### **9-SERIES FORKLIFTS** Pneumatic diesel 10.0 to 16.0 tonne capacity

D100S-9 / D120S-9 / D140S-9 / D160S-9 / DV160S-9

Euro Stage V

DOOSAN

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# LOW FUEL CONSUMPTION, POWERFUL PERFORMANCE

### **BUILT FOR OUTSTANDING PERFORMANCE IN HEAVY DUTY ENVIRONMENTS**

The 10-16t diesel forklift series provide superb performance and high power output, thanks to Doosan's own award winning G2 Diesel Engines. The stage V compliant ulta low emission engine in this series offer increased combustion efficiency and two power modes (ECO / STD), allowing you to tailor the output to suit the needs of the application.

Featuring the rugged reliability, the strong and rigid chassis frame, designed mostly out of metal, ensures that Doosan is the best choice for all applications. The re-designed all-open cabin that provides the operator optimal visibility at any time from all angles. This enhances workability and safety.



## ALL NEW 9 SERIES DIESEL FORKLIFT



## **NEW FEATURES**

- Doosan DL06V(P) Engine
- Closed Center Load Sensing (CCLS)
- Auto throttle up
- LED lights
- Rear object detetction system
- Integrated type 7" multi-function display panel
- Convenient and easy-to-use heating, ventilation and air-conditioning (HVAC) system
- Centralized switches

- Significantly lower noise level
- Fan Driving System
- Junction Box
- Centralized Pressure Detection Port
- Cockpit tilting (Auto/Manual)
- Hood open angle
- Heavy duty steering axle
- Integrated type vehicle control unit (VCU)

### **Maximum Productivity**

#### Doosan engine DL06V(P) Stage V



Stage V conform - Exhaust ash cleaning solutions; DPF installed additionally Automatic DPE regeneration

- Automatic DPF regeneration
- Increased combustion efficiency and durability.
  Fuel efficiency improved by 5%, heat decreased by 20%.
- Optimized fuel injection function ensures reliable ignition at low temperatures.
- Power modes (ECO/STD)

#### High-performance & high-efficiency ZF full automatic 3-speed 3WG171 transmission

- Large capacity ZF 3-Speed 3WG171 transmission
  - Improved power transmission efficiency by stator freewheel
  - Excellent driving and traction
  - 5% higher fuel efficiency compared to previous models
- Optimized power matching of the engine with the transmission - Excellent engine responsiveness, powerful performance and soft gearshift
- Providing efficient maintenance through the self-diagnosis system



#### Strong and durable drive axle

The use of the heavy duty front axle in combination with the electric parking brake enhances the durability and safety.

The oil-cooled disc brakes (OCDB) ensure reliable braking at very low maintenance costs.



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#### Closed Center Load Sensing (CCLS)

NEW

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Uses only the necessary volume of oil depending- on the load, leading to lower fuel consumption and less heating during long-distance driving. This series performs excellently during driving and complex operations.

**NEW** 

#### Auto throttle up

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By using any hydraulic function, engine RPM is increased allowing for a smoother hydraulic function without the need of increased use of the accelerator.



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Safety



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#### Front/rear view camera **OPTION**

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Workplace safety is ensured by maximizing front/rear visibility.

#### Blue safety light OPTION

Projects a blue spot on the floor to alert pedestrians.



#### GSS(Guardian Stability System)

Doosan's unique safety system provides various safety functions including mast, actuator, light and camera, helping to prevent unexpected accidents.



#### Hill Start Assist (HSA)

Automatically activates the parking brake when stopping on a slope and deactivates it when the accelerator pedal is pressed, so that the machine does not roll back from a slope and driving stability is greatly improved.



### LED lights **OPTION**

NEW

LED headlight for low beam/high beam is applied for the first time in the industry and gurantees a complete LED lamp installation. This contributes to clear visibility and efficiency whilst working in areas with reduced lighting. This helps to reduce maintenance costs and prevent hazards/accidents.



#### Auto-tilt leveling OPTION

By pressing a button on the tilting handle, the mast will automatically move to an upward position.



Rear object detetction system **OPTION** 

When a pedestrian or object is detected in the operating area of the truck, a beeping sound will alert the operator and the pedestrians.

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**Electric parking brake** 

The parking brake can be operated by a switch and is automatically activated when the speed is below 3 km/h.

#### Excellent visibility

The re-designed all-open cabin that provides the operator optimal visibility at any time from all angles. This enhances workability and safety.

**NEW** 



### **Optimal Ergonomics**



#### 1. Integrated type 7" multi-function display panel



The largest mounted display in its class provides excellent operability and visibility.

- Front and rear view camera **OPTION**
- PIN code
- Integrated maintenance management program
- Weight indicator **OPTION**
  - Diagnostic function
- Located on A-pillar for optimal view

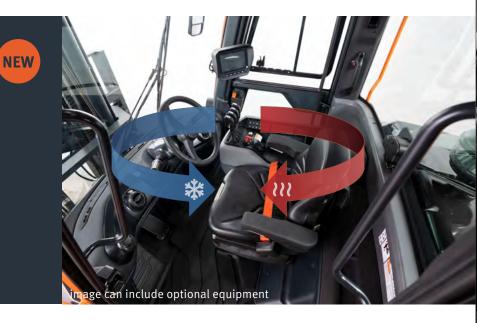


#### 2. Fingertip controls OPTION

Ergonomically designed fingertip controller ensures accurate and fine control with less fatigue and improved efficiency.

#### Convenient and easy-to-use heating, ventilation and air-conditioning (HVAC) system

This system offers integrated heating/ cooling/ventilation control, allowing automatic heating/cooling temperature control (full automatic temperature control). The all-in-one heating/air conditioning system with its twin evaporators provides excellent performance.





#### 3. Centralized switches



All control switches are arranged in one place, making the machine more convenient. In addition, each control switch includes a status indicator to show the actual function status. Next, double USB ports and a power jack is standard available.

Sun visor

Steering wheel providing fore-/ backwards and up/ down adjustment

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Air suspension seat

#### Significantly lower noise level NEW

The over-pressurized cabin ensures that no dust can enter.

- 2 large air filters clean the supplied air
- Very low noise and vibration level inside the cabin for high driving comfort

image can include optional equipment

OPTION

### **Excellent reliability**







OPTION NEW

The fan speed is variably controlled by the coolant and brake oil temperature to minimise energy loss. The fan reverse function facilitates cleaning of the radiator.



k NEW

The electronic components are centralized so service can be done quickly and easily.

#### Centralized Pressure Detection OPTION Port



The pump, brake, and steering pressure measurement ports are independently built-in and centralized for easier pressure checking.

#### Heavy duty steering axle

Equipped with tapered rollers and spherical bearings to ensure the highest durability at any time.



#### Cockpit tilting (Auto/Manual) NEW

Automatic/manual cockpit tilt functions are available and the cabin can be opened to 60° with a simple switch, making inspection and maintenance quick and easy.

#### Hood open angle NEW

The wide open angle make it more convenient to service the truck.

## Integrated type vehicle control unit (VCU)

This smart, innovative system offers the integrated control of various decentralized control units in combination with CAN communication, enabling vehicle diagnostics and management as well as various safety and comfort functions on demand. The system can be updated when new functions are available.

NEW

Speed Limit

**Electric Parking Brake** 

Vehicle Control Uni<del>t</del>

**Auto Tilt Leveling** 

### Leading the way

The new world class 9-Series forklifts from Doosan





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Higher lifting and travel speed helps me to complete my job efficiently

#### PRODUCTIVITY

- Strong and durable drive axle
- Euro Stage V engine
- 3 stages of speed transmission

The new 9-Series forklifts continue to follow the core Doosan tradition of delivering simple, powerful performance whilst most of all, delivering the best possible value for you. The specially designed ergonomic operator compartment keeps the operator in complete control at all times, improving productivity and reducing stress and fatigue. The new model offers improved visibility and the latest design in ergonomic hydraulic controls. Thanks to an improved durable design and an additional stability system, Doosan's new 9-Series exceed the highest demands for safe operation. Extended maintenance intervals and advanced technology components reduce the overall cost of maintenance. The new engine provides an unbeatable combination of power, performance and reliability. Each parameter is fully adjustable to match every individual requirement perfectly, providing maximum control and accuracy for every function.



**66** The robustness of the Doosan truck gets the toughest jobs done **99** 

SAFETY AND ERGONOMICS

- Electric parking brake (EPB)

- Excellent visibility
- New designed operator compartment
- New instrument panel





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The Doosan service support network has never let me down **99** 

#### SERVICEABILITY

- Doosan service network coverage
- Quick service response



### **Main Specifications**

		D100S-9	D120S-9	D140S-9	D160S-9	DV160S-9
Engine manufacturer		Doosan	Doosan	Doosan	Doosan	Doosan
Engine type		DL06	DL06	DL06	DL06	DL06
Engine power according to DIN ISO1585	kW	128.7	128.7	128.7	128.7	139.7
Rated speed	min-1	2,100	2,100	2,100	2,100	2,100
Torque at 1/min	N∙m	725.7	725.7	725.7	725.7	784.5
Travel speed, loaded/ unloaded	km/h	36/41	35/40	30/35	29/34	34/39
Lift speed, loaded/ unloaded	mm/s	460/490	450/490	410/460	400/460	390/460
Drawbar pull, loaded (@ 1.6km/h)	kg	11,544	11,474	12,534	12,464	12,504
Gradeability, loaded(@ 1.6km/h)	%	51	44	43	38	32.4
Fuel tank capacity	l	195	195	235	235	200
Sound level at the driver's ear (according to EN 12 053)	dB(A)	71	71	71	71	71
Height of cabin	mm	2,950	2,950	2,980	2,980	2,980
Ground clearance, loaded, below mast	mm	240	240	235	235	200
Ground clearance, center of wheelbase	mm	315	315	345	345	345
Load Distance: center of driveaxle to fork	mm	755	770	815	815	985
Wheelbase	mm	3,000	3,000	3,250	3,250	3,750
Service weight	kg	15,300	16,300	18,300	19,300	23,523
Height of seat	mm	1,800	1,800	1,830	1,830	1,830
Length to forkface	mm	4,490	4,500	4,830	4,830	5,555
Overall width	mm	2,350	2,350	2,490	2,490	2,540
Turning radius	mm	4,255	4,255	4,545	4,545	5,115

### **Standard Features and Optional Extras**

#### SAFETY

Electric Parking Brake	
Operator Sensing System (OSS)	
Hill Start Assist (HSA)	
Speed Limit	
Rear view mirror (LH/RH)	
Guardian Stability System (GSS)	
Seat Belt Interlock	
Safety light (always on or activated by gear)	
4th lever interlock for attachment	
Front camera, rear view camera	
Weight indicator (hydraulic/load cell)	
Auto tilt leveling	
Rear object detection system with beep sound	

#### ERGONOMICS

\* Remark : This list is based on factory data. Standard or optional can vary for specific countries.

Standard Optional

#### DURABILITY

Anti-moisture electric connectors	
1/2" attachment hose	
Under Protection (engine Guard)	
Under protection (belly plate)	
Mud guard (front/rear tires)	

SERVICEABILITY	
Junction box	
Manual tilting	
Automatic tilting	
Battery disconnect switch	
Hydraulic pressure check package	
Tankless air compressor	
Automatic reversible cooling fan	

#### PRODUCTIVITY

3-speed ZF transmission (Autoshift)	
Closed Center Load Sensing (CCLS)	
Auto Throttle up	
Oil-cooled disc brakes	
Multi torque mode (eco/STD)	
Front and rear combination LED lights (with hazard switch)	
Front 2 LED Light (on operator compartment)	
Rear 2 LED Light (on operator compartment)	
Additional 2 front LED lights (on mast)	
Additional 1 Rear LED (on counterweight)	
Strobe light (above/below)	
Rotating strobe light (above, LED)	



- Production Subsidiary
- Sales Subsidiary
- A Parts Depot Center



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Authorised Dealer