



FERRARI

REACHSTACKERS



F500
S E R I E S

F500.RS1

F500.RS2

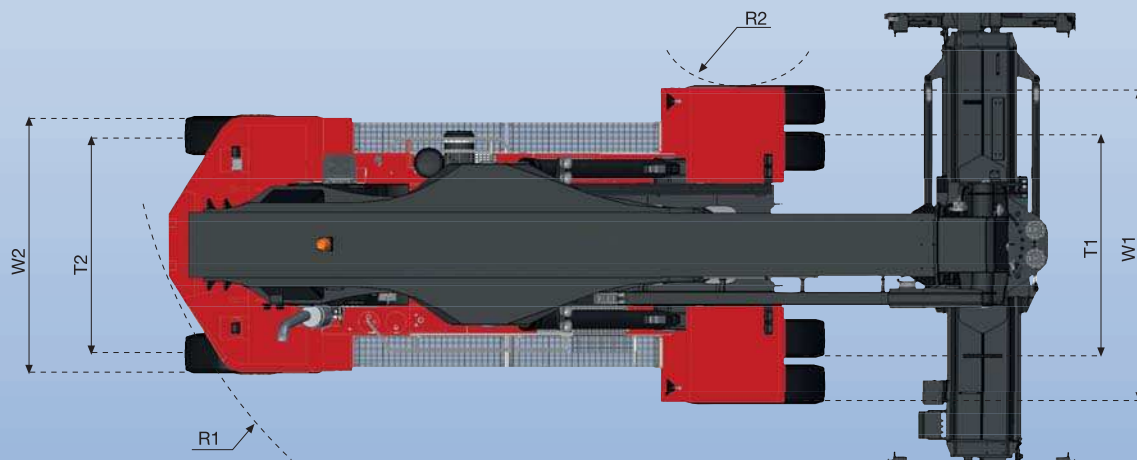
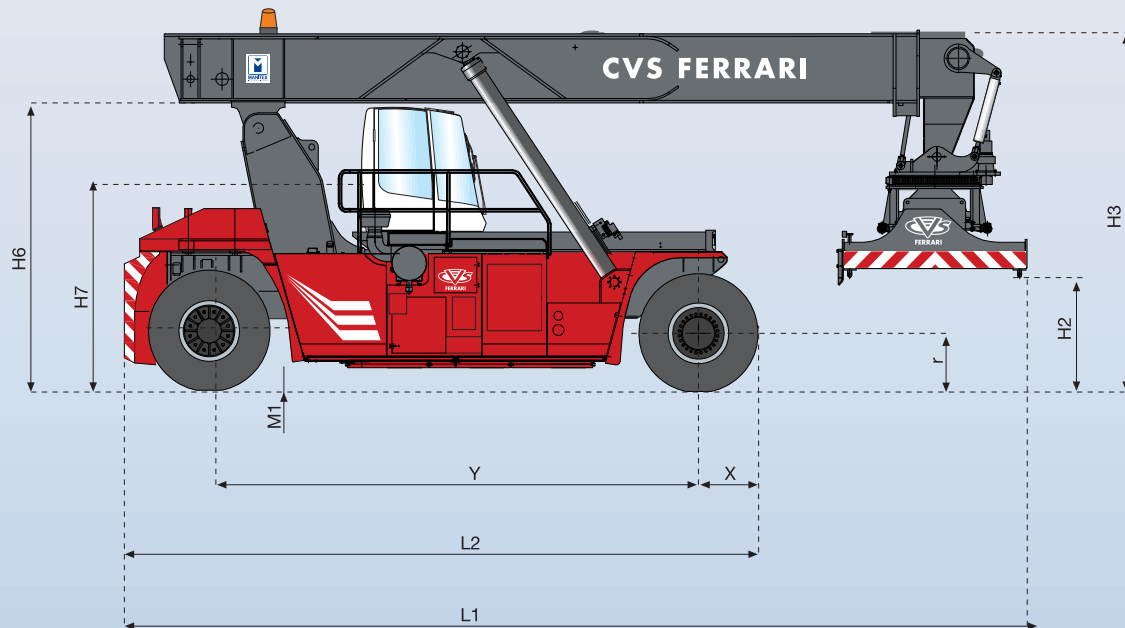
F500.RS3

F500.RS5

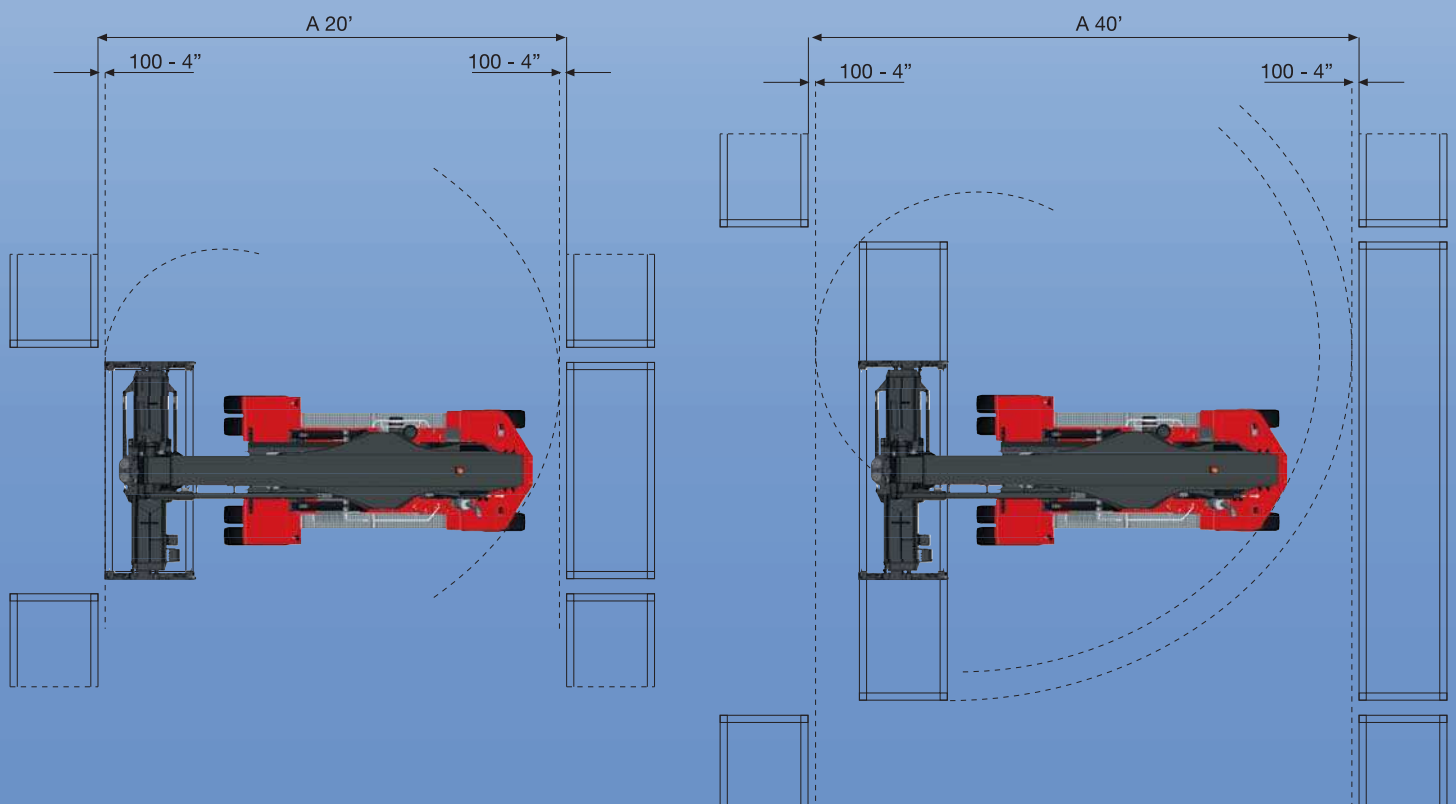
F500.RS6

T E C H N I C A L F E A T U R E S

CHARACTERISTICS	1.0	Make			CVS FERRARI											
	1.1	Truck type			Reach Stacker											
	1.2	Truck model			F500.RS1		F500.RS2		F500.RS3		F500.RS5		F500.RS6			
	1.3	Attachment type			Container spreader											
	1.4	Attachment model			TS45RSX5		TS45RSX5		TS45RSX5		TS45RSX5		TS45RSX5			
	1.10	1 st row load capacity “on tyres” (C1=1780 mm)	Q	kg	45000		46000		46000		46000		46000			
	1.12	2 nd row load capacity “on tyres” (C2=3850 mm)	Q	kg	27000		31000		33000		36000		39000			
	1.13	3 rd row load capacity “on tyres” (C3=6400 mm)	Q	kg	13000		16000		17000		19000		21000			
	1.20	Load distance to face of front of the truck		mm	830						930					
	1.22	Wheelbase		mm	6500											
WEIGHTS	2.1	Service weight - Unladen		kg	68000		71000		73500		77700		80700			
	2.2	Axle load at load center C1, with rated load Front and Rear		kg	99000	14000	100400	16600	100500	19000	102200	21500	102400	24300		
	2.3	Axle load at load center C1, without load Front and Rear		kg	36000	32000	36000	35000	36100	37400	37100	40600	37300	43400		
DRIVE TRAIN	3.0	Available engine alternatives manufacturer / type			CUMMINS QSM11 EU Stage 3A emission compliant - EPA TIER 3 or SCANIA DC13 EU Stage 4 emission compliant - EPA TIER 4F											
		Engine data and performances			see table of page 6											
	3.10	Transmission manufacturer / type			Dana TE32FF											
	3.11	Gear - Forward / Reverse			4 / 4											
	3.20	Driving axle			Kessler D102											
	3.30	Service brake			Cooled wet disk brake											
	3.31	Parking brake			Dry disk brake											
	3.40	Steering			Fully hydrostatic											
TIRES	4.0	Tires			Pneumatic					Pneumatic						
	4.1	Tires size - Front			18.00 - 25					18.00 - 33						
	4.2	Tires size - Rear			18.00 - 25					18.00 - 33						
	4.3	Wheels - Number Front / Rear (X = driven wheels)			4X / 2											
	4.10	Reference radius - Loaded Front axle distance from the ground	r	mm	770					870						
	4.20	Track - Front	T1	mm	3035											
	4.21	Overall width over front tyres	W1	mm	4185											
	4.22	Track - Rear	T2	mm	2820											
	4.23	Overall width over rear tyres	W2	mm	3375											
PERFORMANCE	5.0	Travel speed - Laden / Unladen		km/h	21.1 / 23					21.2 / 25 - 21.8 / 25						
	5.1	Tractive Effort SCANIA		kN	323					286						
	5.2	Tractive Effort CUMMINS		kN	335					296						
	5.3	Gradeability - without Load - at 2 km/h		%	34.2					31.8						
	5.4	Gradeability - Rated Load - at 2 km/h		%	20.3					17.6						
	5.10	Lifting speed - Lifting and Extension Laden (70% of rated load) / Unladen		m/s	0.25 / 0.32											
	5.11	Lowering speed - Lowering and Retraction Laden (70% of rated load) / Unladen		m/s	0.35 / 0.55											
TRUCK DIMENSIONS	6.0	Boom angle - Maximum		deg	60											
	6.1	Spreader distance from the ground - Minimum	H2	mm	1470					1570						
	6.2	Boom height - Fully lowered	H3	mm	4800					4900						
	6.3	Maximum lift height under spreader	H4	mm	16100					16200						
	6.4	Boom height - Maximum	H5	mm	19100					19200						
	6.5	Truck height - Without boom	H6	mm	3800					3900						
	6.6	Seat height - S.I.P.	H7	mm	2720					2820						
	6.7	Ground clearance - Center of wheelbase	M1	mm	320					420						
	6.8	Overall length	L1	mm	12000											
	6.9	Length without boom	L2	mm	8460					8560						
	6.10	90° Stacking Aisle 20' container spreader central above front axle with 200 mm ground clearance	A1 20'	mm	9800											
	6.11	90° Stacking Aisle 40' container spreader central above front axle with 200 mm ground clearance	A1 40'	mm	12700											
	6.12	90° Stacking Aisle 20' container with 200 mm ground clearance	A2 20'	mm	11900											
	6.13	90° Stacking Aisle 40' container with 200 mm ground clearance	A2 40'	mm	13900											
	6.14	Turning radius - Outer	R1	mm	8400											
6.15	Turning radius - Inner	R2	mm	980												
ATTACHMENT	7.0	Rated Load		kg	45000					46000						
	7.10	Side Shift		mm	± 800											
	7.11	Rotation		deg	-105° / + 195°											
	7.12	Side tilting - Mechanical		deg	± 3°											
	7.13	Twist-Lock interlock safeties			mechanical and electrical											
	7.14	Twist-Lock type			full floating											



MANOEUVRABILITY



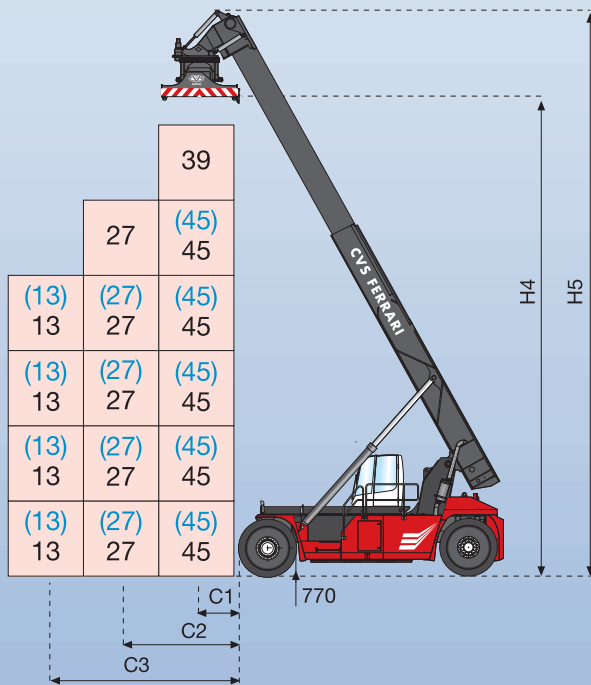
CAPACITY CHARTS

F500.RS1

NO STABILIZERS

(9'6" CTS)

8'6" CTS

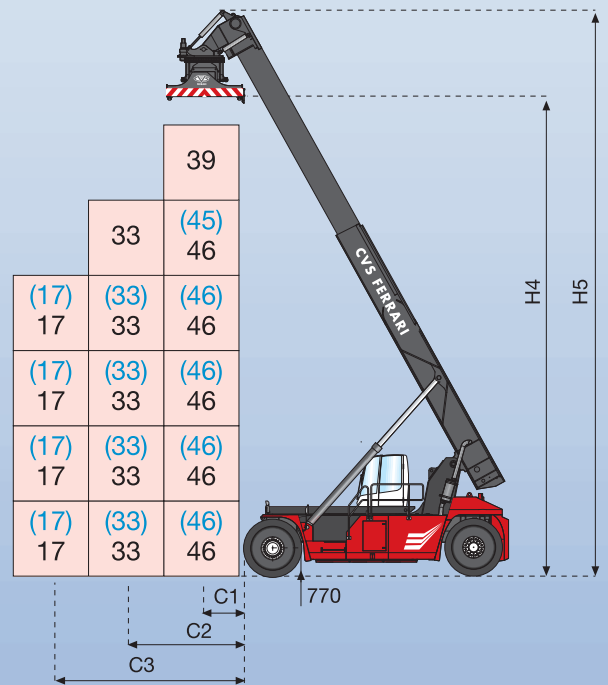


F500.RS3

NO STABILIZERS

(9'6" CTS)

8'6" CTS

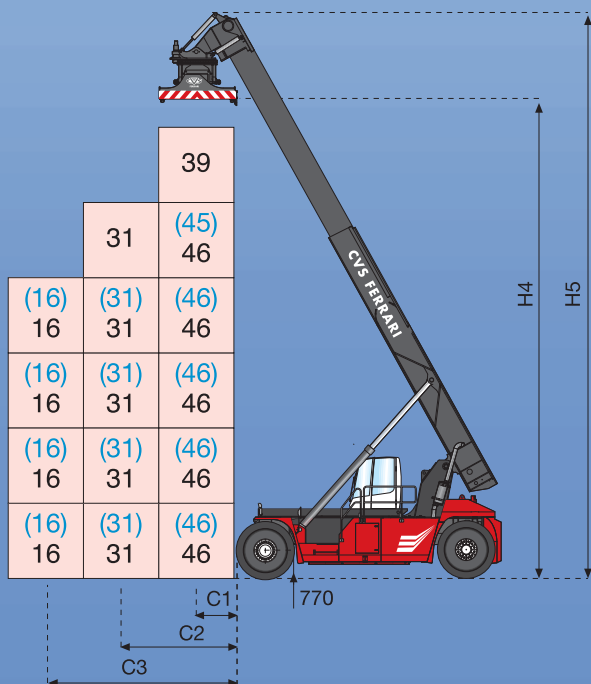


F500.RS2

NO STABILIZERS

(9'6" CTS)

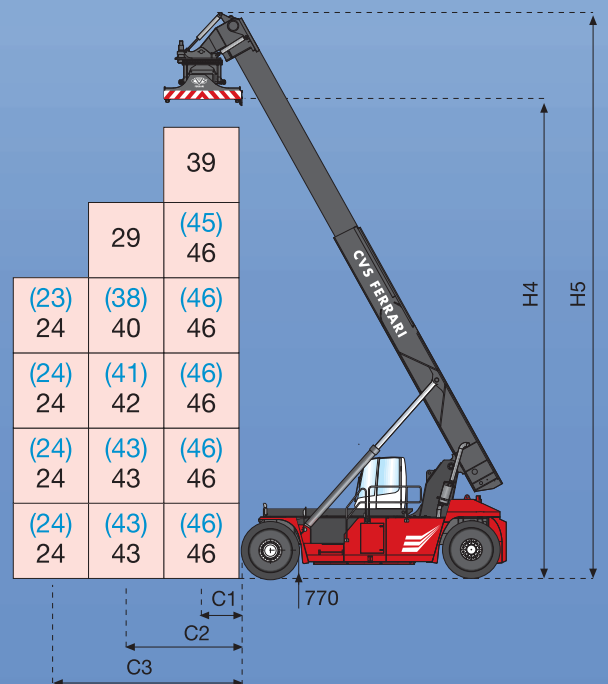
8'6" CTS



WITH STABILIZERS

(9'6" CTS)

8'6" CTS



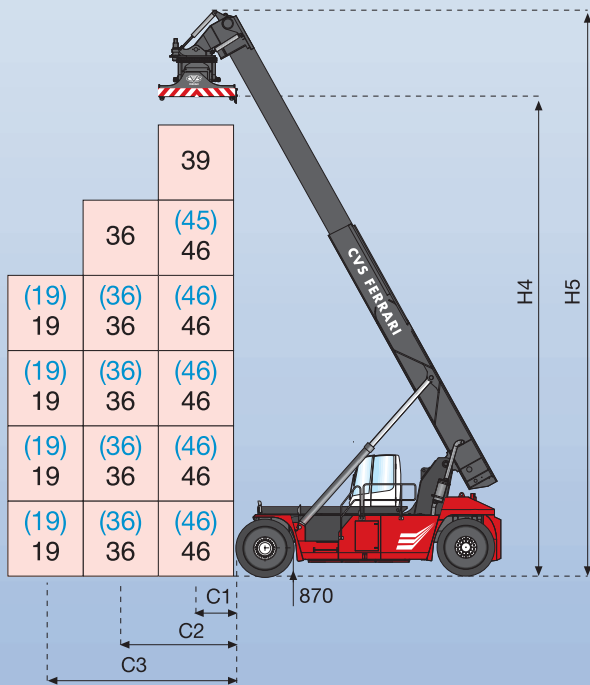
CAPACITY CHARTS

F500.RS5

NO STABILIZERS

(9'6" CTS)

8'6" CTS

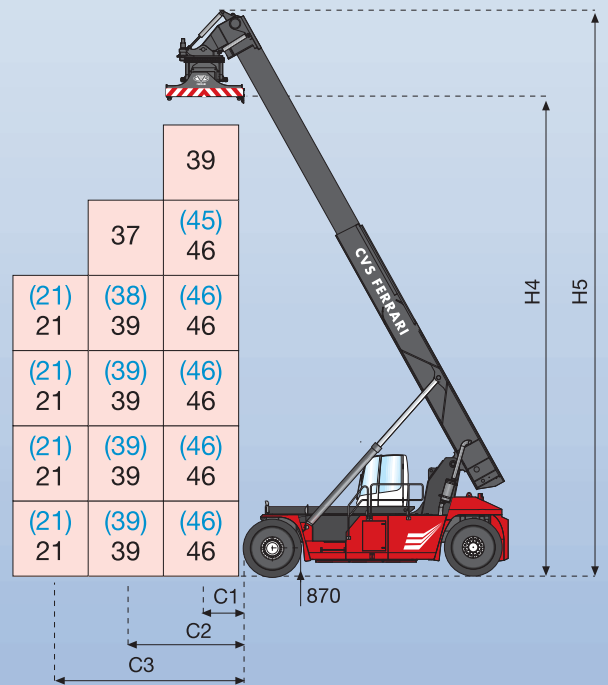


F500.RS6

NO STABILIZERS

(9'6" CTS)

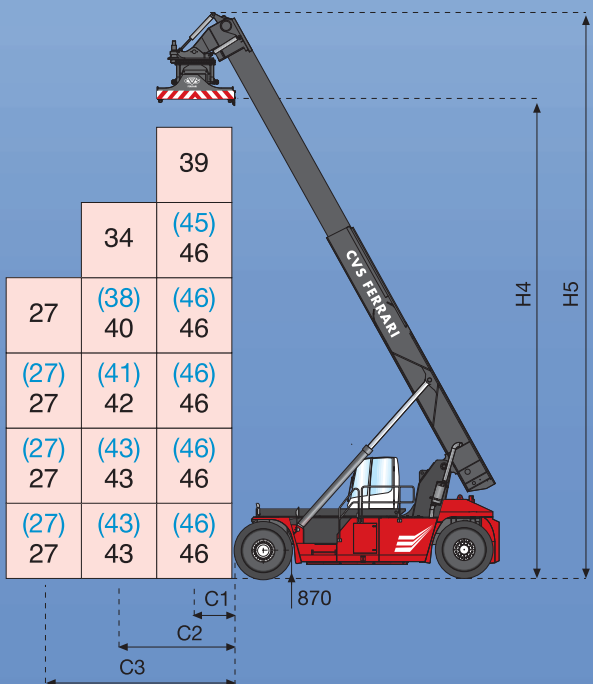
8'6" CTS



WITH STABILIZERS

(9'6" CTS)

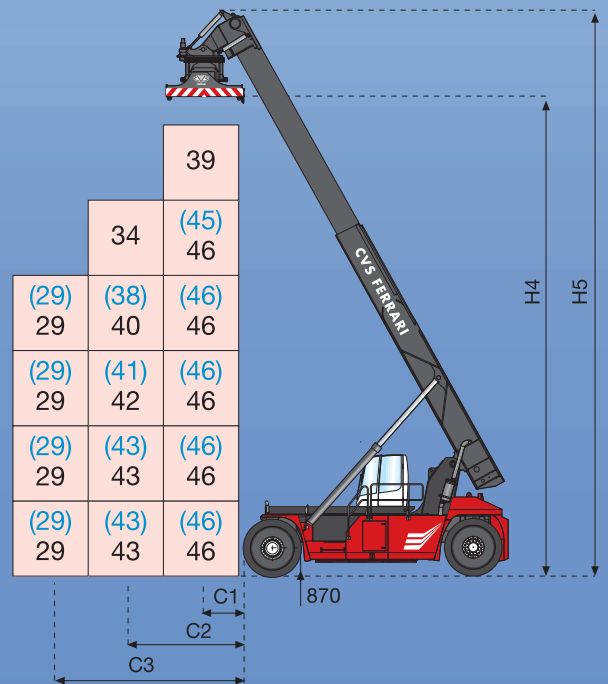
8'6" CTS



WITH STABILIZERS

(9'6" CTS)

8'6" CTS



DESIGN

- Exceptionally strong structure
- Third Party Certified to comply with DIN 15018 H2B4
- CE Certified

ENGINE

- CUMMINS QSM 11 (EU Stage 3A - EPA TIER 3) or SCANIA DC13 (EU Stage 4 - EPA TIER 4F)
- All data related to the a.m. standard alternative engine in STANDARD ENGINES DATA table
- Full can-bus control and communication
- Fuel pre-filter with water separator
- Dry air filter with rain cap
- Engine protection system
- Radiator cap with chain

TRANSMISSION

- DANA-Spicer (CLARK) TE 32 FULL FLOW
- Four Speeds, electronic, modulated, powershift and torque converter
- Full can-bus control and communication
- Automatic gearshift with anti-reverse driving protection
- Transmission protection system against low pressure
- Separate oil cooling system with hydraulic fan assisted radiator

DRIVE AXLE

- Kessler mod. D102 front drive axle
- Double reduction differential

STEER AXLE

- CVS rear oscillating steering axle
- Sandwich type oversize structure made of high tensile strength steel
- Double effect steering cylinder
- Shock absorbers

BOOM

- Two stage telescopic
- Boxed welded section design
- Made of high tensile strength steel
- Designed to stackup to 6x8'6" and 5 x 9'6" containers
- Fully greaseable joints and sliding pads
- One telescopic and two lift cylinders
- Two spreader dampening cylinders
- Wide spreader mount head

CHASSIS

- Welded structure made of high tensile steel
- High torsion resistant design
- Wide boom towers to maximize rear visibility
- Eyebolts for vehicle front and rear lifting
- Grip Strut steps and walkways
- Handrails for access to cabin
- Outside service bay
- Easy lift hoods with gas-springs
- CVS FERRARI standard colours

WHEELS

- Four front and two rear wheels
- Heavy duty rims
- Pneumatic Tires size 18.00-25 and 18.00-33 - 40 PR

HYDRAULIC SYSTEM

- Two main variable displacement piston pumps
- Exclusive "SIXTH SENSE" load sensing system with high energy efficiency and fastest speed of response
- CVS "Eco-mode" software that optimizes energy utilization
- Cooling system with air-oil heat exchanger with hydraulically driven fan
- 10 micron filters
- Level indicators on the tank
- Orbitrol servo-assisted steering system

BRAKING SYSTEM

- Wet disc brakes
- Brakes cooling system with air-oil heat exchanger (fan assisted)
- Automatic parking brake with engine switch off

ELECTRIC SYSTEM

- 24 Volts
- Two 180 Ah heavy duty batteries
- Redundant CAN-BUS Electronic/Electric System Architecture
- CAN BUS communication protocol
- Integrated diagnostic for main components
- Front headlights, beamlights and parking lights
- Front, side and rear indicator lights - LED type
- Rear parking, brake and reverse lights - LED type
- Rotating beacon - LED type
- Two work lights on the spreader - LED type
- Four work lights on boom - LED type
- Front, rear and side emergency lights - LED type
- Reverse audible alarm

ELECTRONIC LOAD MANAGEMENT SYSTEM

- With redundant sensors and processors
- Compliant with EN 15000
- Display of residual stability graph bar
- Visual and audible warning and alarm information
- Load gauge (2% dynamic accuracy)
- Boom geometry data real time display
- Stacking Height Indicator

CABIN

- CVS FERRARI "aria"
- Driver's cabin is central/rear position (FOPS compliant)
- Sound-proofing compliant with EN 12053
- Manually sliding
- Heating system
- Air filter for air recirculation
- Cushioned type driver's seat
- Right side armrest
- Safety belt
- Multi speed wipers on front/rear and upper glass
- Front windscreen and tempered rear & side glasses - blue tinted
- Upper window in safety material LEXAN impact resistant
- Sliding side windows
- Two lockable doors with gas springs and open position lock
- Two inside & two outside rear mirrors
- Fade away internal light
- State of the art ergonomic lay out of controls
- Adjustable steering column (inclination & height)
- Knob on steering wheel
- Sun curtain on upper window

CONTROLS

- Can Bus type multi-function Joystick
- "Dead Man" protection (capacitive type) on Joystick
- Additional control panel for additional functions
- Electrical horns (2)
- Electrical accelerator pedal
- Brake pedal with transmission declutch
- Brake pedal
- Parking brake electric button
- Automatic gearshift
- Headlights / indicator switch
- Automatic climate control

INSTRUMENTS

- Full colour LCD display "VIEW2" model showing:
 - Complete status of operational parameters
 - Complete set of functional parameters
 - Complete set of gauges and indicators
 - System functional warnings and alarms
 - Operational performance record

ON BOARD COMPUTER

- Electric, Electronic and Hydraulic Systems diagnostic
- Functional Events Log Book
- Operational Activity Log Book
- Efficiency Statistics program
- USB port for data download

ATTACHMENT

- ISO 20' - 40' telescopic spreader
- Twin beam structure made of Weldox steel
- Weldox steel boxed welded telescopic beams
- 20'-40' automatic positioning
- Hydraulic rotation -105+195 degrees
- Side Shifting + / - 800 mm
- Mechanical side slope +/- 3
- nr. 4 lifting eyes (10 ton capacity each)
- Full floating Twist-locks
- Mechanical and electrical safeties
- Twist-Lock Status Indication Lights on Boom and in cab display

STANDARD ENGINE ALTERNATIVES

Engine Emission Standard of Compliance		EU Stage 3A - EPA TIER 3	EU Stage 4 - EPA TIER 4F
Engine Make		CUMMINS	SCANIA
Engine Model		QSM 11	DC13
Rated Power	kW	250 (at 2100 rpm)	257 (at 2100 rpm)
Maximum Power	kW	272 (at 1800 rpm)	257 (at 2100 rpm)
Peak Torque	Nm	1674 (at 1200 rpm)	1700 (at 1200 rpm)
Rated Speed	rpm	2100	2100
Number of Cylinders		6 in line	6 in line
Displacement	cu. cm	10.800	12.700

OPTIONAL EQUIPMENT (non restricted to)

- Clima control system
- Cyclone pre-filter
- Emergency steering with electro-hydraulic pump
- Electrical Joystick or mini-wheel steering
- Lifting speed booster
- Dampening cylinders inclination control
- Starting outlet by external batteries
- 12 V socket in the cab
- Remote (data) Monitoring System
- Badge password for operator
- Radio CD player + MP3
- Adjustable spot light in cab
- Additional rotating amber beacon
- 160 mm fan in the cabin
- Camera with colour screen for front visibility
- Camera with colour screen for rear visibility
- Anticollision device for spreader (rotation stop +/- 30°)
- RFID system
- Integrated battery charger
- Winterization Package
- Rear parking sensors
- 6' x 9' 6" Stacking Boom
- Printer in Cab
- Additional front and rear working lights - LED type

- LED type front headlights and high beam lights
- Reading light in cab and working light in hydraulic and electrical compartment
- Hydraulic sliding cab
- Air-suspended seat with belt
- Secondary Seat
- Sun curtain on rear window
- Stop at 30' position
- Hydraulic Spreader Pile Slope 4° 30'
- Combined spreader and piggy-back attachment with hydraulic foldable legs
- Spreader with hydraulically foldable over-height twist-lock extensions
- Insulated cab heating hoses
- Automatic Centralized Lubrication
- CO2 fire extinguisher, 2 Kg
- Customized painting schemes
- Special sound proofing
- Front stabilizers
- Rear towing hook
- Stairs for access to cabin, right side



R E A C H S T A C K E R S

CVS FERRARI S.r.l. reserves the right to change details and sizes of the published models without prior notice



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