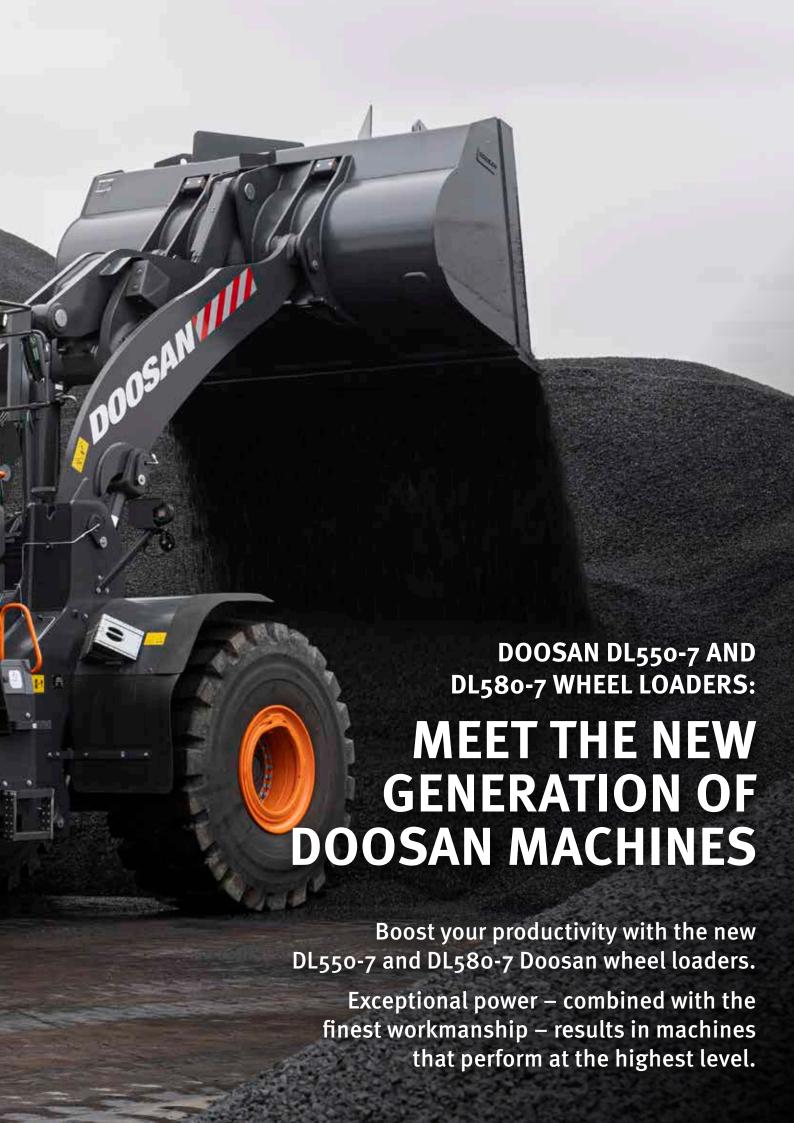
DOOSAN

DL550-7 DL580-7









The DL550-7 and DL580-7 enhance your output from every angle

Impressive breakout force and high traction make penetration easy and allow you to tackle the hardest materials.

- Powerful hydraulic system makes work quick and efficient.
 Scania DC13 engine provides the power you need while meeting Stage V environmental regulations.

The combination of these features gives Doosan wheel loaders excellent penetration power, ensuring optimum bucket load in each cycle.



TOP PERFORMANCE AND FUEL EFFICIENCY

ENVIRONMENT-FRIENDLY POWER

The DL550-7 and DL580-7 are powered by a Scania DC13 engine compliant with the Stage V emissions regulations. High-pressure fuel injection and precise timing provide highly efficient fuel burn and perfect combustion. The aftertreatment system is composed of a selective catalytic reduction module, an oxidation catalyst, and a long-life particulate filter to reduce emissions without requiring an EGR (exhaust gas recirculation) valve.

EFFICIENT POWER MANAGEMENT

You can select from 3 different engine working modes – ECO, Standard and Power – while the Power-up function lets you switch the parameters to level-up working mode with lower transmission shift intervals by fully applying the acceleration pedal.

VARIABLE GEOMETRY TURBOCHARGER

Optimizes boost pressure over wide range of engine speeds. The turbocharger generates higher torque, provides faster response, and reduces fuel consumption.

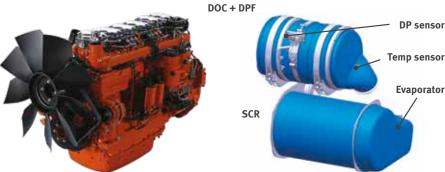
SAVE FUEL, SAVE MONEY

- Auto Idle

The standard auto idle feature automatically reduces the engine revs to standby idle a few seconds after the steering wheel, gearshift control lever and accelerator cease movement. This reduces noise, improves jobsite communications and saves fuel. When you move the controls, the loader automatically returns to working idle.

Auto Shutdown

When enabled, the engine automatically shuts down after idle time reaches a specified elapsed time (3 to 60 minutes).





In your profession, you need equipment you can depend on. At Doosan, we put durability and reliability at the core of our machines' development. Our materials and structures undergo stringent testing for strength and resilience under the most extreme conditions.

DESIGNED FOR LONG-TERM, ALL-ROUND, HEAVY-DUTY PERFORMANCE

POWERTRAIN

The Doosan transmission has 5 gears to boost acceleration performance, especially on climbs with the lock-up. The gear ratios are optimized, and smooth, shock-free shifts contribute to the high overall level of operator comfort. Traction force is also maximized. Together, these qualities enable high working speed in all conditions.

AXLE

New stronger axle allows you to carry more.

- Hydraulic differential lock on the front engages automatically to ensure maximum tractive effort with a lock of 100% and driving ease. Muddy and slippery areas can be navigated by the operator with the manual foot control. These features also reduce the risk of skidding and prevent excessive tire wear.
- The brake discs in the planetary reduction gears are reinforced, ensuring long hours of operation and easy maintenance access.
- Axle oil cooler is available for the most demanding conditions. Fully independent cooling circuit with filters for each axle.

ROBUST AND RELIABLE

We pay the closest attention to the design and manufacture of structural components. Finite Element Analysis is used to ensure an extended lifetime for main structures such as the chassis, joints and lift arm. Then, after modelling, they are subjected to intensive laboratory and field testing in extreme conditions. Ongoing statistical analysis is used to continually increase reliability.

DURABLE STEEL PARTS

Rear parts – such as the radiator grille, engine hood and fenders – are made of durable steel. They're also designed for easy repair, reducing the need to replace them if they are damaged.

EXHAUST

The inner exhaust pipe sucks air out of the engine compartment through an outer pipe — this 'chimney' effect provides constant air circulation and prevents deposits of flammable material on hot parts.

FAST CYCLE TIMES

The entire Doosan wheel loader lineup is carefully engineered for a perfect balance of speed and controllability – so you benefit from optimal production. Variable displacement piston pumps in all models allow Doosan wheel loaders to power through difficult jobs with minimal fuel consumption and multifunction operation of the lift arm and bucket.

FULL FENDERS

To keep them clean and avoid mud splashing on the windows or accidents on slippery steps, Doosan's wheel loaders are standard equipped with full fenders and mud guards. Enlarged front fenders protect front windows and ensure maximum operator visibility.

DRIVING ASSISTANCE

- Automatic transmission with smooth shifting
- Automatic transmission kick-down
- Automatic Hydraulic Differential Lock (HDL)
- Automatic Load Isolation System (LIS)
- Automatic kick-out function on lift arm
- Automatic return to dig position
- Automatic reversing fan
- Automatic greasing system
- Automatic lock-up on torque converter







OPERATING IN HIGH COMFORT

ADJUSTABLE STEERING COLUMN

Enhance your driving comfort, and work without fatigue, by easily adjusting the steering column's tilt and telescopic movements to fit your preferred position.

DOOSAN SMART TOUCH

- An easy to read and use 8" touch screen integrates all functions in one place.
- All information about the machine, settings, rear-view camera, weighing system, A/C control, multimedia.
- Help function operators can quickly and easily understand all functions without referring to the operator's manual.

ELECTRONIC JOYSTICK

Reduce your cycle times with fully integrated electronic joystick in right armrest. Sensitivity settings and shock prevention are designed to ensure maximum machine controllability and operator comfort. Less movement for repetitive tasks with autoleveling function.

Return to Dig

Sensors on the lift arm and bucket linkage allow you to change your 'return to dig' setting from inside the cab. The cylinders and cutting edge return to the same position every time, enabling more efficient, consistent work.

- Lift Kickout

Set the maximum lift height for working inside buildings or other areas with height restrictions. Simply pull back on the control joystick to override.

ELECTRIC JOYSTICK STEERING

Keep your concentration and reduce strain with the comfortable joystick steering integrated on the armrest. Drive your machine easily, especially in repetitive tasks and tight spaces. You can customize the sensitivity level – from low to high. For better controllability, steering sensitivity changes with travel speed.

LUXURY CHAIR

Improved high comfortable seat with vertical and horizontal low-frequency suspension, pneumatic lumbar support, heating and 3-point safety belt with alarm icon on gauge panel and in Doosan Smart Touch.



The ergonomic controls and the easy-to-view color monitor place the machine firmly in your hands.

TOTAL CONTROL IN ALL SIMPLICITY

DOOSAN SMART KEY

We bring automotive standards and comfort to construction machinery

- Search function
- Coming/leaving home light function
- Remote door opening
- Keyless engine start

DOOSAN SMART GUIDANCE SYSTEM

Boost your performance and reduce fuel consumption based on the system's recommendation. Machine automatically monitors and analyses driving strategy and recommends how to improve settings.

SPACIOUS CAB

Re-designed interior offers much larger, quieter and more comfortable operator environment, which improves safety and productivity and helps the operator work with high concentration. Increased leg room with re-designed accelerator and brake pedal position. Enlarged storage area and cool-box position increase operator comfort. Improved air conditioning system, with optimized air circulation, ensures a pleasant working environment.

VISIBILITY

Completely re-designed cab improves operator comfort and safety. Enlarged front windshield ensures better front visibility, while larger mirrors extend operator's view on the sides and rear - providing maximum safety for pedestrians and machine and improving productivity at the same time.

COMFORTABLE AUTOMATIC LIFT ARM

Save time and reduce the number of operations with the new bucket leveling function. Automatically return the bucket to dig position from roll back or dump position. Automatic function is also available for lift arm positions.

EASY ENTRY AND EXIT

Grab handles and offset steps with slip-resistant surfaces provide safe & easy access to the cab and easy exit when work is finished. The door opens 180° - and can be locked in the open position - to provide a wide opening for moving in and out of the machine.





RAISE PROFITS, PRODUCTIVITY & FUEL EFFICIENCY

STRENGTH AND INTELLIGENCE - A WINNING COMBINATION!

With tremendous lift height and capacity, along with enough torque to bite into the toughest materials, Doosan wheel loaders go a step beyond scooping, carrying and loading. It's your ticket to making harder work easier, longer days more enjoyable, and every minute more productive and profitable.

BOOST YOUR PRODUCTIVITY

- Ride control Load Isolation System
- Bucket auto leveling function
- End-stroke cushioning for smooth arm and work tools movements
- Optimized shifting program

MAXIMUM SAFETY

- Rear-view camera
- Full hand rails for safe maintenance
- Up to 12 LED working lights available Rear-view mirrors with electric



READY FOR VERSATILITY

- Improved Doosan weighing system
- Attachments fully tailored for application
- Wide selection of tires

MAXIMIZE YOUR UPTIME

- Massive frame
- Automatic lubrication system
- DoosanConnect fleet management

BUSINESS CLASS OPERATOR COMFORT

The new spacious cab offers an operator-friendly environment with top-class all-round visibility. It centers around a high comfortable seat with 3-point safety belt for maximum operator safety. The joystick is fully integrated in the seat's right armrest. The electrically adjustable rear mirror contributes to maximum operator comfort.



ALL-IN-ONE FOR BETTER PERFORMANCE

All important functions are easily accessible on the Doosan Smart Touch

- Machine settings
- Rear-view camera
- Radio
- HVAC
- Weighing system
- Doosan Smart Guidance

BETTER FUEL EFFICIENCY

The DL550-7 and DL580-7 are equipped with a powerful, new engine with low fuel consumption - without requiring an EGR (exhaust gas recirculation) valve.

I.C.C.O. (INTELLIGENT CLUTCH CUT-OFF)

Need more engine power for lift arm speed? In lower gears, simply depress the left brake pedal to disengage the transmission. Disengage transmission cutout with your switch panel to start moving on an incline with greater ease.

TORQUE CONVERTER WITH LOCK-UP FUNCTION

The DL550-7 and DL580-7 also feature a torque converter lockup. When this is activated, the engine automatically connects directly to the transmission (depending on speed and travel resistance), even from 2nd gear. The transmission receives the full engine power without hydraulic slip – thus increasing speed on slope dramatically. This feature can save you up to 10% in fuel costs.







SIMPLE MAINTENANCE WITH MAXIMUM UPTIME

COOLING PACKAGE

One-block radiator with reversible fan keep the cooling system performing constantly – minimizing machine downtime and reducing daily maintenance.

The operator can easily set standard intervals for fan reverse from the Doosan Smart Touch. Performance is regulated for lower fuel consumption and shorter warm-up periods.

AIR INTAKE

Maintenance-free cyclone air pre-filter separates more than 99% of particles 20 microns in size and larger. Cleaning and cartridge replacement are only needed at long intervals.

In addition to extending the air filter's lifetime, the pre-filter also ensures better combustion and a longer engine lifetime.

AUTOMATIC LUBRICATION SYSTEM

The DL550-7 and DL580-7 are standard equipped with a factory-fitted auto-lube system, with greasing point at the middle of the pin and bushing for better grease distribution and enhanced lifetime.

WE ARE HERE FOR YOU

Boost your productivity and machine uptime with our genuine Doosan parts; Protection+, an extended warranty covering parts, travel and service (check with your local dealer); and a maintenance contract in which your dealer supports you with routine service at regular intervals.

FLEET MANAGEMENT

With DoosanConnect, you can proactively react to machine status, properly plan maintenance, and reduce downtime.

SAFE ACCESS

To facilitate access and mobility on the machine, multiple platforms and hand-rails ensure that the operator always has a firm support to hold on to and 3-point contacts.



TECHNICAL SPECIFICATIONS

ENGINE

Designed to deliver superior performance and fuel efficiency, the Scania DC13 diesel engine fully meets the latest Stage V emission regulations. To optimize machine performance, the engine uses high-pressure fuel injectors, air-to-air inter-cooler and electronic engine controls. 4-Cycle Water-Cooled, Variable Geometry Turbocharged, Diesel Oxidation Catalyst (DOC) & Selective Catalytic Reduction (SCR) and Diesel Particulate Filter (DPF), no Exhaust Gas Recirculation (EGR).

	DL550-7	DL580-7		
Model	Scania	a DC13		
No. of cylinders	(5		
Max. power (SAE J1995)	283 kW/380 hp @ 1800 rpm	294 kW/400 hp @ 1800 rpm		
Max. torque (SAE J1995)	2252 N·m @ 1200 rpm			
Displacement	12700 cm³			
Bore × stroke	130 mm × 160 mm			
Starter	24 V /	6 kW		
Batteries - Alternator	2 × 12 V - 28 V, 100 A			
Air filter	Centrifugal pre-cleaner Top Spin™ Donaldson® with 2-stage dry filter			
Cooling	Cooling package with automatic reversing fan to facilitate radiator cleaning. Automatic rotation speed adjustment according to temperature conditions.			

TRANSMISSION

5-gear powershift transmission with 3 operating modes: manual, fully automatic, or semi-automatic with 'kick-down' function. Based on high-quality components. Equipped with a modulation system for protection and smooth gear and direction changes. A manual transmission control lever is located to the left of the steering wheel. Direction change function also available in automatic or semi-automatic mode. Transmission can be disengaged by the brake pedal to deliver full engine power to the hydraulic system. A safety device prevents the engine from starting if the transmission is not in neutral. Torque converter lock-up function from 2nd to 5th gear.

	DL550-7	DL580-7		
Туре	5-speed auto-powershift with lock-up			
Torque converter	Single stage / mono phase / fixed wheel stator			
Speeds - forward 1 / 2 / 3 / 4 / 5	6.2 / 12.1 / 19.4 / 27.2 / 40	6.4 / 12.4 / 21.7 / 27.2 / 40		
Speeds - reverse 1 / 2 / 3	6.1 / 12.0 / 27.2	6 / 12.0 / 27.2		
Maximum traction	31.8 ton 32.2 to			
Maximum gradeability	58% (30°)			

AXLES

Front & rear axles manufactured by ZF with outboard planetary reduction gears.

31.8 t / 32.2 t (DL550-7 / DL580-7) traction power allows operation on slopes of 30°.

	DL550-7	DL580-7	
HDL lock ratio	100% (front)		
Oscillation angle	+/- 12°		
Tire size - standard	29.5 R25		

HYDRAULIC SYSTEM

	DL550-7	DL580-7			
Туре	Load sensing – closed center hydraulic system				
Main pump	Dual variable displacement axial pistons pumps				
Maximum flow	480 l/min 529 l/min				
Maximum pressure	250 bar				
EMCV	Automatic functions for positioning the bucket ready to dig and a function for stopping the lift arm at the desired height				
Filtration	In the oil return to the tank, the fiberglas filter has a filtering capability of 10 micron.				

LIFT ARM

Z-kinematics with simple lifting piston system designed for heavy-duty applications. 246 kN (DL550-7) and 285 kN (DL580-7) breakout force combined with a bucket angle that is maintained throughout the range of movement. Bucket angles are optimized in the travelling position and at ground level. Load Isolation System (LIS) is fitted as standard for improved operator comfort, output and lifetime.

Load cycle	DL550-7	DL580-7
Lift arm - up	6.5 s	6.4 s
Lift arm - down	3.7 S	3.8 s
Bucket - dump	1.4 S	1.5 S

HYDRAULIC CYLINDERS

High-strength steel piston rods and cylinder bodies. Shockabsorbing mechanism fitted in all cylinders for shock-free operation and extended piston life.

	_	Bore × rod diame	ter × stroke (mm)
Cylinders Quantit		DL550-7	DL580-7
Lift	2	190 × 105 × 890	190 × 105 × 955
Bucket	1	215 × 130 × 605	240 × 160 × 605

CAB

Safety compliance with Roll Over Protection System (ROPS) and Falling Object Protective Structure (FOPS) requirements. Spacious modular cab with excellent all-round visibility and ample storage space. Good overview of the bucket, tires and loading area thanks to wide windows. Pushbutton controlled air conditioning and heating with air recirculation function. Double cab air filter installed in the cab with extra protection for the operator in dusty or polluted environments. Viscous suspension mount for maximum comfort. Adjustable high-quality heated seat with air suspension, arm rests and height and tilt adjustable steering column. All operating information clearly displayed in front of the operator. Control functions are centralized on a console on the right.

		DL580-7
Safety standards	ROPS ISO FOPS IS	3471:2008 60 3449

Noise emissions	DL550-7	DL580-7
Operator Sound Pressure Level (ISO 6396)	72	dB
Exterior Sound Power Level (ISO 6395)	109	dB

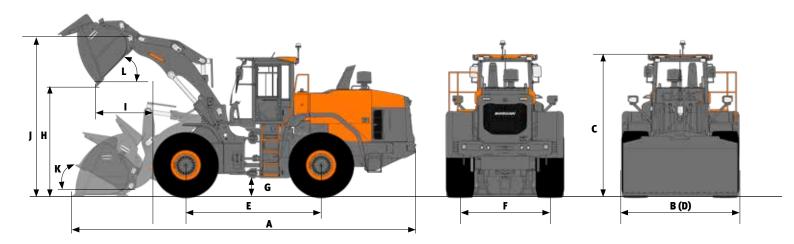
BRAKES

Dual multi-disc circuit with sintered metal discs for extended service life. Braking system activated by a pump and accumulator circuits. Spring-applied, hydraulically released parking brake is mounted on the transmission shaft and accumulator circuits and is electronically activated. Brake type: spring-applied / hydraulically released. Brake pump with variable displacement axial pistons provide 58 l/min. Operator can activate/deactivate the Intelligent Clutch Cut-Off on the brake pedal from a switch and can adjust the sensor proximity with the same switch. The emergency brakes are composed of a double system continually under pressure by accumulators.

FLUID CAPACITIES

	DL550-7	DL580-7
Fuel tank	44	1 l
DEF (AdBlue®) tank	60 l	
Cooling system (radiator)	54	4 l
Engine oil	45 l	
Front axle	62.5 l	
Rear axle	64 l	
Hydraulic oil tank	242 l	
Transmission oil	6	7 l

PERFORMANCE DATA & DIMENSIONS



DL550-7

	Pin-on			Performa	nce bucket		Eco b	ucket	
	FIII-OII		General	General purpose Material handling		handling	General purpose		High lift
	Ground engaging tools		5.7 m³ TEETH	5.9 m³ BOCE	5.9 m³ TEETH	6.1 m³ BOCE	5.4 m³ TEETH	5.7 m³ BOCE	
	Capacity heaped ISO/SAE	m³	5.7	5.9	5.9	6.1	5.4	5.7	=
	Capacity at 110% fill factor	m³	6.3	6.5	6.5	6.7	5.9	6.3	=
В	Bucket width	mm	3400	3400	3400	3400	3404	3404	=
	Breakout force	kN	218	206	222	210	230	217	-6
	Static tipping load (straight)	kg	24770	24676	24736	24642	24830	24692	-5688
	Static tipping load (full turn - 40°)	kg	21840	21746	21806	21712	21897	21760	-5014
Н	Dump height (at 45° - fully raised)	mm	3211	3334	3233	3356	3228	3390	+441
T	Dump reach (at 45°- fully raised)	mm	1571	1417	1551	1396	1504	1368	+225
	Digging depth	mm	32	60	32	60	69	57	+127
J	Height at bucket pivot point	mm	4806	4806	4806	4806	4806	4806	+433
	Max. tilt angle in carry position	0	44	44	43	43	43	43	+4
	Max. tilt angle fully raised	0	66	66	66	66	66	66	-5
K	Max. tilt angle on ground	0	41	41	40	39	40	39	+2
	Max. tilt angle at max. reach	0	67	67	67	67	67	67	-6
	Max. dump angle at max. reach	0	68	68	68	68	68	68	-3
	Max. dump angle on ground	0	60	61	60	61	60	61	+2
L	Max. dump angle fully raised	0	47	47	47	47	47	47	-1
	External radius - tire side	mm	6794	6794	6794	6794	6794	6794	=
	External radius - bucket edge	mm	7541	7641	7560	7638	7573	7651	+268
E	Wheel base	mm	3700	3700	3700	3700	3700	3700	=
D	Width at tires edge	mm	3199	3199	3199	3199	3199	3199	=
F	Tread	mm	2420	2420	2420	2420	2420	2420	=
G	Ground clearance (at 12° osc.)	mm	491	491	491	491	491	491	=
Α	Overall length	mm	9912	9740	9882	9710	9885	9663	+573
С	Overall height	mm	3863	3863	3863	3863	3863	3863	=
	Operating weight	kg	33241	33336	33285	33380	33209	33348	+359

 $All\ capacities\ according\ ISO\ 7546, with\ straight\ blade\ [measure\ at\ the\ tip\ of\ bucket\ teeth\ or\ cutting\ edge],\ tires\ 29.5\ R25\ (L5),\ base\ EU\ configuration.$



DL580-7

Pin-on			Performa	nce bucket		Eco b	ucket
PIN-ON	Unit	General	General purpose Material handling			General purpose	
Ground engaging tools		6.4 m³ TEETH	6.6 m³ BOCE	6.4 m³ TEETH	6.6 m³ BOCE	6.0 m³ TEETH	6.2 m³ BOCE
Capacity heaped ISO/SAE	m³	6.4	6.6	6.4	6.6	6.0	6.2
Capacity at 110% fill factor	m³	7.0	7.3	7.0	7.3	6.6	6.8
B Bucket width	mm	3400	3400	3400	3400	3404	3404
Breakout force	kN	252	239	264	250	264	250
Static tipping load (straight)	kg	27110	27016	27174	27080	27355	27217
Static tipping load (full turn - 40°)	kg	24073	23979	24135	24041	24315	24177
H Dump height (at 45° - fully raised)	mm	3414	3523	3461	3570	3422	3572
I Dump reach (at 45°- fully raised)	mm	1587	1423	1535	1371	1522	1373
Digging depth	mm	45	17	45	17	7	20
J Height at bucket pivot point	mm	4996	4996	4996	4996	4996	4996
Max. tilt angle in carry position	0	44	44	43	43	43	43
Max. tilt angle fully raised	0	65	65	65	65	65	65
K Max. tilt angle on ground	0	41	41	40	39	40	39
Max. tilt angle at max. reach	0	67	67	67	67	67	67
Max. dump angle at max. reach	0	68	68	68	68	68	68
Max. dump angle on ground	0	60	61	61	61	60	61
L Max. dump angle fully raised	0	42	42	42	42	42	42
External radius - tire side	mm	6794	6794	6794	6794	6794	6794
External radius - bucket edge	mm	7596	7699	7628	7708	7596	7675
E Wheel base	mm	3700	3700	3700	3700	3700	3700
D Width at tires edge	mm	3199	3199	3199	3199	3199	3199
F Tread	mm	2420	2420	2420	2420	2420	2420
G Ground clearance (at 12° osc.)	mm	491	491	491	491	491	491
A Overall length	mm	10082	9910	10012	9840	10059	9838
C Overall height	mm	3863	3863	3863	3863	3863	3863
Operating weight	kg	34531	34626	34488	34583	34311	34450

 $All\ capacities\ according\ ISO\ 7546, with\ straight\ blade\ [measure\ at\ the\ tip\ of\ bucket\ teeth\ or\ cutting\ edge],\ tires\ 29.5\ R25\ (L5),\ base\ EU\ configuration.$

● Standard ○ Optional

Engine

- Exhaust aftertreatment (DOC + DPF + SCR)
- Auto idle function
- Auto shutdown function
- Variable Geometric Turbocharger (VGT)
- Air pre-cleaner (centrifugal)
- Engine management
- Fan reversible, variable speed, with automatic function

Powertrain

- 5-gear powershift transmission
- Torque convertor with Lock-up
- Transmission mode managment
- I.C.C.O. (Intelligent Clutch Cut-Off)
- Axle differential Hydraulic Differential Lock
- Axles oil cooler (standard for DL580-7)
- Axles oil cooler (optional for DL550-7)

Hydraulic

- Load sensing hydraulic system, variable displacement pump
- EMCV (Electric main control valve)
- 3rd spool valve
- O MCV (Hydraulic pilot control)

Lift Arm

- Standard lift arm, Z-bar kinematic
- Hydraulic lift arm suspension Load Isolation System (LIS)
- Smooth end position bucket & arm (only with EMCV)
- Position memories
- Automatic bucket position "return to dig"
- High lift arm, Z-bar kinematic (only for DL550-7)

Work tools

- O DOOSAN Quick Coupler
- O DOOSAN Bucket
- O DOOSAN Performance Bucket

Cab & operator comfort

- ROPS (ISO 3471:2008)/FOPS (ISO 3449) pressurized cab
- Grammer seat with vertical and horizontal low-frequency suspension, pneumatic lumbar support, heating, 3-point safety belt
- Joystick lever with FNR and thumbwheel roller integrated to the seat's right armrest
- Electric joystick steering on left armrest
- DOOSAN Smart Key
- Door remote opening
- DOOSAN Smart Touch 8" touch screen, all-in-one
- DOOSAN Smart Guidance System
- Rear-view mirrors heated
- DoosanCONNECT (telematic system)
- 12V socket
- USB socket
- Fingertip control
- O Rear-view mirrors heated, electric adjustment

Safety

- Safety belt alarm
- · Rear-view camera
- Full handrails and maintenance platforms
- Strobe reversing light
- LED working lights on cab (4× front + 4× rear)
- LED working lights on cab (6× front + 6× rear)

Other

- Automatic lubrication system
- 29.5 R25 (L5)
- O 29.5 R25 (L4)
- O 29.5 R25 (L3)
- Additional counterweightDOOSAN weighing system

DISCOVER MORE:

DL550-7







