

# Preface

It all started with a rocker machine. As a skater I was always very curious of the rocker that was cut in the blades by specialists. Even at a young age I used to take things apart to see how it all worked. Hence the rocker of longtrack blades, it seemed almost magical and I wanted to know all about it. A skate shop in the west of the Netherlands closed their shop and I was able to buy their rocker machine. That was my chance to start doing the rockers myself. But that didn't happen without a struggle. The machine didn't do what it promised. A preset rocker often produced something else. That is where the search began for what it actually should be. Later on I had more time to research and with Jan, a friend of mine, we set up a deflection measurement model for skate blades. Then, a measurement bench was built to determine the deflection of a loaded blade. During blade work for competition skaters the gained knowledge was used for optimisation of the blades. As a result various blade manufacturers showed interest in the measurement results. Presentations were created for several levels of training courses at the Dutch Skating Federation KNSB. These presentations often focused on a certain aspect of the blade theory and an entire collection of different subjects arose. After a while a plan emerged to collect all the different subjects of blade technology in a book. Some years later, this is the result, this partly being due to my wife who at a certain point said: "All I see of you lately is your back!"

Hans Gijsen

# Acknowledgements

For the cooperation to the creation of this book, my special thanks go to:

- Jan van der Plaats, Professor Emeritus, for his idea how to measure and much more;
- Maykel van Oirschot of 3DS.com and Dassault Systemes for making their software available to create this book.  
Almost all drawings and all simulations according the finite elements method are created with SolidWorks and SolidWorks Simulater Pro;
- Nils Havekotte and Hiddo Visser of the Viking-schaatsenfabriek who made several blades available for the measurements;
- Diederik Hol of CadoMotus who made his Marchese blades and several others available;
- Kees Hoppenbrouwers, the ice master of the ice rink in Breda who, in the early hours, prepared the ice for the UGO-tests;
- Mia Trompenaars for helping with the UGO-tests and her overview;
- Kees Kanters for his work at the layout of this book, Noor van der Ster for correcting the text and Eefke van Sas of Gompel&Svacina for editing to the final version;
- Janet Gilbert for the English translation of the book.

# The long track skate

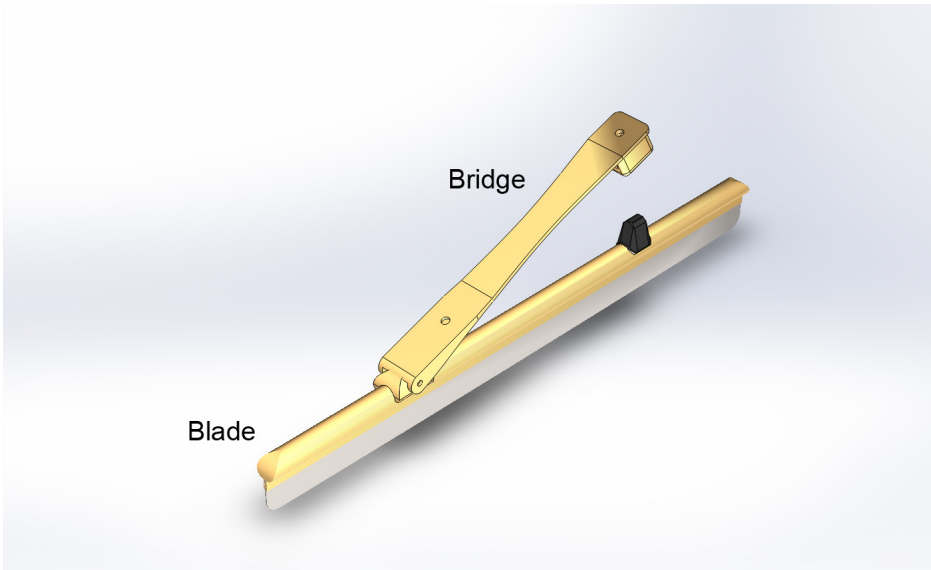


fig. 1  
The contemporary long track clap skate.

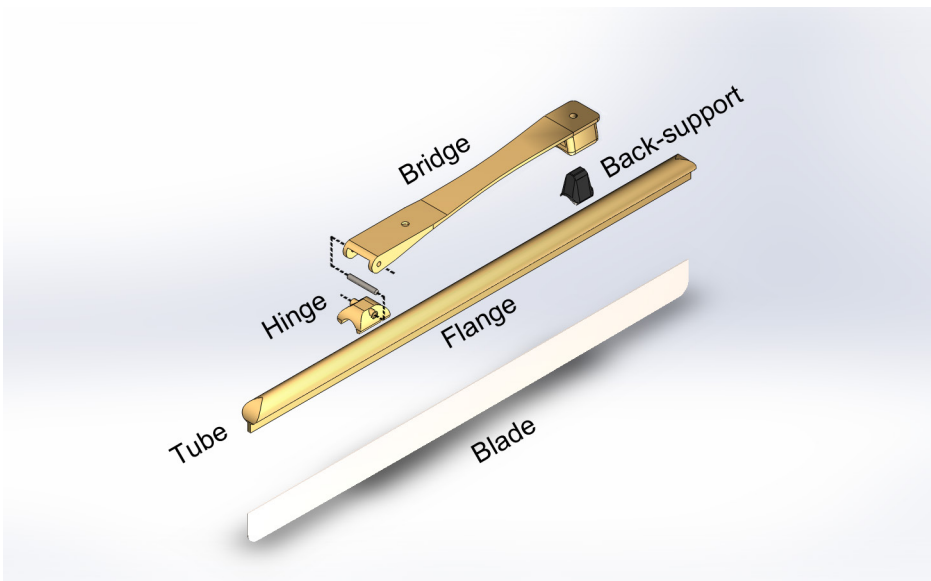


fig. 2  
Exploded view with named parts. The term 'Blade' is throughout the book also used for the long track skate, especially the section without the bridge.