

Case study – Casino and hide traceability

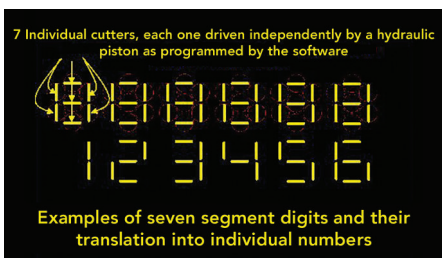


Figure 2. Seven segment cutters



Figure 3. Stamps in wet-blue



Figure 1. Hide stamping at Casino Hide Tanners

When Ian Scher, General Manager of Australian wet-blue hide processors Casino Hide Tanners (CHT), decided to upgrade the in-house hide traceability system, he contacted Joe Gibson of Australia based traceability specialists, Gibson Bass to discuss its hide stamping equipment. Scher explained that the Casino system had some particular requirements that might be different from other installations Gibson Bass had previously undertaken. However, every installation Gibson Bass works on is different. When installing an individual identification traceability system, with the many variables and individual circumstances that exist in each supply chain, what every machine delivers is unique to each business.

The company has installed its hide and skin identification machines in four continents; on kill floors, at the bottom of hide chutes in abattoirs, behind fleshers and even in hide stores. In the case of Casino Hide Tanners, a division of the Northern Co-operative Meat Company, the stampers had to go at the bottom of the hide chutes at their abattoir (see Figure 1). There are two killing chains at the abattoir, and each one required its own stamper with its own chain identifier. In addition, Casino wanted the same number on the hide as the body number on the kill floor. To achieve this, the stamper was programmed to collect a

body number from the kill floor computer, add the kill floor identifier, and stamp that number on the hide. Planned capacity increases meant that the body number digits might increase in the future, so the stamper capacity needed the potential to be increased at some point in the future.

As Joe Gibson points out, these sorts of requests are quite normal. “In a stamper we delivered to South Africa, to stamp sheepskins destined for wet blueing in Spain, finishing in Italy, and to be used for leather goods in France, the customer was not sure at the time of ordering what numbering system was required. In this case, the machine was programmed to stamp, at the user’s choice, an indexing decimal number, an indexing hexadecimal number, a batch number, or to receive a number from an external source to be stamped on the skins”, he explains.

Stamping principles

The stamping principle is based on a seven segment digit. There are seven cutters in each digit, with each cutter having its own hydraulically driven piston which drives the cutter through the hide or skin (see Figure 2). Each cutter has the equivalent of 20kg pressing on it. The computer is programmed to decide which of the cutters are activated at each stamp. Each digit can make all the numbers, most of the letters, and several other codes. The

“There are two killing chains at the abattoir, and each one required its own stamper with its own chain identifier”

SCIENCE & INNOVATION

Traceability



Figure 4. The Cutters go right through

numbers are very easy to read in wet-blue (Figure 3). Customers can decide how many digits they want in their stamp. The biggest stamper that Gibson Bass has made had nine. It all depends on how many combinations are needed for the traceability system. No matter how many digits are in the machine, all the digits stamp at once, and the stamp is completed in around 2.5 seconds. The cutters go right through the hide, meaning the drop split also has the identification on it (Figure 4),

The machine is specifically designed with tannery and abattoir conditions in mind. It is made up of three major components (Figure 5). The hydraulic unit that drives the cutters which penetrate the hides and skins; the control box, which contains some hydraulic components and the electronics; and the stamping head, the heart of the machine (Figure 6). The stamping head is in brass and stainless steel, with the cutters made from heat treated 440B stainless steel. It is a precision machine with miniaturised hydraulics so the stamp takes up the smallest possible area. Despite its miniaturisation, it is incredibly robust, and stamps millions of hides with minimal servicing. There are no consumables used in the stamping process.

Traceability in the leather supply chain

At a recent forum held during the 2016 edition of the APLF titled "Getting Smart: Conceptualising What is Needed to be the Tannery of the Future", Craig Drew, Group Head of Materials for Clarks, said that Clarks gets a phone call every day wanting to know where the cows that go into the leather for their shoes come from. In his closing remarks, he said that what was needed from the tannery of the future was transparency in the origins of its hides and skins. There is no doubt that traceability is an industry buzz word of the moment, with end users clamouring to be able to assure their customers that their supply chains are socially and environmentally responsible, and individual identification back to the farm is required for this. In addition to this, there are many other good reasons to have individual traceability.

In the case of contract tanners who want the ability to mix their own and their customers' hides in the same drum, individual identification gives them this ability. It allows them to always send away full drums, with big reductions in processing and labour costs, and resultant increases in available drum capacity.

In addition, individual traceability is a huge bonus when the subject of claims arises. One of the Gibson Bass stamper users was recently advised by a customer that one pallet in a shipment did not have any individual identification. There had clearly been a substitution, as all the hides had individual identification



Figure 5. Gibson Bass stamper

when they left the tannery. This substitution scam may have been going on for some time, but before individual identification it had not been discovered. When negotiating claims, individual identification gives the opportunity to start from a position of certainty and trust, rather than of suspicion and mistrust.

One of the most interesting stories Gibson Bass has heard regards one of its stamper customers that was selling wet-blue to a merchant. A finishing tannery who purchased from the merchant found that the hides he received with stamps on them were consistently better than the rest. He made some discreet private enquiries to trace the wet-blue tannery that was doing the stamping, and contacted them. He now buys direct.

Lowe Corporation in Hastings, New Zealand, also has the Gibson Bass Stamper in operation at its wet-blue plant. Lowe's will stamp a million hides a year and has been in operation now for four years. Lowe is very happy with its performance. So much

so they have invited any interested international visitors who would like to see it in action, to come to New Zealand to view it. At the recent APLF, COO Andrew Ritchie apologised to Joe Gibson for not getting in touch more often, but he said there had been no reason to be in contact because the stamper just keeps on stamping. Lowe Corporation is currently investigating the stamping of their lamb and sheepskin pelts.

Meanwhile, Casino now has the ability to accurately trace its hides back to the farm they came from, as

Ian Scher showed during his recent

address to the Leather Working Group meeting in Hong Kong. Scher said that he was able to identify that over a two-week period, Casino could trace hides back to 628 farms and 10 feedlots.

The machines range in price from around US\$45,000 for a three-digit stamper up to around US\$75,000 for a seven-digit stamper depending on A\$/US\$ exchange rate fluctuations.

About Gibson Bass

Joe Gibson and Richard Bass began their hide identification collaboration in the 1990s while working on a hide improvement project run by the Australian Meat and Livestock Corporation. Following the successful completion of the program, they again collaborated to develop the Gibson Bass stamper to provide clear, individual, permanent hide identification. Joe Gibson, a fourth generation tanner, provides the industry understanding required for the varied installations, and does the programming. Richard Bass, an engineer with many patents to his name including a famous world first fish harvesting machine, designs and builds the stamping machine in his factory in Brisbane, Australia. ■

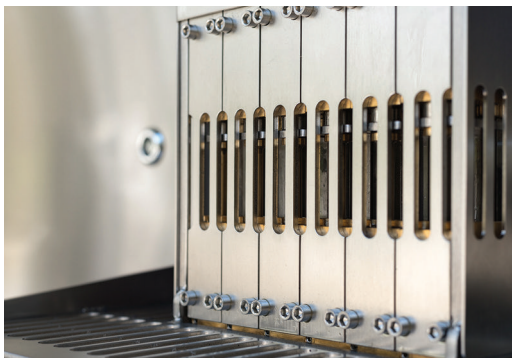


Figure 6. Robust engineering