

# Transfer Takes Off

To win a new job on its 1200-ton mechanical press, Egar Tool & Die Ltd. elected to outfit the behemoth with a transfer system. Two years later, press time is nearly filled and the company is looking to add more transfer capacity.

BY LOUIS A. KREN, SENIOR EDITOR

What began in 1978 as a three-man tool-and-die shop operating out of a garage has been transformed into an 80-employee 80,000-sq.-ft. stamping operation primarily supplying the automotive industry. Key to continuing growth at Egar Tool & Die Ltd., Cambridge, Ontario, Canada, is the addition of a servo transfer system to a 1200-ton Blow press, enabling the stamper to win new automotive transfer work.

Egar entered the stamping arena years ago in a familiar manner, converting a tryout press to perform production work.

“The press just stood idle for much of the time,” recalls Frank Lenzi, vice president, “so we started running production on it and have since added presses.”

Now the company boasts a roster of five mechanical presses, in tonnage capacities from 125 to 1200 tons, as well as a robotic-welding cell. The company builds its own dies, to 30 tons,



Egar Tool & Die outfitted this 1200-ton press with a front- and rear-mounted transfer system, enabling the company to win a multitude of automotive transfer jobs.

courtesy of a toolroom that includes a horizontal boring mill and wire-EDM equipment. Die build is backed by an inhouse die-design team.

Early on in its stamping efforts, Egar (in thinking up a company name, the three original principals decided to spell “garage” backward and drop the last two letters to ease pronunciation) concentrated on progressive- and hand-transfer jobs serving primarily automotive clients, with some electrical and other work as well.

In 2002, Egar looked to fill production time on the 1200-ton press and accompanying 72-in.-wide coil feed.

“We bought the press on spec. and were using it for some progressive-die

jobs,” recalls Lenzi. “A potential customer asked if we might be able to perform some transfer work.”

Very interested in populating the big press, Egar officials decided to purchase a transfer system from Linear Transfer Systems Ltd., Barrie, Ontario, to win the job.

After Egar installed mounting pads on the press and rerouted a few wires, Linear Transfer Systems was able to affix a LTS-2000 FR (front- and rear-mounted) unit within three days. Due to tooling issues unrelated to the transfer system, Egar end up losing that initial transfer job, but word was out that the company had transfer-press capacity. That was when the work took off.

## Transfer is the Ticket

“The press is booked solid now with a mix of progressive- and transfer-die jobs,” notes Lenzi. “There seems to be quite a demand for transfer work these days. Transfer allows for material savings, enabling us to interlock the blanks. Sometimes a progressive die will not allow for the most favorable blank interlock, and that is where transfer shines. We also save on material because we don’t need the carrier strip. We run all of our jobs with blanking accomplished within the transfer dies, and no offline blanking means less material handling.”

Another plus to transfer work, according to Lenzi: “In transfer jobs, we can perform operations such as flanging up and down, which brings timing problems in progressive dies. Transfer gives us more versatility, and unlike progressive dies, we don’t have to run parts through the press in a certain way to perform all of the needed operations. For example, in a progressive die we may have to carry a part in a certain way in order to cam it. That is much easier to do with transfer dies, where we can run the blank and then rotate the part, run it in the opposite direction or do whatever we need to do. With this transfer system, we can run two parts, one part along one side and then run it back the other way if needed.”

## Simplified Changeover

The LTS-2000 transfer unit at Egar mounts on the front and rear of the press, navigating parts through a 180 by 84 in. press bed. It features servo-motor control of all axes, allowing for high transfer speed and accuracy, and retracts up and out of the way for simple access for die changeover and tool adjustment.

It parks out of the way in only a few seconds so that we can run progressive or hand-transfer dies if needed,” says Lenzi. “We wanted that versatility.”

Also included in the transfer-system package: touchscreen control, master encoder feedback and programmable part detection.

Computerized tool-recipe storage



The transfer system can be shifted up and out of the way, allowing Egar to switch quickly from automated part transfer to progressive- or hand-transfer-die work.

## **Transfer Capacity**

allows Eggar to change out transfer jobs quickly, important considering that the typical job run here is about 5000 pieces.

“We try to make the runs as long as possible to decrease the need for changeover, and we’ve incorporated rolling bolsters to bring typical setups down to less than 1 hr.,” says Lenzi. “Programming the transfer curves for the first job might take an hour or two, but once the programming is done we just input the job number and the system automatically sets itself up. We do not have an automatic transfer-bar clamping system, so we have to do that manually, which takes about 15 min. The majority of setup time is due to rolling out the bolster and rolling in the prestaged bolster with the new tooling.”

Eggar runs automotive parts exclusively on the transfer setup, including a new job that entails 400,000 pairs of spring-hanger parts annually. Material thickness typically runs 3 to 4 mm with some below 1 mm. Stampings consist more and more of high-strength low-alloy steels, notes Lenzi, “but some of it is cold-rolled or regular hot-rolled 1010. We increasingly see 50-ksi material, and we were running a crossmember from 80-ksi material, very difficult to stamp. Of course, the transfer system really doesn’t care how thick or strong the material is, just how much it weighs. Ours was designed with a heavy part in mind, to a 200-lb. load.”

### **New Press to Anchor Expansion**

The successful inclusion of transfer work into its production capability has Eggar nearing its capacity, and an expansion is in the offing. Toward that end, the company has purchased another 1200-ton mechanical press, this one from PTC, with an identical bed size as the existing unit but with larger windows to fit a through-the-window transfer system. The company also hopes to employ automatic transfer-bar clamping on any new transfer system to further assist in rapid job changeover.

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