

## 7-Series Forklifts

Electric 1.5 to 2.0 tonne capacity  
Three and four wheel models



*Lifting Your Dreams*

## About Doosan

### Values that drive our future growth

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

Over the past 100 years Doosan has always put people first, based on the management philosophy outlined by our first Chairman, Too Pyung Park, that “business is not meant to make profits, but to help people grow”.

This philosophy continues to spur Doosan’s corporate development, with global competitiveness originating from our most valuable resource—our people.

#### **Doosan, Korea’s oldest but fastest growing company**

Established in 1896, Doosan is Korea’s oldest company, but has grown at its most rapid pace in the last 10 years.

#### **Doosan’s global Infrastructure Support Business (ISB)**

In the past 70% of our business was concentrated on consumer goods, but following reorganisation of our business portfolio in 1998 we have successfully transformed our business DNA to shift the primary focus of our business to infrastructure support.

This means that Doosan now creates more than 90% of its sales through its Infrastructure Support Business.

#### **Doosan’s growth as a global company**

Doosan has become the global ISB leader based on its world-class products and services. It is a truly global company, with 50% of its employees based outside Korea, and overseas trade making up over 60% of its 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 began 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, operating large-scale plants and sales subsidiaries both at home and overseas and maintaining an operational network that spans continents.

#### **Committed To Innovation**

We are committed to the advancement of new technologies and the 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 service to go with them.

#### **Our Promise**

Doosan Industrial Vehicle is 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 five Forklift Truck Association Awards for Design Excellence.

## Leading the way. World class new 7 Series electric trucks from Doosan

The new 7 Series three and four wheel electric counter-balance forklift trucks continue to follow the core Doosan tradition of delivering simple, powerful performance whilst delivering maximum value for our customers.

The ergonomically designed operator compartment keeps the operator in complete control at all times, improving productivity while reducing stress and fatigue. The new operator compartment provides optimal visibility and the latest approach in ergonomic hydraulic controls. Thanks to an improved durable design and an additional stability system, Doosan's new 7 Series electric trucks exceed the highest standards for safe operation.

Extended maintenance intervals and advanced technology components reduce the overall maintenance costs. The latest AC control system provides an unbeatable combination of power, performance and reliability. Each parameter is fully adjustable, to perfectly match every customer's individual requirement, providing maximum control and accuracy for every function.

Doosan's highly efficient worldwide service network helps you to maximise uptime, whilst minimising operational costs.



## Powerful and reliable technology

Using the latest Curtis AC control system technology, the 7 Series trucks deliver an unbeatable combination of power, performance and functionality. Infinitely adjustable and optimised controllability, combined with exceptional reliability, make Doosan's 7 Series the operator's first choice.

The AC drive and hydraulic motors deliver power smoothly and seamlessly whilst offering the lowest possible energy consumption. Durable heat-resistant cables ensure stable operation, even under heavy operating conditions.

## Industry leading performance

Doosan's 7 Series delivers high performance in driving, lifting and lowering functions plus the highest levels of efficiency and productivity. Whenever the operator leaves the seat, the truck's electro-magnetic parking brake is automatically applied with an unlimited ramp-hold function, ensuring there is no danger of the machine rolling away, especially if left unattended on a ramp or slope.

Performance settings enable operators to optimise the machine's performance for specific applications. The longer wheelbase TL version has a larger battery compartment, enabling longer uptime between charges. And Doosan's oil-cooled disc brakes (ODB), standard on all 7 Series electric forklifts, are virtually maintenance-free. The enclosed brake system eliminates outside contamination significantly, extending brake life up to five times longer compared to conventional shoe brakes.

## Maximised productivity in warehouse applications

Warehouse managers are looking for maximum storage efficiency. The three wheel model's steer axle turns to a perfect 90° angle thus minimising the area needed to turn the machine in the tightest of spaces. The four wheel models have a brand new steer axle, which has been carefully designed to minimise the turning radius and can now achieve a superb 86° steer angle. In addition, the newly designed rounded shape of the counterweight enables the truck to move comfortably in and out of narrow spaces, reducing the likelihood of damage.

Thanks to the battery side-lift-in/lift-out system (SLIO), the time needed for a battery change is reduced to the very minimum, maximising truck uptime.

## Outdoor operations

The Doosan 7 Series electric forklifts are rated waterproof and safe for outdoor use. The new sealed controllers are rated to IP65 and the motors are rated to IP43 enclosed type, with all related wiring and connectors being silicon sealed. This means they are fully protected from dust, debris and liquid and are suitable for outdoor applications.



7 Series Electric Forklifts

1.5 to 2.0 tonne capacity



Reliable, stable operation  
IP65 rated Curtis controller



Optimised steering angle  
BT (3-wheel truck): 90°  
BX (4-wheel truck): 86°



Rounded design counterweight



Simple, powerful IP43 rated  
enclosed-type drive and pump motor



### Ergonomic interior design

Operators perform best when their working conditions are perfect and the Doosan 7 Series has been designed to make this a reality. The steering column and full suspension comfort seat, armrest and optional headrest are all fully adjustable to accommodate every operator's individual preferences. The display and all control functions are ideally situated for maximum comfort. In addition, operators can control the truck's performance settings simply by navigating the instrument panel.



### Easy to control

The effortless new Doosan fingertip controls (or traditional mechanical hydraulic levers) enable the most effective operation.

**Hydraulic Levers** : Simple, reliable and familiar. The direction switch is located on the hydraulic lever, meaning a quick change of forward to backward is no problem and completely safe since there is no need to remove hands from the steering wheel or controls.

**New Fingertip Controls** : Fingertip controls provide optimal ergonomics to assure optimal performance. The fast and accurate fingertip system makes operating the new Doosan 7 Series effortless and more efficient than ever before.

The specially designed Convenience Box uses combinations of new and old favourites such as a large cup holder, USB port, 12V cigar jack and clip board holder. These great added-value features ensure optimal operator comfort. The ergonomic small steering wheel (ø 280 mm) with knob enhances operating comfort and productivity as well as increasing the available legroom in the operator compartment.



### Ease of access ensures maximum comfort

Many operators need to get on and off the truck regularly for many different reasons. So we have designed a number of features to make this process easier and safer than ever before. Key features include:

- **Large entry step plate** with an anti-slip pattern ensures sure footing even for large safety boots
- **Easy grip handle** makes mounting and dismounting the machine easier
- **Large uncluttered floor plate** with no trip hazards gives optimal comfort and more leg room
- **Angled floor plate** reduces strain on ankles and large pedals ensure maximum safety and ease of operation



## Maximum safety & visibility in operation

Like all Doosan equipment, Doosan 7 Series electric trucks are specially designed to guarantee safety and visibility.

Lack of visibility is an important factor in forklift truck-related accidents and often reduces the productivity of operations. Doosan's 7 Series trucks incorporate numerous design features that improve visibility for the operator. The precisely-tailored overhead guard profile, with angled roof bars, provides a clear view upwards whilst ensuring ultimate strength for safety. At the same time, neatly arranged hydraulic hoses and chains provide clear forward visibility.

The rear view or panoramic mirrors offer additional safety to avoid accidents and unnecessary damage to the truck, products or racking.

LED or halogen working lamps and combination lamps optimize the operator's visibility, to avoid accidents or damage. Plus, by making the truck more visible to others, safety is further enhanced.

Finally, the electro-magnetic auto parking brake ensures maximum reliability, especially when the operator leaves the truck while positioned on a slope.

Doosan's Fork Lift Truck Association Award-winning rear grab handle with horn makes reversing more comfortable and safe. The easy grip handle provides a comfortable hand rest, and one much safer than the overhead guard, around which fingers and hands can easily be injured. The integrated horn button means that operators do not need to reach around to push the horn on the steering wheel, but instead can continue looking in the direction of travel and press the horn without glancing away.

The operator can mount and dismount from the truck safely thanks to its large anti-slip step plate.

Crucially, 7 Series trucks enable the fastest-possible safety reactions in unexpected situations, thanks to an emergency stop switch and horn button fully integrated with the new fingertip control panel... operators can respond instantly without even lifting their hands.



### High-visibility design

The mast and overhead guard have been developed to provide optimal forward and upward visibility for the operator.



### Large panoramic mirror

Provides the operator with a clear view of the rear working area, improving working safety and efficiency.



### LED lights

Brighter and longer-lasting than traditional sealed beams or halogen lights.



### Electromagnetic automatic parking brake

An electromagnetic parking brake replaces the traditional mechanical system, providing a much more reliable and therefore safer solution.



### Rear grab bar with horn

Enhances safety, comfort and convenience when reversing.



### Anti-slip step plate

The anti-slip pattern step plate increases safety when mounting the truck during snowy or rainy weather conditions.



### Emergency stop switch

An emergency stop switch sits right alongside the fingertip controls, easy to reach for an immediate response.



### Integrated horn button in fingertip controls

Every second counts in averting a collision. With a horn button integral to the fingertip control module, operators can immediately alert others to their presence without even lifting their hands.



## Excellent Stability

The Guardian Stability System (GSS) dynamically protects the operator and the load to avoid accidents. It meets and exceeds all current and emerging regulations for operator safety and stability in every application.

### Unlimited ramp hold

Electro-magnetic Auto Parking Brake (EPB) prevents the forklift from rolling back at a stop on an upslope. The operator can dismount from the truck easily without any braking on slope.

### Low battery alarm

If battery level is too low, the operator will experience a sudden halt. To prevent this, the low battery alarm alerts the operator when the battery charge is almost expended, and lifting speed is reduced to conserve power.

### Automatic speed control

Angle sensing information controls the travel speed when turning sharply. It automatically reduces the travel speed to the optimal velocity when cornering, reducing the risk of accidents or damage.

### Mast lowering interlock and tilt lock (ISO3691)

The hydraulic locking system prevents uncommanded lowering and tilting. It safeguards the work array, the truck and the load even if the operator leaves the truck unattended.

### Turtle mode

By pushing the slow travel speed button when the truck operates in a warehouse, the truck will slow down to a predefined travel speed, without any changes to lifting speed. This mode ensures safe manoeuvring in delicate operating situations.

### Neutral position to start

If the direction switch is in forward or backward position when the operator turns on the truck, start-up will be interrupted automatically. After returning the direction switch to the neutral position, the truck will start. This feature prevents accidents when starting the truck without checking the direction switch first.

### Brake oil level indicator

When the brake oil level drops below the accepted minimum, oil-level indicators in the instrument panel will alert the operator to replenish the reservoir.

### Operator Sensing System (OSS)

Whenever the operator leaves the seat, the truck travel and mast lifting functions will stop. This system avoids any unintended forklift movements when the operator is not seated.

### Seat belt indicator

When the operator starts the forklift, the warning indicator in the instrument panel will flash if the seat belt is not fastened properly.

### Optional features

- Decreased travel speed (50%) when the mast is raised above the primary stage
- Forward tilt reduced to 2 degrees when the mast is raised above the primary stage
- Alarm when the mast is raised above the primary stage with the mast tilted more than 2 degrees
- Auto tilt levelling returns the mast to the vertical position easily by using a tilt angle sensor



## Optimal Serviceability

The controller, motor and other electric components are not only protected against dirt, dust and moisture, but are also positioned for easy servicing. All components have been designed to meet the goal of our "easy to service" concept.



### Worldwide service network

Doosan provides high-quality support, relying on its extensive dealer network. No matter where you are located, highly-skilled professionals are always ready to help you, guaranteeing maximum uptime.



### Tool-less removable side panel

The side panel can be removed without the need for any tools, not even a screwdriver, saving valuable time for the operator or service technician. Thanks to the wide open hood angle, components are easily accessible for servicing.



### Doosan genuine parts

Our fully stocked Northampton-based Parts Centre supplies high quality Doosan parts throughout the UK, backed by over 700 fully equipped and factory trained mobile engineers.



### Easy to access controller bay

No need to open the hood for access to the controller, to change settings or to connect the diagnostics tool.



### LCD display

The large colour LCD display keeps the operator informed about the condition of the truck. Upcoming service intervals will be indicated on the display.



### Diagnostic tools

Thanks to the Kvaser CAN connector, performance settings can be quickly and easily fine tuned. EasyViewer software, exclusively developed for Doosan by Curtis, permits maximum control over truck settings.





**B18T-7 Series**  
B15/18/20T-7, B18/20TL-7  
48V, 3-Wheel Truck



**B18X-7 Series**  
B16/18/20X-7  
48V, 4-Wheel truck

Major Specification		B15T-7	B18T-7	B18TL	B20T-7	B20TL-7	B16X-7	B18X-7	B20X-7
Classification		3 Wheel Electric					4 Wheel Electric		
Capacity	kg	1500	1750	1750	2000	2000	1600	1800	2000
Load Centre	mm	500							
Wheel Base	mm	1323	1423	1554	1446	1554	1495	1495	1495
Turning Radius	mm	1515	1615	1756	1648	1756	1886	1886	1886
Load Moment Centre	mm	376	376	376	381	381	376	376	381
Travel speed	km/h	17/17	17/17	17/17	17/17	17/17	17/17	17/17	17/17
Lift speed	m/s	0.4/0.6	0.4/0.6	0.4/0.6	0.4/0.6	0.4/0.6	0.4/0.6	0.4/0.6	0.4/0.6
Lowering speed	m/s	0.5/0.45	0.5/0.45	0.5/0.45	0.5/0.45	0.5/0.45	0.5/0.45	0.5/0.45	0.5/0.45
Max. Gradeability (at 1.6km/h, Loaded)	%	26	25	25	24	24	26	25	24
Max. Drawbar Pull (Loaded)	Kgf	1300	1300	1300	1300	1300	1300	1300	1300
Right Angle Stacking Aisle Width; 1000 x 1200	mm	3216	3316	3457	3354	3462	3446	3466	3471
Right Angle Stacking Aisle Width; 800 x 1200	mm	3341	3441	3582	3479	3587	3665	3665	3670
Steering Angle	deg.	90	90	90	90	90	86	86	86

## 7 Series Electric Forklifts

1.5 to 2.0 tonne capacity

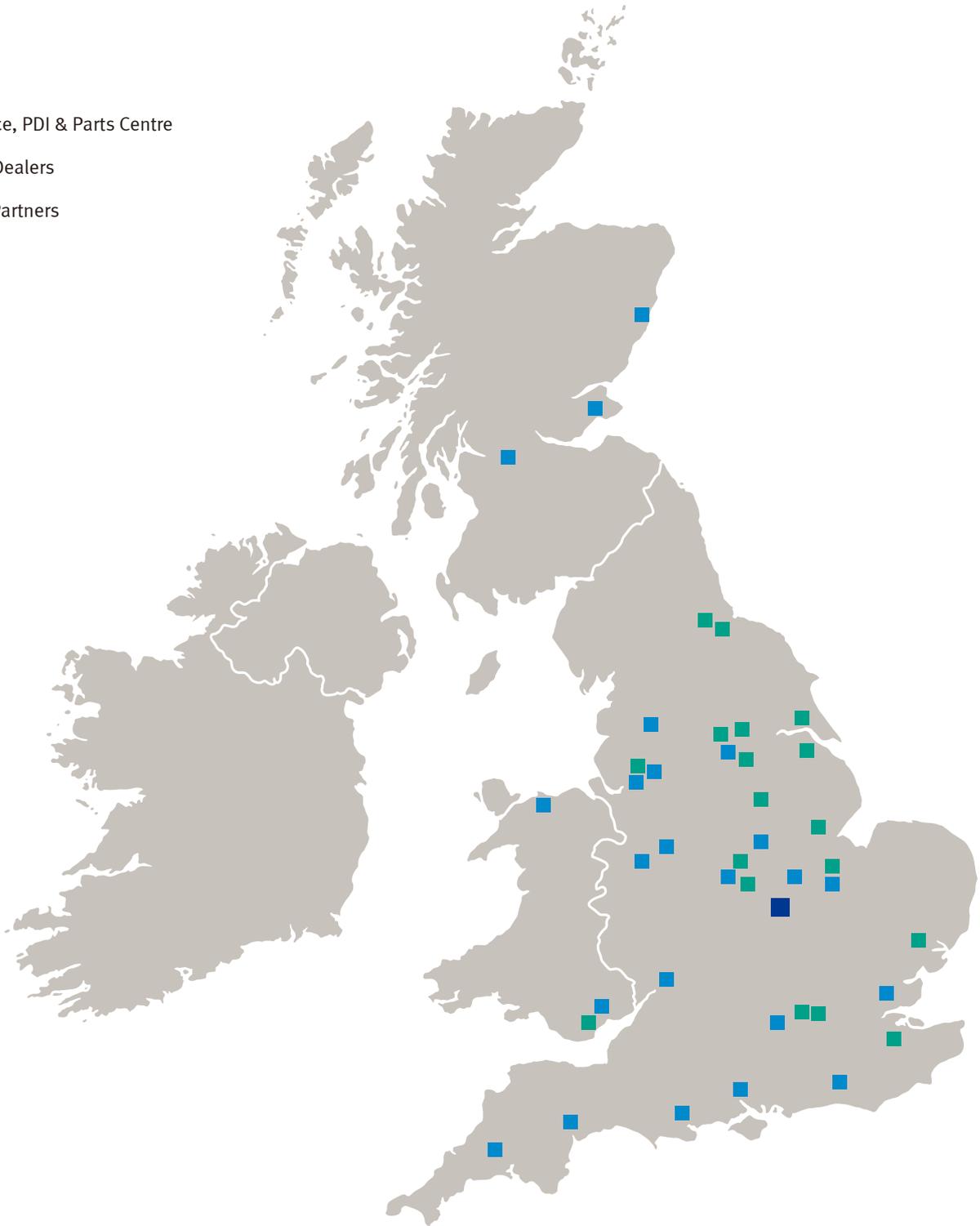
### Standard Features and Optional Extras

	STANDARD	OPTION
<b>SAFETY &amp; STABILITY</b>		
Guardian Stability System (GSS)	0	
- OSS (Operator Sensing System)	0	
- Neutral position for start	0	
- Unlimited ramp hold	0	
- Low battery warning alarm	0	
- Brake oil & seat belt indicator	0	
- (ISO 3691) Mast lowering inter-lock & tilt lock	0	
Emergency stop switch	0	
Rear grab handle with horn switch	0	
Auto tilt levelling		0
Additional options for the Guardian Stability System (GSS)		0
- Decrease of travel speed (up to 50%) when mast raised above primary stage		
- Forward tilt reduced 2 degrees when mast raised above primary stage		
- Alarm when mast raised above primary stage with mast tilted more than 2 degrees		
<b>PRODUCTIVITY</b>		
Full AC system chassis	0	
Rounded design counterweight	0	
IP65 rated Curtis controller	0	
IP43 rated PAL enclosed-type motors	0	
86° (BX)/ 90° (BT) steering angle	0	
Electro-magnetic automatic parking brake (EPB)	0	
Hydraulic cushioned valve in secondary cylinder (FFL & FFT)	0	
Accessory for DIN type battery installation		0
Battery lift in and out system		0
Cooling options : fans & fin type controller		0
Application packages : Cold & Freezer, Beverage, Fishery		0
<b>OPERATOR COMFORT (ERGONOMICS)</b>		
Entry grab handle & large non-slip entry step	0	
Large & angled floor plate (leg room) with rubber cushion	0	
Rounded design battery hood cover	0	
Easy to read instrument panel	0	
Adjustable tilt steering column & easy grip (Φ280 Size) steering wheel	0	
Hydraulic control lever with direction switch		0
Large cup holder, USB port & 12V electric jack, clip board	0	
New finger-tip control	0*	
Premium seats : Grammer MSG65 series	0*	
Panoramic mirror		0
LED lights	0*	
Special height overhead guards		0
Modular cabins		0
<b>DURABILITY &amp; SERVICEABILITY</b>		
Robust frame structure & strong structure overhead guard	0	
Easy to access controller & motors room	0	
Wide open battery hood cover	0	
Tool-less side cover with air ventilation	0	
Oil-cooled disc brakes (ODB)	0	
Durable heat-resistant (38"SQ) cables	0	
Easy diagnostics and performance fine tuning	0	

Remark: This list is based on factory data. Standard or optional options can vary for specific countries. \*Doosan TRIO Model has hydraulic levers as standard.



- Head Office, PDI & Parts Centre
- Regional Dealers
- National Partners



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AUTHORISED DEALER