DL550

Engine Power: SAE J1995, gross 294 kW (394 HP) @ 2,100 rpm
Operational Weight: 31,125 kg (68,619 lb) - STD.
Bucket capacity (SAE): 5.4 ~ 5.7 m³ (7.1 ~ 7.5 cu.yd)
The new DL550 wheel loader has all the advantages of the previous loaders. This logical new step provides real added value to the operator.

Increased production due to the use of a new generation "Direct Injection" engine and the excellent synchronisation of the drive train with the hydraulics system.

Improved ergonomics, increased comfort and excellent all-round visibility ensuring safe and pleasant working conditions.

Improved reliability through the use of higher performance new materials, the development of new computer-assisted structural design techniques and by intensive and systematic test programs. All of these combine to increase the life of vital components and reduce operating costs.

Reduced maintenance increases the availability of the loader and reduces operating costs.
PERFORMANCE

DL550 features an intelligent, load-sensing hydraulic system. Two variable piston pumps provide the exact flow and pressure required and deliver a powerful, highly effective force, offering superior penetration of the hardest materials. The exceptional drawbar pull at the wheels, is reinforced further by providing Hydraulic differential Lock as standard equipment. The engine offers high power and torque characteristics. As a result, the hydraulic system is able to multi-function with power and speed.

Scania D13 engine
Scania D13 engine is based on electronically controlled unit injectors that gives high torque with good fuel economy and low exhaust emissions.

Full Auto Transmission
The electronic powershift transmission is particularly smooth and gear ratios perfectly spaced to give optimal speed. That gives comfort at the same time that it delivers excellent traction in every working conditions. Built-in electronic controls enhance productivity and durability. The free wheel stator torque converter improves power train efficiency in load and carry operations which contributes to the improved fuel efficiency.

Hydraulic Power Steering
Works with a flow amplifier and priority valve. And the emergency steering system is equipped as an option to secure a safety against a malfunction of steering system during traveling.

High Lift (Option)
As High Lift is equipped besides Standard Lift, customers have further options.
**COMFORT**

From the beginning, Doosan has had great concern for machine operators. People need to work in a well-designed and comfortable environment. The work area is spacious, with several places for storage. The checking and monitoring devices are comprehensive. There is an open view of the work area. For night work, operators are provided with powerful front and rear lighting.

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### Air Conditioning & Defroster System

Double filtered air cabs, air ducts are properly placed all around the cab with proportional sensitivity controls and air re-circulation facility. We offer the same comfort as a passenger car.

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### Sunvisor & Room mirror (Std.)

The monitor is aligned with the rear mirrors.

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### Tailored performance for maximum efficiency

The DL550 allows you to select from 3 different working modes: ECO, Normal and Power. It also features a Power-up function which lets the operator switch the machine into a higher working mode with lower transmission shift intervals by fully applying the acceleration pedal.

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### Easy-to-reach control panel

All controls are placed to the right, top and front of the operator. They are clearly positioned for comfortable access and grouped by function, ensuring safe, confident operation.

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### Air Suspension & Heating Seat (Opt.)

Now available, air suspension seats provide more comfort and support for the operator. The built-in hot wires help to rapidly adjust the temperatures to an optimal level to give comfort in the cold winter.

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### Engine coolant and transmission oil temperatures, fuel levels.

Inform the operator about the fuel efficiency of the current driving profile.

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### Joystick or fingertip control

The bucket can be moved using a convenient joystick with an FNR switch and kick-down function. The operator can also choose the option of fingertip control.

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### Transmission cut-off

The transmission cut-off function disconnects the driveline from the engine if the brake pedal is engaged. This delivers the full engine power to the hydraulics, speeding up cycle times and boosting fuel efficiency. The brake pressure needed for activation is automatically controlled, depending on speed, pedal angle and transmission resistance.

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### Transmission cut-off

The steering column features both tilting and telescopic functions.

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MAINTENANCE

A liquid crystal display conveys information to the operator relative to the machine. At the same time, it reports the nature of a problem (if one exists). When servicing the loader, a specialised apparatus can be used to adjust the clutch disks to compensate for their wear. Additionally, by connecting a laptop computer, a complete transmission diagnostic can be performed.
RELIABILITY

Every morning, when the operators commence work, they know that things will go smoothly—because Doosan has taken care of it. The product is solid. Operators know that they have significant reserves at hand and that they won't have to push the machine to its limit. The Doosan DL550 wheel loader is designed and built to last. For Doosan, ‘reliable’ means availability, accessibility and simplicity.

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STANDARD AND OPTIONAL EQUIPMENT

- **Engine**
  - Three-stage air cleaner with turbo-3 pre-cleaner, inner filter, and external plugging indicator as at the dashboard
  - Water separator with fuel filter
  - Crackcase ventilation oil mist system
  - Two fuel filters
  - Hydraulically driven fan
  - External drains for engine oil and coolant
  - Electric-driven fuel feeding pump
  - Mode selector switch for the engine power (Standard / Economy model)
  - Self-diagnosis function

- **Lifting and Hydraulic system**
  - Kawasaki 2-stage system
  - General purpose bucket 5-49m³ (SAE, stepless)
  - FNR Lever (finger tip lever is option)
  - Hydraulic control valve with two sections
  - Automatic boom lock out
  - Automatic bucket return to dig
  - Fast couplers for hydraulic check
  - Variable displacement piston pump and load sensing hydraulic system

- **Steering system**
  - Load sensing steering system

- **External equipments**
  - Power steering plates
  - Steering hooks
  - Articulation lock in the transport position
  - Towing hitch
  - Tools compartment
  - Fender
  - Mud guard

- **Electric System**
  - 4 Drivers brake lights
  - Working lights: a at the front and a at the rear (6 x 2 bulb)
  - Driving lights: line and high beams
  - Tail indicators, stop, reversing lights
  - Reversing alarm

- **Loader Linkage**
  - Two-way loader linkage

- **Drive line and Brake system**
  - Intelligent transmissions clutch on-off and brake pedal
  - Gear box with diagnosis and monitoring indicator, and electronic plug for a fast adjustment
  - Mode selector switch for the transmission (Manual / Auto 1 - 4 / Auto 5 - 4)
  - Starting safety system
  - Lockdown and traveling direction selector: lever at left of the steering wheel or on the joystick
  - DRL on front axle.
  - Dual brake circuits with accumulator
  - Tire zip (5x5 / 6x6)
  - Dual service brake pedals
  - Secondary brake system
  - Parking brake on the transmission, electric-hydraulic

- **Cab**
  - Air-conditioning / heating with recirculation function
  - Double filtered air cab
  - Mechanical suspension seat with safety belt(2)*
  - Adjustable steering column
  - Compartment for cans
  - Floor mat
  - Tinted glasses
  - Left sliding window
  - Front and rear wipers
  - Front and rear washers
  - Sun visor
  - Interior cab light
  - Interior room mirror (2)
  - Exterior rear view mirrors (2)
  - Interior room mirror (2)
  - Sun visor
  - Front and rear washers
  - Left sliding window
  - Tinted glasses
  - Floor mat
  - Belt(2*4)
  - Mechanical suspension seat with safety belt(2*)
  - Parking brake on the transmission, electric-hydraulic
  - Gear box with diagnosis and monitoring indicator, and electronic plug for a fast adjustment

- **Standard delivery package and options may vary by region.**

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OPTIONAL EQUIPMENT

- **Ground Engaging Tools**
  - Various types of hydraulic, power, knife, tooth, grapples and accessories

- **Drive line and Brake System**
  - 4 Gear with Lock-up clutch

- **Tires**
  - 8.5-16, 15 following various types of manufacturers

- **Hydraulic**
  - Hydraulic grid function control valve
  - FNR lever with grid function lever for third section
  - Two hydraulic levers for a 3 sections function
  - Three hydraulic levers for 3 sections function
  - Load isolation system (LIS)
  - Emergency steering pump driven by electric motor (ES)
  - Electric Steering Lever

- **Electric system**
  - Rotating beacon
  - Additional lighting

- **Cab**
  - Rear camera (CCTV) and monitor
  - Air suspension seat with 1” bulb

- **Various**
  - Additional counterweight

- **External equipments**
  - Two-way loader linkage

- **Loader Linkage**
  - 2-3 high lift loader linkage

- **Bucket and Attachments**
  - Bucket tooth
  - Adapter tooth
  - Bolt-on edge
  - Mono tooth
  - Adapter tooth
  - Tooth & segments
  - Bolt-on edge
  - Rock bucket Adapter tooth

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* The standard delivery package and options may vary by region.
TECHNICAL SPECIFICATIONS

GENERAL DESCRIPTION
The high performance Engine Scania DC13 combines a 6 cylinder in-line, high-pressure unit injector fuel injection system with electronically controlled direct injection and turbo charged air to air intercooler offers low fuel consumption and emission.

†-GROSS SAE J1995 consumption and emission.

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"Full Power Shift" transmission. It can be used in manual or automatic modes.

This transmission is based on components having excellent worldwide reputations. It is equipped with a modulation system allowing soft gear shifting and inversion of travel direction. Safety devices also protect the transmission of bad operations.

The gear and direction shifting is operated by a single lever to the left of the steering wheel. A travel direction control is also mounted on the hydraulic joystick.

With a special electronic device, the transmission can be tested and adjusted easily for optimum performance and efficiency.

The transmission can be electronically controlled. An automatic boom kick out and bucket return to dig is standard.

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All of hydraulic lines are equipped with special seals (O-Rings).

†-MAX FLOW MAIN:
480 l/min (Main 210 + Steering 270)

†-WORKING PRESSURE:
275 bars

†-PRESSURE OF THE PILOT CIRCUIT:
30 bars

†- Filtration capacity on the return line: 10 microns

†-Loading cycles time:
Lifting speed (loaded) : 6.1 sec
Dumping speed (loaded) : 4.2 sec

†-Torque converter:
Type : 4 speeds, full auto power shift, Countershaft, Engine remote mounted with propeller shaft and damper
Stall ratio : 2.598

†-GEAR BOX:
Maker and model : ZF 4 WG 310

†-SPEED FORWARD/REVERSE:
1 6.4 / 6.5 km/h
2 12.4 / 12.1 km/h
3 19.7 / 19 km/h
4 28.0 km/h
* 36 km/h
** 45 km/h

†-Oil flow:
270 l/min

†-Working pressure:
185 bars

†-Steering cylinders (4):
bore x stroke : 310 x 455 mm (4.5" x 17.9")

Emergency steering system with hydraulic pump driven by electric motor.

†-MAINTENANCE
Maintenance is easy due to excellent access.

The transmission is electronically controlled. An error coding system allows easy diagnosis of the systems and proper intervention.

†-Engine (oil):
45 l (11.8 gal)

†-Radiator (cooling liquid):
60 l (15.8 gal)

†-Fuel:
564 l (149.9 gal)

†-Hydraulic oil:
247 l (65.2 gal)

†-Gear box and torque converter:
54 l (14.2 gal)

†-Front axle:
50 l (13.2 gal)

†-Rear axle:
50 l (13.2 gal)

†-ACCESS DOOR:
1

†-Emergency exit:
2

†-Access panel:

†-Camera view:

†-Lifting system:
The lifting system with two cylinders and Z configuration is designed for the toughest jobs. The breakout force (26.5 ton with a 5.4m3 bucket) is optimized for work and the bucket movements are fast.

The "Z" form lifting geometry is extremely robust and especially tailored for demanding jobs. Particularly effective in penetrating piles of hard material, it delivers superior breakout force and loader stability. This is achieved with fewer moving parts and reduced stress on components. Performance improves with rapid bucket movements and correct angle positioning in every situation. With greater dumping and lifting speed for the bucket and lift arm, faster cycle times and increased productivity are ensured.

†-Lifting cylinders (2)
bore x stroke : 190 x 890 mm (7.5" x 34.9")

†-Bucket cylinders (3)
bore x stroke : 220 x 660 mm (8.7" x 26.0")

†-STEERING SYSTEM
The steering system is a load sensing type with a flow amplifier and a priority valve.

†-Steering angle:
50°

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270 l/min

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Emergency steering system with hydraulic pump driven by electric motor.

†-OPERATOR’S CAB
The modular cab allows excellent visibility in all directions. The optimal ventilation is obtained by numerous ventilation outlets. Touch buttons control the air re-circulation air conditioning and heating systems. The air of the cab is filtered.

All necessary information for the operator are centralized in front of him. The main functions are activated via switches located on a console at the right of the operator.

Generous storage places are well located. The cab, mounted on viscous element and equipped with an air suspended seat, offers a better comfort for the operator.

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OPERATIONAL DATA

The specific weight of material largely depends on moisture rate, compacting value, and the operator ability.

DIMENSIONS

(1) Measured to the tip of the bucket teeth or bolt on edge with times 0.5, 2, 5, 10, 20.0.

The Bucket filling factor depends also on the nature of material, the working conditions, and the operator ability.
Doosan worldwide factories

- Heavy Equipment Factory
- Compact Equipment Factory
- Attachment Factory

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