

# AGD GRAB UNLOADER

The Konecranes Grab Unloader with Advanced Grab Drive (AGD) transfers solid bulk cargoes from the ship's hold to the material handling system on the jetty or wharf. The cargo is unloaded with a mechanical grab which is operated by four wire ropes. The Advanced Grab Drive (AGD) system uses four separate but identical winches for the grab ropes. Thanks to a free running trolley and a simple reeving arrangement of the grab ropes, the Konecranes AGD Grab Unloader does not require separate trolley traversing machinery, traversing ropes or a compensating trolley.

Load cells on rope sheaves at boom and main girder. Full control of rope tension at all times.

Simple and reliable main trolley, no need for separate trolley traversing machinery or auxiliary trolley.

Automatic operation modes, easy maintenance, low operating costs.

Four-drum system with electrical synchronization of drives.

High-quality Konecranes components, designed specifically for cranes.

Konecranes AGD system and Crane Management System for controlling and monitoring the entire crane.

Energy-saving drive system with regenerative braking technology.

Environmentally-friendly material handling with dust prevention systems.

Optimized wheel loads thanks to intelligent design of steel structure.

Power supply through cable reel or current collector system.

	Small	Medium	Large
<b>Lifting capacity</b>	Up to 80,000 dwt 20–35 tons	Up to 160,000 dwt 35–65 tons	Over 160,000 dwt 50–90 tons
<b>Unloading capacity</b>	1000–1500 tph	1500–2800 tph	2000–3500 tph
	Unloading capacities are calculated based on actual vessel size and wharf/jetty conditions		
<b>Dimensions</b>			
Outreach	30–33 m	37–42 m	40–50 m
Rail span	11–20 m	16–30 m	16–30 m
Backreach	0–20 m	0–30 m	0–40 m
<b>Speeds</b>			
Gantry traveling	20–30 m/min	20–30 m/min	20–30 m/min
Hoisting	180 m/min	180 m/min	180 m/min
Closing	180 m/min	180 m/min	180 m/min
Trolley traversing	180 m/min	180 m/min	180 m/min
Boom hoisting	6–7 min	6–7 min	6–7 min
<b>Power supply</b>			
Cable reel power supply		50/60Hz, 3.3–20 kV	
Current collector power supply		50/60Hz, 3.3 kV	
Shore power supply		50/60Hz, 400 V	
Drive system	Konecranes AC drives with regenerative braking		
<b>Rope system</b>	Four drum system with electric synchronization		
<b>Grab types</b>	Four rope grabs, clamshell/scissors		
<b>Typical wheel loads</b>			
	35–45 tons/wheel	45–60 tons/wheel	50–70 tons/wheel
	30–40 tons/m	35–50 tons/m	50–60 tons/m
	Wheel loads are calculated case-by-case, according to the dimensions of the crane and the local conditions		
<b>Maintenance</b>	Konecranes Crane Management System (CMS)		
	GPRS connection for remote diagnostics		

