

Discover the
fundamentals
of effective
lubrication,
so your plans,
projects and
timelines run
smoothly.

In construction, using the right lubricant at the right time, every time, can help improve the margin between peak performance and unplanned downtime. Here are some simple tips from Shell to help you get more from your machines.



SHELL
LUBRICANT
SOLUTIONS

At Shell, we understand that in construction, you need to keep your operations running in unforgiving environments. That's why we continue to help push the boundaries – so your plans, projects and timelines don't stop.

Our range of high quality lubricants are engineered to help you increase component efficiency, prolong equipment life and significantly reduce vehicle downtime. They include:

**Shell
Spirax**

**Shell Spirax S6 CXME
Transmission Oil**

- Premium performance
- Approved by major manufacturers
- Meeting latest specifications

**Shell
Tellus**

**Shell Tellus S4 VE
Hydraulic Fluids**

- Extra-long life
- Premium performance
- Energy saving
- Sludge and varnish control

**Shell
ROTELLA**

**Shell Rotella T5 CK4
Engine Oil**

- Improved oxidation protection under extreme conditions
- Protection against oxidation and corrosion in the presence of bio-diesel
- Extended drain capabilities

**Shell
GADUS**

**Shell Gadus S4 V460D
Grease**

- Heavy-duty protection
- High temperature
- Lithium complex

**Shell
Naturelle**

**Shell Biodegradable S4 Hydraulic Fluid
Hydraulic Fluid**

- Good oxidation and thermal stability
- Good wear protection
- Wide temperature range

However, with so much heavy equipment spread across multiple sites, we know it can sometimes be hard to know which lubricant to use for each component, in every scenario. Getting it wrong can prove costly – in both maintenance and unplanned downtime.

Our technical experts can be on hand to help you – and you can also use our free Shell LubeMatch tool. But here are three, simple top tips from one of our technical advisors which can help you and your team choose the right lubricant at the right time, every time.



Oil isn't just oil, grease isn't just grease.

It goes without saying that a transmission fluid isn't the same as an engine oil. Yet not everyone is aware that different original equipment manufacturers (OEMs) may require different fluids.

For example, a Hitachi excavator might use a different hydraulic fluid than a Caterpillar excavator, even though the machines may be of a similar size and payload. The same applies for transmission fluids, gear oils, and greases.

Understanding that each lubricant is designed for a specific component of a specific OEM should be the starting point of any training program. This is fundamental to effective lubrication management.

Using the wrong type of lubricant in any given piece of equipment not only may increase the risk of components failing, but can also void the warranty. This could make repairs even more costly and often puts projects over budget and behind schedule.

1

Tip: Remember that some OEMs may require different fluids.

What's in a name?



A typical construction fleet can need as many as 15 - 20 different types of lubricants to provide full coverage to the different machines on site. From mini excavators to haul trucks, bulldozers, front-end loaders, and more.

This might be streamlined where a single OEM brand is used for the entire fleet, but could be even more complicated for operations using specialty machinery. Either way, attention to detail could prove the margin between peak performance and unplanned downtime.

Consider this: some applications require a pin grease with 3% moly, while others require 5% moly. This means two different greases are needed. Yet they'll likely share a similar name, perhaps with just one character setting them apart.

Similarly, a zinc-free hydraulic oil demanded by some OEMs may have a similar name to a high-zinc hydraulic oil needed by others.

2

Tip: Take extra care when checking the names of your lubricants.

Keep it at hand.





We recognize that you and your team have plenty on your plate, and memorizing myriad names of lubricants likely isn't going to be near the top of anyone's to-do list.

That's why we always suggest making a list of which lubricants you need for each machine and/or OEM and keeping it close to hand for when you need it. For example, creating simple reference cards and keeping these in the cab of each machine, your notebook or pocket, can save you valuable time.

At Shell, we can even develop a bespoke reference guide for your business. This can be tailored to align with the specific OEM requirements, ambient conditions, and regulatory requirements needed for each of your sites.

3

Tip: Make a list of the lubricants you need for each machine and/or OEM.



Is your lubrication training up to the job?

These three simple tips can help you and your team start to build a better understanding of effective lubrication and lubrication management. But putting proper training in place is key to keeping your business up and running.



With lubricants evolving all the time, even seasoned operators who feel confident in their lubrication management may benefit from speaking with a specialist. For example, about the benefits of biodegradable or Environmentally Acceptable Lubricants (EALs).



EALs, such as Shell Naturelle S2 Hydraulic Fluid 46, balance performance with environmental protection. They're particularly pertinent for operations in sensitive environments - including dredging or work near the coast, lakes or rivers.



Already mandated in certain jurisdictions and applications, they're also becoming more commonly requested by corporations committed to meeting their own Environmental, Social, and Governance (ESG) goals.

A close-up photograph of a yellow excavator's hydraulic arm and bucket. The bucket is filled with dark, jagged rocks. The background is a clear, light blue sky. In the top left corner, there is a decorative graphic of yellow and white hexagons.

How Shell can help you stay Unstoppable.

As the world's #1 lubricants provider for 17 years running¹, we know what it takes to help you cull downtime, cut maintenance costs, and boost your total cost of ownership. This, in turn, helps protect your bottom line.

Our end-to-end portfolio of market-leading lubricants and services are designed to make your life easier, giving you the peace of mind to focus on the bigger priorities of the job. And the next one.

This includes free expert training, with Shell LubeCoach Academy. Featuring a wealth of industrial learning materials, the platform has all the right resources you need to make the right decisions for your construction operations.

¹Kline & Company 2023. 21st Edition Global Lubricants: Market Analysis and Assessment 2022.

A photograph of a yellow excavator working in a quarry. The excavator is positioned on a concrete structure, and its bucket is visible. The background shows a large, rocky mountain peak under a blue sky. In the bottom right corner, there is a decorative graphic of yellow and white hexagons.A decorative graphic consisting of a grid of yellow and white hexagons, located in the bottom right corner of the page.

Sector specific modules

This includes newly created sector-specific modules. Available right now, they're designed to equip you with the tools you need to succeed in harsh conditions and tackle the demanding challenges of your industry.

The four new modules will help you to ensure your machinery runs at its best and doesn't let you down. So you can stay Unstoppable.

They are:

1

Construction lubricating oil fundamentals

Maximize your equipment's productivity by understanding the appropriate lubricant solution for each type of equipment. Reducing friction and wear will help prevent corrosion, reduce temperature and contaminants, keeping your equipment performing at its best.

2

Construction oil protocol

Practice effective oil management through implementing the correct protocols and procedures for maintenance and filtration issues, preventing contamination build-up whilst prolonging the life of your equipment and its components.

3

Construction lubricating grease fundamentals

Reduce your total maintenance budget by maximizing your machinery's reliability and layload using different types of grease. This module will help you apply these graded greases to different pieces of your heavy equipment.

4

Construction grease protocol

Thorough greasing inspections are vital to the uptime of your equipment. Gain an overview of greasing maintenance procedures to prolong the lifespan of your construction equipment.

Long term benefits of Shell LubeCoach Academy construction training.

These new modules make it easier for you to quickly upskill and train your current employees - as well as new joiners to your operations - using the same, dedicated training material. Doing so will help you:



Prolong the lifespan of your equipment

Implementing the different lubrication procedures and protocols ensures you can prolong the lifespan and uptime of your machinery. This is crucial knowledge required for your daily operations, where equipment components are exposed to harsh contamination and shock loads.



Reduce your total cost of ownership

Cap deepening your understanding of the importance of oil and grease and the roles they play in your machinery's maintenance ensures reliability, preventing failures and contamination and increasing maintenance savings across your business.



Bolster your productivity

Integrating Shell LubeCoach Academy learnings into your business strategy will help you extend oil change intervals, minimizing premature oil changes, repeated downtime and increasing your overall productivity and efficiency.

With exciting new developments and sector training being added to the platform, you can keep up-to-date with industry developments.

[Find Out More](#)

Shell.com/LubeCoachAcademy



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