

Welcome to the first All Torque of 2002...

... and a very happy New Year to our readers! It looks like being another busy year for us at Wichita, and we're planning on it being at least as successful as the year just gone. What recession? We're delighted to report that Wichita met its sales targets for 2001. Plans for the move to our new site are racing ahead, and we expect to be settling into our new sur-

roundings during the 4th quarter of 2002.

We'll keep you informed on that subject throughout the year, as well as industry issues and events, and of course the latest developments in Wichita and Industrial Clutch technology. We'll also continue to provide more insight into applications for our products, give you tips on getting the best out of your own processes

and introduce you to the people who make our worldwide distribution operations such a success, to name just a few of the regular topics we'll be covering. Most importantly, do keep your comments and suggestions coming in about what you'd like to see in All Torque - that way we can be sure to keep this newsletter relevant to your needs and interests.

New KK dual-action

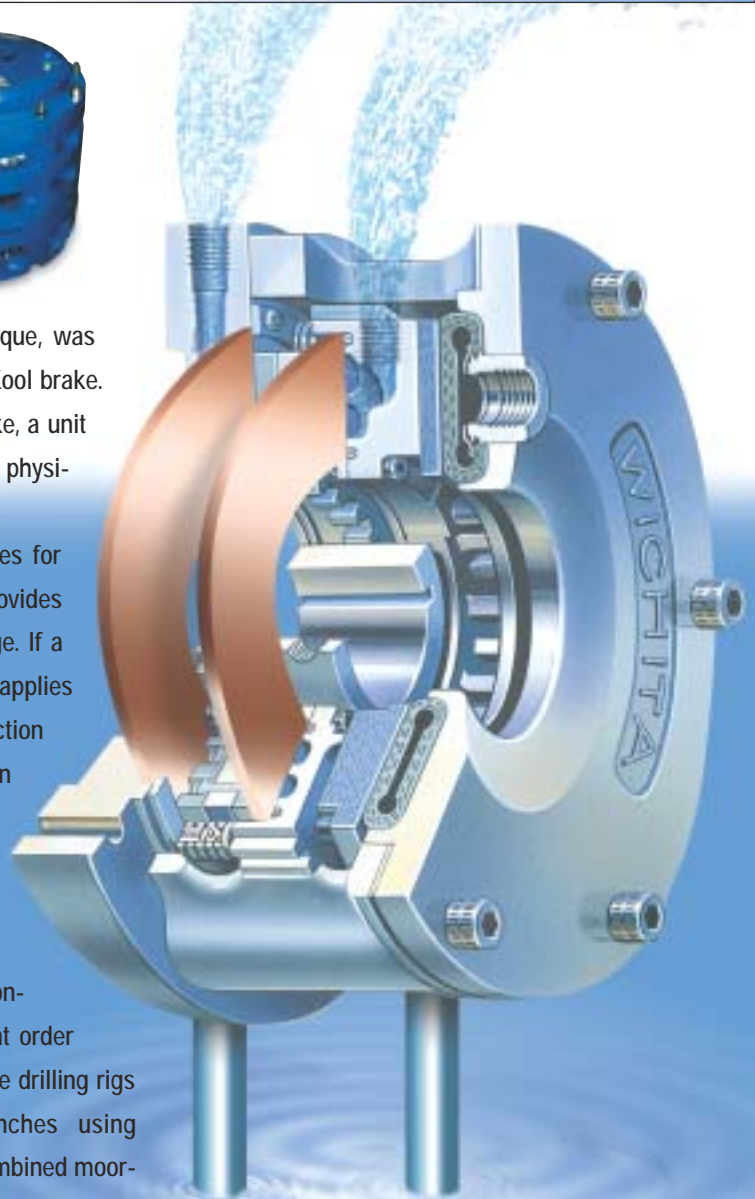
2 brakes in 1



Our new CAD system, featured in the previous issue of All Torque, was recently used to design a derivative of the single-action Kopper-Kool brake. The result is Wichita's dual-action Kopper-Kool water-cooled brake, a unit that provides a secondary braking force without increased overall physical size.

Example offshore applications for KK dual-action include winches for anchor-handling, mooring or cable-laying, where the brake provides dynamic tensioning payout control, as when repositioning a barge. If a runaway or overspeed on payout occurs, normally a second brake applies fail-safe stopping and holding torque. But Kopper-Kool dual-action combines both functions in a single brake housing, using a piston assembly for positive brake tensioning and a fail-safe, spring-set brake to provide a holding torque of up to 2.5 times the tensioning torque.

Fitting a Kopper-Kool dual action brake saves the purchase of a separate holding brake, reduces mounting and spares costs and conserves space. Its innovative design has already won a significant order from Bodewes Winches in Holland, to equip two semi-submersible drilling rigs for an oil company project. In total, eight storage winches using 124H/70/HiCo/dual-acting KK brakes feed four double-traction combined mooring winches (chain and cable in same system) using 336H/70/HiCo/dual-acting KK brakes.



Kaizen on the horizon

Many of our readers will already be familiar with the principles of Kaizen in their own business activities and it's something that is now being implemented at Wichita. Kaizen is essentially a culture of sustained continuous improvement involving everyone, managers and workers alike, with the aim of eliminating waste in all processes of an organisation without major capital investment.

As with all successful strategies, Kaizen depends on people, so we started by getting ourselves trained by the experts and then evaluating how we could apply the principles to our own working practices. We quickly realised that we had to embrace a radical approach to our manufacturing techniques if we were to reduce waste and improve pro-

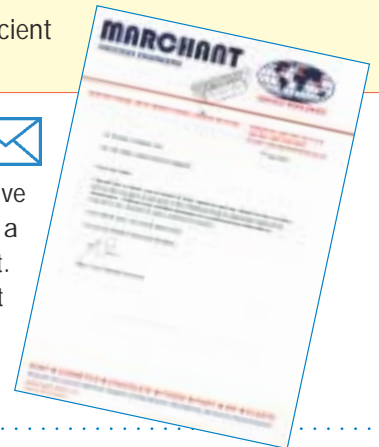
ductivity... with the result that Wichita's Bedford factory has made the quantum leap from batch manufacture to single-part manufacture. Vince Hughes, Production Manager, comments: "Although it may not sound very radical, it has involved the co-operation of all production staff in adopting a whole new way of thinking and working – not to mention a completely new layout of the machinery on the factory floor to improve production flow."

Despite the major upheaval involved, that new layout has brought other advantages too: it's helped us to plan the production area for our new premises in much greater detail and test ideas in readiness for 'the big move' later this year – so we'll be even more efficient from the outset.



Vince Hughes

Production Manager



SHEIKH UP



Wichita's Commercial Manager, Gabby Amodio, was shopping with his wife late on Christmas Eve when he received a call on his mobile from Wichita's 24-hour helpline. It turned out to be from a customer in Saudi Arabia who urgently needed a Wichita replacement clutch part. No sooner had the call finished than the Wichita team sprang into action, to get the part sent out the very same day by express courier. In addition to the satisfaction of getting the customer up and running again, we were also delighted to receive a letter of appreciation for our efforts. When we promise a '24-7' service, even **Christmas won't stop us!**

IPEX 2002 preview....

Reaffirming our commitment to the converting market, between the 9th and 17th of April 2002 Wichita will be at the NEC in Birmingham, UK to take part in IPEX, the International Packaging Exhibition. IPEX is held every 4 years and for the first time, an entire hall is to be dedicated to converting. That's where you'll find us - in Hall 19, the 'Converflex' Hall, on Stand 223. We'll be showing our air-, fan- and water-cooled tension control brakes, and the MCS range of tension control systems, including our new (soon-to-be-launched) low-cost ultrasonic version.



CUSTOMER SURVEY FEEDBACK

Thank you to everyone who took time to participate in the customer survey included with the previous issue of All Torque and helped us to support Oxfam International in the process. Our sister company in Germany conducted a similar survey in parallel with ours, with the benefits going to The Red Cross, and as a result our companies will shortly be presenting cheques to both charities. We're now analysing the results of the surveys to identify areas for improvement – more on that subject in the next issue.



Distributor Focus

In the second instalment of our series showcasing Wichita distributors, we stay with Scandinavia, moving eastwards to Finland where Knorring Oy Ab invites us behind the scenes.

Knorring's association with Wichita began in the early seventies, but the company has been around much longer than that – since 1890 in fact, founded as Axel von Knorring's Technical Bureau. Today, Knorring is still run as a family business in Helsinki, and maintains its ambition to be the leading company in all of its business areas, by constant attention to quality and environmental performance, evidenced by its ISO9002 and ISO14001 management systems. Now owned by Christian Borenus, Knorring employs 32 people and can pride itself on a sales turnover of more than nine million Euros.

The company specialises in importing and marketing technical products, its main product groups being components for mechanical and hydraulics systems, including transmissions; cutting tools; and

weighing and materials testing equipment. Wichita is one of Knorring's top product lines, and business has shown steady year-on-year growth with the development of new products and the support of the Wichita team.

Sales Manager at Knorring is Martti Nupponen, while Product Manager Helge Saari (known as 'Turre' to his friends and colleagues) has championed the Wichita line for over 25 years. Mr Saari comments: "Although in recent times our country has become renowned more for its success in high-technology markets, Finnish industry still depends heavily on wood. That

being the case, our most important customers for Wichita are the paper mills, which favour water-cooled brakes, Kopper-Kool and Mistral being the top sellers."

Our photograph shows Turre Saari at a particularly impressive installation resulting from Knorring and Wichita teamwork at a Valmet paper mill. At Knorring's request, Wichita developed a special version of the LIM brake to meet the high-energy demands of emergency-stop duty on a 20-tonne roll of paper that measures three metres in diameter and 8.6 metres wide. The result? From a paper speed of 1600 m/min (that's 96 km/h or 60 mph!) to dead stop in just two seconds!



Turre Saari at the Valmet paper mill

EUROPORT REPORT

Amsterdam hosted the Europort 2001 international maritime trade show in mid-November, with Wichita exhibiting there for the first time, in an effort to build on the success and growth we're currently experiencing in the marine market.

Supported by Brent Bluhm, Product Manager for our sister company Industrial Clutch Products, our stand displayed various oil-immersed clutches from Industrial Clutch alongside Wichita's Metana hydraulically-actuated caliper brake, and introduced our two newest products: the MSV bearing-mounted clutch and the new dual-action Kopper-Kool water-cooled brake – you'll find more details on page 1 of this issue.

Europort enjoyed a high level of attendance, and the Wichita stand was extremely busy and has already lead to several quotations for some sizable projects.



EUROPORT
2001

A brake in the Coast line

Now that ModEvo has been in the market place for a year or so, we thought it was time to give our readers an insight into some of the uses that have been devised for it. For our first ModEvo application story, we focus on the activities of a manufacturing company based in Rotherham, South Yorkshire.

Coast Controls fabricates web guides, air shafts and associated equipment for the paper and plastics converting industries. Being a new OEM, the company decided to approach Wichita on the strength of our reputation for quality of product and support – and it turned out that our ModEvo tension control brake was ideal for a project they were about to embark upon. The job in hand was the production of a series of unwind stands for one of Coast Controls' customers. The stands feature a full edge guidance system manufactured by Coast Controls, Wichita ModEvo brakes and MCS2000 tension controls. Two brakes per stand are used, and the tension controller uses end-of-shaft load cells, which also incorporate a neat solution to angle control. ModEvo/MCS2000 combination was chosen as the most cost-effective solution for the unwind stands by virtue of its simplicity of fit and the ease with which changes can be made to operating parameters. This was a vital consideration, as initially the required tension was unknown and ModEvo's modular construction would provide the flexibility for fine adjustment by varying the number of braking modules and/or the friction coefficient of the brake pads. Looking ahead, if the unwind stands are ever used on a different product in the future, it will be easy to change the capacity of the brakes without incurring major investment. Following reports that the end-user is highly satisfied with the performance of the brakes and tension controller, Coast Controls now anticipates demand from other clients in this industry for its cost-effective unwind stands equipped with ModEvo and MCS2000.





Ever wondered why Wichita is the only manufacturer in our industry to give such long and comprehensive warranties? It goes without saying that we manufacture all of our products to the highest quality and from the finest materials, but it doesn't end there. It's the continual, thorough testing that gives us the confidence to stake our reputation on every finished unit or spare part we make.

Senior Test Engineer Andy Barlow is in charge of the test facilities at Wichita Bedford and is kept busy running investigative checks on both production units and prototypes on up to four test rigs at once – three dynamometers and a cyclic

tester. From his 'flight-deck' adjoining the test lab, he can remotely control the simulation of virtually any conditions that a customer's machine can place upon a Wichita clutch or brake and analyse and compare the results. Similar facilities exist at the Wichita plant in Wichita Falls, Texas and at the Industrial Clutch Products factory in Waukesha, Wisconsin – so wherever you source your Wichita or Industrial Clutch parts, you can be sure that we don't leave the testing to you – which is more than we can say for the pirates out there!



Andy Barlow

One of the Wichita Bedford test rigs

LONG-RUNNING SERIAL ►►

If you've ever had to order spare parts for your Wichita equipment, you'll have been asked for the serial number that every one of our clutches and brakes carries. But did you know that from that unique number we can still trace the correct parts for any unit we've built right back to the beginning of our 40-year history?

There are plenty of those vintage Wichita clutches and brakes still out there doing their job, and even now their owners come to us for their spares, knowing that it's the use of genuine parts that has kept them running so reliably down the years. After all, who knows Wichita equipment better than the manufacturer who put years of engineering and manufacturing expertise into its design and construction? Here are some more reasons to always specify genuine Wichita OEM spares:

- We supply *all* the parts you might need for Wichita products, not just certain items.
- We manufacture within an ISO9001 quality-assured environment, and we test thoroughly before despatch.
- Quoting the unique serial number on your clutch or brake ensures that we supply you exactly the right original replacement part *designed* to fit, not some reverse-engineered part from a third party that seems to fit.
- Our parts are designed on the latest CAD/CAM systems and verified by Finite Element Analysis techniques.
- Our two-year comprehensive warranty is your guarantee of the highest performance and reliability – and using pirate parts invalidates that warranty. Why risk the value of your investment?

In our next issue, we'll take a closer look at some of the differences between genuine Wichita parts and those offered by pirate manufacturers, with performance comparisons and customer findings too. It's a real eye-opener!

Torque Sense!

Part three of our regular troubleshooting tips feature, focusing on clutches and brakes that fail to transmit the required torque.

Troubleshooting reduced or fluctuating torque transmission on clutches and brakes

Possible cause of reduced torque transmission	Solution
1. Insufficient air pressure.	1. Raise air pressure and fit 'low pressure' alarm in air supply line. Check Quick Exhaust Valve or airtube is not leaking.
2. Fluctuating air pressure.	2. Fit air reservoir with pressure regulator and non-return valve on inlet. Air reservoir should be large enough that pressure does not drop by more than 0.15 bar (2 psi) when clutch or brake is engaged.
3. Oil or grease on friction linings.	3. Strip unit, remedy oil leak, degrease cast iron parts and fit new linings.
4. Obstruction within unit:	
4.1 Axial movement of discs restricted by release springs bottoming due to excess clearance in unit or over-tightened retaining nuts.	4.1 Check and adjust clearance in accordance with maintenance instructions and ensure that only 1-2 threads are exposed beyond the retaining nut.
4.2 On water-cooled brakes, water supply may be connected using solid piping, restricting axial movement of water jackets.	4.2 Replace solid pipe with flexible hose.
4.3 On water cooled units, barrel nipple may be fouling outer casting.	4.3 Remedy as required.
4.4 Hub axial position incorrect, causing fouling of pressure plate.	4.4 Remedy as required.

Possible cause of torque fluctuation on continuous slipping unit	Solution
1. On water-cooled brakes, water supply may be connected using solid piping, restricting axial movement of water jackets.	1. Replace solid pipe with flexible hose.
2. Misalignment.	2. Check according to maintenance instructions
3. Oil or grease on friction linings.	3. Strip unit, remedy oil leak, degrease cast iron parts and fit new linings.
4. Poor bearings in machine.	4. Remedy as required.
5. Faulty tension control giving fluctuating signal.	5. Remedy as required.
6. Friction segments not properly fitted, i.e. not flat.	6. Re-fit correctly or grind flat.
7. Rust on rubbing surfaces.	7. Clean off rust. N.B. Rust may be caused by condensation if the cooling water in a water cooled unit is too cold.
8. Release springs not equally tightened or uneven shims fitted in unit.	8. Remedy as required.

N.B.

Always check first that units are correctly rated for the operating conditions!



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