Rule 33: Javelin Throw

(Rule 193)

Competition

1.

a) The javelin shall be held at the grip with one hand only. It shall be thrown over the shoulder or upper part of the throwing arm and shall not be slung or hurled. Non-orthodox styles are not permitted;

b) A throw shall be valid only if the metal head strikes the ground before any other part of the javelin;

c) Until the javelin has been thrown, an athlete shall not at any time turn completely around, so that his back is towards the throwing arc.

COMMENT: Previous references in the Rules to the "tip" of the javelin have been removed and are replaced by a generic reference to the head. This acknowledges that the shape of the head varies greatly, making it harder to separately define the tip. It means that Judges in determining whether the javelin has landed correctly in terms of Rule 30.16 and Rule 33.1 (b) and the reference point for measurement in terms of Rule 30.20 (b) now have a bigger area with which to assess. But the principles remain as before and there must be some angle on landing, however small, for the throw to be valid. Flat or "tail-first" landings are still to be red flagged.

2. If the javelin breaks during a throw or while in the air, it shall not count as a failure, provided the trial was otherwise made in accordance with this Rule. Nor shall it count as a failure if an athlete thereby loses his balance and as a result contravenes any part of this Rule. In both cases the athlete shall be awarded a new trial.

Javelin

3. The javelin shall consist of three main parts: a shaft, a head, and a cord grip.

4. The shaft may be solid or hollow and shall be constructed of metal or other suitable material so as to constitute a fixed and integrated whole. The surface of the shaft shall have no dimples or pimples, grooves or ridges, holes or roughness, and the finish shall be smooth and uniform throughout.

5. The shaft shall have fixed to it a metal head terminating in a sharp point. The head shall be constructed completely of metal. It may contain a reinforced tip of other metal alloy welded on to the front end of the head provided that the completed head is smooth and uniform along the whole of its surface. The angle of tip shall not exceed 40 degrees.
6. The cord grip, which shall cover the centre of gravity, shall not exceed the diameter of the shaft by more than 8mm. It may have a regular nonslip pattern surface but without thongs, notches or indentations of any kind. The grip shall be of uniform thickness.
7. The cross-section shall be regularly circular throughout (see Note (i)). The maximum diameter of the shaft shall be immediately in front of the grip. The central portion of the shaft, including the part under the grip, may be cylindrical or slightly tapered towards the rear but in no case may the reduction in diameter, from immediately in front of the grip to immediately behind, exceed 0.25mm. From the grip, the javelin shall taper regularly to the tip at the front and the tail at the rear. The longitudinal profile from the grip to the front tip and to the tail shall be straight or slightly convex (see Note (ii)), and there shall be no abrupt alteration in the overall diameter, except immediately behind the head and at the front and rear of the grip, throughout the length of the javelin. At the rear of the head, the reduction in the diameter may not exceed 2.5mm and this departure from the longitudinal profile requirement may not extend more than 0.3m behind the head.

   Note (i): Whilst the cross section throughout should be circular, a maximum difference between the largest and the smallest diameter at cross section of 2% is permitted. The mean value of these two diameters, at any nominated cross section, shall meet the specifications of a circular javelin in the tables hereunder.

   Note (ii): The shape of the longitudinal profile may be quickly and easily checked using a metal straight edge at least 500mm long and two feeler gauges 0.20mm and 1.25mm thick. For slightly convex sections of the profile, the straight edge will rock while being in firm contact with a short section of the javelin. For straight sections of the profile, with the straight edge held firmly against it, it must be impossible to insert the 0.20mm gauge between the javelin and the straight edge anywhere over the length of contact. This shall not apply immediately behind the joint between the head and the shaft. At this point it must be impossible to insert the 1.25mm gauge.

8. The javelin shall conform to the following specifications:

Javelin					
Minimum weight for admission to competition and acceptance of a Record (inclusive of the cord grip):					
	400g	500g	600g	700g	800g
Information for manufacturers: Range for supply of implement for competition					
	405g 425g	505g 525g	605g 625g	705g 725g	805g 825g
Overall length (L0)					
Min. Max.	1850mm 1950mm	2000mm 2100mm	2200mm 2300mm	2300mm 2400mm	2600mm 2700mm
Distance from tip of metal head to centre of gravity L1)					
Min. Max.	750mm 800mm	780mm 880mm	800mm 920mm	860mm 1000mm	900mm 1060mm
Distance from tail to centre of gravity (L2)					
Min. Max.	1050mm 1200mm	1120mm 1320mm	1280mm 1500mm	1300mm 1540mm	1540mm 1800mm
Length of metal head (L3)					
Min. Max.	200mm 250mm	220mm 270mm	250mm 330mm	250mm 330mm	250mm 330mm
Width of cord grip (L4)					
Min. Max.	130mm 140mm	135mm 145mm	140mm 150mm	150mm 160mm	150mm 160mm
Diameter of shaft at thickest point (in front of grip – D0)					
Min. Max.	20mm 23mm	20mm 24mm	20mm 25mm	23mm 28mm	25mm 30mm

9. The javelin shall have no mobile parts or other apparatus, which during the throw could change its centre of gravity or throwing characteristics.

10. The tapering of the javelin to the tip of the metal head shall be such that the angle of the point shall be not more than 40°. The diameter, at a point 150mm from the tip, shall not exceed 80% of the maximum diameter of the shaft. At the midpoint between the centre of gravity and the tip of the metal head, the diameter shall not exceed 90% of the maximum diameter of the shaft.

11. The tapering of the shaft to the tail at the rear shall be such that the diameter, at the midpoint between the centre of gravity and the tail, shall not be less than 90% of the maximum diameter of the shaft. At a point 0.15m from the tail, the diameter shall be not less than 40% of the maximum diameter of the shaft. The diameter of the shaft at the end of the tail shall not be less than 3.5mm.

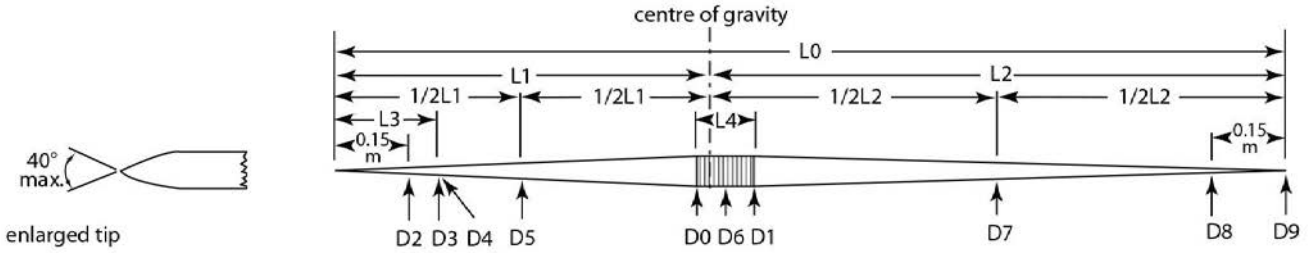

Figure 21 – International Javelin

Lengths		Diameters		Maximum	Minimum
L0	Overall	D0	In front of grip	–	–
L1	Tip to C of G	D1	At rear of grip	D0	D0-0.25mm
1/2L1	Half L1	D2	150mm from tip	0.8 D0	–
L2	Tail to C of G	D3	At rear of head	–	–
1/2L2	Half L2	D4	Immediately behind head	–	D3-2.5mm
L3	Head	D5	Halfway tip to C of G	0.9 D0	–
L4	Grip	D6	Over grip	D0+8mm	–
		D7	Halfway tail to C of G	–	0.9 D0
		D8	150mm from tail	–	0.4 D0
C of G	Centre of Gravity	D9	At tail	–	3.5mm
Note: All measurements of diameters must be to at least 0.1 mm.					

COMMENT: **Team of Officials**

For a Javelin Throw Event, it is recommended to allocate the available officials as follows:

1) The Chief Judge will watch over the whole of the event.
2) Two Judges checking whether the throw has been made correctly and measuring the trial. One must be provided with two flags – white to indicate if the trial is valid and red if it is a failure. When the throw has been measured, it is advised that the Judge stands on the runway holding the red flag, while the implement is returned, and the landing area is cleared. A cone may be placed on the runway instead. (In some competitions this position is assumed by the Chief Judge of the event.)
3) Where EDM is not in use the second Judge should pull through and hold the measuring tape in such a way that it passes through the 8m point marked on the runway.
4) one or two Judges immediately after the throw placing a marker indicating the point from which the trial is to be measured. If the implement lands outside the sector either this Judge or the one with the spike/prism (whichever is closer to the line) should indicate this by holding his arm outstretched. An appropriate indication is also required if these Judges determine that the implement has not landed "head first". It is recommended that some form of signal other than flags in used for this purpose. No indication is required for a valid trial.
5) Judge positioning the spike/prism at the point where the marker has been placed ensuring the tape is on the zero mark.
6) one or more Judges or assistants in charge of retrieving the implements and returning them to the implement stand or placing them in the return device. Where a tape is used for measurement, one of these Judges or assistants should ensure that the tape measure is taut in order to ensure a correct measurement.
7) Judge - a recorder scoring the results sheet and calling each athlete (and the one who is to follow).
8) Judge in charge of the scoreboard (trial-number-result).
9) Judge in charge of the clock indicating to the athletes that they have a certain time to take their trial.

10)Judge in charge of athletes.

11)Judge in charge of the implement stand.

Note (i): This is the traditional setting-up of the officials. In major competitions, where a data system and electronic scoreboards are available, specialised personnel are certainly required. To be clear in these cases, the progress and scoring of a Field Event is followed by both the recorder and by the data system.

Note (ii): Officials and equipment must be placed in such a way as not to obstruct the athlete's way nor impede the view of the spectators.

Note (iii): A space must be reserved for a wind-sock to indicate the wind direction and strength.