



Electric Reach Truck

1400kg to 1600kg Capacity

BR14JW-7 – BR16JW-7



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Welcome to Doosan Industrial Vehicles

Established in 1968, Doosan Industrial Vehicle has been determined to meet customers' needs for quality materials handling supplies and services, and has become a pillar of Korean industry.

As a result of our dedication and hard work, we are the number one supplier in our domestic market, with an accumulated production volume of over 380,000 units.

All our machines are designed to offer simple, powerful performance as well as operator comfort and environmental friendliness that help you to get the most from your investment. As a result, we have won a number of awards:

The World Best Awards given to the most distinguished product in 2000, the Human Engineering Design Awards in 2005, Numerous Safety Awards from the UK's Forklift Truck Association and a prestigious Red Dot design award for our Intelligent Concept Forklift in 2011.

We have become preferred suppliers to many blue chip companies and our high quality products have helped us secure a place as one of the leading material handling brands in the world's market.

Supplying forklifts to over 90 countries, we work with many of the world's leading fleet users. We can promise that Doosan will continuously endeavour to meet the high standards our customers demand and offer the best value for money products available.



About Doosan

A reliable partner with a proud history

Founded over 110 years ago, Doosan now employs over 39,000 people in over 37 different countries and has annual revenues in excess of US\$21.6-billion, making it one of the largest corporations in Korea.

Doosan's strength has come from its vast array of products and services ranging from power generation and desalination to major construction projects, engines, military equipment and construction equipment.

Our recent highlights include:

- * Ranked 471 in the Fortune 500 Global Companies
- * Acquired Bobcat from Ingersoll Rand for \$4.9-billion
- * Acquired Skoda Power
- * Currently involved in major R&D projects across the globe, covering nuclear power, offshore wind farms & fuel cells

As well as building high rise luxury apartments, major highways and power generation, Doosan also boasts its own 5-star Ladena hotel resort and golf complex, a global advertising agency and a Professional baseball team – the Doosan Bears.

Our impressive headquarters in the South Korean capital city, Seoul, the Doosan tower is one of the most well known landmarks, welcoming over 100,000 visitors per day and housing almost 600 shops over eight floors, is extremely popular with the shoppers.



Introducing the Electric Reach Truck

Advanced yet durable reach truck technology

Built in line with Doosan's ethos and reputation for high quality, affordable machines, the 7 Series is the latest addition to the company's already extensive warehouse range.

It offers an unbeatable combination of high productivity, maximum operator comfort and durability, utilising the latest AC motors coupled with Sauer-Danfoss controllers for advanced

lifting and intelligent driving characteristics. 360 and 180 Degree Steering.

The truck can be programmed to your choice of 360 or 180 degree steering depending on your operating conditions and driver preference.

The latest Doosan 7-Series handles heavy loads with ease; changing direction without speed

reduction and great manoeuvrability in tight spaces, ideal for working in tight warehouse environments.

The fully adjustable seat, armrest and steering console offers reduced strain on arms, wrists & shoulders for comfortable driving day in day out, allowing operators to be more productive, efficient and safe.

Introducing the Electric Reach Truck

Advanced yet durable reach truck technology

Safety and Innovation

Safety lies at the forefront of all of Doosan new products and none more so than the new 7-Series Reach Truck.

Innovative technology has been carefully developed and installed to assist the operator in protecting themselves and those around him.

Auto-Steer Wheel Centering on start-up, Automatic Speed Reduction whilst cornering and a clear Load Weight Indicator on the Graphical Interface Display Panel provides real-time information and technical assistance allowing the operator to concentrate on being as productive as possible, whilst the innovative auto-centering of the steer wheel system, means there's no need to check the starting direction.

Doosan's All Wheel Braking System includes the Load Wheel Brakes, the Electronic Parking Brake and the Electric Drive Motor, which uses innovative Regenerative Braking Technology and a Plug (Reverse) Braking facility to put additional power back into the battery to extend the shift life.

The strong chassis and German designed and manufactured high precision mast combined with large capacity batteries, give the Doosan 7-Series Reach Trucks great residual capacities at height allowing the best use of your racking and storage system.

The high precision mast incorporates adjustable wear pads, which ensures not only a longer life for the truck, but also greatly reduced wear and play in the mast channels resulting in a more stable machine, giving your operators great confidence in its capabilities.

The Doosan reach trucks feature load weight sensors, fork height indicators & height pre-selector. This allows the reach truck to be programmed so the forks stop automatically at pre-selected rack heights for quicker and accurate operation. Safety and ease of operation are facilitated by simultaneous hydraulic controls, allowing loads to be lifted and reached forward at the same time, resulting in shorter work cycles and increased productivity.





Sophisticated Ergonomics

The patented design of the 7-series marks other significant technical advances over traditional reach trucks. Not just its superior stability but also the clean, sharp and comfortable design of the reach truck also has the ability to provide an unquestionably better working environment for operators, helping reduce driver fatigue and stress - and consequently improving productivity.

The narrow mast design with chains, hydraulic hoses and cylinders in line with the mast channels, provides operators excellent visibility of the load and surrounding area.

The design of the overhead guard and chassis has been carefully considered to not only provide maximum protection, but also to allow a clear view upwards when placing and retrieving loads.

The 7-Series has other important features fitted as standard, not least a state-of-the-art Graphical User Interface. This informative 22 character display provides real-time performance data and truck status, therefore empowering operators with accurate information about the truck through an easily readable, expendable operator message window.

The decision to develop the new reach truck is the latest sign of Doosan's intention to shift to an even stronger market presence in both national and fleet deals where warehousing equipment plays a more significant role.

Key Features & Benefits



AC Drive System Performance

- More robust
- Less complex and more reliable
- Practically maintenance free
- Fastest Performance Speeds whether Loaded or Unloaded
- Contactor-less AC Motors for better speed conversion
- Continuous Torque Loaded and Unloaded

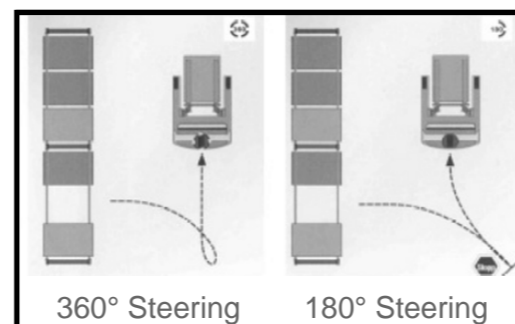
Optimized Truck Performance

The 7-Series Reach truck offers automatic reduction of travel speed for a more controlled cornering for increased safety.



360- & 180-Degree Steering Choice

- Change of Direction without Speed Reduction
- Better Manoeuvrability in Tight Spaces
- Increased Durability of Drive Motor and Invertor
- At Slow Speeds Steering Requires 4 Turns Lock to Lock – High Productivity
- At Fast Speeds Steering Requires 5 Turns Lock to Lock - Assists Safe Driving for Long Distances



Keyless Keypad Entry & Clear Graphical Display

- Prevents Access to Unauthorised Operators
- Minimises Damage
- Provides Operators with Live Truck Information, such as Battery Discharge Indicator, Load Weight and truck status
- No Lost Keys



Key Features & Benefits



Load Weight Indicator with Height Indicator & Selector

- Provides Operators with accurate and clearly visible information which increases safety when loading/unloading racking
- Increases Safety of high lifts ensuring the truck is within its safe residual capacity
- Weight Indicator is integrated into the dashboard, removing the need for separate weigh scales which are prone to damage
- Height Indicator provides the operator with accurate lifting heights for faster and safer placement and retrieval of loads from high-level racking
- Height Pre-selector can be programmed to pre-determined rack levels to assist with quick placement and retrieval of loads



Auto-Centering of Steer Wheel

- No need to check the starting direction
- Increases Safety & Productivity
- Reduces Site & Truck Damage
- AC Power Steering Motor makes the steering easier to drive reducing operator fatigue
- Conforms to new 2012 Regulations ensuring a double signal to the steering motors substantially reducing steering failures



Ergonomic Operators Compartment

- Fully Adjustable Control Console with Storage Box
- Fully Adjustable Steering Column
- Fully Adjustable Full Suspension Seat
- Spacious Operators Compartment reduces operator fatigue and ensures a healthy working environment for the drivers
- Electronic Finger-tip Controls with thumb activated travel direction switch, increases productivity with faster hydraulic functions, all of which are programmable to the optimal performance settings to suit your individual application
- The operator is protected by the carefully designed overhead guard which is angled for maximising the operators visibility of the load and racking through the OHG

Other Key Features



Performance

- Integral Side-shift
- Tilting Carriage not Tilting Mast
- Class Leading Drive & Lifting Speeds for Highest Productivity
- All AC Motors - Drive / Lift / Steering
- Excellent Residual Capacities at Full Lift Height
- The German manufactured mast sections offer the highest possibility quality, durability and proven technology
- Large Batteries & High Frequency Chargers for Long Shift Life and Fast & Economic Charging
- Adjustable Mast Wear Pads for longer life and reduced play

Safety

- All Wheel Braking - Drive and Load Wheels
- Automatic Slowing of Drive Speed when Cornering
- Automatic Lift & Reach Speed Control when Loaded or Unloaded
- Great Visibility Through Mast & Carriage
- Optimised Operator Visibility for all round vision such as the Overhead Guard design
- Standard Key-Pad Entry prevents Unauthorised Operator Access
- Integrated Load Weight Indicator assists operators determining safe working loads efficiently

Ergonomics

- Lowest Entry Step in Reach Truck Class at 350mm for less Operator Fatigue
- Cushioned Armrest with Storage Compartment
- Excellent Access to all Motors for quick & easy Maintenance
- Fork Mounted Camera System with 7" LCD Screen option reduces neck strain when working at high lift heights
- Auto-Centering of Steer Wheel when powered on means no need to check the starting direction every time you get onto the machine
- Easy to Read Graphical Interface provides great real-time information to the operator

Standard Equipment

Standard Equipment Includes:

- 1400kgs or 1600kgs capacity model
- Full Free-lift Triplex Mast from 5,000mm to 10,250mm
- Integral Side-Shift
- Tilting Carriage
- 360 or 180-degree Steering
- All Wheel Braking
- Electronic Parking Brake
- 4 Electronic Mini-Levers
- Graphical User Interface
- Doosan Keypad Entry
- Load Weight Indicator
- Forks Up to 1200mm
- Battery Tray (Static)
- Flashing Beacon
- Load Backrest
- Full Vinyl Suspension Seat

Optional Equipment:

- Height Indicator with Height Pre-Selector
- Lateral Battery Rollers for Side Extraction
- Waterproof Camera and 7" LCD Screen
- Working Lights
- Mirrors
- Rubber Drive Wheel for Wet Areas
- Cold Storage Protection to minus 40-degrees
- High Frequency Chargers
- Battery Automatic Filling & Air Options
- Battery Change Rollers Beds and Change Cars





Electric Reach Truck

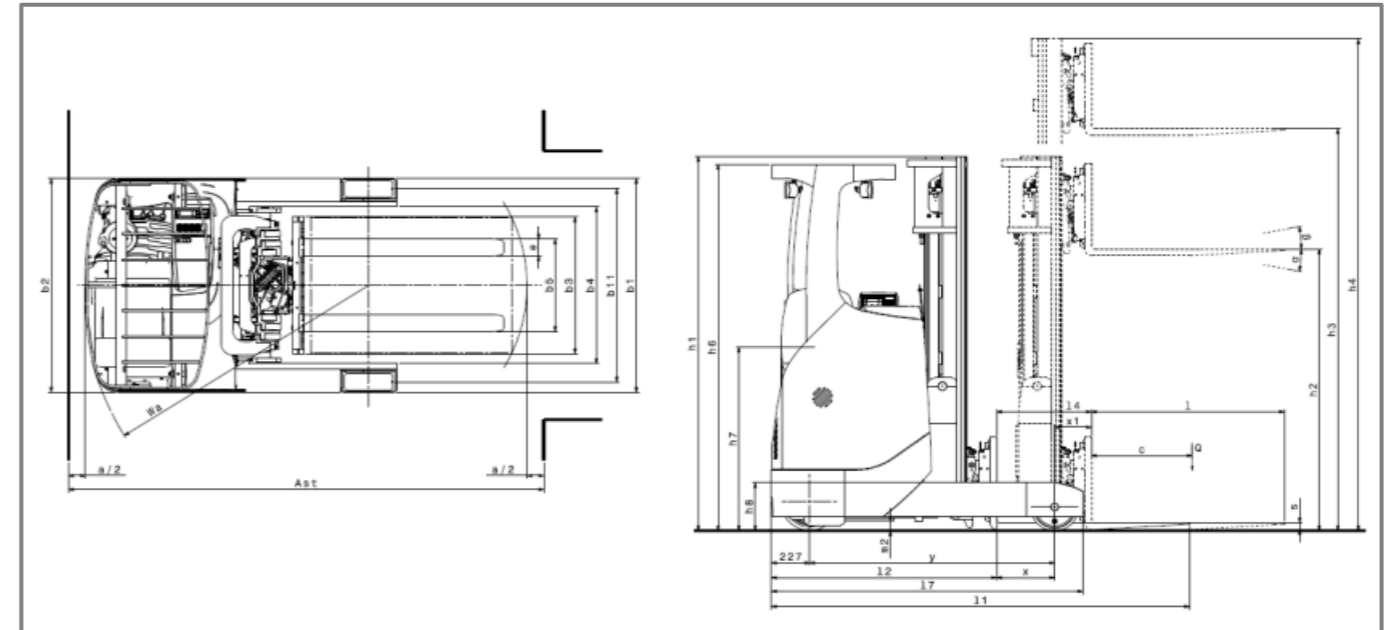
1,400kg to 1,600kg Capacity
BR14JW-7 / BR16JW-7

Main Vehicle Specification

		Doosan	Doosan	Doosan	Doosan	Doosan	Doosan
		BR14JW-7 420AH	BR14JW-7 560AH	BR14JW-7 700AH	BR16JW-7 420AH	BR16JW-7 560AH	BR16JW-7 700AH
1.1	Manufacturer	Doosan	Doosan	Doosan	Doosan	Doosan	Doosan
1.2	Model designation	BR14JW-7 420AH	BR14JW-7 560AH	BR14JW-7 700AH	BR16JW-7 420AH	BR16JW-7 560AH	BR16JW-7 700AH
1.3	Drive	Electric	Electric	Electric	Electric	Electric	Electric
1.4	Operator type	Seat	Seat	Seat	Seat	Seat	Seat
1.5	Load capacity	Q (kg)	1400	1400	1600	1600	1600
1.6	Load centre	c (mm)	600	600	600	600	600
1.8	Load distance	x (mm)	296	230	159	346	280
	Mast pushed forward	x1 (mm)	219	219	229	219	219
1.9	Wheelbase	y (mm)	1410	1410	1410	1460	1460
2.1	Unladen weight	kg	3080	3080	3080	3087	3087
2.3	Axle loading, unladen, front/rear	kg	1980/1100	1980/1100	1980/1100	1985/1102	1985/1102
2.4	Axle loading, fork advanced, laden, front/rear	kg	770/3710	770/3710	770/3710	807/3880	807/3880
2.5	Axle loading, fork retracted, laden, front/rear	kg	1708/2772	1708/2772	1708/2772	1787/2900	1787/2900
3.1	Tyres	Vulkollan®	Vulkollan®	Vulkollan®	Vulkollan®	Vulkollan®	Vulkollan®
3.2	Tyres size, front	dia. x width(mm)	343 x 140	343 x 140	343 x 140	343 x 140	343 x 140
3.3	Tyres size, rear	dia. x width(mm)	285 x 100	285 x 100	285 x 100	285 x 100	285 x 100
3.5	Wheels, number front/rear (x=driven)		1x/2	1x/2	1x/2	1x/2	1x/2
3.7	Track width, rear	b11 (mm)	1149	1149	1149	1149	1149
4.1	Tilt of fork carriage forward/backward	α/β (°)	2/5	2/5	2/5	2/5	2/5
4.2	Closed mast height	h1 (mm)	2530*	2530*	2530*	2530*	2530*
4.3	Free lift	h2 (mm)	1967*	1967*	1967*	1967*	1967*
4.4	Maximum Lift height*	h3 (mm)	5900*	5900*	5900*	5900*	5900*
4.5	Height of mast, extended	h4 (mm)	6410*	6410*	6410*	6410*	6410*
4.7	Height of overhead guard	h6 (mm)	2185	2185	2185	2185	2185
4.8	Seat height	h7 (mm)	1095	1095	1095	1095	1095
4.10	Height of wheel arms	h8 (mm)	287	287	287	287	287
4.19	Overall length	l1 (mm)	2491	2557	2628	2491	2557
4.20	Length to face of forks	l2 (mm)	1341	1407	1478	1341	1407
4.21	Overall width	b1/b2 (mm)	1274/1270	1274/1270	1274/1270	1274/1270	1274/1270
4.22	Fork dimensions	s/e/l (mm)	40/100/1150	40/100/1150	40/100/1150	40/100/1150	40/100/1150
4.23	Fork carriage ISO 2328, class/type A,B		2A	2A	2A	2A	2A
4.24	Fork carriage width	b3 (mm)	813	813	813	813	813
4.25	Width across forks	b5 (mm)	245/753	245/753	245/753	245/753	245/753
4.26	Distance between wheel arms/loading surfaces	b4 (mm)	932	932	932	932	932
4.28	Reach distance	l4 (mm)	515	449	388	565	499
4.32	Ground clearance, centre of wheelbase	m2 (mm)	58	58	58	58	58
4.33	Aisle width for pallets 1000x1200 wide	Ast (mm)	2786	2837	2894	2796	2845
	Aisle width for pallets 1000x1200 long	Ast (mm)	2894	2952	3016	2898	2955
4.34	Aisle width for pallets 800x1200 wide	Ast (mm)	2644	2689	2739	2660	2702
	Aisle width for pallets 800x1200 long	Ast (mm)	2849	2910	2976	2851	2911
4.35	Turning radius	Wa (mm)	1661	1661	1661	1708	1708
4.37	Length across wheel arms	l7 (mm)	1805	1805	1805	1855	1855
5.1	Travel speed, laden/unladen	km/h	12	12	12	12	12
5.2	Lift speed, laden/unladen	m/s	0.42/0.6	0.42/0.6	0.42/0.6	0.42/0.6	0.42/0.6
5.3	Lowering speed, laden/unladen	m/s	0.5	0.5	0.5	0.5	0.5
5.4	Reaching speed, laden/unladen	m/s	0.2	0.2	0.2	0.2	0.2
5.8	Max. gradeability, laden/unladen	%	10/15	10/15	10/15	10/15	10/15
5.10	Service brake		Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic	Electromagnetic
6.1	Drive motor rating S2 60 min.	kW	5.3	5.3	5.3	5.3	5.3
6.2	Lift motor rating S3 15%	kW	13.2	13.2	13.2	13.2	13.2
6.4	Battery voltage/capacity at 5 hours rate	V/Ah	48/420	48/560	48/700	48/420	48/560
6.5	Battery weight	kg	730	923	1135	730	923
	Battery dimensions	l/w/h (mm)	1220/290/780 (1223/290/784)	1220/355/780 (1223/355/784)	1220/425/780 (1223/425/784)	1220/290/780 (1223/290/784)	1220/355/780 (1223/355/784)
8.1	Type of drive control		AC-MOSFET	AC-MOSFET	AC-MOSFET	AC-MOSFET	AC-MOSFET
8.2	Operating pressure for attachments	bar	200	200	200	200	200
8.3	Oil volume for attachments	l/min	20	20	20	20	20
8.4	Sound level at operator's ear according to EN12053	dB(A)	70	70	70	70	70

* Varies according to mast specifications

Dimensional Drawings



Mast Details

Lift height (h3)	Closed mast height (h1)	Free lift without Load backrest (h2)	Free lift with Load backrest
5000	2230	1666.5	1336
5600	2430	1866.5	1536
5900	2530	1966.5	1636
6200	2630	2066.5	1736
6500	2730	2166.5	1836
6800	2830	2266.5	1936
7100	2930	2366.5	2036
7400	3030	2466.5	2136
7700	3130	2566.5	2236
8000	3230	2666.5	2336
8420	3370	2806.5	2476
8720	3470	2906.5	2576
9020	3570	3006.5	2676
9410	3700	3136.5	2806

Height of Overhead Guard (without beacon / with beacon): 2185mm / 2313mm

Battery Size

BR14/16JW-7	420AH	560AH	700AH
L / W / H (MAX)	1220/290/780 (1223/290/784)	1220/355/780 (1223/290/784)	1220/425/780 (1223/425/784)



Doosan Industrial Vehicle Seoul Office
22/F, Doosan Tower, 18-12, Euljiro-6Ga, Jung-Gu,
Seoul, South Korea.
www.doosan-iv.com

AUTHORIZED DEALER

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



Doosan Industrial Vehicles UK
12 Kilvey Road
Brackmills Industrial Estate
Northampton
NN4 7BQ

t: 01604 825600
f: 01604 825650
www.doosanforklifts.co.uk
www.facebook.com/doosanforklifts

