

#### PRODUCTION IMPROVED AT KOBAYASHI PLANT

Kobayashi, Japan

he Kobayashi plant in Japan produces high volume automotive clutches. One particular model for a customer is produced at a rate of around 650,000 pieces per year. To produce the main body of the clutch, there are two forming machines, six CNC lathes, one 45-ton press, two drilling machines (three heads on each machine), one alkali washer and one fiveton hydraulic press. There are two side by side lines and the lines share some of the machines. These were manual manned by nine operators each day, (three operators, three shifts). Most of the processes being performed after the backing plate came through the 45-ton press was also because the lines erator does not have the line and added to the line. The drilling machine chining center. The mother Ogura plant that parts were now being been very effective. It is the visual in operators has also been very effective. It is the visual in operators has also been per shift for a total reader of the line is the visual in operators has also been per shift for a total reader of the line.

In the drilling process, it was not possible for the operators to wear gloves, so occasionally there were small injuries from metal chips. The machining oil could also irritate the operators' skin.

It was decided that automating this line would prevent operator injuries and could possibly reduce the need for one of the operators.

The existing (older) 45-ton press was switched out with a newer 45-ton press from another Ogura factory. A new dye had to be created for this press. In the prior process, an operator had to manually flip the parts over and manually apply machining oil so a new flipping station and automatic oiler were added to the line.

An automatic parts loader was also purchased and added to the line.

The drilling machines were replaced with a machining center. The machining center came from another Ogura plant that did not require it because those parts were now being made by Ogura in China.

The overall change in the production line has been very effective. Now the only manual process in the line is the visual inspection station. The number of operators has also been reduced from three down to two per shift for a total reduction of three operators per day. Also, because the line is now fully automated, the operator does not have to walk the 100 ft round trip to do the visual inspection of the parts after the machining center. Because the new machining center is shielded, there is no chance for the chips to get near the operator. The machining oil has also been changed from an oil base to a water soluble fluid, so the operators will not suffer any skin irritation.

The operators are happy because they have less manual work to do on the line. The Environmental Compliance Officer is happy because of the switch to the water soluble machining lube and the plant manager is happy because overall process time on the line has been reduced. Most importantly, the customer is happy because Ogura has been able to contain cost and improve production time.



Old Drill Press



New Machining Center



Automatic Press Transfer

### **OIC Employee Profile**

### **Michael Omstead**

Ogura Sales Representative



Michael Omstead

ello! I am Michael
Omstead, the newest
addition to the Keller Industrial
Sales force covering the Western PA and Jamestown, NY
area.

I served in the United States Army (101st Airborne 1/327 BCT) with a combination of active and reserve duty from 1986–1994. After returning from Desert Storm in 1991, I converted to the reserves and relocated to Orlando, Florida and enrolled at the University of Central Florida and received a Bachelors of Science in mechanical engineering.

Never one to pass on a challenge, I've logged 44 airborne jumps, numerous Air Assault insertions and 11 night jumps. My love for a challenge led me to a 15 year career in the applied HVAC industry.

In my 15 years in the HVAC industry I've worked in all aspects, from design and installation to operations management. The applied side of this industry has given me the chance to assist in the design and fulfillment of many exciting projects. From defense contractors to large industrial customers, there was always something new and interesting.

I am excited to serve with Keller Industrial and Ogura in the sales engineering position.

Now I tell my six daughters (*Ogura note*: "now that's incentive to be a good salesperson, that's a lot of weddings to pay for") and my wife "I live in an episode of 'How It's Made". Ogura has positioned me in many interesting companies that build a wide variety of products. I find this challenge very exciting and, even though I no longer "jump" for my adrenaline, this will also provide a great rush. Incidentally, my daughters say they don't think I could do well jumping out of a perfectly safe airplane any more.

Thank you, Ogura, for providing me with an exciting opportunity.

#### **NEW 2011 HIRES**

t the beginning of last quarter, Ogura started their fiscal year. Each fiscal year new salaried personnel from universities and trade schools are hired. This year, Ogura brought on 11 new engineers and technicians. Although it is a small number from past years, it is an improvement over the past two years where there was a hiring freeze due to the downturn in the automotive business. The new technical personnel are looking forward to contributing to Ogura's future.



2011 Ogura Japan Hires

#### JIS Q9100 WITHIN REACH

Kiryu, Japan

or four days last month, an inspector from Lloyd's Register Quality Assurance conducted an audit at Ogura's Kiryu plant that produces the precision aviation components. This was stage two of the audit. Stage one had been completed in March.

The JIS Q9100 is a quality management standard based upon ISO 9001 with the additional requirements of the aerospace and defense industry. Ogura's customers in this industry urged Ogura to get this certification. The initial program was started in July of last year and it is anticipated that by the next quarter, the entire certification process will be complete.

# COME SEE US AT THE LOUISVILLE GIE EXPO OCT. 27<sup>th</sup> – 29<sup>th</sup> Booth # 2112



## **Application Story**

# SPRING-APPLIED CLUTCH HELPS LOWER ELEVATOR IN EMERGENCY

hat happens in a typical elevator emergency when the power gets turned off?
The answer is nothing. In a typical elevator application, spring-applied brakes hold either the cable drum, motor shaft or the elevator itself when power is lost.



Construction elevator

This is fine if you are not planning to go anywhere for a while or if the function of the elevator is not critical for a short power outage.

When a building is being constructed, elevators are used to transfer both product and/or personnel. In some instances, power can be inconsistent. Normally, this is not an issue but there could be instances when the elevator could experience a power loss and could become locked in place with construction personnel or a time or element sensitive product. To prevent personnel or product from being stuck for extended amounts of time, Ogura's customers use a spring-applied clutch to engage a centrifugal brake to help lower the elevator.

How it works is that normally regenerative motor drives through a standard spring-applied brake into the gear box which raises and lowers the elevator. On the other end of the motor, is an Ogura spring-applied clutch model SMC. In normal operation, when the motor is driving the elevator up or

letting it down, both the spring-applied brake and clutch are disengaged.

When a power outage occurs, both the spring-applied clutch and brake engage at the same time. The spring-applied brake holds the elevator station



SMC clutch

ary and the spring-applied clutch engages a centrifugal brake which is normally not engaged in normal elevator function.

To lower the elevator, a manual release lever on the holding brake is pulled back releasing the holding brake. As the motor shaft drives, because of the freefalling condition, the centrifugal brake engages allowing the elevator to have a controlled descent. The heavier the load on the elevator, the faster the motor tries to turn, the more the centrifugal brake is applied maintaining a gradual descent.

Besides commercial elevator applications, the brake can also be used in situations where transport of the material or personnel is critical such as in mines or in transporting nuclear or chemical materials or critical care patients.



Temporary roof service hoist



#### Happy Fall from the Staff of Ogura Industrial Corp.

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#### In The News

#### OGURA EXHIBITS HYDRO-GEN PUMP AT VANCOUVER FUEL CELL EXPO

#### Vancouver

ombining with Ballard at the Vancouver Fuel Cell Expo, last quarter Ogura exhibited its hydrogen pump for fuel cell applications. Ballard had their fuel cell system on display in the booth which contained the



Vancouver Fuel Cell Expo

Ogura hydrogen pump. The show stopper was a full size fuel cell equipped bus that potential customers could walk through and see operate.

The show was for industry personnel only so it was not as widely attended as other shows opened to the public, but this focused approach allowed potential customers to feel unhurried in their conversations with show exhibitors.

To help show the performance advantages of the Ogura pump, a new specification sheet was created just for the show and was handed out to interested booth visitors.

#### SPEED INCREASER BOOSTS ALTERNATOR SPEED

#### Machine Design

n the August edition of Machine Design, Ogura's concept for a speed increaser was highlighted in their "Scanning for Ideas" section. This device is made to be mounted on alternators or generators so the speed can increase while the engine is idling. This avoids operating the engine at a higher rpm just to get a higher genera-



tor speed. With more automotive applications requiring more electrical power, this concept will help end users save fuel as well as help the environment. •

#### LAWN MOWER RACING SEASON WRAPS UP

Mansfield, Ohio

obby
Cleveland
and Chuck
Miller finished up the
lawn mower racing
season on a positive
note. Bobby finished
4th in the BP class
race and ended up
finishing 9th overall in
series points for the BP
class. He also raced in
the IMOW class and
finished 9th in the race.



Chuck Miller and Bobby Cleveland with their 1st and 2nd place trophies in the BP class

In the mini tractor puller division, Chuck Miller in his custom engine built supercharged mini tractor puller took 1st with the best time. Chuck will have his mini tractor puller on display at the Ogura booth at the GIE Expo in Louisville on October 27th-29th.

A few weeks before the Nationals, Bobby and Chuck also raced in the Clements, Maryland race and Bobby ended up getting a 2<sup>nd</sup> and a 4<sup>th</sup> place in separate IMOW races and 2nd in the BP class with Chuck Miller winning both BP races.•



Chuck Miller's 1st place mini tractor puller