

*eepos*



*IVECO Magirus, Ulm, Germany*

*eepos modular design system  
for a quick conversion*

*Dismantling process provides proof of product quality*

*eepos one* 



*Stunning facts about the eepos cranes after 5 years of usage*

## *Crane modular system eepos one at IVECO fire safety center*

Generally, special interest articles focus on new products or new installations. But how good a system really performs, how sustainable the investment is, often shows only years later. This was the case during the complete retrofitting of the IVECO Magirus assembly in South German Ulm: „Almost like new“, was the comment about eepos handling systems and cranes which were dismantled after almost five years of full operation.

**D**ieter Wettengl, master technician of mechanical maintenance, has been working at the Ulm site for 40 years: „Of course our goal was to reuse as much of the existing cranes and components in the retrofitting as possible“, he reports. „But we did not at all expect that the material taken down after 5 years of full operation would be in such an excellent condition.“

### **Retrofitting: Fire engines instead of trucks**

We are talking about eepos crane systems in the IVECO Magirus assembly in Ulm. There, approximately 1.000 em-

ployees so far assembled the truck model "Stralis". The almost 20.000 units assembled per year served two assembly lines with round about 2 km of eepos rails. In the course of a Europe wide restructuring of the production IVECO Magirus now concentrates on the production of fire engines in Ulm. So far turnable ladders were already produced there, but the production sites for fire control were scattered all over Europe. At the new "IVECO Magirus competence center for fire control" 800 Magirus fire trucks will roll out starting June 2013 (in addition to the ladders) – including all specific demands which have to be pro-

vided for these high-tech vehicles. This figure makes up the biggest fire truck share in the group.

### **Fast retrofitting thanks to light weight**

The modification in Ulm is a tightly synchronized project which must be completed with as little effort as necessary. „In a smaller hall we already trained our staff during the retrofitting for the very specific demands of fire engine production“, comments Wettengl on the tight schedule. „What we benefit from now is the light weight of the eepos aluminium rails“, the experienced master technician says. Dismounting can be accomplished



### **Top quality**

*After 5 years of constant usage, the eepos crane profiles as well as the eepos light-running trolleys looked like new during reassembly process.*



» We did not expect that the eepos aluminium rails and components would be in such an excellent condition even after 5 years of non-stop operation.«

Dieter Wettengl, maintenance master technician,  
IVECO Magirus fire safety center Ulm



simply and speedily. Even 6 meter long parts can be held by one person only. An elevating platform, assembly tools for screws and nuts and employees - nothing more is needed to dismount the old assembly lines. All rails and components are sorted and stored: Approximately 700 meters of rails are re-mounted at their new positions of the complete new production lines. The remaining rails and parts will be used at other IVECO Magirus sites. The experience with this robust and smooth-running system is so great that no one wants to miss out on it.

#### Light weight has many dimensions

With this first major outline contract eepos satisfied IVECO in 2008 and won the trust of the IVECO assembly workers who were involved in all plannings. Unbeatable was the new simplicity in more than one way. Aluminium is easy to mount and - as seen now - easy to dismount. The eepos system is fully sophisticated: „The links between the rails can easily be realized via side plates. Everyone is able to do this“, assures Wettengl. „The rail transitions are absolutely accu-

rate as well- you will never achieve this accurateness with steel.“ At the same time the eepos construction kit, based on standard dimensions, is so flexible that an optimal solution can be found for every production challenge. Alterations are simple as well. Therefore, so called service stations are built in. They are easily removable pieces in the rail which allow access to single rail segments, if, for example, a tool is now needed from the left side instead of the right side or an additional crane is re-

#### eepos convinces even alu sceptics

It has not always been like that: When, more than five years ago, new overhead cranes were needed for the ladder fabrication in Ulm, there was room for discussion in the layout of the former IVECO production designer: Would it be possible to run a 90-degree-turn with a 12-m-narrow radius with a given grid spacing of only 5x5 meters including the safety zone? „Back then, hardly anyone would accept anything but steel“, remembers Wettengl. „Aluminium, that's so light, it cannot possibly work ...“, was the prevalent opinion. But the eepos technicians sat at their construction software and made available what other suppliers couldn't master: they worked out the solution for this tricky installation situation.



eepos one

- configurable as requested modular system
- 6 different crane profiles
- low own weight
- up to 2.000 kg load
- robust and smooth running
- easy mounting and demounting
- excellent cost performance ratio
- Retrofitting sets for existing steel cranes available





quired. Last but not least "light" also means smooth-running. The trolley rollers are made of the high-tech plastic Lauramid, which – as now, after almost five years of operation, proven – does actually not wear but supports the smooth running of the eepos system. „Back then no one believed this“, says Wettengl. „This is why we arranged for our own tests, because our production workers had complained about the stiffness of the old steel transport systems.“ Anyone who works eight hours a day with extreme weights of up to 200 kg and has to place those with millimeter precision, appreciates any alleviation of obstacles making work easier.

#### Measurement of tensile forces proves: 50 % less effort

Tensile force measurements proved that using eepos systems the assembly workers had to use only half of the power under equal conditions as compared to the old steel cranes. In addition, it has to be taken into account that the rollers of the eepos trolleys are arranged in such a

way that they even run smoothly under diagonal pull and do not tilt. The responsible maintenance team for service and testing was also highly pleased with the eepos handling systems: „We have had non-stop operation since 2008 and there weren't any problems, interruptions, or replacements“, confirms Michael Korn, head of maintenance.

The production at the new IVECO Magirus competence center for fire control in Ulm comprises a pre-assembly for single assembly units and three assembly lines fire trucks shipped world-wide. Furthermore eepos cranes stretch over the pump assembly, four pump test facilities, the mechanical production, the carpenter's workshop, the metal working area and the ship-



*Preparations for the start-up of the new IVECO Magirus production for fire engines are in full swing*

ping department. Telescopic eepos cranes extend the operating ranges where necessary and help to adapt the assembly tasks as well. After all, no one doubts the reliable eepos functionality in Ulm: Since the cranes are long-lasting and reliable - our assembly workers have become true supporters of eepos aluminium cranes since 2008“, attests Wettengl.

*Find our more about our products*



**one**

*The aluminium modular system for loads up to 2,000 kg.*



**nano**

*The aluminium modular system for loads up to 75 kg.*



**carbon**

*The innovative ultralight crane profile for up to 100 kg.*



**move**

*The modular system for lifting axes. Easy. Precise. Successful.*



**base**

*The media column for energy, signals and own solutions.*

Suspended crane systems for hoists and handling units, built up with eepos aluminium modular construction components, are especially successful through the smooth running, which improves ergonomics and energy efficiency. Since 2006 eepos supplies aluminium crane systems with the widest range on the market together with a long life warranty, negotiable up to 5 years.

The eepos GmbH designs products, manages projects and mounts crane systems in Wiehl, which is in the vicinity of Cologne. eepos services include designing, project management, worldwide

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