What you need in a clutch We Volume 57 • Fourth Quarter • 2013

LAYOUT CHANGE HELPS IMPROVE PRODUCTION

Kiryu, Japan

gura's plant no. 3 in Kiryu, Japan produces small electromagnetic clutches. In recent years, more of the machinery that requires these clutches (copiers and printers) have been moved to China. To support this, Ogura has also moved a significant portion of micro clutch production to its manufacturing plants in China. At the same time, electromagnetic spring-applied brake business is growing. So, plant no. 3 has been reconfigured for new production.



Old layout with no outside aisle

For the last 36 years, there haven't been any major changes to the layout of plant no. 3 (except replacement of machinery). The old layout was not the most efficient. For example, in the LNC process, operators had to run several machines, but these were not in close proximity to each other, so this took extra time for the operators to go from machine to machine to keep the production flowing.

It was obvious that machinery needed to be moved to increase efficiency. The challenge was to move this machinery and still maintain some production in plant no. 3.

In looking at the layout change, two key areas were targeted; the first one being production part flow and the second being visualization. One of the big changes was eliminating the aisle that used to run down the center of the plant. The machinery was pushed all the way to the wall on both sides, so the work flow was both down and back the aisles that came off the center aisle. The aisles are now arranged so that they go around the equipment and the main aisle now runs next to the outside wall. By doing this, four areas were created: LNC, LNC/DNC,



Improved layout with outside aisle

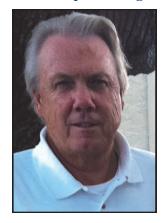
DNC and GS/Finish. The machines that do similar processes are grouped, so there is less distance for the operator to travel between machines.

In terms of logistics, the parts flow more naturally according to the process flow. The staging area has also been arranged in one direction, so by looking at the staging area, progress for production can now be known at a glance. Since the layout change, production efficiency has been confirmed. Approximately 1100 hours per year of worker travel time has been eliminated.

Ogura Sales Rep Profile

SKA SIMPSON & ASSOCIATES

Representing Florida for Ogura





Mike Simpson

Chris Searcy

KA Simpson & Associates began in
Birmingham in 1981 as JM Simpson &
Associates and joined with Kiritsy Industrial
Sales to form Simpson Kiritsy & Associates in
1984.

In 1999, they reorganized as SKA Simpson & Associates, Inc, with offices in Tampa, Birmingham, Atlanta and Nashville.

Mike Simpson: I grew up in Orlando and moved to Birmingham to work with Motion Industries after my time in the US Navy and attended college at UAB. I have three children, two of which work with us at SKA, Matt and Andy, and two step daughters, one whose husband happens to be Chris Searcy. We are looking forward to bringing the Ogura products into our area and expanding the Ogura footprint here. Our background in both Power Transmission and Automation makes this a very good fit for the customer base we serve.

Chris Searcy: A native of North Alabama, I graduated from the University of South Alabama, Mobile, AL in 1991 and have been in professional sales my entire career. I began my career in Alabama, moved to Florida in 2011 and joined SKA Simpson & Associates in the PT industry when I relocated. I am married to Amy. We have one 10 year-old who keeps us busy. We enjoy all there is to do in Tampa and Florida, including attending professional sporting events, water sports and the great Florida weather.

OGURA UNVEILS NEW TRADESHOW BOOTH

Louisville, Kentucky

t the 2013 GIE Expo, Ogura unveiled their new show booth. The new booth has four distinct tables allowing customers easy access to one of four product groups (PTO clutch brakes, pump clutches, commercial PTO clutch brakes and tree care industry clutches.) In addition, each table had a monitor. Three of the monitors displayed various Ogura videos showing



manufacturing, plant locations, installation procedures and customers.

Since it was OIC's 10th anniversary of supporting lawnmower racing, the fourth monitor showed pictures and video of Bobby Cleveland and Chuck Miller over the

years. Both Bobby and Chuck were at Ogura's outside booth and started both the supercharged puller and mower much to the delight of the outdoor crowd.

Overall, the show was busier than last year and both exhibitors and attendees were very positive about business projections for 2014. One additional note, many attendees to the show requested the Ogura sunglasses that had been given away for the past 10 years, so the Ogura sunglasses will be back by popular demand in 2014.

OGURA RECEIVES ARIENS SUPPLIER AWARD

Brillion, Wisconsin

or the second year in a row, Ariens has recognized Ogura as one of their top suppliers. Ogura achieved this strategic supplier ranking based on perfect scores in quality,



delivery, cost objectives and technical support. The award was received by Mike Garvey, Garden Tractor Products Manager and Louie Bernabei, Northern Midwest Sales Representative. Also pictured are Jim Fuller, Director of Corporate Sourcing, Dan Ariens, President and CEO, and Bob Bradford, Senior V.P. of Operations.

Application Story

Ogura and Power Hawk Help Save Lives

he Power Hawk P-16 rescue tool is unlike any other rescue tool in the world. Most portable rescue tools are designed to run directly on hydraulics or electro hydraulics. The P-16 is an all-electric construction, so unlike alternative tools, it is extremely lightweight and portable and is an ideal tool for many first responders. Even with the variety of attachments, total weight of the system only varies between 42

and 47 lbs. Although lightweight, the jaws of the tool can apply an incredible amount of force for spreading, cutting and crushing.

The spreader jaws can produce anywhere from 11,000 lbs near the tip of the jaw to 45,000 lbs of force towards the back of the jaw. This



Power Hawk P-16 Spreader Jaws

amount of power could easily pop open a trunk, pry open a door or even lift a car off the ground. The cutter blade option can produce anywhere from 21,000 lbs near the center of the blades to 45,000 lbs near the notch easily cutting through a wide variety of materials, up to a 3/4" steel bar."

Because of the high torque/lightweight requirement, a special custom brake was required by Ogura. Once the size/weight and torque challenges were overcome, the brake was also



Ogura model MCNB-25-26

required to
survive rigorous
testing for
heavy shock,
vibration,
extreme
environmental
conditions, low
voltage
operating

conditions, and was even required to operate under water.

In Power Hawk's application, when the tool's cutting or spreading jaws are working, both the motor and the brake are powered. Applying power to the brake creates a magnetic field which attracts a pressure plate across an air gap, compressing internal coil springs and thereby releasing (or freeing) a rotating friction disc. This friction disc is attached by a hub to the jaw motor's drive shaft. Once the jaw has reached its desired location and the motor is stopped, power is removed from both the motor and brake together. This collapses the brake's magnetic field allowing the brake's internal coil springs to extend, applying a linear force to the brake's pressure plate, clamping and holding the rotational friction disc/hub and jaw shaft assembly. This keeps the P-16 jaws locked in position without the risk of back driving, even with several thousands of pounds of force acting on the tool. The holding force and strength of the Ogura brake is critical to proper function and safety to personnel in the field.

The Power Hawk P-16 can also be added to

Remotec's remote controlled robot (see 2011's 4th quarter application story). The combined product still provides all the power of Power Hawk's P-16, but with the added advantage of allowing the operator to control the jaws from a remote location, keeping a potential operator far away from a hazardous situation that may involve explosives, chemicals or radiation. Bomb disposal personnel must have absolute confidence in their



equipment when handling live munitions.

Ogura is proud to be part of Power Hawk's equipment and their company slogan, "Power Hawk Rescue Systems versatility saves lives."

The Ogura power off brakes in the Power Hawk's P-16 and Remotec's Andros F6A/B Robot deliver high torque, lightweight and robust construction to handle the most demanding rescue and IED defusing applications.



Happy Holidays from the Staff of Ogura

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Ogura in the News

OGURA BRAKES ON WIND ELEVATOR

Design News

he August issue of Design News featured an article called, "A Unique Way to Service Wind Generators." The article was centered around how a Japanese

company has developed an add -on system to perform safety checks and maintenance for large wind generators. This system uses two different Ogura spring-applied brakes to hold the service elevator in place. The main SNB style brake applies stopping and holding power. The second Ogura brake in the system is an

Fluid Power/Motion Control		
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RNB style which is designed for holding only. This brake is a backup in case of catastrophic failure. The brake prevents the elevator from falling.

OGURA BRAKES IN NEW X-RAY MACHINE

Design News

he September issue of Design News featured an article titled "X -Ray Machine Visits Patients' Rooms" featuring Ogura spring-applied brakes. Hitachi Medico, has invented a new portable x-ray machine that can be



wheeled into very tight spaces in a patient's room and can take x-rays. This new machine can transmit the x-ray information in real time providing extremely fast response, but more importantly, eliminating the need to move the patient and possibly cause further trauma.

The Ogura brakes are located in the arm mechanism holding the x-ray tube in place. One brake is located in the shoulder of the tube and the second one in the elbow allowing the machine to be positioned exactly where the doctor requires. The new brake also includes a noise dampened armature which helps the machine maintain a quiet hospital environment.

CHUCK MILLER WINS LAWNMOWER RACING BP CHAMPIONSHIP

The National Points Championship was held late this year, so the results were not available at the time of the last newsletter.

n September 14th, both Chuck Miller and Bobby Cleveland raced in the US Lawnmower Racing Association Nationals. Bobby came in 6th in the IMOW Division and 4th in the BP division. Overall, Bobby finished in 7th place in the points competition for the BP class, Chuck



Chuck Miller with his 2013 trophies

Miller was leading in overall series points heading into the September 14th race which gave him the pole position for the race.

Chuck started off leading the race and never looked back. He maintained his 1st place position throughout the entire race which gave him 1st in overall points and the National Championship.

As a multi-year winner of the points championship, Chuck was also inducted into the USLMRA Hall of Fame this year.

Both Chuck and Bobby were at the GIE Show in October to talk about mower racing to some of the attendees and both are very excited to continue their racing careers in 2014. Additional pictures and video of Chuck and Bobby can be found on Ogura's Facebook and Youtube pages.