

OGURA

"What you need in a clutch"®

ON THE MOVE

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TOUCHSCREEN WORKSTATIONS

Kiryu, Japan

Twenty-three inch touchscreens have been added to all of the assembly workstations at Ogura's spring-applied brake manufacturing plant. The screens are just the right dimension for displaying an A3 size drawing. Any part of the drawing can be easily magnified, so the assembly workers can see even the smallest detail.

Before this improvement, the operator had to find the relevant drawing that was stored in one of 300 binders. The old process was that the worker had to remove the drawing from the binder, make a copy, return the binder to the shelf and then take the drawing back to the workstation. This process took about three minutes and in some instances, where drawings had been taken out multiple times, they were becoming dirty, or in some cases, ripped.



New touchscreen workstations

Each of the flat screen displays has a Wi-Fi link. With the help of Ogura's IT department, they were tied into the main drawing server. Now, any assembly drawing can be pulled up quickly by the operator and if needed, the drawing or the magnified portion of the drawing can still be printed. So, a procedure that used to take minutes, now happens in seconds, making the assembly operation more efficient and also reducing the amount of paper used.

For many spring-applied brake models, customers require a confirmation of torque. With the older system, the torque ratings were written down on a piece of paper. Now, with the new system, the torque ratings, right after assembly, are entered directly into the system and become part of the part's permanent record. •

NEW QUICK SELECTION TOOL ADDED TO OGURA'S WEBSITE

Somerset, NJ

Many visitors come to Ogura's website to learn about electromagnetic clutches and brakes.

Other visitors want to quickly find the most appropriate clutch or brake for their application. With this in mind, Ogura Industrial has created a quick selection tool. By answering two or three general questions and then inputting torque and speed requirements, the user can quickly navigate to an appropriate clutch or brake for their requirements. This will be active by mid-September. •

New quick selection tool

**COME SEE US AT THE LOUISVILLE
GIE EXPO OCTOBER 23rd-25th
BOOTH # 2104**



Ogura Sales Rep Profile

MCNEILL DRIVES & POWER TRANSMISSION AGENCIES

Ogura's newest sales representative company will be covering eastern Canada for all Ogura Industrial products. The agency is owned and powered by the energy of Jennifer Almeida, who has been called; bold, direct and "a horse whisperer for business thinkers." by Toronto business leaders.



Jennifer Almeida

Part of Jennifer's approach to sales is to offer the customer world class customer service and follow through. "Always give the customer more than they are expecting. Step out, meet the customer face to face, and make a difference."

Jennifer joins the Ogura sales force with over 11 years' experience in all aspects of power transmission sales and distribution.

She is happily married and a recent mom to a beautiful 19 month old baby boy. "I am building this business, not just for me, but for my son as well. I am in this for the long haul."

When she's not working, you can find her with her family; traveling, cooking, and enjoying a glass of Merlot. ●

JISQ9100 AUDIT

Ogura's Aeronautics Precision Parts Department passed the JISQ9100 audit last quarter. Since certified in 2011, this is the second audit that Mr. Kanagi of LRQA (Lloyd's Register Quality Assurance) has done. Six departments were audited: aeronautics parts machining, assembly, production control, material control, production engineering and inspection and calibration. He pointed out that the quality management system can be improved by using performance indicators, visualize the goal, and then assess the results of the actions. ●



Lloyd's auditor reviews parts machining

50th YAGIBUSHI FESTIVAL HELD

Last month, marked the 50th anniversary celebration of the annual Yagibushi festival in Kiryu, Japan.

The festival was held over three days from August 2nd through the 4th and as in past years, Ogura Clutch workers manned the float and formed the Ogura band. The band (Komatsu-Kai) played the traditional Japanese folk music called Yagibushi. Adults and children alike danced to the band's music.



Maiko girls at the festival

Since this year was a special anniversary, Ogura brought in two Maiko girls from Kyoto. (Maiko is a trainee whom will eventually become a Geisha.) They waived to the crowd from the Ogura float.



Annual Yagibushi festival

It is rumored that some tailgating may have occurred prior to and after the parade, but that has not been confirmed. ●

NEW HIRES WELCOMED BY MR. OGURA

Last quarter, new engineers and technical hires were officially welcomed by Mr. Ogura.

The new engineers will rotate through a number of different Ogura departments and manufacturing operations to get a better understanding of all aspects of the company. After a period of around six months, they will be assigned to a department to support the latest design work on electromagnetic clutches and brakes. ●



New hires

Application Story

A Unique Way to Service Wind Generators

Large wind generators are now present in most parts of the world. Periodic cleaning and painting of the wind turbine tower and inspection and repair work to the blades. The height of these towers can be as tall as 300 ft. with blade diameters around 200 ft. Climbing to this height for maintenance and/or repair is no easy task, not to mention it can be very dangerous. Now, a Japanese company, Sakurai, has developed a new way to service these giant wind generators.

First, an exterior ladder is constructed and bolted to the tower frame. Then, a centralized steel rack system is installed. This system is installed one section at a time from the ground up eliminating the need for a mobile crane.

To drive the basket/elevator up and down the rack, a motor and worm drive gearbox is used. The output of the worm drive gearbox is attached to a pinion gear. Because of the high reduction in the worm gear, the system is inherently self-locking, but to assist in braking, an Ogura spring-applied brake, model SNB-1.2K, is used on the worm gear throughshaft. As an additional safety precaution, an Ogura spring-applied brake, model RNB-10K, is mounted directly on the stopping disc/pinion to hold the elevator in place.

SNB-1.2K, has a static torque rating of around 9 ft. lb. The brake is mounted on the input shaft, (opposite side) of the worm gear reducer. The SNB brake is designed for both stopping and holding. When no current/voltage is applied to the brake, a series of springs push against an internal pressure plate squeezing the friction disc between the inner pressure plate and the outer cover place. This frictional clamping force is transferred to the hub which is mounted to the shaft of the reducer.



Ogura models RNB and SNB

When the brake is required to release, voltage/current is applied to the coil creating a magnetic field. This magnetic field pulls the pressure plate compressing the springs, releasing the clamping force to the friction disc by creating an air gap allowing the brake, hub and friction disc to turn freely.

The Ogura RNB-10K spring-applied brake, rated at 74 ft. lbs. is designed for holding only. Once the worm drive and the Ogura SNB-1.2K stopping brake have the elevator in its set position, the RNB-10K is

engaged as an additional service brake. The RNB-10K is attached to the output of the gearbox and is located next to the pinion gear. This RNB brake was designed in case of a



Bottom view of elevator with inspection basket lowered

catastrophic failure within the worm drive reducer. So, if the worm drive was to fail, the elevator would not freefall; the RNB-10 would hold it in place. The Ogura RNB-10K operates identically to the SNB series with the exception that it is designed for holding only. Since it is used for holding only and does not require surface area to dissipate the heat of a stopping brake, the RNB is smaller than an equivalent torque SNB brake.

The Sakurai maintenance elevator is lightweight and can be easily installed. Since installation does not require large equipment, such as cranes, there is a low installation cost. The total cost of this system can be up to 30% less than other companies' products using a basket type maintenance system sustained by wire ropes.

With over 1,000 of these elevator installations throughout Asia, Ogura is doubly proud to be both a part of this green industry and to also help provide for worker safety. ●



Happy Fall from the Staff of Ogura Industrial

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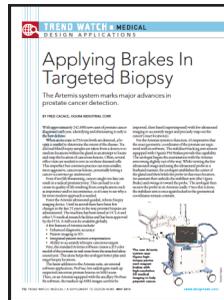
Ogura in the News

APPLYING OGURA BRAKES IN TARGETED BIOPSY

Design News

In May, Design News ran an article on how Ogura brakes help hold the sensing arm in place for the Artemis prostate cancer detection machine. The new Artemis machine produces 3D images, so doctors can pinpoint the location of cancerous cells. Previous techniques to locate cancerous tissue require taking a number of spaced out biopsies. This newer machine and technique is much less invasive. Since the machine is portable, the challenge was to size brakes that had the torque to weight ratio the customer was looking for. Also, since the 3D image was being created in real-time, zero backlash armature was required so the image could be as accurate as possible.

The machine has been approved by the FDA and will soon be available globally to help doctors locate cancerous growths faster and start treatment sooner. ●



Article in Design News

2013 LAWNMOWER RACING

Ogura sponsored lawnmower racer, Chuck Miller, raced at the 26th Annual Maria Stein Country Festival in Maria Stein, Ohio on Friday, June 21st. A first place win was appropriate for his first race with the Ogura BP mower newly painted Ogura blue. Chuck also raced in the first USLMRA points race for the 303 Ogura BP mower at the River Bottom Raceway in Carlisle, Iowa on June 29th. Starting the 20 feature on the pole, Chuck led it start to finish to get Ogura its first USLMRA points win of the season! In July, he received two more wins for the season with the Ogura BP class mower. In August, Chuck raced at Bowles Farm in Clements, Maryland and received his 5th 1st place win. Chuck is heading into the USLMRA Nationals at maximum points and is very excited! ●



Chuck Miller with his two first place trophies in Carlisle, Iowa

KANSAS STATE WINS 2013 1/4 SCALE TRACTOR COMPETITION

Peoria, IL

Over the past 25 years, Ogura has provided assistance and product to young engineers at various colleges and universities. This year, Kansas State University was working on a new idea for their tractor design. Their design incorporated three electric clutches to help shift the speed of the tractor.

The competition, this June, featured 29 colleges and universities. Overall, KSU finished 1st in maneuverability, 1st in testing and development, 2nd in pulling, 2nd in written report, 2nd in sound, 2nd in design, 3rd in oral report. Most importantly, with the high marks they received in all categories, they won the overall competition.

The president of the Kansas State tractor team said, “without your help and your clutches, we would not have been able to have the simple and smooth engagement of our drive train. Many schools have a transmission and are always grinding gears to pop their tractor into gear. Our power shift had people talking.” ●



Winning KSU design with Ogura clutches