### **REACH STACKER G-CLASS**



SANY

A EUROPEAN PRODUCT 04 | 05 Accumulated European expertise.

High-quality equipment as standard.

COMFORT CABIN FOR OPEATORS 06 | 07

# DON'T ACCEPT ANYTHING LESS.

**IN-HOUSE STEEL ENGINEERING** 

### **QUALITY CHANGES THE WORLD**

SANY has the ambition and the resources to provide the market with refreshing alternative products developed and manufactured to the highest European standards and requirements. Quality, reliability and top customer service are our guiding principles. The SANY Europe team accompany every project from development through to delivery. Maximum customer satisfaction is our aim so we support you all the way from the initial consultation through to operation of your new reach stacker.

# MAXIMUM SAFETY 08 | 09 For safe and efficient operation. INTELLIGENT TECHNOLOGY 10 For easy maintenance and compliance to the latest emission standards. SPECIFICATIONS 11 | 15 **IN-HOUSE SPREADER PRODUCTION** SANY

4.000 UNITS IN 12 YEARS

**HIGHEST PRODUCTION WORLDWIDE** 

**5-YEAR WARRANTY** 



## A EUROPEAN PRODUCT.

## 5-YEAR GUARANTEE ON PORT MACHINERY FROM 2018

- No unexpected costs for reliability-related repairs during the first 5 years/10,000 operating hours.
- When SANY is prepared to provide 5-year warranty, it must be very confident of the reliability of its products.

### EXTENSIVE EXPERIENCE IN REACH STACKERS BASED ON THE PRODUCTION OF 4.000 VEHICLES IN 12 YEARS

- No other reach stacker manufacturer has produced so many vehicles.
- A multitude of opportunities taken to continuously improve the product.
- Reach stackers have been designed and adapted to a wide range of operational conditions.

### SANY PRODUCES ANNUALLY MORE REACH STACHERS THAN ANY OTHER COMPETITOR.

- Customers gain from high volume production.
   Standard equipment from SANY comes only at a surcharge from competitors.
- Line-production is more efficient. Routine and optimization improves the production quality.

### **IN-HOUSE SPREADER PRODUCTION**

- For reach stackers and empty container handlers, SANY offers a choice between Elme and SANY spreaders.
- SANY spreaders undergo continuous testing on an industry-leading test rig prior to line production and delivery to the customer.

# IN-HOUSE STEEL ENGINEERING FOR COMPONENT DURABILITY

- Booms and frames are developed, tested and manufactured within SANY facilities. This allows full quality control and fast improvement cycles.
- Many of the SANY reach stackers have proven their durability in harsh conditions in major Asian ports and have already been in operation for several 10,000 hours without any signs of fatigue.



# THE MOST SPACIOUS CABINS.

#### **OPERATOR CABIN**

The cabin is designed to accommodate the natural movements of operators. Frameless windscreen offer operators an unsurpassed and unrestricted view of the work environment. The sliding cabin enables operators to select their desired position.

#### THE SEAT

The seat is easily adjusted to suit any size of operator. An optional premium seat is available with automatic weight adjustment, heating and electrical adjustable lumbar support. A comfortable buddy seat is also available.

### **NOISE LEVELS**

Sound insulation exceeds the most stringent of industry standards. Working comfort is thereby enhanced and premature operator fatigue avoided.

### **ERGONOMICS**

The Grammer seat is adjustable to any position, and available with air suspension. The steering wheel has a 2-way adjustment to ensure optimum operating comfort.

### **LIGHT SYSTEM**

Good visibility means safe operation! SANY equips its Reach Stackers with 18 LED lights as standard – for optimum visibility in any environment, day or night.









### **REVERSING CAMERA**

Keeping the overview with SANY. The reversing camera activates automatically when reverse gear is engaged. The display on the control console gives an unrestricted view and enables safe manoeuvring in any direction. Especially advantageous in congested and confined spaces. Park sensors are also available.

### **CUSTOMISED**

SANY knows the force of habit and therefore a multitude of joystick configurations. Each operator is then able to select the configuration most familiar and comfortable to them.





# NO COMPROMISES ON SAFETY.

### **MULTIPLE ANTI-TIPPING FEATURES**

When the stacker is loaded and at maximum reach, electronic control prevents further extension to ensure tipping stability. If the operator then switches to an extended load range, an extra safety system using sensors in the rear axle linkage activates to prevent tipping.

### **ALL-ROUND VISIBILITY**

An optional camera system around the reach stacker aids precision manoeuvring and safety. An additional display in the control panel offers operators optimum all-round visibility of the work site.

### **CAMERAS FOR INTERMODAL APPLICATIONS**

Additional cameras are mounted on each side of the spreader providing a unique view of the system's key functions to enhance productivity and safety.

### **SAFETY CAN BUS**

Two redundant CAN buses facilitate data traffic. Any interference signals are detected and intercepted by a control system.



# EASY MAINTENANCE.

### **OUTSIDE MONITOR/DISPLAY**

A compact outside monitor provides information about fuel level, the number of container corner connections and operating hours.

### SEPARATE SYSTEMS FOR HYDRAULIC AND BRAKE OIL

A separate brake oil circuit limits contamination and prevents brake chatter. Checking oil levels is easy via a clearly visible display.

### TIRE PRESSURE MONITORING AND DIAGNOSTICS ASSISTANCE

A tire pressure monitoring system allows quick detection of air leaks. An optional remote monitoring system with operator recognition records positional data every 30 seconds. Fast diagnostics are possible via a main display and remote support.



# STATE-OF-THE-ART AND ECO-FRIENDLY TECHNOLOGY.

### **LOAD SENSING**

A load-sensing hydraulic system precisely delivers power according to operation demands. Two double variable displacement pumps using a load-sensing proportional valve reduce fuel consumption.

### **CLEAN AIR, EU STAGE IV**

A broad rpm range gives constant power and delivers full engine power already at 1450 rpm, for fuel-efficient, full-power operation in the mid rpm range.

### **SOLAS COMPLIANT WEIGHING SYSTEM**

An established and robust system enables weighing of entire containers while manoeuvring. The weight is linked to the container number and the data is transferred for further processing.

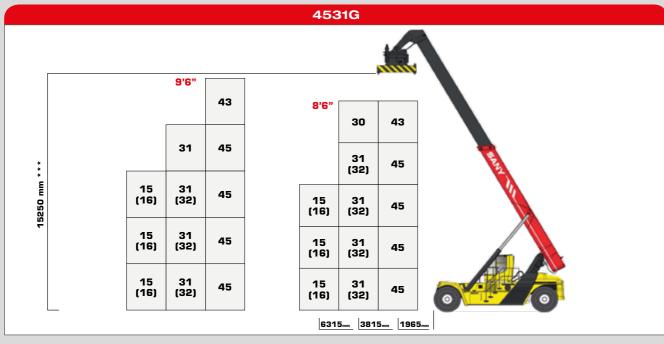
# STANDARD EQUIPMENT.

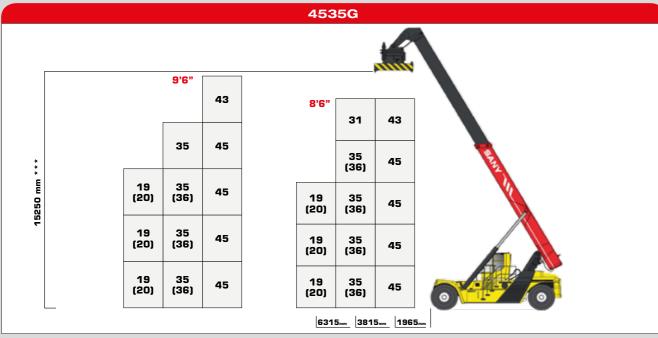
- Volvo TAD 1171 VE EU Stage IV
- Dana gearbox 15.5 HR 36000
- Drive axle Kessler D 102 PL 341 (D106 for model SRSC4540 / 4540-P)
- Top lift spreader ELME817 or SANY 450G
- · Electro-hydraulic sliding cabin
- LED light system: 18 LED lights and brake/indicator/reverse lights
- Rotating amber beacon
- Reversing camera
- · Full CAN BUS system for data transfer
- CAN BUS diagnostics for main components
- Head up display
- Radio pre-sets
- State-of-the-art monitor with high-resolution display
- · Filter status indicator
- Redundant CAN-BUS joystick for fail-safe control of boom and spreader
- · Grammer seat
- 2-litre fire extinguisher
- Air conditioning
- · Sun curtain on roof window
- Load sensing hydraulics
- · Two double hydraulic variable displacement pumps

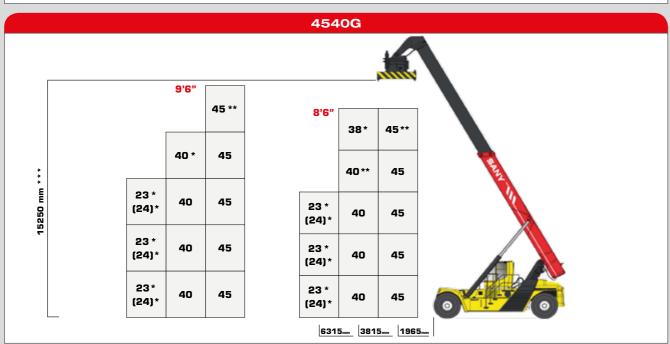
# OPTIONAL EQUIPMENT -MAIN OPTIONS.

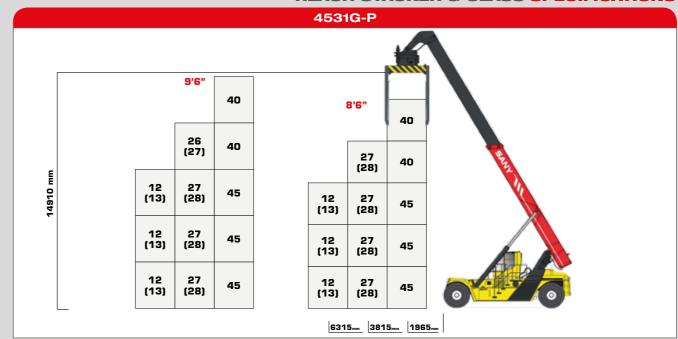
- Movable counterweight for additional lifting capacity
- · Elme intermodal spreader, model 857
- Overheight folding legs, ELME spreader model 817-MPS/OFL
- Automatic engine compartment fire extinguishing system
- 30' stop on spreader
- · Integrated all-round vision camera system
- Rear distance sensors
- · Grammer seat with air suspension, electrical adjustment of lumbar support and seat heating
- · Co-driver seat with safety belt
- Additional cabin heating
- Winter package for cold climates
- Central lubricating system
- Radio system with CD player, Bluetooth, SD card reader, MP3
- Piggyback camera system
- Outside monitor/display
- Customised painting

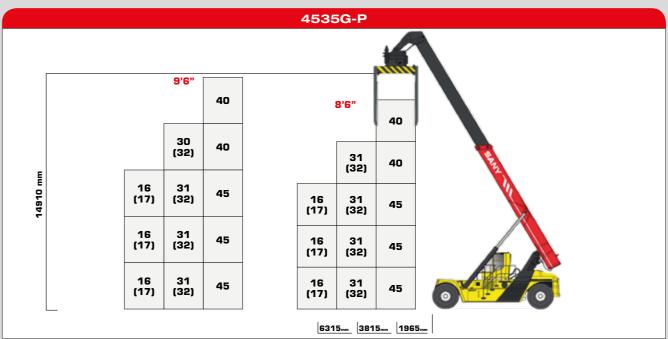


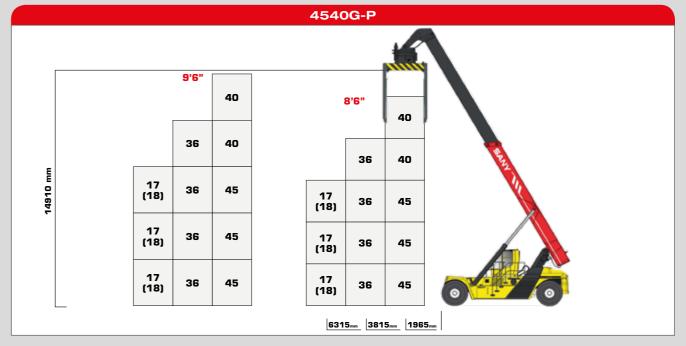










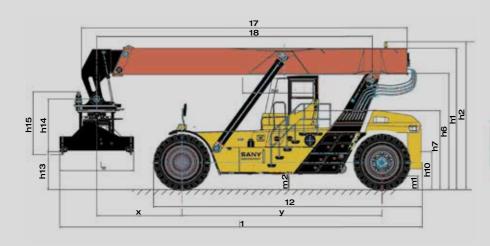


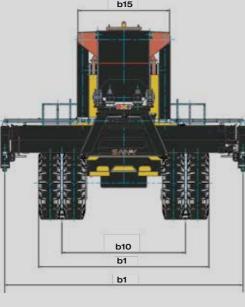
DRIVE TRAIN				
Model	4531G / 4531G-P	4535G / 4535G-P	4540G / 4540G-P	
Engine	Volvo TAD 1171VE			
Emmission Level	EU Stage IV			
Engine Power	265 kW bei 1450 - 2100 U/min			
Engine Torque	1785 Nm bei 1260 U/min			
Transmission	Dana HR36000 Dana TE32			
Number of Gears	4F/4R			
Transmission Features	automacit powershift, torque converter			
Front Axle	Kessler D102		Kessler D106	
Noise Level Cabine LpA	72 dB/(A)	72 dB/(A)	72 dB/(A)	
Noise Level outside LwA	104 dB/(A)	104 dB/(A)	104 dB/(A)	

WEIGHTS WITH TOP-LIFT SPREADER ELME 817 / SANY SDJ450G					
	unit	4531G	4535G	4540G	
Service-weight with ELME spreader, without load	kg	75500	79500	81900	
Service-weight with Sany spreader, without load	kg	74100	78100	80500	
Axle Load, with empty Spreader (front / rear) *	kg	36526 / 37574	37600 / 40500	36600 / 43900	
Axle Load with max. Load in L1 (front / rear) *	kg	103500 / 15600	101600 / 21500	98680 / 26820	
Axle Load with max. Load in L2 (front / rear) *	kg	96300 / 8800	101100 / 12000	107940 / 12560	
Axle Load with max. Load in L3 (front / rear) *	kg	80700 / 8400	87100 / 10000	92890 / 10610	
PERFORMANCE					
maximum Lift Capacity	t	45	45	45	
Stacking Height (number of containers)		5	5	5	
Lifting Speed unloaden / loaden	m/s	0,42 / 0,22	0,42 / 0,22	0,42 / 0,22	
Lowering Speed unloaden / loaden	m/s	0,5 / 0,4	0,5 / 0,4	0,50 / 0,40	
maximum TractionForce	kN	335	300	350	
Driving Speed no-load / with load	km/h	25 / 21	25 / 18	25 / 21	
Gradeability unloaden / loaden	%	39 / 28	38 / 24	43 / 28	

WEIGHTS WITH INTERMODAL SPREADER ELME 857					
	unit	4531G-P	4535G-P	4540G-P	
Service Weight	kg	78650	83900	86300	
Axle Load, with empty Spreader (front / rear)	kg	43600 / 35050	42100 / 41800	45300 / 41000	
Axle Load with max. Load in L1 (front / rear)	kg	110000 / 13650	107000 / 21900	108900 / 22400	
Axle Load with max. Load in L2 (front / rear)	kg	83200 / 22450	102000 / 12900	111100 / 11200	
Axle Load with max. Load in L3 (front / rear)	kg	81600 / 8050	89900 / 10000	92700 / 10600	
PERFORMANCE					
maximum Lift Capacity	t	45	45	45	
Stacking Height (number of containers)		5	5	5	
Lifting Speed unloaden / loaden	m/s	0,4 / 0,2	0,4 / 0,2	0,36 / 0,30	
Lowering Speed unloaden / loaden	m/s	0,5 / 0,4	0,5 / 0,4	0,50 / 0,40	
maximum TractionForce	kN	335	300	350	
Driving Speed no-load / with load	km/h	25 / 21	25 / 18	25 / 21	
Gradeability unloaden / loaden	%	38 / 27	37 / 23	42 / 27	

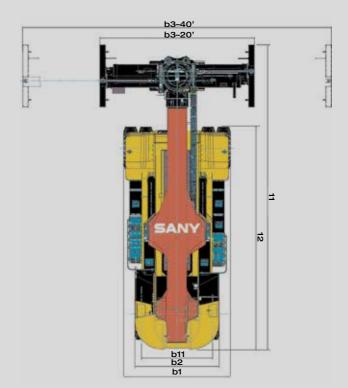
<sup>\*</sup> axle-loads with SANY spreader

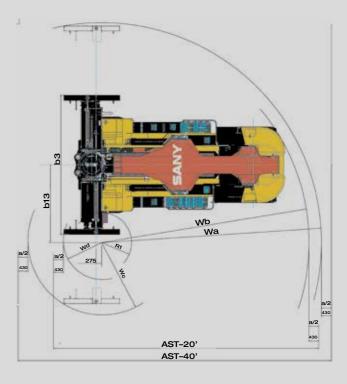




### **REACH STACKER G-CLASS SPECIFICATIONS**

	DIMENSIONS						
	Modell		4531G / 4531G-P	4535G / 4535G-P	4540G / 4540G-P		
L1/11	Overall Length	mm	11340	11960	12046		
Υ	Wheelbase	mm	6000	6500	7000		
h2	Height incl Beacon Light	mm	4770	4880	4940		
m2	Ground Clearance	mm	300	350	350		
h6	Cab Height	mm	3780	3880	3880		
h7	Seat Height	mm	2504	2606	2606		
b3	Overall Width	mm	6042-12175	6042-12175	6042-12175		
b10	Track Width front	mm	3033	3033	3033		
b11	Track Width rear	mm	2790	2790	2790		
b1	Width Front Axle	mm	4190	4190	4190		
b2	Width Rear Axle	mm	3310	3310	3310		
Wb	Turning Radius, outer	mm	8285	8947	9200		
R1	Turning Radius, inner	mm	1200	1300	1300		
	Ailse Width, with 20' Container	mm	11300	11600	12000		
	Ailse Width, with 40' Container	mm	13600	13600	13600		
	Lifing height toplift spreader ELME	mm	15250	15250	15250		
	Lifing height toplift spreader SANY	mm	15100	15100	15100		
	Lifing height Intermodal spreader	mm	14910	14910	14910		
	Boom Angle	0	0-60	0-58	0-56,5		
	Spreader Sideshift	mm	-800 / +800	-800 / +800	-800 / +800		
	Spreader Rotation Angle	0	-105 / +195	-105 / +195	-105 / +195		
	Mechanical Pile Slope	0	-2 / +2	-2 / +2	-2 / +2		
	Tire Size		18.00x25	18.00x33	18.00x33		
	Travel Range movable Cab	mm	2500	2700	2700		
	Volume Fuel Tank	1	520	520	520		
	Volume AdBlue Tank	1	45	45	45		





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Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and the design without prior notice. The illustrations do not necessarily show the standard version of the machine.// Vers. no.: 05.2018







# EXCEPTIONAL PERFORMANCE. EXCEPTIONAL CUSTOMER SERVICE.

Purchasing a SANY reach stacker is the beginning of a close relationship with SANY and its authorised dealerships. Service technicians at the dealerships undergo training at SANY Europe. They are able to perform regular maintenance and, in the event of breakdowns, to carry out diagnostics to quickly get your vehicle up and running again, with support from SANY-Europe customer service engineers. A wide range of spare parts is available from the central store.

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Not all products are available in every country. In accordance with our principle of continuous improvement, the right is reserved to change specifications and the design without prior notice.

The illustrations do not necessarily show the standard version of the vehicle.

SANY