

**LOADSTAR**

# A Star is Born!

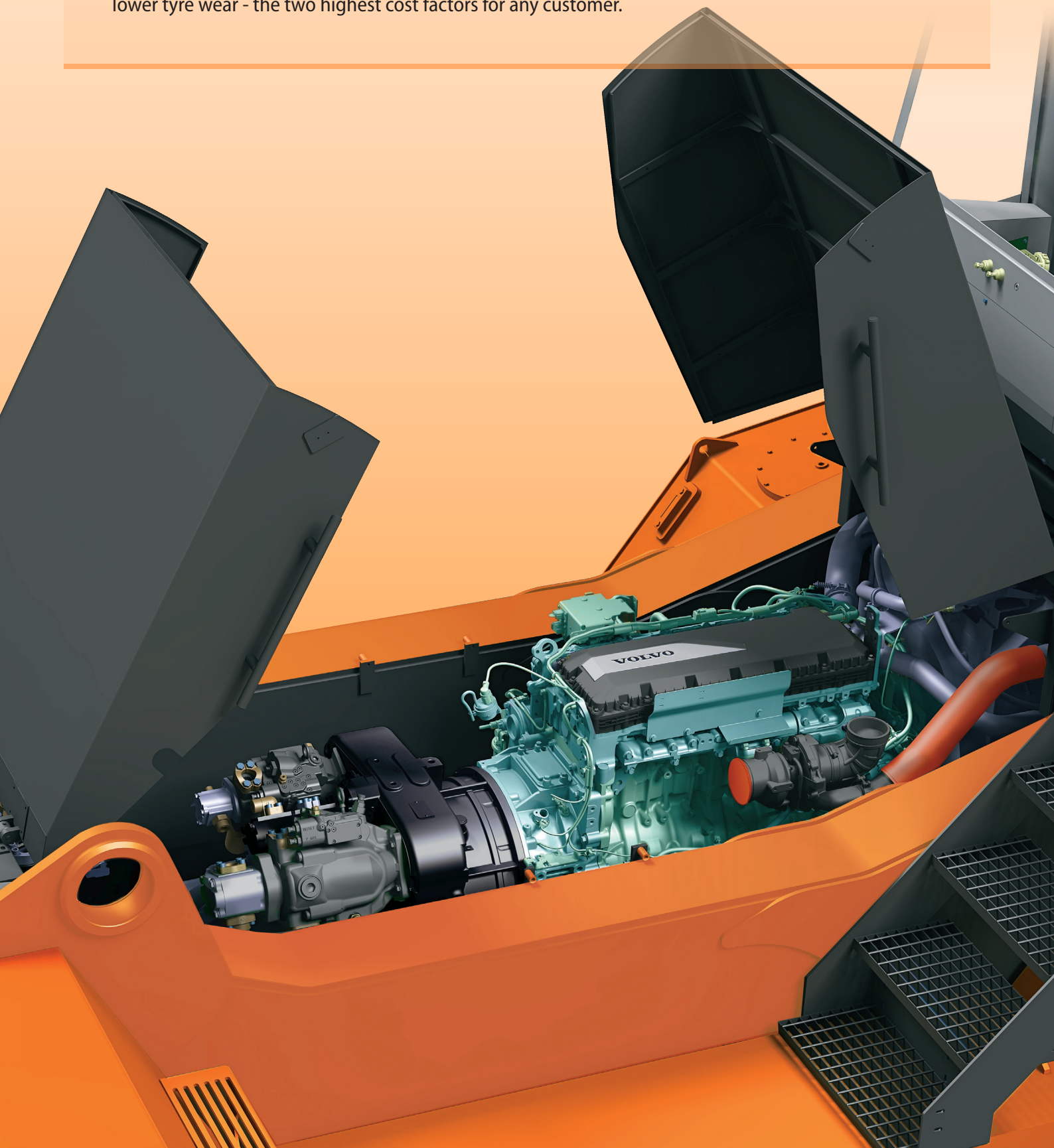


**LOADSTAR LS RS 4532 REACH STACKER**



Loadstar has been able to successfully bring down the total machine weight to less than 70t, made possible thanks to in-depth FEM analysis and by employing extra high-tensile steel for the extension boom. Spreader weight has also been brought down to within 8t.

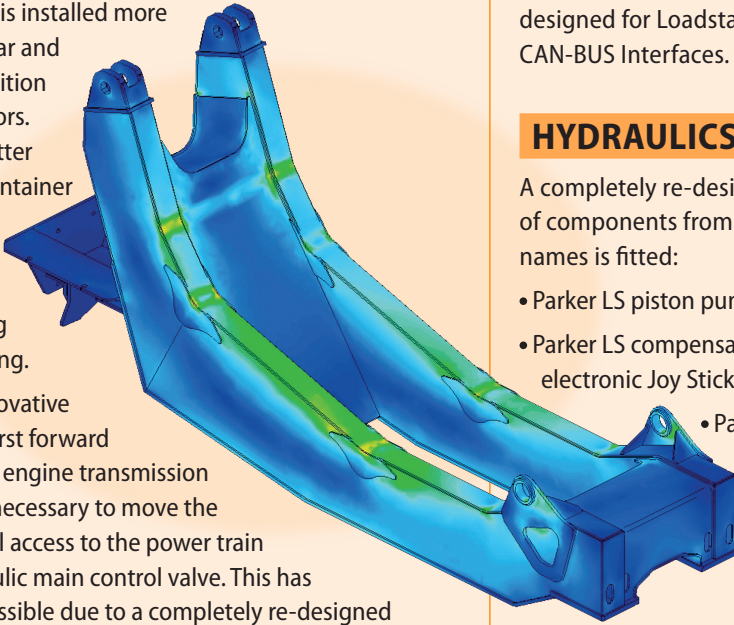
These pioneering features translate to a lighter counter weight and less weight on both axles to deliver reliability and easier handling performance. Features that also effectively reduce fuel consumption and lower tyre wear - the two highest cost factors for any customer.



## CHASSIS FRAME

A very novel Truck concept lay out has been incorporated:

- The Driver cab is installed more towards the rear and at a higher position than competitors. This gives a better view during container stacking in 4 and 5 high positions and also during reverse travelling.
- Due to the innovative and Industry first forward location of the engine transmission pack, it is not necessary to move the cab to have full access to the power train and the hydraulic main control valve. This has been made possible due to a completely re-designed Chassis frame with extensive FEM analysis.
- Two bonnets with gas springs giving the complete access to the compartment, makes periodical service a breeze.
- **The innovative trough shaped chassis frame design which is an Industry first, permits the engine to have a 30% exposure over and above the unique chassis frame. This feature adds more access to power train.**
- The new cabin position also ensures zero heat radiation from the Engine to the cab floor.



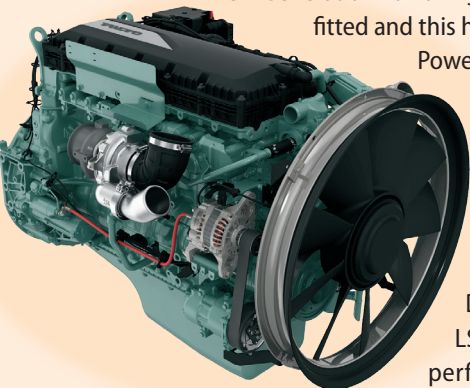
## DESIGN

The LSRS 4532 model has been meticulously designed by a renowned Italian design house specialized in the field of material handling equipment. The design conforms to DIN 15018/EN 1459 pertaining to steel structures in Crane design and stability verification while handling freight containers. For the structures detailed FEM analysis has been carried out for the most critical stacking and travelling conditions. Chassis model with constraints while stacking is shown in figure.

## DRIVELINE

A New Generation Volvo Engine TAD 853 VE - 235 kW is fitted and this has the highest Specific Power when compared to the models fitted by the competition. Coupled to the latest DANA TE 30 (5+3 speed) Powershift Transmission and the Industry leading all new heavy duty Drive Axle from AXLETECH, LSRS 4532 gives amazing performance levels setting

bench marks in this industry. Due to the power train and hydraulic-electronic system the fuel consumption will be



10% less than many other competitors

The entire Truck Management including Engine, Transmission, Hydraulics and Load Moment Limiter has been custom designed for Loadstar by Dana Power Electronics via the CAN-BUS Interfaces.

## HYDRAULICS

A completely re-designed hydraulic system comprising of components from the best international brand names is fitted:

- Parker LS piston pumps.
- Parker LS compensated main control valve and electronic Joy Stick.
- Parker cylinder valves (regenerative system on lifting boom cylinder valve.
- Danfoss LS steering unit.
- Argo Hytos oil filtration system.
- Bondioli & Pavesi transmission and hydraulic system oil coolers.
- SAFIM hydraulic brake system and brake pedals

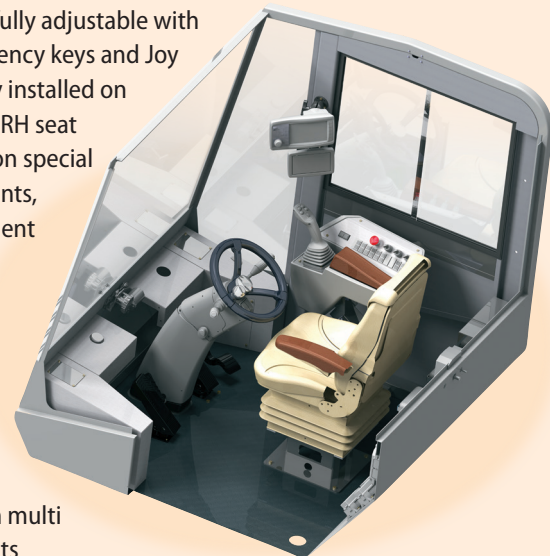
## CABIN

Fitted with a specially developed ultra-modern cabin, that undergoes a 7 stage phosphating treatment to withstand the harsh Indian tropical atmosphere. Has an extremely high all round visibility due to the clever and minimal use of steel structure permitting maximum glass area. The front corner posts are manufactured with high strength solid steel that gives a slim design and good visibility almost near to glass to glass bonding which is prone to issues.

The driver's seat is fully adjustable with all switches, emergency keys and Joy Stick ergonomically installed on a custom designed RH seat armrest. Mounted on special AMC vibration mounts, the cabin has excellent vibration isolation.

The AMA steering column is provided with both angular and height adjustments. Two 7" colour display units are fitted with multi position adjustments to give the operator excellent visibility.

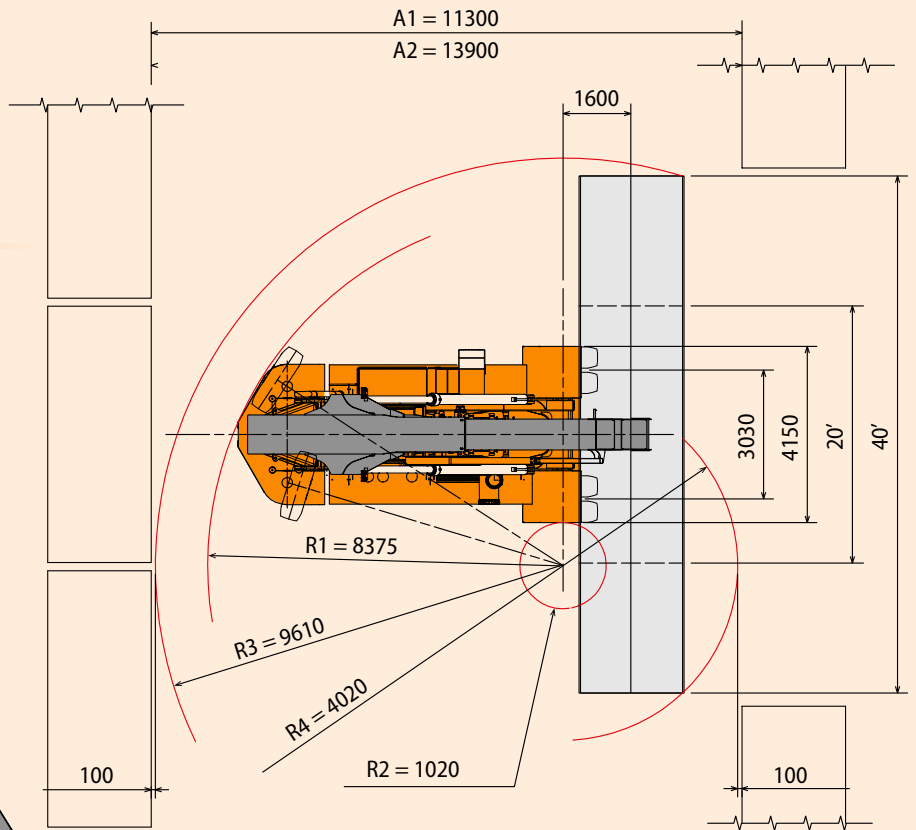
The 1st display gives details on Engine data, Engine diagnostics, Transmission data, information of the power train including engine, transmission and hydraulic system alarms and general truck details. The 2nd display is dedicated to Machine safety. The LMI parameters, indication of malfunctions/operator mistakes, container location and Data Logger are a few of the features handled in this display.



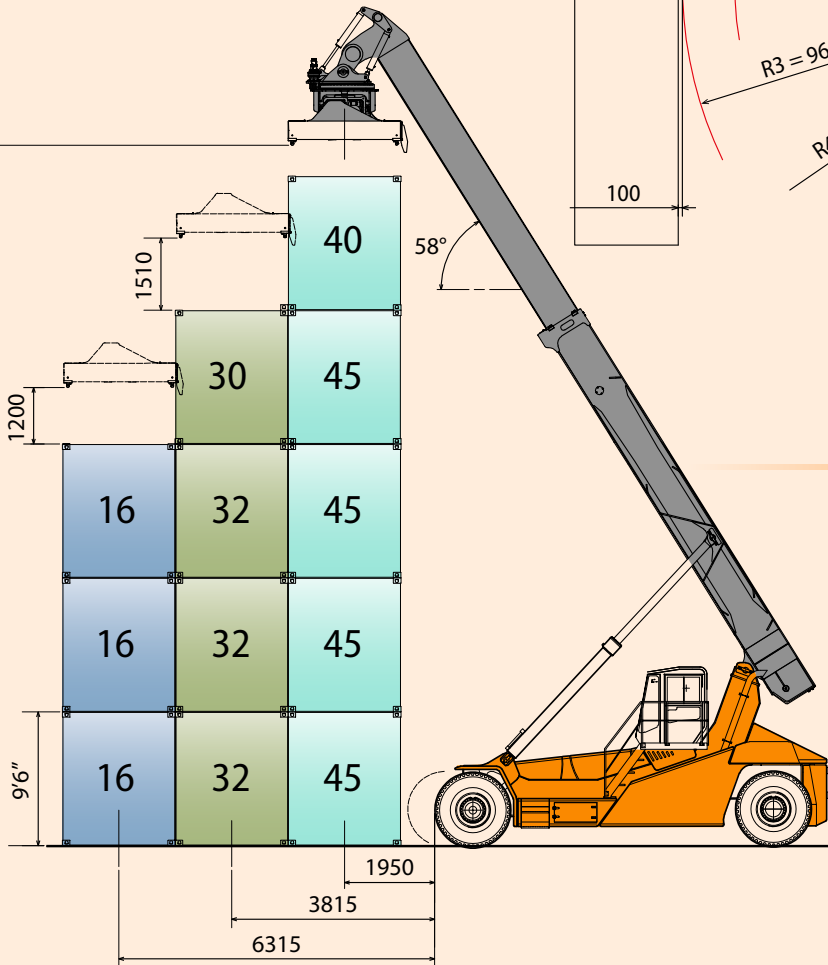
| <b>LIFTING DATA</b>  |          |                      |
|--|----------|----------------------|
| Lifting capacity at load centre L4, rated - at max lifting height      | Kg       | 45,000-40,000        |
| Lifting capacity at load centre L5, rated-at max lifting height        | Kg       | 32,000-30,000        |
| Lifting speed, unloaded - at 70% of rated load                         | m/s      | 0.34 - 0.22          |
| Lowering speed, unloaded - at rated load                               | m/s      | 0.36 - 0.36          |
| <b>DRIVING DATA</b>  |          |                      |
| Travelling speed forward, unloaded - at rated load                     | km/h     | 25 - 23              |
| Travelling speed backward, unloaded - at rated load                    | km/h     | 17 - 16              |
| Gradeability, at 2 km/h unloaded - at rated load                       | %        | 34 - 21              |
| Max gradeability, unloaded - at rated load                             | %        | 50- 31               |
| Max drawbar pull   | kN       | 374                  |
| Stability according to   |          | EN 1459-ISO 1074     |
| <b>WEIGHT OF TRUCK</b>   |          |                      |
| Service weight   | Kg       | 69,800               |
| Axle load front - rear axle , unloaded                                 | Kg       | 36,000-34,000        |
| Axle load front at load centre L4, unloaded - at rated load            | Kg       | 36,000-100,400       |
| Axle load front at load centre L5, unloaded - at rated load            | Kg       | 40,400-95,500        |
| Axle load front at driving position according to EN 1459 at rated load | Kg       | 88,400               |
| Axle load rear at load centre L4, unloaded - at rated load             | Kg       | 34,000-14,600        |
| Axle load rear at load centre L5, unloaded - at rated load             | Kg       | 28,600-6,500         |
| Axle load rear at driving position according to EN 1459 at rated load  | Kg       | 26,600               |
| <b>ENGINE</b>  |          |                      |
| Manufacturer - Model   |          | Volvo - TAD 853 VE   |
| Fuel - type of engine  |          | Diesel - 4 stroke    |
| Number of cylinders - displacement                                     | L        | 6 - 7.70             |
| Power according ISO 3046 at revs                                       | kW/rpm   | 235/2200             |
| Torque according ISO 3046 at revs                                      | Nm/rpm   | 1310/1200 -1700      |
| Alternator   | Volt-Amp | 28-110               |
| Starting battery, voltage-capacity                                     | V-Ah     | 2x12 -180            |
| Fuel consumption   | l/h      | Ave. 14-18           |
| <b>TRANSMISSION</b>  |          |                      |
| Manufacturer - Model   |          | Dana - TE 30         |
| Clutch, type   |          | Torque converter     |
| Gear box, type   |          | Power shift          |
| N° of gears, forward - reverse   |          | 5 - 3                |
| Driving axle, Make/Model   |          | Axletech/PRC 7545    |
| <b>WHEELS</b>  |          |                      |
| Type   |          | Pneumatic            |
| Tyre size  |          | 18.00-25 40 PR       |
| N° of wheels, front - rear   |          | 4 - 2                |
| <b>MISCELLANEOUS</b>   |          |                      |
| Steering system, type  |          | Servo assisted       |
| Service brake, type  |          | WDB - drive wheel    |
| Parking brake, type  |          | Spring - drive wheel |
| Max hydraulic pressure   | Mpa      | 32                   |
| Noise level according to DIN 45635, inside cabin                       | dba      | 72-76 dB(A)          |
| Noise level according to 2000/14/EC, outside cabin                     | dba      | 107-110 dB(A)        |
| Fuel tank capacity   | L        | 500                  |
| Hydraulic oil tank capacity  | L        | 800                  |
| Overload protection  |          | Electronic           |



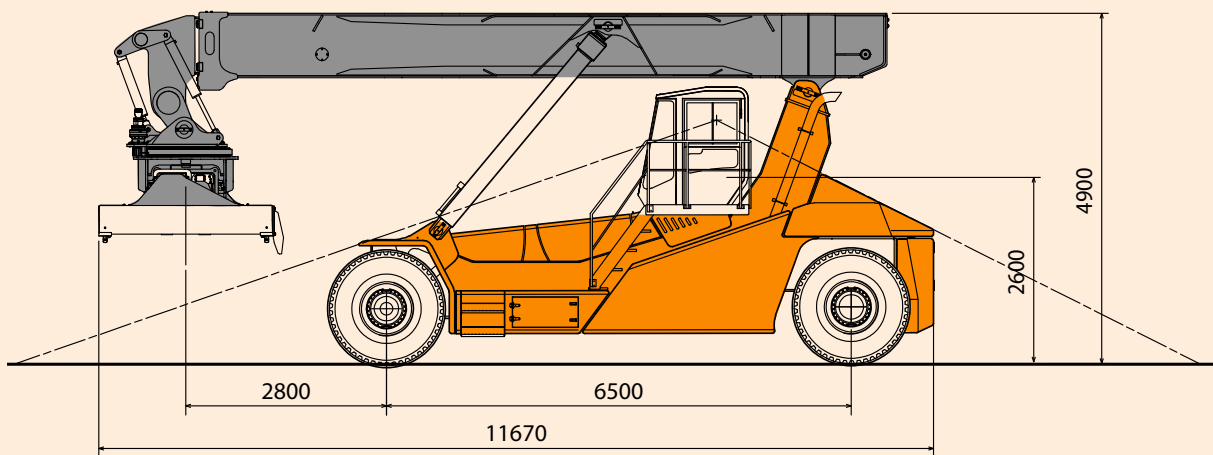
## TURNING RADII



## LOAD CHART



## DIMENSIONS





Experience, Knowledge and Wisdom lays the foundation to create a better product with optimum efficiency, translating into higher returns on Investment. That, in a nutshell, is the reason why Loadstar was born.

Loadstar Equipment, though a young company comes with 85 years of hands-on experience. Set up to primarily manufacture container handling Reach Stackers and heavy duty Forklift Trucks, the company has Promoters who have not only revolutionized Container Handling in India 25 years ago, but also gave Asia its first Reach Stacker.

Loadstar Reach Stackers are built to last. They come with a host of safety features and the backing of strong service support, making them perfectly suited for emerging markets. A product so well thought out, they are designed to achieve maximum returns with minimum downtime - well justifying the investment.

## **LOADSTAR**

*"Where Perfection is Standard"*



**Loadstar Equipment Pvt Ltd**

#10-B, 2nd Phase, Peenya Industrial Area,  
Bangalore 560 058, India

Tel: +91 80 28375331

Email: [info@loadstar.in](mailto:info@loadstar.in)

Web: [www.loadstar.in](http://www.loadstar.in)