



FERRARI

REACHSTACKERS



F500
SERIES

F500.RS1

F500.RS2

F500.RS3

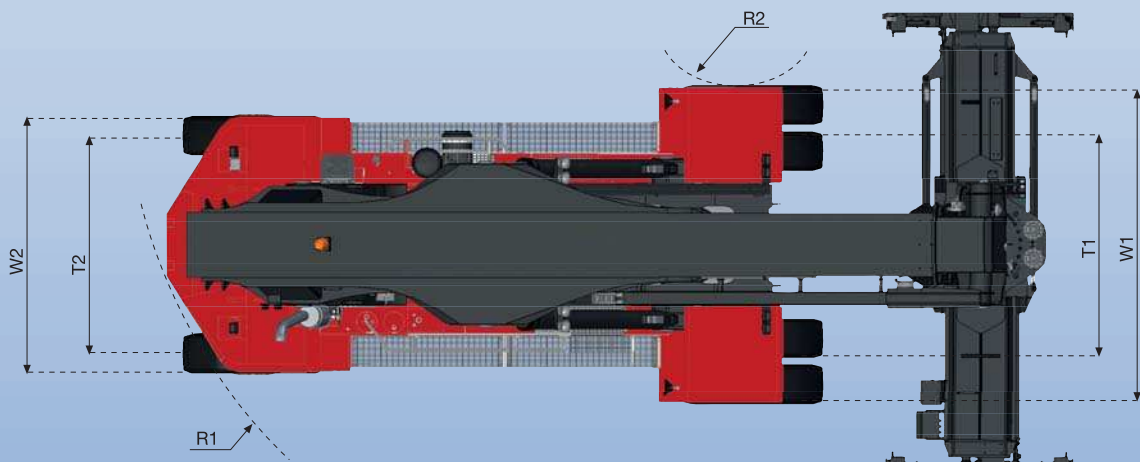
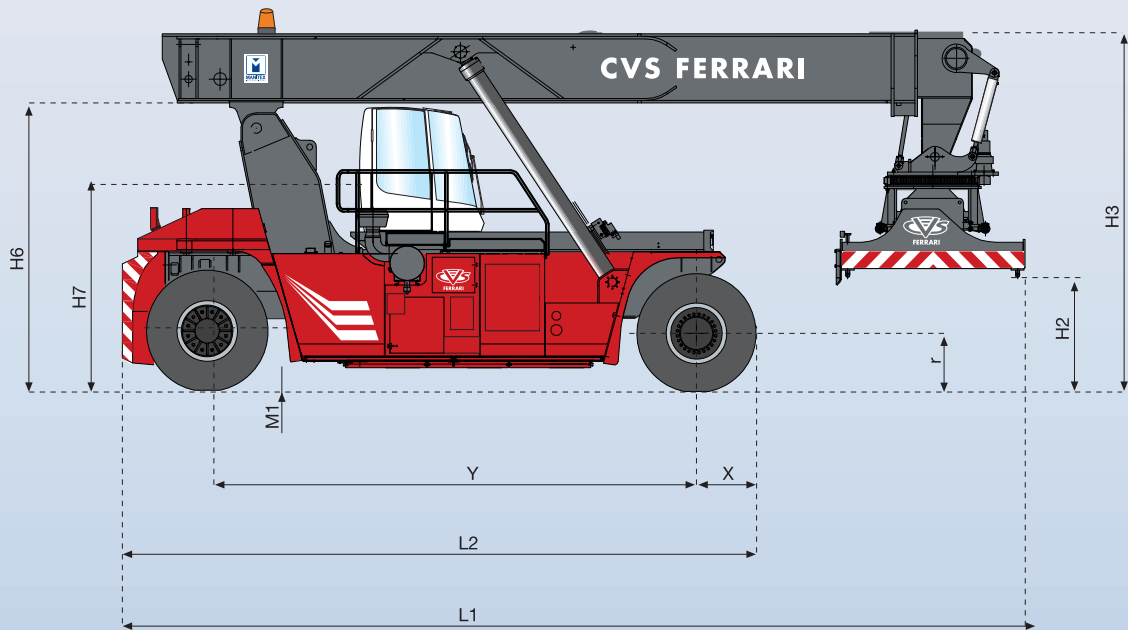
F500.RS5

F500.RS6

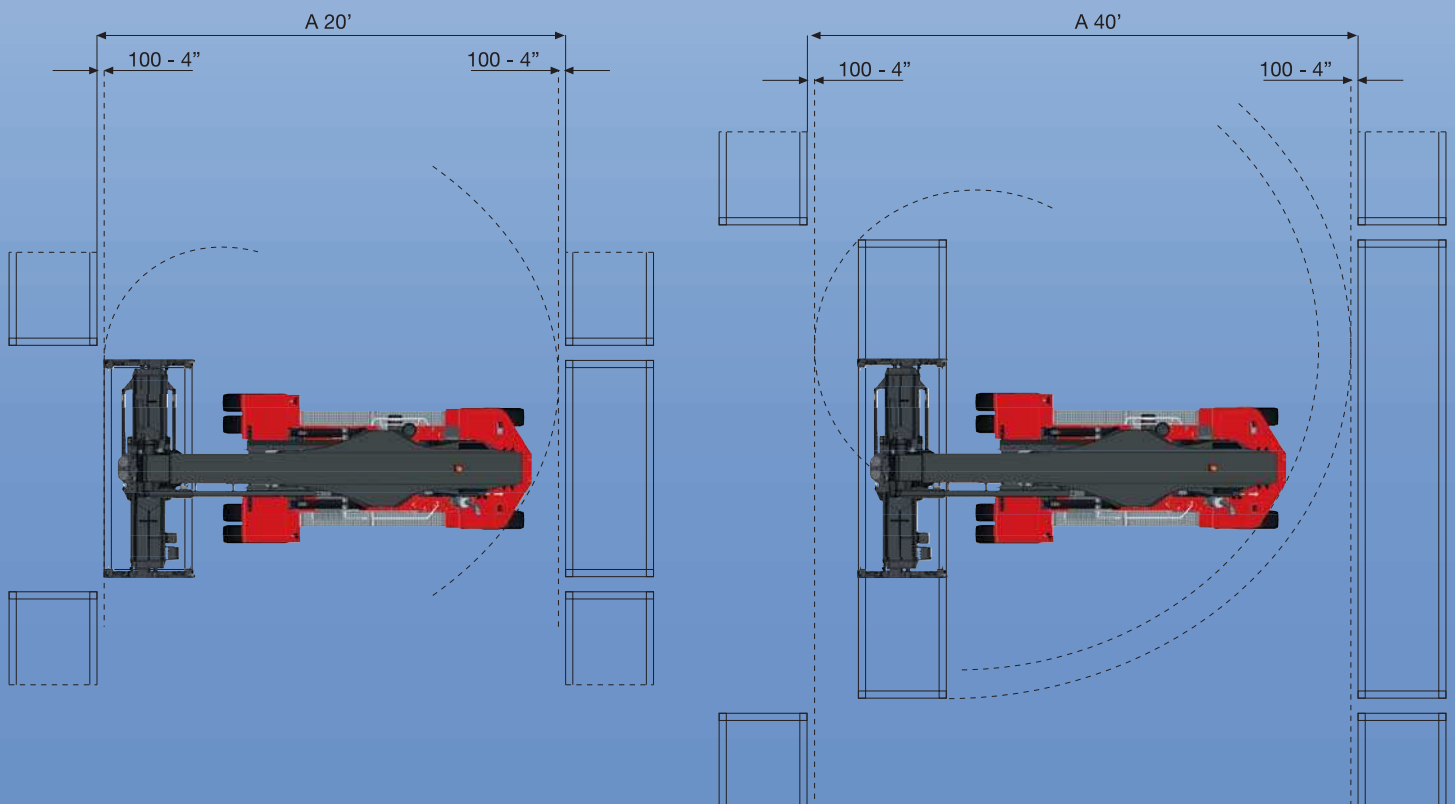
T E C H N I C A L F E A T U R E S

DATASHEET

| | | | | | | | | | | | | | | |
|------------------|-------------------------------|---|---|-------------------|--|-----------------|-----------------|-----------------|-----------------------|--------|-------|--------|-------|--------|
| 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 |
| 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 | 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 | | | | | | | | | |
| | 6.3 | Maximum lift height under spreader | H4 | mm | 16100 | | | | | | | | | |
| | 6.4 | Boom height - Maximum | H5 | mm | 19100 | | | | | | | | | |
| | 6.5 | Truck height - Without boom | H6 | mm | 3800 | | | | | | | | | |
| | 6.6 | Seat height - S.I.P. | H7 | mm | 2720 | | | | | | | | | |
| | 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



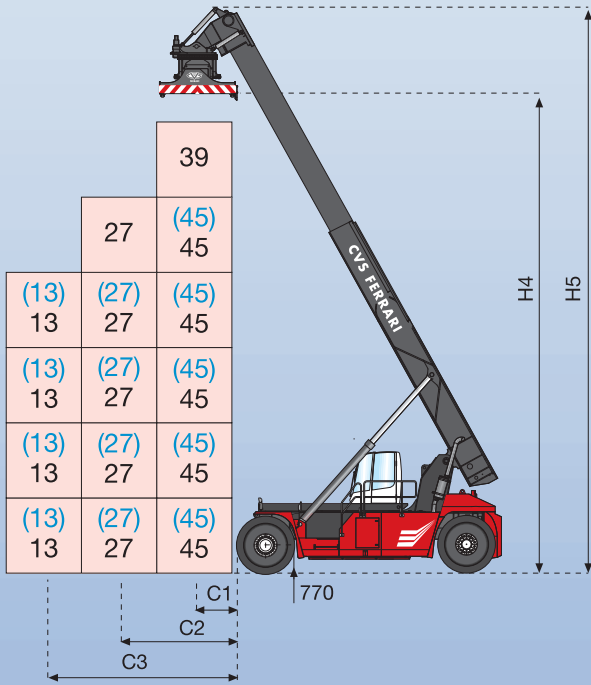
CAPACITY CHARTS

F500.RS1

NO STABILIZERS

(9'6" CTS)

8'6" CTS

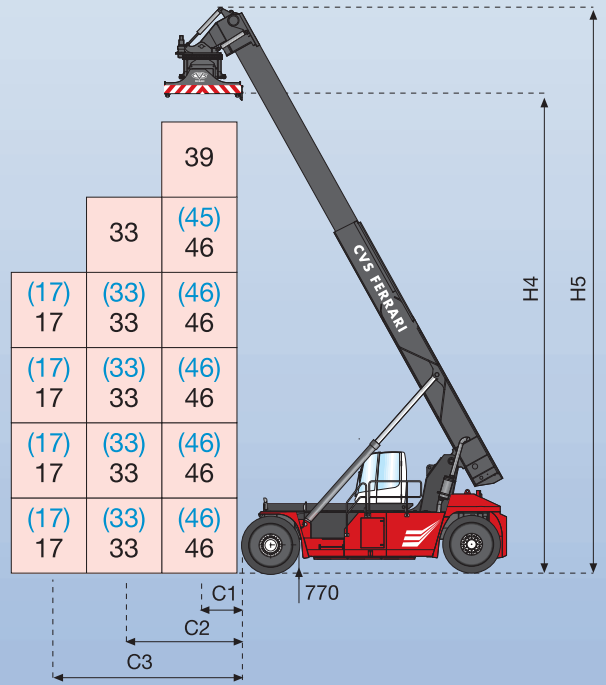


F500.RS3

NO STABILIZERS

(9'6" CTS)

8'6" CTS

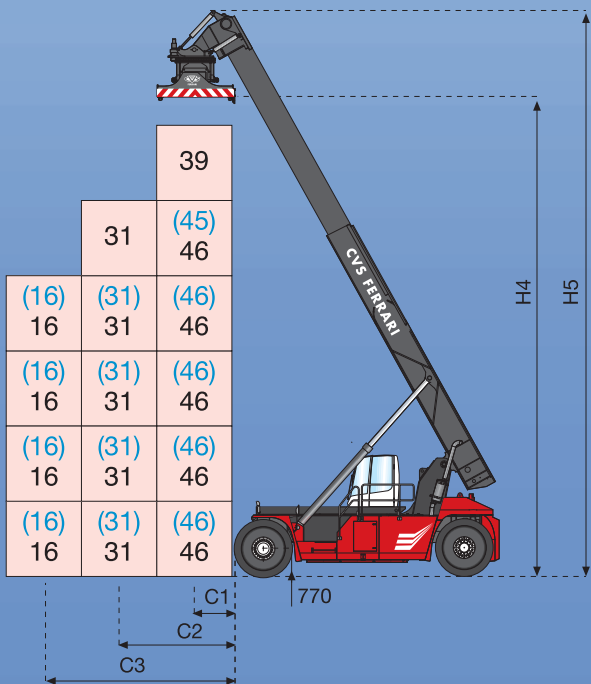


F500.RS2

NO STABILIZERS

(9'6" CTS)

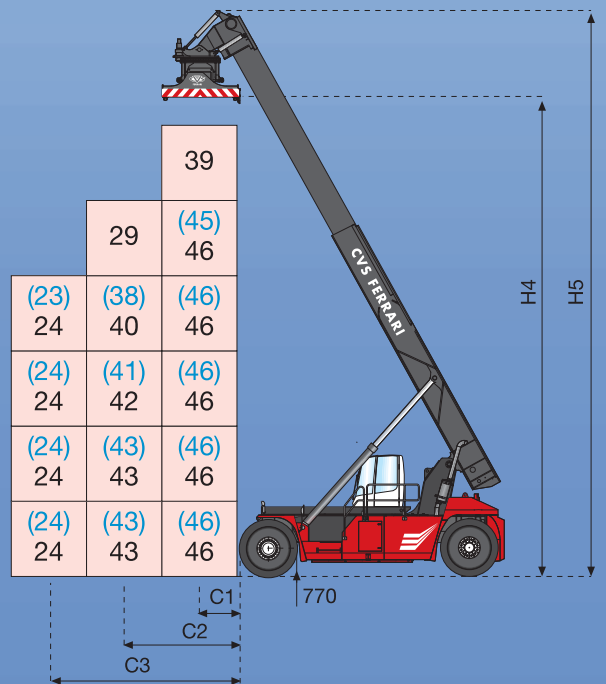
8'6" CTS



WITH STABILIZERS

(9'6" CTS)

8'6" CTS



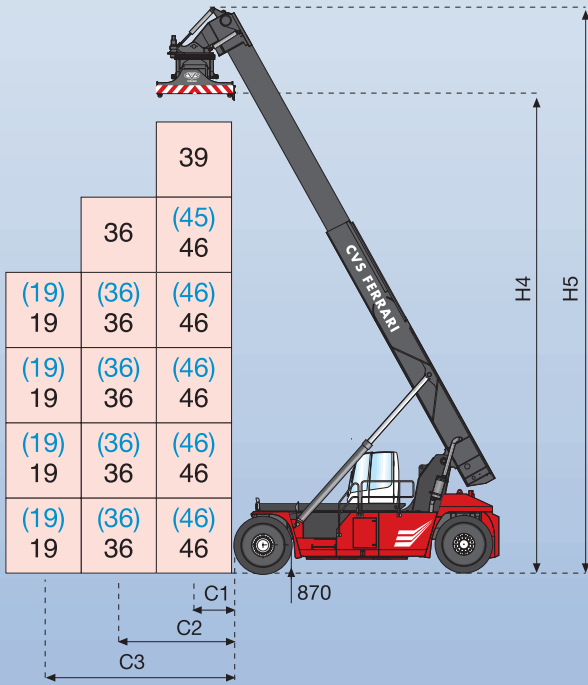
CAPACITY CHARTS

F500.RS5

NO STABILIZERS

(9'6" CTS)

8'6" CTS

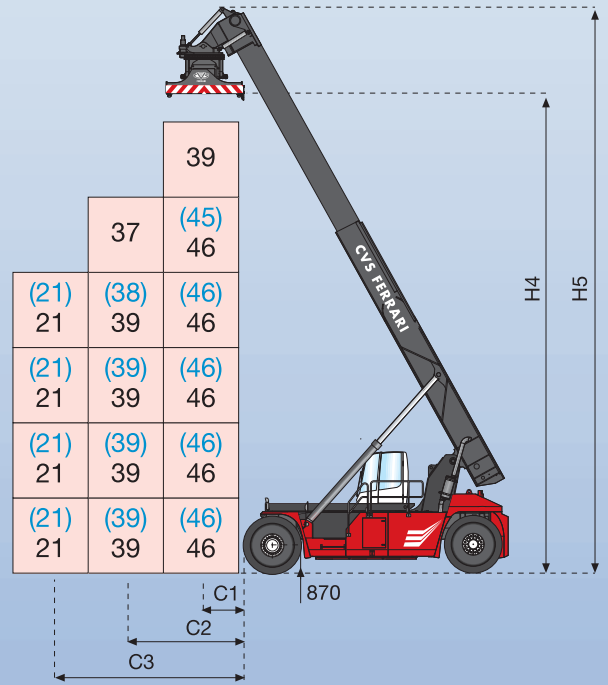


F500.RS6

NO STABILIZERS

(9'6" CTS)

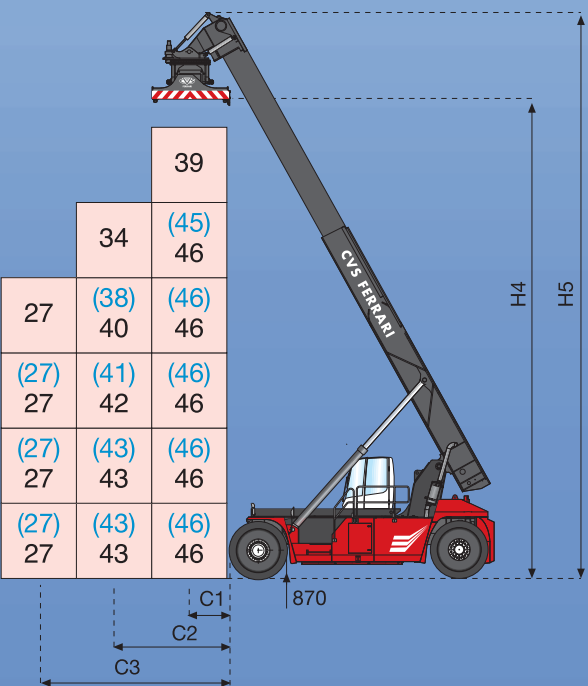
8'6" CTS



WITH STABILIZERS

(9'6" CTS)

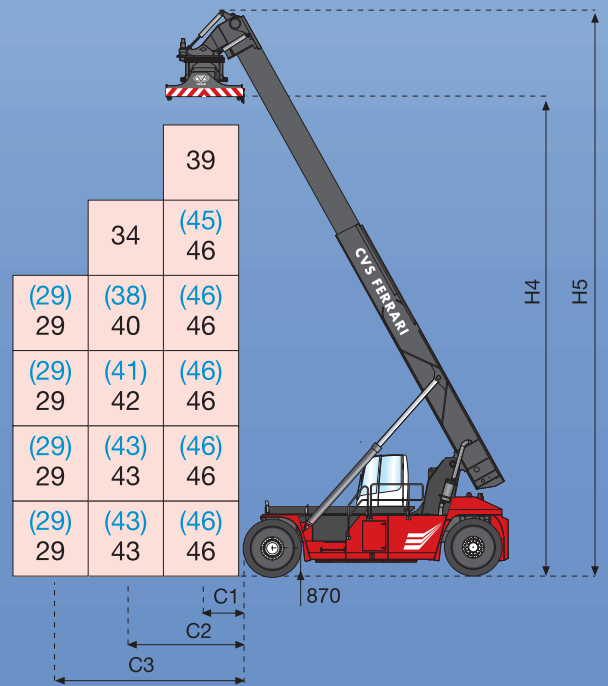
8'6" CTS



WITH STABILIZERS

(9'6" CTS)

8'6" CTS



STANDARD EQUIPMENT

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

STANDARD EQUIPMENT

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



FERRARI



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



FERRARI

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