



RS45

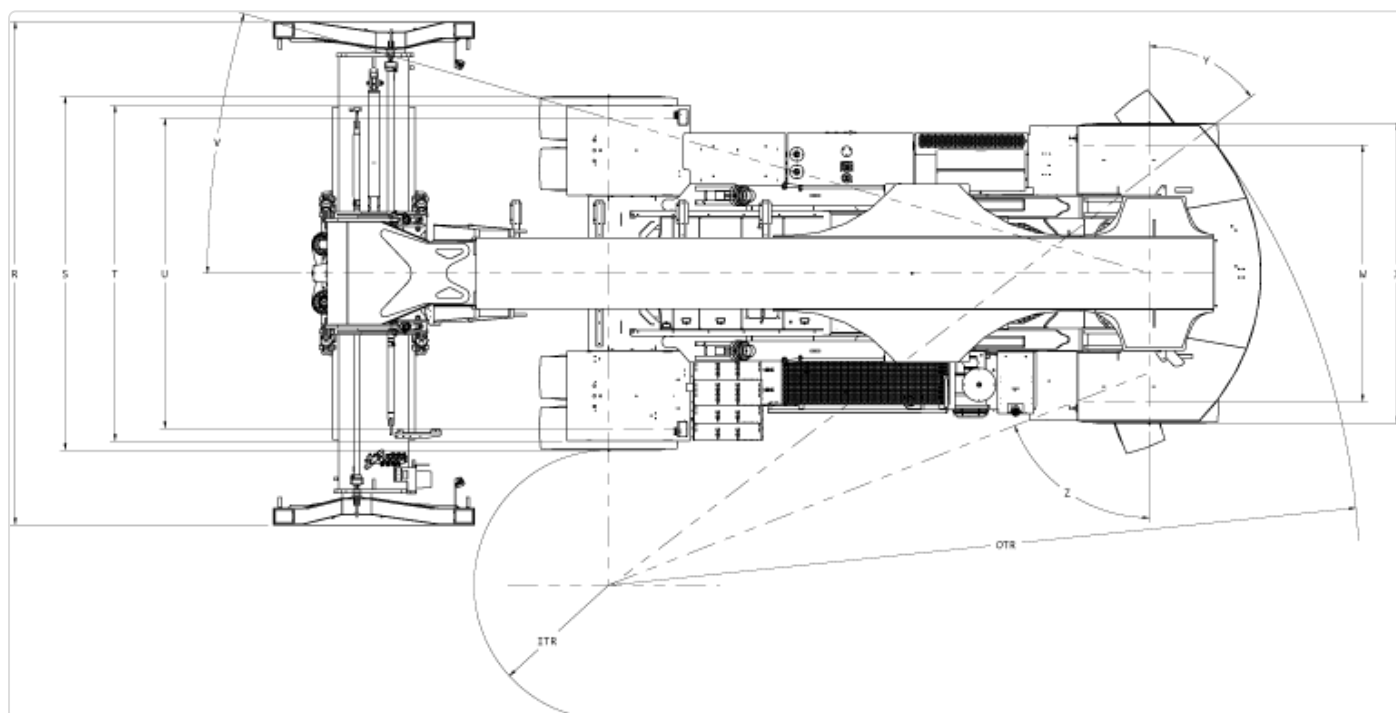
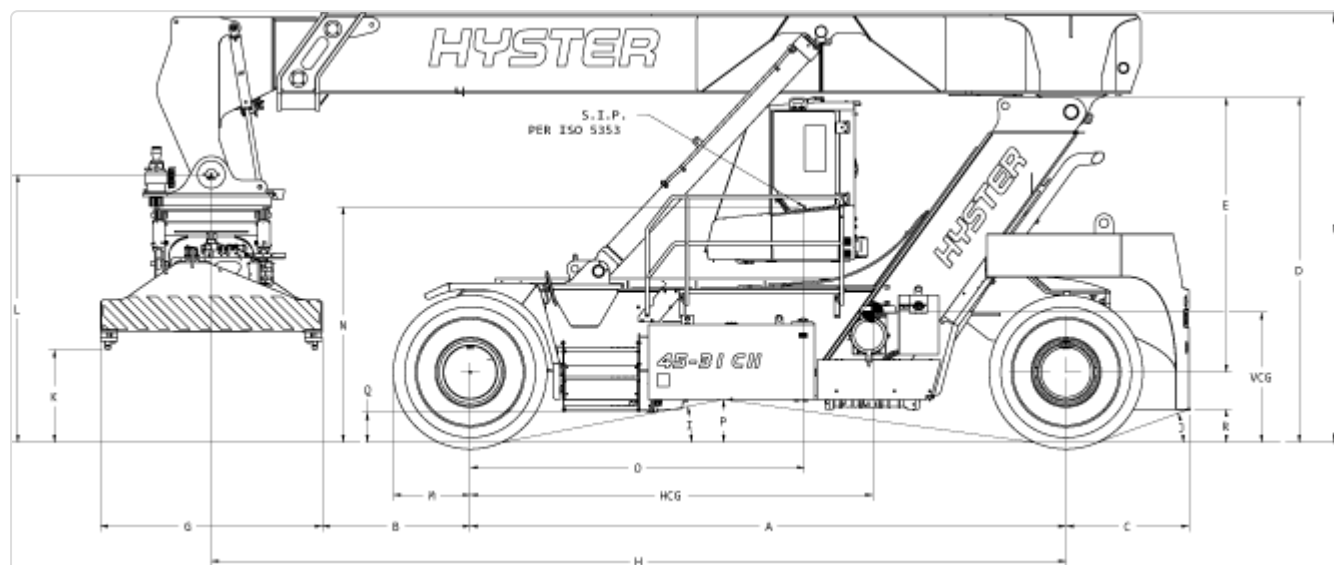
CONTAINER REACHSTACKER

TECH GUIDE

HYSTER

B921 LAM EN V1R1 August 2026

DIMENSIONAL DRAWINGS



TECHNICAL SPECIFICATIONS

GENERAL

1.1	MANUFACTURER (ABBREVIATION)			HYSTER	HYSTER
1.2	Manufacturer's type designation			RS 45-27 CH	RS 45-31 CH
1.3	Drive: electric (battery or mains), diesel, petrol, fuel gas			Diesel	Diesel
1.4	Operator type: hand, pedestrian, standing, seated, orderpicker			Seated	Seated
1.5.1	Load capacity at load centre distance c 1	Q1	(t)	45	45
1.5.2	Load capacity at load centre distance c 2	Q2	(t)	27.0	31.0
1.5.3	Load capacity at load centre distance c 3	Q3	(t)	12.3	15.0
1.6.1	Load centre distance 1 (1)	c1	(mm)	1,865	1,865
1.6.2	Load centre distance 2 (1)	c2	(mm)	3,815	3,815
1.6.3	Load centre distance 3 (1)	c3	(mm)	6,315	6,315
1.8	Load distance, centre of drive axle to face of front tyres	x	(mm)	835	835
1.9	Wheelbase	y	(mm)	6,500	6,500
1.10	Stacking height (number x container height, in feet)			5 x 9' 6"	5 x 9' 6"

[1] From face of front tyres.

WEIGHTS

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
2.1	Service weight		kg	62,300	65,300
2.2.1	Axle loading, laden front / rear at c 1		kg	93,000 / 14,300	92,800 / 17,500
2.2.2	Axle loading, laden front / rear at c 2		kg	82,800 / 6,500	89,500 / 6,800
2.3.1	Axle loading, unladen front / rear at c 1		kg	31,400 / 30,900	31,200 / 34,100
2.3.2	Axle loading, unladen front / rear at c 2		kg	36,500 / 25,800	36,300 / 29,000

TYRES / CHASSIS

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
3.1	Tyres: L=pneumatic, V=solid, SE=Pneumatic Shape Solid			Pneumatic	Pneumatic
3.2	Tyres size, front			18.00 - 25 40PR	18.00 - 25 40PR
3.3	Tyres size, rear			18.00 - 25 40PR	18.00 - 25 40PR
3.5	Wheels, number front / rear (x = driven wheels)			x 4 / 2	x 4 / 2
3.6	Tread, front	b10	(mm)	3,703	3,703
3.7	Tread, rear	b11	(mm)	3,060	3,060

DIMENSIONS

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
4.1	Boom angle minimum / maximum		degree [°]	0° / 59°	0° / 59°
4.2	Height, boom lowered	h1	(mm)	4,700	4,700
4.3	Lift (2)	h3	(mm)	15,360	15,360
4.4.1	Lift height at load center c 1 (2)	h3.2.1	(mm)	15,080	15,080
4.4.2	Lift height at load center c 2 (2)	h3.2.2	(mm)	13,470	13,470
4.4.3	Lift height at load center c 3 (2)	h3.2.3	(mm)	10,320	10,320
4.5	Height, boom extended	h4	(mm)	18,110	18,110
4.7	Height of overhead guard (cabin)	h6	(mm)	3,720	3,720
4.8	Seat height relating to SIP (3)	h7	(mm)	2,555	2,555
4.15	Height, lowered (2)	h3.1.1.	(mm)	1,275	1,275
4.19	Overall length	l1	(mm)	8,660	8,660
4.20	Overall length including boom retracted	l2	(mm)	11,875	11,875
4.21.2	Overall width across all	b2	(mm)	4,200	4,200
4.21.3	Overall width across spreader 20'	b1.20	(mm)	6,100	6,100
4.21.4	Overall width across spreader 40'	b1.40	(mm)	12,200	12,200
4.28	Reach distance	l4	(mm)	4,310	4,310
4.31	Ground clearance lowest point	m1	(mm)	285	285
4.32	Ground clearance, centre of wheelbase	m2	(mm)	437	437
4.34.3.1	Aisle width with 20' container without operating clearance (4) (6) (10)	Ast 20	(mm)	10,390	10,390
4.34.3.2	Aisle width with 20' container without operating clearance (5) (6) (10)	Ast 20	(mm)	12,810	12,810
4.34.3.3	Aisle width with 20' container with 200 mm operating clearance (5) (6) (10)	Ast 20	(mm)	13,010	13,010
4.34.3.4	Aisle width with 20' container with 10% operating clearance (5) (6) (10)	Ast 20	(mm)	14,100	14,100
4.34.4.1	Aisle width with 40' container without operating clearance (4) (6) (10)	Ast 40	(mm)	12,510	12,510

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
4.34.4.2	Aisle width with 40' container without operating clearance (5) (6) (10)	Ast 40	(mm)	14,310	14,310
4.34.4.3	Aisle width with 40' container with 200 mm operating clearance (5) (6) (10)	Ast 40	(mm)	14,510	14,510
4.34.4.4	Aisle width with 40' container with 10% operating clearance (5) (6) (10)	Ast 40	(mm)	15,750	15,750
4.35	Turning radius (10)	Wa	(mm)	8,990	8,990
4.36	Internal turning radius (10)	b13	(mm)	1,620	1,620
4.34.3.1	Aisle width with 20' container without operating clearance (4) (6) (11)	Ast 20	(mm)	9,720	9,720
4.34.3.2	Aisle width with 20' container without operating clearance (5) (6) (11)	Ast 20	(mm)	12,250	12,250
4.34.3.3	Aisle width with 20' container with 200 mm operating clearance (5) (6) (11)	Ast 20	(mm)	12,450	12,450
4.34.3.4	Aisle width with 20' container with 10% operating clearance (5) (6) (11)	Ast 20	(mm)	13,480	13,480
4.34.4.1	Aisle width with 40' container without operating clearance (4) (6) (11)	Ast 40	(mm)	12,460	12,460
4.34.4.2	Aisle width with 40' container without operating clearance (5) (6) (11)	Ast 40	(mm)	14,070	14,070
4.34.4.3	Aisle width with 40' container with 200 mm operating clearance (5) (6) (11)	Ast 40	(mm)	14,270	14,270
4.34.4.4	Aisle width with 40' container with 10% operating clearance (5) (6) (11)	Ast 40	(mm)	15,480	15,480
4.35	Turning radius (11)	Wa	(mm)	8,450	8,450
4.36	Internal turning radius (11)	b13	(mm)	1,040	1,040

- (2) With Mechanical Pile Slope (MPS). For optional P(owered) P(ile) S(lope) function: deduct 310 mm
- (3) Full suspension seat in depressed position
- (4) Spreader at 8.0 m high, central above front axle
- (5) These data are with the container carried 500 mm in front of the wheels (loadcenter 1720 mm)
- (6) Stacking aisle width is based on the I.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.
- (10) Standard steer cylinder stroke
- (11) Extended steer cylinder stroke

PERFORMANCE DATA

1.2	MANUFACTURER'S TYPE DESIGNATION		RS 45-27 CH	RS 45-31 CH
5.1	Travel speed laden / unladen	km/h	20 / 23	20 / 23
5.1.1	Travel speed laden / unladen, backwards	km/h	20 / 23	20 / 23
5.2.1	Lift speed laden / unladen	m/s	0,24 / 0,41	0,24 / 0,41
5.3	Lowering speed laden / unladen	m/s	0,45 / 0,45	0,45 / 0,45
5.4	Reaching speed laden/unladen	m/s	0,26 / 0,36	0,26 / 0,36
5.4.1	Telescoping 20"-40"	s	9	9
5.5	Drawbar pull laden/unladen	kN	308 / 316	305 / 313
5.7	Gradeability laden / unladen (7)	%	24 / 38	23 / 36
5.9	Acceleration time, laden/unladen	sec	On Request	On Request
5.10	Service brake		Oil-immersed disc	Oil-immersed disc

- (7) Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.

ENGINE

1.2	MANUFACTURER'S TYPE DESIGNATION		RS 45-27 CH	RS 45-31 CH
7.1	Engine manufacturer - Stage IIIA / Tier 3		Cummins QSL9 227 / type Stage IIIA / Tier 3	Cummins QSL9 227 / type Stage IIIA / Tier 3
7.2	Engine power according to ISO 1585 - Stage IIIA / Tier 3	kW @ RPM	227 @ 2100	227 @ 2100
7.2.1	Max. engine power according to ISO 1585 - Stage IIIA / Tier 3	kW @ RPM	247 @ 1700	247 @ 1700
7.1	Engine manufacturer - Tier 4F		Cummins L9	Cummins L9
7.2	Engine power according to ISO 1585 - Tier 4F	kW @ RPM	242 @ 2100	242 @ 2100
7.2.1	Max. engine power according to ISO 1585 - Tier 4F	kW @ RPM	246 @ 2000	246 @ 2000
7.3	Rated speed	min-1	2,100	2,100
7.3.1	Torque at 1/min - Stage IIIA / Tier 3	Nm/min-1	1424 @ 1500	1424 @ 1500
7.3.1	Torque at 1/min - Tier 4F	Nm/min-1	1636 @ 1100	1636 @ 1100
7.4	Number of cylinders / displacement	(-)/cm3	6 / 8900	6 / 8900
7.5.1	Fuel consumption according to VDI cycle VDI (HIP-mode)	l/h	On Request	On Request
7.5.2	Fuel consumption according to VDI cycle (EcoElo-mode)	l/h	On Request	On Request
7.8	Generator	A	120	120
7.9	Vehicle electric system voltage	V	24	24
7.10	Battery voltage/nominal capacity	(V)/(Ah)	24 / 1600	24 / 1600

DRIVE TRAIN

1.2	MANUFACTURER'S TYPE DESIGNATION		RS 45-27 CH	RS 45-31 CH
8.1	Type of drive unit		Hydrodynamic Transmission	Hydrodynamic Transmission
8.2	Transmission manufacturer / type		Spicer Off-Highway / TE-30	Spicer Off-Highway / TE-30
8.4	Circuit stages forward/backward		5/3	5/3
8.5	Coupling		Torque Converter	Torque Converter

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
8.6	Wheel drive / drive axle manufacturer/type			Kessler D102PL341/528-NLB	Kessler D102PL341/528-NLB
8.11	Service brake			Oil immersed disc	Oil immersed disc
8.12	Parking brake			Dry disc on drive axle	Dry disc on drive axle

SPREADER

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
9.1	Manufacturer / type			Elme / 817 INN	Elme / 817 INN
9.1.1	Pile slope spreader, mechanical without PPS		°	3	3
9.1.3	Pile slope spreader, with Power Pile Slope		°	6	6
9.3	Size of containers		feet (')	ISO 20' - 40'	ISO 20' - 40'
9.4	Side shift	b8	(mm)	800 / 800	800 / 800
9.6.1	Rotation angle, without override		°	+12 / -12	+12 / -12
9.6.2	Rotation angle, with override		°	+185 / -95	+185 / -95

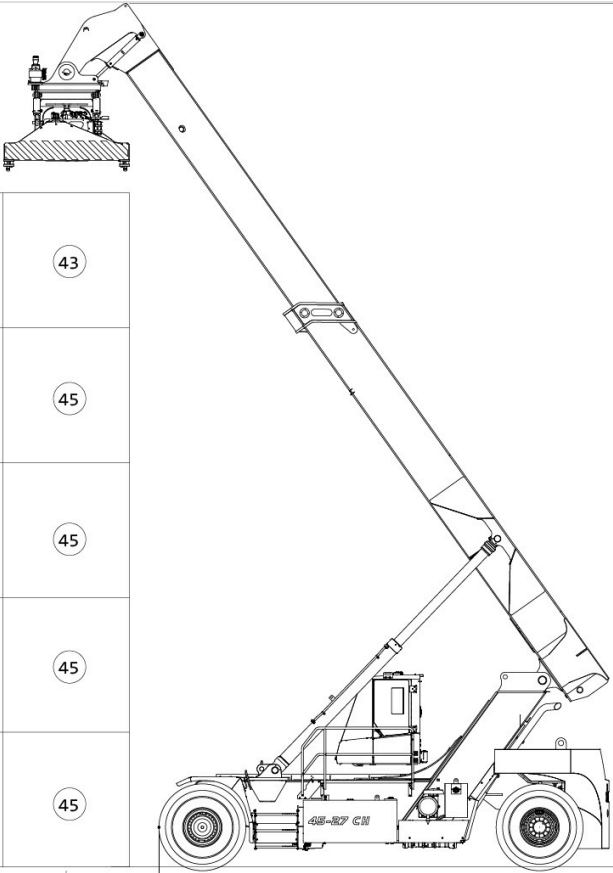
ADDITIONAL DATA

1.2	MANUFACTURER'S TYPE DESIGNATION			RS 45-27 CH	RS 45-31 CH
10.1	Operating pressure for attachments		MPa	14.0	14.0
10.2	Oil volume for attachments		l/min	110	110
10.3	Hydraulic oil tank, capacity		l	625	625
10.4	Fuel tank, capacity		l	830	830
10.5	Steering design			hydrostatic	hydrostatic
10.6	Number of steering rotation			8.0	8.0
10.7	Sound pressure level at the driver's seat LpAZ [8]		dB (A)	75	75
10.7.1	Sound power level during the workcycle LwAZ		dB (A)	116	116

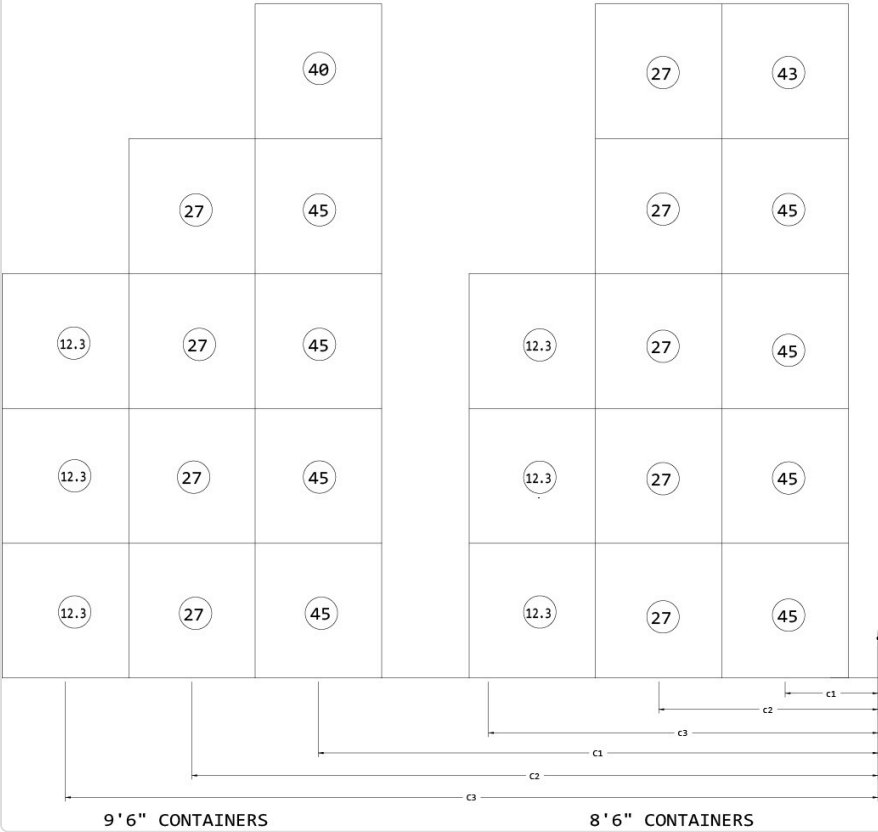
(8) Add 2 dB(A) for option with additional cab fan

CAPACITIES

RS45-27CH WITH MECHANICAL PILE SLOPE (MPS)



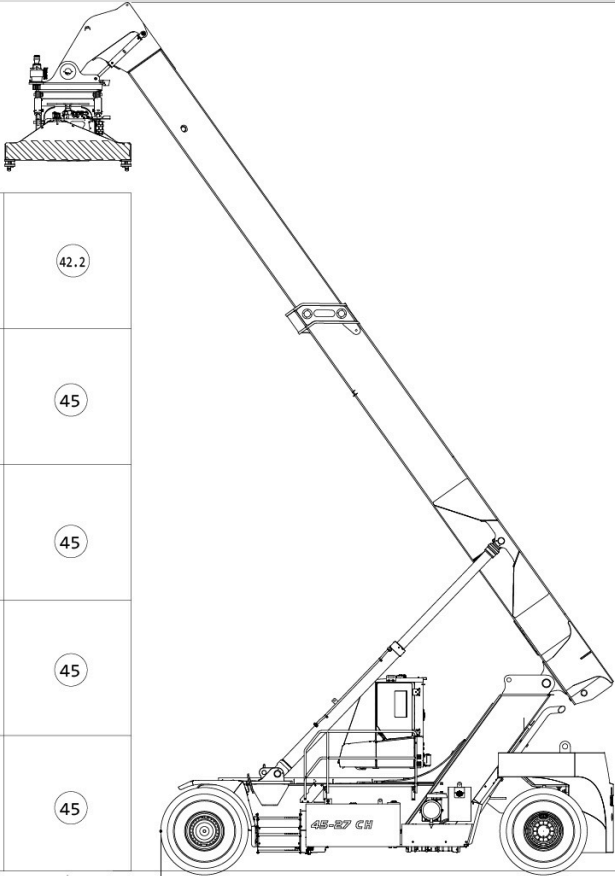
4-5 (H4)



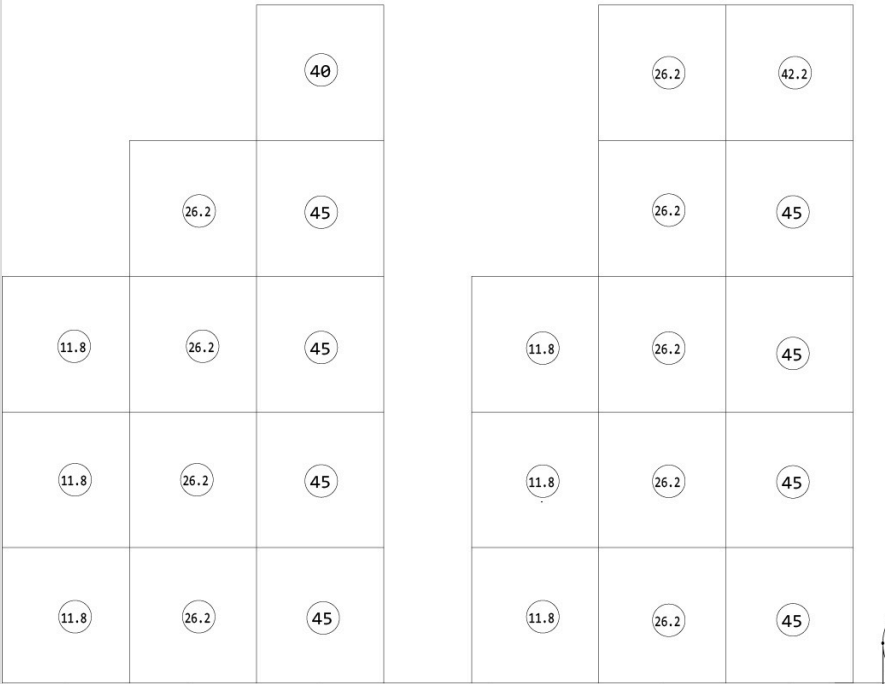
9'6" CONTAINERS

8'6" CONTAINERS

RS45-27CH WITH POWERED PILE SLOPE (PPS)



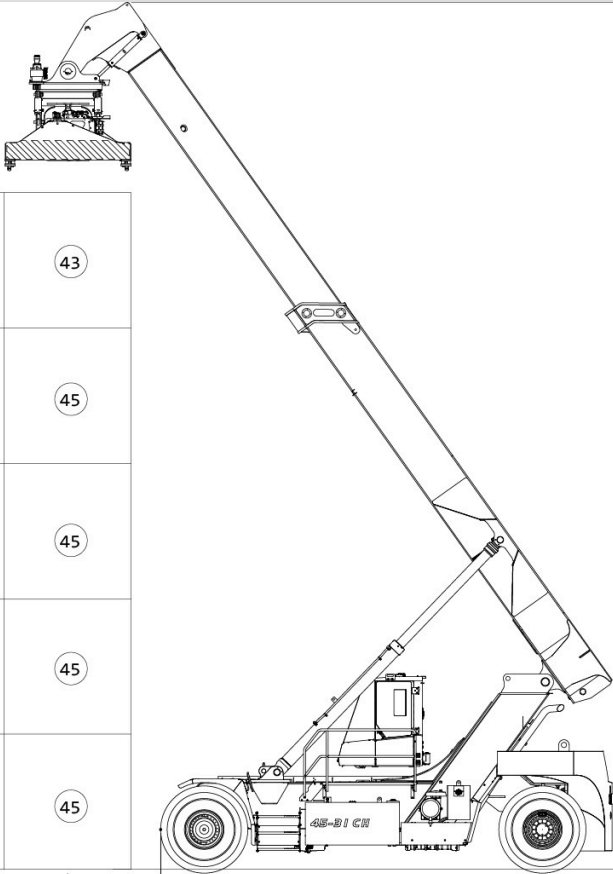
4-5 (h4)



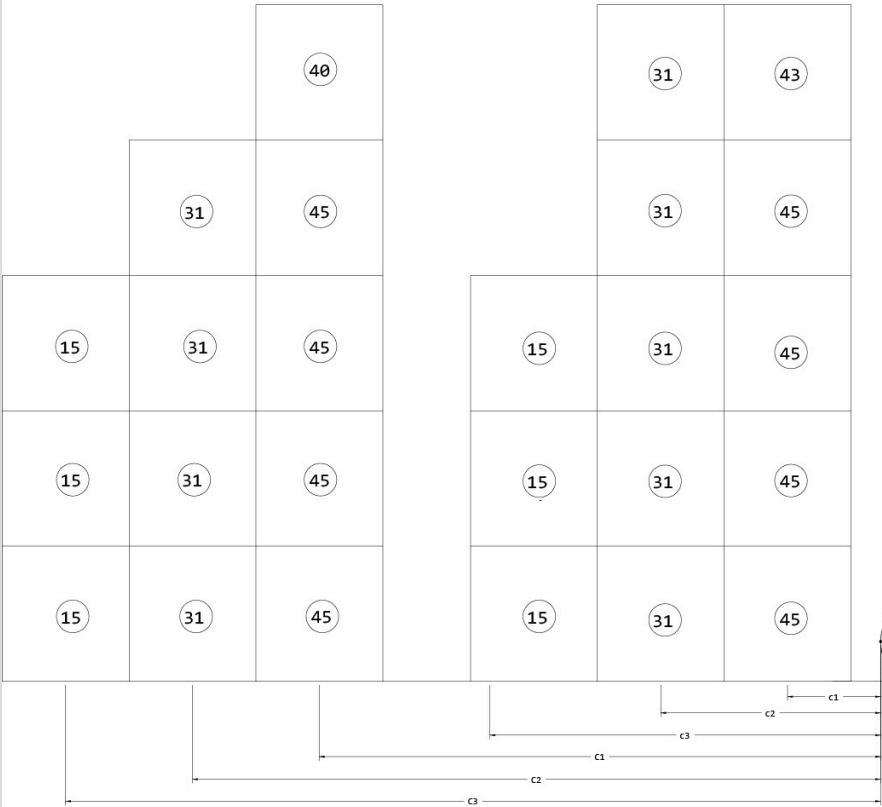
9'6" CONTAINERS

8'6" CONTAINERS

RS45-31CH WITH MECHANICAL PILE SLOPE (MPS)



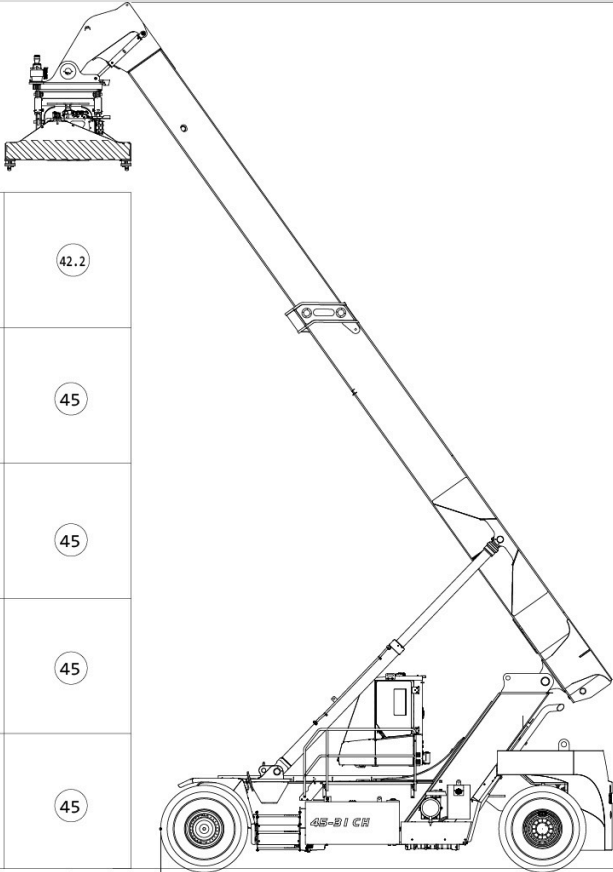
4-5 (h4)



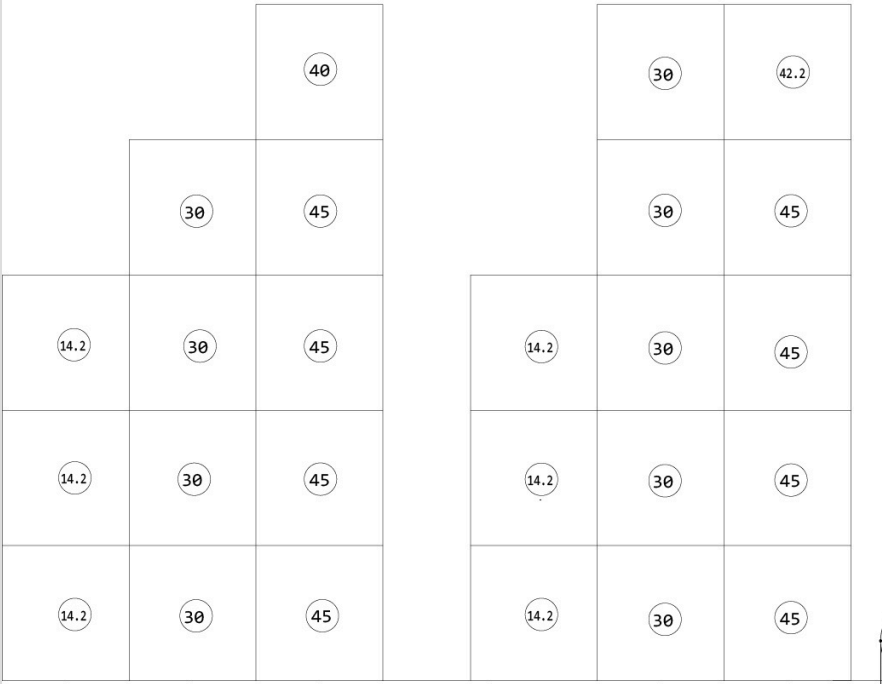
9' 6" CONTAINERS

8' 6" CONTAINERS

RS45-31CH WITH POWERED PILE SLOPE (PPS)



4-5 (h4)



9'6" CONTAINERS

8'6" CONTAINERS

OPTIONS

OPTIONS

STANDARD AND OPTIONAL EQUIPMENT	STD	OPT
PERFORMANCE		
Cummins QSL9 diesel engine rated 305 hp Tier 3 / 227 kw Stage IIIA	X	
Tier 3 / Stage IIIA compliant	X	
Cummins L9 diesel engine rated 330 hp Tier 4f		X
Tier 4f compliant		X
Wastegate turbocharger, water cooled	X	
Delayed Engine Shutdown for Turbo Cooldown	X	
Hibernate Idle	X	
Hydraulically driven on-demand cooling fan	X	
120 amp alternator	X	
Performance modes selectable in Integrated Performance Display	X	
Powertrain protection system	X	
Heavy duty air intake	X	
High mount exhaust	X	
Spicer Off-Highway TE-30 5-speed auto-shifting transmission	X	
Kessler D102 drive axle with wet disc brakes	X	
DRIVE		
Travel speed limiter - unconditional and customer adjustable		X
Travel speed limiter when twistlocks closed	X	
Steer axle with full stroke steer cylinder for tight turning radius		X
Steer axle with reduced stroke steer cylinder for longer tire life	X	
Pneumatic Drive and Steer Tires Advance 18.00 x 25-40PR	X	
E4 Pneumatic Drive and Steer Tires Continental Container Master 18.00-25 40PR		X
Pneumatic 18.00x25-40PR ELV-4B drive and steer tires		X
18.00-R25 Goodyear EV-5S Slick Radial drive and steer tires		X
18.00-25 40PR Bridgestone STMS Slick Bias Ply drive and steer tires		X
LIFT		
230cc Dual Pump Hydraulic System	X	
260cc Dual Pump Hydraulic System - Tier 4f only		X
On-Demand Load Sensing Hydraulic System	X	
Automatic Throttle-up when lifting (in neutral or inching)	X	
2 Stage Boom for 5-high 1st row stacking	X	
Load Moment Indicator (integrated in dedicated display)	X	
Digital Display with Load Moment Indicator	X	
High speed hoist system - when empty	X	
High speed hoist system - below 10 tons		X
Hydraulic system temperature protection with performance de-rate		X
Container weighing system SOLAS compliant		X
HANDLING		
Hyster Model 817 spreader	X	
CANBus spreader controls	X	
Mechanical Pile Slope	X	
Powered Pile Slope		X
Dampening Cylinders	X	
Powered Dampening Cylinders		X
4 lifting eyes located on end beam corners	X	
4 lifting eyes located under center beam of spreader		X
Spreader Guides located at end of spreader beams		X
Spreader Guides located 19.9" (506mm) inwards from center of spreader end beam		X

STANDARD AND OPTIONAL EQUIPMENT	STD	OPT
Rotation stops with override	X	
Automatic one-touch Extend/Retract (20'/40') for spreader		X
Stops for 30' containers		X
Vertical lift		X
Stops for 20-40' containers		X
ERGONOMICS		
Powered full-sliding cabin (2600mm), including additional mirrors on top of fenders, front rail, right side stairway, and handrails		X
Powered partial-sliding cabin (1200mm), including additional mirrors on top of fenders	X	
Manual sliding cabin (2600mm) for service access		X
Enclosed Classic Cabin	X	
Isolated cabin mounting for low noise and vibration	X	
Operator presence system	X	
Mechanical suspension seat	X	
Air suspension seat		X
Low backrest seat	X	
High backrest seat		X
Armrest on left side	X	
Cloth seat cover	X	
Vinyl seat cover		X
2-point high visibility seatbelt	X	
3-point high visibility seatbelt		X
Floor mat	X	
Coat hook	X	
Interior dome light	X	
Front, top and rear wipers	X	
"I"-pattern front wiper	X	
Intermittent wipers	X	
Steel bars under armored glass top window	X	
Left side stair lights		X
Dual 7" Integrated Performance Displays	X	
Joystick hydraulic control integrated in Control Arm	X	
Steering wheel with spinner knob	X	
Directional control lever on steering column	X	
Directional control on joystick		X
Park brake - push button applied	X	
Park brake - automatically applied		X
Heater with adjustable speed fan	X	
Telescoping & tilting steering column	X	
USB outlet inside armrest	X	
24-12 volt DC converter with 2 sockets and 2 USB outlets		X
Air conditioning	X	
Reading light	X	
Sun shades on top and rear	X	
Sun visors front window		X
Trainer seat		X
Recirculation fan	X	
Accessory Mounting Bracket on Cab Front Right Pillar		X
Document holder on Cab Front Right Pillar	X	
Heated top window		X
Radio Preparation with 2 Speakers and Antenna		X
VISIBILITY		
Top window with armored glass	X	
Steel bars under armored glass top window	X	
External wide angle mirrors mounted on rear of front fenders	X	

STANDARD AND OPTIONAL EQUIPMENT	STD	OPT
External wide angle mirrors mounted on top of front fenders		X
Interior wide angle mirrors	X	
Rear view camera system		X
Radar object detection system		X
High Performance LED work lights	X	
Four LED head lights mounted on front fenders	X	
Four work lights mounted on the boom	X	
LED stop/tail/brake lights	X	
Turn signals, hazard & marker lights (LED)	X	
One engine compartment light		X
OPERATION		
Air horn 112 dBA	X	
Visible alarm - Amber strobe light, ignition activated	X	
Audible alarm - Reverse direction activated	X	
Seatbelt interlock for engine start and truck operation		X
Tire pressure monitoring system		X
Air conditioning shut-off with open door	X	
Automatic engine shutdown with timer		X
Lockable battery disconnect switch	X	
Battery jump start connector (NATO plug)		X
Truck Start with key switch and start button	X	
Operator password (display) for Truck Start	X	
Fuses Below 30 amps Replaced by Electric Circuit Breakers		X
Non-lockable fuel cap		X
Lockable fuel cap	X	
Fuel strainer in fuel filler neck		X
Hyster Tracker wireless asset management - Access / Verification		X
Hyster Tracker wireless asset management - Monitoring	X	
Auto greasing system for basic truck & outer boom		X
Auto greasing system for inner boom and spreader		X
Fire Suppression System		X
24 volt electrical system	X	
Engine block heater		X
Second hour meter reader near fuel tank		X
Steer wheel lug nut protection	X	
APPEARANCE		
Hyster yellow paint base truck	X	
SUPPLEMENTAL		
Literature package	X	
Operator's manual	X	
Warranty: 24 Months / 4,000 Hours Parts & Labor manufacturer's warranty	X	



Hyster Company

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hyster.com

SAFETY: Hyster® products meet the design and construction requirements of local standards and regulations for the countries into which they are sold, including ANSI/ITSDF B56 (USA), Machinery Directive 2006/42/EC (EU), AS 2359 (Australia), and ISO 13849 (Brasil). Where permitted by local law, Hyster products sold into countries outside of the EU or USA may be ordered in conformance with EU or USA requirements.

NOTICE: Care must be exercised when operating material handling equipment. Operators must be trained and must read, understand and follow the instructions contained in the operating manual. Products may be shown with optional equipment and/or features not available in all regions. Product performance may be affected by its condition, how it is equipped and the application. Specifications are subject to change without notice. Consult your Hyster® Dealer if any of the information shown is critical to your application.

NOTES: Capacities are calculated per EN1459. All specifications and capacities are valid for trucks equipped with a Hyster container handling spreader for handling ISO containers. Specifications, unless otherwise note, are for a standard truck without optional equipment. Specification data is based on VDI 2198.

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