

Truckless Mining

*From the mine to the enduser with
hydraulic drives from HÄGGLUNDS*

Paulo Grassmann

Hydraulic drives in the mining and material handling industry

Hagglunds motors are used with advantages on many different applications in the mining and material handling industry.



Mining



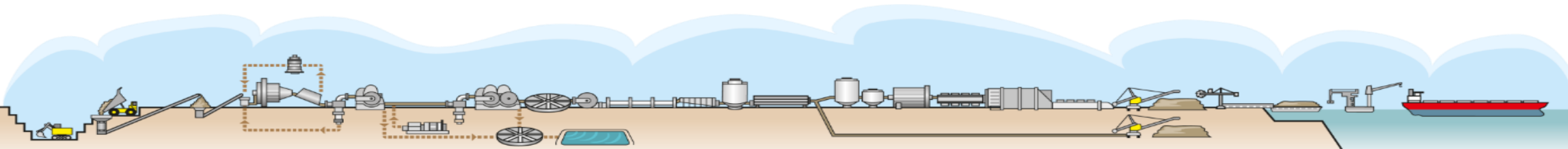
Material Handling



Processing plant

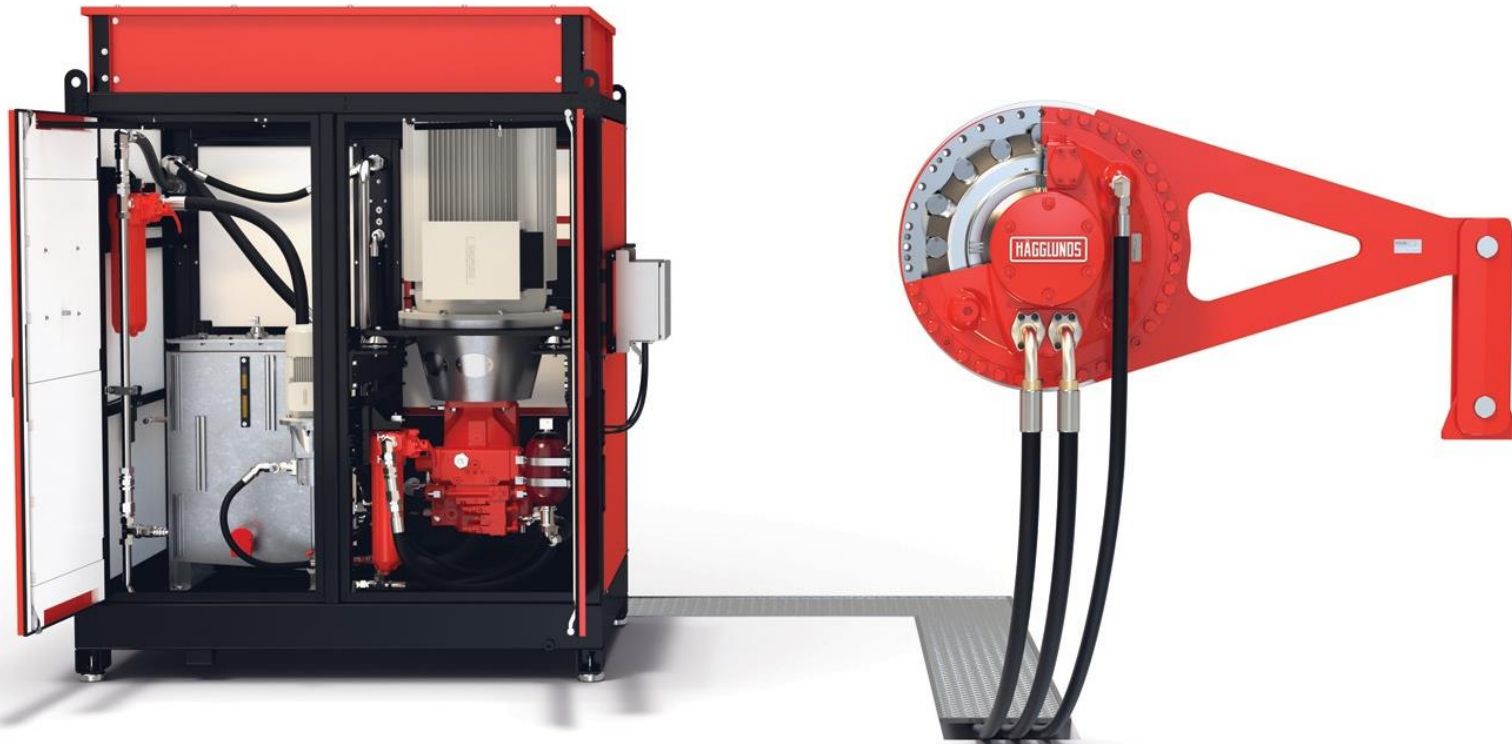


General equipment



Hydraulic drives in the mining and material handling industry

How it works



Hydraulic drives in the mining and material handling industry

Apron Feeders

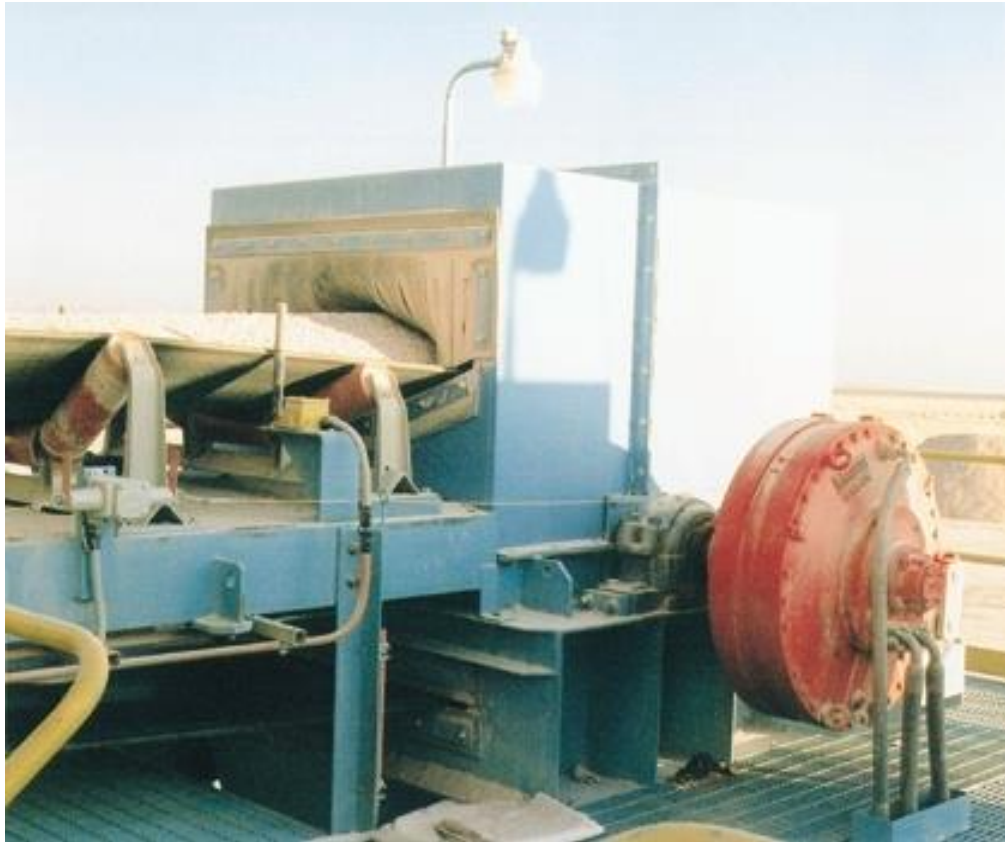


Features and benefits

- Instant torque limitation
 - Shock load protection when dumping material onto the feeder
 - Less risk of chain failure
- High starting torque capacity
- Low-speed high-torque capacity without time restriction
- Infinitely variable speed
- Unlimited starts and stops
- Enclosed design
 - Insensitive to harsh environment
- Compact direct drive
 - Space savings

Hydraulic drives in the mining and material handling industry

Belt Feeders



Features and benefits

- Instant torque limitation
 - Shock load protection when dumping material onto the feeder
 - Less risk of chain failure
- High starting torque capacity
- Low-speed high-torque capacity without time restriction
- Infinitely variable speed
- Unlimited starts and stops
- Enclosed design
 - Insensitive to harsh environment
- Compact direct drive
 - Space savings

Hydraulic drives in the mining and material handling industry

Crushers and Sizers



Features and benefits

- Instant torque limitation
 - Shock load protection
 - Reduced wear and downtime
- Unlimited start, stops and reversals
- High starting torque capacity
- Infinitely variable speed
- Enclosed design
 - Insensitive to harsh environment
- Compact direct drive
 - Space savings

Hydraulic drives in the mining and material handling industry

Belt Conveyor



Features and benefits

- Soft start and acceleration
 - Extremely smooth start and stop of conveyor
 - Excessive belt stretching avoided
- High acceleration torque without time restriction
- High reliability and easy to apply redundancy in “red line” positions
- Inching capability
 - No need to “walk the conveyor” when inspecting the belt
- Compact direct drive
 - Space savings

Hydraulic drives in the mining and material handling industry

Belt Tensioning Systems



Features and benefits

- Low moment of inertia
 - Fast response to changes in belt load
- High mechanical efficiency
 - Minimized difference between pay-in and pay-out
- Variable tensioning
 - Increased belt life
- Fail-safe brake
 - Maintained tension during a power loss
- Compact direct drive
 - Space savings



Belt Tensioning System TR2011KS S11D - 19.200 ton/h

Hydraulic drives in the mining and material handling industry

Bucket Wheel Reclaimer



Features and benefits

- Instant torque limitation
 - Shock load protection during avalanches
 - Less stress on m/c structure
 - Less downtime and higher production
- Considerably less weight than an electromechanical drive
 - Less counterweight needed
- Compact direct drive
 - Space savings
- Adjustable speed available
- Enclosed design
 - Insensitive to harsh environment

Hydraulic drives in the mining and material handling industry

Rotary Drums – Kilns



Features and benefits

- Low-speed high-torque capacity without time restriction
- Smooth start-up
 - Less risk of fire bricks falling apart
- High redundancy through multiple drives
- High starting torque capacity
- 100% load sharing
 - No vibration
- Compact direct drive
 - Space savings
- No foundation

Hydraulic drives in the mining and material handling industry

Rotary Drums Crushers and Scrubbers



Features and benefits

- Soft start and stop of the drum
- Low-speed high-torque capacity without time restriction
- Adjustable speed
 - Easy to match production demand
- Compact direct drive
 - Space savings
- No foundation

Hydraulic drives in the mining and material handling industry

Car Dumpers

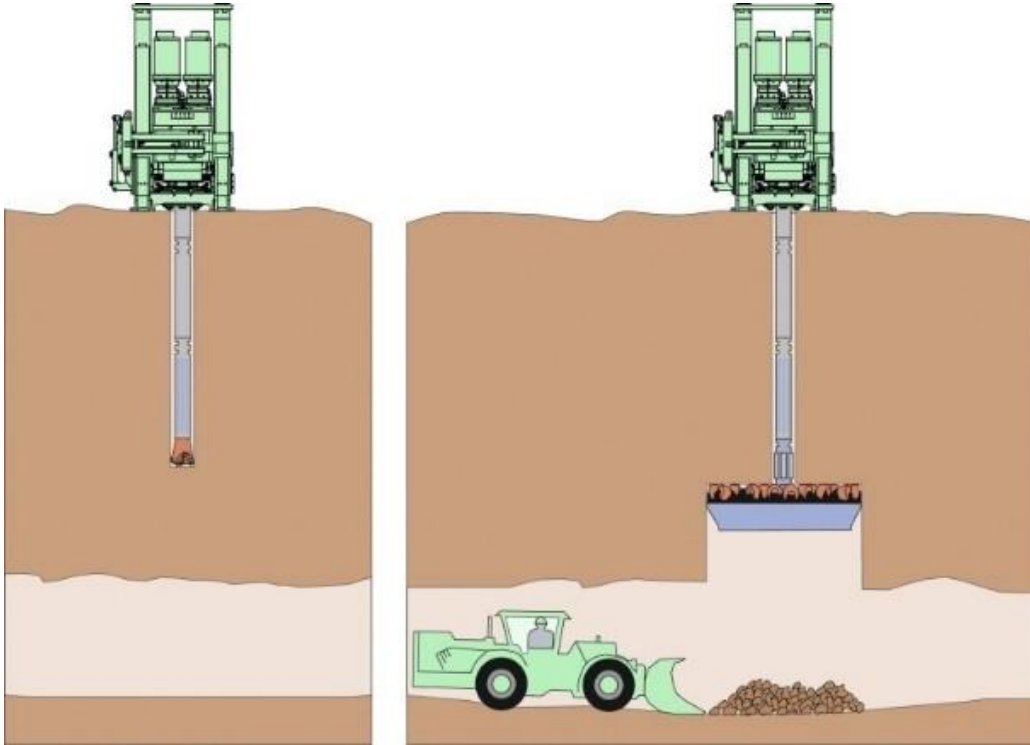


Features and benefits

- Smooth start and stop
- High-torque capacity without time restriction
- Four Quadrant Drive
 - Driving & Dynamic Braking – Forwards / Backwards
- Compact direct drive
 - Space savings
 - Integration with
- Integrated Brake for power failures stop
- No foundation

Hydraulic drives in the mining and material handling industry

Drilling – raise boring machine



Features and benefits

- Drill string wind control (through hydraulic compensation)
- Full torque at zero speed
- Instant torque limitation
 - Shock load protection in the event of drilling crown stick-slip
- Through-hole possibility
 - Passage of drill mud when pilot drilling

Hydraulic drives in the mining and material handling industry

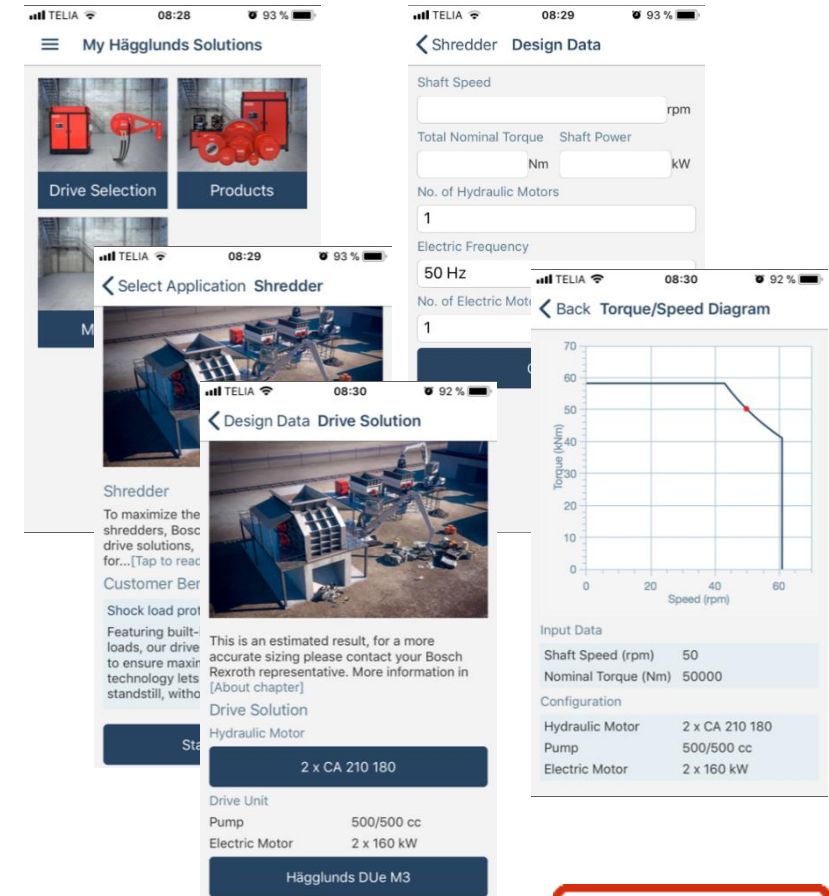
My Hägglunds Solution

App for customers interested in Hägglunds drive solutions

- Product information
- Media content
- Drive selection/sizing based on a few input parameters

Link for more information:

[My Hägglunds Solution – Customer App](#)



Hydraulic drives in the mining and material handling industry

Contacts in Peru

- **Ricardo Navarrete** ricardo.navarrete@boschrexroth.pe
- **Kai Rothgiesser** kai.rothgiesser@boschrexroth.pe

Contacts Global

- **Kjell Bystrom** kjell.bystrom@boschrexroth.se
- **Paulo Grassmann** paulo.grassmann@boschrexroth.com.br