



Since 1907

Jost's Electric Reach Truck

JRT - A16 / A20

(AC Series)

- ENVIRONMENT FRIENDLY
- HIGH REACH
- UNMATCHED PERFORMANCE
- EASY OPERATION
- FAIL FREE SAFETY
- EASY MAINTENANCE

Basic Specification:

- 1 Capacity :- 1600 / 2000 kg @600 mm load centre
- 2 Lift height :- 4560 mm to 9860 mm
- 3 Reach :- 440 & 530 mm
- 4 Drive / Steering / Hydraulic :- 3 phase AC
- 5 Controller :- MOSFET CANBUS
- 6 Mast Tilt



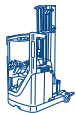
OPERATOR AREA:

Ergonomically convenient operator's area provides maximum operator's comfort. All controls are easily accessible. Ample leg room and adjustable seat enhance the operator's comfort.



DRIVE & DRIVE CONTROL

Equipment is driven by CAN communicated Three Phase AC Induction Drive Motor of suitable rating with class 'F' insulation that has been powered by the battery of suitable capacity. Vertical transmission drive system transfers the power into the PU drive wheel smoothly and efficiently. Microprocessor based MOSFET controller enables smooth stepless acceleration, variable speed control and precise inching movement. Controller, comes with self-diagnostic feature, monitors the control system for fault diagnostic purposes. Controller further enables the regenerative braking thereby save energy and increase the battery utilisation period.



CHASSIS

Chassis is fabricated from heavy steel plates that ensure excellent rigidity and strength. Canopy is made of solid plates that provides rigidity and it protects the operator against falling objects hazard. The precise balancing loads in the chassis design ensure the stability of truck even when the load raises. The battery is housed in a movable battery tray which gets automatically latched with the chassis. While changing battery, the lock can be manually released and the battery can be extracted out with reach operation.



WHEELS

Both drive wheel & load wheels are made of polyurethane material with sturdy construction and high wear resistance that ensure better grip with the surface. Polyurethane wheels are resilient and provides excellent durability



BRAKE

Automatic braking is enabled by regenerative braking mechanism when the operator removes his foot from the acceleration pedal. Service braking is effected by ergonomically located foot pedal which ensures faster braking with reverse torque. Parking brake also prevents roll back over slope.



SAFETY

Lowering brake valve ensure gradual lowering and provides automatic lift cut off at 80% battery discharge condition. Equipment has anti-collision switch on tiller head. The hydraulic circuit has safety features similar to hose burst valve, pressure relief valves and non-return valves. Controller can also be set for dual travel speed limit (optional) for creep speed setting while stacking and for retrieving with the raised load.



ACCESSORIES & ATTACHMENTS :

Head / tail / brake / side indicator lights, reverse light / horn, and rear-view mirror are supplied along with the equipment as a standard. Revolving lights can also be supplied as an optional. The truck can also be supplied with side shift arrangement, extended forks and various attachments as per customer requirement.



HYDRAULICS

Hydraulic system is powered by AC motor of suitable capacity which drives the high-pressure external gear positive displacement pumps and operates the hydraulic functions of lift, reach, tilt and side shift. The hydraulic functions are controlled by two manually operated joysticks, which signals the microprocessor. The actual operations are carried out through solenoid operated valves mounted in an integrated valve block. The pressure limiting valves in the valve block prevent excessive pressure overloads. A high-performance filter system with suction line filter ensures clean oil supply. The Hydraulic system is controlled by MOSFET controller to drive the motor at different speeds for precise oil flow for the required application thus saving the battery power. This hydraulic motor operates only when the functional switches are operated and gets automatically switched off otherwise.



MAST, CARRIAGE & FORKS

Options of twin and triple masts of various lifts are available as per application requirement. Z section external mast and I section internal masts are reinforced with rigid tie bars and are interlocked with load rollers that ensures smooth movement and stability of the load. Carriage is fabricated of quality steel plates and is provided with load rollers for smooth movement within the mast and to provide durable service. Full floating lifting cylinders are located on the either sides of the mast assembly that reduces the side loading on seals and packaging. Free lift for container applications can also be provided through center cylinder in triplex mast. Hose burst valve located at the base of cylinder assemblies act as a safety device in case of hose failure situation. Forged and heat-treated forks sustain the load for prolonged work cycles. Load back rest is provided along with the equipment as a standard. Side shift mechanism can also be provided as an option.



BATTERY & CHARGER

The truck is supplied with suitable traction battery with lead acid cells and adequate capacity rating as a standard for non-intensive application. Optional higher capacity rating batteries can also be provided for more intensive applications. Microprocessor based "constant current charger "of suitable ratings can be supplied, depending on the battery selection.



SERVICING

The modular service friendly design with easily removable front cover provides easy access to all components for servicing thus saving valuable time during maintenance



INSTRUMENTATION AND CONTROL

A fully integrated LCD multifunctional display with fluorescent back light is provided at the front of the operator. The multifunctional display indicates information like Fault diagnosis, Battery level, Equipment speed, Operating hours and Service due time. The display also indicates the status of truck direction (forward / reverse) and neutral position. A parking signal is displayed when the parking brakes are in applied condition. The truck can also be incorporated with additional display functions like Height indications, Pay load weight as an option; if these options are opted for. The instrumentation and control panel also incorporate toggle switch for forward / reverse motion control and for the control of other accessories like lights, horns etc. A Twin-Pilot control joystick are comprising of two joysticks, each of them have two inbuilt progressive operations that are located conveniently on the right-hand side of the operator for the smooth and steady control on all four major hydraulic operations. Variable speeds of all functions can be achieved by the controlled operation of the twin-pilot joysticks

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Technical Specification

	1.1	Manufacturer	nos	Josts		Josts	
Identification	1.2	Manufacturer's type designation	type	JRT-A16		JRT-A20	
	1.3	Drive	type	3 phase AC		3 phase AC	
	1.4	Type of operation	type	Seated		Seated	
	1.5	Rated capacity at 4500 mm Lift	Q = kg	1600		2000	
	1.6	Load centre For rated capacity	C = mm	600		600	
	1.7	Load distance (from load wheel to fork retracted)	x = mm	205*	115**	205*	115**
	1.8	Load distance (from load wheel to fork extended)	x1 = mm	325		325	
	1.9	Wheelbase	y = mm	1465		1465	
Weights	2.1	Service weight incl. 'battery (420 / 540 / 700 Ah) (Approx)	kg	4390 / 4543 / 4690		4490 / 4643 / 4790	
Identification	3.1	Wheels	mm	Vullkollan / PU		Vullkollan / PU	
	3.2	Wheel size, front (drive)	mm	350 x 140		350 x 140	
	3.3	Wheel size, rear (load)	mm	280x100		280x100	
	3.4	Wheels number (front / rear) (x = driven wheels)		1 x \2		1 x \2	
	3.5	Track width, rear (load wheels)	b11 = mm	1125		1125	
Basic Dimensions	4.1	Mast standard		Refer Chart		Refer Chart	
	4.2	Overhead guard (cab) height	h6 = mm	2160		2160	
	4.3	Seat / standing height	h7 = mm	1000		1000	
	4.4	Wheel arm height	h8 = mm	320		320	
	4.5	Overall length (420 / 540 / 700Ah)	l1 = mm	2620*	2710**	2620*	2710**
	4.6	Length to face of fork (420 / 540 / 700Ah)	l2 = mm	1470*	1560**	1470*	1560**
	4.7	Overall width	b1 = mm	1250		1250	
	4.8	Fork dimensions	s / e / l = mm	40 / 100 / 1150		40 / 100 / 1150	
	4.9	Fork carriage (class / type)		2B-2A		2B-2A	
	4.10	Fork carriage width	b3 = mm	830		830	
	4.11	Width over forks (min / max)	b5 = mm	280 / 700		280 / 700	
	4.12	Distance between support arm	b4 = mm	936		936	
	4.13	Reach distance (420/540/700Ah)	l4 = mm	530* / 440**		530* / 440**	
	4.14	Ground clearance, under mast, laden	m1 = mm	100		100	
	4.15	Carriage side shift (left / right)	F = mm	100 / 100		100 / 100	
	4.16	Ground clearance, @ center of wheel base (Unladen)	m2 = mm	55		55	
	4.17	Turning radius (Retract Mast Position)	Wa = mm	1700		1700	
	4.18	Overall Length	l7 = mm	1850		1850	
Performance	5.1	Travel speed, laden / unladen	km / h	12		12	
5.2	Lift speed, laden / unladen	m / s	0.3 / 0.35		0.3 / 0.35		
5.3	Lowering speed, unladen / laden	m / s	0.15 / 0.2		0.15 / 0.2		
5.4	Service brake	type	Electromagnetic		Electromagnetic		
Power	6.1	Drive motor rating S2 60 min.	kw	5.0		5.0	
	6.2	Lift motor rating S2 15 min	kw	10.0		10.0	
	6.3	Steering motor S2 90 min	kw	0.7		0.7	
	6.4	Battery voltage, nominal capacity	V / Ah	48 - 420® / 480 - 540 [‡] / 48 - 700 [‡]		48 - 540® / 48 - 700 [‡]	
	6.5	Battery charger (Three phase-Automatic)	V / Ah	48 - 50 / 48 - 70 / 48 - 105		48 - 70 / 48 - 105	
	6.6	Battery Weight (Approx)	kg	750-903-1050		903-1050	
Others	7.1	Type of drive control	type	MOSFET / AC		MOSFET / AC	
	7.2	Oil Volume hyd.syetsm	Lit	32		32	
	7.3	Sound level at driver's ear	db (A)	75		75	
90º STACKING AISLE WIDTH INCLUDING 200MM SAFETY CLEARANCE (RETRACT MAST POSITION)							
AISLE WIDTH	8.1	Pallet size 800 x 1200 cross / lengthwise (420 Ah / 540 Ah)	mm	2750* / 2980*		2750* / 2980*	
	8.2	Pallet size 1000 x 1200 cross / lengthwise (420 Ah / 540 Ah)	mm	2900* / 3015*		2900* / 3015*	
	8.3	Pallet size 1200 x 1200 cross / lengthwise (420 Ah / 540 Ah)	mm	3065*		3065*	
	8.4	Pallet size 800 x 1200 cross / lengthwise (420 Ah / 540 Ah)	mm	2815** / 3060**		2815** / 3060**	
	8.5	Pallet size 1000 x 1200 cross / lengthwise (700 Ah)	mm	2970** / 3100**		2970** / 3100**	
	8.6	Pallet size 1200 x 1200 cross / lengthwise (700 Ah)	mm	3140**		3140**	

Note : 1) * Refers to battery capacity of 48V / 420Ah & 48V / 540Ah.

2) **Refers to battery capacity of 48V / 700Ah.

3) @Refers to standard supplies upto 8060mm lift height

4) \$Refers to standard supplies for lift height beyond 8060mm.

5) +Refers to optional on request as extra..

6) Dimensions indicated here are subject to variations of ± 20% and performance within ±10%. Service weight ±75Kg.

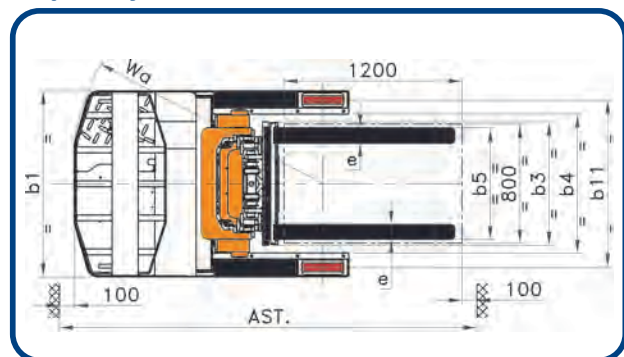
7) Right to make changes and technical improvements reserved. For any special requirements, Please contact Jost's HO

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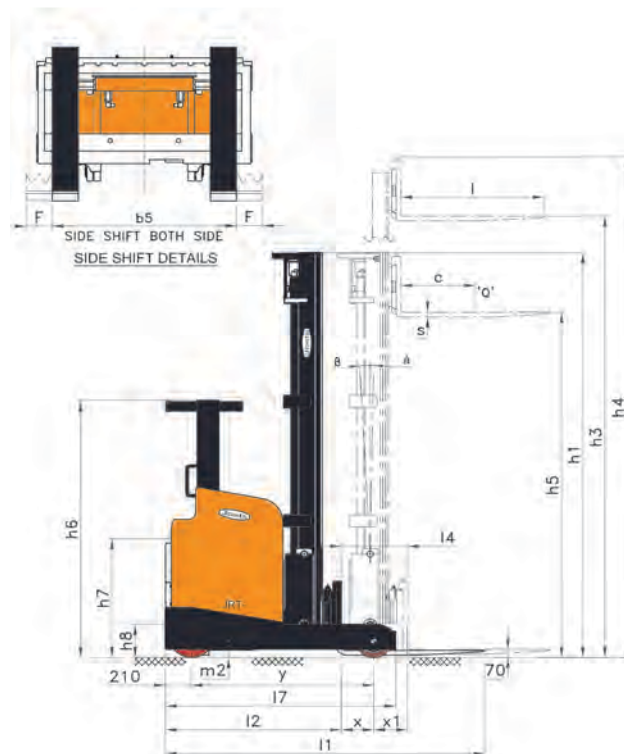
Mast Standard >>> Residual Load

Capacity Chart



Mast Selection Chart

Closed Mast Height H1*	Lift Height H3*	Free Lift H5*	Extended Mast Height h4*	ForkTilt Angel $\alpha \times \beta$
2200	4560	1710	5170	2° x 5°
2450	5160	1960	5770	2° x 5°
2750	5560	2260	6170	2° x 5°
2750	6060	2260	6670	2° x 5°
2900	6560	2410	7170	2° x 5°
3000	6860	2510	7470	2° x 5°
3100	7160	2610	7770	2° x 5°
3250	7460	2760	8070	2° x 5°
3400	7760	2910	8370	2° x 5°
3550	8060	3060	8670	2° x 5°
3700	8360	3210	8970	2° x 5°
3850	8660	3360	9270	2° x 5°
4000	8960	3510	9570	2° x 5°
4150	9260	3660	9870	2° x 5°
4300	9560	3810	10170	2° x 5°
4450	9860	3960	10470	2° x 5°



Note:1) Residual Load Capacity (Load center 600 mm / Kg).

2) Extended Back Rest Height = h4 + 500

3)* Refers without load back rest

4) The Load backrest is suitable for level height of 1200 mm

5) Fork Tilt Model is also available.

6) For Level height below 1200 mm contact Josts H.O.

FORK TILT JRT-A16 RESIDUAL CAPACITY

Battery (420 Ah)	Battery (540 Ah)	Battery (700 Ah)
1600	1600	1600
1400	1450	1550
1250	1300	1500
1100	1200	1400
1050	1150	1300
900	1100	1200
850	1050	1100
800	1000	1050
750	950	1000
700	900	950
N.A	850	900
N.A	800	850
N.A	750	800
N.A	700	750
N.A	650	700
N.A	600	650

FORK TILT JRT-A20 RESIDUAL CAPACITY

Battery (420 Ah)	Battery (540 Ah)	Battery (700 Ah)
2000	2000	2000
1700	1800	1900
1550	1650	1800
1400	1500	1700
1300	1400	1600
1200	1300	1500
1100	1200	1400
1000	1100	1300
900	1050	1200
800	1000	1100
N.A	950	1000
N.A	900	950
N.A	850	900
N.A	800	850
N.A	750	800
N.A	700	750

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Features & Benefits

JRT A16 / A20 is powerful and energy efficient reach truck with advanced AC technology. JRT A16 / A20 ensures excellent Power, Performance with safety, durability and faster travel with maximum operator's comfort

Performance and Operator Comfort :

- Capacities of 1600 / 2000 kg @ 600 mm load centre
- Lift heights from 4560 to 9860 mm
- Triple AC motors synchronised by advanced microprocessor based MOSFET controllers
- Incorporates unique platform of CANBUS communicating controllers
- Simple and smooth controls, electro-hydraulic power steering, large graphic display enables stress-free operation
- Adjustable steering wheel enables fatigue free operation while maneuvering in confined area
- Adjustable seat and ergonomically convenient operator area provide maximum operator's comfort

Automatic Center positioning of drive wheel at start:

- Perfect fit for busy operations
- Ideal arrangement of components for easy maintenance
- Better sensing devices, integrated controllers and informative LCD display enhance operational performance
- Special combi-switches for controlling motion and other accessories
- Twin-pilot control joysticks provide smooth control to all four hydraulic operations
- Automatic Center positioning at start

Energy Consumption :

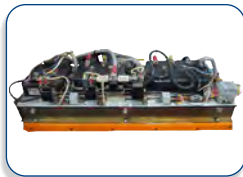
- Lower operating cost due to lower battery consumption
- Longer battery life due to efficient work cycles

Standard LCD Display information :

- Fault diagnosis
- Battery Level
- Equipment speed
- Operating hours (total time)
- Service due time
- Status of truck direction (forward / reverse) and neutral position
- Parking signal



Powerful AC Motors



Controllers



CanBus Control



Control Display



Adjustable Seat



Adjustable Steering



Control Joysticks



Arm Rest



Creep Speed



Automatic Center Position

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Enhanced Safety :

- Low center of gravity design provides Robustness, Stability and Safety
- Enhanced operational safety due to safe inter connectivity
- Emergency power cut-off switch and Emergency lowering valve enables safety during operation
- Dead Man switch (Safety interlock switch) ensures - "NO OPERATOR – NO OPERATION"
- Automatic reduction of speed during turning
- Regenerative braking for smooth braking
- Electromagnetic brakes (optional) on load wheels for safer operation at higher lifts
- Load back-rest for safe handling load of different sizes



Safety
Interlock Control



Emergency
Lowering Valve



Camera



Display Monitor

Choose the Features	
Standard (S*) / Optional (O#) offerings:	
AC – Drive Motor	S*
AC – Hydrualic Pump Motor	S*
AC – Steering Motor	S*
180 degree Steering	S*
Side Shift	S*
Electromagnetic disc brake	S*
Key access System	S*
Adjustable steering wheel	S*
Adjustable Seat	S*
Two Joystics operations	S*
Regenerative Braking	S*
Reduce speed during turning	S*
CAN-BUS System	S*
Emergency power cut off	S*
Emergency stop button	S*
Two point seat belt	S*
Operator Seat belt	S*
Beacon Light	S*

Choose the Features	
Standard (S*) / Optional (O#) offerings:	
Load Wheel Cover	S*
Load Wheel Brake	S*
Reverse Buzzer	S*
Dead Man Swich	S*
Emergency Lowering Valve	S*
Load Back Rest	S*
Dc-to-dc Converter	S*
Lift Height Restriction	S*
Creep speed Control	S*
Battery Rollers	O#
Operator Present Switch	O#
Battery changing Trolley	O#
Bioamtriacaccess system Mq	O#
Wire mesh on overhead guard	O#
Lift height indicator	O#
Wireless camera with monitor	O#
Tower lamp	O#

Note: (1) S*- Standard items, O#. Optional items are availableon request as optional extra.

• For any special requirement, please contact Jost's marketing department. • Dimensions indicated here are subject to variations of ± 20mm and performance within ± 10%. • Right to make changes and technical improvement reserved.



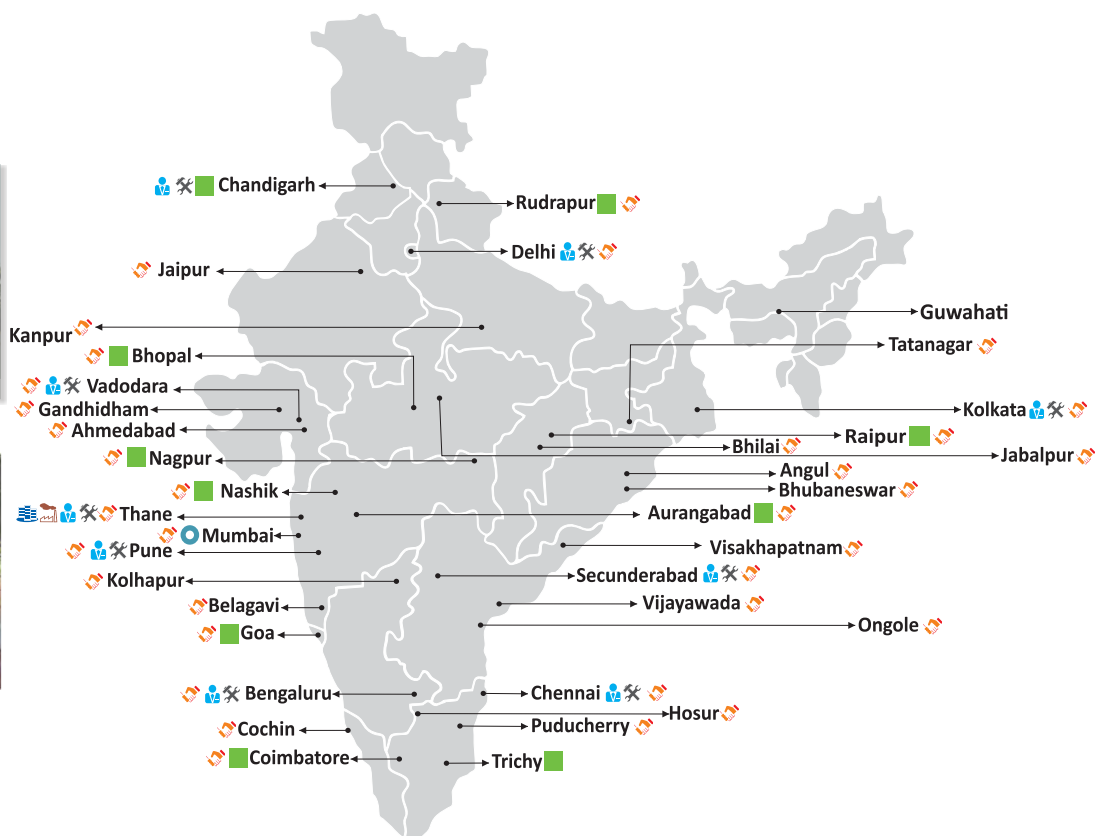
Since 1907

Jost's Engineering Company Limited

An ISO 9001 : 2015 Certified Company



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