



Underwriters Laboratories (UL) is a leader in the fight against industrial counterfeit products. This unique hologram design label is easy to identify and difficult to replicate (courtesy of UL).

The Counterfeit Culture

FAKE PRODUCTS AND PARTS PRESENT GLOBAL MARKET CHALLENGES

Matthew Jaster, Associate Editor

It's happened to most manufacturers at one point or another. A defective product comes back from a customer in need of repair. Perhaps a bearing or a gear drive has failed, and the customer simply needs a replacement. Upon further examination, the company realizes it was never one of its products in the first place, but a fabricated copy that snuck into the market. The manufacturing community has been dealing with counterfeit products for decades, but used machinery dealers and Internet shoppers seem to continuously get hit by scam artists.

In the 1990s Arrow Gear came

across a right angle gear drive out of South Korea that looked awfully familiar. "The company had duplicated our casting and ground off the Johnson Gear Drive logo, but everything else looked the same," says Joe Arvin, president at Arrow Gear.

Today, strict quality and documentation requirements for the aerospace industry have prevented other duplicates on the market. "There's a paper trail big enough in aerospace to keep track of the gearboxes, making it very difficult for fabricators to copy them today," Arvin says.

It's a safe bet someone is probably

trying. Counterfeit industrial products cost an estimated \$600 billion a year, according to the International Anti-Counterfeiting Coalition (IACC). Approximately five to seven percent of world trade is in counterfeit goods. Everyone from the Federal Aviation Administration (FAA) to the Motor and Equipment Manufacturers Association (MEMA) has had problems with counterfeit industrial parts. As manufacturers continue to pursue global business, it's important to be aware of the counterfeit culture and understand the holes found throughout the industrial distribution line.

“Counterfeiting and piracy continue to rob legitimate manufacturers of much needed revenue, slowing the creation of jobs that is vital to economic recovery, and discouraging the type of innovation and capital investment that is essential to long-term growth,” Robert Barchiesi, president of the IACC, recently stated in a press release. “Intellectual property theft, in the form of trademark counterfeiting and piracy, remains a major concern for U.S. business, and is estimated to cost the U.S. economy up to \$250 billion each year and 750,000 jobs.”

The IACC recently focused on ten countries of concern, most notably China, Russia and Canada, with a priority watch list on Brazil, Mexico, The Philippines, South Africa, Spain, Turkey and Paraguay. China appears to be the largest culprit of industrial fabrication, the main reason many manufacturers prefer daily working relationships with distributors and suppliers here in the United States.

“Counterfeit products are a whack-a-mole kind of problem,” says Clark Silcox, general counsel at the National Electrical Manufacturers Association (NEMA). “It’s persistent and nagging, and just when you think you’ve taken care of one issue, another one comes up.”

Thanks to custom seizure data and a distribution channel that is much more aware of the problem, Silcox says NEMA hasn’t seen the volume of counterfeit products lately that the organization has seen in the past. “It hasn’t disappeared in certain electrical products, but I’d say the problem was much worse ten years ago. China is still the focal point. It has the low-cost skill-set and volume to pull off some of these fabricated parts.”

In the gear industry, companies will occasionally find something on the market pretending to be something it’s not.

“We are finding counterfeit reducers in our markets,” says David Ballard, corporate manager at SEW Eurodrive, Inc. “We have had customers send us failed gear reducers thinking they were SEW products. The

counterfeit product failed soon after the installation. The customer expected quality and a long operating life. You can imagine the shock when he found out the drives were not SEW, but imitations. Fortunately, since they were imitation units, SEW was able to supply drop in replacements that could perform as expected.”

Eyes on the Internet

The Internet is, by far, the largest contributor to the counterfeit problem. One can simply visit eBay to find gears, bearings, motors, circuit breakers and full system gearboxes at discount prices. “The Internet is the great facilitator,” Silcox says. “Rockwell Automation had a problem with its software on eBay a few years ago, and we’ve had problems in the past as well. Although eBay is responding better to counterfeiting today, there’s still work left to do.”

Additionally, Silcox has come across several English-only websites created in China. “They’ll give you an address on one side of the country and a contact number on the other. Nothing matches, and you end up playing detective trying to figure out if the company exists and where it’s actually located.”

Gary Rusnak, marketing/projects at Torque Transmission, has found familiar images while surfing the Internet for industrial products. “We’ve seen Chinese manufacturers using our JPEG images to sell thrust bearings. I’ve also seen some knockoff worm gear reducers from the

Motovario line out of Italy coming out of China. It’s a tough business.”

The lack of traceability and accountability on the Internet should scare companies looking for cheap industrial parts online. Problem is, with growing financial concerns in other areas, an easy fix is to shop online.

The distribution network is being much more careful of online counterfeit products as the penalties increase.

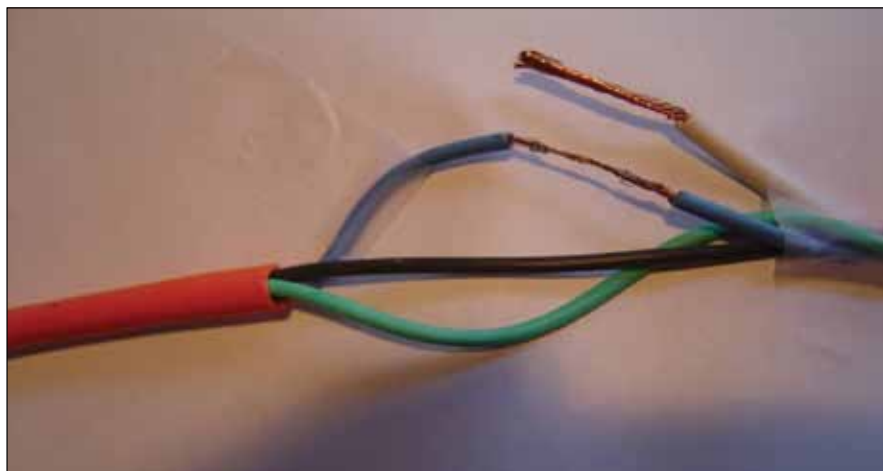
“If they’re carrying the faulty products, the products will be seized, and then you start getting into product liability suits and other economic issues. It’s best just to have a network of individuals across the supply chain that you can trust,” Silcox says.

Safety First

The bigger issue with low-quality knockoffs is the safety and health concerns. “Chinese manufacturers can compete with the exterior of many of the products that are manufactured in the United States,” Silcox says. “The interior is where the real problem is. These components will only last eight years when companies expect them to last 40. These are dangerous parts that either don’t work at all or work on a limited basis. In regards to electrical parts, we’ve seen counterfeits that may have been responsible for burning buildings down.”

Silcox adds, “Product defects are becoming a bigger problem in the courtroom. If a judge doesn’t find anybody to back the product up,

continued



Faulty counterfeit wires have been responsible for several industrial safety hazards (courtesy of NEMA).

many times it's the distributor that's left holding the bag. They may have thought it was from a legitimate company and had no reason to believe otherwise. The legal ramifications are significant."

At the end of the day, manufacturers want to know the products they are purchasing are exactly what they claim to be. As it becomes more a safety and reliability issue, many feel that harsher laws and more government involvement needs to be implemented.

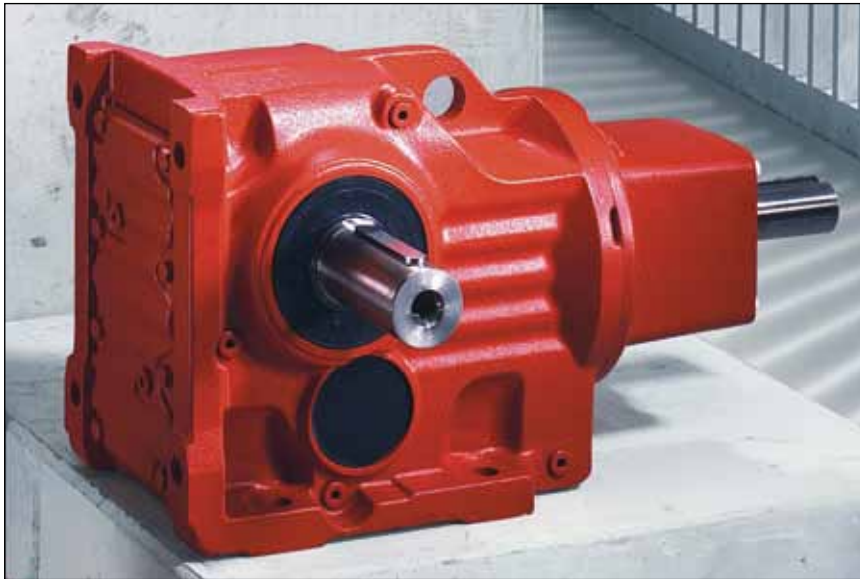
"Counterfeit components are a problem that is not going to go away anytime soon," Arvin at Arrow Gear says. "The government needs to do everything they can to make sure the distributors and suppliers are aware that bogus bolts, nuts, shims and bearings are still making their way into the market."

Thankfully, the U.S. government has been more focused on counterfeiting in the last ten years. "Both the Bush and Obama administrations have been great partners in the fight against counterfeit products," Silcox says. "The government has contributed several resources to help solve these issues. If it starts to hit the smaller companies like it has hit some of the larger ones, you'll see even more activity on the federal level."

According to the IACC, Attorney General Eric Holder announced in February the formation of a new Department of Justice Task Force on Intellectual Property as part of a department-wide initiative to confront the growing number of domestic and international intellectual property (IP) crimes.

"The rise in intellectual property crime in the United States and abroad

threatens not only our public safety but also our economic well being. The Department of Justice must confront this threat with a strong and coordinated response," Holder says in a press release. "This task force will allow us to identify and implement a multi-faceted strategy with our federal, state and international partners to effectively



This SEW Eurodrive right angle gear reducer has been duplicated on the market (courtesy of SEW).

combat this type of crime."

The task force, to be chaired by the deputy attorney general, will focus on strengthening efforts to combat intellectual property crimes through close coordination with state and local law enforcement partners, as well as international counterparts. It will also monitor and coordinate overall intellectual property enforcement efforts at the department, with an increased focus on the international aspects of IP enforcement, including the links between IP crime and international organized crime. The task force will also serve as an engine of policy development to address the evolving technological and legal landscape of this area of law enforcement.

As with any process, the fight against counterfeit products comes down to dollars and cents. There are covert identification and tracking technologies available to manufacturers to track a product's history, many that are being adopted now for the automotive

industry. But many technologies and innovations carry a heavy price tag.

"There are hand tools that can read for authenticity, and cell phones are adapting similar technology as well," Silcox says. "For the most part, the industrial market is slow to take up these advancements. I think Underwriters Laboratories (UL) is one of the few leaders in covert identification marks at this point in time. Most of these technologies can be an expensive proposition."

The best line of defense might simply be dealing only with suppliers and distributors you are comfortable with.

"In general, it is important to know the supply chain used by your customers and to

ensure it is not being compromised with counterfeit products," Ballard says. "This is one of the critical steps to maintaining the customer relationship. Make sure they are purchasing the product from either a reputable and/or authorized supplier of the manufacturer or directly from the manufacturer."

Know the Enemy

In the case of the SEW counterfeit reducers, these items were practically identical in dimension. Upon closer examination, however, those involved realized that they were not SEW parts. Silcox at NEMA has found circuit breakers and ground rods online that mirrored original products.

So how does one identify counterfeit products? There can be minor visual imperfections inside and out that give counterfeits away. Bar codes could be in the wrong place, labels can be ground off or misspelled, and components could look slightly different upon close examination.

Price may be the ultimate weapon against counterfeit products. "If you find something online and the price is too good to be true, it probably is," Silcox says. "Word of mouth has always been helpful in the past as suppliers and distributors have shared information regarding counterfeit sources."

This brings us back to the Internet where online resources can actually help fight against counterfeiting. In the electrical sector, companies like General Electric, Siemens, Schneider Electric and Eaton sponsor an anti-counterfeit products initiative at www.counterfeitscankill.com.

The website offers news and resources for counterfeit products to bring these issues to the forefront and examine key proposals to fight back. The industrial market as a whole, including the gear industry, should consider similar initiatives to keep faulty products out of their customers' hands.

"I don't think the problem will go away, but educating market sectors on the issues will make OEMs and users aware of counterfeit products in the industry and what they can do to be part of preventing their use," Ballard says. "I believe many countries have intellectual property laws that protect the rights of the initial developer. The ones that do not probably don't have an effective means to monitor the offenders. We at SEW are addressing the issues as we become aware of them."

Silcox at NEMA adds, "For the computer software and music industry, counterfeits account for billions and billions of lost revenue. Thankfully, the manufacturing sector is nowhere near these numbers presently." ⚙️

For more information:

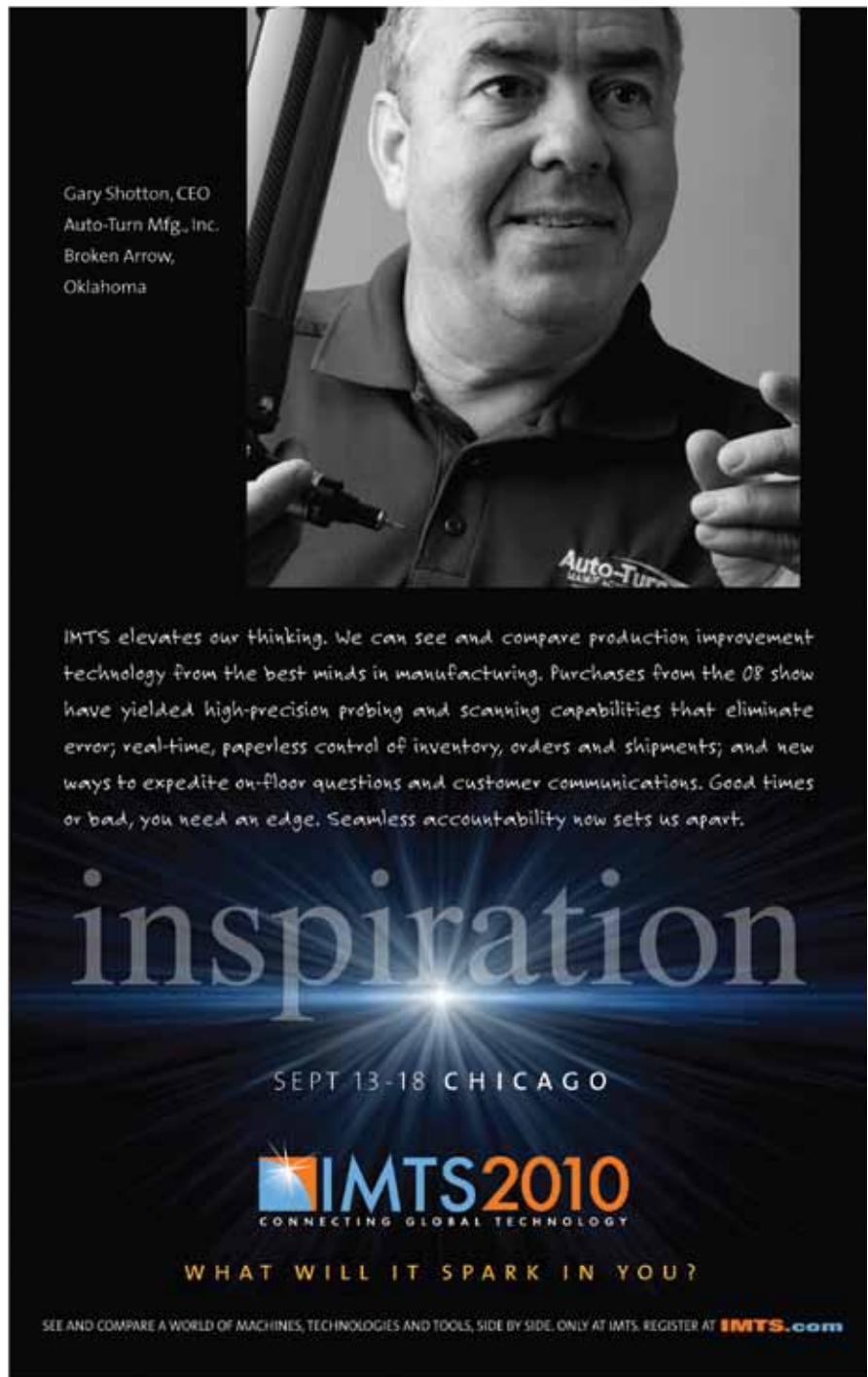
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