



New dual semi-automatic assembly layout

# **Production at Akabori (Plant #4) in Japan reaches 700,000 Clutches Per Month**

Kiryu, Japan he Ogura Akabori Plant in Kiryu handles the greatest diversity of product out of all Ogura mobile clutch manufacturing operations. Akabori not only makes car air-conditioning clutches but also produces all mobile and garden tractor clutches for Ogura Industrial. With the increase in business activity over the past year, Akabori has continued to automate its production processes. One of the latest improvements was on an assembly line dedicated to a mid size clutch volume of around 80,000 assemblies per month. To help reduce the labor expense, the line has been redesigned so that all 80,000 assemblies can be monitored by one person.

In order to do this, the input of the rotors to the line had to be changed. Now both lines are fed from the exact same point. To do this effectively, new robotics had to be developed for this operation. This included a new rotor quality inspection station, which runs a master roller onto the poly V grooves of the pulley. This detects the presence of any waste, dents or over painting. The bore of the rotor is also checked for any waste material left inside and is checked to make sure the machined diameter through the bore is complete. If the rotor fails any of these tests, it is automatically rejected before the bearing is pressed in to avoid the possibility of a costly scrapped bearing and rotor assembly. This means that when the bearing is pressed in and checked for runout, quality can be 100% assured.

In order for the worker to feed the



Automatic electronic tolerance monitor

rotor assembly line, import conveyors, bearing conveyors and a new accumulating bearing conveyor were manufactured that can store up to 120 bearings at a time. By automating this tedious bearing loading station, the operator can concentrate on the more intricate parts and processes of the new semiautomatic assembly machine.

The net result of these improvements is reduced labor costs, reduced scrap cost and increased production efficiency, which has helped the plant to achieve its new 700,000 per month record.



120 piece bearing accumulating conveyor

### **OIC EMPLOYEE PROFILE**

## Mike Vasko **Mobile Products** Manager

Hello, my name is Mike Vasko. In April, I joined Ogura Industrial as Mobile

Products Manager as well as Regional Sales Manager for the South and Southeast, I live in northeastern Maryland with my wife Toni, daughter Alex and son Michael. Since graduat-

from

University of Hart-

ford many years

the

ing



Mike Vasko

ago, I have worked in the clutch industry for the better part of my professional life. My first exposure to the industry came with Inertia Dynamics in Connecticut where I gained experience as an application engineer for three years. In 1988, lured by the glamour of the sales world, I joined Warner Electric as a Regional Account Manager. Relocated from snowy Connecticut to even snowier Rochester, NY, I was responsible for managing numerous office automation accounts including Xerox, Kodak and NCR.

Seven years later and tired of the winters, I shifted gears. Moving to Maryland, my main focus turned to managing Warner distributors in the mid-Atlantic as well as servicing a few select lawn & garden OEMs. As my territory developed, I became more focused solely on lawn & garden and mobile products accounts in the Southeast.

In my spare time I enjoy traveling with my family, attending my daughter's equestrian competitions and playing golf with my son, who is already beating me by a number of strokes.

I look forward to the challenges presented to me and anticipate contributing to the continued growth of Ogura in the mobile, lawn & garden as well as industrial markets.

## **Bobby Cleveland Wins National** Lawn Mower Racing Title Again!



Shane Shellnut and his new Ogura Clutch racing suit

the official race season ended with the "Challenge of Champions Race" in Mansfield OH. Until that race, Bobby and Shane were in the top positions in the lawn mower racing point system. At the championship race Bobby ended up in 2nd place in the race and ended up winning in overall points for the season. Shane had a collision with

another driver and was knocked out



ny one involved in

the lawn and garden industry has heard of lawn mower racing. And any one involved in lawn mower racing has

heard of Bobby Cleveland.

Bobby has won the national

lawn mower racing champi-

onship 7 times. Bobby

recently expanded his racing

team and Oqura had the

opportunity to become a

new sponsor on those teams.

ing Bobby Cleveland's team

since May. The Ogura logos

appear on the tractors, caps,

racing suit and the mower

The races have been

transport truck.

Ogura has been sponsor-

Shane in the Challenge of Champions Race.



Ogura's logo on Bobby Cleveland's racing tractors and the transport truck

of the race but still ended up in 5th place for the season. If you would like to see Bobby and Shane (before the crash), the race will be shown on ESPN2, Oct. 15 at 3:30pm.

Congratulations Bobby, Shane and Mark on a great mowing/ racing season! (For more information on lawn mower racing, go to www.letsmow.com.)

ongoing throughout the spring and summer months. On August 30,

### **APPLICATION STORY**

# **"TO SLEEP, PER CHANCE TO DREAM"**

We spend nearly one-third of our lives on them and rarely give them a second thought. To most of us, the only time we think of a mattress is when we purchase one or our backs are suffering from them.

At Atlanta Attachment Company, sleep products are an

The MD Series delivers high torque rates in an extremely compact size . . . For Atlanta, the MDC 5 carries a 72 ft. lb. static torque rating in just under a 4-1/2 inch diameter while weighing less than 7 pounds. In choosing the MD Series, Atlanta recognized the benefit of push **button** operation to engage or disengage the clutch.

integral part of their business. They design and manufacture advanced technology automated equipment for the sleep products industry. Their machinery manufactures some of the highest quality mattresses in the world. including Sealy, Serta and Simmons. Founded in 1969. they

have grown to become the world's largest supplier of automated sewing equipment and custom laborsaving devices for this industry.

Part of their product line-up includes the Model 1345-2 Tape Edge Workstation, designed for stitching "tape" to the top and sides to close the mattress. The 1345-2 is comprised of three integral assemblies: the sewing head, the carriage, which houses the



Model MDC5, multiple disk clutch

drive train and controls, and the base and table top, upon which the mattress rests during the sewing process. Prior to stitching, mattress dimensions are programmed into the workstation and operator work height is adjusted. The operator then begins the process by bringing the side and top of the mattress together with the "tape" as the workstation follows, sewing the tape, sides and top. The sewing process continues on a straight, constant speed line until it reaches the mattress corners. Herein lays the dilemma which faced Atlanta Attachment.

As the head moves into the corners, speed may vary. To ensure a constant sew pattern, the operator might need to disengage the carriage from the track and operate the workstation manually. A tooth clutch was previously used to accomplish this disengagement. However, while the clutch was engaged around the corners, this varying speed would begin to chip

teeth on the clutch until it eventually failed.

Knowing another tooth clutch would be unsuitable, Ogura worked with Atlanta Attachment to solve the situation while insuring a cost effective and retrofittable solution. While a single disk clutch could handle the application's torque



#### Mattress stitcher with multiple disk clutch

requirements, its size would prohibit usage in the existing carriage housing. Ogura's MD Series dry multiple disk electromagnetic clutches were the perfect solution. The MD Series delivers high torque rates in an extremely compact size. Output can be gear or belt driven or directly coupled to a shaft. Torque ratings range from 18 to 8,850 ft.lb. For Atlanta, the MDC 5 carries a 72 ft. lb. static torque rating in just under a 4-1/2 inch diameter while weighing less than 7 pounds. In choosing the MD Series, Atlanta recognized the benefit of push button operation to engage or disengage the clutch as well as the service and support from the world's largest producers of electromagnetic clutches and brakes.



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NEW PRODUCT RELEASE

## New high torque PTO clutch/brake release for 30+ HP engines

The GT5 PTO clutch/brake from Ogura has been released to production. This new unit incorporates a larger armature and rotor to generate high torque for the new demanding higher horsepower and large cutting deck requirements. The new GT5 clutch has a torque



of 350 ft.lb. Each unit will go through Ogura's preburnishing process that ensures a higher out-of-box torque for either the mower manufacturer or the end user. The GT5 field bearing has been

New GT5 clutch/brake

redesigned to insert the bearing into the rotor assembly. This reduces the overall length and reduces the overhung load on engine shafts. Currently the GT5 is designed to handle 1-1/8" engine shafts but can also accommodate 1-1/4î and 1-7/16î shafts.

To help make the unit more rugged and reduce the chance of damage due to contact, a new double formed backing plate has been designed. This makes the entire backing plate much stronger and less subject to physical damage due to inadvertent contact.

Besides the new improvements, the previous design advantages of having ecoat corrosion protection, adjustable braking force and the ability to adjust the PTO clutch/brake for wear is still present with this new design.

OIC will have samples of the new GT5 available for customers to view at the upcoming Lawn and Garden EXPO in Louisville KY, Oct 18-20, 2003.

### **OGURA IN THE** NEWS **Electric Go Cart Update**

n the July issue of Design News, a brief article on the Ogura clutch used on an electric go

cart appeared in their FLASH Section. (This section notes new and notable product designs.) As many of the readers of the Ogura Newsletter are aware, this original application story appeared in the 4th Quarter 2002 Newsletter. but what you may



not be aware of is that the potential speed

of this cart is now 150 mph. (Did someone say roll cage?) For more information on this article, please refer to Design News or you can check the Editorial archive section on the Ogura web site.

# For Pumping Oil, **Ogura Clutches Make 'Cents'**

n the August issue of Machine Design, an editorial was written on how Ogura clutches are being used in the oil field industry to allow



Machine Design article

natural gas engines to cost effectively replace electric motors on pump jacks. One item that was not mentioned in the article was that because of the e-coat corrosion protection, the epoxy coated coil and water resistant grease in the bearings, the clutch is ideally suited for continuous exposed environmental conditions.

For more information on this article, please refer to Machine Design or you can check the Editorial archive section on the Ogura web site.