

7 Series Forklifts

Pneumatic Diesel 13,500lb to 20,000lb Series
Tier-4 Final



Lifting Your Dreams

Doosan

A name to be proud of

The foundation on which Doosan has built its century of success is the trust in its people.

Doosan's management philosophy has always been "people first".

"Business is not meant to make profits, but to help people grow."

-Too Pyung Park, First Chairman

We believe this value drives our future growth and it continues to spur corporate development with global competitiveness.

Doosan – the oldest, but the fastest growing company

Doosan holds the record for having the longest business history in Korea since its inauguration in 1896. We are also the fastest growing company, with steady growth rates over the years and reaching our fastest pace in the past 10 years.

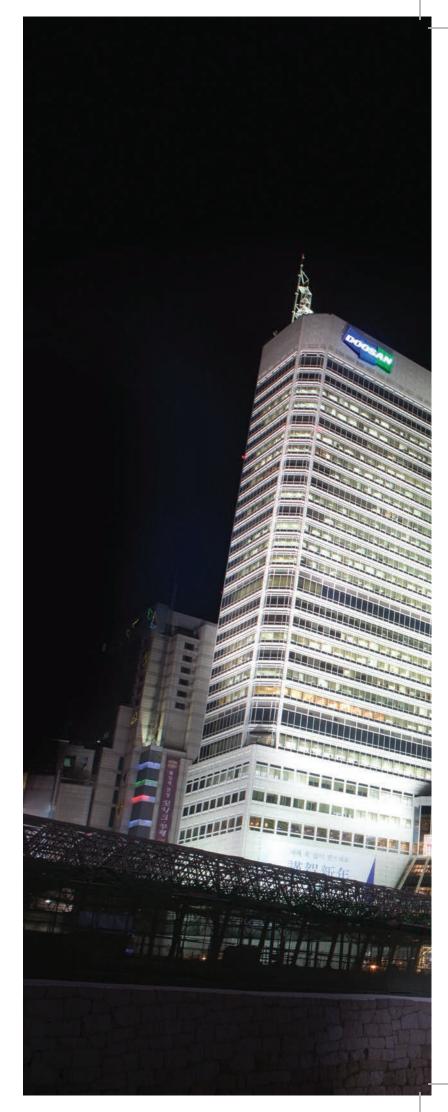
Doosan – the global Infrastructure Support Business (ISB)

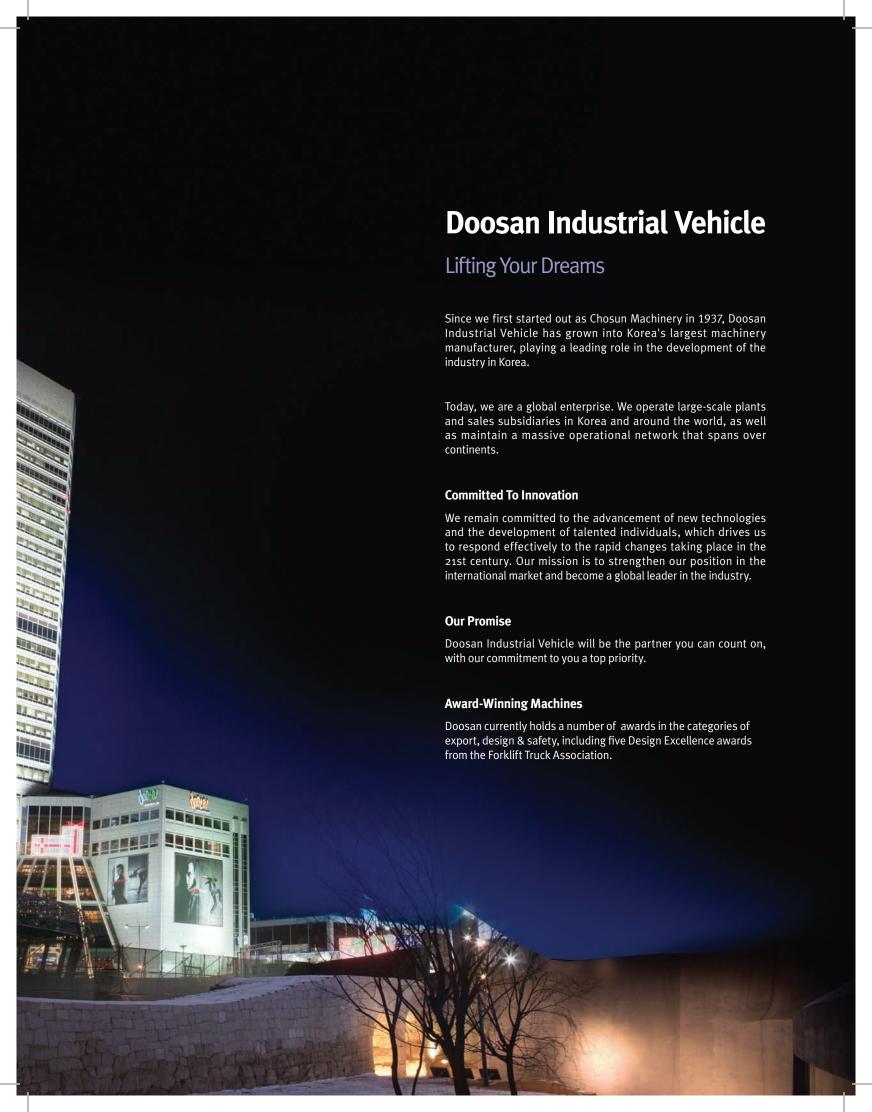
Doosan has achieved an excess of 90% of its sales within the ISB sector through vigorous reorganization of its business portfolio since 1998. Prior to the transformation in the late 90s, 70% of our business was concentrated on consumer goods, but we have successfully transformed our business DNA into an ISB, that constructs and reinforces social infrastructure.

Doosan - surging as a global company

Doosan has become a global leader in the ISB by providing communities across five continents with the fundamental solutions, tools and structures they need to advance their societies.

With over 43,000 employees in 38 different countries, and 50% of its human resources being locally employed, Doosan is truly a global company.







Pro-7 Series Highlights...

- Meets all EPA Tier 4 Final emission regulations utilizing a Diesel Oxidation Catalyst (DOC) and SCR (Selective Catalytic Reduction) system.
- Superb performance and high power output thanks to the new generation of Doosan's G2 Diesel Engines.
- Rugged reliability, a strong and rigid chassis frame, and a design that uses the best materials possible ensures that Doosan products are durable enough to handle the most rigorous applications.
- Redesigned Zeus cabin improves operator visibility and comfort.
- Reduced maintenance with extended cleaning intervals means increased uptime and reduced servicing costs.

Proven and reliable Doosan G2 Diesel engines and components

Doosan engines and components provide high torque at low engine rpm, reduced fuel consumption, and meets all EPA requirments.

Doosan selective performance mapping system

Doosan offers three performance engine modes that gives you the ability to choose between STD mode, Eco mode, and Drive mode. Eco mode limits engine performance, reducing fuel consumption by approximately 5%. Drive mode increases the maximum travel speed to provide higher productivity.

Load-sensing hydraulic system

All Doosan G2 models are equipped with a load-sensing hydraulic system which provides increased fuel efficiency and better overall performance.

13,500 - 20,000 lb Series



Comfortable & convenient operator compartment

Designed to provide greater rigidity and comfort, the Zeus cabin offers outstanding visibility, a spacious dashboard, high quality interior, and excellent heating and air conditioning systems.

Operator Presence System (OPS)

The OPS (Operator Presence System) prevents the unit from moving and disables the trucks functionality when an operator is not seated in the truck. This and other safety features provide added protection to the operator and those working around the truck.



Extreme durability and easy maintenance.

Pro-7 Series Forklifts are built to tackle the most demanding applications.

An Oil-Cooled Disc Brake (OCB) system guarantees maxmimum uptime, less damage, and is virtually maintenance free for ZERO hits to your bottom line.



Engine Performance Options: Standard/ Eco/Orive Modes

Three drive modes provide operators with the ability to customize the truck's drive speed.

Easy Serviceability

Performing general maintenance is easy work with a hood that opens up to 70 degrees. A tool-less side cover and removable floor plate makes accessing internal parts quick and effortless.

New Air Cleaner

The increased capacity of the Dual Element Air Filters makes the new Pro-7 Series more durable. The integrated MAF (Mass Air Flow) sensor provides exact monitoring and is easy to access.

Anti-Skid Step Plate

An Anti-Skid Step Plate increases safety when an operator enters and exits the forklift in inclement weather.



Oil- Cooled Disc Brakes (ODB)

All Doosan 13,500 20,000 lb Series Forklifts
come equipped with
Oil-Cooled Disc Brakes
(ODB). The enclosed
brake system eliminates
outside contamination,
significantly extends
brake life, and decreases
maintenance costs. The
ODB service interval is
five times longer than
conventional shoe brakes.



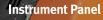
LED Lights (Optional)

LED lights provide greater visibility and last much longer than conventional light bulbs.



Locking-Type Gas Strut for Hood

Gas struts securely hold a truck's hood in place and protect service technicians from injury during maintenance procedures.



The Instrument Panel is loaded with a number of conveniences to provide additional ease of operation for users. Engine coolant temperature, speedometer, fuel level, and hour meter gauges are just a few of the measurement tools that are available to help operators perform their jobs quickly, safely, and efficiently.









Eco-Friendly and More

Doosan's unique and innovative Ultra-Low Particulate Matter Combustion system using a Selective Catalytic Reduction (SCR) and a Diesel Oxidation Catalyst (DOC) ensures the most modern and reliable system is fitted to ensure all emission regulations are met.

No Diesel Particulate Filter (DPF) and fully extended SCR cleaning interval means maximum up-time and minimum maintenance costs.

Doosan is responsible for the implementation of regulations and emissions standards to protect the environment.

What is the EPA?

The Environment Protection Agency (EPA) is responsible for writing and enforcing regulations that protect human health and the environment. Directive 1999/94/EC requires the reduction of emissions, specifically as it regards Particulate Matter (PM) and Nitrogen Oxides (NOx), on non-road diesel engine vehicles. The different stages of the directive are based on engine power and are designed to phase in the new levels of requirements.

Diesel Off-Highway Emissions Evolution

EPA Tier-4 Final & EU Stage 4 come in to effect from 2015 for over the 75 horsepower engine.

For the implementation of regulations PM and NOx should be reduced by 90% compare to EPA Tier-3.

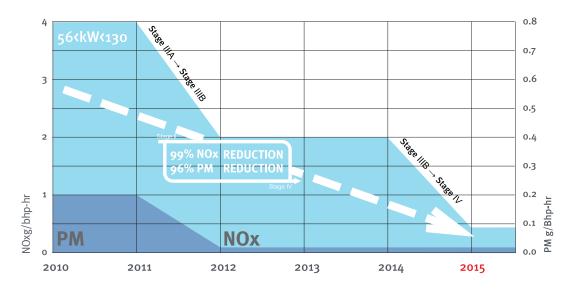
Doosan's green technology to meet Tier 4 Final emissions regulations

- Ultra Low PM Combustion (ULPC): Reducing Particulate Matter (PM)
- Diesel Oxidation Catalysts (DOC): Oxidizing HC, CO, SOF and Converting NO into NO2
- Selective Catalyst Reduction (SCR): Reducing Nox
- Diesel Exhaust Fluid (DEF): Reducing Ammonia

Below 56kW: Combination of ULPC and DOC Above 56kW: Combination of ULPC, DOC, DEF, and SCR

13,500 - 20,000 lb Series

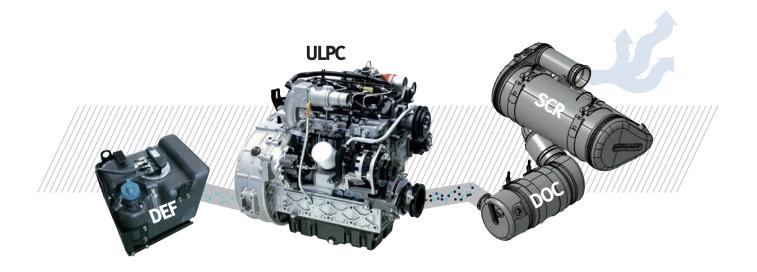




PM Effects -adverse health effects in the form of respiratory issues. -reduced visibility/smog in urban areas

NOx Effects

-Forms acid rain -Contributes to Global Warming -Hampers the growth of plants -Produces ground-level smog









Powerful & Fuel Efficient for Extreme Performance

Doosan's D34 electronically controlled engine, combined with an already proven transmission system and long-lasting Oil-Cooled Disc Brakes (ODB), provides excellent levels of productivity, durability, and value.



After Treatment System

- -Ultra Low Particulate Matter Combustion (ULPC) system: This system helps to minimize the pollutants expelled into the air when the forklift is in operation.
- -Selective Catalyst Reduction (SCR) system: The Pro-7 13,500 20,000 lb Series uses a Diesel Exhaust Fluid (DEF) as well as a catalytic converter to significantly reduce NOx emissions.
- * SCR system cleaning is easily performed with a simple flip of a switch after 200 hours of successive operation.

 Most importantly, the cleaning can be performed at any time before you reach 200 hours when it is most convenient to you.



13,500 - 20,000 lb Series





Engine Performance

Doosan's D34, 3.4 liter diesel engines are designed for efficiency and provide the performance and quality that you expect. A waste-gate turbo charger coupled with a high pressure common rail fuel injection system provides exceptionally high torque at low rpm with the bonus of lower fuel consumption. The D34 Doosan diesel engine meets all Tier 4 Final emission standards.

Specifications:

- D34, Tier IV Final Electronically controlled engine
- 4 cylinder/4 cycle/3,409cc
- High torque at low rpm: 277 ft-lb at 1,600 rpm

Category	Unit	Doosan
Capacity	-	13,500 - 20,000 lbs
Engine	-	Doosan D34(G2)
Rated output	hp /rpm	108.5 / 2,400
Max. torque	lb.ft / rpm	276.6 / 1,600
Displacement	СС	3.409

PERFORMANCE



Engine RPM



Redesigned Zeus Cabin Offers Increased Comfort & Enhanced Productivity

The Zeus cabin is constructed with the user in mind: promoting a comfortable environment with a number of ergonomic features to increase operator performance.

Ergonomic Design

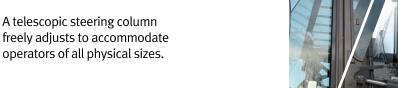
The control switches and levers found within the Zeus cabin are conveniently positioned for ease of use. The Zeus cabin also features a quality suspension seat for maximum operator comfort.

Spacious Leg Room and Enhanced Operator Comfort

- · Entering and exiting the Zeus cabin is effortless with its expanded floor space.
- · Users benefit from low noise and vibration levels when operating the forklift from within the safe confines of the cabin.
- A telescopic steering column freely adjusts to accommodate

Enhanced Visibility

The operator's seat is centered in the cabin for optimum visibility to guarantee safer operations and maneuverability during work shifts.







5" Full Color LCD Display

The easy to read display is large enough to provide an area to check important operating functions. Operators can easily view the truck's RPM gauge, SCR cleaning indicator, engine check light, and DEF gauges.



Convenience Package

A Convenience Package includes deck-mounted control valve levers to simplify hydraulic actuation. The addition of a convenience tray helps operators keep paperwork and supplies organized.



Various Options

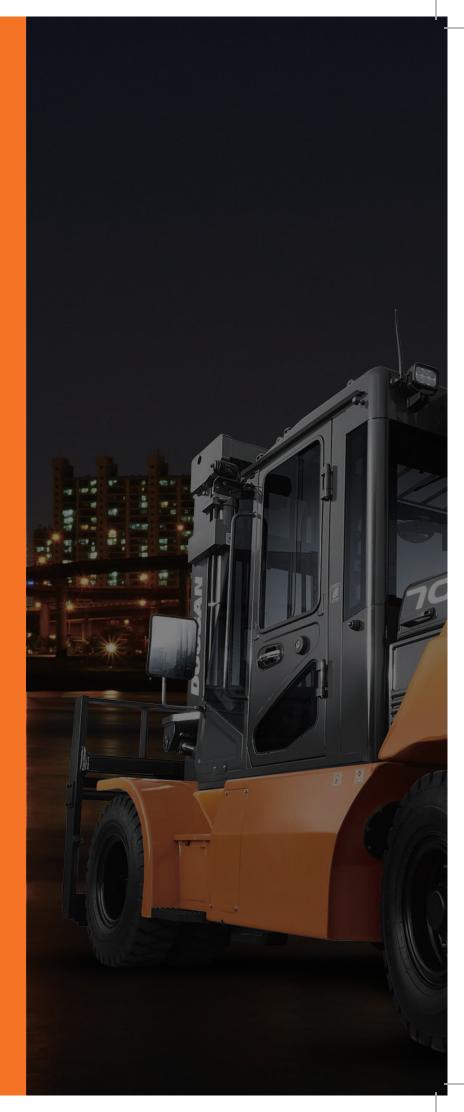
The Zeus cabin may be augmented with the following options:

- . Heater
- . Air Conditioner
- . Panoramic Mirror
- . CD or MP3 Player
- . Rear View Camera
- . Windshield Defroster Fan



We are Your Reliable Partner.

Factory authorized service of Doosan forklifts is available from a dedicated network of local dealers. These dealers are fully backed by Doosan customer service support. When you own a Doosan forklift you can rest assured that there is a team of knowledgeable and responsive customer support professionals will be available to help you get the most out of your investment.



Standard features and Option Availability

	Standard	Option
Direction Lever Function	0	
Mast Lowering Interlock	0	
Operator Presence System (OPS)	0	
ELR Type Orange Seat Belt	0	
Autoshift Controller	<u> </u>	
Combination Lamps (LED)		<u> </u>
Weight Scale		
Hazard Warning		
Emergency Switch		
Panoramic Rear View Mirror		
Rear View Camera		<u>_</u>
Strobe Light (Amber / Red)	11/2	
Back-up Alarm		
Ground Speed Control		
Ground Speed Control	1	
	700	
Productivity	Standard	Option
Electric Controlled TCI (Turbo Charged Intercooler) Doosan Engines	0	
Inching Pedal	0	
Heavy Duty Cooling (Hydraulic/Driveaxle/Transmission)		
Engine Block Heater		
Additional Thermostat for Transmission Oil		
Comfort	Standard	Option
Comfort Adjustable Steering Column	Standard	Option
		Option
Adjustable Steering Column		Option
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display		Option
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner	•	Option
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner Suspension Seat	•	Option
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner Suspension Seat Sound Suppression		Option Option
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner Suspension Seat Sound Suppression Steering Knob		
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner Suspension Seat Sound Suppression Steering Knob Durability	• • • • • • • • • • • Standard	
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner Suspension Seat Sound Suppression Steering Knob Durability Electronic Control Units (ECU) Cover	• • • • • • • • • • • • • • • • • • •	
Adjustable Steering Column Integrated Instrument Panel / 5" Color LCD Display Full Cabin (ZEUS) w/Heater or Air-conditioner Suspension Seat Sound Suppression Steering Knob Durability Electronic Control Units (ECU) Cover Waterproof Connectors	Standard Standard	
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^{*} Other options are also available. Please ask your local Doosan representative for more details.







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Product and specifications are subject to change without notice.