



## HJ series

Electric Lift Trucks

1.3 - 2.0 tonnes



48 volt electric / flexible control



# clear

## design

Heavy-duty "KISS" concept.

Production by one of the largest manufacturers with the world's biggest population ensures long-term stability, with excellent parts availability and technical support.

The design is aimed at 10,000 hours between major overhauls by embracing the latest technology without unnecessary complication, keeping costs down and making operating and refurbishment easier.

Heavy-duty masts with big rollers, thicker flanges and strong webs resist distortion and abuse.

The standard controller is the latest CURTIS Gen2 AC system with simplified circuitry - coupled with conventional design to allow servicing by in-house engineers with minimal training and equipment.



### Keep It Simple Specification

Keep the specification simple and save money three ways: easy build, quick service, better reliability.



## driver

Clean driver's zone.

The HJ series' state-of-the-art design pays great attention to the driver zone: a strong grab handle is provided, with a large low step for safe access from both sides.

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 minimises confusion but gives key warnings to the operator.

Hydraulic levers can be mounted beside the battery or on the scuttle, giving easy access from either side.

The full-suspension seat is a clear benefit for longer shifts and mature operators giving good lumbar support.



Simple instrumentation, a clear footwell and automotive-style controls help the driver feel at home, reducing stress and accidents.

### warnings

A clear status readout is provided via a simple LCD display.

Unnecessary warnings are specifically excluded to reduce distractions and driver disregard.

Clear, concise instrumentation



### laptop-free



Laptops aren't required for repairs and service. Use your own or local competent engineers to diagnose faults, repair faults and keep servicing up to scratch.

### comfortable



Full suspension seat for all models is comfortable and easily accessed from either side of the truck and is CE compliant.

# less stress, less accidents

# clean

## batteries

48 volt standard or extra-duty.

Some of the best batteries in the world are made in Eastern Europe & Asia. SAMUK+HC is typical and based on British design, guarantees vary but do not indicate quality.

SAMUK+HC high-quality standard and extra-duty batteries to suit the workload. The multipurpose manoeuvrable HJ applications range from 500 to 3000 hours per year. All are AC for quietness and a clean atmosphere.

Reasons for conversion to electric include green support; quietness & lower cost compared with petroleum models.



48 volt AC

Clean electric power: quiet operation in confined spaces with zero exhaust fumes.



filters

The hydraulic circuit is fitted with a high performance microfilter to ensure that the fluid is kept clean at all times.

Wear of the seals and pump components is kept low for longer life and efficient operation.

Clever - Quiet - Clean



precise

Direct control of the twin steer-wheels via the tilt-adjustable column gives light, precise steering.

Superelastic, pneumatic profile tyres are puncture-proof, while the standard twin steer-wheels provide extra stability without compromising three-wheel manoeuvrability.

Twin steer-wheels



## steering

Smooth and accurate.

Superelastic pneumatic profile tyres and twin steer wheels are standard, giving greater lateral stability whilst maintaining three-wheel manoeuvrability.

Smoother ride and longer tyre life, light steering (4-6 Nm at the rim), 4½ turns from lock-to-lock, suitability for indoor/outdoor use, impossible to puncture.

Twin steer-wheels roll around the vertical steer column and give long tyre life and precise control.

Powered by a single low variable speed pump for minimal noise.

## hydraulics

Quiet, filtered, controllable.

Based on one, variable-speed, hydraulic pump. Full-flow microfilter for long service.

A microfilter ensures cleanliness, minimising seal and pump wear and keeping the control valve in good, trouble free, condition.

High quality cylinders and hard-chrome burnished polished rods reduce seal wear and fluid contamination while giving longer life.

A CURTIS controlled variable-speed motor and pump, with latest tooth design for quiet smooth flow, can be synchronised with the patented finely-machined control valve for quiet, squeal-free progressive operation.

quiet and smooth

accessible

precise



High quality components increase reputation and second-life value. Good reliability is vital to keep running costs and down-time to the minimum.



Accessible 48 volt batteries, standard and extra-duty, are controlled by CURTIS AC Gen2 circuitry and suit light or high-lift long shifts.



Tyres can be super, super-elastic or pneumatic to suit your operating requirements and pocket. Larger diameter tyres last longer.

## drive train

Finely engineered.

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

The industry-leading CURTIS Gen2 AC system with simplified circuitry and brushless motors requires less servicing and is recommended for use in wet or explosive conditions.

It is also ideal for long cycles, ramps and high lifts - coupled with fast regenerative braking which makes excellent use of battery charge.

Twin AC motors are accessible from the front - minimising service costs.



### AC electrics

AC electrical systems are easier to maintain than the earlier DC.

Motors running under AC are more efficient running at lower and more appropriate speeds - less noise and less energy loss.

Brushless motors are simpler too, requiring less servicing and providing suitability for wet or explosive conditions.

A bright idea

## electronics

The progression to AC design has increased efficiency and control.

AC is the winner!

In spite of many advantages, resistance to AC was caused by price and lack of serviceman's familiarity - although it is simpler than DC.

AC systems are now firmly in the lead because the cost is similar to DC (up to 3 tonnes capacity) due to comparable volume.

In addition, CURTIS Gen2 simplified circuits and sealed electrical units have minimised fear of the unknown for the electrically inexperienced. Maintenance is early and low-cost.

The biggest advantage of AC is that the motors are efficient at all speeds, unlike DC which is only efficient at full speed.

Efficient traction from zero to maximum speed is yet another benefit.

Hydraulics are critically important too. Instead of multiple full-speed DC driven pumps wasting battery energy and creating hydraulic squeal, modern trucks have one variable-speed AC motor. This drives one pump efficiently at the appropriate rate. DC pumps run at full speed, with expensive energy loss and increased hydraulic squeal.

Another AC asset is the simple brushless motor: less maintenance and better suitability for wet & explosive conditions.

Big operating features are roll-back control on slopes and regenerative braking - reducing conventional brakes to emergencies and parking. Ideal for container ramps.

The CURTIS AC 48v system with Gen2 simplified circuitry and sealed units is the industry technical leader - that's why SAMUK + HC fits it as standard.

### efficient AC



AC electrics are easier to maintain than DC. Brushless motors need less servicing, are more efficient at low speeds and are also quieter.

### technical leader



CURTIS Gen2 system uses simplified circuitry to control the 48v AC electrics.

### twin motors



Twin AC motors are easily accessible from the front of the truck. Brushless AC means less servicing and fewer costly breakdowns.

# driving



## chassis

Strong and safe.

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.

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



smooth

Programmable regenerative braking returns electrical charge to the battery, helping to extend working shifts.

Conventional foot pedal braking is still provided: oil-immersed disc brakes are for parking and emergency operation, along with a toggle-action parking brake which can hold the truck on inclines.

conventional



Toggle-action parking brake is dashboard mounted and can safely hold the truck on inclines of 16% or more.

## brakes

Regenerative technology.

Progressive braking is vital if the operator is to work confidently and safely.

Fully programmable, regenerative electric braking almost eliminates the need for a foot brake.

The retardation rate can be adjusted to suit the load, the site and the operator. An additional benefit is that regenerative braking recharges the battery between 5 and 15%.

safe



Wide steps allow the driver to mount the truck from either side - safely.

Oil-immersed foot pedal disc brakes are limited to parking, emergency and operator preference. Life expectancy of the wet brake system is extended by up to three times.

A toggle-action parking brake holds firm on inclines of 15% or more.



Rigid mast, good all-round visibility and sharp control give the operator confidence. Less accidents, less driver stress and more productivity.

safely, confidently

# heavy-duty

## carriage

Integral full-vision side-shift.

The mast is very heavy duty in order to resist wear and tear and provides an extremely rigid base for the forks, assisting quick high-level precision stacking utilising the HJ rapid performance.

Much attention has been given to the carriage design, with an integral full-vision side-shift.

The cleverly machined structure of high tensile steel bars and a double-ended hydraulic cylinder gives the maximum view of the load and forks, coupled with smooth variable speed side-shift.

The operator can easily see where the forks are - important precision at lorry bed height which reduces load and lorry damage.

Productivity at its best with less damage.



## masts

Strong construction and excellent visibility.

Heavy-duty designs, simple servicing and low cost operation are at the heart of all the SAMUK + HC range.

Visibility through the wide mast is excellent, even though the mast sections and roller diameters are up to 40% stronger than those offered by some market leaders.

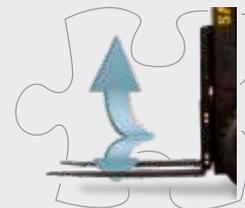
The HJ masts resist abuse when handling long loads, off-centre loads, rotating clamps, swinging steel coils, large heavy pipe, surging liquids, granules.

Dynamic loads, especially when close to truck capacity, can cause overload and distortion due to the additional dynamic swing. Check with your dealer.

Optional side-thrust rollers can be fitted at the top of the outer section and to the carriage to give better support when handling long, off-centre as well as fluid loads.

Spherical bearings are standard at the tilt cylinder ends - typical of the attention to detail found throughout the design.

Mast distortion and failure due to stress on the tilt rods is minimised.



cushioned

Soft-landing system allows the forks to settle gently, reducing noise and damage.

Soft-landing system

4-cylinder, clearview, triplex mast



road ahead



floor



lorry bed

4-cylinder triplex mast: excellent view of the load and the road ahead for less damage. 25% stronger with heavy sections and 120mm rollers. Ideal for long loads, attachments and precision high-level rack stacking. Not recommended for models with under 2t capacity.

tough, precise, clear

# thinking ahead

## service

Laptop-free with long intervals.

The HJ series features laptop-free maintenance which is not tied to high-cost manufacturers, dealer chains and engineers.

Laptop-free maintenance based on KISS(Keep It Simple Specification) is the obvious solution for relatively low-cost load movers.

Your local dealer or staff can service and repair the trucks with minimal training - and can get advice from the SAMUK Technical Support Team as necessary.

Great attention has been paid to the ease of service and repair. Mechanically and hydraulically experienced engineers don't need laptops to work on the truck.

The HJ series has a simple diagnostic record of intermittent faults to give speedy identification.

Service intervals can be up to 250 hours or 12 weeks, depending on conditions.

Large, high-quality filters are used for the hydraulic system to ensure optimum performance and a long working life.



## tech support

Providing training and advice.

SAMUK+HC supports dealers in the field to resolve unusual problems and also to train staff.

The SAMUK Technical Engineering Department, which is aware of the latest designs and handling methods, can assist with specialist and large site surveys.

Training of dealers and user's service staff is centred on Peterborough.

Driver training, provided by your dealer, can be on-site to minimise travel costs and loss of productivity.

## maintenance

Laptop-free service means that your own engineers can do the job; clever design lets them do the work quickly; economical parts and good technical support make maintenance simple.

KISS: Keep It Simple Specification



## parts

Peterborough Parts Centre.

Robust, international components are used, so long-term availability of spare parts is assured.

Over 90% of required parts are available ex-stock from our Parts Centre at Peterborough. Modern stock control and technology is managed by dedicated and competent skilled staff to ensure that the right part for the job is dispatched - at a competitive price.

Overnight direct-delivery service to a registered address including user is available. Dealer responsibility for payment.

## hangcha

Products for the global market.

SAMUK+HC trucks are designed and manufactured by the Hangcha Company located in Hangzhou, China.

It is a privatised business which opened its new high-volume truck factory in July 2009 with perfect timing to enjoy the worldwide market recovery.

Product availability up to and beyond the next boom peak is assured due to the growing strength and worldwide influence of China and Hangcha.

## support



The Dealer and Technical Department keep abreast of new designs and methods. They can offer advice, training and site surveys.

## first-time-fix



Service parts are available from the SAMUK Parts Centre in Peterborough. Modern systems help ensure that "First-time-fix" rates are high.

## samuk + hc



International manufacturer of high volume 1.0 - 5.0t electric, diesel and LPG counterbalance and reach trucks supported by one of the top three R & D divisions.

reliable, economic, planned



# HJ series

48v AC electric



**CURTIS**

CURTIS Gen2 AC  
48 volt AC electrics using  
Gen2 controller with  
simplified circuitry and high  
build quality.

**HJ13AC**  
1.3 tonnes lift capacity  
48v AC CURTIS controlled

**HJ15AC**  
1.5 tonnes lift capacity  
48v AC CURTIS controlled

**HJ16AC**  
1.6 tonnes lift capacity  
48v AC CURTIS controlled

**HJ18AC**  
1.7 tonnes lift capacity  
48v AC CURTIS controlled

**HJ20AC**  
2.0 tonnes lift capacity  
48v AC CURTIS controlled



No laptops required  
for repairs and service

Use your own or local  
competent engineers to  
diagnose faults, repair faults  
and keep servicing up to  
scratch.

48v AC electric 3-wheel lift trucks.  
1.3 - 2.0 tonnes lift capacity.  
2 and 4-cylinder duplex and FFL masts to 5m.  
4-cylinder triplex clear view masts to 7m.  
CURTIS controlled 48v batteries.  
Very heavy-duty, aimed at 10,000 running  
hours or more between major overhauls with  
up to 500 hour service intervals.

Ideal for 5 year rental contracts.  
Design incorporates the latest technology  
but remains uncomplicated.  
Service can be performed by your own staff  
with minimum training or by independent  
service dealers, without being tied to a captive  
manufacturer's organisation.

Spare parts are available from your local  
dealer. Over 90% are available ex-stock and  
can be dispatched by overnight courier.  
Trucks are warrantied for 1 year / 2000 hours,  
excluding attachments. 3 years / 3000 hours  
powertrain warranty: motor to wheel hub,  
excluding wiring.



laptop-free service



KISS design



economical maintenance



long service interval potential



well-priced parts, fast



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Associate SAMUK HANGCHA BOSS Group

lift trucks



reach trucks



stackers



transporters



tow tractors



your local dealer

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