

# **9-SERIES FORKLIFTS** Pneumatic diesel 6.0 to 9.0 tonne capacity

D60S-9/D70S-9/D80S-9/D90S-9 Euro Stage V

# BUILT TO MEET THE NEEDS OF DEMANDING INDUSTRIAL ENVIRONMENTS

The Doosan 9-Series internal combustion forklifts is designed to handle the toughest most demanding environments requiring heavy lifting; providing great power, excellent performance, driving comfort, reliability and outstanding fuel efficiency.

Fitted with a Doosan fuel efficient engine running with the ULFCT\*, this series can handle demanding lifting requirements in the most efficient way whilst enhancing productivity.



# ALL NEW 9 SERIES DIESEL FORKLIFT

01	MAXIMUM PRODUCTIVIT	Y
	Fuel officient on size	•
•	Fuel efficient engine	
	Multi torque mode	•
02	SAFETY	
•	Excellent visibility	•
•	Electric parking brake	•
03	OPTIMAL ERGONOMICS	
	Reduced noice level	•
•		
•	Centralized ergonomically positioned switches for all functions	•
04	EXCELLENT RELIABILITY	
	Reinforced high durability steering axle	
•	Electric tilting cabin	
0!	GREAT SERVICEABILITY	
	Extended service interval for key	
	components	
NĖ	W FEATURES	

- Doosan 3.4L engine
- New design cabin
- HVAC1 system (2-in-1 air-conditioner)
- 7" Multi-function full colour display panel
- Comfortable full suspension seat
- Significantly lower noise level
- VCU (Vehicle control Unit)
- Auto throttle up

02

Oil-cooled disc brakes Auto throttle up

LED lights Rear object detection system

Large 7" full colour display Heater and automatic air conditioning

Mud guard Integrated Vehicle Control Unit

Easy-to-access all main components

- Full LED lamp
- Highly durable steer axle
- IP67 connector
- Mud guard (Optional)
- Fan belt auto-tensioner
- Maintenance-free for valve clearance
- Fan belt auto-tensioner
- Lin-Q (Doosan Telematics System)

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# **Built for Maximum Productivity**



### Strong and durable drive axle

The use of the heavy duty front axle in combination with the electric parking brake enhances durability and safety. The oil cooled disc brakes (ODB) ensure reliable braking at very low maintenance costs.

# Doosan Engine ໜ DM03V(A) Stage V

- Automatic DPF regeneration
- High durability Bosch common rail fuel system
- 3 power modes (eco/STD/high)
- Extended engine oil change interval
- Auto-adjust for intake & exhaust valve clearance
- (maintenance-free)
- Auto-adjust fan belt (low maintenance costs)



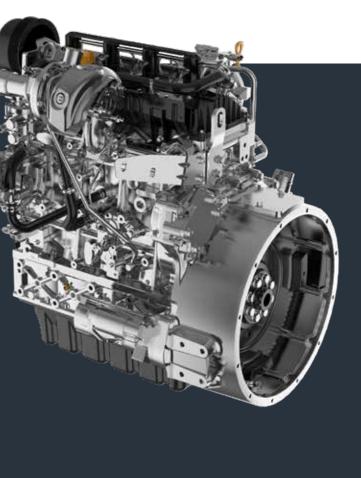


# Auto throttle up



By activating a hydraulic function, the engine idle speed will be increased automatically in order to offer a fine response of the hydraulic system.

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# Electronic controlled 3-speed transmission (ZF-3WG-94)

• Proportionally controlled gear shift for excellent gear transition

- Torque converter stator freewheel with excellent power efficiency

- Improved fuel-efficiency while driving long distance or working for long hours
- Optimized power matching of the engine with the transmission

- Excellent engine responsiveness, powerful performance and soft gearshift

• Diagnostic system integrated in the display





Image may include optional equipment

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

Workplace safety is ensured by maximizing front/rear visibility.

## Blue safety light **OPTION**

Projects blue spot on the floor to alert pedestrians.





# Electric parking brake

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



## Rear object detection 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.

# Excellent visibility **NEW**



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



## Auto tilt leveling OPTION

At the touch of a button, the tilting handle, the mast will automactically move to an upward position.



# LED lights **OPTION**

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.

# Image may include optional equipment



# **Built for Optimal Ergonomics**



### 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

Integrated maintenance

management program

• PIN code

- Diagnostic function
- Located at A-pillar for optimal view

Weight indicator **OPTION**

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Low height of the 1st and 2nd steps to allow the operator to get on and off the truck easily and comfortably.

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

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

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





# Centralized switches

All control switches are arranged in one place, making the machine more accessible to the operator. 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.

# 74dBA\*

Significantly reduced noise level \*Perceived noise level depending on the model

Image may include optional equipment



Air suspension seat

PTION



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

Sun visor

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

# **Built for Excellent Reliability**



Highly durable steer axle

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



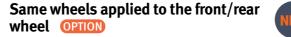
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The electronic components are centralized so service can be done quick and easy.



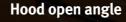
STANDARD



This helps to minimize the amount of spare tires required, reducing inventory costs while allowing them to be easily carried for emergency use or tire replacement. The wheel nut cover is also provided to prevent damage to the nut by external impact.

## Cockpit tilting (Auto/Manual)

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.



The increased hood angle from 30° to 50° makes it more comfortable 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.

# Electronic Parking Brake



**Mud guard OPTION** Keeps the vehicle clean.



# Auto Tilt Leveling

# Vehicle Control Unit

Speed Limit

# Main Specifications

		D60S-9	D70S-9
Engine manufacturer		Doosan	Doosan
Engine type		DM03	DM03
Engine power according to DIN ISO1585	kW	55	.4
Rated speed	min-1	2,300	2,300
Torque at 1/min	N∙m	400	400
Travel speed, loaded/unloaded	km/h	30.7/34.7	28.6/34.5
Lift speed, loaded/unloaded	mm/s	470/530	410/470
Drawbar pull, loaded (@ 1.6km/h)	kg	5,009	4,997
Gradeability, loaded(@ 1.6km/h)	%	34.8	31
Fuel tank capacity	l	160	160
Sound level at the driver's ear (according to EN 12 053)	dB(A)	72	72
Height of cabin	mm	2,535	2,535
Ground clearance, loaded, below mast	mm	196	196
Ground clearance, center of wheelbase	mm	214	214
Load Distance: center of driveaxle to fork	mm	632	632
Wheelbase	mm	2,300	2,300
Service weight	kg	9,435	10,100
Height of seat	mm	1,455	1,455
Length to forkface	mm	3,618	3,697
Overall width	mm	2,156	2,156
Turning radius	mm	3,380	3,430

D60S-9	D70S-9	D80S-9	D90S-9			
Doosan	Doosan	Doosan	Doosan			
DM03	DM03	DM03	DM03			
80.9						
2,300	2,300	2,300	2,300			
460	460	460	460			
30.8/34.3	30.2/34.2	30/35	30/35			
500/540	440/480	430/480	430/480			
6,210	6,161	6,541	5,793			
45	39	35	28			
160	160	255	255			
74	74	74	74			
2,535	2,535	2,771	2,771			
196	196	283	283			
214	214	329	329			
632	632	725	725			
2,300	2,300	2,500	2,500			
9,435	10,100	11,330	11,980			
1,455	1,455	1,526	1,526			
3,618	3,697	4,014	4,040			
2,156	2,156	2,230	2,230			
3,380	3,430	3,650	3,680			

# Standard Features and Optional Extras

## SAFETY

Electric Parking Brake
Speed Limit
Rear view mirror (LH/RH)
Panoramic Mirror
Vehicle control unit (VCU)
Seat Belt Interlock
Safety light (always on/activated by gear)
4th lever interlock for attachment
Rear view camera
Front & rear view camera
Weight indicator (hydraulic/load cell)
Auto tilt leveling
Anti-surge function
Siren & Microphone

## ERGONOMICS

7" Multi functional display (full color)
Telescopic steering column (with tilting)
Power jack & USB port
Rear grab bar with horn
Suspension seat with arm rest
Grammer, air suspension, arm rest, heating
Full cabin
Heater & air conditioner
Audio (DAB type Radio, MP3)

## PRODUCTIVITY

3-speed ZF transmission (Autoshift)	
Oil-cooled disc brakes	
Front LED light	
Multi torque mode (eco/STD/power)	
Rear 2 LED lights	
Additional 2 front LED lights (on cabin or on mast)	
Combination LED lights (with hazard switch)	
Strobe light (above/below)	
Rotating strobe light (above, LED)	
Radial tires	



## RELIABILITY

Anti-moisture electric connectors	
Additional cooler (hydraulic/transmission oil)	
Radiator screen	
Under protection (belly plate)	
Pre fuel filter	
Mud guard (rear tire)	

## SERVICEABILITY

Junction box	
Manual tilting	
Automatic tilting	
Tankless air compressor	
Steer axle common wheel (with wheel nut cover)	

# Leading the way

The new world class 9-Series forklifts from Doosan

02

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.





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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 robustness of the Doosan truck gets the toughest jobs done

#### SAFETY AND ERGONOMICS

- Electric parking brake (EPB)
- Excellent visibility
- New designed operator compartmentNew instrument panel

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.



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The Doosan service support network has never let me down

#### SERVICEABILITY

- Doosan service network coverage
- Quick service response





- Production Subsidiary
- Sales Subsidiary
- A Parts Depot Center

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