VEHICLE RECYCLING SYSTEM

HYUNDAI HX235ALCR

powerhand® VRS 200

Taylor & Braithwaite

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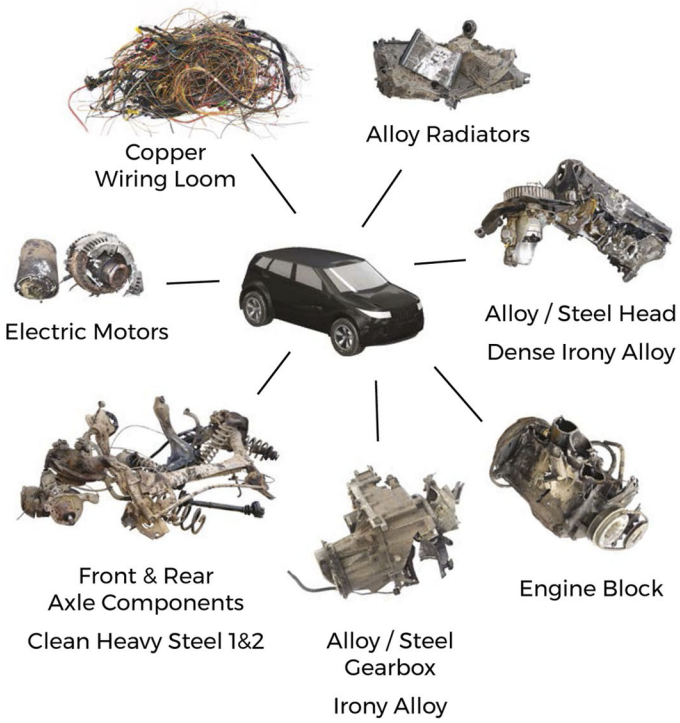
WELCOME TO THE FUTURE OF VEHICLE DISMANTLING

Traditional manual methods of removing high value materials from ELVs can be labour intensive and costly, in many cases making the process economically unviable. Although a four-tine scrap grab will allow extraction of the engine, much of the added value materials are left behind, resulting in the end of life vehicle dismantler missing out on great potential profit.

Like a vulture would dissect its prey, the VRS clamp arms pin down the vehicle to allow the grapple to systematically pull the valuable materials away from the lower value vehicle body shell. The knife blades on the clamp arms of the VRS 200 allow engine and transmission assemblies to be split from the engine block.

The Powerhand VRS is the ultimate combination of power and dexterity. The grapple features a slender, plier like shape providing an unbroken line of sight from the operator to the vehicle, allowing valuable materials like the copper wiring loom to be extracted from even the tightest of areas. High power hydraulic cylinders and high torque rotation unit gives the VRS the power to effortlessly dissect the vehicle.

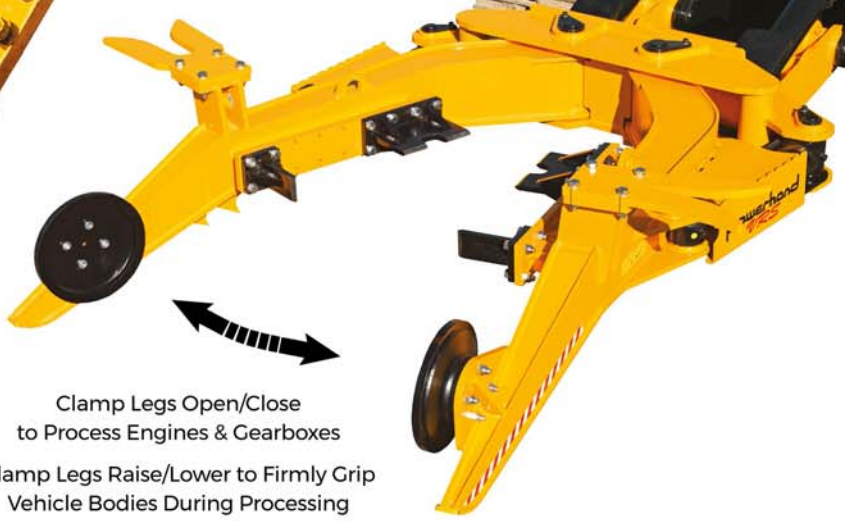


We understand that in a demanding, fast paced industry, productivity is paramount.
That's why the VRS is built to work, all day, every day. Manufactured 100% from high strength Swedish alloy steels, meaning you can maximise your profits without the worry of downtime.

High Torque Rotation Unit

Cutting Shear

High Force Gripping Jaws



Clamp Legs Open/Close
to Process Engines & Gearboxes

Clamp Legs Raise/Lower to Firmly Grip
Vehicle Bodies During Processing

Gearbox & Engine Head
Removal Blades

Wire
Stripper

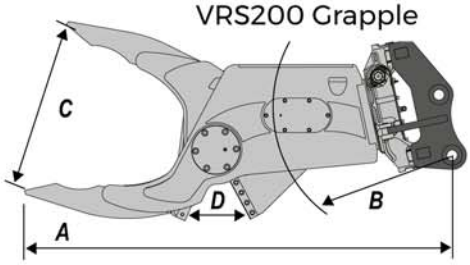
Well Protected
Hydraulic Cylinders

VRS 200

Increase profitability by using the VRS to quickly remove higher grade materials such as engine/transmission assemblies, axle/ suspension components from lower grade vehicle body materials.

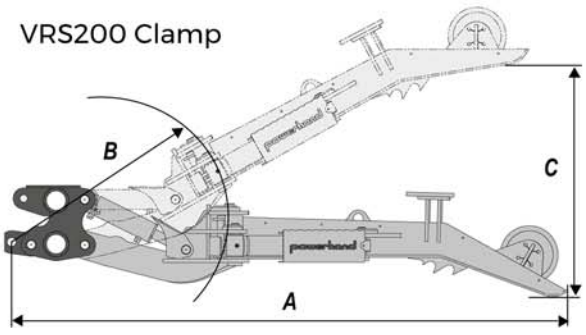
- Hold down and clamp vehicles using the machine mounted clamp arms.
- Oversized materials can be cut to size using the grapple mounted shear.
- Use the grapple, engine clamp and central shear to separate ferrous/nonferrous metals from the engine, cylinder head and gearbox assemblies.
- Robust enough to handle heavy materials, yet the nimble jaws of the grapple allow easy removal of wiring looms, starter motors and alternators. Once the valuable wiring loom has been removed, use the multi-tool to strip off any unwanted electrical components.
- High torque rotation unit.
- Manufactured from high strength Swedish alloy steel.

VRS200 Grapple



Overall Height	A	2625mm
Centre of Gravity	B	1135mm
Max Jaw Opening	C	1050mm
Max Blade Opening	D	400mm
Weight		1730kg

VRS200 Clamp



Overall Length	A	4600mm
Centre of Gravity	B	2050mm
Max Height	C	2250mm
Weight		3360kg

Suitable for fitting to most machines in the range of 18-22 tonnes.

Grapple requires two hydraulic services:
Open/Close 350Bar, 80-120 l/min
Rotate 250Bar, 50-80 l/min
Tank Line for Motor, 50Bar max back pressure

Clamp arms require two hydraulic services:
Open/Close 350Bar, 80-120 l/min
Raise/Lower 350Bar, 80-120 l/min

HYUNDAI
HX235ALCR

Combined with the power & versatility of the
HYUNDAI HX235ALCR
the future of vehicle dismantling is in safe hands

Full service and support throughout
the life time of your machine

HYUNDAI
HX235ALCR
SPECIFICATION

ENGINE

Maker / Model	CUMMINS / B6.7
Type	6 cylinder, water cooled, 4-cycle, turbocharged charg air cooled, direct injection, electronic controlled diesel engine
Gross Power	129 kW (173 hp) at 2,200 rpm
Net Power	127 kW (170 hp) at 2,200 rpm
Max. Power	145 kW (195 hp) at 2,000 rpm
Peak Torque	881 N . m (650 lb . ft) at 1,300 rpm
Displacement	6.7 l (409 cu in)

HYDRAULIC SYSTEM

MAIN PUMP	
Type	Variable displacement tandem axis piston pumps
Max. flow	2 x 221 L/min (2 x 58.4 US gpm / 2 x 48.6 UK gpm)
Sub-pump for pilot circuit	Gear pump

Cross-sensing and fuel saving pump system.

HYDRAULIC MOTORS	
Travel	Two speed axial pistons motor with brake valve and parking brake
Swing	Axial piston motor with automatic brake

RELIEF VALVE SETTING	
Implement circuits	350 kgf/cm² (4,980 psi)
Travel	350 kgf/cm² (4,980 psi)
Power boost (boom, arm, bucket)	380 kgf/cm² (5,410 psi)
Swing circuit	285 kgf/cm² (4,050 psi)
Pilot circuit	40 kgf/cm² (570 psi)
Service valve	Installed

HYDRAULIC CYLINDERS			
No. of cylinder bore X stroke		Boom	2-120 X 1,290 mm
		Arm	1-140 X 1,510 mm
		Bucket	1-120 X 1,055 mm
		Blade	2-130 X 240 mm
	2-Piece Boom	1st	2-125 X 1,260 mm
		2nd	1-160 X 1,060 mm

* *Hyundai Bio Hydraulic Oil (HBHO) available.*

DRIVING AND BRAKING

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	22,200 kgf (48,943 lbf)
Max. travel speed (high/low)	5.6 km/hr (3.5 mph) / 3.2 km/hr (2 mph)
Gradeability 35°(70 %)	35° (70 %)
Parking brake	Multi wet disc

CONTROL

Pilot pressure operated joysticks and pedals with detachable lever provide almost effortless and fatigueless operation.

Pilot control	Two joysticks with one safety lever (LH): Swing and arm (RH): Boom and bucket (ISO)
Traveling and steering	Two levers with pedals
Engine throttle	Electric, Dial type

SWING SYSTEM

Swing motor	Swing motor Fixed displacement axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	11.3 rpm

SERVICE CAPACITIES

	liter	US gal	UK gal
Fuel tank	320.0	84.5	70.4
Engine coolant	40.0	10.6	8.8
Engine oil	23.1	6.1	5.1
Swing device	7.0	1.8	1.5
Final drive (each)	48.0	12.6	10.5
DEF / AdBlue R tank	48.0	12.6	10.5
Hydraulic system (including tank)	275.0	72.6	60.5
Hydraulic tank	160.0	42.3	35.2

UNDERCARRIAGE

The X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing springs and sprockets, and a track chain with double or triple grouser shoes.

Center frame	X - leg type
Track frame	Pentagonal box type
No. of shoes on each side	49 EA
No. of carrier roller on each side	2 EA
No. of track roller on each side	9 EA
No. of rail guard on each side	2 EA

OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 5,680 mm (18' 8") boom, 2,920 mm (9' 7") arm, SAE heaped 0.80 m³ (1.05 yd3) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, and all standard equipments.

OPERATING WEIGHT			
Shoes		Operating Weight	Ground Pressure
Type	Width mm (in)	kg (lb)	kgf/cm² (psi)
Triple Grouser	600 (24")	24,000 (52,910)	0.51 (7.27)
	700 (28")	24,280 (53,530)	0.44 (6.30)
	800 (32")	24,560 (54,140)	0.39 (5.58)

AIR CONDITIONING SYSTEM

The air condition system for the machine contains the fluorinated greenhouse gas with global warming potential of R134a. (Global Warming Potential : 1430)
The system holds 0.75 kg refrigerant consisting of a CO_2 equivalent 1.07 kg metric tonne. For more information, please refer to the manual.

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