

Volume 74• First Quarter • 2018

OC RECEIVES SUPPLIER RECOGNITION AWARD

Detroit. MI

gura Corporation (OC) recently received the Supplier Recognition Award from Mitsubishi Heavy Industries Climate Control, Inc. (MCCA). MCCA visited OC and presented the award plaque.



MCCA Award

The award was given because of Ogura's consistent high marks regarding quality, delivery and cost.

ISO14001:2015 TRANSITION AUDIT

Kiryu, Japan



ast quarter, the audit for the transition to ISO14001:2015 was done by the Lloyd's Register of Quality Assurance.

This audit is for the transition from the 2004 to 2015 version. It is different from a regular update audit because it includes changes with top management involvement and environmental performance.

As a result of the audit, two small nonconformities and 10 improvement recommendations were made, but the examiner confirmed that Ogura meets the requirements and that Ogura will receive a certificate for ISO14001:2015.

TOKYO AUTO SALON 2018

Tokyo, Japan

he Tokyo Auto Salon was held at the Makuhari Messe International Convention Complex from January 12th through January 14, 2018. At the show this year, Ogura introduced a new high performance transmission

clutch for the Nissan Nismo. In the rally corner of the booth, highlights from "Tokyo Gazoo Racing" were shown.

As in the previous year, Ogura had many famous Japanese racing personalities in the booth to answer questions from booth visitors and to promote their individual races. Ogine, (a female Japanese racer) acted as hostess and interviewer. As he had done last



Images from the 2018 Tokyo Auto Salon

year, Mr. Sekiya Masanori was again promoting the "Kyojo-Cup" (Women's Championship) and the "Inter Proto Series".

Professional drivers, Sasaki Masahiro and champions, Aki Hatano and Watanabe took part in the interview as well. "Super GT" champion, Tatsuya Kataoka, appeared as surprise guests. Champion racers of the E-1 class, Amano and Uryu also made an appearance.

This year, Ogura will be promoting it's reinforced racing clutch at top races like the "Super GT", and various Drifting races.

Ogura Sales Rep Profile

Steve Martin, CPMR Clifford Sales and Marketing

i, my name is Steve Martin, President and CEO of Clifford Sales and Marketing. We joined the Ogura sales force in March of 2017. I represent the Alabama and Southern Mississippi for Ogura.

I graduated from Valdosta State University in 1997 with a Bachelors of Business Administration degree in Marketing. Shortly



Steve Martin

after graduation, I joined Applied Industrial Technologies as an Account Manager in Norcross, GA. After five years with Applied Industrial Technologies, I was promoted to General Manager of the Albany, GA and Thomasville, GA locations. In 2007, I was transferred to Mobile, AL to become the General Manager of the Mobile Service Center.

In August of 2010, I left Applied Industrial Technologies to become the Vice President of Sales and a new member of the ownership group of Clifford Sales and Marketing.

In August of 2015, I became the sole owner. I have experience in the steel, pulp and paper, automotive, packaging/bottling, aggregate, agriculture, forest products, and military/defense industries.

In 2014, I finished the three year Certified Professional Manufacturers Rep certification program at the University of Texas in Austin.

I live in Fairhope, AL a suburb of Mobile, AL. In my free time, I enjoy saltwater fishing, playing golf and spending time with my family.•

SUPPLIER PARTNER QC WORKSHOP

Kiryu, Japan

n October 4th, the 7th Business Partner Quality Control Workshop was held at the Akabori plant with 64 people from 44 companies participating.

This time the topic was "Basic Workshop for Ogura Clutch Products" and the content was divided into 2 groups. The lecturer for the first group, General Clutch Products, was Mr. Sonobe, the Deputy Director of the First Engineering Department. The lecturer for the second group, Products for the Transportation Industry, was Mr. Kurosu, the Director of the Second Engineering Departments. By using illustrations, animation and other materials, they made Ogura products' mechanism, structure and application easy to understand.

The questionnaire given after the workshop showed that the participants were satisfied with the training course and Ogura could see what topics they wanted to discuss in the next workshop. The time spent was meaningful not only for the suppliers but for Ogura as well. The Quality Assurance Committee will continue to offer this seminar to improve the business partners' quality control abilities.•



Quality Control Seminar

STIGA CHOOSES OGURA'S NEW 1.5 CLUTCH

Italy

ext quarter, Ogura will start supplying PTO clutches to the largest riding lawnmower maker in Europe, Stiga (formerly GGP). Stiga has approximately 60% of the market for riding lawnmowers in Europe and their products are sold in more than 70 countries around the world. They have four manufacturing plants in Italy, one in Slovakia and one in Guangzhou, China.

Initial production volumes will be around 24,000 pieces per year of the new patented Ogura 1.5 PTO clutch/brake. These clutches are manufactured at Ogura Clutch (Dong Guan) Co., LTD. In China.•



Stiga mower

Application Story

Roboflail Goes Soft

TM Co. Ltd. in Warwickshire, UK (the birthplace of William Shakespeare), is the sole distributor of

SCAG ground care equipment in the UK and several European countries. Founded in 1990, STM also handles the sales of other equipment like Roboflail.

Flail mowers in the UK are very common. Flail mowers are used to manage very dense grass and foliage and give a very rough cut. The challenge with these flail mowers is the increased inertia that the clutch and the belts need to transfer.

To help engagement of these specialized implements, STM has started using the SoftStart (Smart Clutch) controller from Ogura. The controller can operate on either open or closed loop.

On a closed loop system, the controller senses when electrical current is applied to the clutch, then uses the feedback from the sparkplug's ignition to determine droop in the RPM of the engine. This feedback is used to control the engagement time of the clutch so that a smooth transference of torque is made from the engine to the load.

The Smart Clutch module control works by controlling the current going into the clutch. Without a SoftStart controller, as soon as the switch is turned on, the clutch receives full current/voltage and tries to deliver maximum torque immediately. But, by controlling the current, it allows the clutch to safely slip, but not completely release. This SoftStart significantly reduces the load of all the components in the drive system, especially the belt.

Martin Wakefield says, "Here at STM Co. Ltd., we have had great success with these units fitted to our remote control bank machine with the flail or rough cut decks. We are looking at fitting these units to some



Ogura's SoftStart controller

SCAG ride on units in the use on the SCAG SWZ near future mainly to bring customers' costs down. Mainly to prolong their belt life."

In a closed loop system, such as one with an e-governor or steady RPM where feedback is unimportant, the SoftStart controller can still be used. The controller follows a predetermined ramp time providing a smoother engagement.

The SoftStart can be used on almost any application driven by a gas or diesel engine. Other applications like stump grinders, fans, trenchers and pumps can benefit from a softer engagement.

www.st-mach.com•



Roboflail cutting a steep grade





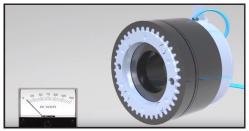
Ogura in the News

NEW TOOTH CLUTCH ANIMATION CREATED

Somerset, NJ

gura Industrial has created a new animation showing how electromagnetic tooth clutches work. The animation shows an exploded view of the component parts and how they interact with each other. In tooth clutches, torque is generated by locking the rotor teeth to the armature teeth. The animation shows how this is accomplished.

Tooth clutches are used on a variety of applications where very high torque in a small space is required. Most applications are industrial. Common ones



are medical equipment, machine tool, printing and processing machinery, security gates and specialty automotive.

New tooth clutch animation video

The video can be found on Ogura's website and on our YouTube channel, <u>www.youtube.com/oguraindustrial</u>•

TORQUE-CONTROL SOLUTIONS

Machine Design

n December, Machine Design ran an article written by Ogura titled "What's the Difference Between Torque-Control Solutions?" The article focused on using hysteresis products to control torque. The article described the function of magnetic particle and both powered and non-powered hysteresis clutches and



Article in Machine Design

brakes. Since one size doesn't fit all regarding clutches and brakes, the article did not focus on which is the best product. The article described how each product worked and left it up to the reader to determine what would be best suited for their application.

TOYOTA GAZOO RACING RALLY CHALLENGE

Japan

oyota Gazoo Racing Rally Challenge takes place across Japan for the 2017 season. It was divided into two series, Eastern and Western. Each one consists of 12 rounds (11 rounds + 1 special round). Ogura sponsored two cars for the 2017 season and took 2nd place in E-2 class and 1st place in E-4 class of the Eastern Series.

Ogura drivers also took part in the special competition round, where only Eastern and Western series winners are invited. Ogura took 4^{th} place in E -2 class and 2^{nd} place in E-4 class.



Ogura sponsored car at start line