

January/February 2009

Volume 37, No. 1

AMERICAN TOOL, DIE & **Stamping** NEWS™

AIDA
AMS

AFTER MARKET SUPPORT
PARTS - SERVICE - REFURBISHING - MODERNIZATION

**PRESS BUILDER SHOWS STAMPERS HOW TO MAINTAIN
A MODERN MANUFACTURING ENVIRONMENT**

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AIDA's mechanical presses, 30 to 4000 tons, total turnkey packages and its AMS program with the capability to upgrade or refurbish all aspects of mechanical stamping press equipment helps stampers maintain a modern manufacturing environment.

AIDA

Press Builder Shows Stampers How to Maintain a Modern Manufacturing Environment as They Consider New Markets

Orville and Wilbur Wright, two self-taught engineers who made bicycles for a living, invented the airplane and changed the way people looked at the world. The two brothers could have continued building bicycles, but they shared an extraordinary curiosity and creativity that drove them to find answers and solve problems. In the current economic climate, stampers can take a lesson from the Wright brothers and put creativity to work in the pressroom and the boardroom. Stampers who choose to be extraordinary will likely find paths to success that more conventional approaches might miss.

New Opportunities

Industries such as renewable energy and fuel cell development offer potential for growing new parts business. Stampers must constantly be on the lookout for opportunities and areas outside their traditional markets. To be prepared to branch out, it is also essential that stampers maintain a modern manufacturing environment. To this end, AIDA's After Market Support (AMS) program offers stampers the ability to upgrade or refurbish mechanical stamping press equipment and includes:

- Electrical Press System Support
- Mechanical Press System Support
- Logistics Support
- Press Automation Systems Support
- Used Press Support

AIDA AMS has design and manufacturing capabilities that allow stampers to modify existing stamping press equipment to increase running speeds, available work energy and other performance characteristics. AIDA AMS can also install ancillary press equipment to reduce changeover times and improve press room efficiency.

Complete press refurbishment is available for old metal stamping equipment that no longer meets current manufacturing standards. Press refurbishment provides the opportunity to increase product quality, reduce tool wear and enhance production efficiencies.

Replacing obsolete or inefficient motor drives with new technology can significantly reduce downtime and energy consumption costs. For stampers that experience regular electrical press control system errors or have incurred costly downtime waiting for service techs, AIDA AMS can also provide remote technical troubleshooting through installation of modem/ethernet connectivity.

Evaluating Options

While there are a number of things to consider when upgrading or refurbishing a press, if the basic press specifications still meet current part requirements, these options can be positive alternatives. A tier-one automotive stamper with AIDA presses, some of which have been in operation for more than 15 years, chose to upgrade its equipment as a cost effective solution to reduce downtime and mainte-

nance costs, achieving higher speeds and improving efficiency. The presses produce automotive components from materials that include galvaneal steel, cold roll and high strength steels.

In 2004, AIDA upgraded three mechanical TMX transfer presses with complete servo-transfer and destack feeder packages for the supplier. A total transfer system solution, AIDA's TMX, 300 to 4000 metric tons, combines fast speeds, quick-die changing and a non-stop blank feed system to meet the demands of lean manufacturing.

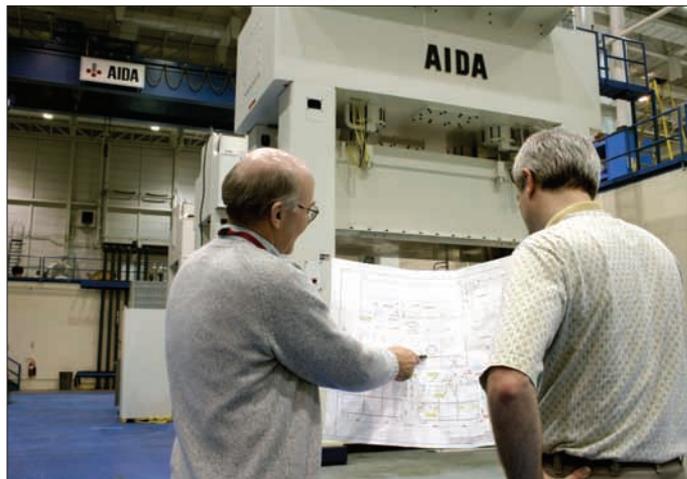
A servo transfer mechanism, easier to maintain, gives a transfer press the ability to change the motion profile for the transfer pitch, the transfer bar clamp motion and the lift motion. The servo transfer can deliver increased production speeds and greater efficiency because all three profiles can be adjusted and retimed for each part or each job to achieve optimal operating speed. In addition, once job programs have been written, they can be stored in job memory eliminating the need to constantly reprogram the press. A synchronized transfer drive can provide uninterrupted production by eliminating frequent machine stoppages.

"The ability to partner with a press supplier like AIDA gives us access to a manufacturer that can work with us on improvements other companies can't make," a spokesman for the stamper said. "Because AIDA built both the mechanical transfer and the servo transfer, they understand the design and technology behind the equipment. That's a big advantage."

Best Solutions

Running just in-time production, the stamper decided to further enhance efficiency by upgrading another AIDA TMX with new servo drives and motors. "In addition to upgrades AIDA-America's analysts and engineers can support us when we have a new concept that requires custom work," the spokesman said. "Their design and manufacturing capabilities make it possible for us to receive total turnkey packages tailored to our individual requirements."

The stamper was able to carve out additional efficiencies by standardizing its press controls in 2007. "Our newer AIDA presses had Q Series Mitsubishi PLC controls," the spokesman explained. "Parts had become obsolete for an older control (a different brand) on our AIDA PMX progressive die press. We wanted to be proactive and address parts availability before it became a problem. In addition, we didn't



AIDA engineers and analysts are able to evaluate and design the most cost effective solutions for upgrading or refurbishing a press.

want to have to stock a lot of different spare parts. AIDA's engineering department designed the control using a Mitsubishi PLC platform and standardized the other press controls."

AIDA's PMX, 300 to 1000 metric tons, designed for progressive die applications, helps eliminate slide tipping caused by off-center loading. The PMX also helps customers extend tool life, reduce ownership costs and improve production efficiency while its advanced link motion minimizes secondary forming and assembly operations.

Complex Task

Upgrading press controls is a complex task, taking three to four months preparation. The data programmed into the old controls must be properly con-



AIDA technicians can provide electrical press system support from control systems to motor drives, operator interface units to a modem to allow remote technical troubleshooting.



When it comes to logistics, AIDA has the in-house knowledge to plan a move from its initial stages to scheduling, rigging, erecting and on-site installation at a customer's facility.

verted into the new controls. According to the spokesman, AIDA technicians worked seamlessly with Mitsubishi to make the conversions. The actual upgrades, which took about one week per machine, were done during shutdown periods. AIDA technicians were also present when production was restarted to make sure everything was operating properly. The stamping supplier is also working with AIDA on a complete servo control system replacement for its largest TMX transfer system.

In July 2009, AIDA will implement a custom solution for the stamper's second PMX press to help meet changing material requirements for high strength steel. In addition to AIDA's AMS program, the press builder is able to help stampers diversify and remain flexible by providing a broad range of mechanical stamping presses and total turnkey packages.

Experience and Help

Because of lean operating practices, most companies don't employ an experienced staff that can properly specify equipment. Whether parts requirements dictate a capital equipment purchase or a mechanical

upgrade, AIDA is able to perform the necessary leg-work by evaluating production requirements and recommending the most efficient solution. In addition to the right press, this evaluation should answer questions pertaining to automation, quick die change, part-to-part changeover and any other features that may be required. Whether a company is looking to purchase new equipment or modernize existing presses, a supplier with a broad line of equipment and an applications team able to analyze current and future job requirements, can help define the choice that will deliver the necessary efficiencies while helping to raise profit margins.

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