What you need in a clutch Volume 102. ForthQuarter • 2024

OGURA UNVEILS ORC CLUTCHES AT THE SEMA SHOW

Las Vegas, NV

IC has officially launched the release of Ogura Racing Clutches in North America. The team exhibited at the SEMA Show in Las Vegas, USA on November 5-8, 2024. Attendees were more than excited to see the ORC brand showcased in America! Many smiles were observed as the brand was instantly recognized as the premier clutch on the Japanese racing scene. More than 100,000 people attended the event. With the booth located in the Racing and Performance section of the show, our theme was "Driven by Passion for Performance" with our company history being since 1938, and ORC in Japan since 1998.



Ogura's show booth at SEMA



Booth visitors learning about Ogura's clutches

The performance clutches are used for drift, drag, circuit, and street driving. Visitors included prospective wholesalers, distributors, dealers, and tuning shops across the continent. Drivers stopped at the booth to talk about their next vehicle build, clutch upgrade or overhaul.

The most attention went to the Metal Series, which offers high performance across various driving styles. The Light Series was on display for those drivers looking for sporty performance, yet easy and fun to drive. Numerous attendees asked about clutches for their European model cars and were directed to the Arugos

Series. On top of that, there was also interest in top performance ORC products for the American

vehicles in the future.

For those that already use ORC on their vehicles, they were quick to point out what they enjoyed. Many praised the responsiveness of the clutches, the connection of the driver to the engine horsepower. Several drivers commented on their love of the sound of the ORC clutch, as something of a status symbol. Others mentioned exceptional pedal feel from the clutches. Visitors were proud to grab a stick-

er from the counter to display boldly on their beloved vehicles.



ORC's five key clutch series

You can view our website at www.oguraracingclutch.com to see the extent of the product lineup. You can also use the Search-By-Vehicle tool to find available clutch options tailored to the tuning level and the driving purpose. You can also watch an "About ORC Racing Clutch" video and an animated video on "How They Work" on the same site. Follow us on Instagram to keep up with the latest news. •

Ogura Sales Rep Profile

Rick Batallas Keller Industrial

IC is pleased to announce
Rick Batallas as a new
member of the sales
team. Rick joins us from
the Keller Industrial organization as a
manufacturer's representative. Rick
grew up and resides on Long Island,
NY. After earning his engineering
degree at Polytechnic Institute of New



York University, he has had a career in engineering and engineered component sales. His territory is what we would consider the Big Apple, which is made up of Downstate NY, Northern NJ.

When not working on business opportunities, you will find Rick pursuing his other interests: He is a world traveler, marathon runner, rock climber, aviation enthusiast, boater, and a bit of a mechanic! Plus, Rick is fluent in Spanish.

We welcome Rick and encourage those that need assistance in the territory to reach out to him. His wealth of knowledge and experience in the industry enables him to provide solutions to difficult challenges that customers are facing.

OGURA UNVAILS BRAKE LIFE PRE-DICTION SYSTEM

Tokyo, Japan

t the 29th Mechanical Components and Technology Expo last quarter, Ogura introduced a new brake life prediction system. This new electronic module is compatible with multiple styles of Ogura spring-applied brake. It can be used on a singled brake or batched together and monitor wear on multiple brake at the same time, such as those that could be used in a robotic arm.



The brake life span prediction system analyzes and diagnoses wear in temperature conditions of brakes based upon a unique algorithm by capturing the operating conditions of electromagnetic power-off brakes in real time.

OGURA INDUSTRIAL EXHIBITS AT EQUIP EXPO 2024

Louisville, KY

he Expo in Louisville is always a great opportunity to get together with both the manufacturers Ogura supplies, as well as the end users of the machinery. It is a chance to meet and exchange information as well as educate show visitors on electromagnetic clutches.



Ogura personnel and sales representatives

With a growing market for electrification, there is also a

need for end users to understand electromagnetic holding brakes and how they function. This year Ogura showed some additional models of PTO brakes as well as some of the newer thin style holding brakes for motors on electrification projects.



Booth with updated videos

At Ogura's outdoor booth, Bobby Cleveland once again brought his monster truck mower to the show which is always a crowd pleaser. In the

past, it was discouraged to have show visitors climb up on the monster mower to take pictures but this year steps were created to easily allow visitors to get on the driver's seat for pictures. Official pictures were also sent out

to each visitor that wished to receive them.

Ogura engineering personnel from Japan also had opportunity to visit the show and actually ride on some of the mowers, many of whom are not available in Japan.



Outside visitors on monster truck mower

Application Story

Listening to the customer is not difficult

ometimes, the easiest thing to do in life is just sit back and listen. That is what we did when Empire Hydraulics in Adams Center, NY – Upstate NY, came asking for help. Empire Hydraulics and Machine LLC is a company that specializes in hydraulic services, including the repair of Hydraulic Cylinders, Hydraulic Pumps, Motors, and Valves. Just as they listen to their customers' needs, they ask their suppliers to do the same.



Municipal snowplows can use a front-mount PTO to run powerhungry hydraulic accessories

On large mobile equipment, it is beneficial to shut down the vehicle's hydraulics when hydraulic pressure is not needed. This saves fuel, increases pump life, limits service requirements, eliminates excess downtime, and saves money! An electromagnetic clutch enables on/off control of the hydraulics with a push of a button or flick of a switch

clutch enables on/off control of the hydraulics with a push of a button or flick of a switch. The clutch is what transfers the torque from the PTO to the hydraulic pump. When there is no electric current provided to the clutch's coil,

Ogura mobile MMC clutches for hydraulic pumps can be inline driven by a universal driveshaft

the clutch is not engaged and there is no torque transfer – the pump does not run. When you energize the coil with electric current, the coil becomes an electromagnet, engages the clutch, and then transfers the engine torque to the pump. It remains this way until power is removed from the clutch.

For Empire, they found that some of their customers driving snowplows preferred to use a Permco 2100 hydraulic pump with a 1" 15T (15 tooth) spline instead of the 7/8" 13T or 1" keyed shaft. Without a solution available in the industry, Empire explained the application to Ogura and a proper design was created. It was a modification of an existing clutch used for similar applications. By having the solution at hand, Empire was able to satisfy their customer and provide a solution that can be employed for both new builds and field upgrades.

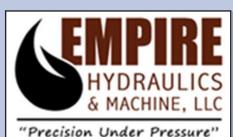
The clutch is an MMC-28 model rated for 200 lb-ft of static torque. It has a 1", 15T female spline. It engages with 12VDC applied to the coil via lead wires. It bolts to a mounting bracket with a pilot for centering. The pump is mounted to the other side of the mounting bracket with the male shaft spline going through the bracket and into the clutch bore. In this case, the clutch input has a bolt pattern to connect to a standard drive shaft coupling. In other cases, for clutches of this size, a pulley is an available option to drive via a belt load. With the clutch professionally installed, burnishing is then required to break the clutch in, and then it is ready to do its job. Maintenance of an electromagnetic clutch is minimal to none, which makes everyone's job a little easier.



Ogura family of mobile pump clutches shown for 58 to 1,500 lb-ft torque

For more information on Empire Hydraulics, you can visit them at www.empirehyd.com. To find product specs, see videos on "How They Work," or "Installation," or "Troubleshooting," visit www.ogura-clutch.com and

look for Mobile Products. Ogura's Mobile MMC series clutches are used on hydraulic, water and vacuum pumps.



Empire Hydraulics serves industries that rely heavily on hydraulic equipment, such as construction, forestry, municipalities, agricultural and manufacturing. Their services include troubleshooting and repairing of these components, as well as providing solutions for a wide range of hydraulic needs.





100 Randolph Rd. • P.O. Box 5790 • Somerset, NJ 08875 Tel: 732-271-7361 • Fax: 732-271-7580 Email: oguranj@ogura-clutch.com • www.ogura-clutch.com









Ogura in the News

OGURA WINS GOLD IN LEAP AWARDS

n October, the LEAP awards were announced which is Leadership in Engineering Achievement Program. Ogura won gold for its newly designed power-off micro clutch. In a normal micro clutch application, like you would see in the copy machine, fax machine or medical device, when the power is on to the clutch, the clutch is engaged. However, there are many applications where the clutch is on most of the time. So, it is desirable to have a clutch that normally engages without applying



electricity. This type of design can significantly reduce power consumption in these types of applications.

The newly designed clutch incorporates a permanent magnet with a triple flux rotor and armature to produce high torque, when the permanent magnet is creating flux. When the clutch is required to disengage, power is applied to counteract the permanent magnetic field allowing the armature and hub to release and turn freely from the rotor (or vice versa).

The judges comment in giving the gold award to Ogura was "the engineering behind this is great. For applications that need a small power off clutch this provides both power and energy savings,"

Ogura is very proud of this award and past LEAP awards. Ogura has won awards in three out of the past 4 years, winning a silver, bronze and now a gold award. Ogura is proud to be recognized as an innovator in clutches and brakes and plans to continue with innovative designs in the future.

ANOTHER 1ST PLACE FINISH FOR THE OGURA CLUTCH RACING TEAM

Stevenson, AL

he National Points
Championship of the
NLMRC was held in
Stevenson, AL on
November 6th and 7th. Both
Chuck and Bobby raced in the
BP class over the two-day period. Going into the race, Bobby was in 5th place for the National Points Championship,
and Chuck was in a tie for 1st.



Chuck Miller (left) and Bobby Cleavland (right) with their Ogura mowers at the National Championship

In the final race, Bobby finished in 4th place putting him into a fourth-place finish for 2024. In that race, Chuck finished in 1st place and gained enough points to win the National Points Championship for team Ogura in 2024.

Chuck also raced in the FXT class and went into the final races in 5^{th} place. In the final race, he ended up in 2^{nd} place boosting him from 5^{th} to 3^{rd} place in the seasonal points for FXT class.

Both Chuck and Bobby are not willing to hang up their racing suits just yet. They are both planning on being back for another series of lawn mower races in 2025. Ogura Industrial congratulates both drivers for a great season of lawn mower racing as well as the support they provided at Ogura's outdoor booth at Equip Expo! •

