



▲ Close collaboration pays off: Seco's Regional Sales Representative Kåre Reinslo (left) with Kjell Gregersen, Manager of Manufacturing Engineering at Kongsberg Automotive's Kvittingfoss Works.

Innovation drives automotive supplier

Norway's Kongsberg Automotive was founded in 1987, carrying on the activities of the Automotive Parts Division of Kongsberg Våpenfabrik. Innovation, quality and close co-operation with suppliers form the cornerstones of the company's success and have allowed it to prosper, even during the industry's leanest years.

Today the world's leading automotive producers choose Kongsberg Automotive (KA) to design and manufacture key components for their vehicles.

The company is divided into three main product groupings: gearshifts, seat comfort and commercial vehicle systems. In addition to supplying components and complete systems to many of the automotive industry's leading companies, KA also conducts its own research and development

programme which has consistently delivered innovative and cost-effective products to an industry that is always under pressure to rationalize and streamline.

Kjell Gregersen, Manager of Manufacturing Engineering at the company's Hvitvingfoss Works, has been at Kongsberg since 1970, when it was still a division of the weapons factory. He has witnessed many changes during that time but believes that when the company started its own research

and development work, it took a huge step forward in guaranteeing its longevity through innovation. "Prior to having an R&D department, we simply took orders and made parts," he says. "But when we started to create our own solutions and products based on our own research, a whole new world of possibilities opened up."

Co-operation pays off

One of KA's latest projects has been, together with Volvo Trucks, to build

up an unmanned production line for the manufacture of shift yokes. These parts are an integral part of Volvo's new generation of "Intelligent shift" gearboxes.

Since 1985 KA has produced shift yokes for Volvo. Prior to this date, the shift yokes were made of forged steel. KA and Volvo looked at the possibility of producing the component from cast iron. They succeeded and the result was an immediate saving in material cost. KA was the first company to use cast iron to produce shift yokes and today they manufacture 300,000 per year.

Engineers at KA work closely with Seco Tools in order to produce the piece evermore cost-effectively. Kåre Reinslo, Seco's Regional Sales Representative describes recent improvements to the process: "After testing, we concluded that the reaming was best achieved using the Precimaster and that the boring should be done with a special SD205 drill with Graflex holder. A TurboMill R220.69 is also used on the piece."

By fine tuning the machining of the component, production is today up to 25 pieces per hour, from 10 pieces per hour before the co-operation began. "There is always a better way to do things," says Kjell Gregersen. "By striving to innovate every day and working with suppliers like Seco, we are always looking to increase productivity and work more efficiently. Over the years we have often had to



▲ Kongsberg's Hvitvingfoss works, 80 km South West of Norway's capital, Oslo.

fight to stay profitable, and that has resulted in the very confident and lean company we have today."

Automation investment

As well as selecting the optimum tooling for each application, the company has invested heavily in automation of its production lines, with robots contributing to the rate at which machined parts are handled. Though investment in technology plays a key part in ensuring Kongsberg stays competitive, it is still relationships with people that give the company the edge in maximizing productivity.

Kjell Gregersen continues: "We are very happy to be working with Seco. Not only because of the capability and quality of their products, but because of the close relationship we have with the company, and particu-

larly Kåre." Speed of response is crucial to the customer-supplier relationship and is something that Kongsberg values. "We only have to call Kåre and he is here at the factory in no-time. If we have a problem or need another tool, we know it will be taken care of straight away. Seco even holds stocks of key tools locally just for us so we have great confidence in them as a supplier too."

Seco's Kåre Reinslo is equally happy with the relationship: "It's great to be working with a company that is always interested in trying new machining methods and new tools. By working together over the years we have been able to make giant leaps in productivity." ■

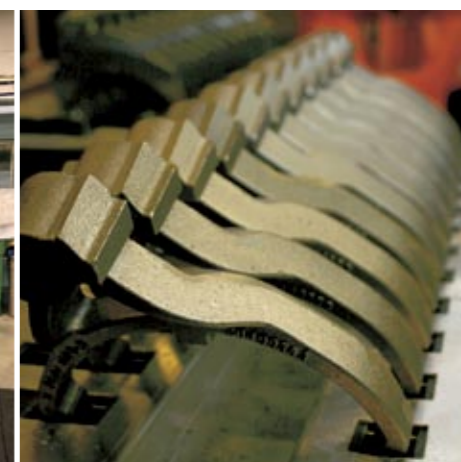
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▲ Induction hardening is carried out on the production line.



▲ Seco and Kongsberg co-operate to increase productivity in the workshop.



▲ These cast iron components were previously forged.