

## RECOMMENDED EQUIPMENT SPECIFICATIONS

(Effective November 2001 )

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### 1. PURPOSE

The purpose of these specifications shall be to set standards for equipment used at all WPA World Championships, WPA World Tour events and other WPA sanctioned and/or recognized events. These specifications do not necessarily apply to tables manufactured for commercial home use. At its sole discretion, the World Pool-Billiard Association can sanction tournaments on tables not in compliance with these specifications.

### 2. TABLE BED HEIGHT

Shall be between 29 ¼ inches [74.295 cm] and 31 inches [78.74 cm].

### 3. DESIGN

Shall not have any sharp edges or materials that might cause injuries or damage clothes. Construction should be adequate enough so that the table will remain stable and level under all conditions of play.

### 4. SLATES

The thickness must be at least 1 inch [2.54 cm], and the playing surface must be capable, either by its own strength or a combination of its strength and that of the table base frame, of maintaining an overall flatness within + .020 inches [.508 mm] lengthwise and + .010 inches [.254 mm] across the width. Further this surface should have an additional deflection not to exceed .030 inches [.762 mm] when loaded with a concentrated static force of 200 pounds [90.7 kg] at its center. All slate joints must be in the same plane within .005 inch [.127 mm] after leveling and shimming. Tournament tables must have a set of slates consisting of three pieces of equal size with wooden frame of at least  $\frac{3}{4}$  inch [1.905 cm] thick lumber attached underneath the slate. The slate sections must be secured to the base frame with countersunk screws or bolts.

### 5. PLAYING SURFACE

The playing surface (area) must be rectangular, and symmetrical when the pocket configurations are included:

9 foot – 100 (+ 1/8) x 50 (+ 1/8) inches (except cushions)/ [2.54 m (+ 3.175 mm) x 1.27 m (+ 3.175 mm)]

8 foot – 92 (+ 1/8) x 46 (+ 1/8) inches (except cushions)/ [2.3368 m (+ 3.175 mm) x 1.1684 m (+ 3.175 mm)]

### 6. RAIL AND CUSHION

The rail width must be between 4 [10.16 cm] and 7  $\frac{1}{2}$  inches [19.05 cm] including the rubber cushions. 18 sights (or 17 and a name plate) shall be attached flush on the rail cap with:

12  $\frac{1}{2}$  inches [31.75 cm] from sight to sight on a 9-foot regulation table

11  $\frac{1}{2}$  inches [29.20 cm] from sight to sight on a 8-foot regulation table.

The center of each sight should be located 3  $\frac{11}{16}$  (+ ) inches [93.6625 mm (+ 3.175 mm)] from the nose of the cushion. The sights may be round (between  $\frac{7}{16}$  [11.11 mm] and  $\frac{1}{2}$

inch [12.7 mm] in diameter) or diamond-shaped (between 1 x 7/16 [25.4 x 11.11 mm] and 1 ¼ x 5/8 inch [31.75 x 15.875 mm]). Any nameplates and score counters should be flush level with rail top. All rail bolts should be thus located that when properly torqued render a quiet and optimum rebound from any point of the cushion nose of the table.

## 7. HEIGHT OF THE CUSHION

Rubber cushions should be triangular in shape with the width of the cloth-covered cushion being between 1 7/8 [4.76 cm] and 2 inches [5.40 cm] measured from the outer edge of the featherstrip to the nose of the cushion. Rail height (nose-line to table-bed) should be 63 ½% (+1 %) or between 62 ½% and 64 ½ % of the diameter of the ball.

## 8. CUSHION RUBBER

Table cushions should influence the speed of the table such that with placement of a ball on the head spot, shooting through the foot spot, using center ball english, with a level cue and firm stroke, the ball must travel a minimum of 4 to 4 ½ lengths of the table without jumping.

## 9. POCKET OPENINGS AND MEASUREMENTS

Only rubber facings of minimum 1/16 [1.5875 mm] to maximum ¼ inch [6.35 mm] thick may be used at pocket jaws. The WPA-preferred maximum thickness for facings is 1/8 inch [3.175 mm]. The facings on both sides of the pockets must be of the same thickness. Facings must be of hard re-enforced rubber glued with strong bond to the cushion and the rail, and adequately fastened to the wood rail liner to prevent shifting. The rubber of the facings should be somewhat harder than that of the cushions.

The pocket openings for pool tables are measured between opposing cushion noses where the direction changes into the pocket (from pointed lip to pointed lip). This is called mouth.

Corner Pocket Mouth: between 4.5 [11.43 cm] and 4.625 inches [11.75 cm]

Side Pocket Mouth: between 5 [12.7 cm] and 5.125 inches [13.0175 cm]

\*The mouth of the side pocket is traditionally ½ inch [1.27 cm] wider than the mouth of the corner pocket.

Vertical Pocket Angle (Back Draft): 12 degrees minimum to 15 degrees maximum.

Horizontal Pocket Cut Angle: The angle must be the same on both sides of a pocket entrance. The cut angles of the rubber cushion and its wood backing (rail liner) for both sides of the corner pocket entrance must be 142 degrees (+1). The cut angles of the rubber cushion and its wood backing (rail liner) for both sides of the side pocket entrance must be 104 degrees (+1).

Shelf: The shelf is measured from the center of the imaginary line that goes from one side of the mouth to the other – where the nose of the cushion changes direction – to the vertical cut of the slate pocket cut. Shelf includes bevel.

Corner Pocket Shelf: between 1 [2.54 cm] and 2 ¼ inches [5.715 cm]

Side Pocket Shelf: between 0 and .375 inches [.9525 cm]

## 10. POCKET LINERS

The pocket liners and boots should be of long wearing plastic, rubber or leather. The material the liners and boots are made of should not permanently mark (stain) the balls or cues. The upper part of the inner wall must be so fashioned that whenever a ball hits the pocket liner wall below the rim at the top of the rail, the ball is directed downwards.

## 11. BALL RETURN AND DROP POCKETS

Both drop pockets and automatic ball returns can be used, but must be as noiseless as possible. Drop pockets must have a basket capacity of at least 6 balls. Automatic ball returns must be properly installed so that pocketed balls are not trampolined back to the table or off the table.

## 12. CLOTH

The cloth must be non-directional, nap-free billiard fabric which will not pill or fluff, composed of composed of between 80% and 85% combed worsted wool, and between 15% to 20% nylon. 100% combed worsted wool fabric is preferred. No backed cloth will be allowed. Only the colors of yellow-green, blue-green or electric blue are acceptable for WPA competition.

### **13. FASTENING OF THE CLOTH (GUIDELINES)**

Before cloth-covering the slate, a strip of canvas (or table-cloth) should be glued to the vertical pocket cuts of the slates and their underlying wooden slate liner. The table-bed cloth must be stretched for “proper tension” and mechanically attached to the underlying wooden slate liner with fully driven fasteners (staples or tacks) spaced a maximum of 1 inch on center approximately, with at least inch [.9525 cm] penetration into the wooden slate liner. Guidelines for proper tension are as follow:

1. Length of the cloth should be manually stretched as tight as possible, and then relieved  $\frac{1}{2}$  inch [1.27 cm] before attachment, and
2. Width of the cloth should be manually stretched as tight as possible, and then relieved  $\frac{1}{4}$  inch [.635 cm] before attachment.

When covering the cushions, the cloth must be lengthwise evenly and consistently well-stretched while inserting the featherstrip as well as thereafter. While the cloth is in a stretched condition lengthwise, the cloth must then be stretched in the width up to the moment when indentation of the nose of the rubber cushion is about to start and attached underneath the wooden rail with fully driven fasteners (staples or tacks) spaced a maximum of  $\frac{3}{4}$  inch [1.905 cm] on center approximately, with at least  $\frac{3}{8}$  inch [.9525 cm] penetration into the wood. At the side pocket openings, the rails are to be covered with a minimum overlapping of fabric over the facings. When doing overlappings, great care must be taken so that hidden folds, if any, do not cause balls to jump off the table during play. No folds are allowed in the cloth over the facings of the corner pockets.

### **14. CLEANING TABLE AND RAIL CLOTH (ADVISED PREPARATION)**

The WPA recommends only the colors green and blue for chalk. A soft (horse hair) brush, a cloth-cleaner made with billiard fabric, or a brushless (without rotating brush) vacuum cleaner are the recommended table and cushion cleaning devices. Brushes that shed bristles are not recommended.

### **15. LIGHTS**

The bed and rails of the table must receive at least 520 lux (48 footcandles) of light at every point. A screen or reflector configuration is advised so that the center of the table does not receive noticeably more lighting than the rails and the corners of the table. If the light fixture above the table may be moved aside (referee), the minimum height of the

fixture should be no lower than 40 inches [1.016 m] above the bed of the table. If the light fixture above the table is non-movable, the fixture should be no lower than 65 inches [1.65 m] above the bed of the table. The intensity of any directed light on the players at the table should not be blinding. Blinding light starts at 5000 lux (465 footcandles) direct view. The rest of the venue (bleachers, etc.) should receive at least 50 lux (5 footcandles) of light.

## **16. BALLS AND BALL RACK**

All balls must be composed of cast phenolic resin plastic and measure  $2\frac{1}{4}$  (+.005) inches [5.715 cm (+.127 mm)] in diameter and weigh  $5\frac{1}{2}$  to 6 oz [156 to 170 gms]. Balls should be unpolished, and should also not be waxed. Balls should be cleaned with a towel or cloth free of dirt and dust, and may also be washed with soap and water. Balls contaminated with any slippery substance – treated with a polishing or rubbing compound and/or waxed – must be cleansed and dewaxed with a clean cloth moistened with diluted alcohol before play.

A complete set of pool balls consists of one white cue ball and fifteen color-coded, numbered object balls. The object balls are clearly and highly visibly numbered 1 through 15. Each object ball has its number printed twice, opposite each other, one of the two numbers upside down, black on a white round background. The object balls numbered 1 through 8 have solid colors as follows: 1=yellow, 2=blue, 3=red, 4=purple, 5=orange, 6=green, 7=maroon and 8=black. The object balls numbered 9 through 15 are white with a centered band of color as follows: 9=yellow, 10=blue, 11=red, 12=purple, 13=orange, 14=green and 15=maroon. The two printed numbers 6 and 9 are underscored.

The wooden triangular ball rack is the recommended device to be used to rack the balls to ensure that the balls are properly aligned and in contact with each other. Both surfaces that can make contact with the table-cloth when moving loaded rack to and fro, should be very smooth in order not to incur any damage to the cloth underneath. Plastic racks are not recommended, they are flexible and tend to deform, making proper racking of balls time-consuming, if not impossible.

## 17. CUE STICKS

Cue Sticks used at WPA competitions should comply with the following during play at table:

Length of Cue: 40 inches [1.016 m] minimum / No Maximum

Weight of Cue: No minimum / 25 oz. [708.75 gm] maximum

Width of Tip: No minimum / 14mm maximum

The cue tip may not be of a material that can scratch or damage the addressed ball. The cue tip on any stick must be composed of a piece of specially processed leather or other fibrous or pliable material that extends the natural line of the shaft end of the cue and contacts the cue ball when the shot is executed..

The ferrule of the cue stick, if of a metal material, may not be more than 1 inch [2.54 cm] in length.

## 18. MECHANICAL BRIDGE

The mechanical bridge, also called rake, crutch or rest, is an accessory of the billiard sports table and consists of a stick with a bridge head mounted at its end to support the shaft of the cue stick replacing the hand bridge during shots difficult to reach. The stick or handle of the mechanical bridge is very similar in shape to the cue stick. The bridge head has notches or grooves, usually at various heights, in which the cue shaft can rest. The contour of the bridge head should be smooth in order not to mar the cue shaft or rip the threads of the table-cloth when being used.

## 19. SPACING BETWEEN TABLES

In WPA-sanctioned competitions a minimum measurement of 6 feet [1.83 m] is required between the outside edge of the table rail in every horizontal direction and obstacle (table, chair, rail, etc.).

## 20. TABLE RECOGNIZED BY THE WPA

Only tables that are recognized by the WPA can be used at a WPA-sanctioned or recognized event.