

# DOOSAN

Articulated Dump Truck |  
DA30



Maximum power (ISO 3046): 375 HP  
Maximum payload: 28 m t  
Body capacity heaped  
(with/without tailgate): 17.8 / 16.8 m<sup>3</sup>



# Doosan Group – Building your tomorrow today

## Be part of the great Doosan family

The Doosan Group - founded in 1896 and headquartered in Seoul, South Korea - is one of the fastest-growing companies in the world:

- With more than 37,500 employees in 38 countries, we are a major player in a variety of industries worldwide.
- A global leader in the Infrastructure Support Business (ISB), with 56 subsidiaries and 3,700 distributors worldwide.
- Dramatic growth over the past two decades, with an annual Doosan Group revenue rising from €2.4 billion in 1998 to €12.8 billion in 2016.

## Doosan Group – a top player worldwide



### Doosan Infracore

- Among the world's Top 5 manufacturers of construction equipment



### Doosan Bobcat

- A leading company in the design, manufacture, marketing, distribution and service of small equipment and attachments for construction, agriculture, and landscaping
- Leading position in the global compact equipment market
- N° 1 in North America for SSL, CTL and MEX



### Doosan Heavy Industries & Construction

- World N° 1 in desalination plant construction
- World N° 1 in heat recovery steam generator market
- World N° 1 in mould & tool steel
- World N° 3 in crankshafts



### Doosan Engineering & Construction

- A pioneering leader in construction of residential and public buildings, civil works and industrial facilities.
- World N° 1 chemical process equipment products



## Doosan Infracore Construction Equipment

### Creating construction equipment for over 40 years

For over 40 years, we've been building a global production and business network to become one of the world's foremost construction equipment manufacturers.

### A solid partner, close to you

A truly global player in every respect, we have large-scale factories, sales subsidiaries and dealers all over the world.



Doosan facilities in Europe

**From machine manufacturer... to full solution provider**

To ensure the highest trade-in and residual values, our parts and service support professionals maintain the performance, productivity and reliability that you expect of our products throughout their lifetime.

**Ask your dealer for a full range of services designed especially for you!**

As your local specialist, your dealer ensures that you receive the maximum benefit from our integrated package. Plan ahead to ensure the success of your equipment!



Doosan approved attachments



Genuine parts



Extension of warranty



Financial solutions



Maintenance contract



Telematics



Monitoring systems



**Experience the Doosan product range!**



Articulated Dump Trucks



Wheel Loaders



Wheeled Excavators



Mini Excavators



Crawler Excavators

# Take a tour of the DA30

## ► Productivity

The DA30 offers best-in-class ground clearance & ground bearing pressure. Combined with superior torque at low engine RPM, superior power and traction, we offer you the best productivity.

☉ **Operator's environment:** Ergonomic controls, most spacious cab in the market, high-class seat, Bluetooth radio with USB, and much more...

☉ **Operate at ease:** Upgraded monitor panel, new control panel for more convenient use, payload meter, rear-view camera, body tip boost button, etc.

☉ **Power:** Scania DC 09 engine: 276 kW (370 HP) at 2100 rpm with electronic exhaust brake.

☉ **New quality of ride:** New self-leveling, hydro-gas suspension supports soft ride in harsh conditions.

☉ **Maneuverability:** Unique design of rear frame, body, front-mounted differential and transmission make the Doosan machine the most compact ADT in its class, which results in smallest turning radius and outstanding stability.

☉ **Automatic limited slip differential:** Push 1 button to engage the longitudinal differential lock.



Some equipment shown on the machine may be optional in your region

## Total cost of ownership ▲

⊖ **Safety highlights:** Gradient meter with body flip-over protection, Over Centre of Gravity function, all around cab hand rails, superior stability and front cab access.

Doosan ADTs deliver one of the most competitive operation costs, thanks to the combination of fuel-efficient powertrain, proven design, low-maintenance components, overall durability & unmatched traction.

⊖ **Body:** Steel plates with 400 HB hardness. Capacity without/with tailgate: 16.8/17.8 m<sup>3</sup>. Tailgate, body heating & wear plates available as optional equipment.

## **DOOSAN** CONNECT

⊖ **Telematics:** Monitor your fleet online. As standard, Doosan Connect system with dual mode (satellite, GSM). Check productivity, fuel consumption, system warnings, maintenance status, etc.

⊖ **Brake systems:** Oil-cooled wet disc brakes (lifetime up to 15,000 hours). Standard electronic engine brake, hydraulic transmission retarder & parking brake.

⊖ **New driveline:** New limited-slip rear differential and lower running cost, thanks to reduced number of oils and extended transmission oil change interval.

**Service accessibility:** New cab tilting system for quick and easy maintenance under the cab.

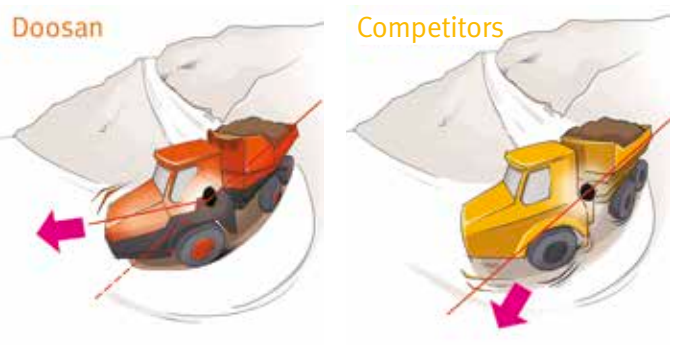


# Top performance and fuel efficiency



## ▣ The power to raise productivity

The Doosan ADT concept offers a larger load capacity in all weight categories. Additional load capacity, combined with superior power and traction, improve productivity. The unique advantages of the Doosan ADT's permanent 6-wheel drive, free-swinging rear tandem, front-mounted turning ring, independent front wheel suspension, and sloping rear frame provide excellent driving stability with equal weight distribution and superior traction. The Doosan Articulated Dump Truck is designed to work under very tough conditions and travel up to 55 km/h.



### Engines – lower emissions / higher torque

Doosan ADTs use only proven, reliable and powerful SCR and EGR diesel Scania engines with excellent torque, which achieve low fuel consumption and fulfill Stage IV (Tier 4 final) European regulation requirements.

### New self-leveling hydro-gas front suspension

The DA30's design was based on the successful and proven design of the DA40. It has been upgraded with the self-leveling system for better shock absorption in changing operating conditions.

### Payload meter

Our standard payload & load count meter provides the Doosan operator and owner with an immediate indication of the productivity.

### Downhill speed modulation

The new electronic engine brake & the hydraulic transmission retarder work simultaneously when dosing the accelerator pedal. On top of that, you can modulate the retarder power by the lever under the steering wheel.

### Transportability

Thanks to its less than 3-meter width, the DA30 can be moved easily from one site to another.

### Forward-mounted turning ring

The turning ring is located in front of the articulation point, ensuring equal weight distribution to the front wheels in all operating situations, including maximum turning. The equal weight distribution enables you to use the differential with only 45% locking value - ensuring drive to both front wheels in all situations, without completely locking the wheels.

### New rear differential

The rear differential was changed to the limited-slip type to ensure that the wheels have a good grip with the ground at all times.

### Traction

The unique Doosan ADT's design offers permanent 6-wheel drive, ensuring stability and equal weight distribution to accommodate all job applications. The Doosan ADTs superior driveline ensures maximum traction and durability.



Front-mounted articulation hinge

2 limited-slip differentials

1 manual differential lock

Sloping rear frame

Gear-driven tandem axle



**Design simplicity:** Permanent 6-wheel drive, together with the ground following rear tandem and our special front-mounted turning ring, provide equal power & weight distribution and excellent operating performance. The sloping rear frame provides a lower centre of gravity - improving the ADT's overall stability, and ensuring fast and easy tipping of the body for increased productivity.

# Operate in comfort

## ▣ Quietest truck in the industry

The spacious ROPS/FOPS cab is equipped with climate control and a high-quality operator seat with air suspension to provide excellent comfort. Precise steering, good visibility, low noise levels (72 dB(A), ISO6395) and optional vertical movement provide additional comfort and quiet.

- The sloping hood gives the operator an excellent view
- The cab is mounted on a special rubber suspension to reduce vibration and conduction of noise into the cab



### Best-in-class operator environment

The new DA30 cab was designed based on the feedback received directly from hundreds of Doosan operators. This resulted in upgrade of the cab in features and functions required by the market, including: hand grip on the right side, foot rest, improved storage room, USB charger, Bluetooth radio, all around rails outside the cab, additional lever for retarder control and a number of other new features.

### High-comfort air-suspension seat

Because a highly comfortable seat means a lot to every operator, we provide an air-suspension seat with armrest as standard.

### One key solution

To enter and safely operate your Doosan ADT, you need just 1 key to lock and unlock all the doors and also start the engine.

### Self-leveling, hydro-gas front suspension

New suspension system has outstanding performance in rough terrain due to big shock absorption capacity of the hydraulic suspension cylinders. On top of that, the self-leveling system can adjust to match changing working conditions.

### Storage compartments and hot/cool box

Plenty of storage spaces, plus extra room designed to fit cool/hot box with additional 12V power supply.

### MP3, DAB and Bluetooth

Standard radio supports all modern features like MP3, DAB and Bluetooth

### Climate control

Our specially designed climate control is easy to operate and highly efficient - keeping you comfortable at all times.





Sliding window and hand grip



Retarder control lever



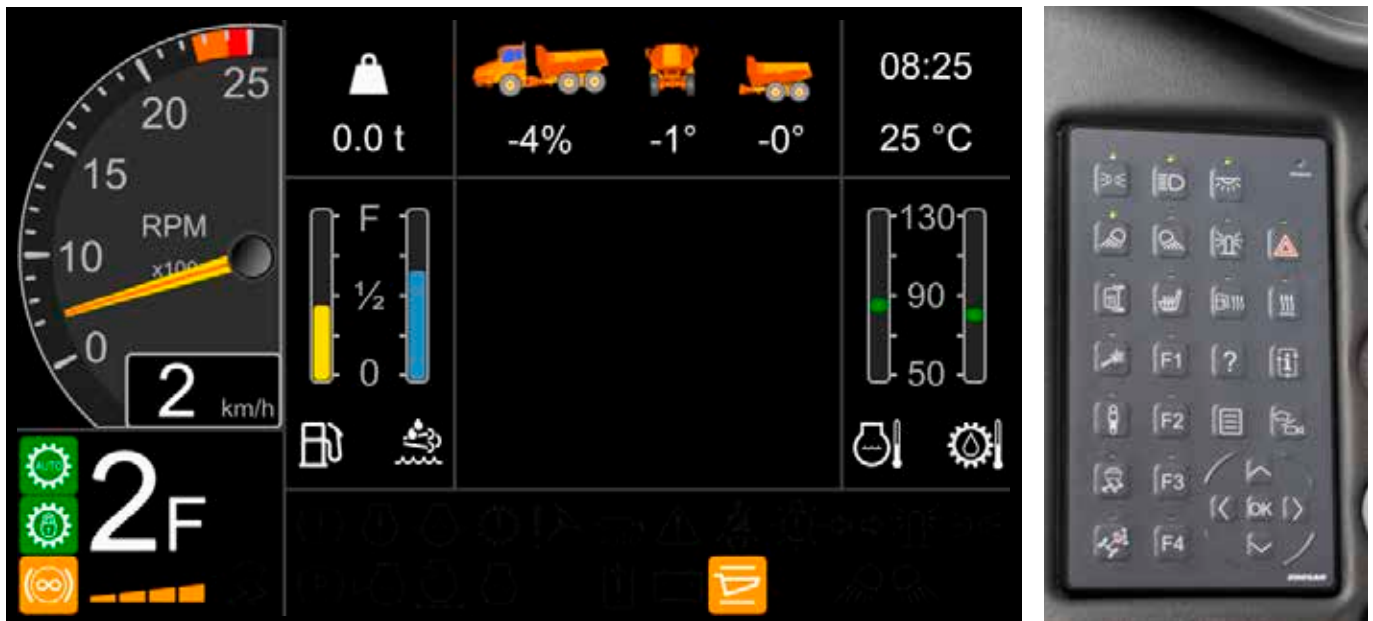
Safety hand rails  
all around the cab

# Total control in all simplicity

## Operate at ease in your comfort zone

The Doosan ADT is one of the industry's simplest trucks to operate and at the same time offers a large number of functions. Comfortably seated in this class-leading operator cab, you'll enjoy easy operation combined with excellent efficiency. And thanks to the upgraded monitor panel, you'll operate in your comfort zone.

- Bigger indications
- Multiple languages
- Integrated payload meter (as standard)
- Diagnostic section with transmission and hydraulic oil level check function
- Gradient meter indication for increased safety while operating
- Integrated rear-view camera



### LCD color monitor panel

- 7" color display, resolution 800 x 480 pixels
- Shows all necessary information for driving and handling the machine
- Rear-view camera image embedded in instrumentation graphics
- Backlight dimming according to ambient light conditions
- Sub-menus for additional and diagnostic functions

### Touch pad

- Diesel fuel heater ON/OFF
- Inter-axle differential lock
- Override button
- Cab roof and mirror arm front lights ON/OFF
- Rotating beacon ON/OFF (optional)
- Operating work-lights ON/OFF

### Differential activation

With automatic limited slip differentials, automatic and manual transmission shift, power steering, "simple touchpad" and "easy to read" display, every ADT is as simple to use & operate as possible.

### Body hoist lever

The new body hoist lever is easy to operate and fingertip controlled. This electronically managed hoist lever incorporates a higher body up speed and an automatic body down feature, with soft touch down, to keep you safe at all times.

### "Tip-tronic" gear shift

To ensure the smoothest possible gear shifts and momentum, you can run the truck in both automatic and manual gears.

### Retarder force modulation lever

New lever located on the right-hand side below the steering wheel enables operator to choose from 4 power modes. On top of that, the gas pedal is responsible for retarder power reduction.



**Body hoist lever with boost button**

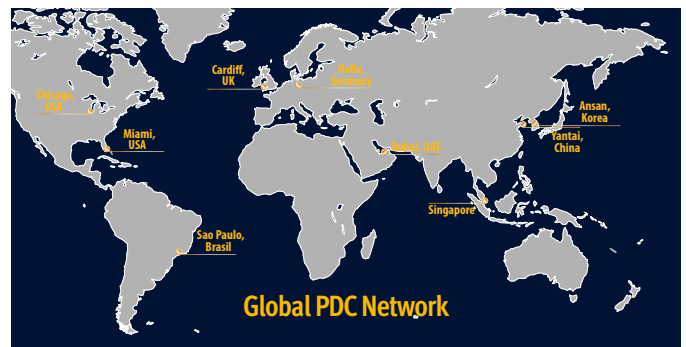


**All-round visibility**

# Simple maintenance with great uptime

## ▣ Excellent service accessibility

- The hood's wide opening (up to 83°) provides excellent access to the engine for easy maintenance
- The tilting cab allows the same clear access to the transmission and hydraulic components
- All electrical and AC connections are at the rear of the cab, allowing the cab to be tilted while maintaining connections
- The factory-fitted automatic central lubrication system is fully incorporated in the design of our ADTs. Thanks to the Vehicle Control Unit (VCU), grease is pumped only when necessary
- The new EP transmission is specially designed for easier maintenance



## Training Center

Located in the heart of Europe, near Prague (Czech Republic), the Doosan Academy is a dynamic center of knowledge where Product, Service and Doosan University training courses are held.

The facilities include a modern building that can accommodate all of the product ranges, and an outdoor training area where we conduct field exercises and product testing with the fleet of Doosan machines and attachments.

## Filters

All filters are centralised for quicker and easier accessibility.

## Global Doosan network

With a network of Doosan dealers & Parts Distribution centers worldwide, your Doosan trucks can be serviced & maintained wherever you are.

## Telematics

The Doosan Connect system is available for reading out vehicle operating & production parameters remotely, and providing you with total ease-of-mind. Keep day-by-day overview on the machine's productivity, status and condition.



**SCR with NO DPF:** Building further on the success of the Stage IIIB engines, the new Stage IV Scania engine has no need for a DPF filter to meet the Stage IV emissions requirements.



## WORK EFFICIENCY MANAGEMENT

## JOB SITE MANAGEMENT

## PROACTIVE SERVICE

## PREVENTIVE MAINTENANCE

### OPERATION TREND

Total operation hours and operation hours by mode

### FUEL EFFICIENCY\*

Fuel level and fuel consumption

### LOCATION

GPS and geo-fence

### REPORTS

Operation report & utilization

### WARNING & ALERT

Detect machine warnings, antenna disconnection, and geo/time fence

### FILTER & OIL MANAGEMENT

Preventive maintenance by item replacement cycle

### TELEMATICS TERMINAL

Terminal device is installed and connected to a machine to get machine data.

### TELECOMMUNICATION

Doosan provides Dual mode (Mobile, Satellite) communication to maximize communication coverage.

### DOOSANCONNECT WEB

Users can monitor machine status from DoosanCONNECT Web.

# Technical specifications

## Body

Body volume (without tailgate)  
Material  
Tilt cylinders  
Tipping time  
Body  
Sloping frame  
Level capacity (with / without tailgate)  
Heaped capacity (with / without tailgate)  
Density index

### DA30

16.8 m<sup>3</sup> – 23.3 yd<sup>3</sup>  
Hardened abrasion-resistant steel plates (400 HB)  
Single stage, double-acting  
Up: 12 sec. / Down: 10 sec.  
Designed for exhaust heating  
Down from the hinge point  
14.2 m<sup>3</sup> / 13.6 m<sup>3</sup> – 18.6 yd<sup>3</sup> / 17.8 yd<sup>3</sup>  
17.8 m<sup>3</sup> / 16.8 m<sup>3</sup> – 23.3 yd<sup>3</sup> / 22.0 yd<sup>3</sup>  
1.64 t/m<sup>3</sup>

## Weights

Empty: Front axle  
Empty: Rear axle  
Max. load: Front axle  
Max. load: Rear axle  
Pay load  
Total weight (loaded)  
Net weight  
NOTE: All weights include a full fuel tank and operator.

11900 kg – 26235 lb  
9800 kg – 25353 lb  
16700 kg – 36817 lb  
34800 kg – 76721 lb  
28000 kg – 31 sh tn  
49700 kg – 113317 lb  
21700 kg – 51588 lb

## Power to weight ratio (Net Power vs Ton)

Empty  
Loaded

12.7 kW/t  
5.55 kW/t

## Ground pressures

Empty: Front axle  
Empty: Rear axle  
Loaded: Front axle  
Loaded: Rear axle

Standard 23.5 × 25 tyres with 15% sinkage

114.7 kPa – 16.6 psi  
55.4 kPa – 8.0 psi  
159.1 kPa – 23.1 psi  
166.0 kPa – 24.1 psi

## Capacities

Fuel Tank  
Hydraulic System  
Engine Cooling System  
Transmission  
Engine Crankcase  
Front Reduction Gear  
Tandem Housing  
Rear Reduction Gear  
Adblue® tank

335 l  
210 l  
45 l  
67 l  
33.5 l  
2 × 11 l  
115 l  
4 × 7 l  
38 l

## Speeds

Forward 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8  
Rear 1 – 2 – 3 – 4

Forward – Reverse

6 - 8 - 11 - 16 - 23 - 32 - 45 - 55 km/h  
6 - 8 - 11 - 16 km/h

## Engine

Complies with Stage IV of EU Directive 97/68/EC for emissions  
Power rating ISO 3046 / ISO 14396 @ 2100 rpm  
No. of cylinders  
Gross Torque  
Engine exhaust brake  
Cylinder volume  
Bore diameter × stroke  
Air filter

Scania DC 9, water-cooled, diesel engine  
with turbo charger and air-to-air intercooler  
375 HP (276 kW) / 362 HP (270 kW)  
5 (in line)  
1873 Nm @ 1300 rpm  
Yes  
9.3 litres  
130 × 140 mm  
Dry type

## Transmission

Electronically-controlled automatic transmission  
with retarder. The torque converter has automatic lock-up in all gears.

ZF 8 EP320

## Hydraulic system

1 variable displacement piston pump for steering & tipping for cooling fan, brakes & auxiliaries  
Filtration  
Main safety valves pressures, tipping / steering circuit

305 l/min @ 2100 rpm  
One return flow filter  
280 / 210 bar

## Electrical system

Batteries  
Starter  
Alternator

2 × 12V 140Ah (series connected to give 24V)  
7.5 HP (5.5 kW)  
24V 100A

## Tires

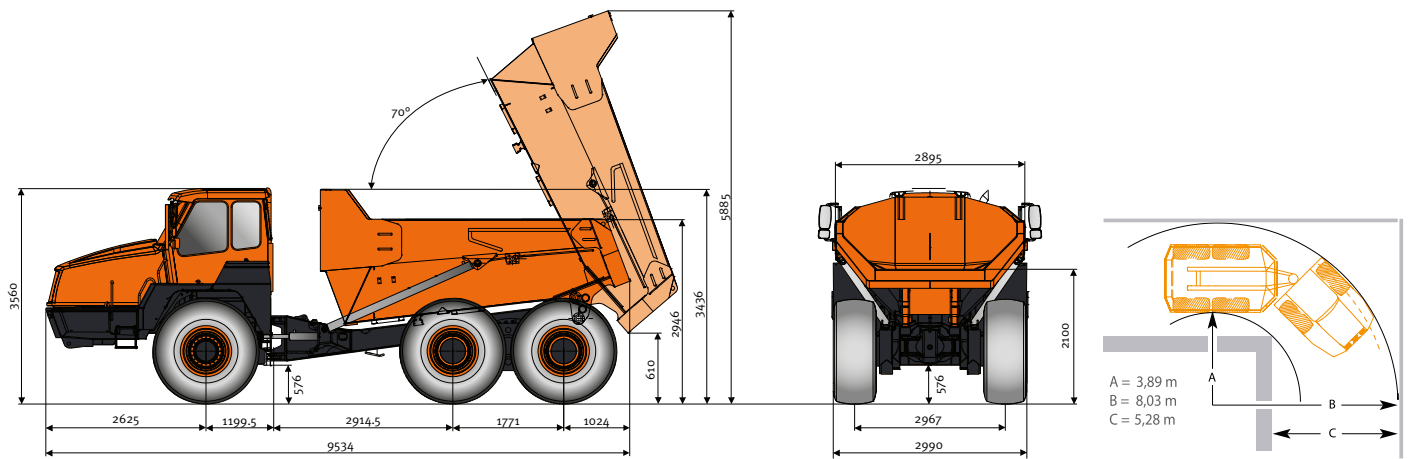
Standard

23.5 R25 two star radial



## DA30

Unit: mm



DA30 width with 750/65 R25 tyres: 3208 mm

Turning radius according to ISO 7457: 7.68 m



# Special features

## DA30 special features

### Suspension

- ▶ Front: Semi-independent, self-leveling hydro-gas suspension.
- ▶ Rear: Free-swinging tandem housing.

### Articulation hinge and steering

- ▶ Articulation hinge with forward-mounted turning ring.
- ▶ Steering cylinders (two): Double-acting.
- ▶ The steering is approved according to ISO 5010.
- ▶ Max. steering angle: 45°.
- ▶ Ground-driven emergency steering pump.

### Driveline

- ▶ Full-time 6 × 6 drive with two transverse differentials and one longitudinal.
- ▶ Front axle transverse differential: Limited-slip diff lock with 45% locking ratio.
- ▶ Rear axle transverse differential: Limited-slip diff lock with 45% locking ratio.
- ▶ Inter-axle longitudinal differential:
  - Torque-proportioning differential, integrated into the ZF transmission.
  - Torque distribution:
    - 1/3 to the front axle
    - 2/3 to the rear axle
    - 100 % lockable
- ▶ Tandem housing: Gear driven, free-swinging.

Provides equal drive to rear wheels and ensures the best possible ground contact – whatever the ground conditions.

### Brake system

- ▶ Dual circuit braking system acting on all six wheels.
- ▶ Approved according to ISO 3450.
- ▶ All hydraulic-operated brakes with enclosed oil-cooled wet multiple discs on four hubs (braking force distributed to two hubs by tandem gear wheels)
- ▶ Spring actuated hydraulic released parking brake, mounted on driveline shaft.
- ▶ Max. gradient, parking brake: 20°.
- ▶ Automatic engine brake as standard.
- ▶ Automatic transmission retarder as standard.

### Cab

- ▶ Approved to ROPS/FOPS standards (ISO 3471, ISO 3449).
- ▶ Low interior sound level: 72 dB(A) (ISO 6395).
- ▶ External sound level: 108 dB(A) (ISO 6396).
- ▶ The cab is centrally located on rubber mountings.
- ▶ Hand and arm vibrations are less than 2.5 ms<sup>2</sup> (ISO 5349-2).
- ▶ Whole body vibration is less than 0.5 ms<sup>2</sup> according to ISO 2631-1.
- ▶ Superior visibility - for safer operation.
- ▶ Superior operating controls location.
- ▶ Adjustable suspended operator seat.
- ▶ Adjustable steering column.
- ▶ Climate control – Heater and air conditioning.
- ▶ Tilting for service access.



# Standard and optional equipment

## Engine

DA30

Scania, Stage IV compliant, SCR, EGR, water-cooled, diesel engine with turbo charger and air-to-air intercooler	●
No DPF	●

## Hydraulic system

1 variable displacement piston pump for steering & tipping	●
One return flow filter	●

## Cab & Interior

Armrest at operator seat	●
Headrest at operator seat	●
Safety belt at operator and instructor seat	●
Adjustable steering column	●
All instrumentation in LCD display	●
Cigarette lighter and ashtray	●
12V charging point	●
Retractable roller sunblind	●
Tinted safety glass	●
Sliding window (left & right side)	●
Windshield wiper and washer	●
Mirror	●
Protection for rear window	●
Emergency steering, ground-driven	●
Radio/CD/MP3	●
Work light front, at the top of the cab	●
Cab tilting system	●
Emergency shutdown switch	●
Anti-slip steps & platform	●
Cool box compartment	●
Storage room	●
Electronic climate control	●
Front light protector (Lexan)	●
High-comfort seat (vertical and longitudinal suspension)	●
Heated operator seat	●
Heated mirror	●
Electrically adjustable mirrors	●

## Safety

Gradient meter with anti-flip-over protection system	●
Payload meter & cycle counter	●
Wet disc brake	●
Rear-view camera	●
Hammer for emergency escape	●
Hand rails on the fenders	○
Seat belt green warning light	○
Blue or orange flashing reverse light	○
White noise alarm	○

## Other

Engine exhaust brake	●
Transmission retarder brake	●
Automatic lubrication system	●
Mud flaps	●
Towing hook, front and rear	●
Doosan Connect Telematic system	●
Tail gate	○
Webasto heating system (heat up the cooling system)	○
Electrical engine heater	○
Fire extinguisher	○
First aid kit	○
Beacon	○
Light bar	○
Speed limitation	○
Work light kit (rear and front)	○
Work light kit (rear and front) LED	○
Tool kit	○
Warning triangle	○
Fast fill	○
Tire pressure monitoring system (may not be available with all tires)	○
Electric diesel refueling pump	○

## Tires options

Quarry	○
Earthmoving	○
Flotation tires	○

Standard: ●  
Optional: ○

Some of these options may be standard in some markets. Some of these options may not be available for certain markets. Please check with your local DOOSAN dealer for more information about availability or to adapt your machine to your application needs.



Side extensions



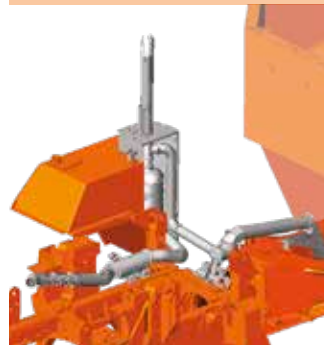
Tail gate



LED lights



High-comfort seat



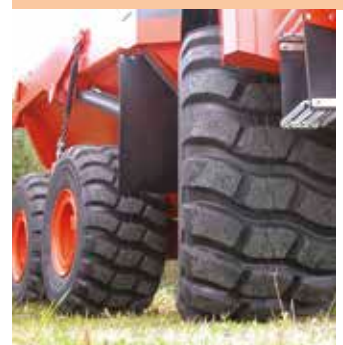
Heated body



Fast fill



Quarry tires



High flotation tyres

