

# SCAMEC LC THOR



DEFINING THE FUTURE  
**UNDERGROUND**

**normet**

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# SCAMEC LC THOR



**The most challenging underground operation  
- now safer than ever before.**

## A new era of underground scaling

The Scamec LC Thor marks the start of a new era of underground scaling operations. It is designed in close collaboration with our customers, combining Normet's decades-long experience in developing cutting-edge underground equipment with scaling operators' invaluable experience in everyday scaling work.

As a result of that collaboration, this purpose-built machine brings boom accuracy and handling, work area visibility and operator ergonomics – and, consequently, safety and productivity of the whole scaling process – to a higher level than ever before.

The Scamec LC Thor has an extremely safe FOPS/ROPS approved cabin with excellent visibility and unforeseen operator ergonomics. It is equipped with a completely new, agile and accurate boom for precise and efficient scaling. It has an effective vertical reach of up to 9.5 meters and fits tunnels measuring 4 meters wide and 2.4 meters high.

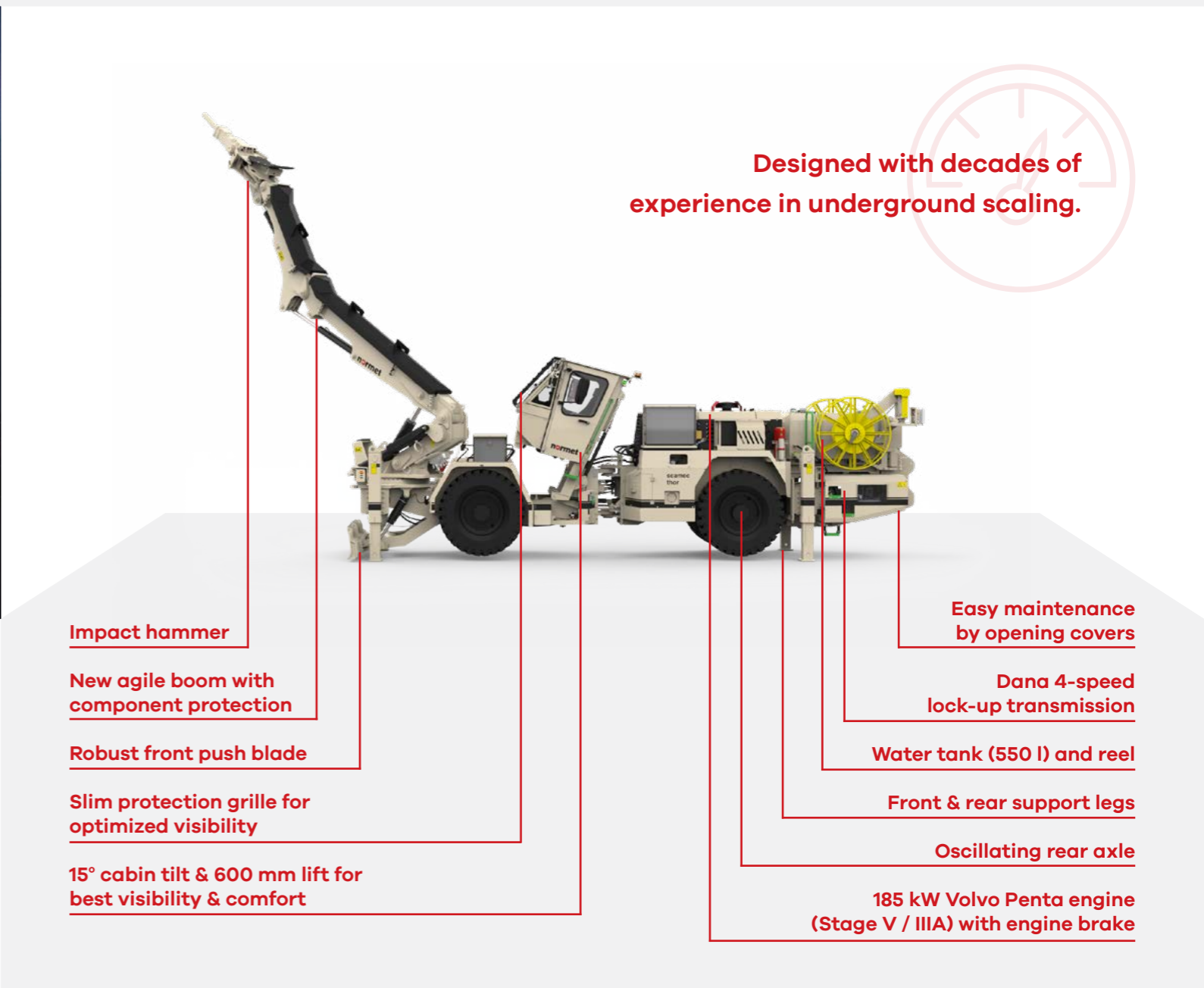
## Safety is our first priority

The new Scamec LC Thor is built to actively prevent and, when the worst happens, protect against risks during one of the most dangerous underground operations.

Rocks falling to the cabin is a major risk for the operator during the scaling process. The completely new boom of the Scamec LC Thor is designed to minimize the risk of rockfall hazard by projecting falling debris to the side with guiders fitted on the rock covers on both longitudinal boom sections.

When situations suddenly turn life-threatening, human actions become straightforward and immediate. Similarly, the Scamec LC Thor can be equipped with an emergency escape function activating an emergency sequence for lifting the stabilizers and the dozer blade while engaging reverse gear and preparing the machine for reversing. The operator can then concentrate on steering the machine to safety after releasing the parking brake.

The machine can be fitted with an automatic fire suppression system and comes with handheld fire extinguishers as standard.





Scan the QR code to watch a video of the Scamec LC Thor.



## THE NEW CABIN

The completely redesigned, FOPS and ROPS certified and tested cabin of the new Scamec LC Thor defines new levels of safety, visibility and operator ergonomics.

A key feature of the cabin is that it can not only be lifted 600 mm for an even more extensive overall view of both the scaling tool and the tunnel surface, but also tilted back 15 degrees for minimizing the strain to the operator's neck.

The cabin has low noise levels and is dust sealed with replaceable air filters. It is equipped with air conditioning and cabin heating for a pleasant working environment and comes with three-point contact rails and non-slippery steps ensuring safe passage in and out of the cabin. The windscreen is built with 22 mm thick multi-layer glass and fitted with a protective grille to safeguard the operator from falling rock debris.

Both the flat bar design of the protective mesh grille and the slim structure of the boom base significantly increase visibility, allowing for safer and more accurate operation. Visibility to the sides of the machine has been improved by redesigning the dashboard and switch panels and fitting the machine with wide angle mirrors with electric heating to prevent freezing and the accumulation of moisture. A superior view backwards can be achieved with an optional system of four reversing cameras. Other camera configurations are also available upon request.

The seat with ergonomic armrests is comfortably cushioned and fully adjustable to the operator's weight and size. A retractable trainer's seat is also available as an option. The hammer stroke is controlled with a foot pedal, allowing the operator to focus on controlling the boom.

All frequently needed operating controls like the mini joysticks for accurate boom control and the platform driving buttons are located ergonomically on the seat switch panels. In addition, the control system options can be accessed with the touchscreen MID display.

- Dust sealed, replaceable air filters**
- 15-degree cabin tilt & 600 mm lift**
- Superior operator ergonomics**
- Air conditioning & cabin heating**
- Slim protective window grille**
- Heated wide-angle mirrors**
- Reversing camera system**
- FOPS/ROPS certified**



The Scamec LC Thor is fitted with a completely new, agile and accurate Normet NASB95 boom, dedicated for scaling. It is designed for equally efficient scaling of all tunnel surfaces – roof, walls and the back face.

The boom is anchored to the frame with heavy duty slew ring to withstand hard scaling forces. The boom base geometry allows for improved visibility to the scaling tool when the boom slews.

- Boom design protects the cabin from falling rocks**
- Multiple scaling tool options for versatility**
- Advanced dust suppression technology**
- Agile boom with accurate control features**
- Heavy-duty boom components**

All boom movements are controlled with a system of hydraulic cylinders, tackling the heavy scaling forces effortlessly and allowing for the most effortless and straightforward serviceability possible. The boom structure has no sliding pads, and all joints are constructed with expander bolts for easy maintenance.

The new scaling boom can be equipped with two different-sized hydraulic impact hammers or a pick tool, all of which are specifically designed to meet the requirements of scaling work in challenging underground conditions.

The solid body hammers have a reinforced tool shank, improved dust sealing for both the tool and the shank, pressurized air for keeping out dust particles and, additionally, an automatic greasing function.

Different dust suppression solutions are also available for the new process equipment. The hammers have integrated dust suppression water spraying nozzles in the front piece and the boom can also be fitted with additional water nozzles for suppressing the surrounding scaling dust even more effectively.

## PROCESS EQUIPMENT

Water supply for dust suppression can be organized from the voluminous 550-litre on-board water tank and hydraulically operated dust suppression pump or, alternatively, from the mine water line through a 120 m hydraulically powered water reel.

The Scamec LC Thor is also available with an optional dozer blade for clearing the way in tunnel faces and preventing tyre puncture.



- Control system options accessible with the touchscreen MID display on the dashboard**
- Mini joysticks and switch panels for maximum operator comfort and accurate boom control**
- All platform driving buttons located ergonomically on the seat switch panels**
- Operator seat with ergonomic armrests**



# DEFINING THE FUTURE UNDERGROUND

We are a fast-growing and innovative company with a mission to lead the transformation into a safer and more sustainable tomorrow. We specialize in technologies and solutions for underground mining, tunnelling and civil construction and provide our customers with safe, high-quality equipment, services, construction chemicals and rock reinforcement solutions for projects around the world.

**SAFETY IS OUR PRIORITY**  
Safety is our first priority in everything we do. Our goal is to help our customers increase their level of safety while improving their productivity and profitability. We develop our equipment, technologies and solutions with safety, sustainability and the welfare of people as the key drivers, taking the impact on the environment in careful consideration as well.

**UNDERGROUND EXPERTISE**  
We support our customers with expertise gained from working on thousands of underground mining and tunnelling projects all over the world. To date, we have delivered more than 14,000 purpose-built underground machines while improving safety and productivity through our range of construction chemicals and rock reinforcement products. We also offer a range of services and support for our customers. Our company employs over 1,600 professionals with more than 50 locations in 30 countries.

**CONTINUOUS DEVELOPMENT**  
We constantly develop new equipment, technologies and chemicals to provide additional value for our customers' underground processes. Our development teams consist of world-class experts using the latest methods and tools. We use our own laboratories to develop our construction chemicals and perform field tests for our entire offering in real-world environments. In all our work, we aim to enhance safety and reduce environmental impact.



## DRIVETRAIN & CHASSIS

The Scamec LC Thor is powered with an efficient 6-cylinder 185 kW Volvo Penta TAD8 diesel engine with an engine brake function and either a Stage V or a Stage IIIA emission standard rating depending on local emission regulations.

Delivering continuous four-wheel drive, the powertrain of the Scamec LC Thor is built with some of the most high-quality components like Dana T14 series 4-speed hydrodynamic lock-up transmission with modes for both manual and automatic shifting and Dana 113 planetary gear axles with dual circuit, spring applied and hydraulically released (SAHR) brakes.

Volvo Penta 185 kW diesel engine

Dana's 4-speed lock-up transmission

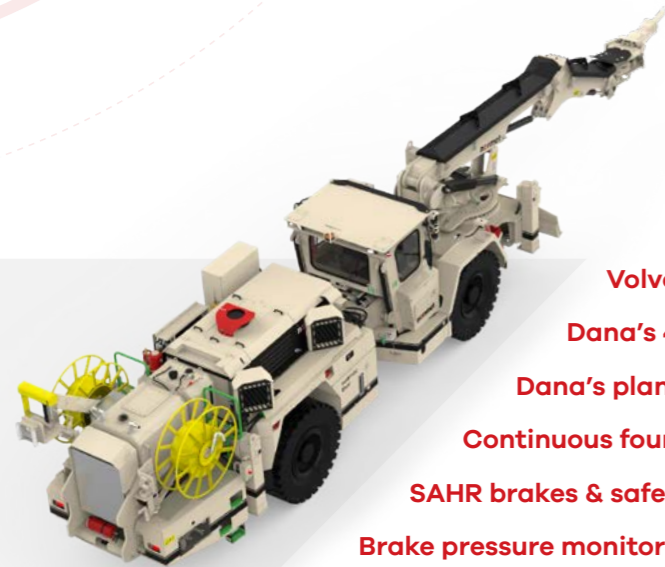
Dana's planetary gear axles

Continuous four-wheel drive

SAHR brakes & safety brake

Brake pressure monitoring system

Strong and easy-to-service chassis



For added safety, The Scamec LC Thor features automatically applied safety brakes in case of hydraulic pressure loss and an optional redundant brake pressure monitoring system (RABA). Both safety and service brakes can be tested from the cabin before operation. The vehicle delivers power to the ground with size 14.00-24 mining grade tires.

In scaling applications, a solid chassis is required to carry the scaling boom. Mechanical forces projected to the equipment in this process are extremely demanding and capable of wearing out lighter and carelessly designed structures quickly. The strong and durable chassis of the Scamec LC Thor is specifically designed to withstand these forces with improved chassis lifetime being one of the primary design objectives.

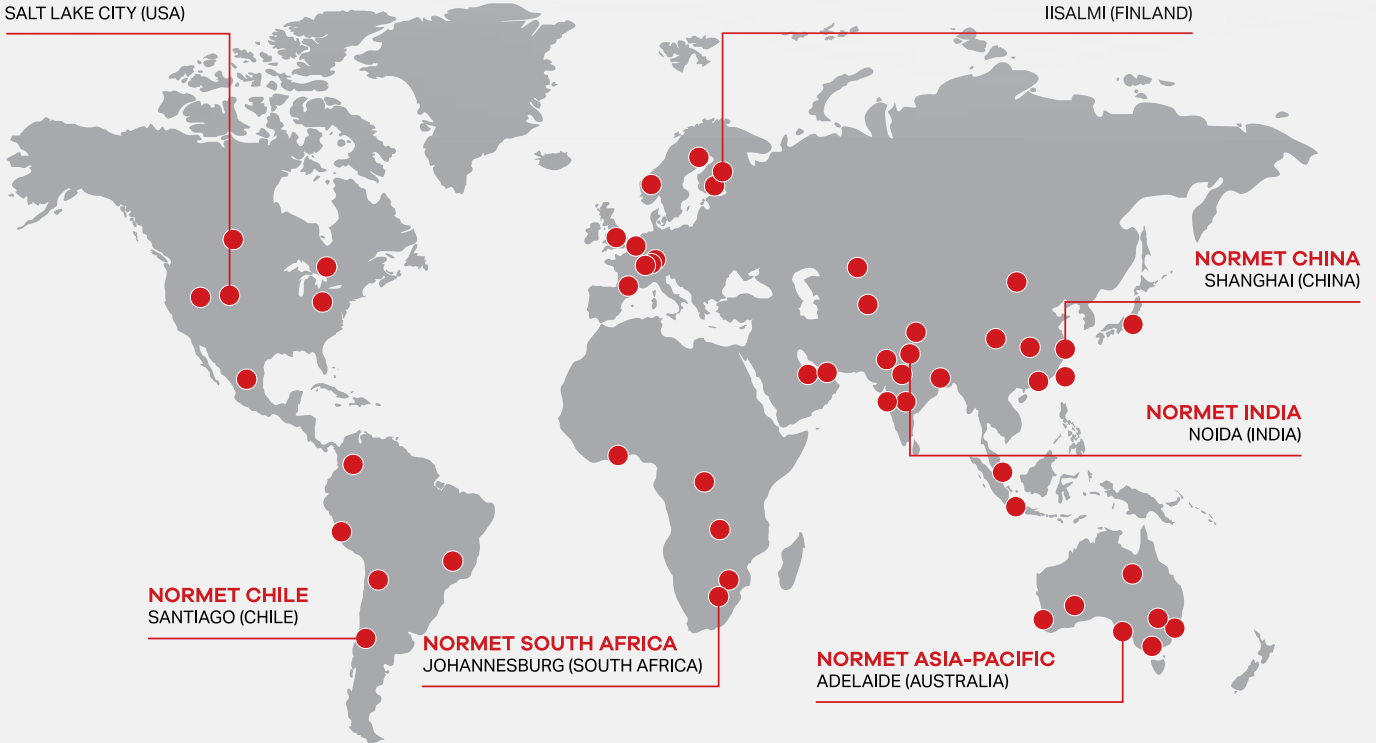
All component locations are carefully thought out while spacious structures enable ease of access for effortless maintenance.





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