

CONTAINER REACH STACKER

HNRS450



Metron

KEM Tower 15th Floor, Jl. Landasan Pacu Barat Blok B10 Kav. 2, Kota Baru Bandar Kemayoran, Jakarta Pusat 10610
Phone: +62 21 6570 4111 (Hunting) | Fax: +62 21 6570 4110 | Email: info@metronintercon.com

Jakarta | Surabaya | Medan | Pekanbaru | Padang | Jambi | Lampung | Palembang | Balikpapan |
Banjarmasin | Pontianak | Sampit | Samarinda | Tarakan | Ketapang | Makassar | Manado | Kendari

福建华南重工机械制造有限公司
FUJIAN SOUTHCHINA HEAVY MACHINERY MANUFACTURE CO., LTD

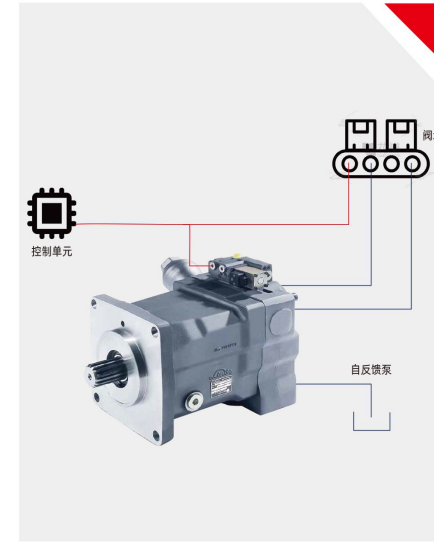
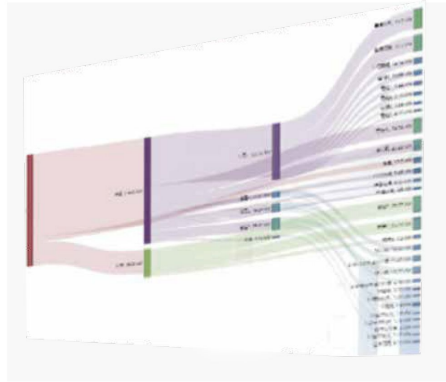
ADVANCED TECHNOLOGY EXCELLENT TRUCK QUALITY

With multiple advantages, the truck has high safety / high efficiency/ highprecision and high-stability performances. Integrated operating system ensure the truck highly productive.



FULL CAN-BUS CONTROL SYSTEM

HNR450 reach stacker is equipped with full Can-bus control system. The engine / transmission / electric system / hydraulic system / loading safety system / spreader system are all integrated in the Can-bus system, all devices are monitored at real time. Parker control units ensure the system reliable and flexible.

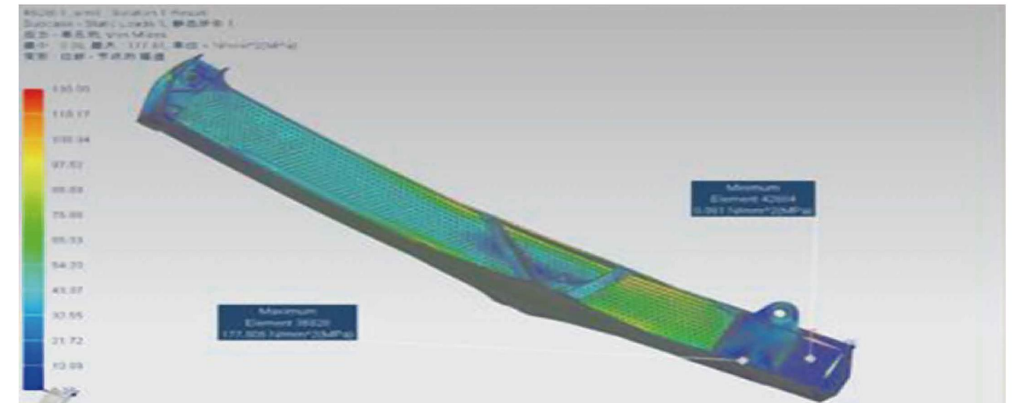


HYDRAULIC SYSTEM OF HNR450 REACH STACKER

- ◆ World class Linde hydraulic company is the famous hydraulic solution supplier which supply the high-quality / high precision / high reliability hydraulic products.
- ◆ HNR450 is equipped with Linde pump and control valve, these parts are specially developed for reach stacker, with load sense control circuit saving energy, precise control, low resistance and long life time, this excellent hydraulic system fully support truck excellent performance.
- ◆ Intelligent hydraulic oil cooler can ensure the stable oil temperature and avoid the tremendous changing of the oil, prolong the oil lifetime to save money.

RIGOROUS DESIGN PROCESS

FEM analysis supported design provides high strength of chassis and boom, make whole truck stable and robust..



CORE TECHNOLOGY

1 Dynamic anti-tip over protection

2 Load sense hydraulic system

3 Vertical lifting function

4 Errors automatic detection and real data showing technology

5 Anti-collision protection for

6 Full Can-bus communicationspreader

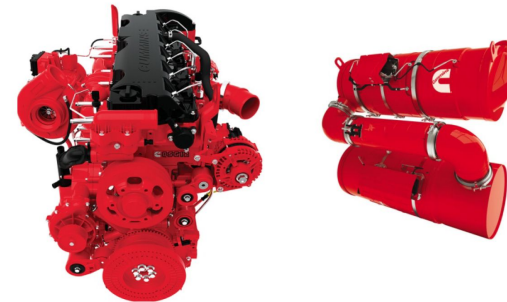
7 Separate brake tank-spreader and boom

8 Pressurized hydraulic tankspreader



HIGH QUALITY POWERFULL ENGINE

- ◆ Equipped with cummins engine, with full electrical control system to ensure economic fuel consumption
- ◆ Equipped with turbocharger to improve the truck power and engine efficiency
Strong power to meet various working condition
Comply with Tier 4f/EU stage III gas emission standard
Full lubrication performance to ensure the low noise level
- ◆ The electric engine protection system shutdown the engine to avoid the damage when low lub-oil pressure / high temperature



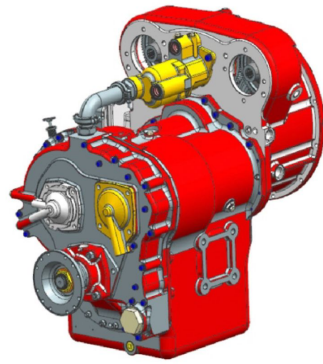
CUMMINS QSG12
TIER 4F
DPF-SCR

ENORMOUS POWER



THE AUTOMATIC TRANSMISSION

- ◆ DANA automatic transmission
- ◆ Auto-gear transmission with 4 forwards / 4 reverse speed, makes the truck operation smooth and good economic performance
- ◆ Minimum maintenance, long life time
- ◆ Inching function ensure the accurate approaching performance
- ◆ Reversing interlock, speed controlled downshift protection



HEAVY DUTY DRIVE AXLE

Axletech drive axle, proven quality for heavy duty trucks, wide track, 2-stages reduction gear box, strong axle body optimized for heavy loading condition. wet disk driving brake is free of maintenance. This drive axle performs under shock load condition ensuring high safety and long life time.



SPACIOUS DRIVING ENVIRONMENT

- ◆ The cabin adopts the latest ergonomic design, Simple & elegant, Spacious & comfortable. Equipped with large-color display for easy reading the real status of the truck. Firm cabin design to ensure the safety and comfort of the operator. Good tightness, the doors & windows can be opened & closed easily and firmly. Equipped with multi-function joystick, All the control are at your fingertips.
- ◆ The luxury seat can be adjusted according to the driver's height and weight to ensure the most comfortable driving and high efficiency. The safety glass to ensure the excellent allround visibility. Equipped with Air-Conditioner with heating function to suit working in all climates.




TOUCH-SENSITIVE / HIGH RESOLUTION COLOR DISPLAY

A reliable color display shows the lifting weight / boom angle / lifting height / main pressure / engine status / oil level / error codes etc. all important information. The quick responding controller helps the operation high efficiency.



The HNRS450 reacher stacker is currently using the most advanced integrated fuse box unit, and the control box is beautiful and small. All the fuses are concentrated.



Fuse box with indicator lights itself,
If fuse burnout,
It will light up



CONTROL SYSTEM SPECIAL FEATURES

SOCMA display code and content, not need to view manual book, save time.



Load chart



5 high 9'6 containers

6 high 8'6 containers

REACH STACKER DATA SHEET

Characteristics	Unit	
Manufacturer		SOCMA
Model designation		HNRS450
Power unit: battery, diesel, LP gas, mains power		Diesel
Operation: manual, pedestrian, stand-on, seated, order picker		Rider seated
Load capacity (L 1, L 2, L 3)	Q (kg)	45000/31000/16000
Load centre, First row (L 1)	c (mm)	1800@floor,2000@1~5
Load centre, Second row (L 2)	c (mm)	3860
Load centre, Third row (L 3)	c (mm)	6400
Axle centre to fork face (L 1-1/ 2 high)	x (mm)	2800 / 2600
Wheelbase	y (mm)	6400

Weights	Unit	
Service weight	kg	71600
Axle load with load, front /rear (L 1)	kg	97900 /14700
Axle load without load, front /rear (L 2)	kg	-
Axle load without load, front /rear (L 1)	kg	32400 / 35200
Axle load without load, front /rear (L 2)	kg	-

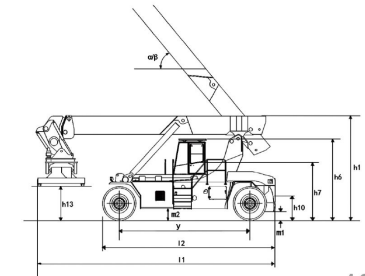
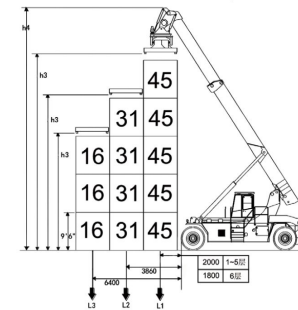
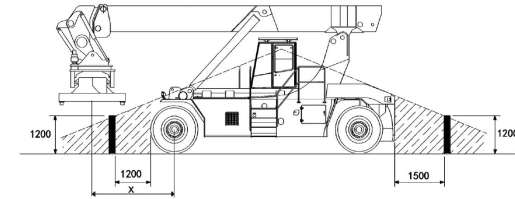
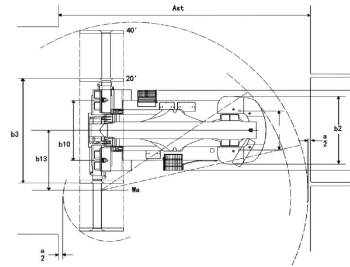
Wheels and tyres	Unit	
Tyres, front /rear. SE = (superelastic), P = (pneumatic)	kg	P / P
Tyre size, front	kg	18.00 x 25/ 40pr
Tyre size, rear	kg	18.00 x 25 / 40pr
Wheels, number, front /rear (x = driven)	kg	4x / 2
Track width, front	kg	3030
Track width, rear		2786

Dimensions	Unit	
Telescopic boom lift angle, Raised / lowered	/ °	61/ 0
Height telescopic boom lowered	h1 (mm)	4760
Lift (L 1, L 2, L 3)	h3 (mm)	15300 / 14100 /11350
Height, telescopic boom extended	h4 (mm)	19000
Height of overhead guard (cabin)	h6 (mm)	4000
Height, operators seat /stand-on platform	h7 (mm)	2740
Towing coupling height	h10 (mm)	600
Twistlock height lowered	h13 (mm)	1495
Overall length with attachment	l1 (mm)	11618
Overall length	l2 (mm)	8408
Overall width	b1/b2 (mm)	4180 / 3400
Width of attachment 20'/40'	b3 (mm)	6050 /12150
Ground clearance minimum (two side)	m2(mm)	330
Ground clearance, centre of wheelbase	m1 (mm)	280
Stacking aisle 20' container	Ast (mm)	10225
Stacking aisle 40' container	Ast (mm)	13050
Turning radius	Wa (mm)	8550
Minimum pivoting point distance	b13 (mm)	3400

Performance	Unit	
Travel speed, with / without load	km/h	21/ 25
Lift speed, with / without load	m/s	0.28/ 0.39
Lowering speed, with / without load	m/s	0.39/ 0.39
Tractive force, with / without load	kN	370/ -
Maximum tractive force, with / without load	kN	408/ -
Climbing ability, with / without load	%	28/ -
Maximum climbing ability, with / without load	%	32.5/ 34.5
Acceleration time, with / without load	s	-
Service brake		Wet disc
Battery voltage, rated capacity	V/Ah	24 V (2 x 12 /150)

Drive	Unit	
Engine manufacturer / type		Cummins
Engine performance according to ISO 1585	kW	261
Rated speed	1/min	2100
Number of cyrs /displacement	/cm3	6 /10820
Fuel consumption according to VDI cycle	l/h	-

Other	Unit	
Type of drive control		Torque conv. 5/3
manufacturer / type		ZF 5WG261
TCU control mode		Auto
drive axle model		Axletech. PRC7545W4S586C (cummins meritor)
steer axle model		WL102
spreader model		
control system		canbus
Working pressure for attachments	bar	140
Oil flow for attachments	l/min	-
Noise level, at operator's ear, Overhead guard/Cab	dB (A)	74
Trailer coupling, design/type DIN	ø (mm)	50



STANDARD EQUIPMENT

- ◆ Air conditioner
- ◆ Movable closed cabin
- ◆ Hydraulic-three position adjusted seat with wide range of height adjustment
- ◆ Proportional hydraulic function lever enabling precise load positioning with automatic anti-stall function
- ◆ Adjustable angle and height of steering wheel
- ◆ Effortless hydrostatic power steering with Flow amplification valve
- ◆ Engine intake air cleaner with integrated safety element
- ◆ High performance hydraulic filters preserving maximum purity of oil for long life of all hydraulic components
- ◆ Power on-demand working hydraulics , oil supply by twin-pump installation
- ◆ Overload safety device ; measures load weight and position
- ◆ Comprehensive head-up display ; monitors all key components including fuel gauge, clock , hour meter and control lamps , lamps for all important truck functions , and goods load weight display
- ◆ Central master warning light
- ◆ Modern diesel engine with electronically controlled single-rail fuel injection system complete EU stage III or tier 3 emission regulations
- ◆ Heavy-duty automatic 5-speed electronic auto-shift transmission with integrated safety protection ; downshift protection , forward/reverse interlock
- ◆ Robust double hub reduction drive axle , incorporating oil bath type wet disc brake
- ◆ 5 high stacking boom (6 high for 8'6" containers)
- ◆ Abundant storage space for writing , materials , beverage cans etc.
- ◆ Pneumatic tyres
- ◆ Spreader rotation 105 degrees/195 degrees
- ◆ Spreader sideshift 800mm+/-
- ◆ Road lighting with boom support mounted reverse lights and audible warning
- ◆ Front mudguard mounted working lights 2 pairs
- ◆ Boom support mounted rear working lights
- ◆ Boom mounted working lights 2 pairs
- ◆ Reverse driving mirrors-chassis mounted
- ◆ Interior rearview mirror
- ◆ Battery isolator switch
- ◆ Multimedia radio (Bluetooth)
- ◆ 2 x USB 5V port

OPTIONAL EQUIPMENT

- ◆ Hydraulically driven, forward moving cabin
- ◆ Central greasing system-chassis, chassis & boom, chassis boom & spreader
- ◆ Additional seat
- ◆ Vertical lift
- ◆ Electrical socket in cab-12 volt
- ◆ Heated reverse mirrors
- ◆ Panoramic interior mirror
- ◆ Radio with compact disc unit and speakers
- ◆ Screen film - front and top
- ◆ Fire extinguisher(2kg)
- ◆ Engine coolant heater
- ◆ Hydraulic tank heater
- ◆ Brake tank heater
- ◆ Handrails-on steps left & right, on chassis top right
- ◆ Customized paintwork
- ◆ Auto fire suppression system
- ◆ Reverse camera with color monitor
- ◆ Reverse video and radar system
- ◆ Bluetooth tire pressure monitoring system
- ◆ Tire bolt loosening indicator
- ◆ Mobile app monitoring system
- ◆ Weighing printer (non accurate)
- ◆ Drive recorder