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## From trash to cash

**A profile of Arizona Wire Rope and Rigging and its president, Marty Sharp**

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## Bleichert's Wire Ropeway at Mkumbara, Tanzania

**Details of this 5.67 mile long ropeway are provided in detail by author Peter von Bleichert**

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# From trash to cash

By Thomas G. Dolan

*If you've never thought the wire rope business can be a barrel of laughs, you've never met Marty Sharp, president of both Arizona Wire Rope and Rigging, and Ultra-Safe, Inc.*

When Marty Sharp was a kid he liked to tinker with — well, tinker toys, but he moved on from there. "I liked to take things apart, like typewriters, to see how they worked," he recalls. "But I often didn't know how to put them back together, so I got into trouble for that."

Those traits stayed with Sharp as he grew up - especially the getting in trouble part.

Most successful people, when telling their story to the press, understandably are inclined to gloss over a rambunctious past. Not Sharp. What you'll read here most people would not say to a reporter, or, if they did, would want it edited out. Not Sharp. It may be that what passes for conventional common sense is overcome in Sharp by his irrepressible sense of humor, one which he doesn't hesitate to poke fun at himself. At age 43, he is president of Arizona

The business end of Marty Sharp's homemade, 500,000 lb., pull tester.

Wire Rope And Rigging, Inc., a branch of Jack Rubin and Sons, Inc. He is also the president of a company he founded, Ultra-Safe, Inc., which manufactures fall safety equipment. Both businesses are located in Phoenix, AZ.

Back to what Sharp approves of calling his Rube Goldberg/mad scientist beginnings, he grew up with a severe condition of dyslexia. He excelled in some subjects, such as math, but never learned how to read well. He began working part time in a rigging shop at age 12. After dropping out of high school, he went to work full time for the same shop, which had changed ownership. This was in 1980 when he was 17.

That's when he decided to build his first pull testing machine. Why didn't he ask his boss to buy a professionally built machine, available on the market back then? "We thought it would be cheaper to build our own," Sharp says.

It was a homemade machine. "I didn't quite know what I was doing and was learning the hard way," Sharp says. "But I thought it was so space age, with red digital read-outs which made it so high-tech." He had a lever to operate the ram forward and backward." One problem was that, unlike professional-


Marty Sharp and his pride and joy, Tonzilla, a 500,000 lb. pull tester he constructed himself using mostly surplus parts and scrap metal.

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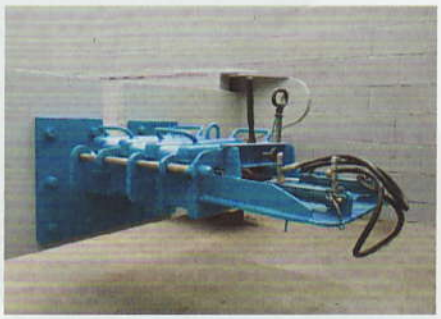
ly-built machines, this one didn't have a protective gate over the test bed. "I would reach around these two big reels of wire rope to reach the handle," Sharp recalls. "I figured the most I could lose was a hand."

Sharp initially put the tank of hydraulic fluid right behind the ram. "A bad idea... when things broke they'd blow a hole in the tank," Sharp says.

For testing a 100 foot long sling he had only a 40 foot bed. "This homemade disaster had a Lucker grip with two wedges, about 150 pounds each. "My first test was on an 1-3/4 inch cable. I was real proud of it at first when everything seemed to work ok. But then I noticed the wedges were gone,they'd blown out the back of the machine. There was a tremendous release. They flew about 100 yards. It's lucky no one was there. They could have taken off a persons' legs at the knees." Sharp's understated conclusion. "It was a design flop."

The wedges came to a stop by crashing into a pallet of boomer chains "It almost went through the boss's office," Sharp says. "Luckily, he wasn't there." Obviously, his boss was gone a lot, or he might have seen what Sharp was up to earlier. As it was, Sharp lasted two years before he was fired. "He decided I was too dangerous to have around, punching holes into everything." Nevertheless, Sharp was miffed to be let go. "I was making car payments," he says.

Incredibly, Sharp got a new job with Jack Rubin and Sons who wanted to open a branch in Phoenix (its other branches Las Vegas, Salt Lake City,



A Lucker grip is used to test assemblies longer than 60'.

Boise, Burbank, and Compton).

Sharp started at a salary of $2 an hour less than his previous one while sweeping floors. This was 1982. He became shop foreman in 1985 with one man working for him. He became general manager in 1988, and president in 1995. He now has 45 employees.

His pay rapidly increased so that soon he was making much more than in his previous job. "Every year I sent my former employer a copy of my W-2 form with a thank you note," Sharp says. "I was able to take away some of his established business. I fell into the right place at the right time," he says.

Sharp knew all the accounts, and also that his former boss spent much of his time racing cars. So Sharp offered

super service on deliveries and in other ways. Since that shop had been the only wire rope business in town, his old boss charged accordingly. He was charging $3 a foot for 3/4 inch wire rope. Sharp knew that in California it was going for $1.50 a foot. "But there was a lot of competition in California," Sharp says. "I was young and naive and did not pay attention to the market. I should have charged $2.50, but I ruined the market for him." But Sharp wasn't too unhappy about that. He recalls that at one point when his former boss tried to lure a salesman away from him, he heard that his former boss said, "I had no idea Marty would do what he did." Sharp was gratified to hear that, as he was to hear that the man sold his company in 1988.

But Sharp matured, as did Arizona Wire Rope and Rigging. And 25-years later, he decided to have another go at building a pull testing machine. To have his own rigging tested he had to send it out to another Rubin facility. But Sharp wanted to have his own. Since purchasing one would cost about $250,000 and he had a budget of $75,000, Sharp decided to do it himself. "I didn't ask permission, but planned to spread it over 1½-years and, worse case scenario, if it didn't work I could post it towards office expenses as an oversize paper weight," Sharp says.

Retractable wire rope lanyards are part of the line of fall protection products carried by Arizona Wire Rope and Rigging.

He needed steel, so he went to an old scrap yard that was owned by a crane company. He found a hydraulic ram which had been there for years and had been built in 1955 for $3000, and a box beam that he was told had been a part of an overhead crane. It was 40 inches tall, 18 inches wide and 60 feet long. He got this at 18 cents a pound or $10,000.

Sharp had called a friend in the wire rope industry who was in the process of building a 4,000,000 lb. pull tester but later decided to back it down to 2,000,000 lbs which now made an extra ram available. "He offered to sell it to me for $80,000 and said I could get it up and running for another $150,000," Sharp recalls. "So when I saw this one for $3000, I jumped at it." But when he showed another friend the 60-foot box beams, the latter said, "You have my truck bed." About 10 years before he had purchased this material, which was used for carrying 100-ton loads, he bought it to get the tires and left this steel bed behind. "Didn't you notice the reflectors?" his friend asked. "How many overhead cranes have road reflectors?" "I never noticed them," Sharp says. "No wonder I got it for 18 cents a pound." His friend let him keep it in exchange for free pull testing services.

Sharp got the material sand blasted, repaired, chrome-plated, put together and up and running. Overall it cost him $75,000, which he believes would be worth $250,000 to $300,000 on the market. "In conclusion, if I had to do it over again, I'd call Roberts Testing for a testing machine," says Sharp. "Building this was a real pain, like climbing Mount Everest."

But here Sharp has to be joking. Not only did he build it at a far cheaper cost than if he had purchased an established model, he had also fulfilled his goal of taking this type equipment to a

different level.

He certainly has a different attitude toward safety than he did when he was a kid and needed a beer or so to build up to approaching his "homemade disaster." Instead of a manual lever this version is operated remotely. He hired some computer students at the University of Arizona to design some software, which cost $25,000. "It's pretty complex software which does many things you'd not imagine it could do." For instance, there is a remote control camera inside the test bed which records the test. This camera can zoom in for a close-up of the serial number on the sling and then back off to observe the test. In addition, an engineer in New York can watch on his laptop the test as it is taking place in real time. "He doesn't have to fly to Phoenix to watch it," Sharp says. "This is a real value, especially in aerospace which often sends engineers to watch the test in your facility, to protect against fraudulent certifications."

Sharp does a lot of training in his facility. "We have a 50 inch monitor so people can witness the test, but hundreds of yards away," Sharp says. "I know how things can fly out." Yet, don't think because Sharp has grown up that he has lost his childhood sense of mischief. "I have a microphone in the machine so you can hear the wire rope breaking," Sharp says. "We have 20 to 40 people watching, with audio surround sound, and first they hear a little ping ping, and this crescendos to a tremendous noise. It traumatizes them."

Moreover, the machine is still a work

The sewing room At Ultra-Safe, where body harnesses and fall protection products are manufactured.

in progress. Next year he hopes to add a high speed camera which will capture the action of a wire rope or a piece of hardware breaking. Another new feature will be the capability to register heat, to see where the hardware is stressing, these changes to be shown in different colors. "Engineers like to see where apiece hardware is stressing," Sharp says. "They like to see the visual component which makes sure the paper report is accurate."

This pull-testing machine is opening up not only new possibilities for his business, but is also leading to new avenues as well. He is being approached by attorneys who find the documentation this machine offers interesting for wrongful death and manslaughter cases. "I never much liked lawyers before," Sharp says. "But now my attitude is changing. The sky's the limit with these guys. They just ask, 'how much?'"

Sharp's devious ways got him in trouble with his boss, CEO Bruce Rubin, in a roundabout way which led to his founding Ultra-Safe. In the early 1990s, he wanted to make nylon slings, so he purchased a Class 7 sewing machine. But Rubin found out and said, "There s no way you're going to make slings. That's what our Salt Lake City division does." So Sharp asked if he could use the machine to make fall equipment, harnesses and lanyards. Rubin said ok to that, and, in fact, became Sharp's silent partner when he founded this separate business in 1995. "I'm glad he talked me out of it," Sharp says. "The nylon sling business doesn't seem to be as profitable as fall protection."

Sharp built his own vertical 50,000-

A drop test tower approximately 20' high was built to test body harnesses manufactured at Ultra-Safe, Inc.

pound tester. His load cell technology, which measured fall impact fired at 10,000 cycles per second, initially prevented him from getting his certification. But then he realized it was too accurate, so toned it down to 100 cycles per second, which meets the standards, so he passed the test with flying colors. He now has his third party certification with which he can test other fall protect equipment, as well as his own.

"I told the CEO that I thought the first year with Ultra-Safe we could do $80,000 a year in sales. I was very wrong,," Sharp says. He now reports that both the wire rope business and the fall protection business do several million a year.

Sharp, 43, married a woman from South America, Maggie. They have two children, Franklin, 5; and Sofia, born in August 2006. Sharp hasn't said whether he'll ever allow his kids to play with tinker toys. He names his hobbies as "golfing and making money." But he also obviously enjoys making money by making things.

He enjoys working for the Rubin company. "They're extremely generous, but they expect you to bring something to the table too," Sharp says. When he was 19 one of his biggest worries was making his car payment. Recently he was able to purchase a 7 Series BMW and adds, "That's one of the things I don't have to worry about anymore." WRN