



D20/25/30/33S-9  
D35C-9

## NEW 9 SERIES FORKLIFTS

Pneumatic Diesel 2.0 to 3.5 ton  
Complied with Euro Stage V



## Excellent Operator Comfort

### Operator comfort

Compact steering wheel makes it comfortable because you don't move your arms big when driving. Slim steering column take up less space and it makes easier for operator to get out of the truck.

And also, 9 series using the **Telescopic steering column** **NEW**

You can adjust column to the operator's posture.

- Compact Steering Wheel : diameter **-70mm**

- Slim & Telescopic steering column **-75mm**



### Full color LCD display **NEW**

5-inch LCD monitor is standard, 7-inch LCD monitor is an option. It is bright and clear, so it has good visibility outdoors. So you can check easily various information and data on the monitor.

### Air conditioner and heater (Option)

You can work comfortably without being affected by the external environment.

- Ergonomically designed air vent layout
- Air volume control
- Compressor on/off control (Air conditioner)
- Inner / External air circulation control
- Air filter to prevent dust inflow

### Spacious leg room

The knee clearance is widened and tilt cylinder is removed from the floor plate, it allows more spacious leg room.

- Knee clearance : Enlarged by **15%**
- Leg room area : Enlarged by **72%**
- Entrance width : Enlarged by **72%**

### Convenience specifications

Document clip and USB port are located within the reach of the operator, it is easy to manage work papers and convenient to charge mobile phones.

In addition, convenience options such as cup holder and room light are available.

### Lower step plate

The step plate of the truck is lowered, so it takes less power and get into the truck comfortably.

- Step plate height : **-20mm**

### Improved visibility

- IC type mast is applied from 2t~3.3t model. Mast width for 2 to 2.5t is similar to the 7 series. However, for the 3 ton to 3.3 ton class, the mast width is significantly reduced compared to that of the 7 series, ensuring the operator's view.
- Enlarged rounded glass and cowl design provide better front/upper visibility.

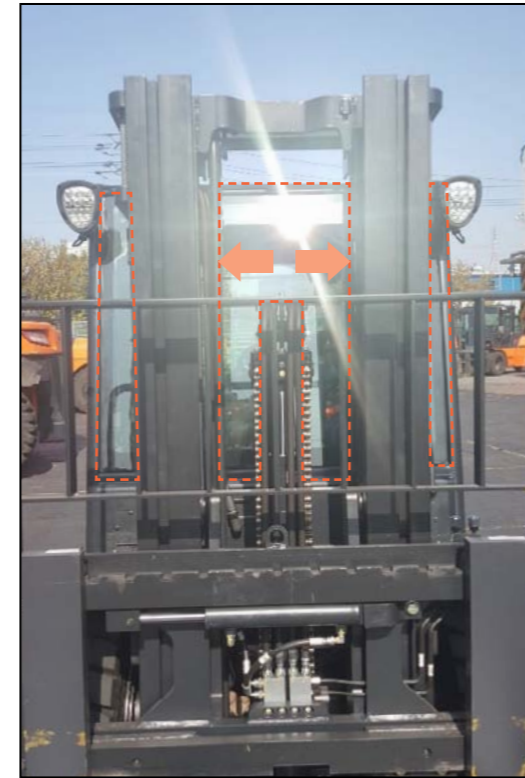
- FCU cowl height: -40mm lowered
- Cabin glass area : Enlarged by 8%
- Rounded glass (Top / Front / Rear)



### Auto throttle up **NEW**

By applying this function, it is possible to work even if the operator does not step on Accel when the truck is stopped.

- Idle RPM increased from **800 to 950**



## Reliable durability and safety

### Upgraded cooling performance

With the option to be used during heavy duty, you can operator the 9 Series without worry, even in hard application.

[unit : °C]	Standard cooling system	Cooling system for heavy duty (Option)
Coolant	102.7	99
Transmission oil	101.3	92.5
Remark	Proper for <b>normal</b> operation and conditions	Proper for <b>heavy and hard</b> application <b>NEW</b>

### Durability and high residual capacity **NEW**

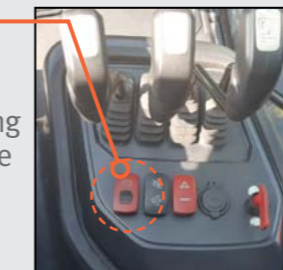
By applying Aux weight, the noise and vibration of 2 ton 9 series is reduced. The life of the parts will be extended. And 9 series can lift more weight at the same height with the aux weight structure.



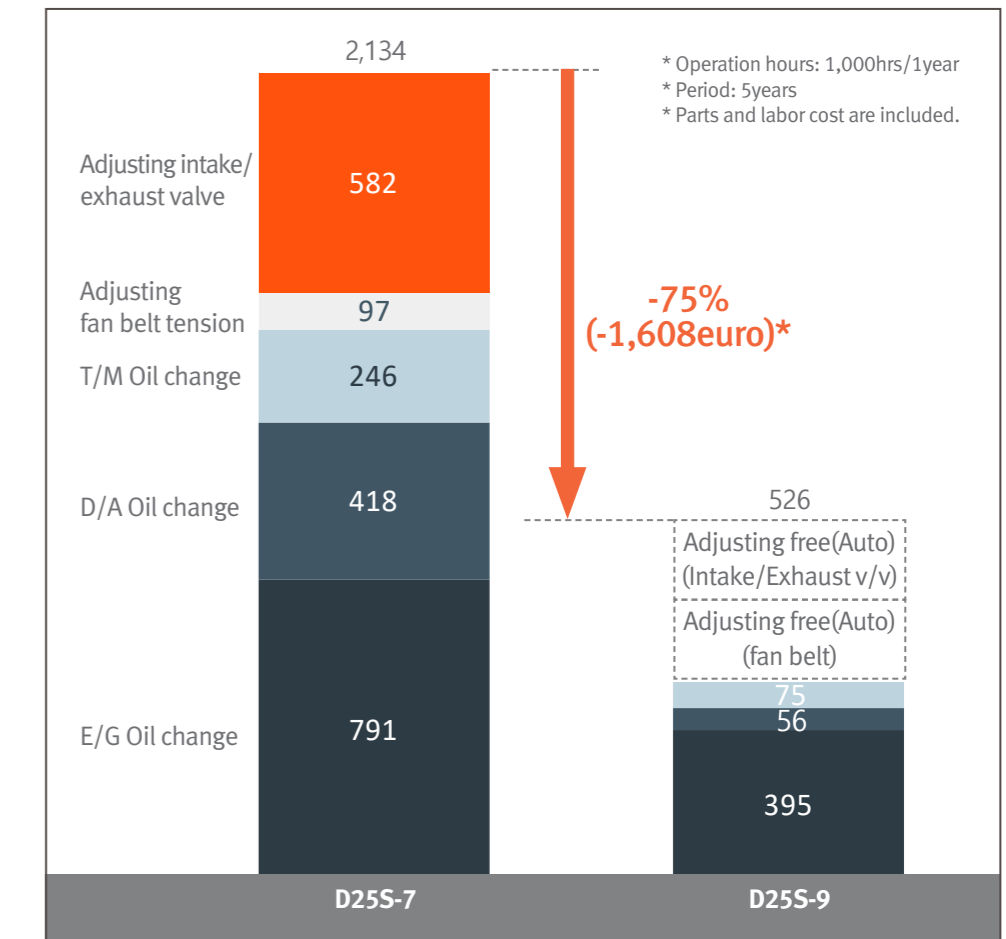
### VCU (Vehicle Control Unit) **NEW**

Various safety functions are applied to the VCU, so it ensures operator's safety.

- **Seat belt switch on/off** **NEW**  
When activating this function, You need to fasten the seat belt after seating in order to operate the truck.
- **Reverse lock**  
When moving forward and changing to reverse, it is possible only when the truck speed is 3 km or less.
- **Speed limit**  
You can adjust the forward / reverse Truck speed differently.
- **EPB (Electronic Parking Brake)** **NEW**  
Electric parking brake is applied as standard. It prevents unexpected safety accident. When you repeat working for a short time after stopping and getting off the truck, the parking brake is automatically activated for safety. It also has a single button, which is great for taking advantage of the interior space.



## TCO is down by 75% compared to the 7 series



Operating the 9 Series for 5 years can save 75% (-1,608 euro) less money than the 7 Series. Also, by reducing downtime, it is possible to increase operating time.

### Longer service interval

- Engine oil : **500hr → 1,000hr**
- Transmission oil : **1,000hr → 2,000hr**
- Drive axle oil : **500hr → 2,000hr**

### Maintenance free engine

- Adjusting clearance for intake & exhaust valve : **1,000hr → No adjusting (Auto)**
- Tension adjusting of fan belt : **1,000hr → No adjusting (Auto)**
- **Bosch** fuel injector applied

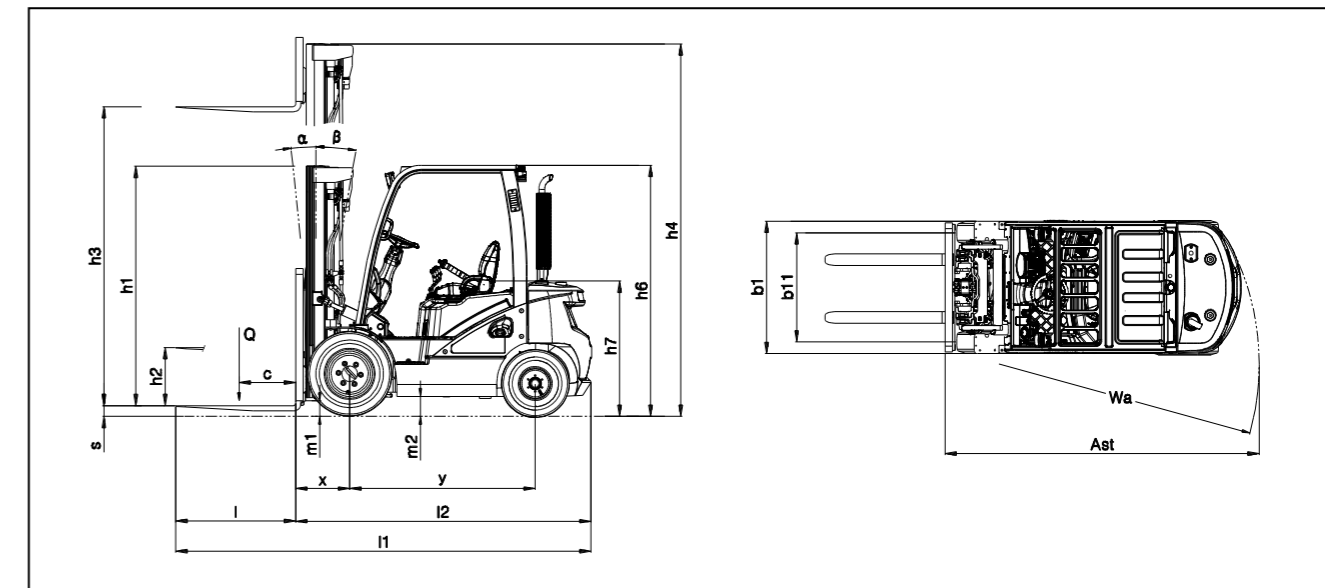


# Technical Data according to VDI 2198

		D20S-9	D25S-9	D30S-9	D33S-9	D35C-9	
Characteristics	1.2 Model designation	D20S-9	D25S-9	D30S-9	D33S-9	D35C-9	
	1.3 Drive: Diesel, Gasoline, LP	diesel	diesel	diesel	diesel	diesel	
	1.4 Operator type	rider-seated	rider-seated	rider-seated	rider-seated	rider-seated	
	1.5 Load Capacity	Q kg	2000	2500	3000	3250	3500
	1.6 Load Center	c mm	500	500	500	500	500
	1.8 Load Distance: Center of Driveaxle to fork	x mm	TBD	TBD	TBD	TBD	TBD
1.9 Wheelbase	y mm	1700	1700	1700	1700	1700	
Weight	2.1 Service weight	kg	3830	4030	4530	4615	4720
	2.2 Axle Loading, Laden Front/Rear	kg	4977/853	5724/806	6518/1012	6892/973	7302/918
	2.3 Axle Loading, Unladen Front/Rear	kg	1825/2005	1780/2250	1780/2750	1760/2855	1755/2965
Tyres	3.1 Tyres: pneumatic (P), superelastic (SE), cushion (C)		P	P	P	P	P
	3.2 Tyre size, Front (Single/Dual)		7.00x15-12	7.00x15-12	7.00x15-12	7.00x15-12	7.00x15-12
	3.3 Tyre size, Rear		6.50x10-10	6.50x10-10	6.50x10-10	6.50x10-10	6.50x10-10
	3.5 Wheels, number Front/Rear (x = driven wheels)		2/2	2/2	2/2	2/2	2/2
	3.6 Tread, Front	b11 mm	975	975	982	982	1026
	3.7 Tread, Rear	b12 mm	1000	1000	1000	1000	1000
	Dimensions	4.1 Tilt of Mast/Fork carriage Forward/Backward	$\alpha/\beta$ °	6/10	6/10	6/10	6/10
4.2 Height, Mast lowered		h1 mm	2175	2175	2165	2165	2165
4.3 Free Lift		h2 mm	152	152	152	152	152
4.4 Lift		h3 mm	3230	3230	3230	3230	3000
4.5 Height, Mast Extended		h4 mm	4490	4490	4490	4490	4260
4.7 Height of Overhead Guard(Cabin)		h6 mm	2183	2183	2183	2183	2183
4.8 Height of Seat		h7 mm	1026	1026	1026	1026	1026
4.19 Overall Length		l1 mm	TBD	TBD	TBD	TBD	3809
4.20 Length to Forkface		l2 mm	2530	2595	2700	2730	2765
4.21 Overall Width		b1/b2 mm	1170	1170	1197	1197	1255
4.22 Fork Dimensions		s/e/l mm	40x100x1050	40x100x1050	45x125x1050	45x125x1050	45x125x1050
4.23 Fork carriage ISO 2328, class/type A,B			II	II	III	III	III
4.24 Fork carriage width		b3 mm	TBD	TBD	TBD	TBD	TBD
4.31 Ground Clearance, laden, below mast		m1 mm	115	115	105	105	105
4.32 Ground Clearance, center of wheelbase		m2 mm	143	143	143	143	143
4.34.1 Aisle width for pallets 1,000 x 1,200 crossways		Ast mm	TBD	TBD	TBD	TBD	TBD
4.34.2 Aisle width for pallets 800 x 1,200 crossways		Ast mm	TBD	TBD	TBD	TBD	TBD
4.35 Turning Radius		Wa mm	2220	2265	2365	2395	2420
4.36 Internal Turning Radius		b13 mm	TBD	TBD	TBD	TBD	TBD
Performance data	5.1 Travel Speed, Laden/Unladen	km/h	20/21	20/21	19/20	19/20	20/21
	5.2 Lift Speed, Laden/Unladen	m/s	0.61/0.65	0.60/0.65	0.59/0.65	0.51/0.56	0.50/0.56
	5.3 Lowering Speed, Laden/Unladen	m/s	0.51/0.45	0.51/0.45	0.51/0.45	0.51/0.45	0.51/0.45
	5.5 Drawbar pull, Laden/Unladen(@ 1.6km/h)	N	17780	17770	18470	18360	17700
	5.6 Max. Drawbar pull, Laden/Unladen	N	19860	19900	20830	20720	19920
	5.7 Gradeability, Laden/Unladen(@ 1.6km/h)	%	33.6	28.7	25.7	24.1	22.2
	5.8 Max. Gradeability, Laden/Unladen	%	38.1	32.5	29.3	27.4	25.1
	5.10 Service Brake		foot/hyd	foot/hyd	foot/hyd	foot/hyd	foot/hyd
Combustion Engine	7.1 Engine Manufacturer/type		DI/D24NAP TIER-4	DI/D24NAP TIER-4	DI/D24NAP TIER-4	DI/D24NAP TIER-4	DI/D24NAP TIER-4
	7.2 Engine power according to DIN ISO1585	kW	45.6	45.6	45.6	45.6	45.6
	7.3 Rated Speed	min-1	2200	2200	2200	2200	2200
	7.3.1 Torque at 1/min	N•m	262/1600	262/1600	262/1600	262/1600	262/1600
	7.4 Number of Cylinders/Displacement	-/cm3	4/2392	4/2392	4/2392	4/2392	4/2392
	7.5 Fuel Consumption according to VDI Cycle	l/h or kg/h	4	4	4	4	4
	7.10 Battery Voltage/normal capacity	V/Ah	12/85	12/85	12/85	12/85	12/85
Addition Data	10.1 Operating pressure for attachments	bar	156	156	156	156	156
	10.2 Oil volume for attachments	l/min	76.5	76.5	76.5	76.5	76.5
	10.4 Fuel Tank Capacity	l	58	58	58	58	58
	10.7 Sound level at th driver's ear according to EN 12 053	dB(A)	TBD	TBD	TBD	TBD	TBD

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.

# Dimensional Drawing



## Standard Features and Optional Extras

	●:STD	○:OPT
<b>CHASSIS</b>		
CAN-BUS COMMUNICATIONS	●	
ANTI MOISTURE ELECTRIC CONNECTORS	●	
OIL COOLED DISC BRAKES	●	
ELECTRONIC PARKING BRAKE	●	
LIFT EYE - 4 HOIST ON FRAME	○	
CAMERA - REAR VIEW	○	
STD/ECO/HIGH MODE	●	
<b>CABIN</b>		
MODULAR CABIN A/B/C, FULL CABIN	○	
SUN VISOR	○	
ROOF TILT	○	
SUNGLASS CASE	●	
REAR WIPER	○	
HEATER	○	
AIR CONDITIONER	○	
<b>SEAT</b>		
STATIC(SEARS) / SUSPENSION (SEARS)	○	
SUSPENSIN (GRAMMER)	○	
<b>LIGHT</b>		
WORKING LIGHT - FRONT, LED	●	
WORKING LIGHT - REAR, LED	○	
WORKING LIGHT - 2 REAR LIGHT, LED	○	
COMBINATION LIGHT	○	
STROBE LIGHT - RED/AMBER, ABOVE/BELOW	○	
SAFETY LIGHT - FRONT, ALWAYS ON/ ACVIVATED BY GEAR	○	
SAFETY LIGHT - REAR, ALWAYS ON/ ACVIVATED BY GEAR	○	
SAFETY LIGHT - FRONT& REAR, ALWAYS ON/ ACVIVATED BY GEAR	○	
SAFETY FENCE LIGHT - BLUE/RED	○	
<b>SAFETY</b>		
OPERATOR SENSING SYSTEM(OSS)	●	
STRAP,STATIC GROUND	○	
SEAT BELT INTERLOCK	○	
BACK UP ALARM - INSIDE	●	
BACK UP ALARM - OUTSIDE / AUDIBLE(SMART)	○	
REAR GRAB BAR & HORN W/ HORN SWITCH	○	
HOMOLOGATION - CE	●	
SPEED LIMIT	●	
EXHAUST MUFFLER - VERTICAL / SPARK ARRESTOR	○	
REFLECT DECAL On CTWT	○	

Note: Option features are will be categorized in final sales material version. - New options / Improved options / Packages for applications

<b>PRODUCTIVITY</b>		
AUTO TILT LEVELING		○
HYDRAULIC ACCUMULATOR		○
WEIGHT SCALE - PRESSURE SENSING / LOADCELL		○
<b>CONVENIENCE</b>		
LARGE ENTRY GRAB BAR - LH/RH	●	
THICK FLOORMAT	●	
5" DISPLAY - MONO COLOR	●	
7" MULTI FUNCTIONAL DISPLAY - FULL COLOR	○	
TELESCOPIC STEERING COLUMN	●	
POWER JACK	●	
USB PORT	●	
OVERHEAD TOP COVER - POLY	○	
SOUND SUPPRESSION	○	
OPERATOR FAN	○	
AUDIO	○	
ROOM LIGHT(Reading Light)	○	
KNOB,STEERING	●	
REAR VIEW MIRRORS	●	
PANORAMIC MIRROR	○	
MONO-PEDAL	○	
KEYLESS IGNITION	○	
CUP HOLDER	○	
CLIP BOARD	●	
FUEL CAP	○	
<b>HAEVY DUTY</b>		
FAN SPEED INCREASE	○	
RADIATOR SCREEN	○	
UNDER PROTECTION - BELLY PLATE / ENGINE GUARD	○	
PRE CLEANER	○	
VENTED SIDE PANEL	○	
MUD GUARD - SINGLE / FRONT / REAR	○	
SEMI FISHERY (ANTI-CORROSION)	○	
FOUNDRY PACKAGE	○	
ANTI DUST PACKAGE	○	
OPEN CORE RADIATOR	○	
TILT CYLINDER BOOTS	○	
ENGINE BLOCK HEATER	○	
<b>SERVICEABILITY</b>		
TOOLLESS FLOOR SIDE PANEL	●	
TOOLLESS FLOOR PLATE	●	
TMS BASIC	○	
TMS PREMIUM	○	