

D35S-7 / D40S-7 / D45S-7 / D50C-7 / D55C-7 D40SC-7 / D45SC-7 / D50SC-7 / D55SC-7

# **NEW 9-SERIES FORKLIFTS**

Pneumatic Diesel 3.5 to 5.5 ton Compliant with Euro Stage V



# **Excellent Operator Comfort**



### **Operator comfort**

The compact steering wheel and slim telescopic steering column ensure the best driving position.

- Compact steering wheel : reduced diameter with 70mm
- Slim & telescopic steering column

### Air conditioner and heater

- Ergonomically designed air vent layout
- Fresh air control (Heater)
- Temperature control (Heater)
- Air volume control (Heater)
- Compressor on/off control (Air conditioner)
- Air volume control (Air conditioner)
- Fresh air control (Air conditioner) •
- Internal/external air circulation control
- Air filter to prevent dust inflow





The knee clearance has been widened and the tilt cylinder has been removed from the floor plate, creating more leg room.

- Knee clearance : +16%
- Floor plate area : +50% •
- Entrance width : +72%
- Torso clearance : +20mm

### Low Noise Level

Due to the different noise reducing designs the noise from the engine room and from the outside is minimized. These features also soften the tone of the sound.

- Noise level :  $86.2db(A) \rightarrow 79db(A)$
- Tight structure of the floor plate blocks the noise of the • engine room
- Sound-absorbing foam under the hood
- Seal between hood and side cover/MCV cover/floor plate



Floor plate

Hood Side cover sealing



### 7" Full color LCD Display

It shows different information that keeps the operator informed about the operating and maintenance conditions of the machine.

### Enhanced visibility

The enlarged curved glass and the design of the cowl provide a better view forward/above.

- Front cockpit unit cowl height: • -40mm lowered
- Glass on cabin: enlarged by 8%
- Curved glass (top/front/rear)

### Low Vibration Level

With the new mounting rubber and the fully floating type cabin, vibration are reduced to a minimum.

- New mount rubber on the engine • and transmission
- Full floating design (full cabin)



### Full floating cabin

# **Diesel Particulate Filter**

In order to comply with Euro Stage V, it was necessary to equip our forklifts with a Diesel Particulate filter. Doosan believes it is important to ensure maximum uptime of your truck, so we have made sure that service is reduced to a minimum. Regeneration is automatic.



### What is the downtime of the forklift when regenerating?

In a normal operation, the regeneration takes place during driving so you won't even notice it is being done. In a light application, a manual (also referred to as "forced") regeneration might be needed and it takes about 40 minutes. This forced regeneration is only possible when the coolant temperature is above 40 degrees (the coolant temperature can be checked on the monitor). Since this is a high-temperature regeneration, it is recommended to consider the surrounding environment during regeneration.



### After approximately how many hours do I need to regenerate?

The regeneration will take place during normal operation without you being aware of it. Only in light applications, a manual regeneration process might be needed every 50 to 100 working hours. You can predict the need for manual regeneration based on the soot meter on the monitor.



## Can I postpone the regeneration to a more suitable time?

avoid harm to the DPF.



DPF does not need to be replaced long as it is regenerated regularly. You just detach the DPF and do ash cleaning regularly every 5000 hours.



As long as you follow the regeneration and ash cleaning instructions, there is no need for a new DPF. We advise you to avoid using so-called DPF cleaning additives as they can harm your DPF beyond repair.



Yes. You can put the regeneration off by using the 'inhibit switch'. However, if the soot exceeds 110%, the power will be limited to alert you to regenerate and

### What kind of service costs are involved?

### After how many hours do I need a new DPF filter?

# **Unbeatable Durability and Safety**

### Electronic powertrain control

The most advanced powertrain system allows for precise control when handling heavy loads with less fatigue.

- The sensitivity of the inching pedal is adjustable. It helps with accurate control when dealing with heavy and fragile loads such as glass/bottling.
- The service brake is designed as a 'master brake cylinder' type. It increases the braking capacity by 200% and also reduces braking effort by 20%.
- → These functions allow operators to work with less fatigue during braking/inching.

### Integrated powertrain cooling system

New integrated cooling system for transmission & drive axle oil.

- The capacity of the charging pump is increased by 47%. accidents.
- The airflow is optimized by improving the counterweight profile, the fan & core clearance.

 $\rightarrow$  It delivers excellent cooling performance, similar to the heavy-duty option of the previous model.

• Engine coolant :  $103^{\circ}C \rightarrow 89.2^{\circ}C$ 



### **Electric parking brake**

Electric parking brake is standard. It prevents safety accidents.



# **Minimized Total Cost of Ownership**

	D45S-7
Engine oil change	イナナナナイ
Drive axle oil change	キキキキキ
Transmission oil change	トトトトト
Adjusting tension fan belt	ナナナナナ
Adjusting valves	チチチチチ
TOTAL	35 service jobs
(5 years, 5,000 hours)	10 service visits

### **Longer Service Interval**

- Adjusting clearance intake & exhaust valve: 1,000hr  $\rightarrow$  No adjusting (Auto)
- Adjusting tension of fan belt :  $1,000hr \rightarrow No adjusting (Auto)$
- Transmission oil : 1,000hr  $\rightarrow$  2,000hr
- Drive axle oil : 500hr  $\rightarrow$  2,000hr
- Engine oil : 500hr  $\rightarrow$  1,000hr

 $\rightarrow$  Total 5 years of total cost of ownership (TCO) is reduced by 72%

### Energy saving

- Multi Torque Mode : ECO/STD/high mode
- Fuel Efficiency : Improved by 4%





1,000hr → No adjusting (Auto) No adjusting (Auto)

## Technical Data according to VDI 2198

	1.1	Manufacturer			Doosan	Doosan	Doosan
	1.2	Model			D35S-9	D40S-9	D45S-9
s	1.3	Drive			Diesel	Diesel	Diesel
ristic	1.4	Operator type			Seated	Seated	Seated
acte	1.5	Load Capacity	Q	kg	3,500	4,000	4,500
Char	1.6	Load Center	с	mm	600	600	600
	1.8	Load Distance: Center of Driveaxle to fork	x	mm	560	560	555
	1.9	Wheelbase	у	mm	2,015	2,015	2,100
	3.1	Tyres: pneumatic (P), cushion (C)		-	Р	Р	Р
	3.2	Tyre size, Front (single/double)		-	8.25X15-14PR/ 7.50X16-12PR	300X15-18PR/ 7.50X16-12PR	300X15-18PR/ 7.50X16-12PR
res	3.3	Tyre size, Rear		-	7.00X12-12PR	7.00X12-12PR	7.00X12-12PR
Ty	3.5	Wheels, number Front/Rear (x = driven wheels)		-	2X/2	2X/2	2X/2
	3.6	Tread, Front	b10	mm	1,140 / 1,290	1,155 / 1,290	1,155 / 1,290
	3.7	Tread, Rear	b11	mm	1,115	1,115	1,115
	4.1	Tilt of Mast/Fork carriage Forward/ Backward	α/β	0	8/10	8/10	8/10
	4.2	Height, Mast lowered	h1	mm	2,225	2,230	2,230
	4.3	Free Lift	h2	mm	160	160	160
	4.4	Lift height	h3	mm	3,000	3,000	3,000
	4.5	Height, Mast Extended	h4	mm	4,265	4,270	4,420
	4.7	Height of Overhead Guard	h6	mm	2,225	2,230	2,230
sions	4.8	Height of Seat	h7	mm	1,220	1,225	1,225
nens	4.19	Overall Length	l1	mm	4,160	4,200	4,480
Dir	4.20	Length to Forkface	l2	mm	2,995	3,000	3,260
	4.21	Overall Width	b1	mm	1,370	1,455	1,455
	4.22	Fork Dimensions	s/e/l	mm	50X150X1,050	50X150X1,050	50X150X1,200
	4.23	Fork carriage ISO 2328, class/type A,B		-		III	IV
	4.31	Ground Clearance, loaded, below mast	m1	mm	150	160	160
	4.32	Ground Clearance, center of wheelbase	m2	mm	205	205	205
	4.35	External Turning Radius	Wa	mm	2,725	2,775	2,825
	5.1	Travel Speed, Loaded/unloaded		km/h	24.0/26.0	24.0/26.0	24.0/26.0
data	5.2	Lift Speed, Loaded/unloaded		mm/s	0.54/0.60	0.54/0.60	0.54/0.60
nce	5.3	Lowering Speed, Loaded/unloaded		mm/s	0.45/0.50	0.45/0.50	0.45/0.50
orma	5.5	Drawbar pull, Loaded (@ 1.6km/h)		N	34,075	33,540	33,564
Perfo	5.7	Gradeability, Loaded (@ 1.6km/h)		%	38.5	34.5	31.5
	5.10	Service Brake		-	Foot/Hyd	Foot/Hyd	Foot/Hyd
	7.1	Engine Manufacturer/type		-	DI	DI	DI
Engine	7.2	Engine power according to DIN ISO1585		kW	55.4	55.4	55.4
	7.3	Rated Speed		min-1	2,200~2,300	2,200~2,300	2,200~2,300
tion	7.3.1	Torque at 1/min		N∙m	360 @ 1,400	360 @ 1,400	360 @ 1,400
nbus	7.4	Number of Cylinders/Displacement	сс	-/cm3	4/3,409	4/3,409	4/3,409
Con	7.5	Fuel consumption according to VDI cycle		l/h	5.2	5.2	5.2
	7.10	Battery Voltage/normal capacity		V/Ah	12/100	12/100	12/100
_	10.1	Operating pressure for attachments		bar	160	160	160
Dată	10.4	Fuel Tank Capacity		l	105	105	119
Add.	10.7	Sound level at th driver's ear according to EN 12 053		dB(A)	79	79	79

Doosan Doosan Doosan D50C-9 D55C-9 D40SC-9 Diesel Diesel Diesel Seated Seated Seated 5,000 5,500 4,000 600 600 500 565 565 555 2,000 2,100 2,100 Ρ Ρ Ρ 300X15-18PR/ 300X15-18PR/ 8.25X15-14PR/ 7.50X16-12PR 7.50X16-12PR 7.50X16-12PR 7.00X12-14PR 7.00X12-14PR 7.00X12-12PR 2X/2 2X/2 2X/2 1,155 / 1,290 1,140 / 1,290 1,155 / 1,290 1,115 1,115 1,115 8/10 8/10 8/10 2,330 2,330 2,225 170 160 170 3,050 3,050 3,000 4,470 4,265 4,470 2,230 2,230 2,225 1,225 1,220 1,225 4,530 4,560 4,045 3,300 3,340 2,995 1,370 1,455 1,455 60X150X1,200 60X150X1,200 50X150X1,050 IV IV ||| 160 160 150 205 205 205 2,755 2,845 2,875 24.0/26.0 24.0/26.0 24.0/26.0 0.54/0.60 0.54/0.60 0.54/0.60 0.45/0.50 0.45/0.50 0.45/0.50 34,075 33,390 33,170 28.5 26 38.5 Foot/Hyd Foot/Hyd Foot/Hyd DI DI DI 55.4 55.4 55.4 2,200~2,300 2,200~2,300 2,200~2,300 360 @ 1,400 360 @ 1,400 360 @ 1,400 4/3,409 4/3,409 4/3,409 5.2 5.2 5.2 12/100 12/100 12/100 160 160 160 119 119 105 79 79 79

Note: Specification values quoted in this spec sheet have been rounded, exclude Load Backrest and other attachments. Performance may vary due to operating conditions. Products and specifications are subject to change without prior notice.

Doosan	Doosan	Doosan
D45SC-9	D50SC-9	D55SC-9
Diesel	Diesel	Diesel
Seated	Seated	Seated
4,500	5,000	5,500
500	500	500
555	555	565
2,000	2,100	2,100
Р	Р	Р
300X15-18PR/ 7.50X16-12PR	300X15-18PR/ 7.50X16-12PR	300X15-18PR/ 7.50X16-12PR
7.00X12-12PR	7.00X12-12PR	7.00X12-14PR
2X/2	2X/2	2X/2
1,155 / 1,290	1,155 / 1,290	1,155 / 1,290
1,115	1,115	1,115
8/10	8/10	8/10
2,230	2,230	2,380
160	160	170
3,000	3,000	3,050
4,270	4,420	4,470
2,230	2,230	2,230
1,225	1,225	1,225
4,050	4,460	4,500
3,000	3,260	3,300
1,455	1,455	1,455
50X150X1,050	60X150X1,200	60X150X1,200
III	IV	IV
160	160	160
205	205	205
2,800	2,850	2,870
24.0/26.0	24.0/26.0	24.0/26.0
0.54/0.60	0.54/0.60	0.54/0.60
0.45/0.50	0.45/0.50	0.45/0.50
33,540	33,564	33,390
34.5	31.5	28.5
Foot/Hyd	Foot/Hyd	Foot/Hyd
DI	DI	DI
55.4	55.4	55.4
2,200~2,300	2,200~2,300	2,200~2,300
360 @ 1,400	360 @ 1,400	360 @ 1,400
4/3,409	4/3,409	4/3,409
5.2	5.2	5.2
12/100	12/100	12/100
160	160	160
105	119	119
79	79	79

## **Dimensional Drawing**







## **Optional Extras**

SAFETY
Static ground strap
Seat belt interlock
Inside back up alarm
Outside/audible back up alarm
Rear grab bar & horn with horn switch
Vertical exhaust muffler with spark arrestor
Working lights (LED)
Combination lights (LED)
Flashing strobe light
Reflecting decal on counterweight

### PRODUCTIVITY

Hydraulic accumulate	or
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- Increase in fan speed
- Weight scale
- Auto tilt leveling
- Radiator screen
- Belly plate
- Engine guard
- Pre cleaner
- Vented side panel

Mud guard (single/front/rear)

### ERGONOMICS

Steering wheel knob
Panoramic mirror
7" Multi functional display - full colour
Sound suppression
Defroster fan
Mono-pedal
Cup holder
Suspension Seat (Grammer)
Fuel cap with key
Full cabin with Heater or Air-conditioner
Modular cabin A/B/C
Audio
Tilting roof
Sun visor
Rearwiper
Room light
Rear view camera
Rear view mirrors

### SERVICEABILITY

Lift eyes

### Production Subsidiary • Sales Subsidiary A Parts Depot Center



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