

The Myth: Repairing Is The Same As Remanufacturing

Many believe that remanufacturing is just another word for repair. Flight Systems Industrial Products (FSIP) wants to clarify the difference between repair and remanufacturing, which are as different as night and day.

"A lot of people think that remanufacture and repair are one and the same," says FSIP President Barry Bowman, who is on a mission to dispel this myth. At a time when customers are looking to cut costs and dealers are less willing to stock new inventory, using remanufactured products is the new rule in the material handling business. Bowman points out that a remanufactured product costs anywhere from 30 to 60 percent less than a new one. Moreover, turnaround time and availability can be anywhere from the same day to next day or only three to five days depending on the control. "During this time of economic upheaval, customers are looking for ways to save money at every corner they turn," Bowman says.

Often people ask, "Is this component worth fixing (repairing) or replacing (buying new)?" FSIP asserts that there is another, better option. Remanufacturing.

INDUSTRIAL CONTROLS

Flight Systems Industrial Products got its start in 1968 as a manufacturer of aircraft and runway strobe lights with solid-state controls designed to time and fire light pulses. Products used to control DC motors in various spacecraft and launch vehicles were a hallmark of the business. In fact, equipment flew aboard several Apollo space missions. With this solid technical experience in its DNA, it was just a matter of time before a local forklift dealer in Carlisle, Pennsylvania, walked into the shop with an Allis Chalmers forklift control and asked if someone could fix it. Of course someone could.

Today, FSIP focuses almost exclusively on the remanufacture of industrial controls. With more than 5,000 part numbers available, the company annually remanufactures over 45,000 controls used on electric and gas-powered vehicles, primarily forklifts, aerial lifts, personnel

carriers and golf carts, along with scrubber/sweepers, walkies, tuggers, wire guidance systems, scooters, mining cars and electric boats. These controls include SCR, transistorized, separately excited, AC, traction and pump controls, DC/DC converters, accelerators, dash displays, control handles, battery discharge indicators, vehicle control units utilizing CAN bus, accessory cards and ECUs for combustion engines.



FSIP President Barry Bowman displays the warehouse of remanufactured controls ready for shipment.

WHY REMANUFACTURE?

Doing a repair means fixing a specific component that has failed on a control. Unfortunately, repair does not take into account how the other parts of the circuitry may have been affected by the failed component.

The high-tech controls in use today are populated with complex power components such as mosfets and diodes that handle the current requirements to drive the motor. If one of these power components fails, the other power components that are in parallel with each other are weakened. Simply replacing the failed power component will fix the control, but it's a short-term remedy and it won't extend the operating life of the control, since the other components are now stressed.

Bowman uses an analogy to explain the difference. "Think of four guys carrying a heavy load. All of a sudden, one of the guys goes down, which puts more stress on the other three. The other three don't necessarily fail, but they are weakened, and eventually they too will go down." Bowman goes on to say, "We know there are repair facilities that offer cheaper repair services. They are able to offer lower prices because they are not truly remanufacturing the control. We will not jeopardize the quality of the control by offering an inferior product just to be price competitive with those facilities."

FSIP does not simply replace one component. They remanufacture the entire control. To do this, the control is first analyzed for root cause failure. FSIP is ISO 9001:2008 certified, and each control is subject to a thorough procedural process. FSIP technicians perform diagnostic and troubleshooting procedures. All products are disassembled and cleaned, stressed components are replaced, upgraded to the latest specifications, including software updates, and reassembled. Load testing measures product quality and ensures that the component is equal to or better than the original.

FSIP's remanufactured controls come with a warranty that specifies the product will be free from defects in workmanship and materials, and will operate within original specifications for a period of one year from the date of service. In some cases, this is longer than the warranty on the part when it was new.

OEM ALLIANCES

One of the many advantages of a remanufactured control is that it comes back to the user not only fixed and functional, but fully upgraded to the most recent revision and software. Through alliances with General Electric, Curtis Instruments, Sevcon and Navitis, FSIP has access to proprietary parts and software for a variety of OEMs, and has remanufactured controls for Hyster, Yale, Crown, Clark, Nissan, JLG, Raymond, Mitsubishi Caterpillar, Komatsu, Jungheinrich, E-Z Go and others.

On March 1, 2010, FSIP formalized an acquisition of certain assets of General Electric's Motion Controls Business located in Patillas, Puerto Rico. Products currently manufactured or provided by this plant are being transitioned to FSIP. Through this acquisition, FSIP will continue to perform the warranty service for the GE product and will retain exclusive rights to the GE trademark. FSIP also announced on March 3 that Danaher Motions (Kollmorgen) and FSIP agreed in principle to an Aftermarket



An FSIP technician performs a "true" load test to ensure the highest level of quality for every remanufactured control.

Service Agreement. Danaher is a leading manufacturer and provider of controls for electric vehicles.

Bowman points out that without access to OEM proprietary parts and software, other suppliers and repairers may simply "swap out" a part from another control. "Without this access, they dig around in some cores until they find one with a good part and reuse it."

Many upgrades associated with remanufacturing incorporate safety and reliability features that are not addressed simply by repairing an individual component. The OEM alliances ensure that the controls FSIP remanufactures are equal to or better than the original. "In many cases," says Bowman, "OEMs utilize the same control, but that control is updated and improved upon year after year. Remanufacturing enables us to pull out the microprocessor and reprogram it, ensuring that it has been programmed to the latest revision. It is now almost new."

IN CONTROL

Remanufacturing the controls for material handling equipment not only makes economic sense for users, but practical sense too. The control is updated quickly, at lesser cost, with an equal or better warranty, and runs like new. Nothing about this is mythical. And while the rules have changed in today's industrial business, the important ones have stayed the same...Be smart. Save money. Quality counts. Use Remanufactured Controls. 