CLARK

FORKLIFT-NEWS FOR EUROPE

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Ready for the future with diesel power

In the six to eight tons capacity segment, CLARK changes to the fast lane. The new GEN2 series C60/70/80D sets standards with effectiveness and efficiency. ..... Page 2

Perfect start into a new era

A splendid ceremonial occasion with the inauguration of the new CLARK European headquarters and a successful presentation of new truck product. Enthusiasm with product presentations all over Europe. ... Pages 3/4

Progress based on tradition

CLARK is celebrating the 90th anniversary of the forklift. the forklift from its invention in the year 1917 up to the year 1945. ..... Page 5

EDITORIAL

Egon Strehl
Managing Director
Clark Europe GmbH

Dear reader,

Moving means progressing, and progressing means renewal – taking this into consideration it is quite evident that CLARK is proving its strength and vitality again. With this in mind, we will definitely continue creating trends and introducing innovations in the forklift industry in future. You can see that this has always been a part of the tradition of our enterprise if you take a look at the CLARK history on page 5. Another clear proof of this tradition can be seen with the introduction of our two newcomers: the new GEN2 series C60/70/80D and the four-wheel AC 80V electric forklift GenEX. Both combine technical innovation with the huge experience of a logistics specialist and are exactly the right choice for users attaching importance to performance and robustness, minimum maintenance, and energy efficiency. But the CLARK product world has much more to offer. Having moved to the modern, spacious premises at the former production site in Mülheim an der Ruhr, the European headquarters of CLARK has met all the preconditions required for further growth. The same applies to our presence on the IMHX 2007 in Birmingham UK which aims at additionally boosting our operative business.

Yours

MASTHEAD

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CLARK's AC 80V four-wheel electric forklift GenEX sets new standards

Extraordinary performance

The next dynamic impulse with economisation in the forklift business is about to arrive. By launching the GenEX AC 80V four-wheel forklift (load capacity 2 to 3 tons), Clark offers a truck of the latest AC generation designed for maximum performance, efficiency, and durability.

Higher, faster, stronger.
The GenEX dual-type drive motors provide for increased traction, particularly on wet or uneven surfaces and thus allows for acceleration, gradeability, and stability in any position. The speed and the turning direction of the motors are controlled in proportion to the steering wheel position. In conjunction with the flexible steering axle, the motors permit a turn radius of an excellent 110% compared with similar types of forklifts. Moreover, a 100% AC system means low maintenance without the need to change brushes and protection gear. All motors are fully enclosed against dust, water, and polluting particles and the motor temperature control reduces the power output as soon as temperatures approach a limit value.

Braking the intelligent way
Completely enclosed oil bath-multiple disc brakes assure constant braking even in an environment susceptible to moisture, abrasion, and corrosion. In particular, one outstanding feature has to be mentioned separately: regenerative braking on releasing the accelerator, changing the driving direction, or actuating the service brake cause energy to flow back to the battery instead of heating up the brakes. The reliable oil bath multiple disc brakes do not require any adjusting or regular exchange of the brake pads as is the case with conventional brake systems.

Energy consumption on demand only
Being equipped with hydraulic pump and fully proportional lift controls as standard, the GenEX reacts precisely and dynamically to lift and tilt commands of the operator. As the pump motor does not rotate faster then required by the operator, the GenEX consumes only the necessary quantity of energy. Moreover, all of its control ele-

to be continued on side 6

New GEN2 series C60/70/80D – CLARK changes to the fast lane in the segment of 6 to 8 tons – Presentation at the IMHX

Ready for the future with diesel power

CLARK focuses on performance, maneuverability, and reliability and offers three new diesel-driven power packages allowing for further time and cost reduction. The new units of the GEN2 series have been designed for lifting capacities from 6 to 8 tons. The most noticeable feature is the combination of a 100 HP engine with a three-stage power shift transmission, wet disc brakes, and a sturdy chassis construction.

The European Community's "Mr. Clean" with a 4.5 liter turbo engine

The Iveco N45-MNS 4.5 liter diesel engine with 4 cylinders and a turbo charger combines economy, good driving power, and strong torque. The observance of the European exhaust gas standards grants environmental safety for many years to come. The position of the pre-filter mounted high above the ground as well as the high capacity air filter provides a continuous supply of fresh air. The integrated fully automatic ZF transmission facilitates powerful driving and smooth maneuvering. Being particularly adapted to the requirements of the C60-80D, the electronics system is provided with a self-diagnosis system to allow for a soft and powerful drive in every application. Completely enclosed wet disc brakes fully meet CLARK's claim for productivity through permanent high performance.

Sophistication at critical spots

The large size and perfectly readable TFT-LCD color display gives the operator comprehensive realtime information from battery charge and travel direction up to fault and safety belt warnings. In addition, individual operator-specific settings via a CAN bus system permit the optimization of the forklift operation. Forklift maintenance is made more convenient with the two-part hood that is opened with the help of a gas spring allowing for easy access and, thus, for fast checking and maintenance of the engine, the transmission, the radiator, and the air filter. Additionally, maintenance is made easier by the central fuse and relay box similar to the boxes used in automobiles.

Convenience meets practice

One of the most practical features for the forklift operator is the adjustable comfort seat provided by CLARK to reduce the operator's exhaustion after long work periods. The spacious operator compartment offers extra head and leg room for operators of all body sizes. The low execution of the front cowl aims at granting the operator optimum visibility of the fork tips. Operator comfort is also enhanced by the adjustable steering wheel (up to 38 degrees), the spacious leg room, the large and smoothly working pedals as well as the automotive-type hand brake. Safe entering and leaving of the forklift is granted by two flat step treads, and a spacious storage box serves for the accommodation of tools.

Stable load and improved visibility

CLARK masts are constructed in a nested design and include closely adjacent and slanting rollers in order to make for exact guidance. Six fork carriage rollers and two side thrust rollers attached to the FEM fork carriages have a stabilizing impact on the load. Hydraulically cushioned valves ensure the smooth running of the mast elements on lifting and lowering. The newly designed Triplex mast with two main cylinders located directly on the rails (and not between them) helps to improve the operator's visibility.

The safety factor

Since safety is one criterion among others regarding efficiency, CLARK offers some additional features and functions for the safe operation of its new GEN2 series forklifts. For example, the engine is switched off automatically if the engine and transmission temperature have reached critical temperatures or if the oil pressure drops. In addition, the engine can only be started with the transmission being placed in neutral. These safety features are supplemented by a repeated ignition locking system, a warning signal when the hand brake is not applied while the ignition key is switched off., and, as an option, the adjustable switching-off of the engine when the operator leaves the forklift seat.

+ + + CLARK PRODUCT PRESENTATION 2007 + + +

European headquarters inaugurated – perfect start into a new era

What an overwhelming reception in the new European headquarters of CLARK! There were some 200 guests from three continents – Europe, Asia, and America – to provide an appropriate framework for the CLARK ceremonial act in the new headquarters at Mülheim an der Ruhr at the end of February.

Looking to the past, present and future
On the occasion of the ceremonial act at Mülheim an der Ruhr, S.S. Baik explained the development of CLARKs activities within the worldwide group of companies since 2003 to the auditorium and outlined the medium and long-term plans of the group.

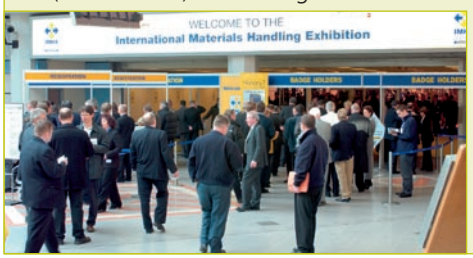
The interesting event at the new headquarters of CLARK Europe GmbH had been consciously designed as a double event. In the presence of a dozen press representatives as well as high-ranking personalities from the fields of business and politics, S.S. Baik (member of the owner family) and Egon Strehl (Managing Director of CLARK Europe GmbH) were first handed the symbolic key for the new premises. Moreover, and accompanied by the flurry of camera flashes and applause from the retailers from all over Europe, CLARK presented the latest forklift innovations (see pages 1 and 2) as well as proven industrial trucks of previous years.

The presentations of S.S.Baik, Egon Strehl, and Dennis Lawrence (President/CEO CLARK North America) substantiating the strategic and sustained orientation of the world-wide CLARK family with the help of hard facts met with great interest, too. Mülheim's Lord Mayor Dagmar Mühlenfeld and Heinz Lison, President of the UnternehmerverbandsGruppe, were both impressed by the verve, growth, and noticeable commitment of CLARK Europe GmbH.

"The response to our product presentation 2007 in our new headquarters has exceeded all our expectations" announced Egon Strehl who was surrounded by many presents after the event. The guests took a chance and had a closed look behind the scenes. Consisting of an area of 2,500m² for spare parts and forklifts and an area of 550m² for administration including 120 m² for training purposes, CLARK showed to be perfectly prepared for further growth. The premises offer space for about 180 forklifts; at present, 8,100 part numbers are available on stock, with the quantity continuously growing.

The CLARK Express is touring across Europe

The CLARK product presentations 2007 met with great interest all over Europe, with the first product show taking place on February 15th, 2007 in Italy (see photographs on the right). Only one week later, about 200 guests from all over the world gave CLARK Europe GmbH and its new forklifts a warm-hearted welcome on the occasion of the inauguration event in the new European headquarters at Mülheim an der Ruhr. On March 1st, the headquarters hosted a presentation of CLARK product innovations for French retailers and from March 13th to 16th, 2007, the presence of CLARK on the IMHX at Birmingham/UK (booth 20C20) will be the great final.



+ + + CLARK PRODUCT PRESENTATION 2007 + + +

New headquarters at former production site
CLARK Europe GmbH has moved to its new headquarters at Mülheim an der Ruhr.
The modern premises located approximately 500 m straight-line distance from the former CLARK production site offer excellent opportunities for further growth.
Here are some figures on the new site: 2,500 sqm of storage area and 550 sqm of administration area including 120 sqm for training purposes.

Contented. Egon Strehl, Managing Director of CLARK Europe GmbH (right photo).

Handing-over of the key. H. Schafstall, S.S. Baik, E. Strehl, D. Mühlenfeld (photo below/from left to right).

Warm-hearted welcome.
Lord Mayor Dagmar Mühlenfeld welcomed CLARK.

Lively interest.
The latest CLARK forklift innovations fascinate at first go.

Spacious.
About 180 forklifts and thousands of spare parts are accommodated in the new halls of CLARK Europe GmbH.

Product presentation 2007. Brand-new products and skilled operators fascinated the more than 200 guests.

1917 to 2007: 90 years of CLARK forklifts

Progress based on history – CLARK: Inventor of the forklift

Back in the year 1917, visitors to the Clark axle manufacturing plant in the USA were quite astonished when they caught sight of the brand-new vehicle for in-plant material transport built by Eugene Clark. It featured such a great number of advantages that it did not take long until the first orders were taken. While eight CLARK forklifts were built and sold in 1918, the number considerably increased to more than 75 units in the following year. Today CLARK, often referred to as „The Forklift" due to its pioneering activities, ranks among the leading suppliers in the industry sector and, in 2007, celebrates the 90th anniversary of the forklift. Part I of the CLARK history explores the development from 1917 to 1945.

History of the forklift in fast motion: 1917 to 1928

Three years after the invention of the forklift, i.e. in 1920, CLARK presented another practical innovation by launching the Truclift. With a lifting capacity ranging from 2,000 up to 5,000 kg, it was the very first forklift featuring a hydraulic system for lifting and lowering loads to be employed by industrial companies. In 1923, CLARK's marketing strategists gave the first gasoline-driven three-wheel hauler with a tractive power of 750 kg the smart name Duat – „Do this, do that!" This model also served as the basis for the first gasoline-driven forklift in 1924. Three years later, in 1927, another technological milestone was set: CLARK developed the so-called Clarktor, i.e. the first gasoline-driven four-wheel hauler featuring a tractive power of 1,050 to 6,000 kg. In 1928, the future of the forklift was anticipated when CLARK introduced the Tructier that later turned out to be the precursor of the modern CLARK forklifts.

94,000 CLARK forklifts for America

1942 was the year when drive efficiency became a major topic as CLARK started to build the Carloader. It was the first electric driven forklift capable of completing a full work shift. On grounds of the Second World War, however, production was rescheduled (production from 1945 on). Anyway, CLARK managed to cover 90 percent of the US administration's demand for forklifts between 1941 and 1945 in an almost single-handed way. The production capacities grew enormously: in 1939, CLARK sold more than 500 units. In the four years of war with US participation, however, production rose to approximately 23,500 units per year and forced the enterprise to work in three-shift operation per day. In any way, this did not keep CLARK from dealing with safety issues: in 1943, the company was the first manufacturer in the forklift industry world-wide to attach warning, and safety stickers onto its vehicles.

Part II in CLARK FORKLIFT-NEWS 02/2007: the years from 1946 to 2007

continue from side 1

ments are enclosed and protected against environmental impact and are positioned high on the countweight to grant additional protection.

Operating data in real time

The real-time operating data collected by a CAN bus system are clearly shown on a TFT-LCD colour display. 80 error codes stored in the self-diagnosis system can be displayed in the event of any GenEX component not working perfectly. In conjunction with a simple password function, the intelligent display allows further options without requiring the use of a laptop computer. There are almost 80 operating parameters like top speed, hydraulic flow quantity, acceleration, and braking power which can be individually adapted to the working conditions and to the operators preference. Additional comfort and a simpler operation in combination with maximum safety are available, too: Clark offers a special-design sound-absorbing hydraulic pump, a spring-mounted driver seat, and a number of other options.

Built to last

The Clark mast stands out for its unique sturdiness. Sealed angled rollers reduce deflection and play in the mast and fork carriage to a minimum. A total of six fork carriage rollers distribute the weight of the load uniformly and thus considerably improve the service life of the rollers. Side thrust rollers prevent unilateral strain when handling offset loads. Moreover, solid steel fork tines increase the service life of these parts, too. There are no thin steel or even plastics parts to be found: the high-strength and robust chassis made of thick steel offers optimum protection for the important components.

- Minimum operating costs
- No contacts / carbon brushes
- No brake pads
- Increased performance with reduced operating costs
- No plastics parts on the external frame
- Reduced maintenance time through easily accessible service points
- External battery charger to avoid damages by percussions and overheating

People and Markets

Figures on CLARK

In March 2007, the worldwide CLARK group of companies consisted of eight locations, three production sites (Chongwon/Korea, Qingdao/China, Lexington/USA) with a total capacity of 25,000 units per year, seven sales offices as well as 352 retailers with 522 branches worldwide and more than 100 branches in Europe.

Forklifts in road traffic

The new VDI regulation 2398 focuses on the use of forklifts in public road traffic and defines detailed technical and homologation requirements for this. It is very useful because, for example, if forklifts were to be used in public road traffic in the past, they had to be classed as trucks although they obviously belong to another type of vehicles. From now on, the regulation defines forklifts separately in a precise way: forklifts are motor vehicles particularly designed for the taking, lifting, moving, and positioning of loads by means of fork tines and are predominantly used for in-plant transport. For more information please see www.vdi-richtlinien.de

LogiMAT 2007

More than 11,000 professional visitors as well as 463 exhibiting companies from 13 countries attended the LogiMAT 2007 at Stuttgart in mid-February. Main subjects discussed on the trade fair for distribution, material, and information flow were robotics, RFID, storage and plant equipment, identification and communication systems, and the focus topic "intra-logistics in Eastern Europe". There were almost 100 new exhibiting companies presenting their offers with regard to in-plant logistics, a key business in the Germany where about 800 producing companies with approximately 92,000 employees attained a turnover of Euro 15.9 billion in the year 2006. The next LogiMAT will take place on the new fair grounds near Stuttgart airport from February 19th to 21st, 2008.

Selection criteria for industrial trucks

The decisive factors for the procurement of industrial trucks are the present and future basic and application conditions. This includes the VDI regulation 3589 (draft) serving as a guideline for the determination of selection criteria up to the fixing of the scope of supply with industrial trucks. According to the regulation, the selection based on the respective logistics task should take the application conditions, type of vehicle, geometry, ergonomics, environments impact, and operating costs into account. It also points out that the nominal parameters are to be properly weighed to each other prior to making the final decision. For more information please see www.vdi-richtlinien.de

Market survey

Jungheinrich AG is planning to build a new plant in East Germany to start its production in mid-2008. In contrast to this, the planned construction of the company headquarters in the "Hamburger Hafen City" will not be realized. In September 2006, Hoppecke Batterien put a new plant in China into operation where 250 employees manufacture products for the Asian market.

New employees

Sabine Niepel

Personal data:
Age: 25

Occupational development:
Apprenticeship as a tax advisor assistant

Position and tasks:
Forklifts: processing of sales / orders

Manuela Hermanski

Personal data:
Age: 42

Occupational development:
1988-1995: Temic Telefunken, purchasing agent
1995-2000: Kufferath GmbH, management assistant
2000-2003: Clark, Quality department
2003-2006: Filco, management assistant

Position and tasks:
Spare parts: job input, invoicing

James Aspell

Occupational development:
Automotive area, quality control, technical support

Position and tasks:
Technical support