



## Pneumatic and Cushion Forklift Trucks

D35S / D40S / D45S-5 & D50C / D55C-5  
 D40SC / D45SC / D50SC-5 / D55SC-5  
 G35S / G40S / G45S-5 & G50C / G55C-5  
 G40SC / G45SC / G50SC-5 / G55SC-5  
 GC35S / GC40S / GC45S-5 & GC50C / GC55C-5  
 3,500kg to 5,500kg Capacity

**PRO5**  
SERIES

**PRO5**  
SERIES



GC35S / GC40S / GC45S-5  
 GC50C / GC55C-5  
 3,500kg 4,000kg 4,500kg  
 5,000kg 5,500kg  
 Cushion Tire



D35S / D40S / D45S-5 & D50C / D55C-5  
 G35S / G40S / G45S-5 & G50C / G55C-5  
 G40SC / G45SC / G50SC-5  
 D40SC / D45SC / D50SC-5  
 3,500kg 4,000kg 4,500kg 5,000kg 5,500kg  
 Pneumatic Tire

**NEW**  
EPA Tier-3 &  
Stage-3A



PSC0807B3 (June.2011)



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AUTHORIZED DEALER



Product and specifications are subject to improvement and change without notice.

***Field Proven and Endurance Tested...  
To Give You the Best Forklift Value on  
the Market.***

That's what Doosan has put into the design, development and production of the D/G/GC45S-5 series, to provide customers with:



- ✓ *Optimized Operator Comfort & Safety*
- ✓ *Proven and Durable Components*
- ✓ *High Powered and Fuel efficient Diesel and LPG Engines for High Performance including*
  - *Low Emissions and Minimal Vibration*
- ✓ *Enhanced Maintenance and Serviceability*
- ✓ *Virtually Maintenance-free Oil Cooled Disc Brakes*
- ✓ *2 Speed Autoshift Transmission*
- ✓ *Lift and Tilt Locking Hydraulic Control Valve*
- ✓ *OSS(Operator Sensing System)*
- ✓ *A Variety of Operator Friendly Features*

# Operator Comfort and Driver Efficiency is One of Doosan's Top Priorities



*Doosan forklifts are designed to keep your operation and operators running at peak efficiency. Enhanced comfort features ensures operators do not experience fatigue or strain during everyday operation.*

*Designed to be simple, and easily adjusted, this operator compartment will make your driver feel right at home.*

## ● High Visibility Overhead Guard and Front-end

Wider mast window, repositioned hydraulic hoses and flat bar style overhead guard optimizes operator sight lines forward, up and to the load.



## ● Integrated Instrument Panel

The centralized and easy-to-read instrument panel maximizes operator efficiency. Fuel gauge, engine hour meter, engine oil pressure, coolant and transmission temperature, mast interlock, transmission neutral, seat belt, brake oil level indicator keeps operator ever aware of all vehicle performance systems.



## ● Convenience Tray

Easily handles refreshments, paperwork, small tools, etc for operator efficiency.



## ● Auto Tilt Leveling (Optional)

Easily returns mast to upright vertical position with the simple push of a button



## ● Deluxe Suspension Seat with OSS (Operator Sensing System)

A comfortable deluxe suspension seat with OSS(Operator Sensing System), a large seatback angle, longer seat travel length and operator's weight resistance on front side allow multiple adjustments for optimum seating comfort.

- ✓ Parking alarm
- ✓ Seat belt indicator
- ✓ Neutral shift feature



## ● Spacious Operator compartment

Wide open operator leg room, stepless tiltable steering column and ergonomically located operator pedals with a low cowl height facilitate ease of operation.



## ● Optimum Pedal System(OPS)

This Option Pedal System will reduce the operators fatigue and provide best sense of drivability. Especially, the new electronic accelerator will provide the operator with secure and exact speed control.



# Minimized Maintenance, Easy Serviceability.



**Doosan's Goal is to Make Your Material Handling Organization as Efficient and Reliable as Possible, by minimizing Down Time to Reduce Overall Maintenance Cost.**

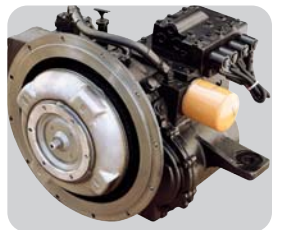
## ● Oil- Cooled Disc Brakes(ODB)

Oil cooled disc brakes are available as an option on all D,G(C)45S-5 series pneumatic and cushion forklifts and are especially recommended for applications in humid, abrasive or corrosive environments, or with ramp, loading and unloading applications. This enclosed brake system eliminates outside contamination, significantly extending brake life and decreasing maintenance costs. Oil cooled disc brakes have service intervals 5 times longer than conventional shoe brakes, and require little to no maintenance.



## ● Power Reversal Transmission

Top mounted control valve on the transmission precisely modulates clutch oil pressure for smooth forward / reverse directional changes, permitting on-the-go shifting up to 5mph.



## ● Hydrostatic Steering System

- No mechanical connections between steering wheel and steer axle for reduced maintenance.
- Easy Access grease fittings for proper lubrication.
- Sealed tapered roller bearings offer protection against contamination and in high impact applications.
- Provides low effort steering with quick steering response.



## ● Air Cleaner

A large capacity, dual element air cleaner permits long service intervals. The primary filter can be washed and re-used up to 5 times. A high air intake on the overhead guard is standard, and aids in drawing clean, cool air into the engine intake system.



## ● Full Floating Drive Axle

Strong one-piece cast housing keeps axle components aligned. High tensile strength alloy steel axle shafts extends axle life while splined side gear & drive wheel hub gears transmit high torque to the drive wheels.



● Tool - less Side Cover and Floor Plate facilitates Serviceability



● Integration of Electrical Components for Easy Maintenance

Fuse and relay box located in front of the engine simplifies servicing

# A Hallmark of Durability and Reliability

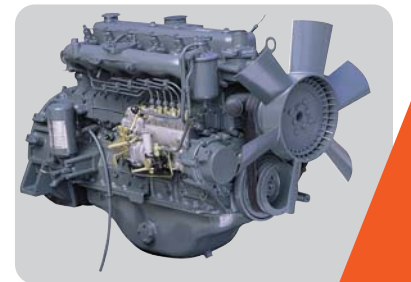


**NEW**  
EPA Tier-3 &  
Stage-3A

*High powered and fuel - efficient diesel and LPG engines provide high performance levels and insure long term power plant efficiency.*

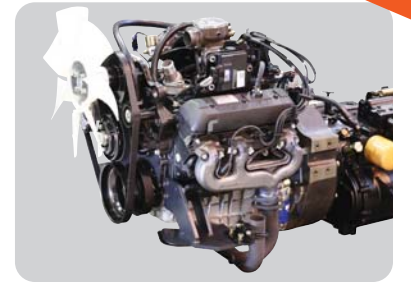
- **Doosan Infracore DB58S (68kW)**

This powerful 6-cylinder 5.8L diesel engine delivers excellent power to meet the needs of the most demanding applications. DB58S diesel engines comply with EPA emission regulations.



- **GM V6 4.3L (69kW)**

The well known, field proven GM 4.3L LP Gas engine has excellent durability. Its low noise and minimal vibration features add to operator's comfort while the engine provides the forklift with excellent power.



- **D439E 3.9L (68kW)**

This 3.9 Liters Common Rail turbo-intercooler (air cooler) Diesel engine complies with EPA Tier III and Stage-3A emission regulation. The electric governed engine control system provides high performance and supplies easy diagnostic system. Four cylinders, Common Rail Direct Injection, full range electrical governor and a heavy duty fuel filter with water separator, all add up to a powerful and efficient power plant which keeps its strong performance even in high altitude working environments.



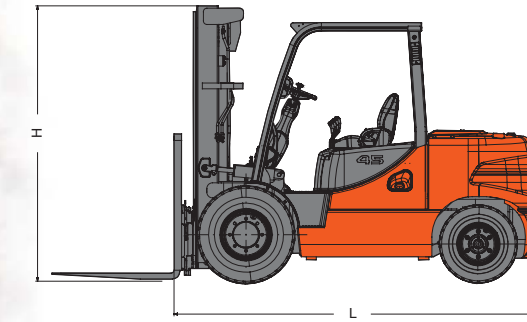
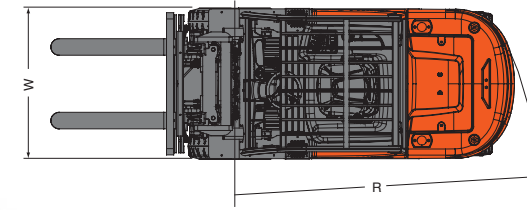
**DRIVE THE DIFFERENCE...**

**DRIVE DOOSAN !**

**Proven Quality,  
Responsive Service and  
A Reliable Partner...**

After sales service of Doosan forklifts is available from your authorized local dealers backed by Doosan's own customer service center. And Doosan provides 100% parts inventory to insure any downtime is minimized. When you own a Doosan forklift, our high quality, responsive customer support team comes with it.

The Doosan network starts with your local dealer and ends with a national team of highly qualified and experienced personnel standing ready to support all your material handling needs.



**Option Availability**

Options	● : Standard ○ : Optional		
	D35/D40/D45S-5 & D50/D55C-5 D45C / G45C / D45C / D55C-5	G35 / G40 / G45S-5 & G50 / G55C-5 G40C / G45C / G50C / G55C-5	G35S / G40S / G45S-5 & G50S / G55C-5 G40C / G45C / G50C / G55C-5
Fuel Cap with Key	○	n/a	n/a
Precleaner	○	○	n/a
Vertical Exhaust Tube	●	○	n/a
Catalytic Muffler*	○	○	●
Modular Operator Cabin Type A/B/C	○	○	n/a
Full Operator Cabin Type B	○	○	○
Air Conditioner	○	n/a	n/a
Non Marking Tire(Solid)	○	○	○
Spark Arrestor(w/o Cabin)	○	n/a	n/a
Mono Ped Foot Direction and Acceleration Control	○	○	n/a
AutoShift (Single,Dual Tire)	○	○	○
Engine Shutdown	○	●	●
Swingdown LP MTG	n/a	○	○
Lift and Tilt Locking Hydraulic Control Valve	●	●	●
Auto Tilt Leveling	○	○	n/a
Rear Grab Bar with Horn	○	○	○
Hydraulic Accumulator	○	○	○
Integral Side Shifting Fork Positioner	○	○	○
Hook on Sideshifter	○	○	○
UL LPS,DS Rating	○	○	○

\* Catalytic muffler is standard for Tier-3 E/G only

**Main Specification**

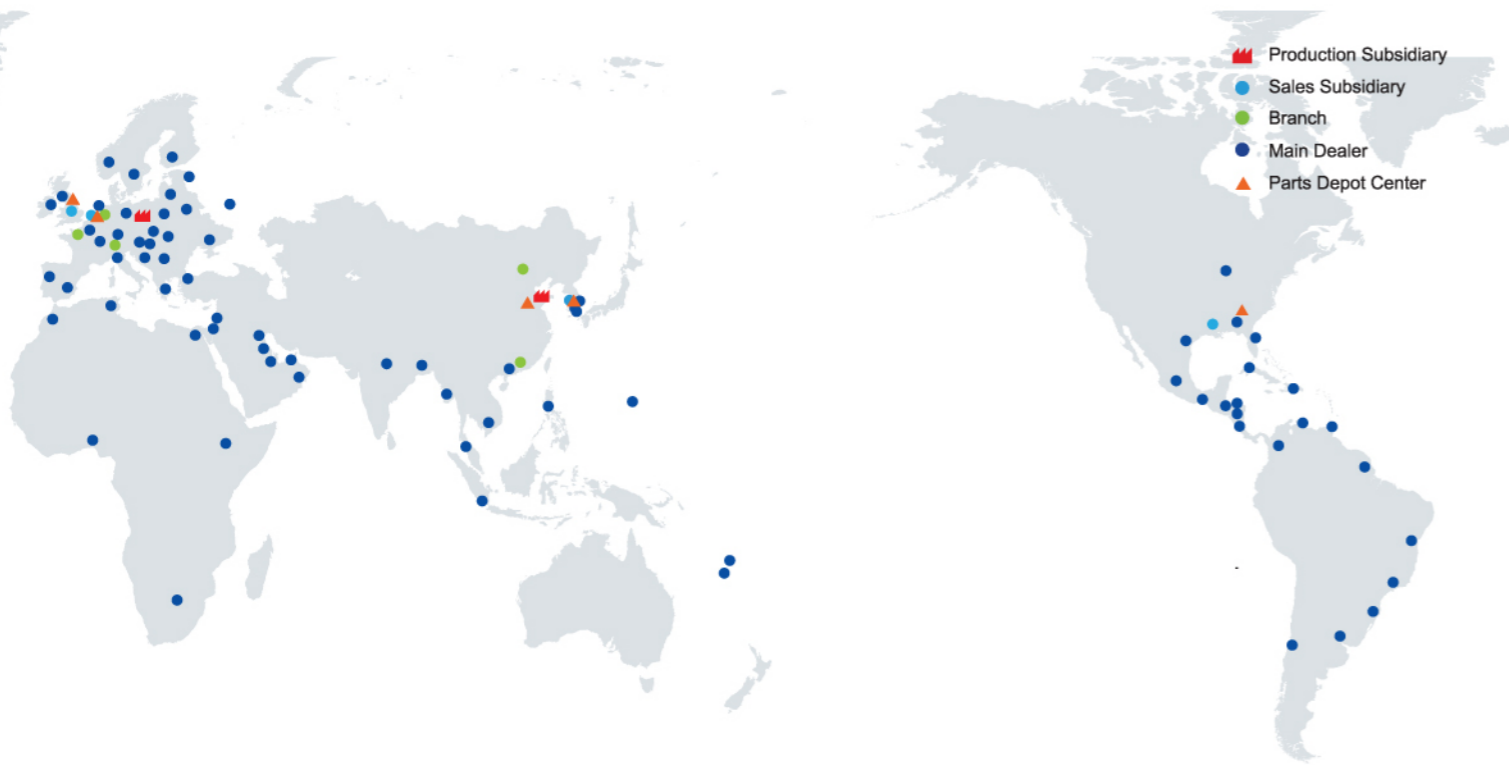
Sales Model		D35S-5	D40S-5	D45S-5	D50C-5	D55C-5			
Rated Load Capacity	kg	3,500	4,000	4,500	5,000	5,500			
Load Center	mm	600	600	600	600	600			
Overall Length to Fork Face	L mm	3,100	3,151	3,265	3,300	3,350			
Truck Overall Width	W mm	1,372	1,451	1,451	1,451	1,451			
Height of Overhead Guard	H mm	2,225	2,230	2,230	2,280	2,280			
Minimum Turning Radius	R mm	2,770	2,820	2,865	2,930	2,990			
Travel Speed, Loaded	km/h	24	24	24	24	24			
Lifting Speed, Loaded	mm/s	520	540	520	530	470	525	470	520
Wheel Base	mm	2,000	2,000	2,100	2,100	2,100			
Engine Models		DB58S	D439E	DB58S	D439E	DB58S	D439E	DB58S	D439E
Rated Power of Engine	kW/rpm	68 / 2,200	68 / 2,300	68 / 2,200	68 / 2,300	68 / 2,200	68 / 2,300	68 / 2,200	68 / 2,300
Max Torque	N-m/rpm	324 / 1,600	324 / 1,600	324 / 1,600	324 / 1,600	324 / 1,600	324 / 1,600	324 / 1,600	324 / 1,600
Cylinders / Displacements	cc	6 / 5,785	4 / 3,900	6 / 5,785	4 / 3,900	6 / 5,785	4 / 3,900	6 / 5,785	4 / 3,900

Sales Model		G35S-5	G40S-5	G45S-5	G50C-5	G55C-5
Rated Load Capacity	kg	3,500	4,000	4,500	5,000	5,500
Load Center	mm	600	600	600	600	600
Overall Length to Fork Face	L mm	3,100	3,150	3,265	3,300	3,350
Truck Overall Width	W mm	1,372	1,451	1,451	1,451	1,451
Height of Overhead Guard	H mm	2,225	2,230	2,230	2,230	2,230
Minimum Turning Radius	R mm	2,770	2,820	2,865	2,930	2,990
Travel Speed, Loaded	km/h	20	19.5	19.5	19.5	19.5
Lifting Speed, Loaded	mm/s	500	500	500	490	470
Wheel Base	mm	2,000	2,000	2,100	2,100	2,100
Engine Models		G643(E)	G643(E)	G643(E)	G643(E)	G643(E)
Rated Power of Engine	kW/rpm	70/2,500	70/2,500	70/2,500	70/2,500	70/2,500
Max Torque	kgf.m/rpm	31/1,500	31/1,500	31/1,500	31/1,500	31/1,500
Cylinders / Displacements	cc	6 / 4,294	6 / 4,294	6 / 4,294	6 / 4,294	6 / 4,294

Sales Model		GC35S-5	GC40S-5	GC45S-5	GC50C-5	GC55C-5
Rated Load Capacity	kg	3,500	4,000	4,500	5,000	5,500
Load Center	mm	500	500	600	600	600
Overall Length to Fork Face	L mm	2,682	2,686	2,828	2,878	3,010
Truck Overall Width	W mm	1,270	1,270	1,420	1,420	1,420
Height of Overhead Guard	H mm	2,155	2,155	2,155	2,155	2,155
Minimum Turning Radius	R mm	2,360	2,400	2,530	2,580	2,630
Travel Speed, Loaded	km/h	18/19	18/19	21/22	21/22	21/22
Lifting Speed, Loaded	mm/s	500/550	480/550	480/550	450/500	450/500
Wheel Base	mm	1,630	1,630	1,790	1,790	1,790
Engine Models		G643(E)	G643(E)	G643(E)	G643(E)	G643(E)
Rated Power of Engine	kW/rpm	70/2,500	70/2,500	70/2,500	70/2,500	70/2,500
Max Torque	kgf.m/rpm	31/1,500	31/1,500	31/1,500	31/1,500	31/1,500
Cylinders / Displacements	cc	6 / 4,294	6 / 4,294	6 / 4,294	6 / 4,294	6 / 4,294

**DRIVE THE DIFFERENCE...**

**DRIVE DOOSAN !**



## Pro-5 Series Forklifts

### Pneumatic Diesel 3.5 to 5.5 ton Series

Interim Tier-4 / Stage III B



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 Jung-Gu, Seoul, South Korea  
 Web site : www.doosan-iv.com

JUNE 2013

AUTHORIZED DEALER



## About Doosan

### Values that drive our future growth



#### Trust in people is the foundation on which Doosan has built its century of success

Doosan always put 'People' first for the past 100 years, based on our management philosophies. - 'Business is not meant to make profits, but to help people grow.' (Late Too Pyung Park, First Chairman), and continues to spur corporate development with global competitiveness originated from human resources.

#### Doosan the oldest, but fastest growing company

Doosan has recorded the longest business history since its inauguration in 1896, but has grown at its most rapid pace for the past 10 years

#### Doosan-the global Infrastructure Support Business (ISB) company

Doosan is creating 90% or more of its sales in ISB Business through vigorous reorganization of business portfolio since 1998. The past 70% of business has concentrated on consumer goods, but we have successfully transformed our business DNA to the infrastructure support business that constructs and reinforces social infrastructure.

#### Doosan, surging as a global company

Doosan has become the global ISB leader based on its world class products and services. In addition, as a true global company, Doosan's overseas employees encompass 50% of its human resources, and overseas sales take more than over 60% of the total sales.

## Doosan Industrial Vehicle

### Major global player in the infrastructure support business with a proud heritage

With a proud history dating back to 1937, when we first started out as Chosun Machinery, Doosan Industrial Vehicle has grown into Korea's largest machinery manufacturer, playing a leading role in the development of the industry in Korea.

Today, we are a global enterprise. We operate large-scale plants and sales subsidiaries both at home and overseas and maintain an operational network that spans continents.

#### Committed To Innovation

We remain committed to the advancement of new technologies and development of talented individuals, positioning us to respond effectively to the rapid changes taking place in the 21st century. Our mission is to strengthen our global position and become the industry leader well into the future.

#### Committed To Our Customers

We are committed to our customers, providing superior products and excellent services to go with them.

#### Our Promise

Doosan Industrial Vehicles will be the partner you can count on, always putting our commitment to you first.

#### Award-Winning Machines

Doosan currently holds a number of export, design & safety awards, including four Forklift Truck Association awards for Design Excellence.







## Customer minded design

Our latest series has a number of superb features designed to give you the edge:

### Productivity

- Electric Controlled Powerful Diesel Engine (92 HP / 68.6 kW)
- Improved Engine Performance
- Excellent Brake Performance (ODB System)

### Serviceability

- Self-diagnostics & Self-protection Function for Engine
- U-joint type connection between Axle and Transmission
- Easy Access to Engine
- Dual Element Air Cleaner

### Reliability

- Strong Steer Axle
- Rigid Frame
- Rugged Planetary Drive Axle

### Comfort

- Improvement of Vehicle Vibration
- Comfortable Cockpit Unit
- Easy Entry & Exit
- High Visibility by Clean & Lower Cowl Area
- Low Effort Operating Pedals
- Comfortable Suspension Seat

### Safety

- OSS (Operator Sensing System)
  - \* Prevent Truck Moving
  - \* Locking Hydraulic Lifting, Lowering and Tilting
  - \* Parking Brake Warning
  - \* Seat Belt Indication

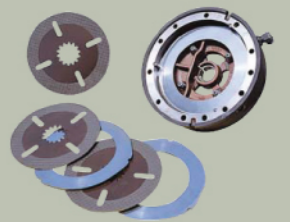


## Powerful kit that is built to last

We're firm favourites with fleet users and other no-nonsense businesses, due to the fact that our trucks are so tough and reliable, yet simple to operate and economical to run.

### Oil- Cooled Disc Brakes

Oil cooled disc brakes are available as an option on all D45S-5 series pneumatic forklifts and are especially recommended for applications in humid, abrasive or corrosive environments, or with ramp, loading and unloading applications. This enclosed brake system eliminates outside contamination, significantly extending brake life and decreasing maintenance costs. Oil cooled disc brakes have service intervals 5 times longer than conventional shoe brakes, and require little to no maintenance.



### Power Reversal Transmission

Top mounted control valve on the transmission precisely modulates clutch oil pressure for smooth forward / reverse directional changes, permitting on-the-go shifting up to 5mph.



### Full Floating Drive Axle

Strong one-piece cast housing keeps axle components aligned. High tensile strength alloy steel axle shafts are carbonized for extended life and splined to the differential side gear & drive wheel hub gears to effectively transmit high torque to the drive wheels.



### Hydrostatic Steering System

- No mechanical connections between steering wheel and steer axle for reduced maintenance.
- Easy Access grease fittings for proper lubrication.
- Sealed tapered roller bearings offer protection against contamination and in high impact applications.
- Provides low effort steering with quick steering response.



### Air Cleaner

A large capacity, dual element air cleaner permits long service intervals. The primary filter can be washed and re-used up to 5 times. A high air intake on the overhead guard is standard, and aids in drawing clean, cool air into the engine intake system.



### Integration of Electrical Components for Easy Maintenance

Fuse and relay box located in front of the engine simplifies servicing.



## Low emission, High power and Fuel Efficient 3.8 Litre Diesel Engine

Our new Interim Tier-4 / StagelllB series is designed for improved durability, quietness and fuel efficiency.

### - CRS (Common Rail System)

The Common Rail System adds precise fuel injection control. As a result, the engine runs smoother with less fuel and lower costs.

### - After-treatment Device (DPF + DOC)

DPF(Diesel Particulate Filter) is a device that physically captures PM on the filters. In a process called 'Regeneration', the accumulated PM is burnt off by the exhaust gas passing through the filters, which have high enough temperature to combust. However, if the temperature of exhaust gas is not adequately high, PM doesn't combust by itself, but is combusted using a heat source generated by DOC(Diesel Oxidation Catalyst).

### - Cooled EGR (Exhaust Gas Recirculation)

EGR system recirculates a portion of exhaust gas back to the cylinder. The returned exhaust gas contains less oxygen, thereby lowering the combustion temperature and reducing NOx



KUBOTA V3800 Engine



## Award-winning safety features, class-leading performance.

Our designs are guided by a clear ethos: 'Simple, Powerful Performance.'  
All our products offer excellent value and market-leading levels of productivity,  
without over complicated design or confusing usability.

### Integrated Instrument Panel

The centralized and easy-to-read instrument panel maximizes operator efficiency. Fuel gauge, engine hour meter, engine oil pressure, coolant and transmission temperature, mast interlock, transmission neutral, seat belt, brake oil level indicator keeps operator ever aware of all vehicle performance systems.



### High Visibility Overhead Guard and Front-end

Wider mast window, repositioned hydraulic hoses and flat bar style overhead guard optimizes operator sight lines forward, up and to the load.



### Deluxe Suspension Seat with OSS (Operator Sensing System)

A comfortable deluxe suspension seat with OSS (Operator Sensing System), a large seatback angle, longer seat travel length and operator's weight resistance on front side allow multiple adjustments for optimum seating comfort.

- Parking alarm
- Seat belt indicator
- Neutral shift feature



### Auto tilt leveling (optional)

Easily returns the mast to upright vertical position with the simple push of a button.



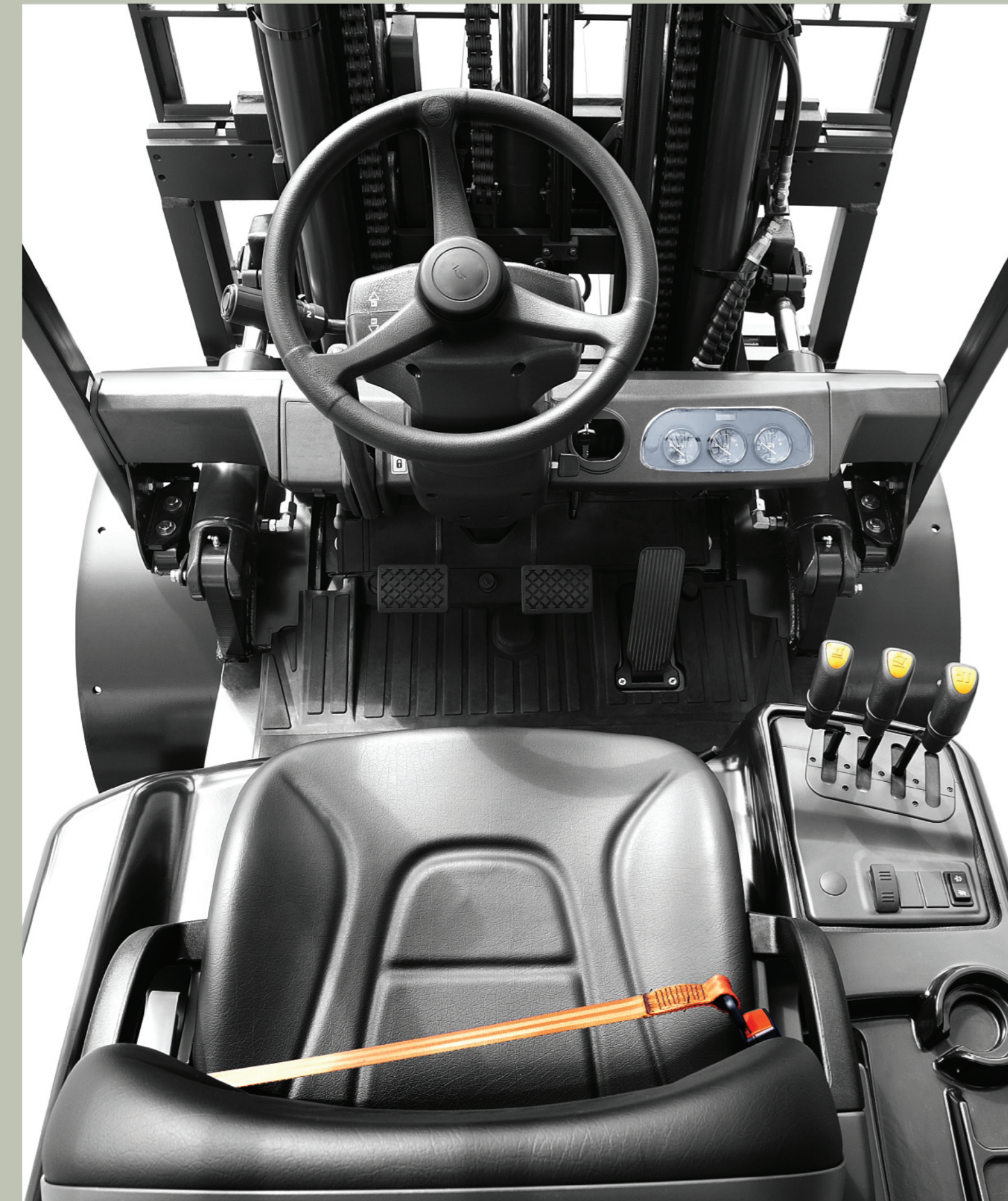
### Convenience Tray

Easily handles refreshments, paperwork, small tools, etc for operator efficiency.



### Optimum Pedal System (OPS)

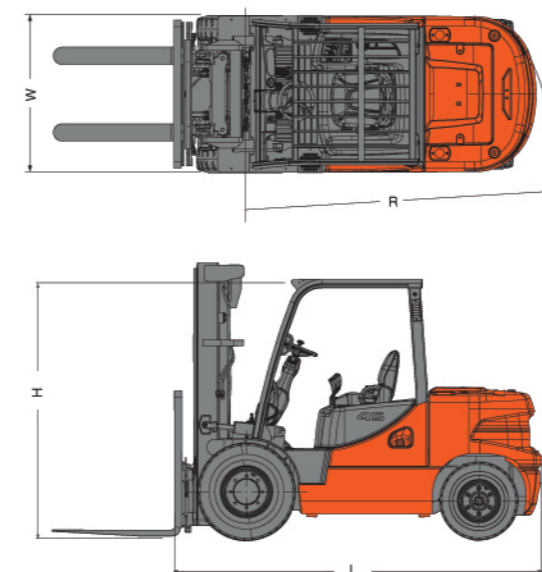
This Option Pedal System will reduce the operators fatigue and provide best sense of drivability. Especially, the new electronic accelerator will provide the operator with secure and exact speed control.



# Proven Quality, Responsive Service and A Reliable Partner.

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## Option Availability

● : Standard ○ : Optional

Options		
2 Section Valves with 2 Control levers		○
3 Section Valves with 2 Control levers		●
3 Section Valves with 3 Control levers		○
4 Section Valves with 4 Control levers		○
Tire (Single Pneumatic)		●
Tire (Dual Pneumatic / Solid / Non-Marking Solid)		○
Overhead Guard		●
Modular Operator Cabin (Type A / B / C)		○
Full Operator Cabin (Type D)		○
Vinyl Static Seat		●
2 Front Flood Lights		●
Front & Rear Combination Lights		○

## Main Specification

		D35S-5	D40S-5	D45S-5	D50C-5	D55C-5	D40SC-5	D45SC-5	D50SC-5	D55SC-5
Rated Load Capacity	kg	3,500	4,000	4,500	5,000	5,500	4,000	4,500	5,000	5,500
Load Center	mm	600	600	600	600	600	500	500	500	500
Overall Width	W mm	1,372	1,451	1,451	1,451	1,451	1,372	1,451	1,451	1,451
Overall Length to Fork Face	L mm	3,100	3,151	3,265	3,300	3,350	3,100	3,151	3,265	3,300
Height to Overhead Guard	H mm	2,225	2,230	2,230	2,230	2,230	2,225	2,230	2,230	2,230
Minium Turning Radius	R mm	2,770	2,820	2,865	2,930	2,990	2,770	2,820	2,865	2,930
Wheel Base	mm	2,000	2,000	2,100	2,100	2,100	2,000	2,000	2,100	2,100
Trevel Speed, Loaded	km/h	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
Lifting Speed, Loaded	mm/s	547	542	537	532	527	547	542	537	532
Engine Maker		KUBOTA	KUBOTA	KUBOTA	KUBOTA	KUBOTA	KUBOTA	KUBOTA	KUBOTA	KUBOTA
Engine Model		V3800	V3800	V3800	V3800	V3800	V3800	V3800	V3800	V3800
Rated Power of Engine	HP/rpm	92/2,400	92/2,400	92/2,400	92/2,400	92/2,400	92/2,400	92/2,400	92/2,400	92/2,400
Maximum Torque	N.m/rpm	335/1,500	335/1,500	335/1,500	335/1,500	335/1,500	335/1,500	335/1,500	335/1,500	335/1,500
Displacement of Engine	cc	3,769	3,769	3,769	3,769	3,769	3,769	3,769	3,769	3,769
Number of Cylinder		4	4	4	4	4	4	4	4	4
Number of Speed (Fwd/Rev)		2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2

## Options

Emergency Hazard Lamps	○
1 Rear Flood Light	○
2 Rear Flood Lights	○
Strobe Light (Red, Amber)	○
Vertical Exhaust Tube	●
Auto Tilt Leveling	○
Front Wiper & Washer	○
Rear Wiper (for Full Cabin)	○
Heater	○
Air Conditioner	○
CD Player (for Full Cabin)	○
AutoShift (Single, Dual Tire)	○
Engine Shutdown System	○
Back-up Alarm (Outside / Audible)	○
Fuel Cap with Key	○
Steering Wheel Knob	○
Rear Grab Bar with Horn	○
Rear View Mirrors (Small / Large)	○
Tool Kit	○
Hydraulic Accumulator	○
Hook on Sideshifter	○
Integral Side Shifting Fork Positioner	○
Mono Pedal with Autoshift Controller *	○
Precleaner *	○
Lift Eye *	○
Engine Cover *	○
Spark Arrestor (w/o Cabin) *	○
Inside Exhaust *	○

\* These options will be developed if customer orders.