



Rear posts add support to the overhead guard and help prevent objects from entering the operator compartment, keeping your employees as **safe** as possible.

mm

• The **low step height** means frequent entry and exit is easy and less tiring for the operator.

12.2" H



CLARK

**NPR 17** 

CLEIRY

CLAR

#### Highly Maneuverable, Easily Serviceable, Broadly Flexible, Extremely Dependable

The NPR/NSR family of reach and straddle trucks is designed to meet the performance and reliability requirements of today's demanding narrow aisle applications. **Ergonomic design, maneuverability** and **energy efficiency** combine to achieve **maximum productivity**.

# CAXU The NPR/NSR Operator Compartment and

Controls are designed at 65 degrees from centerline to offer the widest range of flexibility and visual confirmation to the operator's preferred stance (no shuffling required).

 Remove two bolts and swing open the access door to expose drive and power steering motors, lift pump and spin on filter. For the technicians's reference, decals on the inside of the door display electrical, hydraulic and lubrication information. Removing the top cover reveals the drive and power steering controls, hydraulic motor and valve. Floor plate can be lifted out for access to brake components.

### Maximum Visibility + Minimum Fatigue = **Ultimate Safety & Product Integrity**





#### **DUAL WHEEL BRAKES**

#### Plugging

• The preferred method for stopping.

#### Parking Brake

- Automatically applied when foot leaves the pedal.
- Drive Motor
  - Brakes on drive motor output shaft and caster wheel.
- 2 ways to stop the truck provides ultimate safety



#### "BUILT TO LAST®" Frame

 Constructed of thick steel plates for the exceptional strength and durability you expect in a lift truck.



## CLARK UPRIGHT

#### 3-Stage Upright

- Shimmable, sealed and canted load rollers maximize load distribution and reduce free play.
- Hydraulic cushioning valves provide silent staging reducing shock and vibration.

#### Pantograph Assembly

- Cylinders feature hydraulic cushioning to ensure smooth reach and retraction.
- Attached using spherical bushings to reduce stress and binding.

#### Load Lowering

- Additional flow control valves limit lowering in the event of failure.
- Controlled lowering speed regardless of condition.



#### **OPERATOR'S COMPARTMENT**

#### **65**°

- Operator compartment is set to 65° from the truck centerline allowing a wide range of comfortable operating positions.
- Excellent visibility in all directions.
- 12.2" Step Height
  - The NPR/NSR makes entry and exit easier than many competitive models.
- On Demand Power Steering
  - Motor idles at low rpm until demand increases.

## **NPR/NSR STANDARD FEATURES & BENEFITS**



## HEAVY DUTY DRIVE AND HYDRAULIC MOTORS Maximum Service Life

 Series-wound drive and hydraulic motors and a permanent-magnet power steering motor are all fan cooled, ventilated and class H insulated.



#### **ARTICULATING AXLE**

#### Heavy Duty

- Cast axle supports both the drive and caster wheel assemblies.
- Smooth Steering & Control



#### **MULTIFUNCTION CONTROL**

- Control Handle
  - Travel speed, direction, lift, lower, tilt, reach, retract and sideshift functions are all combined into a single handle.
  - Travel and one hydraulic function can be performed simultaneously.
- Featherable
  - Use of handle allows full feathering of all hydraulic functions.
- Reduced Operator Fatigue
  - Designed to be operated by major muscle groups and requires no lifting or twisting.

#### **Standard Equipment**

#### Available Equipment

- Key switch
- Load backrest extension
- Electronic horn
- Rear overhead guard post protection
- Heavy-duty battery rollers
- Battery retainers
- Lever type battery connect-disconnect
- Metal capacity plate

- Side shifter
- Freezer conditioning
- Preezer conditioning
- Reverse steering
- Back-up alarm
- Strobe warning lights
- Operating lights
- U.L. Classified EE rating



#### FULLY ADJUSTABLE/PROGRAMMABLE

 A properly trained mechanic can completely customize parameters to operator's preference such as acceleration rate, creep speed and plugging rate.



# Before operating a lift truck, an operator must:

- Be trained and authorized Read and understand
- operator's manual
- Not operate a faulty lift truck Not repair a lift truck unless
- trained and authorized
- Have the overhead guard and load backrest extension in place
  - Perform daily inspections

MC INCOME

- During operation,
  a lift truck operator must:
  a Keep feet, legs and all parts of body inside operator compartment
  Never carry passengers or lift people
  Keep truck away from people

IDP.

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- and obstructions Travel with lift mechanism as low as possible and tilted back Allow safe stopping distance and come to a complete stop before leaving operator compartment
- To park a lift truck, an operator must: Completely lower forks or attachments Turn key off



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## GENERAL DATA & STANDARD DIM

#### **Upright Table**

Maxim Fork H in	um eight mm	Overa Lowe in	ll Height red mm	Free I in	Lift** mm
Standard	l Two Stage				
198 210 240 258 270 300 318 • 321 • 330 • 366	5029 5334 6096 6553 6858 7620 8077 8153 8382 9296	89 95 107 113 119 131 139 139 149 161	2261 2413 2718 2870 3023 3327 3531 3531 3785 4089	54 60 72 78 84 96 104 104 114 126	1372 1524 1829 1981 2134 2438 2642 2642 2896 3200

For overall height raised with load backrest, add 48 in (1219 mm) to maximum fork height. Other uprights available, contact Clark representative. Uprights above 270" N/A on NPR17.
NPR 15D, NPR 22, NSR 25 only.

#### Carriage Widths\*/Fork Spread in(mm)

Carria Width in	ge mm	Fork Sprea w/o Side S max	d hifter min	Fork Sprea w/ Side Shi max	d ifter min
33	838	31.0(787)	13.0(330)	27.7(704)	22.3(566)
37	940	35.0(889)	13.0(330)	27.7(704)	22.3(566)

\* 37 in. wide carriages available with outrigger I.D. 38 in. and greater (40 in. and greater with 10.5 in. load wheels.)

#### NPR Min. Right Angle Stack Aisle in(mm)\*

Pallet or Load Size Length x Width	13.88(353)	Battery Com 16.13(410)	partment (L) 18.5(470)**	* 21.0(533)**
36x30(914x762) 42x36(1067x914) 36x40(914x1016) 40x40(1016x1016) 48x40(1219x1016) 48x42(1219x1067) 48x44(1219x1118)	82.2(2088) 87.1(2212) 82.0(2083) 84.8(2154) 93.0(2362) 92.8(2357) 92.6(2352)	84.1(2136) 89.2(2266) 83.9(2131) 86.8(2205) 95.1(2416) 94.9(2410) 94.7(2405)	86.8(2205) 92.1(2339) 86.8(2205) 89.6(2276) 98.2(2494) 98.0(2489) 97.7(2482)	89.0(2261) 94.5(2400) 89.0(2261) 91.9(2334) 100.6(2555) 100.4(2550) 100.2(2545)
48x48(1219x1219)	92.2(2342)	94.3(2395)	97.3(2471)	99.8(2535)

\* Add 6 to 8 inches clearance for ease of operation. Dimensions are based on 42 inch I.D. outrigger with 5 x 3.76 in. load wheels and 4" clearance each side of load.

\*\*Add 8" for NPR 15D (plus operating clearance).

#### NSR Min. Right Angle Stack Aisle in(mm)\*

Pallet or Load Size	Battery Compartment (L)					
Length x Width	13.88(353)	16.13(410)	18.5(470)**	21.0(533)**		
36x30(914x762)	79.7(2024)	81.6(2073)	86.1(2187)	88.3(2243)		
42x36(1067x914)	82.3(2090)	84.3(2141)	87.6(2225)	89.8(2281)		
36x40(914x1016)	82.0(2083)	83.9(2131)	88.2(2240)	90.4(2296)		
40x40(1016x1016)	82.0(2083)	83.9(2131)	88.2(2240)	90.4(2296)		
48x40(1219x1016)	89.5(2273)	91.0(2327)	95.1(2416)	97.4(2474)		
48x42(1219x1067)	89.1(2203)	91.2(2316)	94.7(2405)	97.1(2400)		
48x44(1219x1118)	88.8(2256)	90.9(2309)	94.4(2398)	96.7(2456)		
48x48(1219x1219)	88.3(2243)	90.4(2296)	94.0(2388)	90.0(2438)		

\* Add 6 to 8 inches clearance for ease of operation. Dimensions are based on I.D. 2" wider than load, 5 x 3.76 load wheels and 7" clearance each side of load.

#### Outrigger Dimensions - I.D./O.D. (in)

Dual Load Toe B Width I.D.	5 x 3.76 Wheels ox 1 5.5 in O.D.	Dual Load Toe E Widtl I.D.	5 x 3.01 Wheels Box h 4.5 in O.D.	Single 1 Load W Toe Box Width 6 I.D.	0.5 x 4.5 heels .0 in 0.D.	Dual 4 x Load W Toe Box Width 4 I.D.	x 2.62 /heels ( 1.5 in 0.D.
33 34 36 38 40 41 42 44 46 48 50	44 45 47 51 52 53 55 57 57 59 61	33 34 35 37 39 41 42 43 45 47 49	42 43 44 46 48 50 51 52 54 56 58	- 36.25 38.25 40.25 41.25 42.25 44.25 46.25 48.25 50.25	- 48.25 50.25 52.25 53.25 54.25 56.25 58.25 58.25 60.25 62.25	33 34 35 37 39 41 42 43 45 47 49	42 43 44 46 48 50 51 52 54 56 58
	-	51	60	-	2 C	51	60

#### Outrigger Dimensions - I.D./O.D. (mm)

Dual 127 x 96 Load Wheels Toe Box Vidth 140mm .D. 0.D.	Dual 127 x 76 Load Wheels Toe Box Width 114mm I.D. O.D.	Single 267 x 114 Load Wheels Toe Box Width 152mm I.D. O.D.	Dual 102 x 67 Load Wheels Toe Box Width 114mm I.D. O.D.
338       1118         364       1143         914       1194         965       1245         016       1295         041       1321         067       1346         118       1397         168       1448         219       1499	838         1067           864         1092           889         1118           940         1168           991         1219           1041         1270           1067         1295           1092         1321           1143         1372           1194         1472	921 1226 972 1276 1022 1327 1048 1353 1073 1378 1124 1429 1175 1480 1226 1530	838         1067           864         1092           889         1118           940         1168           991         1219           1041         1270           1067         1295           1092         1321           1143         1372           1194         1422           1245         1422
-	1295 1524		1295 1524

#### **Battery Weights & Compartment Dimensions**

Width (W) in mm	Length (L) in mm	Height (H) in mm	Min. Weight Ibs. kg
38.75 984 38.75 984 38.75 984 38.75 984 38.75 984 38.75 984	13.38 340 13.88 353 16.13 410 18.50 470 21.00 533	32.0 813 32.0 813 32.0 813 32.0 813 32.0 813 32.0 813	1400 636 1590 721 1885 855 2175 987 2460 1116

#### **Maximum Battery Size**

Width (W)	Length (L)	Height (H)
in mm	in mm	in mm
38.69 983	13.00 330	31.5 800
38.69 983	13.50 343	31.5 800
38.69 983	15.75 400	31.5 800
38.69 983	18.00 457	31.5 800
38 69 983	20 50 521	31.5 800

## Operator Compartment/ Overhead Guard Dimensions

Maximum Fork Height	Compartment Inside	Overhead Guard Heigh	
in mm	in mm	in mm	
198 5029	75 1905	89 2261	
210 5334	81 2057	95 2413	
240 6096	81 2057	95 2413	
258 6553	81 2057	95 2413	
270 6858	81 2057	95 2413	
300 7620	81 2057	95 2413	
318 8077	81 2057	95 2413	
* 321 8153	81 2057	95 2413	
* 330 8382	81 2057	95 2413	
* 366 9296	81 2057	95 2413	

\* NPR 15D, NPR 22, NSR25 only.

## ANDARD SPECIFICATIONS



For corresponding data see Specification Chart

#### Notes

Performance may vary +5% and -10% due to motor and systems efficiency tolerance. The performance shown represents nominal values which may be obtained under typical operating conditions of a standard machine.

#### ANSI/ITSDF and Insurance Classification

Standard truck meets all applicable mandatory requirements of Part III-ANSI/ITSDF B56.1 Safety Standard for Powered Industrial Trucks (latest edition at time of manufacture) and Underwriters Laboratories requirements as to fire and electrical shock hazard only for "E" classification. For further information contact a Clark representative.

Users should be aware of, and adhere to, applicable codes and regulations regarding operator, training, use, operation and maintenance of powered industrial trucks, including:

- ANSI/ITSDF B56.1
- NFPA 505, fire safety standard for powered industrial trucks type designations, areas of use, maintenance and operation. Occupational Safety and Health Administration (OSHA) regulations that may apply.

Contact your authorized CLARK forklift truck dealer for further information including operator training programs and auxiliary visual and audible warning systems, fire extinguishers, etc., as available for specific user applications and requirements.

Specifications, equipment, technical data, photos and illustrations are based on information at time of printing and are subject to change without notice. Some products may be shown with optional equipment.

#### Notes:

- 1. Specifications are for truck with tandem 5 in (127 mm) diameter x 3.76 in (96mm) wide load wheels. Other sizes are also available.
- 2. Specifications are for truck with 210 in (5334 mm) MFH upright, 42 in (1067 mm) outrigger ID and 33 in (838 mm) sideshifter (deduct 50 lb. (23kg) for weight less SS). Battery compartment dimensions as noted.
- 3. See Upright Table for other available uprights.
- 4. Right angle stacking aisle for pallet size shown. Add 6-8 in (152-203 mm)
- for operating clearance. See "General Data" for other pallet sizes. 5. High speed lift is standard on NPR 22, 15D and NSR 25 with 18.5 in (470 mm) and 21.0 in (533 mm) battery compartments; lift speeds will reduce with 16.13 in (410 mm) compartment.

	1	Manufacturer		
uo	2	Model	Manufacturer's Designation	
nati	3	Load Capacity		
form	4	Load Center	Fork Face to Load CG	lbs(kg)
In	5	Power Unit	Electric	in(mm)
era	6	Operator Type		. ,
Gen	7	Tire Type		
-	8	Wheels (x=driven)	Front/Rear	
	9			
	10	Upright <sup>3</sup>	Lift Height (Preferred Upright)	in(mm)
	11		Freelift	in(mm)
	12	Fork Tilt	Back/Forward	degrees
	13	Fork	Std. Fork Size (T x W x L)	in(mm)
	14	Carriage	Width of Carriage	in(mm)
	15	Overall Dimensions	Length to Fork Face	in(mm)
IS1,2			Overall length, less forks	in(mm)
sion	16		Outrigger ID/OD	in(mm)
iens	17		Frame Width	in(mm)
Din	18		Height, Upright Lowered	in(mm)
sic	19		Height, Upright Extended	in(mm)
Ba	20		Height, Overhead Guard	in(mm)
	21	Step Height	Ground to Top of Floor Plate	in(mm)
	22	Head Clearance	Top of Floor Plate to Bottom of OHG	in(mm)
	23	Turning Radius		in(mm)
	24			
	25	Right Angle Stack Aisle <sup>4</sup>	48 in x 40 in pallet	in(mm)
	26	Battery Compartment	WXLXH	in(mm)
-	07	Battery Roller Height	Ground to Top of Rollers	in(mm)
	21	Stability	According to ANSI	mah(lunh)
Performance	28	Speeds	Travel Speed, Max, With Load	mpn(kpn)
	29		Lift Speed, Max, Without Load	fpm(kpn)
	21		Lift Speeds, Loaded	fpm(mps)
	32		Lill Speeds, Unioaded	fpm(mps)
	33		Lower Speeds, Loladed	fom(mps)
	34	Service Weight TSU	W/Min Battery Weight	lhs(ka)
S2	35	Axle loading	With Load, Front	lbs(kg)
ight	36	, end to a set of the	With Load. Rear	lbs(kg)
Wei	37	and the second second	W/O Load, Front	lbs(kg)
	38		W/O Load, Rear	lbs(kg)
	39	Tires/Wheels	Number, Front/Rear	
	40		Size, Load Wheels	in(mm)
		The Local States	Size, Rear Drive/Steer	in(mm)
			Size, Rear Caster	in(mm)
-	41	Wheelbase		
SSI	42	Track	Rear	in(mm)
Cha	43			
	44	Ground Clearance	With 5 in diameter load wheels	in(mm)
	45			
	46	Service Brake	Туре	
	47	Parking Brake	Туре	
-		Steering	Туре	
	48	Battery	lype	
	in the second		Iviax Capacity (6 hr. Rate)	kWh
	40	Matora Controla	Weight, Min	IDS(KG)
ine	49	WOLOTS, CONTOIS	Hudraulia Motor Diameter	in(iniii)
re L			Stoor/Auviliary Motor diameter	in(mm)
Driv			Drive Motor Control	Тиро
			Sneed Control	Туре
	1900		Hydraulic Motor Control	Туре
			Steer/Auxiliary Motor control	Type
	57		cicol number interior of the	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	58			

## NPR/NSR 15D/17/20/22/25

323	Clark	Clark	Clark	Clark	Clark	Clark
	NPR17	NPB20	NPB22	NPR15D	NSR22	NSR25
1.00	3500 (1600)	4000 (1800)	4500 (2000)	3000 (1350)	4500 (2000)	5000 (2275)
	24 (600)	4000 (1000)	4500 (2000)	24 (600)	24 (600)	24 (600)
150	24 (000)	24 (000)	24 (000)	24 (000) 26 volt	24 (000)	24 (000) 26 volt
17	24 VOIL / 30 VOIL	24 VOIL / 30 VOIL	JO VUIL	Didar Dauble Deach	Didar Ctraddla	Didor Straddla
	Rider Reach	Rider Reach	Rider Reach	Rider Double Reach	Rider Straddie	Rider Stradule
1	Solid	Solid	Solid	Solid	Solid	Solid
	4/2 (1x)	4/2 (1x)				
	010 (500.1)	010 (5004)	010 (5004)	010 (5004)	210 (5224)	210 (5224)
	210 (5334)	210 (5334)	210 (5334)	210 (5334)	210 (5334)	210 (5554)
	60 (1524)	60 (1524)	60 (1524)	60 (1524)	60 (1524)	60 (1524)
	4/3	4/3	4/3	4/3	4/3	4/3
	1.75 x 4 x 42 (44 x 102 x 1067)	1.75 x 4 x 42 (44 x 102 x 1067)	1.75 x 4 x 42 (44 x 102 x 1067)	1.75 x 4 x 42 (44 x 102 x 1067)	1.75 x 4 x 42 (44 x 102 x 1067)	1.75 x 4 x 42 (44 x 102 x 1067
	33 (838)	33 (838)	33 (838)	33 (838)	33 (838)	33 (838)
	48.1 (1222)	48.1 (1222)	51.1 (1298)	61.0 (1550)	49.3 (1251)	54.1 (1374)
	70.25 (1784)	70.25 (1784)	75.9(1928)	81.8(2078)	72.2(1834)	75.9(1928)
1983	See Outrigger Dimension Chart	See Outrigger Dimension Char				
	40.25 (1022)	40 25 (1022)	40.25 (1022)	40.25 (1022)	40.25 (1022)	40.25 (1022)
	95 (2413)	95 (2413)	95 (2413)	95 (2413)	95 (2413)	95 (2413)
	259 (6552)	259 (6552)	258 (6553)	258 (6553)	258 (6553)	258 (6553)
	200 (0000)	200 (0000)	250 (0555)	250 (0555) DE (2412)	250 (0555) 05 (2412)	05 (2412)
	95 (2413)	90 (2413)	95 (2413)	93 (2413)	90 (2415)	90 (2415)
	12.2 (310)	12.2 (310)	12.2 (310)	12.2 (310)	12.2 (310)	12.2 (310)
	81 (2057)	81 (2057)	81 (2057)	81 (2057)	81 (2057)	81 (2057)
	66.5 (1689)	66.5 (1689)	69.7 (1770)	76.14 (1934)	66.5 (1689)	72.1 (1832)
	00 (0000)	00(000)	00.0 (0404)	100 (0000)	01 C (0007)	05 1 (0416)
	93 (2362)	93 (2362)	98.2 (2494)	106 (2692)	91.0 (2327)	95.1 (2410)
	38.75x13.88x32 (984x353x813)	38.75x13.88x32 (984x353x813)	38.75x18.5x32 (984x470x813)	38.75x18.5x32 (984x470x813)	38.75x13.88x32 (984x353x813)	38.75x18.5x32 (984x470x813)
	6.25 (159)	6.25 (159)	6.25 (159)	6.25 (159)	6.25 (159)	6.25 (159)
	Yes	Yes	Yes	Yes	Yes	Yes
_	5.8 (9.3) / 6.7 (10.8)	5.7 (9.2) / 6.6 (10.6)	6.5 (10.5)	6.5 (10.5)	5.7 (9.2) / 6.6 (10.6)	6.2 (10.0)
Sec. Se	6.3 (10.1) / 7.2 (11.6)	6.3 (10.1) / 7.2 (11.6)	7.1 (11.4)	7.1 (11.4)	6.3 (10.1) / 7.2 (11.6)	7.1 (11.4)
	42 (.21) / 62 (.31)	40 (.20) / 60 (.30)	72 (.37)	82 (.42)	40 (.20) / 60 (.30)	70 (.36)
2127	65 (.33) / 95 (.48)	65 (.33) / 95 (.48)	108 (.55)	108 (.55)	65 (.33) / 95 (.48)	108 (.55)
	80 ( 41)	80 ( 41)	80 ( 41)	77 (.39)	80 (.41)	80 (.41)
	90 (46)	90 (46)	90 (46)	90 (46)	80 ( 41)	90 (46)
	6660 (3024)	6040 (3151)	8320 (3781)	8708 (3953)	6780 (3082)	7879 (3581)
A 12 2 3	6200 (2001)	7020 (2102)	9442 (2922)	6882 (2124)	7583 (3447)	8717 (3062)
	0390 (2901)	2010 (3132)	4297 (1002)	4926 (2101)	2607 (1690)	4162 (1902)
	5//0 (1/12)	0500 (1113)	4307 (1992)	4020 (2191)	2460 (1110)	4102 (1032)
A. 1976	2445 (1110)	2520 (1144)	3259 (1480)	3427 (1556)	2400 (1118)	2902 (1340)
	4215 (1914)	4420 (2007)	5070 (2302)	5281 (2398)	4320 (1964)	4917 (2235)
	4/2	4/2	4/2	4/2	4/2	4/2
	(4) 5 x 3.76 urethane (127x96)	(4) 5 x 3.76 urethane (127x96)				
	13.5 x 5.5 rubber (343 x 140)	13.5 x 5.5 rubber (343 x 140)	13.0 x 5.5 urethane (330 x 140)	13.0 x 5.5 urethane (330 x 140)	13.5 x 5.5 rubber (343 x 140)	13.0 x 5.5 urethane (330 x 140
	8 x 4 urethane (203 x 102)	8 x 4 urethane (203 x 102)				
	56.1 (1425)	56.1 (1425)	61.7 (1567)	65.75 (1670)	56.1 (1425)	61.8 (1568)
	28.7 (729)	28.7 (729)	28.7 (729)	28.7 (729)	28.7 (729)	28.7 (729)
13:19						
	1.75 (44)	1.75 (44)	1.75 (44)	1.75 (44)	1.75 (44)	1.75 (44)
	Drum and Shoe	Drum and Shoe				
1	Automatic, Spring Applied	Automatic, Spring Applied				
	Hydraulic Assist, Variable	Hydraulic Assist, Variable				
10-81	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid	Lead-Acid
	28.9 / 27.0	28.9 / 27.0	37.6	37.6	28.9 / 27.0	37.6
	1590 (722)	1590 (722)	2175 (087)	2175 (987)	1590 (722)	2175 (987)
	67 (170)	67 (170)	67 (170)	67 (170)	67 (170)	67 (170)
	0.7 (170)	9.0 (202)	0.7 (170)	8.0 (202)	8.0 (202)	8 D (202)
	0.0 (203)	0.0 (203)	0.0 (203)	6.4(102)	6.4(102)	0.0 (203)
	6.4(163)	0.4(103)	0.4(103)	0.4(103)	0.4(103)	0.4(103)
	Iransistor, infinite	Iransistor, infinite				
	Solid State	Solid State				
	Contactor	Contactor	Contactor	Contactor	Contactor	Contactor
	Transistor, infinite	Transistor, infinite				
Since						



Clark NPR 15D/22 reach trucks and NSR 22/25 straddle trucks are designed to meet the increasing performance and reliability demands of narrow aisle applications. Easy operation with strong and reliable component systems provide high user value. General Electric transistor motor controls operate drive and power steering/reach/tilt and auxiliary functions, which add significantly to battery efficiency, with benefits of fewer parts and built-in diagnostics. Choice of either 24 or 36 volt operation (36 volt only on NPR15D, NPR22 and NSR25) with lift height outrigger configurations and options to suit the application needs of most users.

#### **Operator Comfort/Controls**

Stand-up compartment is configured for comfortable operation in forward or reverse, even for large operators. Padded, independently adjustable armrest and backpad enhance operator comfort and accommodate all body types and sizes. Full molded urethane compartment padding and soft touch control handle add to safety and comfort. Forward visibility is excellent with secondary lift cylinders and other upright components located behind upright rails. Operator orientation, facing left of forward, provides for high productivity through reduced operator movement for reverse travel and operator choice of stance.

Left-hand steering control with hydraulic power assist for very low steer effort. Single lever hand control with push buttons provides for operation of travel, lift/lower, reach (NPR), tilt and sideshift (optional) functions. Floor pedal provides emergency braking and parking brake with brake-on in up (normal) position. Depression of the pedal and subsequent release actuates independent brakes in both the drive and caster wheel. Formed wire guard prevents hand movement into the upright. Key switch and battery disconnect on control deck. Standard rear guard legs provide protection from intrusion of objects, such as rack beams, during backing and in tight aisle operations.

#### **Motors/Electrical Controls**

Series wound high torque drive and hydraulic pump motors and permanent magnet power steering motor are fan cooled and ventilated, and incorporate Class H insulation. Power steering and drive motors feature GE transistor motor controls. General Electric EV-T15 transistor drive motor control incorporates lift interrupt and diagnostic display with technician 'dial-in' adjustment features. Variable speed transistor motor controls provide extended usage between battery recharging. Low noise power steering motor has idle to full speed operation based on steering demand. A solenoid control card with diagnostic LED displays actuates the hydraulic pump contactor and lift, reach (NPR), tilt and sideshift functions. The single speed hydraulic motor utilizes contactor actuation. A large door at the left side of the truck and easy removal of the top cover provides excellent access to motor and control components.

#### **Drive and Brake Assembly**

A single, heavy-cast, rear axle supports the drive and the caster wheel assemblies. The drive assembly rotates on a large bearing for steering control. The drive wheel gears are bathed in lubricating oil. Independent spring-applied, hydraulic-release brake on the drive motor armature and within the hub of the caster wheel provide smooth controlled brake action. Service brakes are fully applied for parking when pedal is released. The axle articulates at its center enabling the truck to negotiate floor irregularities. The entire assembly can be easily removed for service.

#### **Outrigger/Load Wheels**

Outriggers and upright are a heavy weldment which is bolted to the frame. Toe boxes are welded to the outrigger. Dual load wheels articulate +/- 1/2 inch for smooth operation over expansion joints and floor irregularities. Load wheel assemblies have pressure lubricant points and feature snap ring retainment. Yellow dichromate finish on load wheel rocker plates prevents corrosion.

#### Steering

Steering control of the drive wheel assembly is through a mechanical shaft with a hydraulic torque generator. Power steering motor idles at 850 RPM and increases to 2200-2400 RPM with increasing steer demand; reduces noise and energy consumption. Responsive 4.1 turns stop-to-stop with maximum steer tiller effort of 30 inch-lbs. Reverse steer operation is available.

#### **Hydraulics**

Separate power steering and main hydraulic pumps increase efficiency, improve performance and reduce noise. Integral pump and motor assemblies are reliable, easily serviced. Nylon sump tank of 8.4 gallon capacity withstands high temperatures, is easily cleaned. Spin-on return line filter, suction strainer and tank breather-filler cap. Two hydraulic test ports enable convenient pressure testing of lift and auxiliary functions. O-ring face seal fittings on high pressure lines are easily serviced and greatly reduce leaks.

#### **Upright/Pantograph Assembly**

Clark high-visibility, triple stage uprights feature canted rollers and interlocking rails for maximum strength and rigidity. Lift cylinders have hard industrial chrome plating and urethane seals which provide long seal life. The pantograph mechanism of the NPR is a heavy fabrication with tapered roller bearings at the center pivot and is supported with spherical bushings at the attaching pins. Two standard carriage rollers at the front and rear operate in the upright inner rail and a similar rail attached to the pantograph fork carriage. Fork tilt is provided on both the NPR and NSR by moving the fork heels forward and back with a hydraulic cylinder and lever. The NPR reach function utilizes two cylinders hydraulically supplied through a solenoid valve on the pantograph.

Hydraulic plumbing is internal with 50% fewer fittings than many other designs. Upright control devices include flow limiting valves which prevent rapid carriage descent in the event of a line failure, a lowering control valve which provides productive lowering speeds under varied load conditions; hydraulic cushioning between lift stages and a counterbalance valve that provides smooth operation of tilt and reach functions. Forged forks are shaft mounted with pin type retainers.

#### **Standard Features**

Key switch, load backrest extension, electronic horn, rear overhead guard post protection, heavy-duty battery rollers and lift-out battery retainers, lever type battery connect-disconnect. Metal capacity plate, durable Operator Manual attached to truck and highly visible warning and instruction labels. Clark's *Employer's Guide to Material Handling Safety* and a "Safety Starts With You" video are also provided with the truck. Finish is high visibility Clark green with flat black upright and trim.

#### Available Equipment

Various battery compartment sizes, 4.0 in. articulating and 10.5 in. diameter single load wheels, side shifter, freezer conditioning, reverse steering, safety glass front panel (in lieu of wire mesh), backup alarm, strobe warning lights, operating lights, and U.L. Classified EE rating. • We don't just build forklifts. As a company, we are also focused on providing our customers with the best possible technical service support and aftermarket parts available.

• Even though our business starts with a quality, cost-effective product, our organization understands that it is the support and services we provide after the sale that help keep your business running at peak efficiency. • THE CLARK PartsPRO® SYSTEM is

our industry-leading electronic parts and service documentation tool that provides dealers with a quick and accurate method of identifying parts for every CLARK forklift built since 1961. PartsPRO® ensures the availability of the most current technical information and has the unique capability to create parts manuals to your mixed CLARK making it simple to positively identify and order the correct part(s) from your local CLARK dealer. The right CLARK part - The First Time, Every Time.

#### UNRIVALED PARTS SUPPORT

Our Aftermarket Distribution Centre provides parts to over 250 North American CLARK dealers and many international dealers. This CLARK operated 184,000 square foot facility is dedicated to supporting the CLARK models built over the last 90 years.

This facility is focused on providing excellent off-the-shelf availability, quality parts, quick response time and competitive pricing.

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