



## Standard Practice for Selection of Release Torque Values for Alpine Ski Bindings<sup>1</sup>

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### INTRODUCTION

The intent of this practice is to provide guidelines for the selection of release torque values for Alpine ski/boot/binding systems. Adhering to these guidelines may help to reduce the risk of injuries resulting from improper release torque selection. However, skiing involves inherent and other risks. Injury can result from simply falling down, impact with another object, or from many other actions. Many injuries are unrelated to binding release characteristics. Furthermore, even a properly adjusted binding cannot release under all injury-producing loads. Therefore, it is to be clearly understood that compliance with these guidelines in no way guarantees that injury can be prevented.

### 1. Scope

1.1 This practice provides information for the selection of release torque values for Alpine ski bindings. It gives information necessary for determining release torque values for an individual to be used by ski binding manufacturers in their instructions for installation and use and by ski shops for the adjustment of already mounted ski bindings.

1.2 This practice is applicable to releasable Alpine ski-boot-binding systems.

1.3 Release torque values selected using this practice may not be appropriate for circumstances in which:

1.3.1 The skier carries an object that significantly increases the skier's effective body weight,

1.3.2 The skier grasps or in some manner controls an object such as a sled, and

1.3.3 The skier encounters exceptional snow or terrain conditions not commonly found within ski area boundaries.

1.4 This practice may be inappropriate for nonmechanical bindings or bindings used with boots that reach more than half way up the lower leg.

1.5 Release torque values outside the recommendations of this practice may increase the risk of injury to the skier. However, skiers who are informed of this potential risk may request such settings and have them provided, subject to any guidelines and limitations specified by the binding manufacturer.

1.6 These values refer to recommended release torque for initial adjustment of a ski binding and subsequent readjustment of the binding during routine maintenance or following a suspected malfunction but are not intended to apply to the

condition of the equipment at any time after it is put into use.

1.6.1 For information concerning applicable tolerances to be used for the adjustment and inspection of releasable Alpine ski bindings in retail operations consult Practice F 1063; for rental applications consult Practices F 1064 and F 1065.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:

F 504 Test Method for Measuring the Quasi-Static Release Moments of Alpine Ski Bindings<sup>2</sup>

F 1063 Practice for Functional Inspections and Adjustments of Alpine Ski/Boot/Binding Systems<sup>2</sup>

F 1064 Practice for Sampling and Inspection of Complete Alpine Ski/Boot/Binding Systems in Rental Applications<sup>2</sup>

F 1065 Practice for the Inspection of Incomplete Alpine Ski/Boot/Binding Systems in Rental Applications<sup>2</sup>

#### 2.2 ISO Standard:

8061 Method for the Selection of Release Torque Values<sup>3</sup>

### 3. Terminology

#### 3.1 Definitions:

3.1.1 The moments  $M_1$  and  $M_3$  are defined in Method F 504.

3.1.2 The designations I, II, and III refer to the type of skiing undertaken by the skier and can be defined as follows:

3.1.2.1 *I*—Skiers who designate themselves as Type I receive lower than average release/retention settings. This corresponds to an increased risk of inadvertent binding release in

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 15.07.

<sup>3</sup> Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.