Engineering Writing: Wahl Professional Senior Clipper #8500

Sait Bilal Cantas

The City College of New York

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Sarah Jacobson

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Introduction

The focus of this essay is Wahl Professional Senior Clipper #8500. Developed and produced by Wahl Clipper Corporation, the clipper is suitable for cutting, tapering, fading and cutting hair. The essay will provide a detailed historical development in the electromagnetic motor technology, technical structure, and functioning of Wahl Professional Senior Clipper.

The initial development of a medical massager using an electromagnetic motor in 1911 by Leo J. Wahl became the foundation for the modern day clippers. Leo’s uncle, J. Frank Wahl, manufactured the clipper at the Wahl manufacturing Company and sold them to nearby barbers. It was the first of its kind to have a drive motor in hand, replacing those connected to a separate motor using a shaft. Toward the end of 1920, the company had manufactured and supplied clippers to barbers in all parts of the United States. Wahl worked directly with barbers because it had a strong commitment to integrity, value, and efficiency. After acquiring a patent in 1921, Leo Wahl acquired 100% stake of the Wahl Manufacturing Company and renamed it Wahl Clipper Corporation (Wahl Clippers Corporation, 2019a).

In 1935, Wahl Clippers Corporation developed the Silent Giant, a big clipper that was quieter than earlier models and did not compromise quality (Wahl Clippers Corporation, 2019a). In addition, the installation of the plastic molding presses and eventual production of all components in-house enabled the company to expand its product lines of barbers and beauticians, including the introduction of Silent Driers (Wahl Clippers Corporation, 2019a). In 1966, Wahl introduced the advanced Vac clipper, which had a vacuum that picked up hair as it cut. Later in 1970, Wahl produced a new variable-speed, rare-earth, and permanent-magnet motor clipper that also appealed to the market, precipitating significant growth in the company (Wahl Clippers Corporation, 2019a).
Throughout the late 1990s, Wahl introduced different models of clippers to tap the expanding market in the United States and global markets (Wahl Clippers Corporation, 2019a).

Although the first decade of the 21st century witnessed slow growth and development, in 2011, Wahl introduced its first lithium-ion powered trimmer that shaped the design of its clippers. These clippers had much power, effectively charged, and kept charge for longer than the initial innovations (Wahl Clippers Corporation, 2019a).

Technical Description of Wahl Professional Senior Clipper

The Wahl Professional Senior Clipper #8500 designed in 2019 is an improvement of earlier versions of the clippers made from the original electromagnetic clipper with v9000 Motor and length of 6.5 inches. Model #8500 has a dimension of 2.5x2x7 inches and weighs 1.3 pounds. It comes with 3 cutting guides (1/16 inch to 3/16 inch), red blade guard, oil, cleaning brush, and operating instructions for any new purchase from the supplier. In addition, other premium cutting guides include 3171-500 #1-#8 premium cutting guides in organizer 1/8 inches to 1 inch, 3354-1000 premium #1/2 cutting guide 1/16 inch, 3354-1300 #1 premium cutting guide 1/8 inch, and 3354-1100 #1.5 premium cutting guide 3/16. There is also the snap-on clipper finger ringer 8839-100 ergonomic non-slip finger ring offered separately to buyers (Wahl Clippers Corporation, 2019b). Hence, it is suitable for use by barbers and stylists, essential for heavy-duty cutting, tapering, fades, and blends for men.

The main parts of the Wahl Professional Senior Clipper include the durable metallic case and lid, coil, blades, blade slides with brushing, an adjusting blade lever that cuts length, and cord.
These parts are joined together by screws with different sizes. The figure below shows the lateral structure of Wahl Professional Senior Clipper #8500.

Figure 2: Wahl Senior #8500 (Adapted from )
Components of Wahl Professional Senior Clipper #8500

The blade lever is situated on the side of the clipper where it can be moved conveniently with a thumb. It allows for easy adjustment of the length of cut without using graders by sliding one of the blades over the other. The blade lever is necessary in adjusting to find the desirable blade size to make a cut. Whenever the blade lever is at the highest position, it pulls the top blade to the other, resulting in a shorter cut. In addition, it helps remove hair that jams the clipper when making a heavy cut (Wahl Clippers Corporation, 2019b).

The clipper blades are attached to the clipper motor through a piston. The clipper blades are small and sharp and very similar to the comb. As the motor moves rapidly horizontally side to side when it plugged, the clipper blades move against each other quickly cutting the hair. At the same time, the movement ensures the blades sharpen themselves.

The blade slide with bushing and screws are silver metallic bars that holds the blades in position when adjusting for the desirable length of cut. The adjustment involves either loosening or tightening the screws to slide the blades along each other and attain good length. Closely put to the blade slide is foam, which prevents hair from entering the device, thereby protecting the clipper (Wahl Clippers Corporation, 2019b).
Tuning spring is made up of adjustable knob from which power can easily be regulated. When making a cut, tuning spring can be adjusted to achieve a desirable speed of vibration. This is particularly important to alter the blade length (especially when controlling for the length of cut). The cord is an electric cable that is plugged to the power source. The cord should not be used to pull the clipper. It should be kept untwisted and undamaged to avoid any risk of fire (Wahl Clippers Corporation, 2019b).

The orange jumper wire connects the coiled copper wire with the cord from the source of power. Whenever the clipper is plugged and powered on through the terminal screw, electric power connects to the coil, causing heating and vibration of the magnet. The resulting electromagnetic field causes vibration of arm which moves the blades in motion, causing a cut (Wahl Clippers Corporation, 2019a).

Wahl Professional Senior #8500 guard are in different sizes. The smallest one is #½ with 1.5mm and the largest is #12 with 38mm. There are other sizes #1 to #11, each with a unique size. Guard combs are also diverse. The smallest is #1 or #0.5, which uses the clipper’s blades to provide clean, even, and close cuts. It is suitable for bald cuts, skin
fades, and very short buzz cuts. Guards combs of #1 is about 1/8 inch and #1.5 is 3/16 inches. It is suitable for buzz cut, and when used interchangeably, the outcome is impressive. In most cases, to achieve a nice fade, it is recommended to use other guard comb numbers on the top of the head. Other guard combs are #3, #4, $5, #6, $7, $8, #10 & #12 (Wahl Clippers Corporation., 2019b).

Wahl offers several comb guides. However, only a few combs can be put in a kit at a time. To attach a guide comb, align the comb onto the blade and press tab until it snaps. Sometimes it is important to always start with the largest guide comb as you progress to shorter combs, depending on cut length. Also, cutting should be slow and smooth, avoiding forcing the clipper through the hair.

Conclusion

Wahl Professional Senior Clipper #8500 is one of the latest innovations from Wahl Clippers Corporation. Weighing only 1.3 pounds and 6.5 inches, Wahl Senior Clipper #8500 has a metallic case, offers a wide range of guard combs, and guard blades. In addition, it has a coil, which sources the electromagnetic power, blade lever for manipulating the blade size, and supports a verity of guard combs for desirable cut preferences.

The different components of Wahl Professional Senior Clippers help the user cut, blend, and taper the hair. The blade slide with blushing screws and clipper blade interlocks to achieve a desirable cut height. Since the top blade has different dimensions ranging from .079 mm to 1.59 mm (1/32 inches to 1/16 inches), tightening the screws makes it easier to achieve the length and align them correctly. The ON and OFF button not only helps in connecting the device to the power but also help in checking the alignment of the blades.
References


Engineering Writing: Self-Reflection

I chose to write about a Professional senior clipper in this writing assignment. The product is produced by Wahl Clippers Corporation and was introduced in the market in 2019. In this short exposition, I will be sharing my experience completing this Engineering Technical writing.

I had challenges selecting an appropriate technology device, considering that the selection had limitations such as simplicity. I did not really understand what ‘simplicity’ meant in this perspective. Notwithstanding, I selected a clipper developed by Wahl Clippers Corporation. At that moment, I realized that I had to analyze a lot of information to write this paper.

First, I spent quite some time reviewing parts of the Seniors Clippers and realized that the best way to handle it is to seek online images of the product. I was lucky to find one image that depicted everything I wanted to start writing. Although they were clearly labelled, I fumbled in starting my description of the parts. Of profound interest was how I would describe the parts of the device without mentioning their functions, including how they operate together to have a fine cut. Describing parts like the coil, and blade were just challenging considering that they had a close connection to how the device functions. Despite the challenge, I realized that coil consists of copper wire and blades cut the hair.

I also researched on the product history and information. Although there were limited resources that described the development of the product, I realized that its development was shaped by developments in Wahl Clipper Corporation. I was thrilled to learn how a small invention that could be used for massage extended to aggravate the development of a clipper. This was an interesting part that I could shy from because it gave me the background information about the product.
I was thrilled to learn how a Senior Clipper can be used to cut, trim, tape, and fade. The uses of the various parts of the device in achieving a desirable cut length is exhilarating to reflect. I wish I can have this experience of holding a clipper and cutting my hair to a desirable length.