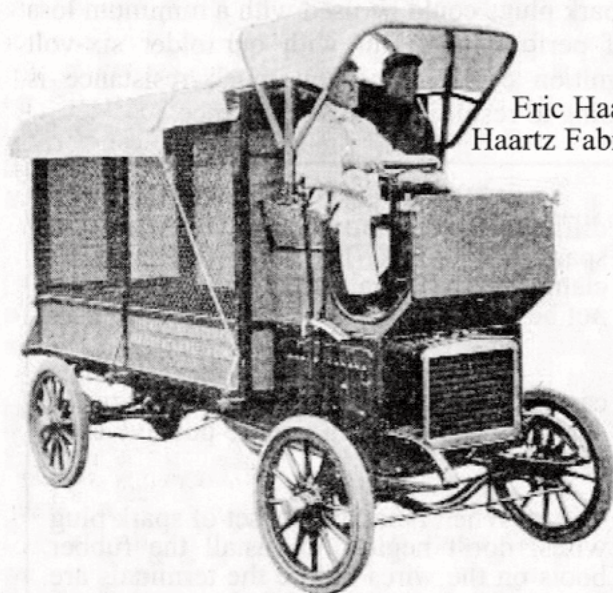


Top and Exterior Soft Trim Materials for Trucks and Commercial



by
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Haartz Fabrics

In the previous article installments we covered (pun intended) the kinds of top materials used for passenger automobiles. Since many *SK* readers enjoy vintage trucks and commercial vehicles, let's take a look at the kinds of soft top and side curtain materials used in that realm. Your editor championed the idea, but I confess to knowing far less about this than about materials for passenger cars. This article presents what little I know about the topic, and I welcome corrections, additions and feedback that can expand our collective knowledge of this subject. Thanks in advance for your interest and help!

Kinds of Materials:

In the century-plus history of trucks and commercial vehicles, earlier stages of vehicle body development favored use of textile top and curtain materials. First, let's look at those different materials. After that, we will consider how they were used on commercial vehicle bodies. A basic point to understand throughout this topic is that materials were chosen primarily for a balance of functionality and cost. On passenger autos, appearance or style of the materials was usually as important, but infrequently so on trucks and commercial vehicles.

When we get specific about the term 'canvas,' its purest meaning refers to duck-weave cloth, meaning that the weave consisted of a simple over-under alternation of intersecting yarns. A tightly woven duck could shed or repel water, although it was not necessarily water proof. Cotton textiles of this nature formed the basis of early commercial vehicle top and curtain fabrics. The textile industry produced a big variety of cotton duck cloths with specialized forms for some uses and generalized forms for others. In the generalized field were (and still are) so-called numbered ducks. The numbering indicated the weight of the cloth, figured on the basis of ounces per square yard, but with weight of the cloth diminishing with higher numbering. In the motor vehicle trade, a number 8 duck was the most robust form used. Number 10 duck was more common, and number 12 duck was used for low-budget applications. Some categories of duck cloth used two-ply yarns (two yarns woven together as one) in one or both directions of the yarns, but this detail will not directly concern us in regard to the duck cloths used on commercial vehicles.

In some applications, the cotton fabric was used in its natural state with no treatment of oils, waxes or coatings. However, the first several decades of commercial vehicle building also saw use of various compounds to impregnate (fully penetrating the cloth structure) or coat (a chemical film applied to one surface of the cloth structure) the cloth. Here are the relevant ones for early commercial vehicles:

For Impregnated Cloth:

Oilcloth was made by impregnating cotton duck canvas with boiled linseed oil alone or with linseed oil mixed with other ingredients (clays and pigments, depending on the finished properties of the oilcloth). Oilcloth of this kind was once so common as to be a commodity fabric, but was supplanted by middling and cheap vinyl coated fabrics. Today, that former kind of oilcloth has to be made on a do-it-yourself basis.

Waxed cloth was another form of impregnated fabric. It is still in commercial production at least for the garment trade for Australian/New Zealand style ranchers' coats, and it is still available in those countries in roll goods.

The word 'tarpaulin' meant something different a century ago, when there were no plastic coatings as we know them today. The Callaway Textile Dictionary, First Edition, published by Callaway Mills (LaGrange, GA) in 1947 explains this for us: *Originally, a term used for cotton duck made waterproof with tar.* By extension, any waterproof cloth, especially when used in large sheets for covering anything exposed to weather. Although tarpaulins are widely used for cargo covers on trucks, and not for covering truck bodies themselves, this is an interesting definition to note. Keep in mind that when this definition was published, our present-day tarpaulins made from plastic coated textile yarns had yet to be developed.

For Coated Cloth:

Much like art painters' canvas, a specialty grade of cotton duck cloth is known as enameling duck. As the name implies, it was (and still is) made as a substrate for painting. In vehicular use, it was typically trimmed onto the vehicle body and then painted along with the rest of the body (quite a few production passenger sedan builders used this technique during the 1920s). Commercial vehicle builders were not really fussy about this, though, and also used ordinary number duck for the same thing. Still, I will refer to it as 'enameling duck' where the intent was to paint the exterior surface.

When we consider the newer generations of plastic coated fabrics used for soft-sided trucks and semi-trailers, these have a high-strength technical fabric between two layers of plastic coating. That technical fabric is usually an open weave textile called scrim, and it is made from high strength nylon or polyester. The plastic film on either side is usually vinyl (flexible polyvinyl chloride, or PVC). These fabrics are known as double-coated fabrics.

Other Materials:

In specialized cases and times, commercial vehicle builders used the same kinds of top or covering materials as were used for passenger cars. In these cases, the builders used surface-coated fabrics or three-ply cloth convertible top materials. (Please look back to the August 2012 *SK* article in this series for explanations of these categories). Genuine leather might have been used for a few

specialty applications on commercial vehicle exterior trim, but I don't know any specific cases.

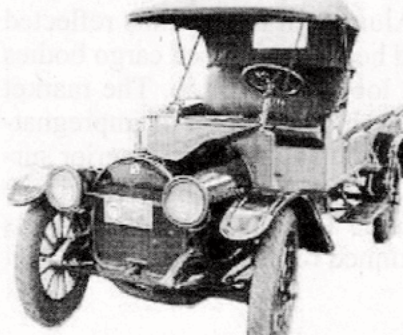
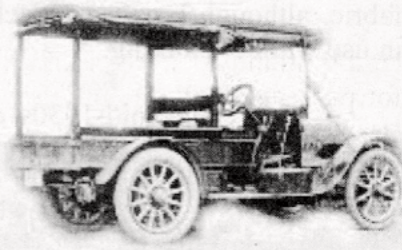
Upholstery Fabrics:

Commercial vehicle upholstery fabrics are outside the scope of this article but may be another interesting topic. A large percentage of these for commercial vehicle usage have been artificial leather or vinyl surface-coated fabrics, designed for this kind of application. Those used for truck seating were very basic, heavy-duty styles.

MATERIAL APPLICATION BY VEHICLE TYPES

The Open Body Era (to about 1920):

During the first couple of decades of commercial vehicle construction, many, if not most, were open bodied constructions. If a roof was provided, it was a canopy top over the payload area (cargo section of trucks, passenger seating area on buses). Builders favored oilcloth or enameling duck cloth as a roof covering, both being suited for painting after being trimmed into place. Oilcloth side curtains were fitted along the sides of the roof and the back, rolled up for loading and unloading, as well as in fair weather. The flexibility of oilcloth made it a favored choice for this application, although waxed cloth would work, too. Where oilcloth was used in its natural state, it could have been the natural brown coloration from the oil or pigmented black.



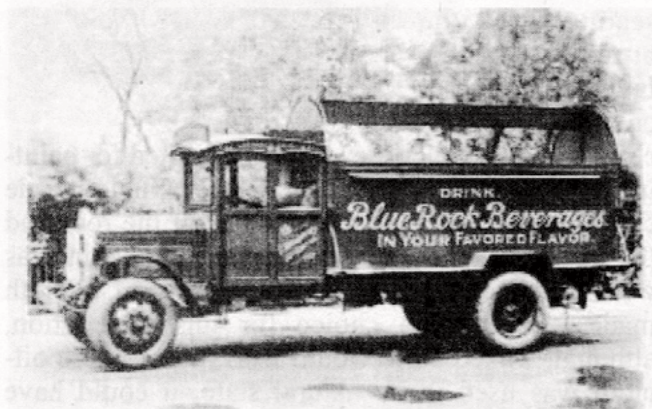
Vehicle drivers were initially provided a bench seat and minimal covering. A free-standing, three-bow top formed the most rudimentary cover for

which waxed or oiled cloth or a numbered duck canvas was usually used. In other cases, a modification of the early roadster top provided top and back cover, still with minimal side protection. These could be covered with numbered duck or any of the materials used for passenger car tops of the period. Light to medium trucks might be provided with a bit of cab made integral to the cargo body. Ford T 'pie wagons' and so-called 'C' Cabs are well known examples of this kind. Again, the relatively flat expanse of roof deck was usually covered with enameling duck or oilcloth and then painted.

Early Closed Bodies:

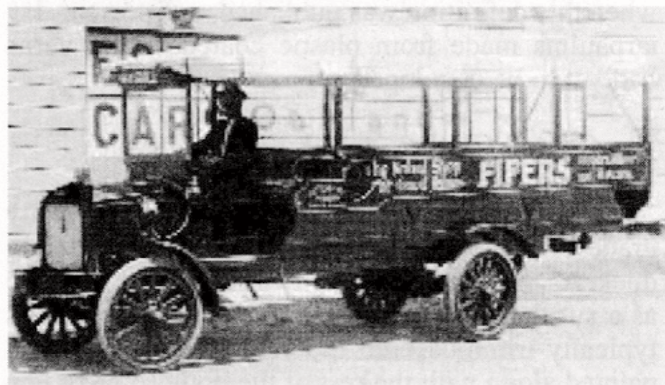
As the passenger auto evolved from predominantly open touring cars and roadsters through World War One to predominantly closed-body cars a decade later, the commercial vehicle trade followed suit. Vehicle body builders still used oilcloth or enameling duck to cover the roofs of buses and cargo bodies on trucks and semi-trailers, usually continuing the practice of painting the roof cover fabric, although brown or black oilcloth remained in use without painting.

Before the mid-1930s commercial vehicle



builders had embraced the uses of aluminum paints and top dressings (a re-coating for top materials) for fabric roof covers. Aluminum flake paints reflected sunlight and reduced heating of closed cargo bodies and semi-trailers. It looked good, too. The market was big enough that some producers of impregnated fabrics made styles with aluminized exterior surfaces. These kinds of materials remained in use until the advent of wide aluminum and steel sheets supplanted fabric skinned roofs.

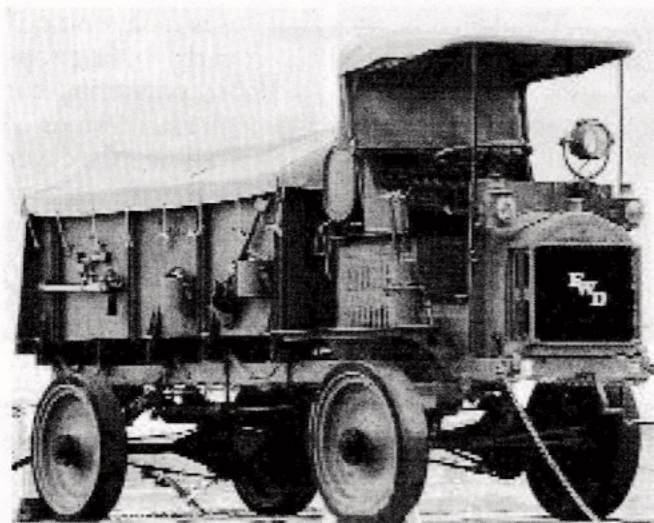
Builders of sightseeing buses took a bit different approach. In many cases, early folding tops on buses were lengthened versions of touring car tops. In many instances they used the same kinds of top materials as open and convertible passenger cars. These folding tops had side curtains for inclement weather. For a convertible version of a bus body (glass side windows and a more or less removable top) a fixed top frame allowed the use of a fabric cover which was removable for fair weather. This kind of construction apparently ceased after the 1930s.



Changes in styling of commercial vehicle bodies brought changes in roof material selections. As long as vehicle bodies retained a squared style and construction, builders continued to trim the tops with oilcloth or enameling duck. As vehicle design became more rounded in the 1930s, builders followed the roof construction techniques seen on passenger coupes and sedans: the steel skins of cabs and bodies extended up past the drip rail or roof belt line and the fabric part diminished to the flat center deck of the roof top. With this type of body design, surface-coated automotive top materials took the place of oilcloth or enameling duck. In the mid-1930s, steel producers introduced wide, deep-draw sheet steel. This enabled the makers of passenger and commercial vehicles to offer full, steel roofs. Semi-tractor and other short cabs could have all steel roofs from this point onward. In the case of cargo and bus bodies, aluminum sheet roofing came onto the market, eliminating the need for any kind of textile or coated-fabric roof cover.

Military and Agricultural 'Wagon Tops':

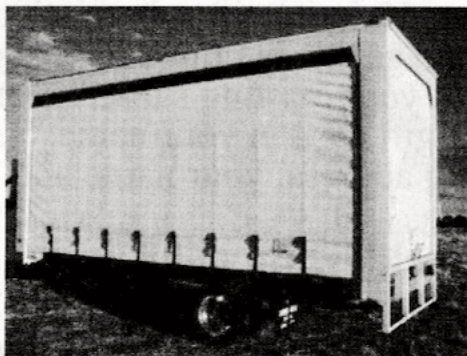
Trucks built for military or agricultural service kept a long history of using a canvas 'wagon



top' structure as a covering for the payload area, even if the 'payload' consisted of troops. By the time that motor trucks came into military use, there were specified canvas fabrics used for wagon coverings, and these would have been carried over to motor vehicles. Specifically these would have been tightly-woven cotton duck fabrics. By the onset of World War 2, the U.S. Army might also have supplemented these with olive drab and khaki versions of three-ply cloth top materials and with synthetic-based textiles postwar. As a sub-market emerged for agricultural vehicles, a similar practice followed for the use of wagon tops.

Modern 'Soft-Sided' Cargo Truck Bodies:

Modern 'soft sided' trucks are more prevalent outside of North America, but readily found, here, too. Virtually all of these use high-strength double-coated fabrics for the sides. Vehicle trim supply firms can offer the same or equivalent coated fabrics on a yard goods basis. Any imagery or lettering can be silk screened onto such fabrics. The construction of roof covers follows modern truck construction practice, with cargo area roof skins of either aluminum sheet, plastic panels or fiberglass composite, all of which are rigid materials and outside the scope of this article.



Modern Fabrics for Restorations:

If a restorer is not really picky about material authenticity for the roof covering of a commercial vehicle, there are modern coated fabrics that serve well in that application, particularly the wide vinyl-coated fabrics for pickup truck bed tonneau covers. Automotive trim wholesale distributors may carry stock on these so-called tonneau fabrics as wide as 78 inches. Such fabrics are designed for lots of UV light exposure and should stand up fine in use on top of a vintage truck or bus.

For greater authenticity, look for a well stocked dealer in textiles and textile supplies. In my home area of central New England there are a couple that are good for locating special fabrics. They might have - or can locate - cotton duck cloth, numbered or enameling. The trick might be to obtain it in sufficient width to get a seamless cover over the vehicle's top, but at least one firm, C.R. Daniels, Inc. (www.crdaniels.com) professes to make wide cotton duck. The firm sells through distributors, but if you can reach a sales person with the firm, they can direct you to their better distributors. An ideal target is number 10 Duck, about 14.75 ounces per square yard. Go no lower than number 12 Duck, at 11.46 oz./sq. yd. and no higher than number 8 Duck, 18 oz./ square yard. If anyone knows other sources for wide cotton duck, let us all know!

If you use cotton duck cloth as a painting substrate for a fixed-in-place roof cover, the job can go more easily if you soak the cloth, and install it that way. Allow it to dry completely before further treatment or painting of the roof cover.

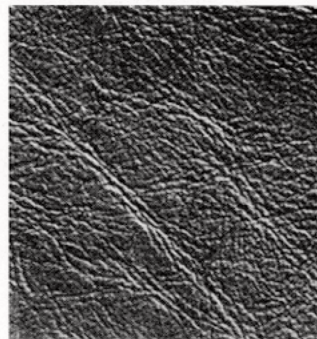
Again, with the help of a textiles dealer, it is possible to buy waxed cotton cloth. About eight or ten years ago, I imported a roll of this from Australia for a project to replicate automobile tool pouches. The importing job was a labor of love and cost as much for transport and duty as was paid for the cloth itself. Waxed cotton cloth is the closest 'off the shelf' thing to oilcloth of a century ago.

Oilcloth had a long history prior to the advent of motor vehicles, and was popular for several applications in the Civil War. Civil War reenactors today have kept alive the know-how for making oil cloth, so a commercial vehicle restorer

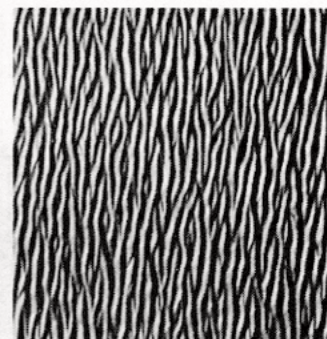
committed to fullest authenticity can look online for some tips about replicating oil cloth on a do-it-yourself basis. The principle factor, though, is to fully soak a cotton duck cloth in boiled linseed oil, drain the excess and then dry the cloth. This should be satisfactory for flexible side curtains. If your intent is to use oilcloth as a painting substrate on a fixed-in-place roof cover, be sure this will be compatible with your paint. If not, skip the linseed oil and use a primer appropriate to your topcoat paint.

For those rigs from the 1930s that had coated-fabric roof deck inserts, you can use the same vinyl-coated convertible top materials as are appropriate for passenger cars of the time. *SK* advertisers Bill Hirsch and LeBaron Bonney carry stock of Bison and Cobra grained top material, color black, suitable for this application.

At least a couple of specialists serve the market for top covers for vintage military vehicles. An internet search for 'military truck canvas' will



Above left: *Bison grain*



Above right: *Cobra grain*

start you in the right direction. If *SK* readers have feedback about any of these specialty firms, please let us know.

Now you know as much as I do about exterior soft trim materials on vintage commercial vehicles. We can build on this foundation with help from the vehicle restorers among *SK* readers. I welcome feedback to add to our knowledge, correct any errors or confirm good sources for specialty fabrics.

S.K.

The editors of Skinned Knuckles would like to thank Eric Haartz for his vast contributions to the knowledge of our readers and restorers. We are proud of the many experts in auto and truck restoration who chose to share their experience and professional knowledge with the Skinned Knuckles readers.

It is through their expertise that we can be sure that the vehicles that we restore will come as close to being authentic as modern science and technology can offer. Eric, thank you for sharing three generations of knowledge with us.

Editor



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