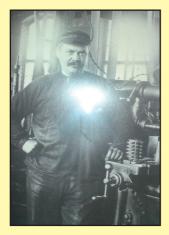
Ingvar Haglöf - a Legend in the Woods

ince the end of the 19th century, increment borers have been a valuable help to age determine and quality brand trees. "How would you replace a crowbar" is the founder of Haglöf Sweden, Ingvar Haglöf's, simple comment on why borers have been and continue to be the most natural ingredient in every foresters working equipment, all over the world.



Ingvar Haglöf founded Ingenjörsfirman I. Haglöf in 1971. With a thorough education and background in workshop engineering, Ingvar decided to take over the family company once run by his father, Anders Haglöf. Anders had worked together with his father August, whose image from the well equipped workshop in Mora is preserved to the afterworld. (*Photo from 1920*).



The very first increment borer was displayed at the World Exhibition in Paris 1889. The inventor was a German professor in mathematics and scientific engineering, Max Robert Pressler. An innovative entrepreneur from Mora by the name of Anders Mattson bought the

invention. The earliest samples of increment borers are preserved and can be seen at Siljansfors Skogsmuseum (Forestry Museum of Siljansfors) in Mora, Dalecarlia, Sweden.

During the turn of the century and the years that followed, Swedish forestry industry took a great leap forward. Vast areas of coniferous woodlands were suddenly looked upon with new eyes – there was a greater value in trees, than merely using them as firewoods.



Picture showing the oldest increment borer in Haglöf Sweden's collections

Companies making tools for forest production were numerous; all gathered in a small area around the great lake of Siljan in Dalecarlia. This area was, and still is, a district filled with tradition, production knowledge and manufacturing tehnology. Previous partners became competitors for an increasing number of customers. Axes, hammers and other tools were added to the assortment.

When Anders Haglöf started his own workshop, his brothers joined him. Haglöfs Mekaniska Verkstad (HMV) was run for a number of years and eventually became today's Haglöf Sweden. The family company structure continues and present company president is Ingvar's son Stefan Haglöf. With an entire battery of electronic measuring instruments, Ingvar is still active in the company. And - increment borers still own his undivided attention.

Ingvar Haglöf came to the family business in the beginning of the 1970es, with a genuine education and manager trained from a world leading multinational company. At the time of the takeover, Haglöfs Mekaniska was the smallest actor of the Scandinavian borer manufacturers. Rather than taking up the national competition, Ingvar grabbed the bull by its horns - and brought his increment borers overseas:

- With customers like Ben Meadows, and later on Forestry Suppliers, I never really needed to compete with other Swedish borer manufacturers, Ingvar says. It was in my favor that the other weren't particularly interested in taking their products abroad. The craftsmanship aspects of the borer production affected deliveries, and there were long delays. In addition, it was virtually impossible

to hire people of this dignity in Dalecarlia; there was a huge demand for skilled technicians. Our biggest competitor Djoos moved their production to Finland. They soon experienced severe problems with their deliveries.



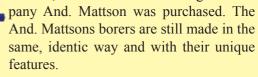
- A well-kept secret is that Haglöf started to manufacture also the Djoos borers: red handles, and with the



name Djoos engraved in the borer... I guess it is all forgiven and forgotten by now. We placed our production unit in another part of Sweden, where unemployment, not overheating, was a problem. One thing led to another, and my family and I moved up north. At that time we had the entire Swedish Forest Industry just around the corner. Today, most main offices are located in Stockholm or abroad.

Old pricelist from Haglöfs Mekaniska Verkstad

Today, Haglöf is the dominant borer manufacturer on the world market. In 1991, the borer manufacturing of com-



The red Djoos borers are owned by Finnish company Suunto. New actors appear from time to time, with varying results.



One thing is for certain - a great deal of patience and something else than just ordinary workshop experience are required to make an increment borer.

o other product in Haglöf Sweden's range can stir emotions up as much as the increment borer. Borers are used in research work, many times in tough conditions and extreme situations. They are brought along on expeditions to the most remote locations, used in dead wood, burnt forests, ancient buildings and shipwrecks.



Haglöf Sweden are in frequent contact with dendrochronologists and other forest researchers, that take thousands of samples every season.

Both positive and negative comments, questions, opinions, tips and feedback are sent to Haglöf Sweden's mail forum. Most letters concern increment borers. One comment often heard is that of old borers being of superior quality.

- One explanation is that the raw material is different now. And the manufacturing technique is extremely hard to copy, only the most skilled technicians could make the borers like this. Today,



a handmade borer like the old ones would take hours of craftsmanship and cost thousands and thousands to buy.

During the half century that Ingvar Haglöf has led the production of increment borers and other field measuring instruments, a constant will to improve has been the most significant factor.

The craftsmanship has regressed in modern production plants, and it is replaced with technologic advances. When raw material quality deteriorates, new techniques to work with the steel have been developed, tested, used, rejected or approved.

- Some customers, especially from university communities, often claim that they would be happy to pay for an increment borer made the way they used to be made in the 1950es. I don't think they realise just how much more it would cost.
- Our volumes are comparably small, sales figures and demand for borers rather constant through the years. The craftsmanship is just not there any more. And, if it would be, the price tag would be accordingly. We're talking about just one increment borer costing several thousands...

Why not choose a simpler product, one without the built-in booby traps that lure behind the making of each and every increment borer?

- Well, I'm not in it for the money, that's for sure, Ingvar says. That would be too easy, it's not interesting to me.
- What drives me is the will to be the number one player in this sector. The Company Haglöf Sweden still fascinates me. It has everything that a multinational company with thousands of employees has. But we manage it with 50 people! Each new product that we have introduced has had to wait for release until the preceding product has reached break-even. That's our simple philosophy

and strategy.

- The borer is our spine, our quality mark and our door opener in the world.
- Increment borers have become synonymous with our company and philosophy.





Images from the frequently visited Haglöf stand at Elmia 2005

Haglöf Sweden is a company with traditions. It has known ups and downs in the world economy. Ingvar Haglöf looks at the present recession with experienced eyes.

- The hard economic reality has come to stay for a long time. It is not all bad for a producing company like ourselves. New products are cheaper to make, tools are cheaper, it's easier to hire competent people. Large forestry companies are smart enough to modernize during economic downs. They use their time in a constructive way. This is good for us - we're noting an increased demand for training. We work hard to make good material and to arrange for suitable offices. We own unique knowledge - and most of all, we are experienced. We train customers and distributors in modern system solutions, the entire chain from field to office.



So - the future for the borer - is it looking good or bad? Well, how do you replace a crowbar?



uring the years, Haglof Company Group and Ingvar Haglöf have attracted a great deal of attention around the world. A long line of fine awards and prices culminated in April 2008 with "Greve Carl Bernadottes Skogspris", awarded to Company Leader Ingvar Haglöf, Långsele, by His Majesty the King, Carl XVI Gustaf, with the following motivation:

GREVE CARL BERNADOTTES SKOGSPRIS Ingvar Haglöf,

"How old is the tree? How high and how big? Efficient and accurate forest inventories are conditional for any cultivation. Only when you know what the forest looks like, a company or a country can determine how to plan for and manage it. Through his work with building up the Company Haglöf, its products for forest measuring and the different markets, Ingvar Haglöf has played an important role to make Sweden a leading country in this area.

The truly big contribution that Ingvar Haglöf has made is allowing better management planning for every different forest. Hundreds of square kilometers of woodlands disppear every day from the surface of the Earth, forest land where no structured and sustainable management work exist. Local population, entire countries' economies, plants, wildlife and climate; we are all losers in this. By giving about 200 different countries - every place on earth where forests exist - efficient tools, such as height measurers and software for cruising work, helping countries that strive to take control

over their forests; changing exploitation to cultivation, fruits that are already notable, but need to be seen more of it in the future; Ingvar Haglöf has in a significant way contributed to increasing sustainable management of our forests." (Text: The Board's motivation,

in free translation. Photo: Jonas Berggren)

aglöf Sweden are happy to support local sports activities, especially young athletes. The successful biathlon team of Sollefteå and Östersund are Haglöf Sweden sponsored clubs. Jenny Jonsson, future biathlon queen to be, is Haglöf's catalog model 2009.







Apart from youth athletes, Haglöf Sweden also have sponsor missions for certain forestry schools and activities concerning forestry.

■ xhibitions have been Haglöf Sweden's marketing strategy throughout the years. As an every occa-✓ sion exhibitor at the SkogsElmia since the beginning of the 1970es, participant in every SAF meeting (Society of American Foresters) since the 80'es and as exhibitor or visitor at around 30 more expos - per year! - Ingvar Haglöf is a wellknown face and character in the world of forestry.

Ingvar Haglöf together with the company's experienced R &D ManagerJoakim Nygren amd Marketing assistant Annette Lindahl, demoing computer calipers at Elmia 2005



Columbia, Canada, with the "Haglöf Totem Pole", a symbolic honoration award. Ingvar Haglöf is well known in the Canadian forestry com munity and has plenty of good friends, sharing his passion for fishing and wildlife.

s an honorary citizen and owner of the City's key, Ingvar Haglöf is often seen in Madison, MS, USA, visiting its parks and premises. Haglof Inc, the american subsidiary, was established in 1981 in Atlanta. The company moved after only a few years to Mississippi. When new premises were inaugerated the street outside Haglof Inc was named after Ingvar's hometown Sollefteå. The lively sistercity relationship between the communities that followed is still active especially in the educational areas.

he charismatic mayor of Madison Mary Hawkins-Butler is a close personal friend of both Ingvar and his wife Birgitta Haglöf. Birgitta Haglöf has played an active role in the company from the very beginning, and has had a large impact on the company success and stable solidity.





he lively collaboration with different institutions and universities throughout the years has been of great significance for the development of both the company Haglöf Sweden and its product solutions.

ones County Junior College is one very important cooperation partner in the USA. JCJC is a future oriented institution where the Forestry Faculty is known for its open mind toward new technology. College president Dr. Jesse Smith (image to the right) keeps a close watch on international industry and has travelled a great deal in Europe and Sweden to study



sustainable energy and recycling solutions. Haglof Inc (subsidiary to Haglöf Sweden in MS) often meets with JCJC for training sessions in modern system solutions and traditional inventory techniques.



rofessional forestry people gain both knowledge and experience from meeting and comparing methods and techniques. An important person in development matters, especially in South Eastern USA, is Dr. Jim Walley, Vice President for External Affairs. Dr. Walley is member of a network of high level forestry professionals, where the will to explore and expand are main ingredients.

LU, Swedish University of Agricultural Sciences, is another strong link in Haglöf's network. Haglöf stay in close contact with universities. A mutual gain in product development, tests material for research, documentation, and modern scientific studies are the results. In 2003 a study trip was made together with representatives from SLU, Umeå. The outcome and reflections

from the trip can be studied in report 129 from 2004.

"Internationellt utbyte och samarbete inom forskning och undervisning i skoglig mätteknik och inventering. Möjligheter mellan en region i södra USA och SLU" ("International exchange within research and education in forest measuring techniques and inventory. Possibilities between a Southern US region and SLU") (H Bååth, B Eriksson, A Lundström, T Lämås, T Johansson, J Persson, S Sundquist).

Image to the right showing one of

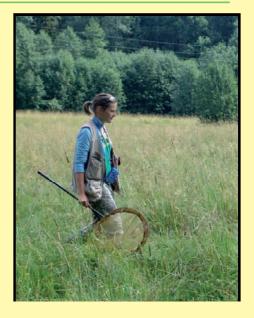
several excursions. Closest to the camera are Jan Persson and Haglöf Sweden Marketing Manager Jonas Wikner.





n 2006, a series of training sessions with SCA* wood procurators took off. Close to one hundred professionals took part in the classes to learn more on a complete system solution, specified by SCA, developed by Haglöf Sweden. By always working with updated information in real time, procurement of timber can be made to the right price. The successful project with SCA forms the basis for several more fruitful development projects. * SCA is Europe's largest private forest owner

The NILS Project (National Inventory Landscape Sweden) is another important milestone in the ongoing cooperation between Haglöf and official institutions. Haglöf followed up on the strict demands for rugged, user friendly, data secure, accurate field instruments, and



delivered a complete system solution to gather and process information and facts on the changing landscape.

Read more on the NILS project at www.nils.slu.se. Image above: S Sundquist.



References: www.elmia.se: www.island. net/~kiles/ www.madisonthecity.com

www.skogen.se; www.skogforsk.se; www. skogsmuseum.w.se: www.svenskidrott.se//

