

# SERAM

LIFTING BALANCED  
CRANES

# S80

S80.20E / S80.25E



**110 kW**



**20 m / 25 m**  
**66 ft / 82 ft**



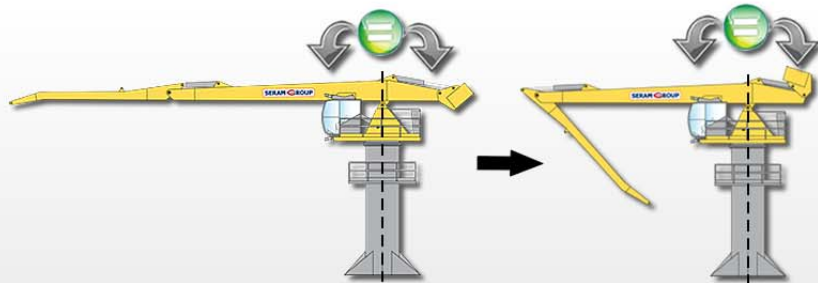
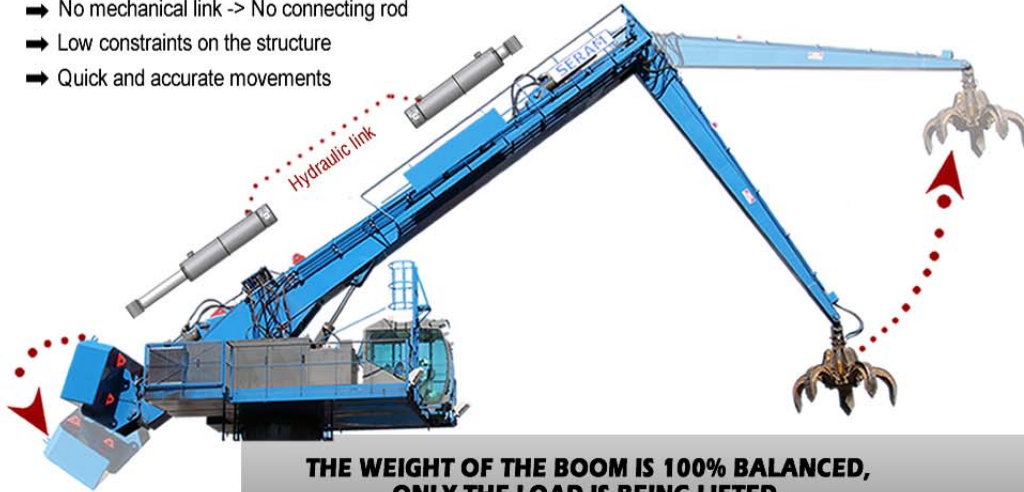
**64 t / 95 t**  
**71 Ust / 105 Ust**

# THE SERAM HYDRAULIC BALANCING THE EASY AND EFFICIENT SOLUTION

**S80**  
S80.20E / S80.25E

The SERAM crane is the **only** balanced crane **by hydraulic system**

- ➔ No mechanical link -> No connecting rod
- ➔ Low constraints on the structure
- ➔ Quick and accurate movements



Enjoy the **unique advantages** of the balanced crane

### Unequaled operating costs

Up to **80% energy consumption** compared to a diesel conventional crane

Diesel Conventional Crane

**- 50%**

Electric Conventional Crane

**- 80%**

SERAM Electric Balanced Crane

### An exceptional lifetime of the hydraulic components

The average working pressure of a SERAM crane is **55% lower** than a conventional crane.

**~320 bars**  
**~4650 psi**

Conventional Crane

**~140 bars**  
**~2030 psi**

SERAM Balanced Crane

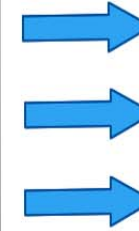
# THE SERAM TECHNOLOGY

## THE SERAM STRUCTURE THE RELIABILITY

World Reference...

FEM CLASSIFICATION\*  
**A8M8**

The most performing grade on the market



+ of 2 Millions of lifting cycles

+ of 20 Years of operating

+ of 40 000 Hours of working operation

\*FEM: European Federation of Materials Handling

## THE SERAM MAINTENANCE THE SIMPLICITY

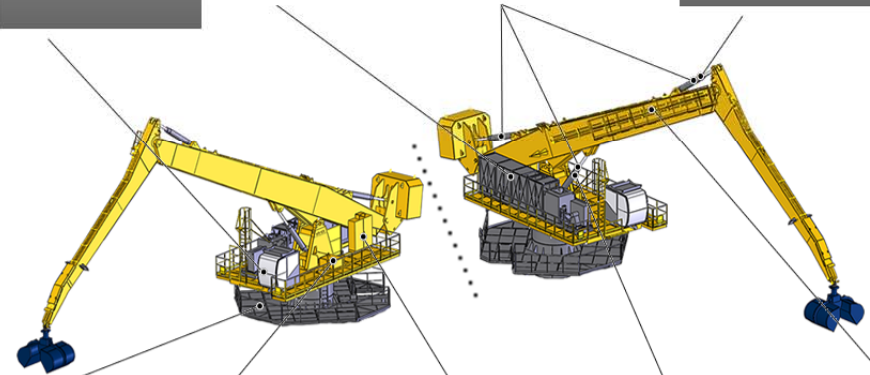
All the main components of the crane have an **easy access**

**The SERAM DATA**  
(System of assistance to diagnosis)  
Direct location on the dashboard of the cabin

**THE HYDRAULIC UNIT**  
Direct access from the lateral platform

**A SINGLE CYLINDER**  
(The 3 cylinders are identical and interchangeable)

**DIPPER ARM CYLINDER**  
Direct access from the maintenance walkway



**THE RING GEAR**  
(External toothing / 100% visible)  
Direct access from the intermediate platform

**THE SWING MOTOR**  
Direct acces from the lateral platform

**THE ELECTRIC CABINET**  
(Raised cabinet to have an easier access to the cables)  
Direct acces from the lateral platform

**MAIN ARM CYLINDER**  
Direct access from the central platform

**LUBRICATION**  
(Centralized manual lubrication points on the maintenance walkway)



# SPECIFICATIONS

## MAIN FEATURES

|                             | S80.20E |             | S80.25E |             |
|-----------------------------|---------|-------------|---------|-------------|
| Power                       | 80 t.m  | 26.9 USt.ft | 80 t.m  | 26.9 USt.ft |
| Maximum horizontal outreach | 20 m    | 66 ft       | 25 m    | 82 ft       |
| Length of the main arm      | 11.5 m  | 38 ft       | 14 m    | 46 ft       |
| Length of the dipper arm    | 8.5 m   | 28 ft       | 11 m    | 36 ft       |

## ELECTRIC MOTOR

|                  |  |
|------------------|--|
| Power            | 110 kW (400 volts - 50 hertz) / (480 volts - 60 hertz) |
| Type of starting | By variable frequency drive                            |

## DIESEL GENERATOR

(For crawlers only)

|       |         |
|-------|---------|
| Power | 210 kVA |
|-------|---------|

## HYDRAULIC SYSTEM

|                              |   |
|------------------------------|---|
| Type of the hydraulic system | Load Sensing                                      |
| Hydraulic pumps              | Regulating pumps with Load Sensing regulation     |
| Pump flow for the movements  | 415 l/min / 110 gal/min                           |
| Average working pressure     | 140 Bars / 2030 psi                               |
| Pump flow for the rotation   | 155 l/min (dedicated closed circuit) / 41 gal/min |
| Maximum rotation speed       | 5 tr/min  |
| Hydraulic tank               | 775 l / 205 gal                                   |
| Cooling                      | Oil/Air heat exchanger                            |

## WORKING EQUIPMENT

|                     |  |
|---------------------|--|
| Hydraulic cylinders | 250 x 140 x 1415 mm / 9.8 x 5.5 x 55.7 in        |
| Swing motors        | Radial piston engine with hydraulic safety brake |
| Ring gears          | Crossed rollers with external toothing           |

## SUPPORT

|                                  |  |  |
|----------------------------------|--|--|
| <b>Fixed support (F)</b>         | Support fixed on a concrete base                     |  |
| Dimensions of the anchoring base | 4000 x 4000 mm / 13.1 x 13.1 ft                      |  |
| Forces applied on the ground     | Fz= 768kN; Mx=1650kN.m*<br>172.7 kipf, 405659 lbf.yd | Fz= 770kN; Mx=1770kN.m*<br>173.1 kipf, 435162 lbf.yd |
| Total weight of the machine      | 64 t / 71 USt  | 68 t / 75 USt  |

## Free Standing support (AS)

Support on 4 shoes - No ground anchoring needed - Can be moved if needed

|                                  |   |                        |
|----------------------------------|---|------------------------|
| Dimensions                       | Base: 5500 x 5500 mm / 18 x 18 ft<br>4 shoes: 1500 x 1500 mm / 4.9 x 4.9 ft |                        |
| Maximum forces applied on a shoe | Fz= 335kN* / 75.3 kipf  | Fz= 430kN* / 96.7 kipf |
| Total weight of the machine      | 78 t / 86 USt   | 82 t / 90 USt          |

## Trolley on rails (C)

Trolley equipped with 4 boggies, with 2 wheels each

|                                    |  |                        |
|------------------------------------|--|------------------------|
| Dimensions                         | Wheel base: 5500 x 5500 mm / 18 x 18 ft<br>Wheels of boggies Ø630mm / 2.1 ft |                        |
| Maximum forces applied on a boggie | Fz= 338kN* / 76 kipf   | Fz= 435kN* / 97.8 kipf |
| Total weight of the machine        | 85 t / 94 USt  | 89 t / 98 USt          |

## Crawlers (Ch)

Base: 5500 x 6000 mm / 18 x 19.7 ft  
Width of the crawlers: 600 mm / 2 ft  
Speed: 0 to 2 km/h / 0 to 1.22 mph

|                             |                        |                        |
|-----------------------------|------------------------|------------------------|
| Pression on the ground      | 14.7 N/cm** / 21.3 psi | 15.3 N/cm** / 22.2 psi |
| Total weight of the machine | 106 t / 117 USt        | 110 t / 121 USt        |

## EQUIPMENTS

### ACCESS

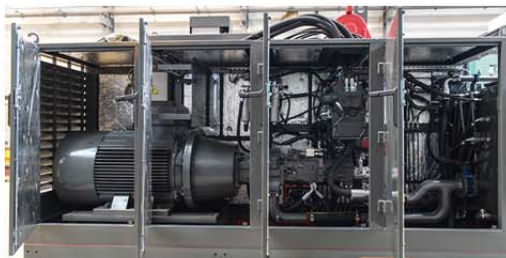
|  |     |
|--|-----|
| Access ladder to the intermediate platform   | ●   |
| Access stairway to the intermediate platform | Opt |
| Maintenance walkway                          | ●   |

### HYDRAULIC UNIT

|  |     |
|--|-----|
| Lateral and upper openings allowing a total access to the hydraulic unit     | ●   |
| Motor pump support equipped with an anti-vibration system - Noise mitigation | ●   |
| Enhanced cooling   | Opt |
| Sound insulation   | Opt |

### HYDRAULIC EQUIPMENTS

|  |     |
|--|-----|
| Cylinders - Single piece chrome steel rods                     | ●   |
| Cylinders - equipped with safety valves and with load limiters | ●   |
| Automatic lubrication of the joints and cylinders              | ●   |
| Automatic lubrication of the tracks and rollers of the gear    | Opt |
| Automatic lubrication of the toothing of the gear              | Opt |



## OPERATING CABIN

### VISIBILITY

|   |   |
|---|---|
| Panoramic windshield                    | ● |
| 2 Pantograph wipers + windshield washer | ● |
| Adjustable sun shades                   | ● |

### COMFORT

|  |     |
|--|-----|
| Reversible air conditioning on the roof of the cabin | ●   |
| Additional fan heater                                | ●   |
| Heat-insulating laminated glass type Securit         | ●   |
| Lateral polycarbonate glazing                        | Opt |
| Interior lighting                                    | ●   |
| FM radio station / MP3 player                        | ●   |
| Briefcase  | ●   |
| Hydrocarbon resistant, textured floor mat            | ●   |
| Electrical outlets 220 volts / 110 volts             | ●   |
| 12V cigare lighter socket                            | Opt |
| Communication radio                                  | Opt |
| Starting with breath test                            | Opt |
| Pressurization system of the cabin                   | Opt |
| Customer's logo on the arm                           | Opt |



### ELECTRICAL EQUIPMENTS

|   |     |
|---|-----|
| Hydraulic collector - 4 power slip rings 3ph+t  | ●   |
| Hydraulic collector - Additional switching ring | Opt |
| High Voltage / Low Voltage transformer          | Opt |

### OPTIONS

|  |     |
|--|-----|
| Handling tools (grapple, clamshell, etc) | Opt |
| Automatic Weighing system                | Opt |
| Fire hose protection                     | Opt |



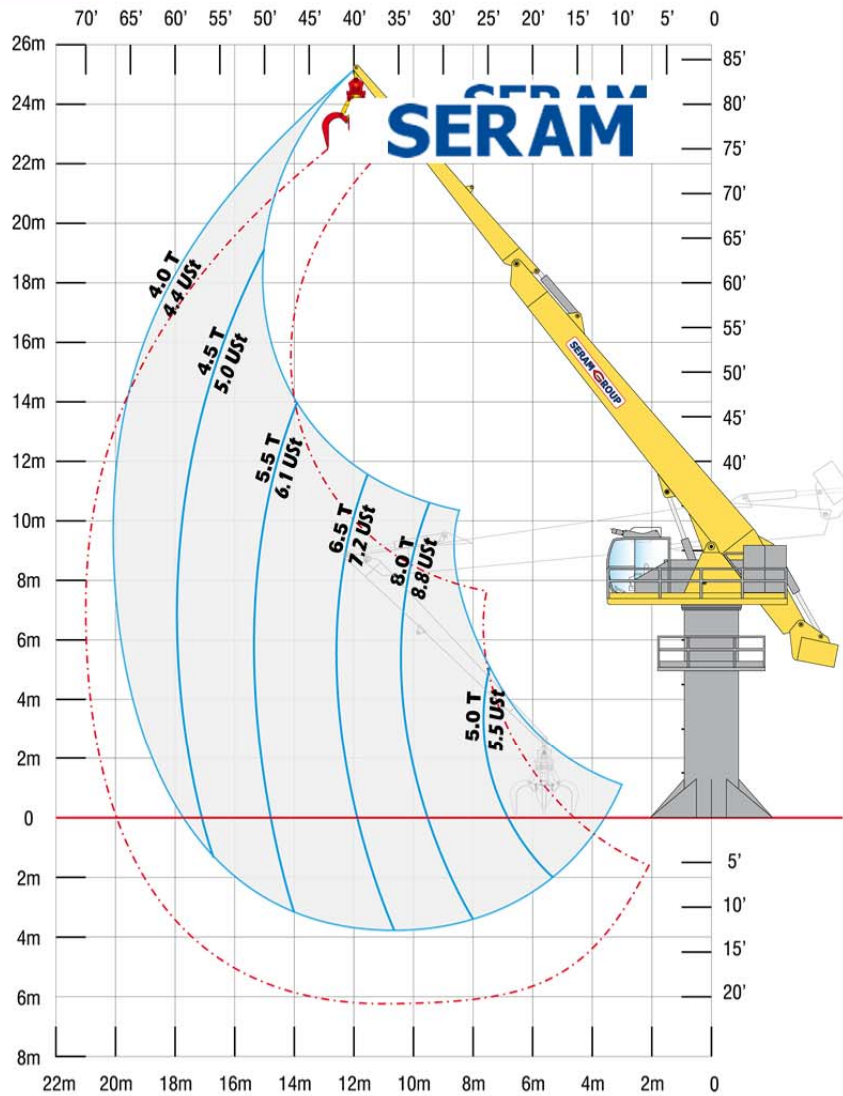
### ERGONOMICS

|  |     |
|--|-----|
| Ergonomic suspension seat                        | ●   |
| Adjustable backrest and armrests                 | ●   |
| Adjustable footrest                              | ●   |
| Operating and control panel of the crane         | ●   |
| Hydraulic joysticks on the armrests              | ●   |
| SERAM DATA : Control and defect recording module | ●   |
| SERAM DATA : GSM module for remote supervision   | Opt |
| SERAM VISION : camera support                    | Opt |
| Anti-collision system: driving assistance        | Opt |
| Cabin extension                                  | Opt |
| Guard screen for the windshield                  | Opt |
| Lighting of the working area: 2 x 400W           | ●   |
| Additional lighting                              | Opt |



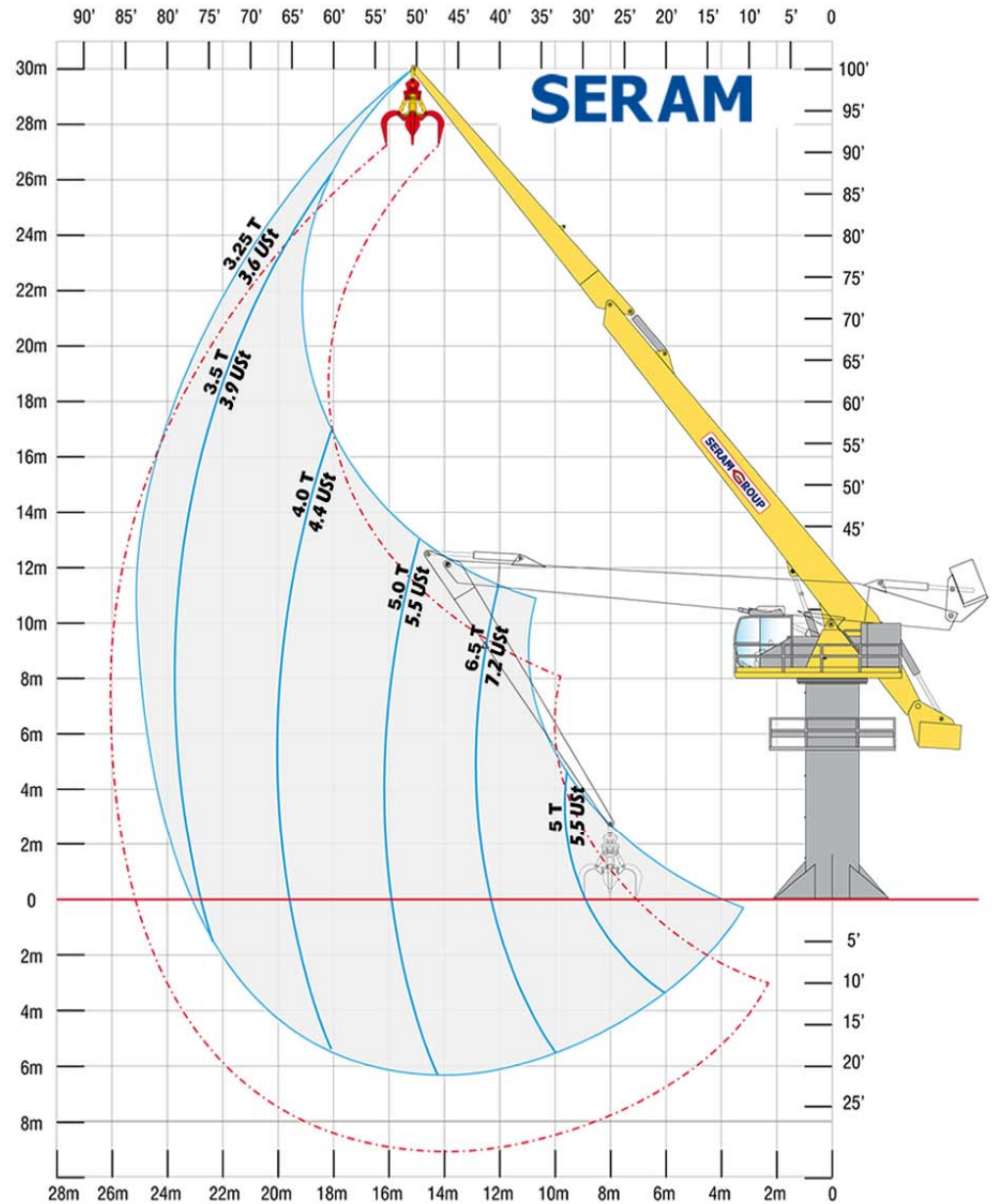
# ABAQUES DE CHARGES

**S80.20E**



Load charts in Metric Tons and US Tons, valid at the end of the crane's boom without handling tool. According to the A8M8 classification of the FEM (European Federation of Materials Handling). The loading capacities are valid on a 360° working area.

**S80.25E**



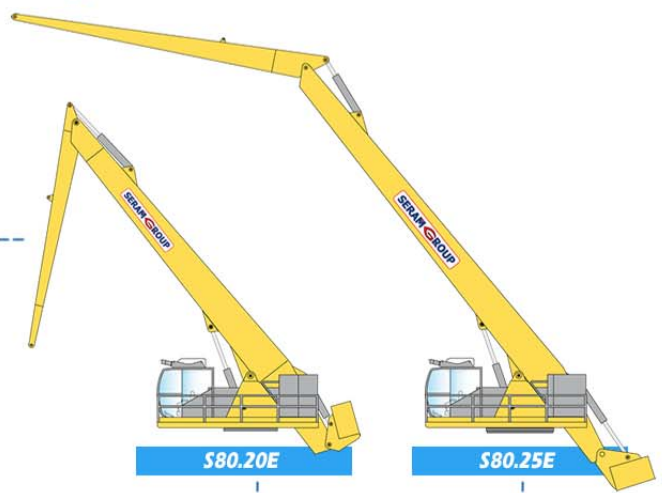
Load charts in Metric Tons and US Tons, valid at the end of the crane's boom without handling tool. According to the A8M8 classification of the FEM (European Federation of Materials Handling). The loading capacities are valid on a 360° working area.

### Type of tools



Grapple  
Clamshell  
Electromagnet  
Timber grapple

### Type of boom



S80.20E

S80.25E

### Type of cabin



King 25

### Type of engine



Electro-Hydraulic

### Power supply options



Diesel generator

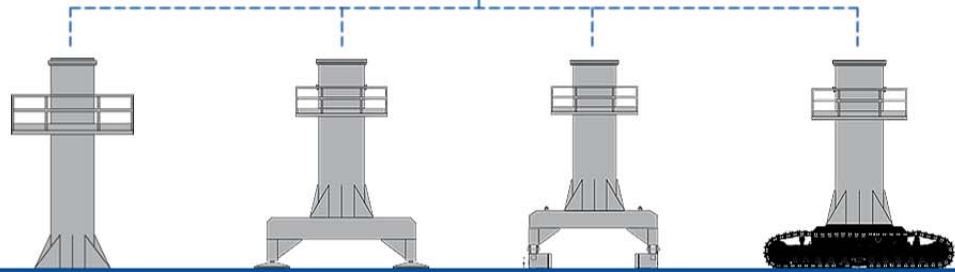


Transformer



Cable reel

### Type of supports

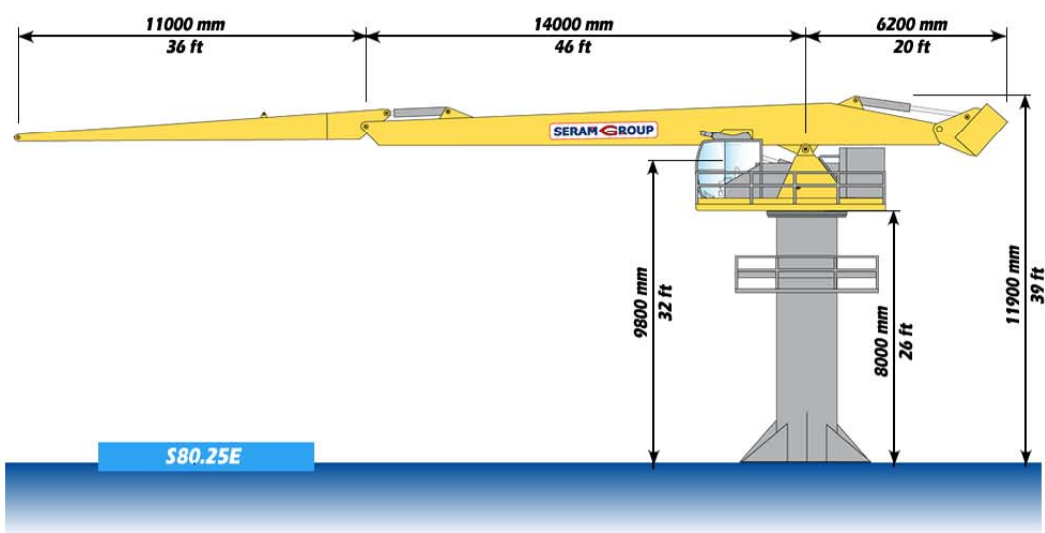
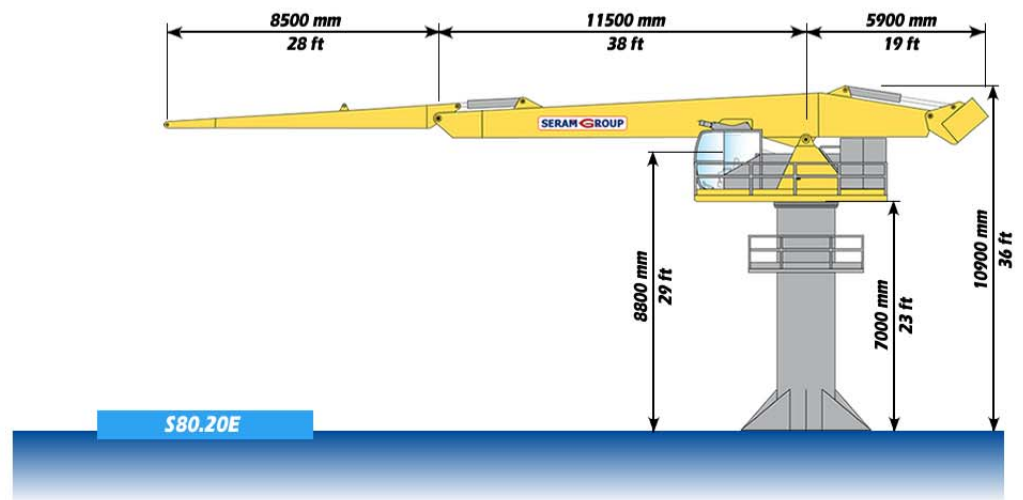


Fixed support (F)

Free Standing (AS)

Trolley on rails (C)

Crawlers (Ch)



# EXAMPLES

## S80

S80.20E / S80.25E



# S80

S80.20E / S80.25E



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