



Technical Specifications of C.BECHSTEIN grand piano mod. D-282 / page 1 of 4

This grand piano is a full concert grand piano including all concert performance standards.

Length 282 cm
Pedals: 3
Weight: 540 kg net

Sound body:

Sound board of mountain grown spruce, tapered: 9.0 to 7.5 mm; the sound board is installed after inner/outer rim are completed and connected.

Ribs are Alps grown spruce ribs, they are tapered after gluing on sound board.

Rib Nr. 1 = 18 mm high, 22 mm wide

Rib Nr. 17 = 18 mm high, 22 mm wide

Ribs 7 – 10 are imbedded in the main diagonal rib

Main diagonal rib = 20 mm high, 50 mm wide

3 Rim beams or posts have a width of 70 mm, 1 rim beam of 75 mm width, the height is 117mm, ends are tapered. Connection between rim and beams (posts) is swallow tailed. Additionally 3 ex-centre red beech blocks for connection with frame bolts.

The inner rim is made of hard beech wood layers 3.0 mm thickness each mixed with layers of mahogany.

The outer rim or cabinet is made of hard wood layers, bent in one piece.

The rim (inner and outer) are joined in one piece before the sound board is installed.

Soundboard bridges: lower part of vertically aligned layers, top or cap in hard maple.

Bridge connector: long and bass bridge are connected by a bridge connector.

Soundboard bridge pins: 2.5 mm Treble, 2.9 mm in Middle and bass.

C.BECHSTEIN - B.C.S. - BRIDGE CALIBRATION SYSTEM

The C.BECHSTEIN Bridge is calibrated by use of the BRIDGE CALIBRATION SYSTEM. This calibration takes into account the sound board, its diameter and shape, as well as its specific properties, and also the specifics and properties of each individual rib. This results in optimal function of all parts of the sound body.

Cast iron frame with median transfer of tone at 4.000 + meters per second.

Cast iron frame thickness at tuning pin area = 6.5 mm, at resonator hole area 7.5 – 8 mm.

Cast iron Adjustable Resonating system is installed in the treble area.



Technical Specifications of C.BECHSTEIN grand piano mod. D-282 / page 2 of 4

Strings:

Steel strings 0.8 mm up to 1.5 mm in mid and treble section
bass strings wound with 1.5 mm copper string nr.1 and down to a diameter of 0.3 mm copper for string nr. 17.

Agraffes with steel pin mid and bass section, tri-chord with in middle section 6.3 mm.
Treble with Capod'astro, strings at an angle of 20 ° in the front duplex section.

Front and back Duplex, the Duplex core in solid brass, hard chrome surface

Duplex specifications are as follows:

- Tone 88 = speaking length 50, mm
back duplex 50 mm, sympathetic frequency of prime**
- Tone 82 = speaking length 69 mm,
back duplex 46 mm, sympathetic frequency of a fifth (2/3)**
- Tone 76 = speaking length 95 mm,
back duplex 47.5 mm, sympathetic frequency of an octave (1/2)**
- Tone 64 = speaking length 181.5 mm,
back duplex 60.5 mm, sympathetic frequency of one fifth above the octave**
- Tone 56 = speaking length 279 mm,
back duplex 69.7 mm, sympathetic frequency of a double octave**

Sting length:

String nr. 1 = 2123 mm speaking length, tension = 1397 Newton
String nr. 88 = 50 mm speaking length, tension each string = 705 Newton

Tuning pins: 7.1 mm thick, 64 mm long, nickel plated, without wooden plate bushings.

Pin block: USA Maple. Central core layers minimum 5 mm each.

Tuning range: 440 Hz up to 447 Hz, ideal is 442 / 443 Hz.

Keyboard and action assembly:

Keys:

17 keys in bass section
17 keys in lower middle section
18 keys in higher middle section
Treble 2 sections, total 36 keys

Key nr. 1: total length 631 mm, front lever 320.5, back lever 163.5 mm.
Key nr. 88: total length 565 mm, front lever 288.5, back lever 145 mm.



Technical Specifications of C.BECHSTEIN grand piano mod. D-282 / page 3 of 4

C.BECHSTEIN – DYNAMIC TOUCH BALANCING (D.T.B.)

Each key of a C.BECHSTEIN concert grand piano is balanced and weighted in such a way that the force needed to depress the key and the speed with which it returns upwards is measured and set individually and in accordance to, and implementation of, the C.BECHSTEIN – DYNAMIC TOUCH BALANCING (D.T.B.).

Key down weight (treble to bass) 49 – 52 Grams (+/- 1 Gram)

Key up weight / return of key (treble to bass) 28 – 25 Grams.

Key frame with 6 adjustable gliding screws in solid brass.

Key blocks, bass and treble with graduated mechanical fine adjustment setting system.

Action: Actions are made of superior materials for professional concert stage standards, for any type of music playing, warranting absolute precision of performance and stability, responding to all nuances of the player.

C.BECHSTEIN - FRICTION CONTROL SYSTEM (F.C.S.)

Each centre pin, each spring and each part of the keyboard and action assembly working in conjunction with another creates a specific friction. This friction must be controlled and balanced in accordance to the C.BECHSTEIN specific standards for each part, by implementation of the C.BECHSTEIN - FRICTION CONTROL STANDARDS (F.C.S.).

Pedals: 3 pedals including:

right or damper system pedal,

middle or sostenuto system pedal

left or >una corda< shift pedal

Wooden **Damper action** is mounted on lifting rail, lifting rail is installed on flanges at left and right side.

Sostenuto system is attached to the back or belly rail.

Precise shifting of keyboard and action assembly with left pedal allowing for tone shading.

Hammerheads:

Finest quality German manufactured, New Zealand felt, 11.3 mm width, tapered from top to bottom, 85 mm height in bass, 76 mm in treble. Walnut core hammers.

Individually hand voiced.



C. BECHSTEIN



Technical Specifications of C.BECHSTEIN grand piano mod. D-282 / page 4 of 4

C.BECHSTEIN – INDIVIDUAL VOICING PROCEDURE (I.V.P.)

Each C.BECHSTEIN set of hammer is inspected, selected, tested and voiced individually per hand and by use of the human ear in accordance to the C.BECHSTEIN – INDIVIDUAL VOICING PROCEDURE (I.V.P.).

The voicing of C.BECHSTEIN concert grand pianos is done strictly and only by C.BECHSTEIN Master Piano makers.

Warranty: Five (5) years manufacturer's factory warranty by C.BECHSTEIN Pianofortefabrik AG, Berlin and Seiffhennersdorf, Germany.

Above specifications are subject to change without notice.

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