

2004 CALIBRATION OF FIELD PROCTOR HAMMER & MOLDS**2004.1 CALIBRATION of FIELD PROCTOR HAMMER**

Procedure:

The field proctor hammer should be checked yearly for the following:

ITEM	DIMENSION (Metric)	DIMENSION (English)
Hammer Face, Diameter (See NOTE 1, below)	50.8mm ± 127µm	2 ± 0.005 in.
Length of Drop	304.8 ± 1.524mm	12 ± 0.06 in.
Hammer Weight (Exclusive of Body)	2,495 ± 9g	5.5 ± 0.02 lbs.

Undersize hammer diameter is cause for rejection.

Length of drop may be adjusted on the pull rod.

Hammer weight may be adjusted by adding lead shot below the pull rod (adjust length of drop after replacing pull rod). Greater adjustments of weight may be accomplished by adding a washer above the hammer head.

Rejected proctor hammers should be marked as out of tolerance and recycled.

Hammers meeting requirements shall be initialed, marked O.K. and dated (month and year), using tape or other marking method.

NOTE 1: The dimension given for the hammer face diameter is the requirement for new equipment. An additional 130µm (0.005 inches) is allowed as a "wear" tolerance.

2004.3 CALIBRATION of FIELD PROCTOR MOLD

Procedure:

The field proctor mold shall be checked yearly for the following:

MOLD DIMENSION	REQUIRED (Metric)	REQUIRED (English)
Volume	$0.000943 \pm 0.000008\text{m}^3$	$1/30 (0.0333) \pm 0.0003 \text{ft}^3$
Diameter	$101.6\text{mm} \pm 406\mu\text{m}$	$4.000 \pm 0.016 \text{in.}$
Height	$116.43\text{mm} \pm 127.0\mu\text{m}$	$4.584 \pm 0.005 \text{in.}$

A mold that fails to meet manufacturing tolerances after continued service may remain in use provided these tolerances are not exceeded by more than 50% and the volume of the mold does not exceed $0.000943 \pm 0.000008\text{m}^3$ ($1/30 [0.033] \pm 0.0003 \text{ft}^3$). (Calculate volume using average diameter & height.)

Molds that meet requirements shall be initialed, marked O.K. and dated (month and year) using tape or other marking method.

NOTE 2: The requirements above are for new molds. AASHTO T 99 provides an additional tolerance of 50% for used molds. The use of molds outside of the new mold requirements, but within the additional 50%, requires special calibration and calculations. Refer to AASHTO T 99, Section 2.1.3.

