

CPDS Series

- Battery powered
- Capacity 1.6-2 tonne
- Three wheel
- ZF twin DC motor, German
- ZAPI DC SEM controllers, Italy



HU-LIFT

FORKLIFT

Electric Forklift

Three wheel

ZF twin DC motor
 ZAPI DC SEM controller
 Durable, clean, hydraulics
 Simple, comprehensive, panel
 Wet disc, progressive, brakes
 Optimised, powerful, batteries

Introduction

The distinctive features of the new CPDS series electric three-wheel forklift are the following:

Versatility of use due to compact design and minimal operating space requirements. Compact dimensions combined with super maneuverability.

High stability, both when stationary and cornering, due to long wheelbase, low centre of gravity and wide tyres.

Economy of operation, resulting from minimized maintenance costs, e.g. Low-wear brakes.



Standard Feature

Front wheel & Rear wheel solid tire
 High capacity storage battery
 Emergency disconnect switch
 Rubber floor mat
 Suspension seat
 2 Spools control valve
 Locked spring gas
 Front combined lamp
 Warning Lamp
 3 meters 2-stage mast
 Adjustable steering controlled
 Rear combined lamp
 Beeper
 Toolbox and file folder
 Hour meter, self-diagnose indicator

Option Feature

3 or 4 spools control valve
 4.3-6 meters 3-stage mast
 2.5-4.5 meters 2-stage mast
 With attachment
 Other dimensions fork
 Higher or wider backrest
 Higher capacity Coil Batteries

A fully enclosed chassis frame houses the drive motors. The hydraulic and drive components are protected against dirt and water.

For long, leak-free service it is critical to keep the hydraulic system clean.

The CPDS series have high quality cylinders and hard chrome burnished and polished rods to reduce seal wear, for long life and minimum fluid contamination.

To keep the fluid clean the CPDS series have a full-flow low pressure filter on the return line.

Cleanliness minimises seal and pump wear and keeps the control valve in good, trouble free, condition.

Frame

Vertical sides help the driver work safely with less damage, even in an area with low-level obstructions.

Thick chassis plates resist distortion, reduce damage and minimise refurbishment costs.

The wide mast and low console give an excellent view of the forks and the way ahead.

Well positioned lights ensure optimum vision to both the front and back-essential in containers.

Much attention has been given to the carriage design, with an integral full-vision side-shift. The cleverly machined structure of tensile steel bars and a double-ended hydraulic cylinder gives the max. view of the load and forks, coupled with variable speed side-shift.

The wide mast, low scuttle and high seating position gives the operator an excellent view of the forks and of the way ahead-reducing load damage and accidents.

An integral full-vision.

Brakes

The CPDS series three-wheel truck has three independent braking systems:

- Regenerative braking system
- Hydraulic wet disc brake system
- Toggle-type parking brake

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ZAPI DC SEM controller, Italy

The ultimate in DC control is the ZAPI high frequency MOSFET microprocessor, coupled with separately excited motors (SEM) to give the truck smooth can be imposed and more than 30 performance characteristics can be adjusted. An excellent system for smaller trucks with a medium workload.

It is fully adjustable to suit the load, the working area and the operator. Inbuilt diagnostics record intermittent faults and service requirements reducing expensive service time.

ZAPI DC control originating in Italy.

More than thirty performance parameters can be adjusted to suit the type of load, congestion of the working area and skill of the driver.



ZF twin DC SEM motor, German

The incorporation of ZF developed components, including finely engineered helical gears, assures low noise, high quality and a longer service life.

SEM drive motor provides more advanced control features.

The ZAPI controller control the traveling, lifting, tilting and steering action.

Twin DC SEM motors are readily accessible from either the front or above, minimising service time.

Front-wheel drive through two drive motors incorporated in a compact axle.

Access to the state-of-the-art controllers is easy at mast height, helping to reduce servicing time.

Steering the "On-demand" hydraulic power steering, combined with drive-motor system, gives super maneuverability with low noise level and low energy consumption.

The low steering force required, further enhances operator comfort.

Over 50% of all electric lift trucks bought today are three-wheel and they have greatest range of application, from running for just 1/2 hour at a time to working three full shift a day.

The series uses only the best European control systems. Smaller trucks with less demanding work patterns are fitted with market leading ZAPI DC SEM controllers.

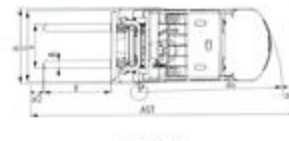
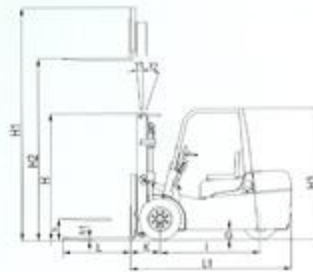
Full accessible 48 volt batteries with 400-600 Ah capacity are controlled by ZAPI SEM systems.



90° steering system

Advanced steering system provides best maneuverable performance.

Electric Forklift Three wheel



AST=H-KW
a=205 mm
F: Loaded Length

Model		CPDS16	CPDS18	CPDS20
Capacity	Q (kg)	1600	1800	2000
Load center	C (mm)	500	500	500
Lifting height (standard)	H2 (mm)	3000	3000	3000
Free lifting height	h (mm)	145	145	150
Fork size	h1xBxL (mm)	35x100x900	35x100x900	40x100x1000
Tilting angle (Front/Rear)	Y1/Y2	6.5° / 6.5°	6.5° / 6.5°	6.5° / 6.5°
Length to fork	L1 (mm)	1905	1905	2025
Overall Length	L1+L (mm)	2805	2805	3025
Overall Width	W (mm)	1060	1060	1120
Closed mast height	H (mm)	2085	2085	2085
Raised mast height	H1 (mm)	3580	3580	3580
Height to safeguard	H3 (mm)	2000	2000	2000
Min. turning radius	Wa (mm)	1540	1560	1660
Overhang	(mm)	365	365	365
Wheel distance (Front /Rear)	D/d (mm)	902/175	902/175	912/175
Ground clearance	G (mm)	90	90	90
Wheelbase	I (mm)	1360	1360	1465
Fork Width	A (mm)	200-1000	200-1000	200-1000
AST (pallet 800x1200) lengthways	(mm)	3370	3370	3480
(pallet 1000x1200) crossways	(mm)	3250	3250	3360
Traveling speed (with load)	(Km/h)	14	14	13
Traveling speed (without load)	(Km/h)	14	14	13
Lifting speed (with load)	(mm/s)	290	280	240
Lifting speed (without load)	(mm/s)	490	480	450
Gradeability (with load)	(%)	15	15	15
(without load)	(%)	20	20	20
Weight (with battery)	(kg)	3000	3100	3250
Front wheels x2		18x7-8	18x7-8	200/50-10
Rear wheels x2		15x4.5-8	15x4.5-8	15x4.5-8
Motor (Driven motor x2)	(KW, ZF)	5.5	5.5	5.5
(Pump motor)	(KW)	8.6	8.6	8.6
Battery (Standard)	(V/Ah)	48/500	48/550	48/600
(Optional)	(V/Ah)	48/600	48/600	48/660
Controller (Type)		MOSFET	MOSFET	MOSFET
(Manufacturer)		ZAPI	ZAPI	ZAPI
Working pressure	(MPa)	14.5	14.5	14.5

Electric Forklift

Three wheel

DRIVER'S COMPARTMENT

The CPDS serie' design pays great attention to the driver zone, a strong grab handle is provided with a large low step for easy access.

A clear footwell with well-placed pedals gives plenty of room for large feet and helps the driver work safely.

The simple, concise instrument panel is less distracting yet still offers a comprehensive warning system.

Hydraulic levers can be mounted on either the scuttle or beside the battery, allowing access from either side. The standard suspension seat is a clear benefit for longer shifts or mature operators and gives comfortable support.

Safe and easy access is assured by a large, non-slip step and grab handle..

The adjustable steering controller ensure a comfortable working position.



Low step for easy access.



Control panel



Wide View

CPDS Series Mast

Type	Model	Fork Height (mm)	Overall Height		Free Lift	Tilt Range		Capacity		
			Lowered (mm)	Extended	Extended	FED Deg	RED Deg	Load Capacity at 500 mm		
				Without Backrest (mm)	Without Backrest (mm)			1.6T (tonne)	1.8T (tonne)	2.0T (tonne)
Wide View 2-stage Mast	WMT2030	3000	2085	3580	145	6.5	6.5	1.6	1.8	2.0
	WMT2033	3300	2235	3880	145	6.5	6.5	1.6	1.8	2.0
	WMT2035	3500	2335	4080	145	6.0	6.5	1.6	1.8	2.0
	WMT2037	3700	2435	4280	145	6.0	6.5	1.4	1.6	1.8
	WMT2040	4000	2585	4580	145	5.0	6.5	1.4	1.6	1.8
Wide View Full Free 3-stage Mast	WMT3045	4500	2085	5080	1375	4.0	6.5	1.25	1.4	1.5
	WMT3050	5000	2255	5580	1545	4.0	6.5	1.25	1.4	1.5
	WMT3055	5500	2490	6150	1780	3.5	6.5	1.1	1.2	1.3
	WMT3060	6000	2655	6650	1945	3.5	6.5	1.0	1.1	1.2

Note: With side-shift, load capacity subtract 200Kg.