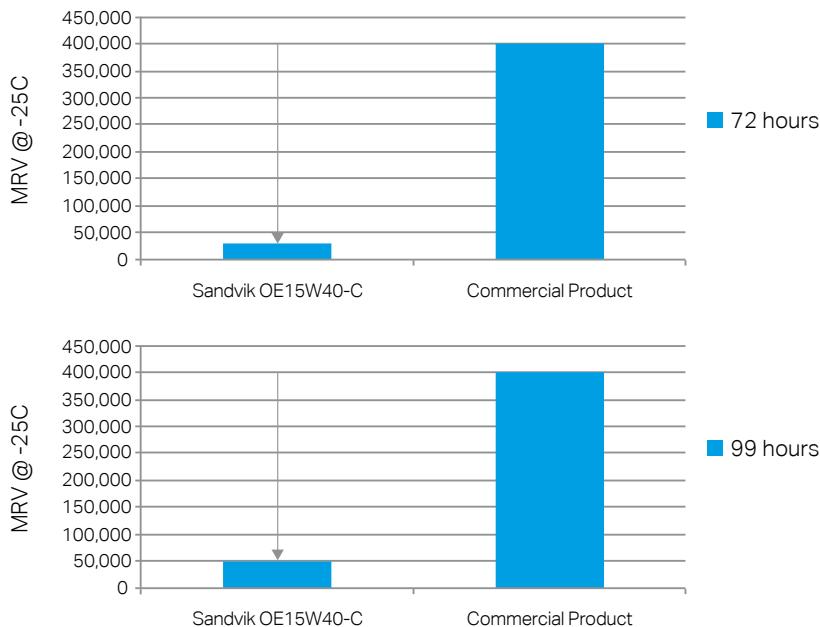
Product name	Viscosity grade	Item number	Size	Additional information	Engine class approved
Sandvik OE10W40-LA	SAE 10W-40	BG00635978	1,000 L		Low ash, for Tier 4
Sandvik OE10W40-LA	SAE 10W-40	BG00635977	205 L		Low ash, for Tier 4
Sandvik OE10W40-LA	SAE 10W-40	BG00635980	20 L		Low ash, for Tier 4
Sandvik OE15W40-C	SAE 15W-40	BG00635966	1,000 L	Lower-sulfur hydrotreated technology	For Tier 2 and 3
Sandvik OE15W40-C	SAE 15W-40	BG00635967	205 L	Lower-sulfur hydrotreated technology	For Tier 2 and 3
Sandvik OE15W40-C	SAE 15W-40	BG00635969	20 L	Lower-sulfur hydrotreated technology	For Tier 2 and 3

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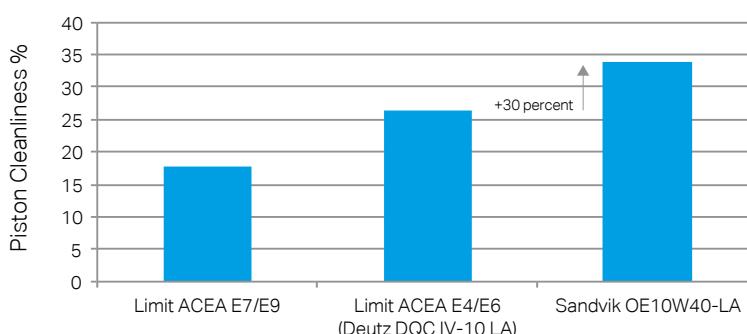
CUMMINS ISB**SUPERIOR PROTECTION**

Sandvik OE15W40-C is passing even the more severe next generation requirements of CJ-4 which is the successor of CI-4. Superior protection of the valve train under a severe off-highway duty cycle.

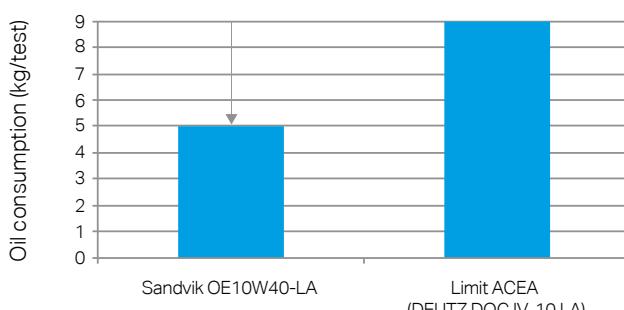
CECL-105-12 LOW TEMPERATURE PUMPABILITY**EXTRAORDINARY GOOD VISCOSITY**

Sandvik OE15W40-C shows extraordinary good viscosity even after being stressed for a while which leads to perfect cold start protection during the entire drain interval.

A very robust oil which protects your investment and value.

PISTON CLEANLINESS IN OM501LA**EXCELLENT CLEANLINESS RESULTS**

Sandvik OE10W40-LA shows excellent cleanliness results.

OIL CONSUMPTION IN OM501 LA**UP TO 44 PERCENT LESS**

Sandvik OE10W40-LA shows up to 44 percent less oil consumption compared with test limit.



SANDVIK PERFORMANCE FLUIDS LONG-LIFE COMPRESSOR OIL

Sandvik long-life compressor oils help your equipment cope with the extreme conditions found in rotary compressors, ensuring excellent wear protection, long life and system efficiency. Our compressor oils offer fast air release, water separation and high oxidation resistance when compared with conventional oils. They also provide good cold flow properties and high film strength at hotter operating conditions.

Sandvik OC10-C:

- Good air-release properties
- Very good viscosity-temperature behavior
- Low coking tendency
- Good demulsifying capability

Sandvik OC10-C is based on highly refined (hydro-cracked) mineral oils. This allows a lifetime up to 200 percent longer, compared to standard mineral oils, at medium pressure and temperature ranges. For higher pressure and thus, higher temperatures, we advise the use of Sandvik OC25-H synthetic compressor lubricant which lasts up to four times longer, compared to standard mineral oils.

Sandvik OC25-H:

- Low evaporation losses
- Excellent wear protection
- Good demulsifying properties
- Excellent deep temperature flowability
- Excellent air release properties
- Suitable for high-temperature applications

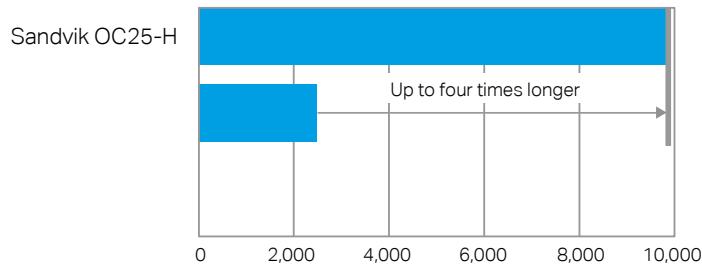


SANDVIK PERFORMANCE FLUIDS LONG-LIFE COMPRESSOR OIL

Product name	Viscosity grade	Item number	Size	Additional information	Compressor running pressure
Sandvik OC10-C	ISO VG46	BG00636000	205 L		10 bar
Sandvik OC10-C	ISO VG46	BG00636001	20 L		10 bar
Sandvik OC25-H	ISO VG68	BG00636005	205 L	Synthetic technology	For high pressure, 25 bar
Sandvik OC25-H	ISO VG68	BG00636004	20 L	Synthetic technology	For high pressure, 25 bar

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RELATIVE OIL LIFE (HOURS)



With Sandvik OC25-H you can extend oil drain intervals. In recognized industry tests Sandvik OC25-H oil lasted up to four times longer.



SANDVIK PERFORMANCE FLUIDS LONG-LIFE AXLE OIL

Sandvik long-life axle oils extend the life of your equipment with excellent wear and corrosion protection. These dedicated axle oils are fit for purpose, offering outstanding protection for gears and bearings for reliable

operation under the harshest conditions. Our axle oil does not contain any viscosity modifiers or thickener and therefore shows outstanding sheer stability.

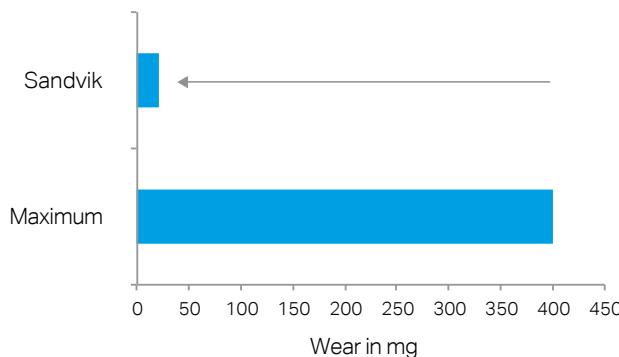


SANDVIK PERFORMANCE FLUIDS LONG-LIFE AXLE OIL

Product name	Viscosity grade	Item number	Size
Sandvik OA85W140	SAE 85W-140	BG00635988	1,000 L
Sandvik OA85W140	SAE 85W-140	BG00635991	205 L

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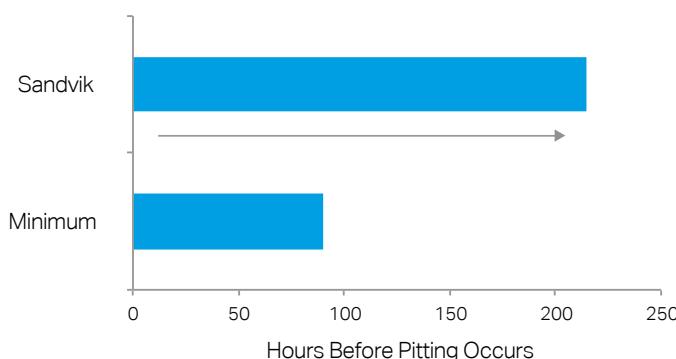
FZG WEAR TEST



EXTRAORDINARY INCREASE IN PERFORMANCE RESERVE

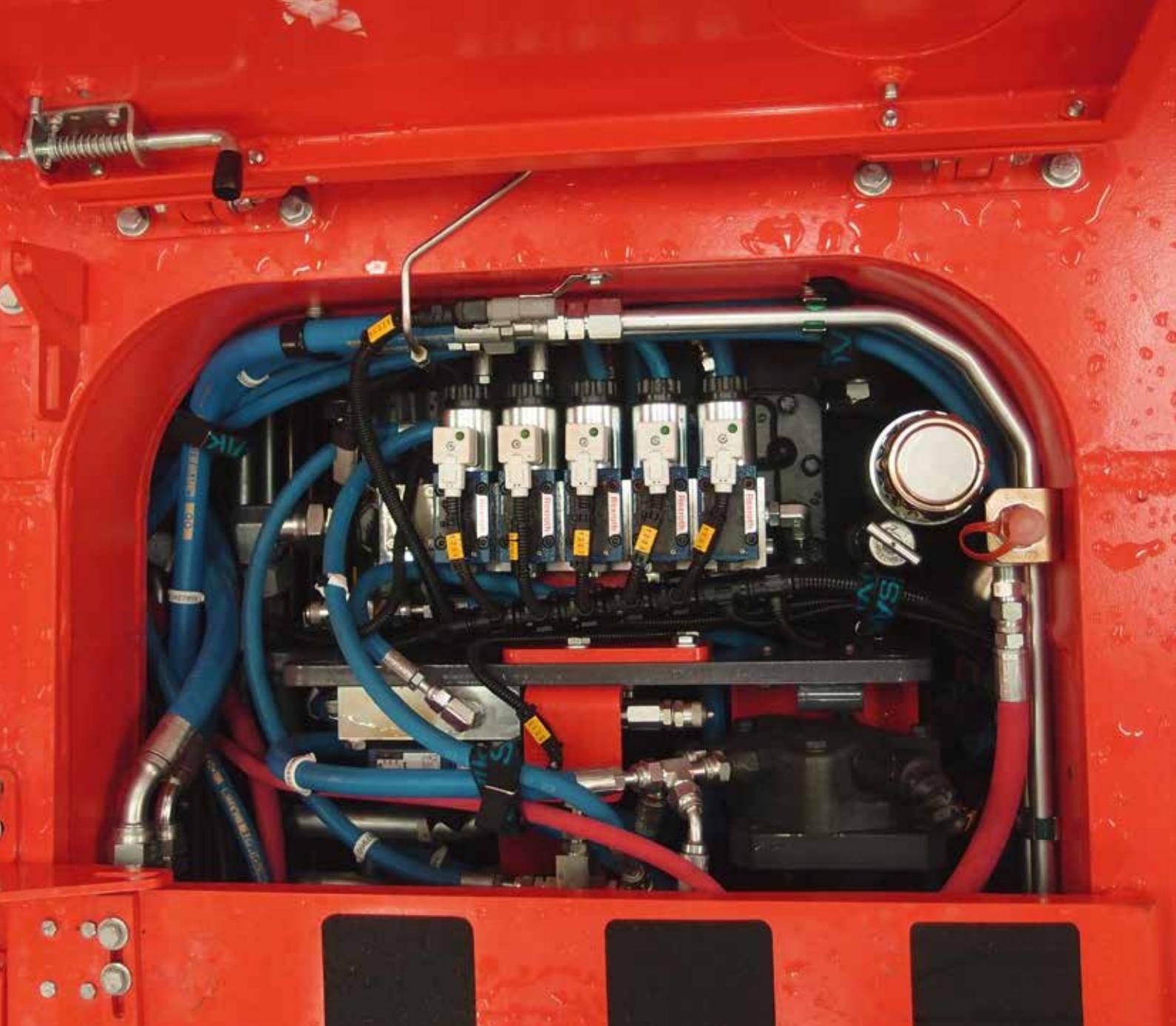
This test determines what is typically regarded as wear on the gears. It runs in three stages at different temperatures at low speed, for off-highway applications. At the beginning and end of the test the parts are weighed -- difference is loss of material caused by wear. The maximum accepted loss is 400 mg, while our technology shows only 21 mg of wear.

FZG PITTING TEST



MORE THAN TWICE THE PERFORMANCE RESERVE

This test determines the pitting resistance in the gears teeth, which is provided by the oil. The fluid must protect the teeth from pitting for at least 90 hours -- our technology runs for 215 hours before pitting occurs.



SANDVIK PERFORMANCE FLUIDS LONG-LIFE TRANSMISSION OIL

Sandvik long-life transmission oil OT10W provides excellent protection for heavily loaded components, extending the life of your equipment. It is a dedicated transmission/torque converter oil, fit for purpose, and that enhances efficiency with improved flow at low temperatures. This sheer stable oil is free from viscosity index improvers and thickeners, and contains inhibitors to control oxidation and deposit formation. It also protects both ferrous and non-ferrous metals from corrosion.

Sandvik OT220 is an industry oil engineered particularly for our continuous miners, equipment that needs to cover high loads and is exposed to many vibrations and wet conditions. In addition to strong water separation ability, this oil also offers extra-high protection in mixed friction areas and high load carrying capacity.

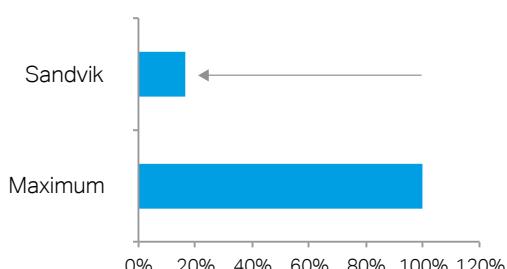


SANDVIK PERFORMANCE FLUIDS LONG-LIFE TRANSMISSION OIL

Product name	Viscosity grade	Item number	Size
Sandvik OT10W	SAE 10W	BG00635985	1,000 L
Sandvik OT10W	SAE 10W	BG00635987	205 L
Sandvik OT220	ISO VG220	BG00636002	1,000 L
Sandvik OT220	ISO VG220	BG00636003	205 L

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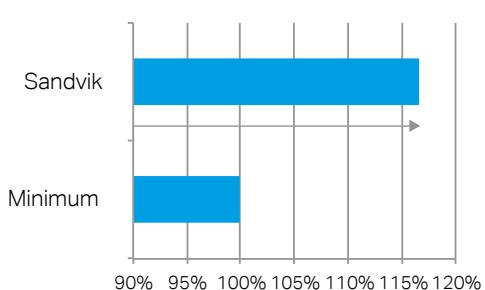
FE8 WEAR TEST



Sandvik OT220 shows excellent results in FE8 roller wear tests and reduces wear in your bearings by as much as 80 percent.

After 80 hours of runtime the weight loss of the rollers is 80 percent less with Sandvik OT220.

FZG GEAR TEST



Sandvik OT220 exceeds requirements on FZG anti-wear performance and protects your equipment from scuffing.

SANDVIK ROCK DRILL PERFORMANCE FLUIDS HEAVY-DUTY SHANK LUBRICATION OIL

Sandvik heavy-duty shank lubrication oils are specially engineered for your Sandvik rock drills that operate under harsh mining conditions. With different viscosity classes for colder and warmer climates, this oil protects front-end parts — such as shank and front bearings — from wear and damage.

This oil will increase the service life of your rock drills and maximize your return on investment.

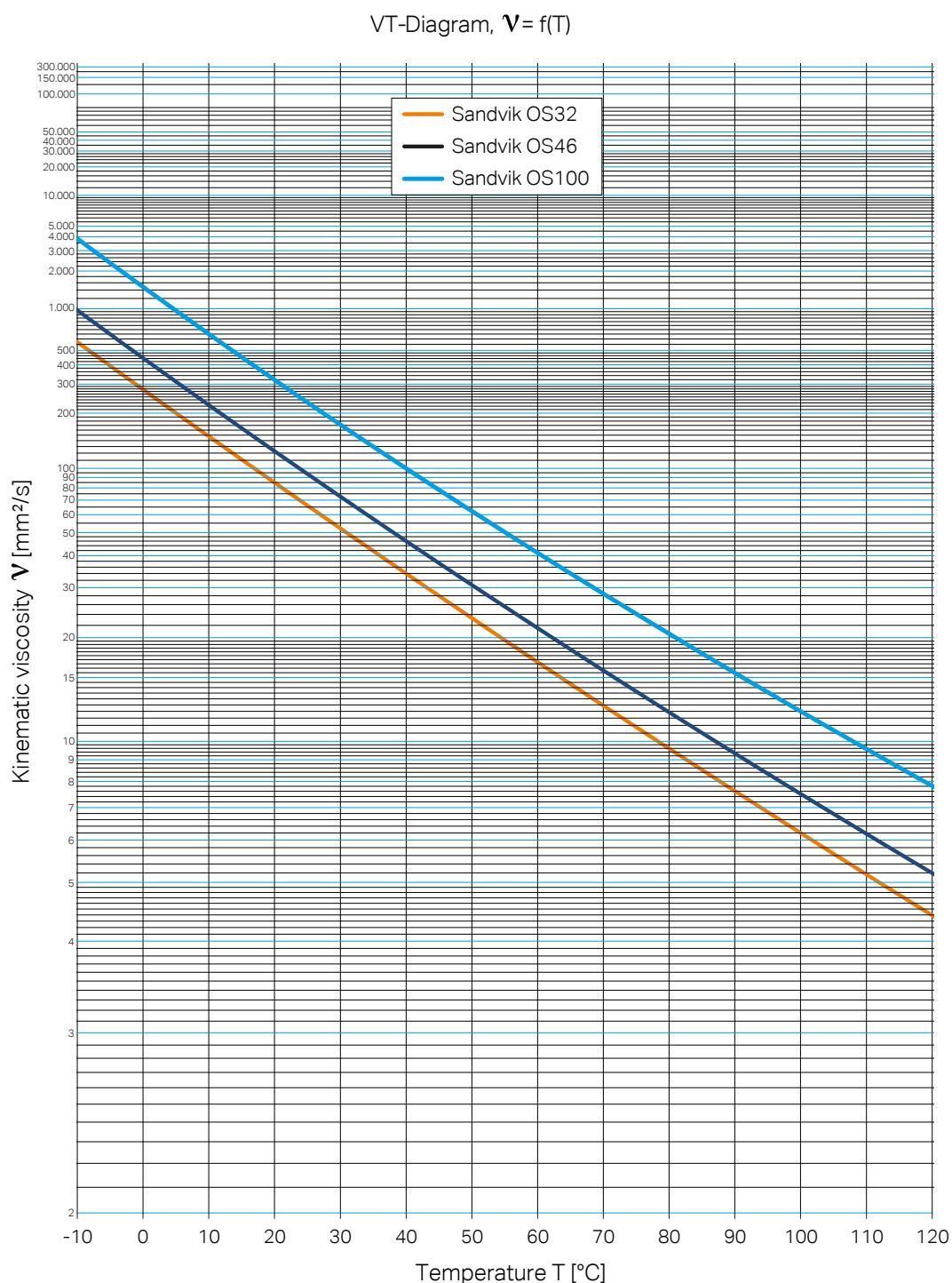
SANDVIK ROCK DRILL PERFORMANCE FLUIDS HEAVY-DUTY SHANK LUBRICATION OIL

Product name	Viscosity grade	Item number	Size
Sandvik OS32	ISO VG32	BG00636017	205 L
Sandvik OS32	ISO VG32	BG00636016	5 L e
Sandvik OS46	ISO VG46	BG00861758	205 L
Sandvik OS46	ISO VG46	BG00861769	5 L e
Sandvik OS68	ISO VG68	BG00861806	205 L
Sandvik OS68	ISO VG68	BG00861807	5 L e
Sandvik OS100	ISO VG100	BG00636013	205 L
Sandvik OS100	ISO VG100	BG00636014	5 L e
Sandvik OS150	ISO VG150	BG00861808	205 L
Sandvik OS150	ISO VG150	BG00861809	5 L e
Sandvik OS220	ISO VG220	BG00861810	205 L
Sandvik OS220	ISO VG220	BG00861811	5 L e
Sandvik OS320	ISO VG320	BG00861812	205 L
Sandvik OS320	ISO VG320	BG00861813	5 L e

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VISCOSITY COMPARED TO TEMPERATURE



The diagram above simplifies selection of the right viscosity grade for your working temperature.

For example, a rock tool has a minimum required viscosity of 20 mm^2/s . With Sandvik OS32, you can operate in temperatures as high as 55 $^\circ\text{C}$. With Sandvik OS100, the maximum temperature is 80 $^\circ\text{C}$.

STAY ONE STEP AHEAD WITH FLUID ANALYSIS

We engineer every piece of Sandvik equipment for longevity — a life of productive and reliable service. Maintaining peak performance requires a predictive maintenance strategy, and fluid analysis is a crucial condition-monitoring tool to help you avoid contamination that can cause severe system failures and expensive downtime.

Early discovery is the key to minimizing catastrophic downtime, and maximizing your return on equipment investment. Fluid analysis helps you evaluate the health of your equipment and identify problems before they escalate to costly repairs.

Our in-depth knowledge and experience about your Sandvik equipment gives us an intimate understanding of the results and the root cause. We can offer valuable recommendations based on our in-depth expertise, as well as corrective actions that help you maximize the value of your capital investment.

WHY FLUID ANALYSIS?

Contaminants like dirt, sand, water and metallic particles can cause premature component wear and component failures — even in microscopic quantities. All too often, the results are unscheduled downtime and lost production. Monitoring the condition of your fluids helps you understand the health of your components and enables you to make informed maintenance decisions to extend the life of your equipment and reduce total lifecycle cost. Then the analysis results can provide early warning of emerging issues and enable you to take corrective action.

BIG BENEFITS

When you combine Sandvik oils with Sandvik fluid analysis, the benefits abound:

- Oil change intervals can be doubled (for some oils even tripled) without risking performance or durability
- Increased revenue through longer equipment life
- Up to 30 percent in maintenance cost savings
- Lower risk of unexpected failures and catastrophic downtime
- Reduced environmental impact



HOW IT WORKS

We provide you with a starter kit that includes sampling bottles, tubing and cutters, as well as a clear and easy-to-follow set of instructions. You have a choice of either extracting fluid samples or having a Sandvik technician assist in the process.

You then send the samples to our laboratory, where a lab engineer quickly and accurately processes the sample, screening for additives, wear metals, water and other contaminants. Within 24-48 hours after receipt of the samples, you'll be emailed a comprehensive and easy-to-understand report with your results and personalized recommendations. You can also use our web portal to view your results, leading indicators and trends.

Doubled

oil change intervals with Sandvik fluid analysis, reducing your long-term total cost of ownership (TCO)

WELCOME KIT 1 — BG00486751

Cardboard box, six sampling bottles, sampling pump, 10 meters of tubing, cutters and instructions.

WELCOME KIT 2 "PRO" — BG00486754

Hard case, six sampling bottles, sampling pump, 10m tubing, cutters and instructions.

SAMPLING BOTTLE KITS — BG00486778

Cardboard box, 10 sampling bottles and instructions. One bottle can be used for all fluids.

PLASTIC SAMPLING PUMP — BG00486782**METAL SAMPLING PUMP — BG00486827****10 METERS OF TUBING — BG00486755****SANDVIK FLUID CONTROL UNIT — BG00842960**

This tool enables you to measure your oil contamination level directly on-site, providing you an immediate indicator of the level of dirt contained in your oil to determine if you should evaluate a component before a catastrophic failure occurs. Fluid analysis is still required afterwards to evaluate the particles in order to determine the root cause of the contamination.

Welcome kit 2 "PRO" shown in picture.



Sandvik fluid control unit shown in picture.



SANDVIK MAINTENANCE KITS - COST-EFFECTIVE AND CONVENIENT MAINTENANCE

EVERYTHING YOU NEED, WHEN YOU NEED IT

We offer a variety of ready-to-order Sandvik maintenance kits, each one a custom bundle of individual parts that should be replaced at specific intervals**. These kits are the cost-effective way to simplify planning and performing maintenance on your Sandvik equipment.

SUPERIOR PERFORMANCE, SUPERIOR RELIABILITY

The regular exchange of consumables and parts helps to ensure your equipment remains reliable and operates at peak performance, but keeping up with these ever-changing needs requires constant administration, logistics and storage. Minimize your hassle with our maintenance kits and exchange all items at once.

The compact kits make it easy to transport all necessary maintenance supplies to even the most remote of mine sites. Your kit will arrive at your operation directly from our warehouse, making it easier and safer for all.

Using Sandvik maintenance kits will help you follow best-practice OEM maintenance strategy and maximize your equipment performance. Our kits combine a practical view of your needs with our extensive engineering knowledge of your equipment. You'll improve the quality of your maintenance, prevent future individual part failures and ensure more stable equipment performance.

And because our kits include only genuine Sandvik parts of the highest quality materials, you can expect superior equipment performance and reliability, as well as longer component life.



MINIMIZE YOUR EFFORT MAXIMIZE YOUR RELIABILITY

- Extend the lifetime of your equipment with genuine OEM parts
- Reduce the risk of equipment breakdowns and unplanned maintenance
- Save on costs and time without the need to warehouse kits or handle parts logistics for individual loose items
- Benefit from the expertise of a single supplier, who knows your equipment inside and out
- Enjoy the convenience of having all maintenance supplies you need on-hand

OUR SOLUTIONS ENHANCE YOUR PERFORMANCE

Efficient maintenance is paramount to your bottom line. Our kits ensure that you have all relevant parts and consumables in stock to perform your planned maintenance when it's scheduled. Simplify your service by changing out common consumables at the same time.

All Sandvik maintenance kits are tailor-made for your Sandvik equipment models and contain only genuine

Sandvik parts, so you'll have the peace of mind that comes with using the highest-quality materials. When you choose a Sandvik maintenance kit, you're choosing top-of-the-line parts engineered with the latest technologies.

Designed for
achieving
100%

or more of original OEM
machine performance*

up to **30%**
cost and time savings on logistics
and warehousing kits*

up to **20%**
increase in equipment lifetime*

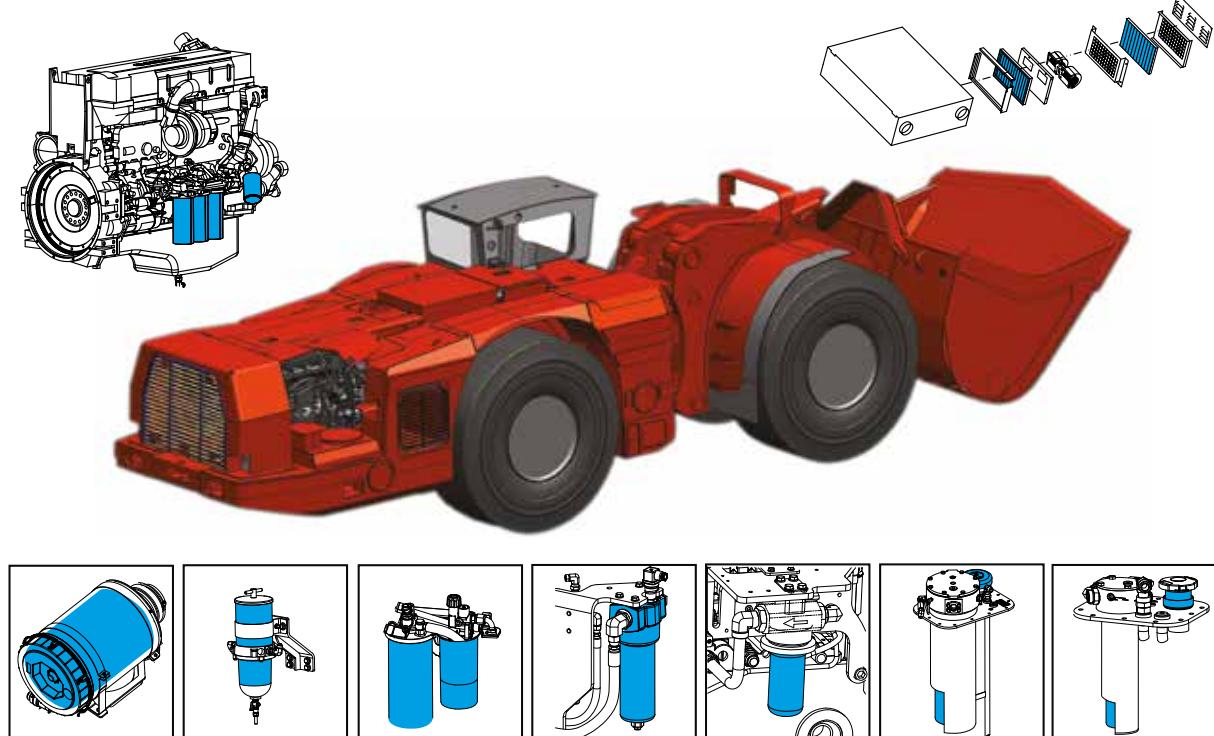


MAINTENANCE KITS FOR SANDVIK FLEET

We offer maintenance kits for the majority of our Sandvik equipment families, including loaders, trucks, underground drills, surface drills and continuous mining equipment. Each kit is tailored to the machine model, configuration and recommended maintenance intervals, following the

maintenance strategy recommended by Sandvik engineers. We can help you choose the right kit for your equipment simply by serial number. Discover the right maintenance kits for your equipment in the new My Sandvik customer portal (see page 32 for more information).

Example of a Sandvik maintenance kit for an underground loader:



SANDVIK MAINTENANCE KITS:

- Are easy to find and order
- Extend equipment life
- Minimize maintenance time
- Can be pre-ordered and stored on-site



GENUINE FILTERS FOR SAFE, LASTING PERFORMANCE

All filters may look the same, but they vary greatly in their ability to do their job. Genuine, high-quality Sandvik filters guarantee the ideal fit for safer, lasting performance — even in harsh, dusty, volatile and unpredictable conditions.

PROTECT YOUR EQUIPMENT

Your equipment is often exposed to dust and extreme variations in working temperature.

All five of our high-quality Sandvik filter types are specifically designed for your heavy equipment — increasing performance in difficult conditions, reducing risk of stoppages, increasing reliability, and extending time between filter exchanges.

Our Sandvik filters hold up to 100 percent more dirt and dust than other filters on the market. The high-quality filters can capably withstand pressure peaks and keep your equipment out of trouble.

SANDVIK HYDRAULIC OIL FILTERS

Nearly 70 percent of hydraulic system failures are caused by contamination. Abrasive particles that enter the system are not filtered properly, causing premature wear and damage to components like pumps, valves and motors. These contaminants also cause jerkiness and false movements in your equipment.

Sandvik hydraulic oil filters are specially designed to remove these particles from the oil flow, and protect the system — even in the harshest of conditions. They are also 100 percent compatible with Sandvik hydraulic oil, ensuring that they never clog or experience a high pressure drop.

SANDVIK ENGINE OIL FILTERS

Sandvik engine oil filters protect your engine from abrasion and premature wear. With a large dirty-holding capacity, our filters remove solid contaminants such as dirt, carbon and metal particles from the oil before they can damage bearing, journal and cylinder wall surfaces in your engine.

Our Sandvik genuine filters manage the built-in safety device — the by-pass valve — in the correct way so that differential pressure and cold engine starts do not hinder filtration.

SANDVIK ENGINE AIR FILTERS

Air is a crucial component in combustion for diesel engines. If the air filter is not able to clean the intake air effectively, particulate matter and debris enter the engine and cause excessive wear. This leads to reduced engine performance, fuel efficiency and, ultimately, engine failure.

Sandvik engine air filters eliminate unwanted leakages with an ideal fit. Thanks to a unique media design, our filters are compact in size but restrict less air and last longer. Our unique filters deliver cleaner air and greater cost savings in your operations.

SANDVIK FUEL FILTERS

Sandvik fuel filters perform vital filtering and water separation, even in the harshest conditions. This helps to prevent misfires and premature component wear or damage, while ensuring there is no pressure drop in the fuel line.

When needed, we can equip our filters with an extra water separator with a large water-holding capacity. In addition, the water collections bowl is made of aluminum instead of plastic, a safer solution for your operating conditions.

SANDVIK OIL SEPARATORS

Sandvik oil separators are specially designed to suit our compressors, enabling almost complete oil separation. They are application-tested and have a tough structure, ensuring their ability to withstand all of the vibrations and temperature variations in your operating conditions. This is a tool that will last, maintaining its performance during change intervals and minimizing oil consumption.

REMOVE CONTAMINANTS EXTEND YOUR OIL LIFE

If your fluid analysis report reveals that oil is contaminated with mechanical particles or water — but that all other oil properties have normal values — our Sandvik off-line filter caddies can remove the contaminants and save the oil, extending its lifetime.

Our off-line filter caddies have high filtering and dirt-holding capacity. The filtering process is fast, taking between one and four hours to filter out contaminants, a job that can be done during normal maintenance. The caddies are also easy to use, so the same person who performs normal maintenance work can operate them.



	Sandvik FO15	Sandvik FO30	Sandvik FO5-EX
Type	Portable tool	On wheeled cart	On wheeled cart
Flow	15 l/min	30 l/min	5 l/min
Solid contamination filtration rating	2µm absolute	2µm absolute	2µm absolute
Solid contamination filtration retention capability	240 g (185 g with optional "Aquafilter" element)	1,000 g	240 g
Oil degassing function	No	No	Yes
Oil dewatering function	Only free water with optional "Aquafilter" element (≈ 0.25 liters per element)	No	Yes (free and dissolved water) with no limitation
Solid contamination monitoring	No	Yes	Yes
Water contamination monitoring	No	No	Yes
Integrated contamination data recording function	No	No	Yes

Sandvik reserves the right to make changes to the information on this data specification without prior notification to users. Please contact a Sandvik representative for clarification on specifications and options.

SANDVIK OFF-LINE FILTRATION UNITS



SANDVIK FO15

Sandvik FO15 is a small portable service filtration unit used for filling or draining hydraulic tanks, flushing hydraulic systems after a component breakage or as a temporary off-line filtration.

Designed particularly for underground equipment, it is easy to use and transport. The 15-liter-per-minute pump flow enables fast, efficient cleaning of the hydraulic systems. The fine elements used in this filtration unit are noted for their particularly high solid contamination retention capacity (low operating cost) and an environmentally safer method of disposal (incinerable).

The optional "Aquafilter" element has the ability to separate free water from the oil (≈ 0.25 liters per element).

UNIT ID#	OPERATING VOLTAGE/FREQUENCY
BG00908710	1 x 230V 50Hz
BG00908711	1 x 120V 60Hz
BG00908713	1 x 220V 60Hz
BG00908714	24 VDC

REPLACEMENT PART

BG00585772	2 micron filter element
55195377	2 micron "Aquafilter" element

SANDVIK FO30

Sandvik FO30 is a robust off-line filtration unit installed on a mobile four-wheeled cart.

Designed particularly for use in underground mine workshops, the 30-liter-per-minute flow enables an extremely fast cleaning of the solid contamination of the hydraulic systems. The fine elements used in these filters are noted for their particularly high contamination retention capacity (low operating cost) and an environmentally safer method of disposal (incinerable).

The integrated particles measurement technology optimizes oil quality monitoring.

UNIT ID#	OPERATING VOLTAGE/FREQUENCY
BG00567573	1 x 230V 50Hz
BG00585758	1 x 120V 60Hz
BG00585761	1 x 220V 60Hz
BG00585747	3 x 400V 50Hz

REPLACEMENT PART

BG00585785	2 micron filter element (2 pieces needed)
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SANDVIK FO5-EX

Sandvik FO5-EX is a high-tech off-line filtration unit, designed for filtering hydraulic oil, but also for dewatering and degassing. It operates on the principle of vacuum dewatering to eliminate free and dissolved water as well as free and dissolved gases. Its integrated heater improves dewatering.

By using special filter technology, which has a high contamination retention capacity, Sandvik FO5-EX is extremely cost effective. Easy to use and to maintain, its compact and mobile design makes it ideally suited for service work.

The integrated water content and particles measurement technology with continuous measurement display and value storage optimizes oil quality monitoring.

UNIT ID#	OPERATING VOLTAGE/FREQUENCY
BG00567574	3 x 400V 50 Hz
BG00585736	3 x 220V 60 Hz

REPLACEMENT PART

BG00585772	2 Micron filter element
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OPERATE SMARTER WITH MY SANDVIK

Our new ecommerce solution can help you operate smarter, safer and more productively.

My Sandvik*** is our interactive customer portal, designed for you to access and manage all the vital information connected to your Sandvik fleet at the touch of a button.

This robust solution includes all information related to your Sandvik equipment — order history, electronic parts manuals with enhanced search functionality, training manuals, equipment and safety bulletins and recommended parts — in one place. The My Sandvik portal also marks the launch of a new interactive fleet management solution called MyFleet, which provides accurate information about your fleet performance — even in real time — as well as the latest offerings suitable for your specific equipment.

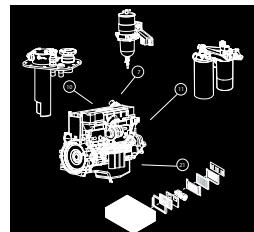
24/7 ACCESSIBILITY

Enjoy self-service access to the parts and tools you need, whenever you need it. Increase transparency and control in your order process and improve your operational efficiency.



ELECTRONIC PARTS CATALOGUES

An extensive range of parts catalogues in an interactive electronic platform save you time and reduce errors. Access accurate, relevant information about your Sandvik equipment around the clock with offline possibilities.



ACCURATE PERFORMANCE DATA TO IMPROVE PRODUCTIVITY

MyFleet is a scalable, interactive fleet management platform that uses equipment data to boost your productivity. Access accurate, securely-gathered fleet data in a user-friendly format.



STREAMLINED EXPERIENCE

When you log in to My Sandvik, you'll have immediate dashboard access to Carts, Templates and Quick Order functionalities — all designed to support a simple, streamlined online quoting and purchasing experience.



BULLETINS BASED ON YOUR FLEET

Get the information you need, at your fingertips. You'll receive targeted bulletins based on your unique fleet in My Sandvik, allowing you to focus on what really matters.



To sign up for My Sandvik, please visit mining.sandvik.com and follow the instructions, or contact your Sandvik representative.

GENUINE PARTS

2417

ORDER SYSTEM



Sandvik was founded in 1862 by Göran Fredrik Göransson, who was the first in the world to succeed in using the Bessemer method for steel production on an industrial scale.

TOGETHER WE WILL TAKE YOUR BUSINESS FURTHER

For more than 150 years, we have been committed to providing the highest quality products and solutions for mining and rock excavation. Our spirit and business ethics have remained unchanged, and developments within society and industry have helped drive our innovative solutions.

"We conduct business in close cooperation with customers like you all over the world, with the promise of being a proactive and innovative partner."

Today, we continue to conduct business in close cooperation with you and other customers all over the world, with the promise of being a proactive and innovative partner.

We believe that we can make a difference in your bottom line. You need to get the best out of your equipment — with no compromise on quality or service. As your partner, we will create solutions that help your operation run as efficiently as possible.

One thing is certain: our products and solutions will continue to meet the ever-growing needs of the mining and rock excavation industries, and your business.

AT YOUR SERVICE

Sandvik was established in 1862. Today, it is a global industrial group with advanced solutions and world-leading positions in selected areas. In 2016, we had approximately 43,000 employees and sales of 82 billion SEK in more than 150 countries within continuing operations. Our operations are based on unique expertise in materials technology, and significant insight into your processes.

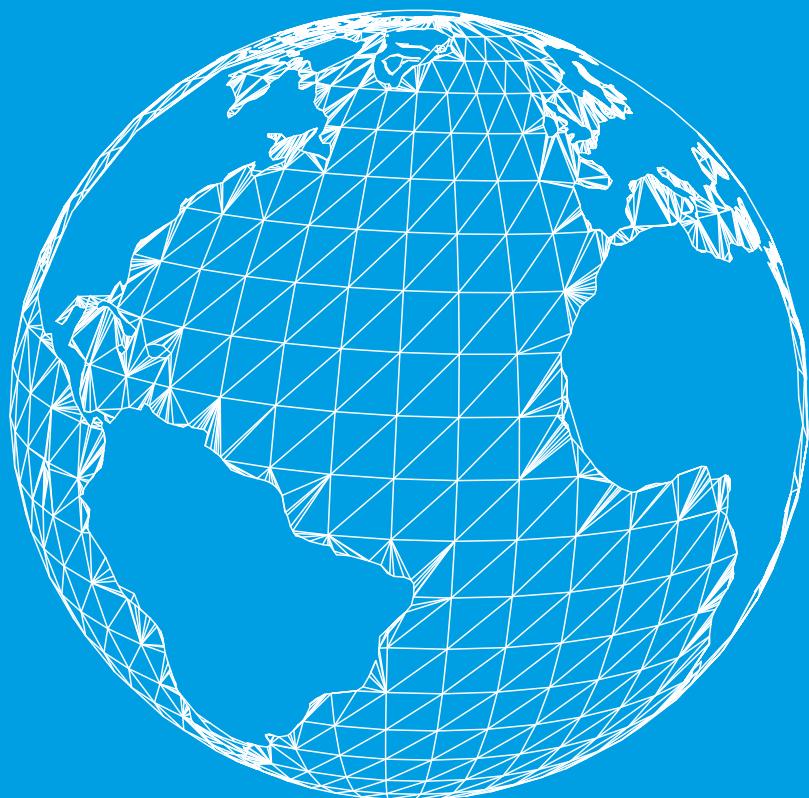
Our goal is to actively contribute to improving your productivity and, consequently, your profitability. Our products and services provide you maximum value in terms of performance, quality, speed, safety, flexibility and — not least — total economy.

SANDVIK MINING AND ROCK TECHNOLOGY

We are a leading global supplier of equipment and tools, service, and technical solutions for mining and rock excavation. Our offering covers rock drilling, rock cutting, crushing and screening, loading and hauling, tunneling, quarrying and breaking and demolition.

OUR ORGANIZATION

Every product is preceded by extensive research, and backed by application expertise; a worldwide service network, offering on-site Sandvik 365 service, training and round-the-clock support. We have a tradition of localization and a conviction that there can be no substitute for direct service and face-to-face contact with you. Our service-oriented, global organization includes more than 3,500 service technicians located strategically around the world to keep your operation moving.



Our worldwide business activities are conducted via representation in more than 150 countries.

NOTES

*Test results and calculations are to be considered as results reached under certain and controlled conditions. These test results and calculations should not be treated as specifications and Sandvik does not guarantee, warrant or represent the outcome of test results or calculations in any or all circumstances.



**Sandvik maintenance kits are designed according to the standard maintenance intervals as recommended in Sandvik service books and are an OEM recommendation only. Always consult with maintenance personnel and consider operating conditions and environmental factors before determining which maintenance intervals are most appropriate for a specific application.

***Check country availability with your local Sandvik representative.

