MINING & MATERIALS HANDLING

# Solid gains with full control



## Make your mining operations **unstoppable**

Mining, mineral processing and materials handling are different businesses with a shared challenge. The demand never ends, which means there's no time to lose. Hägglunds hydraulic drive solutions keep you moving, and our team is driven to see you succeed – driven to the core.

#### **STAYING IN THE FLOW**

Whether you're excavating, crushing, refining or transporting, success depends on getting the most from your equipment. Hägglunds hydraulic drive systems are reliable and adaptable, giving you the power, flexibility and control to match your task and its requirements. You stay on task and on time, with results that are right on target.

#### **TOUGH IS ONLY THE START**

Whatever the job, unplanned stops are never an option. Hägglunds solutions are made for mines and stockyard environments, with an enclosed design that's immune to dirt and extremes. But it goes much deeper than that. Hägglunds drives withstand both shock loads and overloads by automatically limiting pressure. Your drives and machines have built-in protection, which means less stress on bearings, belts chains and more – including your maintenance budget.

#### **TORQUE THAT ALWAYS DELIVERS**

What our drives give, of course, is just as important as what they can take. Hägglunds solutions give you unbeatable torque, available from zero to maximum speed. Whether you use it for crushing ore or for starting up conveyors in loaded condition, all that torque means you never have to hesitate. You can start, stop, hold or reverse just as often or as long needed to get the job done, knowing that a Hägglunds drive will never overheat.

#### **KEEPING PACE WITH YOUR NEEDS**

Despite their muscle, Hägglunds solutions sacrifice nothing when it comes control. Completely gearless, they react instantly, giving you access to an infinite number of speeds within their range. Simply by adjusting the hydraulic flow, you can adapt to changing materials, optimize feed rates to match output, or inch belts and chains along for inspection.



#### **Drives where less is more**

Hägglunds drives are as versatile in construction as they are operation. Compact and light, they combine shaft-mounted hydraulic motors with flexibly placed drive units. With no foundations, gearboxes or overdimensioning, they add less bulk and weight to your machines, which makes all the difference on equipment like bucket wheel reclaimers. Since our drive systems are modular as well, they can even be adapted as your needs change over time. With decades of application experience and a constantly developing Hägglunds portfolio, we can help you meet new challenges – and find competitive opportunities – over time.

## Mining and mineral processing

#### **CRUSHERS AND SIZERS**

As they break down excavated material into a manageable size for further processing, crushers are exposed to brutal front-line conditions. With their low moment of inertia, Hägglunds drives take the inevitable strain of shock loads as bulk material is loaded in, avoiding trip-outs and losses. From there, they provide high, sustainable torque to get the process moving, starting or stopping as often as needed.

#### **Top features**

- Shock load protection
- Full torque throughout speed range
- Unlimited starts and stops

#### **FEEDERS**

The distance from loading to unloading may be only a matter of meters, but for feeders it's an uncertain journey. At best it's stop and go, as they struggle to match the needs of whatever machine comes after. At worst, it's a vicious cycle of shock loads, sudden halts and tough restarts in loaded condition. With Hägglunds drives, feeders master the weight and timing with precision and reliability.

#### **Top features**

- High starting torque capability
- Unlimited starts and stops
- Shock load protection

#### **CONVEYORS**

Whether bringing material in or moving it out, conveyors are the pulse of mines and stockyards. No matter how far they carry the load, they can't miss a beat. Hägglunds drives let them keep the pace, moving fast or slow, forwards or backwards. The high drive torque makes it easy to start up in any condition, and the ability to inch along makes inspecting belts and chains a simple matter.

#### **Top features**

- Variable speed
- Excellent controllability
- Withstand tough environment

#### **GRINDING MILLS**

Though preceded by crushers, grinding mills are by no means protected. The materials are smaller, but the process is equally harsh. Hägglunds drives provide smooth start-ups that reduce stresses, as well as fully variable speed that allows grinding optimization and exact positioning of the mill for maintenance. If the main drive is a Hägglunds solution, no additional inching drive is needed for tasks such as relining.

#### **Top features**

- Withstand tough environment
- Variable speed
- Excellent controllability

**CUSTOMER VOICE** 

#### "We have improved availability while reducing maintenance costs"

Boliden Aitik is Sweden's largest openpit copper mine and also the world's most productive. To ensure feed system reliability in the mine's new crushing plant, the choice fell to Hägglunds.

"The hydraulic drives provide better access from the sides and make the plant easier to maintain," says Jörgen Larsson, Project Manager at Boliden. "Another big advantage is that we can reverse the hydraulic drives during maintenance."

Larsson is pleased with the decision.

"We make sure we only use suppliers that have experience in this field," he says. "This applies to all the investments we have made in recent years, but this project has given us the best results so far."



### **Applications in materials handling**





#### **BUCKET WHEEL RECLAIMERS**

Few machines draw more benefit from Hägglunds solutions than bucket wheel reclaimers, and high torque is just part of the reason. With only the hydraulic motor on the wheel shaft and the drive unit positioned off the boom, the counterweights can be lighter and the whole machine can be leaner – including the slew drive system. Equally suited to the long travel drives, conveyors and more, Hägglunds drives offer a total solution.

#### **Top features**

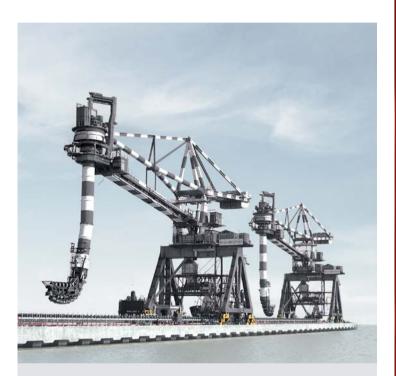
- Shaft-mounted
- Low weight
- Full torque throughout speed range

#### **CAR HANDLING SYSTEMS**

Effective handling of train cars is key to operations at a terminal or stockyard, and rotary car dumpers are especially critical. Rotating a car up to 180° demands four-quadrant operation, which Hägglunds drives provide without any additional equipment. Our drives not only make smooth work of all the starting, turning, stopping and reversing, but also absorb any shock loads as material is discharged from the car.

#### **Top features**

- Four-quadrant operation
- Frequent starts and stops
- Excellent controllability



#### **SHIP UNLOADERS**

When it comes to offloading bulk from ships, control over speed and positioning makes all the difference. Hägglunds drives accelerate and decelerate smoothly, running in either direction without limitation, and they place the unloader exactly where needed. Their controllability is combined with a compact and lightweight construction, which makes for a lean unloader design with a minimal need of counterweight.

#### **Top features**

- Excellent controllability
- Variable speed
- Low weight

SERVICE

For decades, Hägglunds systems and solutions have delivered reliability in mining, mineral processing and materials handling – and so have our service experts. Our service team is on your side 24/7, wherever you happen to be.

Whether assisting you on site, supporting you remotely or making repairs and adjustments in our workshops, we keep your existing Hägglunds systems running strong. But we can also modernize or upgrade your drives, putting the latest advances and application know-how to work for your productivity.





HÄGGLUNDS

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