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# Josts

Since 1907

## Josts Electric Counterbalance Trucks

### JFB 15 / 20 / 25 / 30

(Capacity 1500 / 2000 / 2500 / 3000 Kg)

- ENVIRONMENT FRIENDLY
- HIGH PERFORMANCE
- UNMATCHED SERVICE
- EASY OPERATION
- SUPERIOR SAFETY
- EASY MAINTENANCE



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JFB 15 / 20 / 25 / 30 (AC Drive)

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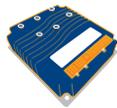
## OPERATORS AREA :

Ergonomically convenient operator's area provides necessary Comfort to the operator. All controls are easily accessible with ample leg room. Adjustable seat (optional) further enhances operator's comfort.



## DRIVE :

Equipment is driven by Three-Phase AC Induction Drive Motor of suitable rating with class 'F' insulation that has been powered by battery of suitable capacity. Power transmission at front wheels is done through noise free dual stage gear reduction unit and via differential mechanism. Full floating drive axle mechanism ensures that tyres loads are carried by differential housing



## DRIVE CONTROL :

Microprocessor-based MOSFET controller enables smooth stepless acceleration, variable speed control, and precise inching movement. Controller has self-diagnostic feature to monitor fault diagnostic. The controller also enables regenerative braking thereby increasing the Battery utilisation period.



## Brakes :

Automatic braking is enabled by regenerative braking when the operator removes his foot from the acceleration pedal. Service braking is ensured by self-adjusting brakes (with heavy-duty brake linings) and is affected by hydraulic braking which is actuated by the ergonomically located foot pedal. Parking brake works through expandable shoes and is operated by the cable connected to a hand operated lever, located on operators' left -hand side.



## Power Steering :

Hydrostatic power steering system with automotive type Tilttable Steering Column enables virtually fatigue-free operation and provides great maneuvering in the confined areas. Hydraulic steering unit controls the steering action hydraulically via steering cylinder, which is mounted on the steer axle. The steering column is operated by 16" hand wheel which is provided with foam grip for the operator's comfort



## STEER AXLE :

Articulating hydraulic steer axle of robust construction ensures accurate steering geometry and minimum tyre wear. It has sharp angle steering to ensure great maneuverability. It comprises of hardened steel bushing for the center pivot( for prolonged trouble-free life and integrated balanced) and hydraulic cylinder (located at conveniently accessible position) for easy maintenance.



## WHEELS :

Equipment is supplied with solid cushion tyres as a standard. These Solid cushion tyres enable operating over a variety of surfaces and overcome the high reactive forces. It has split rim construction at the front and rear. These larger size tyres provide better stability, better load carrying capacity, higher ground clearance and it also increase the life of equipment. Non-marking tyres can also be provided as an option.



## CHASSIS, CANOPY AND COUNTER WEIGHT :

Chassis is fabricated from heavy steel plates to provide excellent rigidity and strength. Canopy is made of a hollow section and it protects the operator against falling objects hazards. Battery Compartment with cover is integrated with chassis and it supports the operator's seat without compromising the accessibility of battery for routine maintenance. The Counter weight at the rear provides an adequate balancing load without making the truck bulky. Equipment is further provided with lifting hook and towing bar.



## MAST, CARRIAGE AND FORK :

Options of twin and triple masts of various lifts are available as per application need. Both Z/C section external mast and I/Z section internal masts are reinforced with rigid tie bars and is 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 durable service. Full floating lifting cylinders, located on either side of the mast assembly, reduces side loading on seals and packaging. Free lift for container applications can also be provided through the center cylinder in the triplex mast. Hose burst valve , located at the base of cylinder assemblies , acts as a safety device in case of hose failure. Forged and heat -treated forks sustain the load for prolonged work cycles. Back rest is provided as a standard. Side shift mechanism can also be provided as an option



## HYDRAULIC SYSTEM :

Hydraulic system is powered by AC/DC motor of suitable Capacity. It drives both positive displacement pump and high-pressure external gear pump. It operates the hydraulic functions like lifting, lowering, tilting and side shifting of loads (optional). These hydraulic functions are controlled manually via valve block. The pressure limiting the valves prevent excessive pressure overload. Suction line filters and return line filters ensures that the oil remain clean. Hydraulic system is controlled manually by MOSFET controller to drive the motor at different speeds for a precise oil flow, thus it saves the battery power. Hydraulic motor operates only when the functional switches are operated and gets automatically switched off otherwise.



## INSTRUMENTATION AND CONTROL :

Hour Meter and Battery Discharge Indicators are provided as a standard on the front panel. Both On-Off switch and forward reverse direction switch is located on the panel that provide easy reach to the operator. Control levers are positioned ergonomically for fatigue-free operation.



## 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 option. Side shift arrangement, extended forks, and various attachments can also be supplied as per customer requests



## BATTERY :

Equipment 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



## CHARGER :

Automatic charger of suitable ratings is supplied depending on the battery selection

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## AC Technology

### EASY OPERATION :

Simple controls and hydraulic steering

### OPERATOR COMFORT :

Ample leg room with adjustable steering ergonomically positioned accelerator and brake pedal provides maximum operator comfort. Non-slip foot rests permits easy mounting and dismounting operation.

### SUPERIOR SAFETY :

Hose burst valve is provided for slow and smooth landing during emergency (in the event of hose burst.)

### HIGH PRODUCTIVITY :

Controlled traction through powerful AC drive motor and powerful hydraulic system for smooth lifting and lowering



Note: Above image is with optional accessories / offerings.

### HIGH STABILITY :

Low center of gravity design with quality steel plate welded body provides robustness and makes JFB stable and safe.

### EASY MAINTENANCE :

Easily removable batteries, easily accessible components and easily available spare parts restricts machine down time drastically.

### ADVANCED TECHNOLOGY :

Microprocessor based drive controller and hydraulic controller (optional) with fault diagnostic features for trouble free performance.

### PROTECTIVE SAFETY :

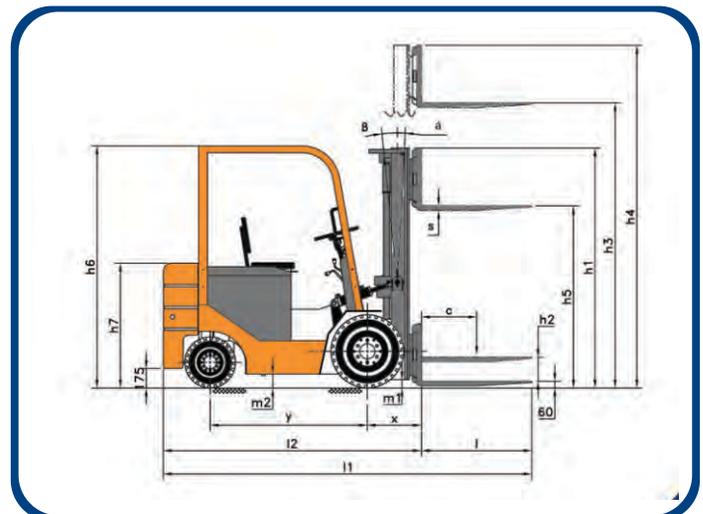
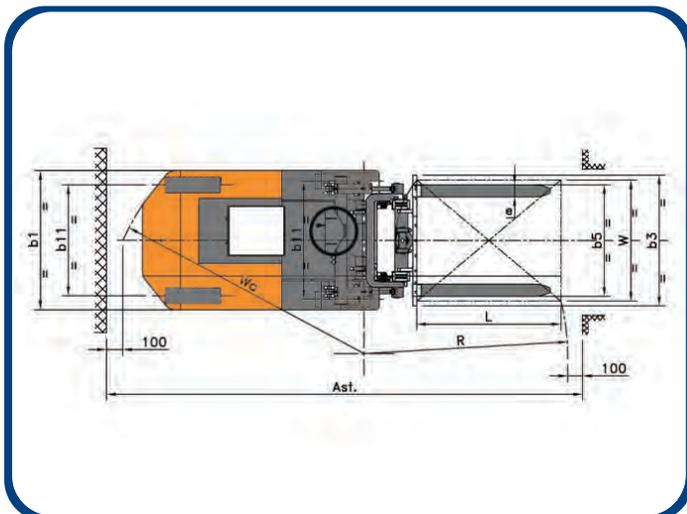
Robust and rigid canopy protects the operator against external hazards.

### SUPERIOR PERFORMANCE :

Split rim solid cushion tyre (optional) of larger size ensures better traction

### Benefits of AC Motor driven counterbalance trucks:

1. Less wearing parts - Less service
2. Better heat balance - Longer continuous operations
3. Less energy consumption - Lower operating cost
4. Longer work cycles - Longer battery life
5. Variable frequency drive - Precise control of speed
6. Reduced noise levels



# Josts Electric Counterbalance Trucks

JFB 15 / 20 / 25 / 30 (AC Drive)

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## Technical Specification

1.1	Model	nos.	JFB15	JFB20	JFB25	JFB30	
Identification	1.2	Drive	type	AC	AC	AC	AC
	1.3	Residual capacity lift	Q = Kg.	Refer chart	Refer chart	Refer chart	Refer chart
	1.4	Load center for rated capacity	c = mm	500	500	500	500
	1.5 A	Load distance PT (from load wheel to fork face)	x = mm	-	-	450*	450*
	1.5 B	Load distance PT & PD (from load wheel to fork face)	x = mm	420	420	-	-
	1.6	Wheelbase	y = mm	1425	1425	1625	1625
	Weight	2.1	Service weight incl. battery	Kg.	3300	3450	4250
Chassis		3.1	Tyres	type	Solid Cushion	Solid Cushion	Solid Cushion
	3.2	Tyre size, front		23 x 7 - 12	23 x 7 - 12	26 x 7 - 12	26 x 7 - 12
	3.3	Tyre size, rear		18 x 7 - 8			
	3.4	Wheels front / rear (x = driven wheels)	nos.	2 x 2	2 x 2	2 x 2	2 x 2
	3.5	Track width front / rear	b11 = mm	975 / 960	975 / 960	975 / 960	975 / 960
Basic Dimensions	4.1	Mast Standard	type	Refer chart	Refer chart	Refer chart	Refer chart
	4.2	Overhead guard (cab) height	h6 = mm	2200	2200	2200	2200
	4.3	Seat height	h7 = mm	1125	1125	1125	1125
	4.4	Overall length	l1 = mm	3270	3270	3500*	3500*
	4.5	Length to face of fork	l2 = mm	2270	2270	2500*	2500*
	4.6	Overall width	b1 = mm	1150	1150	1150	1150
	4.7	Fork dimensions	s / e / l = mm	40 / 100 / 1000	40 / 100 / 1000	45 / 120 / 1000	45 / 120 / 1000
	4.8	Fork carriage (class)	type	2A	2A	2A	3A
	4.9	Fork carriage width	b3 = mm	1040	1040	1040	1040
	4.10	Width over forks (min. / max.)	b5 = mm	250 / 980	250 / 980	270 / 1000	270 / 1000
	4.11	Ground clearance, under mast, laden	m1 = mm	90	90	90	90
	4.12	Ground clearance, center of wheel base	m2 = mm	115	115	115	115
	4.13	Aisle width for (W) 1200 x (L) 1000 <sup>#</sup>	(W x L) = mm	3650	3650	4300	4300
	4.14	Turning radius	Wa = mm	1975	1975	2650	2650
Performance	5.1	Travel speed, laden / unladen	Km / h	11	11	10	10
	5.2	Lift speed, laden / unladen	m / s	0.25 / 0.28	0.25 / 0.28	0.22 / 0.30	0.20 / 0.27
	5.3	Lowering speed, laden / unladen	m / s	0.22 / 0.20	0.23 / 0.20	0.23 / 0.20	0.25 / 0.20
	5.4	Gradient performance, laden / unladen (max.)	%	16 / 20	14 / 20	10 / 15'	10 / 15'
	5.5	Service brake	type	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Power	6.1	Drive motor rating S2 = 60 min.	Kw	8.0	8.0	8.0	12.0
	6.2	Lift motor rating S2 = 15 min.	Kw	8.0	8.0	8.0	8.5
	6.3	Battery voltage, nominal capacity	V / Ah	48 / 290	48 / 375	48 / 440	72 / 385
	6.4	Charger (Three phase – automatic)	V / A	48 / 50	48 / 50	48 / 50	72 / 50
	6.5	Battery weight	Kg.	500	650	750	990
Others	7.1	Type of drive control	type	MOSFET	MOSFET	MOSFET	MOSFET
	7.2	Oil Volume, hydraulic system	lit.	40	40	45	45
	7.3	Sound level	db (A)	85	85	85	85

Note: 1) \* - For PD mast add 25 mm.,

2) # - 90° Stacking aisle width.,

3) Right to make changes and technical improvement reserved. For any special requirement, please contact jost's HO.

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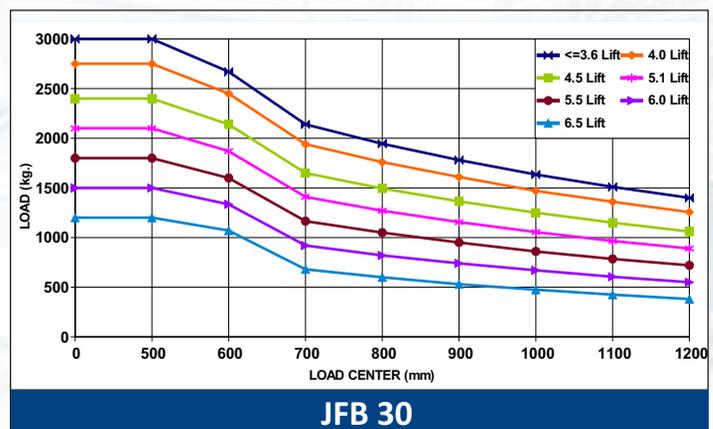
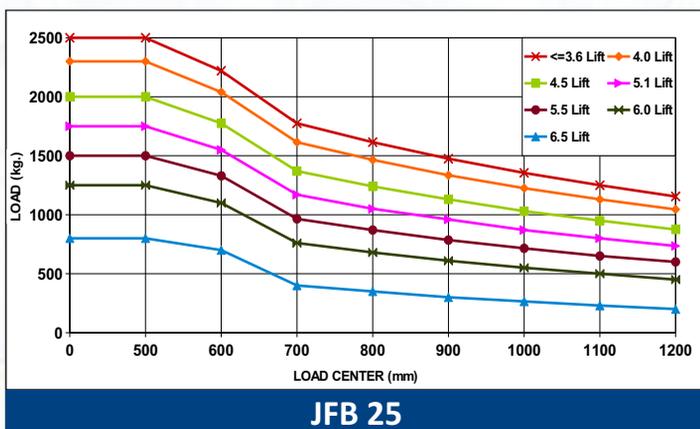
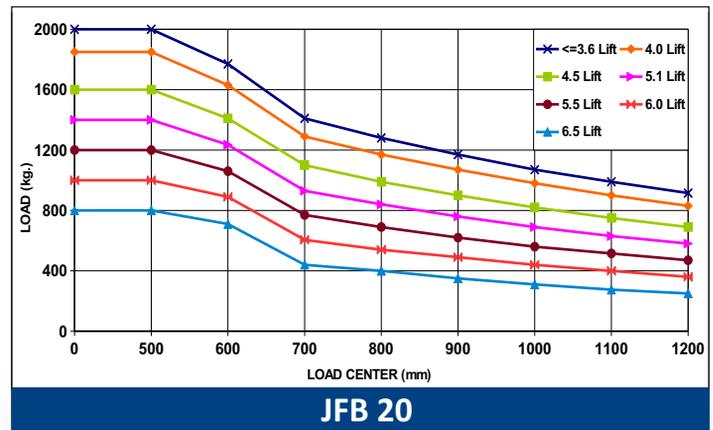
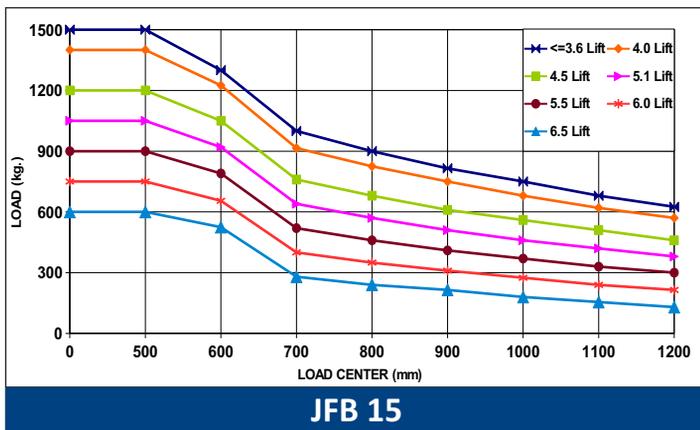
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## Mast Standard >>> Residual Load Capacity Chart

Mast Model	Closed Mast Height h1		Lift	Extended Mast Height	Free Lift	Residual Load Capacity (Load Centre 500 mm) (Kg) (Without Side Shift) <sup>§</sup>				Tilt angle
	FB15 / FB20	FB25 / FB30	h3*	h4 <sup>#</sup>	h2 <sup>@</sup> / h5 <sup>#</sup>	FB 15	FB 20	FB 25	FB 30	a x β
	mm	mm	mm	mm	mm					
2 Stage PT 30	2100	2175	3060	3670	100 <sup>@</sup>	1500	2000	2500	3000	6°x 12°
2 Stage PT 36	2400	2475	3660	4270	100 <sup>@</sup>	1500	2000	2500	3000	6°x 12°
3 Stage PD 45	2100	2175	4560	5170	1550	1200	1600	2000	2400	3°x 6°
3 Stage PD 60	2650	2725	6060	6670	2100	750	1000	1250	1500	3°x 6°
3 Stage PD 36	1750	1825	3660	4270	1250	1500	2000	2500	3000	6°x 12°
3 Stage PD 40	1900	1975	4060	4670	1350	1400	1850	2300	2750	6°x 6°
3 Stage PD 51	2350	2425	5160	5770	1800	1050	1400	1750	2100	3°x 6°
3 Stage PD 55	2650	2725	5560	6170	2100	900	1200	1500	1800	3°x 6°
3 Stage PD 65	2900	2975	6560	7170	2350	600	800	1000	1200	2°x 6°

**Note:**

- 1) \* - The h3 lift heights mentioned in     colour are standard offerings.
- 2) \* - The h3 lift heights mentioned in     colour are available on request as optional extra with higher delivery period.
- 3) # - Refers to without load backrest. Extended back rest height = h4 + 550.
- 4) § - Residual capacity derated by 200 kg. with side shift.
- 5) The load backrest is suitable for racking level height of 1200mm. For racking level height below 1200mm, contact Jost's HO.



Note: De-ration for load center more than 600 mm takes into account the fork extension weight.



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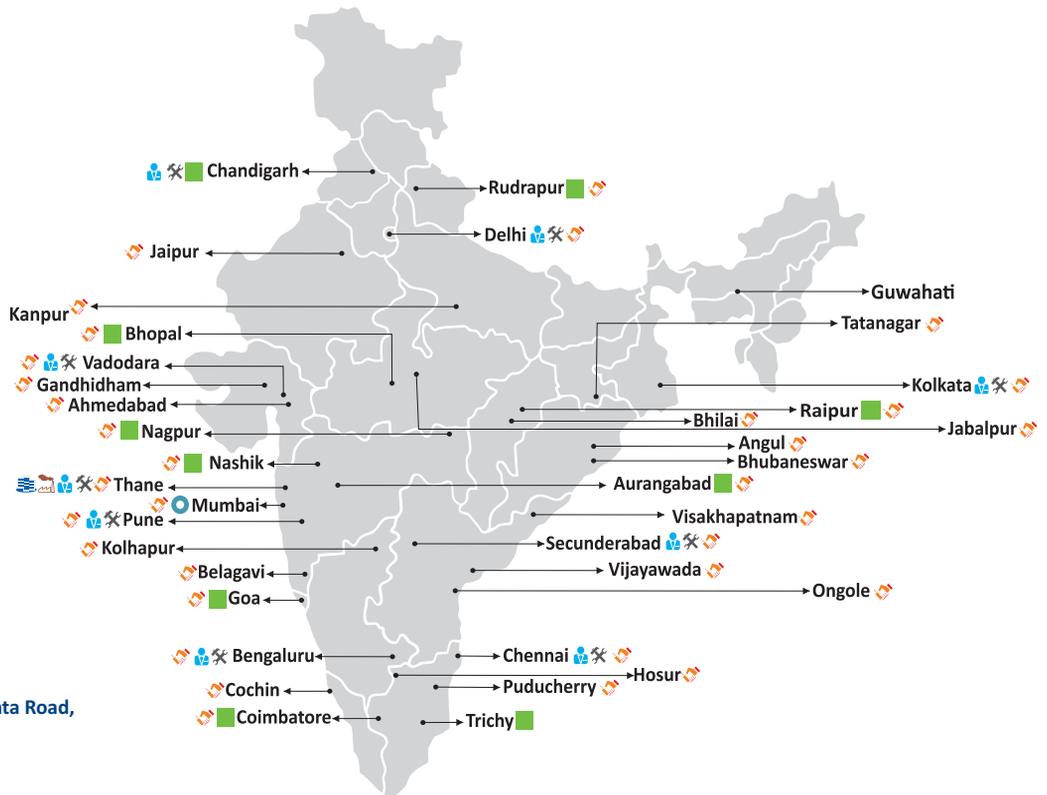
# Jost's Engineering Company Limited

An ISO 9001 : 2015 Certified Company

An ISO 9001 : 2008 Certified Co



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