Skiboards are defined as skis between 70 and 130 cm in length. Until now they are typically not sold with release bindings. Several studies have shown that when using skiboards, tibia fractures and shoulder injuries occur at a significantly higher rate than with traditional length skis. This paper analyzes the effects the reduced length and the lack of a release binding may have on specific kinematic and dynamic parameters in a typical fall situation. This is done by both an experimental and a theoretical approach, the latter using a computer simulation. The results show that (1) a twist release seems to be necessary (2) a skier using a skiboard is prone to suffer highly dynamic forward falls, (3) a conventional release binding may not be able to prevent the skier from getting injured in this specific situation and (4) a new type of skibinding should be considered. As for the moment no appropriate technical solutions are available, it is concluded that the (novice) skiboarder has to be aware of the fact that there are some inherent risks due to the new equipment.
STP 1440

Occurrences:
- Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Produktionstechnik > Fachgebiet f. Sportgeräte u. -materialien (Prof. Senner) > 2003

Entries: