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OGURA IN THE NEWS

CLUTCH BRAKE CHOPS BLADE POWER

Machine Design

In the February issue of Machine Design an "In the News" article showed how Ogura PTO clutch/brakes help McMurtry, a customer in the UK, engage and disengage the cutting blades on their robotic mower. McMurtry manufactures a mower that uses global positioning to cut grass. By adding the tow behind units the mower can cut up to a 15 foot wide path. This is ideal for large fields. Since the mower is guided via satellite it does not require an operator to be present. A number of safety devices are incorporated to prevent the mower from going off course or to prevent the mower from running over an obstruction.



Machine Design



PUMP CLUTCHES SAVE ENERGY, WEAR AND TEAR

Hydraulics & Pneumatics

In December 2006 Hydraulics and Pneumatics ran a brief article describing the advantages of electromagnetic clutches in hydraulic pump applications. The article explained that by using an electric clutch a hydraulic pump only needs to be rotating when hydraulic pressure is required. This type of reduced pump usage can double or triple the life of a hydraulic pump.

The new series of pump clutches from Ogura range in torque from 200 to 1500 pound feet. Besides reducing pump wear, clutches also allow the hydraulic system to be disconnected while the gas or diesel engine comes up to speed and temperature. This prevents stalls during cold weather starting.

Hydraulics & Pneumatics

SUPERCHARGERS COMING BACK INTO FOCUS?



Diesel Progress

Diesel Progress

In March 2007 Diesel Progress ran an article on Ogura's superchargers. The article centered around the new Ogura supercharger that is used in the Kawasaki Jet Ski. By using the Ogura supercharger Kawasaki was able to boost the output horsepower of their personal watercraft from 160 HP to 250 HP, making it the highest horsepower production personal watercraft in the world. The article goes on further to describe how in some applications a clutch is also used to engage and disengage a supercharger, giving boost only when needed and then disengaging the supercharger so there are no parasitic loads when not needed.

Besides engine horsepower increases, superchargers can also allow for more efficient engine combustion which helps to reduce emissions. This is becoming more important as new engine emission regulations are implemented.

OGURA



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LAND PURCHASED FOR NEW MANUFACTURING FACILITY

Kiryu, Japan

Over the past 10 years Ogura has been building new manufacturing facilities outside of Japan. In that time new facilities have been built in Europe, North America, South America, China and Malaysia. Although building these facilities has helped to localize production in each location and reduce some of the pressure from the manufacturing facilities in Japan, it has not been enough. In December, a lot of over 6 acres was purchased in Kiryu for a new manufacturing facility. Besides production this new facility will also have new engineering and development labs. Some of the engineering and development functions being done at the other four manufacturing plants will be transferred to this newest facility to help reduce the workload and provide faster response times for new designs and prototypes.

Additional announcements regarding this newest facility will be made in future newsletters.



Land purchased for new manufacturing facility

OGURA RECEIVES INDUSTRIAL CONTRIBUTION AWARD

Kiryu, Japan

In October (Isesaki) and then again in December (Takasaki), Ogura was given Industrial Contribution awards by the local government. To be given this type award you need to be nominated by the other manufacturers in the industrial community and prove that you are a significant contributor in promoting manufacturing for the area.

Ogura received two awards because some of Ogura's manufacturing facilities are located in Isesaki and some in Takasaki.



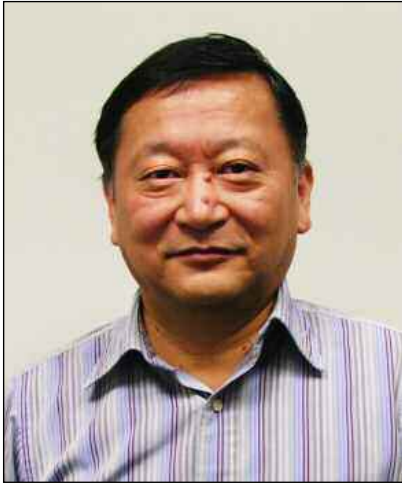
Takasaki Industrial Contribution award



Isesaki Industrial Contribution award

OIC PROFILE

Junichi Ebisawa Engineering Manager



Junichi Ebisawa

Hello, Kon-Nichiwa,

My name is Junichi Ebisawa and everybody calls me Ebi. Ebi means shrimp in Japanese. Yes, I am a Japanese Shrimp.

I am an engineering manager at Ogura Industrial Corp. I joined Ogura Japan in 1973 as an engineer for the Industrial Product department. After about 10 years at Ogura Japan, I was transferred to New Jersey in 1983. My assignment was supposed to be for 5 years, but I am still here in New Jersey.

For my first ten years living in the United States I was in New Jersey. Then I worked for Ogura Corp, our automobile air conditioning clutch division, in Detroit for 3 years. I came back to New Jersey in 1996 and joined Ogura Industrial.

At Ogura Industrial I am responsible for engineering and I mainly coordinate between the US and our engineering department in Japan.

I have two kids and only one wife. My kids were born in the USA, they are American and Japanese. My son is in Graduate school and my daughter is in college now. Because of this 2007 is the most expensive year for me.



Environmental Update

Environmental regulations and restrictions are changing throughout the world at a rapid pace. To handle new restrictions and regulations from each country Ogura in Japan has set up a central database to manage restricted or hazardous substances.

The database will be broken down into two main categories. The first is for clutches and brakes going into electric devices. The regulation of the substances is controlled in Japan under the Japan Green Procurement Survey Standardization Initiative (JGPSSI). This currently covers 20 separate categories and 300 different substances.

The second group of guidelines is covered under the current Japan Automotive Manufactured Association (JAMA) standards. This controls anywhere from 2,000 to 5,000 different substances of environmental concern in various countries throughout the world.

Since there are no uniform restricted substances required worldwide, Ogura is compiling and cross referencing this information to know which products will be suitable for sale if countries change their environmental regulations. Currently Europe is leading the way with the RoHS and WEEE standards, but other countries like China (whose new environmental standards go into effect March 1st) are coming on fast.

In another area, Ogura's industrial plant #3 is reducing its CO2 emissions. One of their customers, Ricoh, assisted in doing a plant wide evaluation and estimated that the plant's energy usage relates to around 1,500 tons of CO2 per year. By incorporating conservation methods, the CO2 from this plant could be reduced to 1,200 tons.

This reduction will come from being more efficient and reducing electrical losses. Devices such as lighting timers and sensors, additional insulation and more efficient pneumatic systems will reduce the amount of electrical energy required, therefore reducing energy consumption and CO2 emissions.

APPLICATION STORY

OGURA QUALITY AND DEPENDABILITY PTO CLUTCH/BRAKE ON ETESIA'S "HYDRO 80" RIDE-ON LAWNMOWER

Etesia is an innovative European lawnmower manufacturer. When their research and development team pioneered a new and revolutionary ride-on mower in 1989 they decided to use Ogura's high quality PTO clutch/brake. Now, 16 years later, Ogura has stood the test of time in Etesia's high end ride-on mowers.

For their new design, continuity of supply and standardization of components were key

The Ogura GT1 PTO clutch/brake has been chosen for Etesia's new Hydro 80.

objectives for Etesia. The Ogura GT1 PTO clutch/brake has been chosen for Etesia's new Hydro 80.

Designed for commercial use, Etesia's Hydro 80 ride-on rotary mower is built for reliability and

durability in tough working conditions. Its compact 80 cm cutting deck allows it to access places where other ride-ons cannot go. A tight turning circle plus hydrostatic drive in both forward and reverse ensure ease of use and mowing efficiency. High output means this little



Etesia's Hydro 80 commercial ride-on mower



Hydro 80 "working horse"

workhorse can match the work of 3 pedestrian rotaries.

Powered by a 15hp twin cylinder Kawasaki engine, the anti-clog Hydro 80 gives a quality finish on lawns as well as rough grass; it even collects leaves and litter.

Designed for commercial use, Etesia mowers often operate in tough conditions over long periods, so top quality components are essential.

Ogura clutches certainly fit this bill. Superior design fea-



Ogura PTO Clutch/Brake

tures include a solid forged rotor, sealed precision bearings, e-coated exterior surfaces and the ability to adjust for wear, assure that when the cutting blades are engaged and disengaged the

Ogura clutch holds up to tens of thousands of cycles.

Thanks to Etesia and the entire Outdoor Power equipment industry, there are even more reasons to say

"Everything about an Ogura clutch works".