The C.F. Martin & Co. Story

The **C.F. Martin & Company** is a US guitar manufacturer established in 1833 by Christian Frederick Martin. Martin is highly regarded for its steel-string guitars, and is a leading mass manufacturer of flattop acoustics with models that retail for thousands of dollars and vintage instruments that often fetch six figures at resale. The company has also made several models of electric guitars and electric basses.

The company's headquarters and primary factory are in Nazareth, Pennsylvania, located in the Lehigh Valley region of the state. It also manufactures instruments in Mexico. During the year 1900, Martin produced 182 instruments. By the year 2000 that figure had risen to 24,084.

Company history

Throughout its history, the company has been run by the Martin family. The current chairman and CEO, C.F. 'Chris' Martin IV, is the great-great-great-grandson of the founder. Many characteristic features of the modern flattop steel strung acoustic guitar were first introduced by the firm. Influential innovations include the Dreadnought body style and scalloped bracing. Some time in the 1970s, Martin bought LEVIN guitars, and around 200 D-18's were apparently built in Sweden; they are stamped LD-18.

Founding

Born in 1796 in Markneukirchen, Germany, C.F. Martin came from a long line of cabinet makers and woodworkers. His father, Johann Georg Martin, had also built guitars. By the age of 15, C.F. Martin was apprenticed to Johan Stauffer, a well-known guitar maker in Vienna, Austria. After completing his training, Martin returned to his hometown and opened his own guitar-making shop. However, he soon became embroiled in a controversy between two guilds.

At that time European craftsmen operated under the guild system. The guitar (in its modern form) was a relatively recent instrument, and most guitar makers were members of the Cabinet Makers Guild. The Violin Makers Guild began to claim exclusive rights to manufacture musical instruments. By filing appeals, the violin maker's guild tried on three occasions, the first in 1806, to prevent cabinet makers from producing guitars. In a surviving submission dated 1832, Johann Martin is mentioned.

Although the cabinet makers successfully defended their right to build guitars, C.F. Martin decided that the guild system was too restrictive. In 1833 he moved to New York City, and by 1838 he had moved his business to Nazareth, PA.

Company

The Martin company is generally credited with developing the X-bracing system during the 1850s, although C. F. Martin did not apply for a patent on the new bracing system. During the 1850s, X-bracing was used by several makers, all German immigrants who knew each other, and according to historian Philip Gura there is no evidence that C. F. Martin invented the system[1]. The Martin company was the first to use X-bracing on a large scale, however.

From the 1860s on, fan bracing became standard in Europe, but Martin and other American builders, most of them forgotten today like Schmidt & Maul and Stumcke, as well as Tilton and Washburn, used X-bracing instead [2]. The X-bracing might be considered less delicate sounding with gut strings but it prepared the American guitar for what would emerge in the first quarter of the 20th century: steel strings on guitars.

The growing popularity of the guitar in the early 1900s, fueled by the growing popularity of folk music and country and western music, led to a demand for louder and more percussive guitars. In response, many companies began to use metal strings instead of catgut. These became known as steel-string guitars. By 1921, Martin had focused production towards this type of guitar.

The company's reputation and output continued to grow. Forays into mandolin making in the late 1890s and ukulele making in the 1920s greatly contributed to their expansion, and by 1928 they were making over 5000 instruments per year. The company remained family-owned, employing a relatively small number of highly trained craftsmen making instruments primarily by hand. This limited production capacity, and by the early 1960s Martin guitars were back-ordered by as much as three years. In 1964 they opened a new plant which is

still the primary Martin production facility.

Innovations

The Great Depression had a drastic effect on sales, and Martin came up with two further innovations in an attempt to regain business.

One of these was the 14-fret neck, which allowed a greater range of notes, and which was meant to appeal to plectrum banjo players interested in switching to guitar for the increased opportunities for work. Martin altered the shape of its 0-size guitar body to allow a 14-frets-clear tenor neck. This follows specific requests from tenor players, primarily Al Esposito, the manager of the Carl Fischer store in New York City. These "Carl Fischer Model" tenors were soon renamed 0-18T. This was the first time Martin had altered one of their original body shapes to accommodate a longer neck with more frets clear of the body.

In addition, a request came to Martin through its correspondence with Perry Bechtel, a well-known banjo player and guitar teacher from Cable Piano in Atlanta, who initially asked that Martin build a guitar with a 15-fret neck-to-body join. Most guitars of the day joined the body at the 12th fret, half the scale length of the string, with the exception of Gibson's L-5 archtop jazz guitars, which already used a design that joined the neck to the body at the 14th fret. In keeping with Bechtel's request, Martin modified the shape of their 12-fret 000-size instrument, lowering the waist and giving the upper bout more acute curves to cause the neck joint to fall at the 14th, rather than the 12th, fret. Since 14-fret guitars were envisioned for use as plectrum instruments, replacing banjos in jazz orchestras, the initial 14-fret 000-shape is known as the Orchestra Model, or OM, a term Martin applied to all 14-fret instruments in its catalogs by the mid- to late-1930s, whether 000/OM shape or not.

Original Martin OMs from approximately 1929 to 1931 are extremely rare, and command high prices. Many guitarists believe that the OM—a combination of Martin's modified 14-fret 000 body shape, long scale (25.4") neck, solid headstock, 1-3/4" nut width, 4-1/4" maximum depth at the endwedge, and 2-3/8" string spread at the bridge—offers the most versatile combination of features available in a steel-string acoustic guitar, and today many guitar makers, including many small shops and hand-builders, create instruments modeled on the OM pattern.

The change in body shape and longer neck became so popular that Martin made the 14-fret neck standard on all of its guitars, and the rest of the guitar industry soon followed. Classical guitars, which were evolving on their own track largely among European builders, retained the 12-fret neck design.

Martin's second major innovation, and arguably the more important, of the period 1915-1930 was the dreadnought guitar. [1] Originally devised in 1916 as a collaboration between Martin and a prominent retailer, the Oliver Ditson Co., the dreadnought body style was larger and deeper than most guitars. In 1906, the Royal Navy had shocked the world by launching a battleship that was considerably larger than any in service. From the idea that a ship that big would have to fear nothing, it was christened HMS *Dreadnought*. Martin recognized a perfect marketing tie-in when they saw one, and borrowed the name for their new, large guitar. The greater volume and louder bass produced by this expansion in size was intended to make the guitar more useful as an accompaniment instrument for singers working with the limited sound equipment of the day. Initial models for Ditson were fan-braced, and the instruments were poorly received.

In 1931, Martin reintroduced the style with a modified body shape to accommodate a 14-fret neck, and it quickly became their best-selling guitar. The rest of the industry soon followed, and today the "dreadnought" size and shape is considered one of the "standard" acoustic guitar shapes, iconic for its use in a wide variety of musical genres.

Martin also developed a line of archtop instruments during the 1930s. Their design differed from Gibson and other archtops in a variety of respects–the fingerboard was glued to the top, rather than a floating extension of the neck, and the backs and sides were flat rosewood plates pressed into an arch rather than the more common carved figured maple. Martin archtops were not commercially successful and were withdrawn after several years. In spite of this, during the 1960s, David Bromberg had a Martin archtop converted to a flat-top guitar with exceptionally successful results, and as a result, Martin has recently begun issuing a David Bromberg model based on this conversion.

During this time, Martin also continued to make ukuleles, tiples, and other stringed instruments, many of which survive in excellent condition to the present day.

The 1960s

During the late 1960s, Martin manufactured hollow-body electric guitars similar to those manufactured by Gretsch. Martin's electric guitars were not popular and the company has since continued to concentrate on the manufacture of a wide range of high quality acoustics. They also brought back the famous D-45 in 1968.

During the 1960s, many musicians preferred Martin guitars built before World War II to more recent guitars of the same model. The pre-War guitars were believed to have internal bracing carved more skillfully than later instruments, producing better resonance. Additionally, 1960's Martin dreadnoughts suffered from poor intonation in the higher registers. This is attributed by some luthiers and repairmen to a gradual trend of misplacing the bridge on these guitars. Apparently, the same jigs for bridge placement were used throughout the history of each model's production. As the amount of production increased from the Martin factory, the jigs eroded, resulting in inaccurate bridge placement. This was eventually identified and corrected.

Although Martin continued to make all these models and continually added innovations, musicians liked the old ones better, and they gladly paid premium prices for vintage Martins. As this trend has continued, even guitars that were spurned when new in the 1960s began to command premium prices as "vintage" instruments.

Recent events

In 1979, Martin opened its "Custom Shop" division.[2] Martin built its 500,000th guitar in 1990, and in 2004 they built their millionth guitar. This guitar is worth an estimated $1,000,000, being purely hand crafted and having more than 40 rubies and diamonds encrusted into the guitar.[3] As of 2007, there are 600 employees at Martin with 13 individuals devoted to quality assurance. In October, 2009, a Martin D-28 that was played by Elvis Presley in his last concert in Las Vegas sold at auction for $106,200.

Steel string guitar problems

A steel-string guitar tuned to concert pitch endures a tension of 180 pounds (800 N) on the top of the guitar from the strings[4]. The X-bracing system has been shown to be an efficient technique for preventing the top of the guitar from warping under this force. The braces are generally carved, scalloped and tuned to improve resonance and integrity of the guitar top, such capability being performed by skilled artisans and not readily reproducible by machine. This work is an important factor in determining the timbre of the guitar, and a major determinant in the observation that rarely do two guitars ever sound alike even though they are ostensibly identical in construction.

Models

[edit] Six-string guitars

For many years, Martin has used a model-labeling system that consists of an initial letter or a number or series of zeros that specifies the body size and type (5 being the smallest and J being the largest) followed by a number that designates the guitar's ornamentation and style, including the species of wood from which the guitar is constructed. Generally, the higher the number, the higher the level of ornamentation. Additional letters or numbers added to this basic system are used to designate special features (such as a built-in pickup or a cutaway).

Martin also periodically offers special models. Many of these have a limited production run, or begin as a limited-production guitar that sells well enough to become regularly produced. Many of these special models are designed with, endorsed by, and named after well-known guitarists such as Eric Clapton, Merle Haggard, Stephen Stills, Paul Simon, Arlo Guthrie, Johnny Cash, and many others. In 1997, Martin launched its "Women in Music" series which then was followed in 1998 by the *Joan Baez* *Signature* guitar, a replica of the 0-45 with which Baez began her career.

Classically-trained guitar virtuoso Dominic Frasca created a 10-string guitar by grafting the neck from an electric guitar onto a Martin Millennium acoustic guitar. He also added single string "mini capos" which form part of his trademark style and sound.

Roger McGuinn worked with C. F. Martin & Company to develop a seven-string folk guitar. McGuinn's guitar, the D7, is tuned the same as a standard folk guitar with steel strings, but the third (G) string is augmented with a harmonic string one octave higher. The intention was to afford the six-string player the chance to play "jangly" twelve-string style lead guitar.

As of 2005, Martin offers over 180 different guitars. Some of the more notable models are:

- **000-1**: Slightly smaller in all dimensions than a dreadnought guitar (the "standard" acoustic guitar), solid Sitka spruce top, solid mahogany back, laminated mahogany sides, tortoiseshell binding, rosewood fingerboard.
- **000-15**: Base model of the upper end Martin Guitar line. All mahogany or sapele construction. 'A Frame' "X" top bracing, 14 frets clear, Optional model 000-15S 12 frets clear. ***Note**: An acoustic cousin of famed Guild Guitar Company **M20** guitar. Notably Nick Drake.*
- **000-28EC** [4] and **000-28ECB**: Two of the five "Eric Clapton" models. Same size as the 000-15, constructed with higher-quality woods (especially the more expensive 000-28ECB constructed from the extremely rare Brazilian species of rosewood, hence the "B"), a different shape to the neck, and more ornamentation around the edge of the body.
- **000-18**: Mahogany body guitar similar to the **000-28**, but with more warmth, brought by the lower frequencies available to mahogany.
- The **000-28EC** (bottom left photograph) is one of Martin's most popular guitars; unlike the bigger dreadnoughts, the 000-28EC is nearer to the size of a Spanish guitar, with a slimmer body and wider fretboard.
- **D-1**: All solid dreadnought with a spruce top and sapele back and sides.[5]
- **D-18**: Dreadnought guitar, solid Sitka spruce top, solid mahogany back and sides.
- **D-28**: Dreadnought guitar, solid Sitka spruce top, solid East Indian rosewood (Brazilian rosewood before 1969) back and sides, ebony fingerboard, black and white binding and ornamentation with 5/16" non-scalloped braces.[6]
- The **HD-28** (right photograph), introduced in 1976 [5] replicates pre-1947 "'bone" D-28s with herringbone purfling (then manufactured only in pre-war Germany [6]) and scalloped braces. It is an extremely popular guitar with a full sound, good balance between bass and treble.
- **HD-35**:Similar material and style to the HD-28, but has a distinctive 3 piece solid East Indian Rosewood back and 1/4" scalloped braces.
- **D-45**: Similar to the "D-28" with much greater and more complex ornamentation, including abalone and mother-of-pearlshell inlays. Also comes in a vintage version **D-45V** and a **D-45 Koa** made with solid highly flamed Koa.
- **J-40**: a "Jumbo" sized guitar, "0000" body profile but with the same depth as a Dreadnought (4-7/8"). Woods similar to the "D-28" but with the addition of scalloped bracing. Ornamentation similar to the D45 minus the abalone in the body binding.
- **OM-28** - Similar to the 000-28 model in body size and ornamentation, except with a slightly longer scale, wider nut spacing, and wider string spacing at the bridge. Also known as the "orchestra" model.
- **OM-42PS** - Paul Simon's signature acoustic model, manufactured in the 1997 model year, is based on the OM-42 which had not been manufactured since 1930, when just a few were made. Alterations were specifically requested by Simon himself. From the original planned run of around five hundred, only two hundred and twenty three were produced, making these a collector's item. A standard version of the OM-42 is in the current range.
- **16-Series**: Style 16 guitars were first introduced in 1961. Later they were the first production Martins to utilize sustainable, native woods such as ash and walnut, as well as the first to implement hybrid A-frame "X" bracing. Today these models use solid woods such as mahogany, East Indian rosewood, koa, sapele and maple. Models include DC-16RE Aura, OMC-16E Koa, D-16 GT and 000C-16RGTE Aura.
- **15 Series**: Constructed of solid all mahogany woods, featuring herringbone rosette, matte finish and A-frame "X" bracing. Models include D-15 and OMC-15E. Also acoustic bass guitar BC-15E. John Frusciante of the Red Hot Chili Peppers favors this series, himself owning two vintage O-15 acoustics. Used on solo albums (most notably on Curtains) and albums with the band (like the recent Stadium Arcadium), Frusciante's O-15s can be seen in action during live performances of songs, including Venice Queen (most memorably at Slane Castle) and Desecration Smile (usually sitting on top of a special stand in a similar fashion to Slane Castle). Martin also made a line of D-15 style guitars for Guitar Center/Musician's Friend. The Guitar Center model is called the DSR and has a solid sitka spruce top with solid rosewood back and sides. Musician's Friend had two models labeled as a simply Custom-D. Both models have a solid sitka spruce top as well as either solid rosewood or mahogany back and sides.
- **Road Series**: Designed for extra durability, constructed of laminated 3-ply mahogany back and sides and solid spruce top. Also features specially designed top braces, shaped back braces and beveled rear block. Models include the DM. As of 2009 the Road Series has been discontinued.
- **X-Series**: Back and sides constructed from compressed wood fibers (high-pressure laminate or "HPL") and solid Sitka spruce or HPL top. Due to this construction these guitars are more environmentally-friendly[*citation needed*]. Models include, DX1, DX1-R, DXM, DCX1E, DCX1R3, 000CXE Black, and 000X1. Some earlier models used 'Ebonite' (black Micarta) fretboards, later models use koa or striped ebony. Necks on all models are constructed from Stratabond - a laminated wood product used for decades in gun stocks and hunting bows. Some of the more recent models are made in Mexico.
- **Little Martin**: Designed around a modified O-14 fret body, the Little Martin series is built at a smaller 23" scale length. With the exception of the LX1 and LX1E, which both have solid Sitka spruce tops, Little Martin series guitars are constructed with HPL top, back, and sides. Recent models incorporate a greater amount of synthetic materials, such as Stratabond necks and Micarta (as opposed to rosewood or morado) fretboards and bridges. The guitars employ Modified X-Series "X" bracing, reinforced by a bowtie plate made of graphite. Little Martin series guitars do not have pickguards or fretboard inlays.