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Asphalt Through the Ages: Evolution of the Paver

In this issue, we take a look at the evolution of the hot mix asphalt (HMA) paving machine or paver. In the early days, most work was done by hand. Undoubtedly, these men were thinking that there must be an easier way to not only do the work, but to obtain a smoother surface.

The first device to come on the scene was a simple, horse-drawn screed. The next logical step was motorizing the screeds. Some of the early machines rode on forms. As things progressed, front-loading hoppers and augers were added—as well as the vibrating screed. This became the basic HMA paver that we see today.

Today’s HMA pavers have had many refinements to improve the basics and to improve the surface texture and ride quality of HMA pavements. The improvements include screed pre-heaters, extendible screeds and vibrating screeds. One of the more recent innovations is the use of materials transfer vehicles.

These photos show the progression from the early days to today.

A hand-operated screed being used on a job in the 1920’s.

An automated screed. This one required a rail or form to ride on. This is a job in Michigan in 1934.

A Jaeger spreader on an airport runway surfacing project using a side-form control in the 1940’s.

This is testing a 10-foot wide Barber-Greene machine in 1935. The young engineer monitoring the work is H. Ashley Barber.

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