

CATERPILLAR AND MALWA

COMPACT CAT® ENGINES
POWER RESPONSIBLE
FORESTRY



CUSTOMER:

Malwa Forest

PRODUCT:

Malwa 980 Harvester

LOCATION:

Skene, Sweden

SCOPE OF ENGINE USE:

Cat® C4.4 IPU EU Stage V,
188hp Diesel Industrial Engine

CAT® DEALER:

Zeppelin, Sweden



FEATURED TOPIC:

A compact, upgraded harvester,
powered by Caterpillar with
sustainability in mind.

A UNIQUE TAKE ON HARVESTING EQUIPMENT.

An entrepreneur like his father, Magnus Wallin started Malwa Forest in 2009. The company designs and builds compact harvester machines for gentle forest management. While there are forestry equipment businesses that might be larger than Malwa, Wallin's company prioritises conservation and thinning forests without causing long-term damage. Most markets Malwa serves are in Europe, but they also have machines in Canada and Panama.

THINNING A FOREST HAS NUMEROUS BENEFITS.

Thinning a forest improves spacing between trees so they have the proper amount of soil to thrive. Trees that are less crowded grow faster and stronger, with a greater resistance to insects and disease. Thinning forests also helps stop the spread of wildfires. In commercial forests, thinning is necessary to produce high-quality lumber.

INTRODUCING THE MALWA 980 HARVESTER.

Malwa saw a need in the market for a compact machine with a bigger harvester head. The Malwa 980 Harvester is an upgrade over earlier versions, featuring an improved operator environment, reduced noise output and increased harvesting capabilities.

The Malwa 980 is a unique, eight-wheeled harvester, featuring a hydro-mechanical transmission and a 5.8-metre turning radius. The Malwa 980 is engineered with sustainability in mind. "We have high efficiency in our hydraulic systems with low emissions. Our goal is a low environmental impact with all our machines," says Magnus Wallin.

THE IDEAL ENGINE DOESN'T GROW ON TREES.

When Malwa sought to find the right engine for the Malwa 980 Harvester, it had many considerations. The key attribute of the Malwa 980 Harvester is its compact size, which allows operators to perform important thinning tasks with minimal damage to forests.

A smaller machine requires a compact yet powerful engine. “Our customers run forestry machines between 3,500-4,000 hours per year, in double shifts, six days a week. We need to focus on uptime and provide dependable machines. That’s one of the reasons why we are working with Caterpillar,” says Magnus Wallin. Malwa works directly with Zeppelin in Sweden and has used Cat® engines in all equipment since 2012. Being in close proximity to their Cat dealer allows Malwa to draw upon engineering expertise when configuring industrial open power units for their machines.

The Malwa 980 is built around the Cat C4.4 IPU EU Stage V engine to reduce complexity and raise efficiencies in the manufacturing process. “We want to push the machine as hard as we can. Our discussion with Zeppelin in development was to ensure we could get as much out of the engine as possible while maintaining safety, sustainability and efficiency,” says Wallin.

CONSERVATION IS AS IMPORTANT AS PRODUCTION.

The forestry industry is driven by cutting the costs of cutting trees, but Malwa values the quality and efficiency of its machines. “The cheapest price is not always the best. We want forest owners to maintain their properties for 50-60 years, and we engineer our machines to provide quality work,” says Wallin.

Forest conservation is also important to Malwa. Wallin says, “Forestry is under the radar—how we take care of our forests and what products we use. From the beginning, we wanted to take care of our environment and make positive change with forests.”

Wallin provides proof of the sustainability of his machines: “One of our customers did a diesel comparison of one of our harvesters with a competing harvester. The diesel consumption in our harvester was about 32% less per cubic metre. That’s a lot of CO₂. We’re proud of that.”

HEALTHY TREES MAKE FOR A BRIGHT FUTURE.

Malwa continues to create new ways to help operators remain sustainable while performing important forestry projects. They’ve begun to develop electric harvester machines that operate on rechargeable batteries for use in urban forestry applications. As this market for urban forestry machines grows, Malwa will continue to explore more sustainable power sources for its forestry equipment.



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