



# NR-DB/NDR-DB

## REACH TRUCKS

3,000 · 3,500 · 4,000 lbs

**Yale NR/NDR-DB** reach trucks combine the latest technology with improved performance to effectively meet the demands of high density warehousing.

**Operator's compartment** features a new movement forward in ergonomic design. The NR/NDR-DB offers two (2) operator compartments, the side-stance and the fore/aft stance compartments. The fully padded operator's compartment provides back and hip support. The noticeable non-pedal large floor has room for movement and is equipped with an Operator Presence Switch.

The side stance operator compartment has a large backrest pad with integral lumbar and armrest support.

The **multifunction control handle** assembly is adjustable 3 inches in and out, and 6 inches vertically with the standard adjustable backrest support. The control handle is ergonomically designed with an integral palm rest, thumb rest, and can be comfortably operated. The handle provides conveniently located controls for forward/reverse, lift/lower, proportional reach/retract, tilt, horn and optional sideshift.

The **fore/aft stance** compartment provides a support point for the operator when facing in either direction. The multi-function handle assembly is a single axis design and is mounted on the side pad assembly. The single axis design provides additional dynamic support point for operator when facing forward. The optional Aft Travel Control Handle with Laser Operator Detection provides speed & direction control when the operator is facing aft.

The performance parameters utilized by the Next Generation of reach trucks offers a high degree of customization for specific applications, optimizing unit and operator efficiency to match application requirements. **NEW**

**Yale iSi Technology™** offers simple on-board parameter adjustment, diagnostics and interface for operators, supervisors and service personnel.

**CANbus Technology** streamlines digital communications between truck systems through one main master controller. Dash display and traction controller are controlled via the CANbus network. The CANbus controller reduces wiring and electrical

connections, resulting in improved reliability and improved visibility through the mast.

**AC Motors** include traction and main hydraulics. AC motor technology delivers high motor efficiency, braking torques, and powerful acceleration. A speed sensor built into the motor provides feedback to the control system, allowing motor speed and direction to be continuously monitored. A thermal protection system controls the power delivered to the motor. In addition, increased motor maintenance interval is achieved through the brushless design of the auxiliary hydraulics and steer motors.

**Drive unit** uses a double gear reduction drive train with a sealed permanently lubricated steer bearing, greatly reducing the ingress of debris increasing bearing life. **NEW** sealed for life drive unit, requiring no oil changes and a service free input joint. **NEW** serviceable wheel seal.

**Yale Hi-Vis™ mast** is available in triplex configurations for various heights. The trunnion mounted mast design provides for good load distribution and allows for easy service. The hydraulic cylinder incorporates a chrome plated rod for corrosion resistance. The cylinders are easily serviced and provide integral cushioning for excellent mast channel staging. Velocity fuses are provided to control lowering in the event of hydraulic failure. A manual lowering valve is standard.

**Brake** is spring applied and electrically released. Mounted above the drive motor and controlled by the Vehicle System Manager (VSM), the assembly provides emergency stopping and parking brake for the truck.

**Vehicle System Manager (VSM)** is an electronic module that monitors all truck functions. The VSM is the CANbus network master node and includes the vehicle application software. Built with input/output capability, the system monitors inputs from the operator, vehicle performance and simultaneously adjusting the vehicle operation for the best performance.

CAPACITY			
NR	—	3500	4000
NDR	3000	—	—

**Dash display** features a graphic LCD Multifunction Smart Display with Back lighting, bar Graphic Battery Discharge Indicator and Lift Interrupt, Hour Meter; Truck, Traction and Hoist Pump, Performance Mode selection and Indication with lift interrupt, LED Status Indicators with symbols, Programmable Performance Modes, User passwords and Operator logs with history, Steer Wheel Angle Graphic Indication, Truck Inspection Check List, Truck Speed Indication in MPH or KPH.

Four operator selectable driver modes are available; Modes 4, 3, 2, and 1. Mode 4 provides maximum acceleration and travel speeds. Mode 3 provides high travel speeds at reduced acceleration. Mode 2 reduces travel speeds and acceleration further. Mode 1 reduces travel speed by 40% and also limits acceleration. All 4 modes are completely programmable by supervisor or technician.

**Console covers** are thermally formed. The covers are easy to remove, providing access to main electrical components.

*(continued on back)*



**Mast table**

NR035-040DB & NDR030DB - TRIPLEX HI-VIS™ MAST (5.5" STANDARD)															
Overall Lowered Height		Fork Height Top of Forks		Free Lift		Overall Height (Mast Extended) Highest Point with 36" High LBR		Overhead Guard Height to Top		Operator Clearance		Head Length (Length to Face of Forks)			
												12.5" or 14.5" B.C.	14.5" B.C.	16.5" B.C.	
in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	Single Reach	Double Reach	Single Reach	Double Reach
87	2210	191	4851	48	1219	230	5842	86.5	2197	75.3	1913	52.12	58.02	54.12	60.02
91	2311	203	5156	52	1321	242	6147	90.5	2299	79.3	2014	52.12	58.02	54.12	60.02
95	2413	212	5385	56	1422	251	6375	94.5	2400	83.3	2116	52.12	58.02	54.12	60.02
101	2565	227	5766	62	1575	266	6756	91	2311	79.8	2027	52.12	58.02	54.12	60.02
107	2718	242	6147	68	1727	281	7137	91	2311	79.8	2027	52.12	58.02	54.12	60.02
110	2794	251	6375	71	1803	290	7366	91	2311	79.8	2027	52.12	58.02	54.12	60.02
119	3023	272	6909	80	2032	311	7899	91	2311	79.8	2027	52.12	58.02	54.12	60.02

**Right angle aisle stacking ("RAS" table)**

Note: These are "Zero Clearance" aisles and require an additional 6" to 12" to be added to provide for easier maneuvering.

NR035/040DB					
Truck with 12.5" or 14.5" Battery Compartment and 42" ID					
Triplex - 4" Between Loads					
Pallet Length (inches)	Pallet Width (inches)				
		36	40	44	48
	36	85	85	85	85
	40	87	87	86	86
	44	92	91	91	90
	48	96	96	95	95

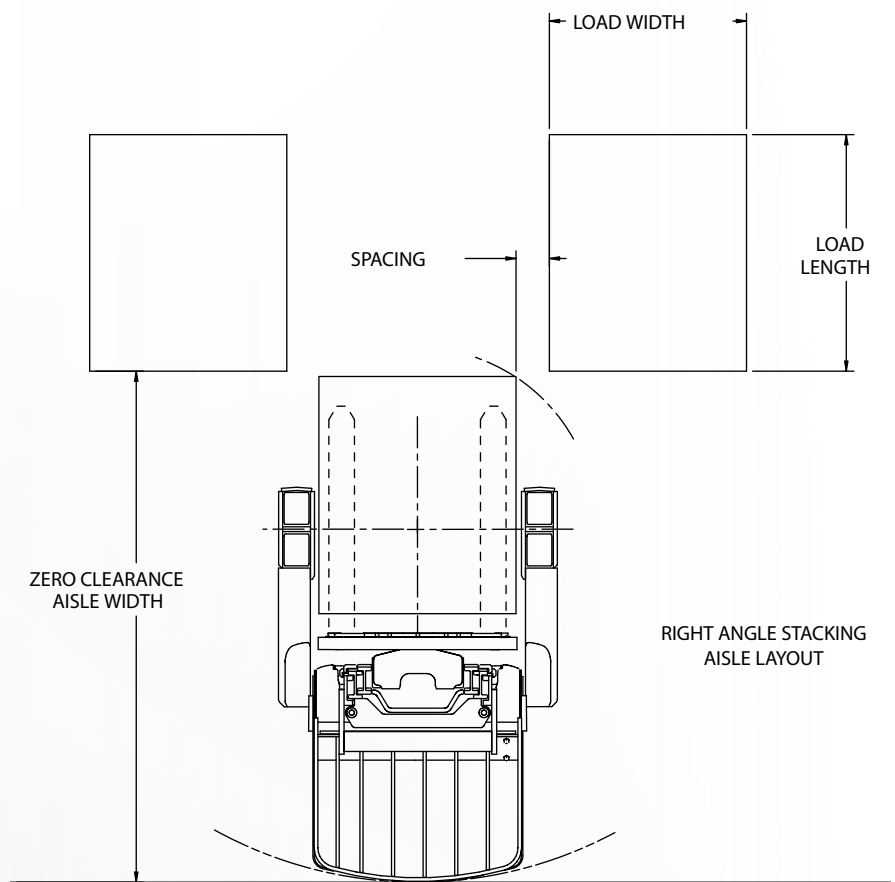
Add 1" for Sideshift  
Add 2" for 16.5" Battery Compartment

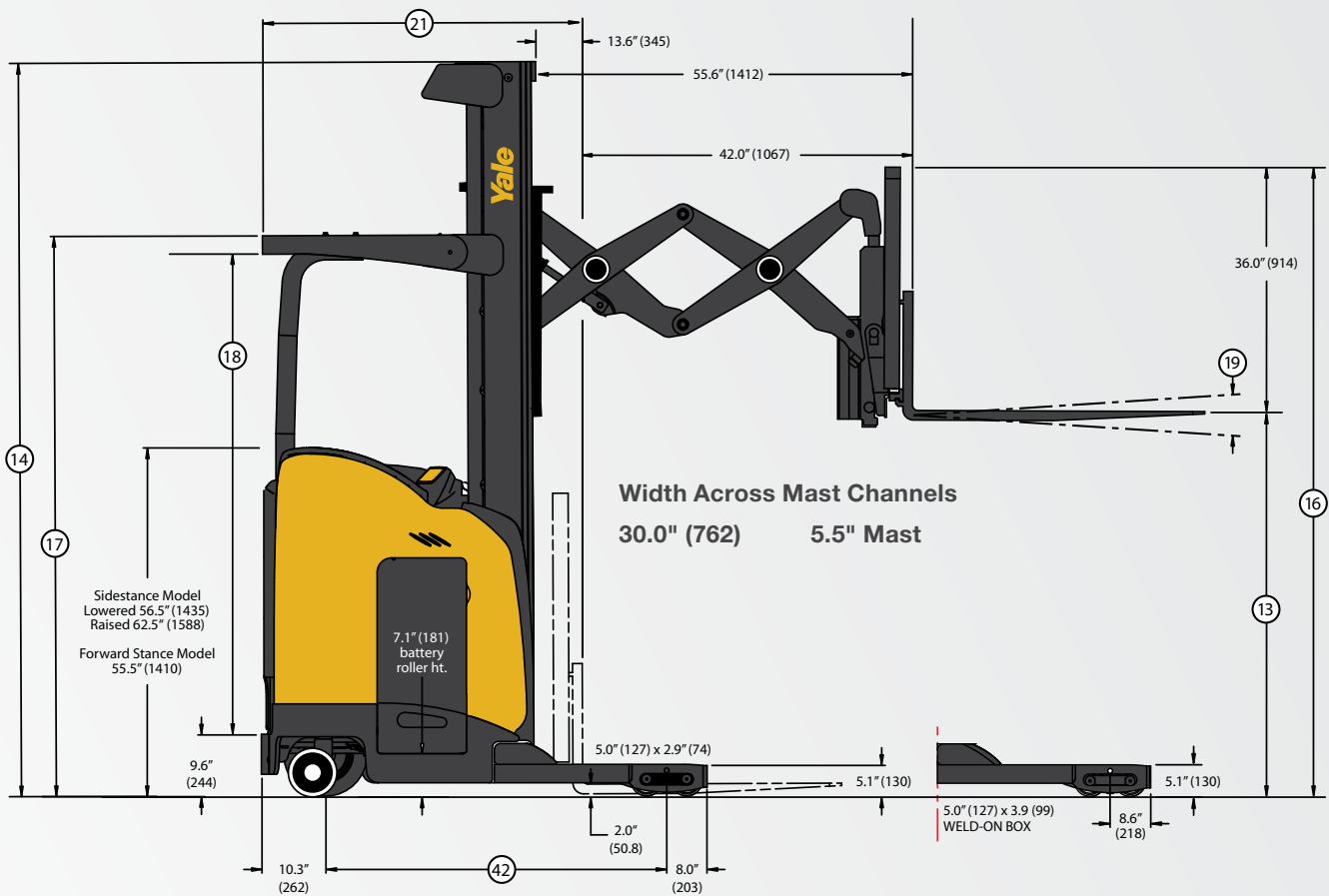
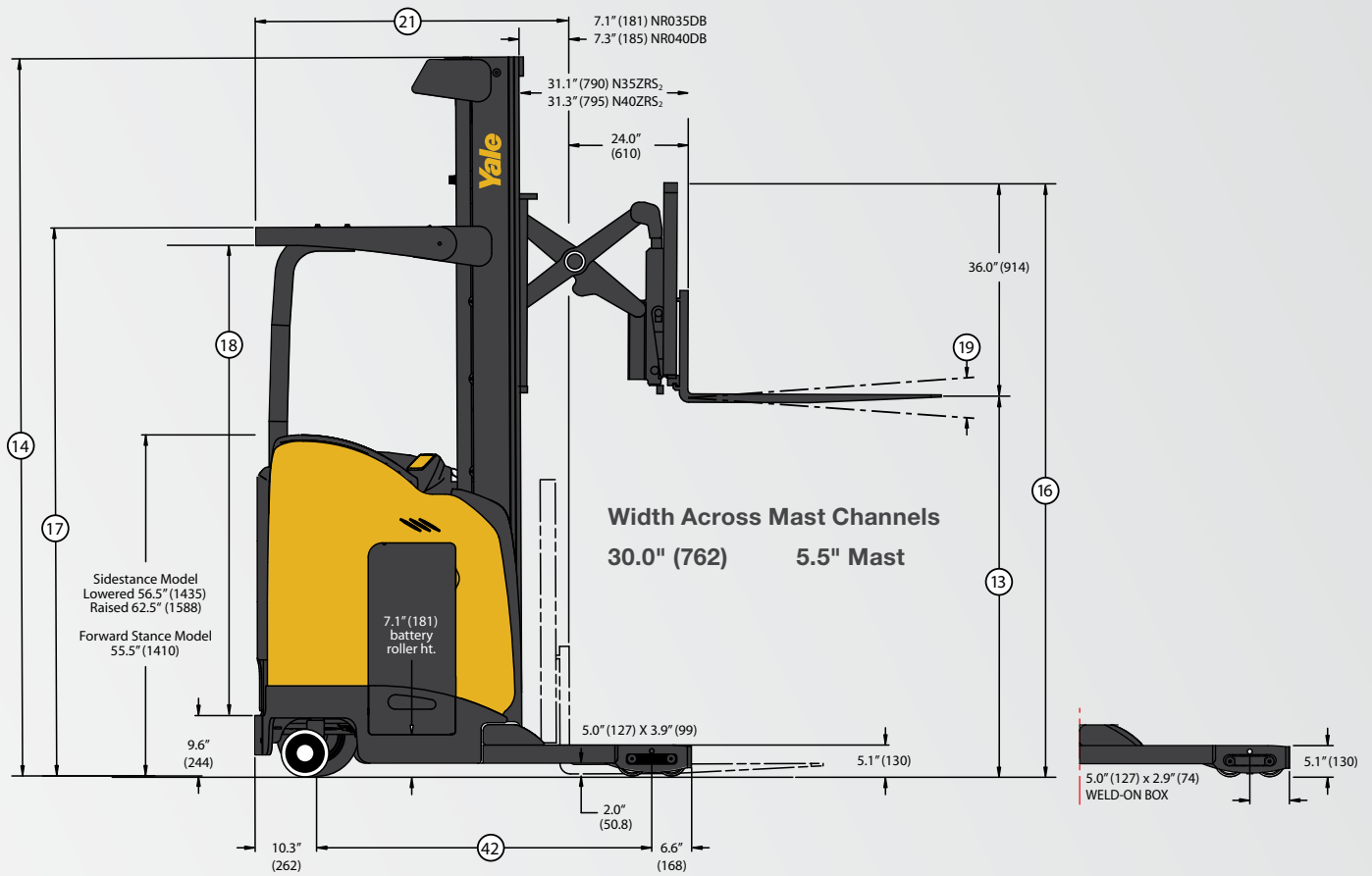
NDR030DB					
Truck with 14.5" Battery Compartment and 42" ID					
Triplex - 4" Between Loads					
Pallet Length (inches)	Pallet Width (inches)				
		36	40	44	48
	36	90	90	90	90
	40	91	91	91	91
	44	95	94	94	93
	48	99	99	98	98

Sideshift is Standard on Double Reach

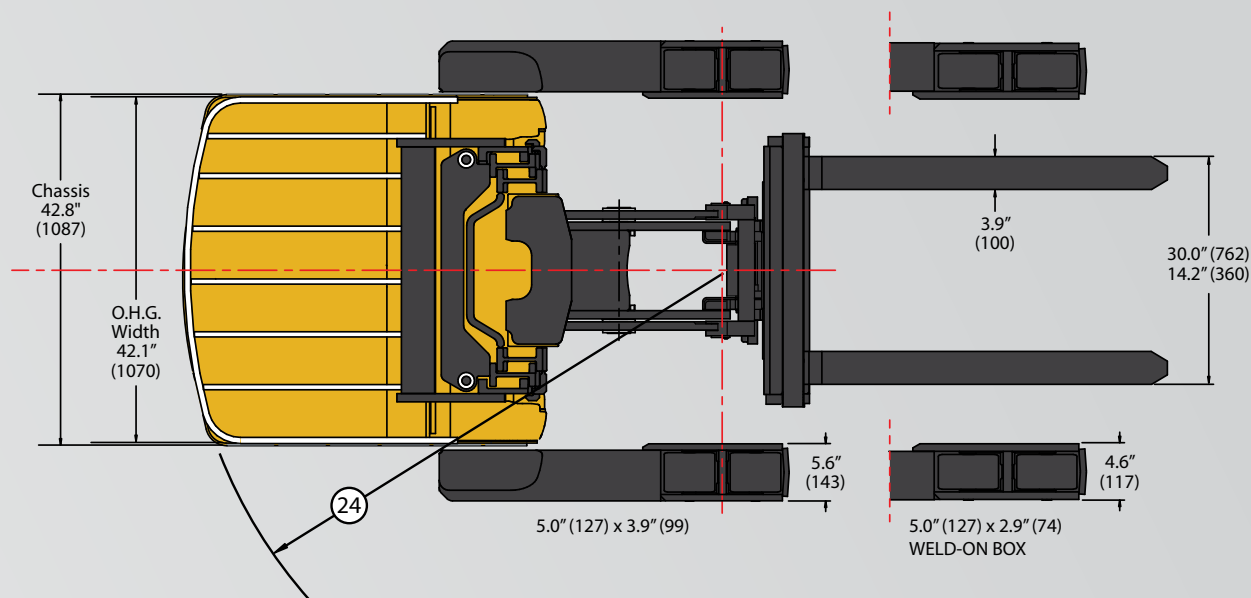
NDR030DB					
Truck with 16.5" Battery Compartment and 42" ID					
Triplex - 4" Between Loads					
Pallet Length (inches)	Pallet Width (inches)				
		36	40	44	48
	36	91	91	91	91
	40	92	92	91	91
	44	97	97	96	95
	48	101	101	100	100

Sideshift is Standard on Double Reach





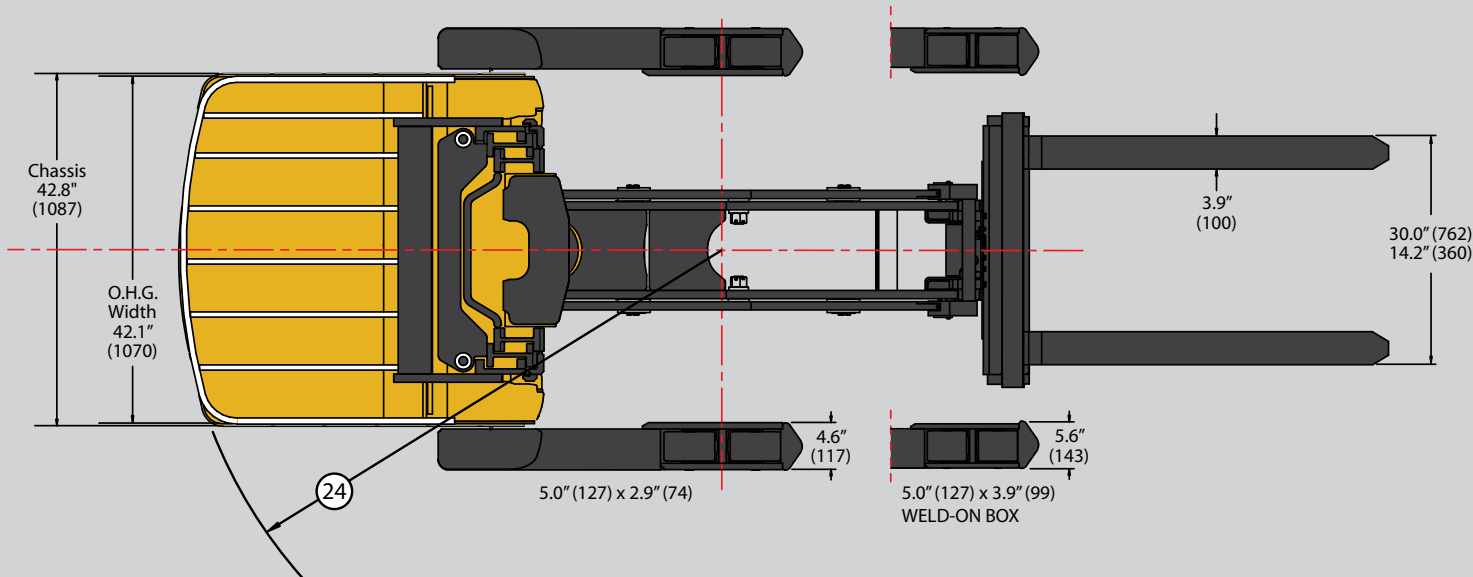
Circled dimensions correspond to the line numbers on the tabulated chart inside the spec sheet. Dimensions are in inches (millimeters).



GENERAL		Manufacturer's Name		Yale	
1	Manufacturer	Manufacturer's Name		Yale	
2	Model Designation	Manufacturer's Model Designation		NR035DB	
3	Model Configuration	Wheel Base Designation <sup>2</sup>		SWB	
4	Rated Capacity	Load Capacity	lbs.	3500 (1588)	
5	Load Center	Distance	in.	24 (610)	
6	Power type	Electric, Diesel, LPG		Electric - 24 volt	
7	Operator type	Pedestrian, Stand, Seated Rider		Stand	
8	Tire type	Load / Caster / Drive		Poly / Poly / Rubber	
9	Wheels (x = driven)	Load / Drive		4 / 2 (1x)	
10	Truck Weight	without Battery (approximate)		lbs. 4950	
11	Axle Loading - Front / Rear with Assembly Retracted	Static with Rated Load and Max. Wt. Battery		Front	Rear
12				6750	3800
13	Mast Triplex Hi-Vis™	Standard Lift (Max Fork Height)		in. (mm)	
14		Standard Mast Lowered (OALH)		in. (mm)	
15		Freelift (Max Fork Height)		in. (mm)	
16		Standard Mast Extended w/ LBR		in. (mm)	
17		Top of OHG		in. (mm)	
18		Operator Clearance		in. (mm)	
19	Carriage	Tilt Angle (forward / back)		degrees ° 3° Fwd / 4° Back	
20	Forks	Standard (length x width x thickness)		in. 1.60 x 3.9 x 42	
21	Headlength to Face of Forks <sup>1</sup>	All - Battery Compartments		in. See Mast Table	
22	Outrigger ID			in. 34" - 49" (1" increments)	
23	Battery Compartment Size - Length x Width x Height	12.5" Battery Compartment		in. 39.0 x 12.5 x 31.5	
		14.5" Battery Compartment		in. 39.0 x 14.5 x 31.5	
		16.5" Battery Compartment		in. 39.0 x 16.5 x 31.5	
24	Turning Radius - Minimum Outside <sup>1</sup>	12.5" Battery Compartment		in. 65.74	
		14.5" Battery Compartment		in. 65.74	
		16.5" Battery Compartment		in. 67.74	
25	Aisle Width - Zero Clearance - Right Angle Stack <sup>1</sup>	see chart		See "RAS" Table	
26	Stability - Comply with ANSI *			Yes	
28	Travel Speed	Rearward (chassis first) - Empty / Rated Load		mph 6.5/6.5	
29		Forward ( forks first) - Empty / Rated Load		mph 6.5/6.5	
31	Lift Speed	Empty		ft/min 60	
32		2000		ft/min 46	
33		3000		ft/min 43	
34		3500		ft/min 40	
35		4000		ft/min N/A	
36		4500		ft/min N/A	
37	Lowering Speeds - Standard / Optional	Empty		ft/min 85	
38		Rated Load		ft/min 85	
39	Size - front load wheels (tandem articulating)	Standard		5 x 3.9	
40	Size - drive tire / dual casters			Drive	Caster
41				12.0 x 5.5	7.9 x 2.2
42	Wheel Base	12.5" Battery Compartment		in. 55.35	
		14.5" Battery Compartment		in. 55.35	
		16.5" Battery Compartment		in. 57.36	
43	Brakes, service / parking	Method of Control		Foot	
44		Method of Operation		Spring Apply / Electric Release	
45	Battery, type			Lead Acid	
46	Electric Motors	Traction motor rating (60 minute rating)		hp (kw)	7.5 (5.6)
47		Hoist motor rating (5 minute rating)		hp (kw)	14.8 (11.0)
48		Traction motor control method		Transistor	
49		Hoist motor control method		Transistor	
50		Number of speeds		Infinitely Variable	

<sup>1</sup> Single Reach - add 1" for Sideshift, Double Reach is standard with Sideshift

\* Short or Long Wheelbase is for Double Reach Only. Short Wheelbase is used on masts over 278".



Yale					1	GENERAL		
NR035DB		NR040DB		NR040DB	NDR030DB		2	
SWB		SWB		SWB	LWB		3	
3500 (1588)		4000 (1814)		4000 (1814)	3000 (1361)		4	
24 (610)		24 (610)		24 (610)	24 (610)		5	
Electric - 36 volt		Electric - 24 volt		Electric - 36 volt	Electric - 24 volt		6	
Stand		Stand		Stand	Stand		7	
Poly / Poly / Rubber		Poly / Poly / Rubber		Poly / Poly / Rubber	Poly / Poly / Rubber		8	
4 / 2 (1x)		4 / 2 (1x)		4 / 2 (1x)	4 / 2 (1x)		9	
4950		5000		5000	5250		10	
Front	Rear	Front	Rear	Front	Rear	Front	Rear	11
6750	3800	7400	3700	7400	3700	6300	4050	12
See Mast Table		See Mast Table		See Mast Table		See Mast Table		13
See Mast Table		See Mast Table		See Mast Table		See Mast Table		14
See Mast Table		See Mast Table		See Mast Table		See Mast Table		15
See Mast Table		See Mast Table		See Mast Table		See Mast Table		16
See Mast Table		See Mast Table		See Mast Table		See Mast Table		17
See Mast Table		See Mast Table		See Mast Table		See Mast Table		18
3° Fwd / 4° Back		3° Fwd / 4° Back		3° Fwd / 4° Back		3° Fwd / 4° Back		19
1.60 x 3.9 x 42		1.80 x 3.9 x 42		1.80 x 3.9 x 42		1.60 x 3.9 x 42		20
See Mast Table		See Mast Table		See Mast Table		See Mast Table		21
34" - 49" (1" increments)		34" - 49" (1" increments)		34" - 49" (1" increments)		34" - 49" (1" increments)		22
39.0 x 12.5 x 31.5		39.0 x 12.5 x 31.5		39.0 x 12.5 x 31.5		N/A		23
39.0 x 14.5 x 31.5		39.0 x 14.5 x 31.5		39.0 x 14.5 x 31.5		39.0 x 14.5 x 31.5		24
39.0 x 16.5 x 31.5		39.0 x 16.5 x 31.5		39.0 x 16.5 x 31.5		39.0 x 16.5 x 31.5		25
65.74		65.74		65.74		N/A		26
65.74		65.74		65.74		65.74		27
67.74		67.74		67.74		67.74		28
See "RAS" Table		See "RAS" Table		See "RAS" Table		See "RAS" Table		29
Yes		Yes		Yes		Yes		30
6.7/6.5		6.5/6.5		6.7/6.5		6.5/6.5		31
6.7/6.5		6.5/6.05		6.7/6.0		6.5/6.5		32
75		60		75		60		33
54		46		54		44		34
50		43		50		40		35
47		40		47		N/A		36
N/A		38		45		N/A		37
N/A		N/A		N/A		N/A		38
85		85		85		85		39
85		85		85		85		40
5 x 3.9		5 x 3.9		5 x 3.9		5 x 2.9		41
Drive	Caster	Drive	Caster	Drive	Caster	Drive	Caster	42
12.0 x 5.5	7.9 x 2.2	12.0 x 5.5	7.9 x 2.2	12.0 x 5.5	7.9 x 2.2	12.0 x 5.5	7.9 x 2.2	43
55.35		55.35		55.35		N/A		44
55.35		55.35		55.35		60.35		45
57.36		57.36		57.36		62.36		46
Foot		Foot		Foot		Foot		47
Spring Apply / Electric Release		Spring Apply / Electric Release		Spring Apply / Electric Release		Spring Apply / Electric Release		48
Lead Acid		Lead Acid		Lead Acid		Lead Acid		49
7.5 (5.6)		7.5 (5.6)		7.5 (5.6)		7.5 (5.6)		50
14.8 (11.0)		14.8 (11.0)		14.8 (11.0)		14.8 (11.0)		51
Transistor		Transistor		Transistor		Transistor		52
Transistor		Transistor		Transistor		Transistor		53
Infinitely Variable		Infinitely Variable		Infinitely Variable		Infinitely Variable		54

WT. DIMENSIONS PERFORMANCE WHEELS & TIRES ELECTRIC

**Reach mechanism** includes strong rear frame weldment and inner arm weldment cross-members. The open carriage design and optimal hose routing provide good visibility. The proportional reach/retract cylinders are fully cushioned for smooth operation. Pivot points have grease fittings for lubrication, and dual tilt cylinders are used to evenly distribute the load.

**Hydraulic functions** of the truck are managed by the VSM. The system features a Motor Controller, AC Hoist Motor, Pump and Hydraulic Reservoir. Efficient design and the use of O-ring face seals have allowed significant reduction of hydraulic fittings reducing potential leak points.

**Frame** features a fixed drive unit mounting with spring loaded caster assembly to compensate for uneven floors. It also incorporates thick plates, strong rear frame, and mast connections for enhanced durability. The frame is available in various battery compartment sizes based on truck capacity. The frame is available in 12.5 inches, 14.5 inches and 16.5 inches for the 3500 lb. and 4000 lb. trucks. The 14.5 and 16.5 inch battery compartments are available for the 3000 lb. double reach model.

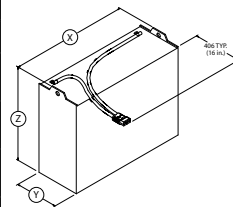
All wiring is numbered for easy trouble-shooting and meets the UL 583 requirements. Sealed electrical connectors are used throughout the truck. Electrical connections are provided for convenient field installation of electric options.

Additional features include a bolt-on 36 inch (910 mm) high load backrest extension and 42 inch (1067 mm) long hook type forks as standard. All non-sealed friction points are equipped with grease fittings. The truck is painted gold, parchment, and black.

## Options

- RF Terminal Bracket
- RF Handheld Scanner Holder
- Impact Monitor
- Audible Alarm
  - Reverse Operated
  - Forward and Reverse Operation
  - Forward/Reverse and Lift/Lower Operation
- Visible Alarm
  - Amber Strobe (Continuous operation with Key-on)
  - Amber Strobe (Forward and Reverse Operation)
- Lights
  - Operator Desktop LED Light (OHG Mounted)
  - Dual Headlight 12 Volt (OHG Mounted)
  - Rear Worklight 12 Volt (OHG Mounted)
- Operator Compartment Rear Door
- Various Fork Lengths
- Various I.D. Outriggers
- Operator Overhead Fan
- Cooler/Freezer Package
- Sideshifter (Standard on the Double Reach)
- Various Load Wheels and Drive Tires
- Steer Caster – Electrically Steered
- Side Stance With Adjustable Steering wheel position
- Fore/Aft Stance With Adjustable steering wheel position, with or without Aft travel control handle

BATTERY SPECIFICATIONS								
Battery Compartment Size	Battery Voltage	Capacity 6 Hour Rate		Battery Dimensions			Min Batt Weight	Max Batt Weight
				"X" Max.	"Y" Max.	"Z" Max.		
		amp hr	kw hr	in. (mm)	in. (mm)	in. (mm)	lb. (kg)	lb. (kg)
12.5"	24	1085	25.4	38.8 (985)	12.25 (311)	31.0 (788)	1400 (635)	1900 (862)
14.5"	24	1240	29.0	38.8 (985)	14.25 (362)	31.0 (788)	1600 (726)	2100 (953)
14.5"	36	775	27.2	38.8 (985)	14.25 (362)	31.0 (788)	1600 (726)	2100 (953)
16.5"	24	1395	32.6	38.8 (985)	16.25 (413)	31.0 (788)	1850 (839)	2350 (1066)
16.5"	36	930	32.6	38.8 (985)	16.25 (413)	31.0 (788)	1850 (839)	2350 (1066)



Battery Connector: 36V - Gray; Position "B"      Manufacturers Standard Cable Size Not to Exceed 4/0 AWG  
 Battery compartment is designed to accommodate standard wet cell batteries with fixed lifting eyes and no cover.  
 Contact Applications Engineering to verify compatibility/fit when using maintenance free, covered or non-standard batteries.



YALE MATERIALS HANDLING CORPORATION  
 P.O. Box 7367, Greenville, NC 27835-7367  
[www.yale.com](http://www.yale.com)

Yale is a Registered Trademark and  is a Registered Copyright.  
 ©Yale Material Handling Corporation 2013. All Rights Reserved.

Manufactured in our own ISO 9001 and 14001 Registered Facilities

Truck performance may be affected by the condition of the vehicle, how it is equipped and the application. Consult your Yale® Industrial Truck Dealer if any of the information shown is critical to your application. Specifications are subject to change without notice.

This truck meets all applicable mandatory requirements of ANSI B56.1 Safety Standard for Powered Industrial Trucks at the time of manufacture. Classified by Underwriters' Laboratories, Inc., as to fire and electric shock hazard only for Type E industrial trucks.

The Yale® products included in this document may be covered by US patent 6,684,148 and other patents pending.