For more than 40 years, the twin crawler-transporters at NASA's Kennedy Space Center have slowly traveled the gravel track between the massive Vehicle Assembly Building and the two launch pads at Launch Complex 39.

These mammoth beasts that first carried all the Apollo Saturn V rockets have since borne every space shuttle on the last Earth-bound leg of their journeys to space.

The technology used to build these huge, reliable crawlers capable of such Herculean tasks was deeply rooted in a region where giant machines excavated and extracted veins of coal.

Engineers with the Marion Power Shovel Company of Marion, Ohio, adapted the technology in the early 1960s, and their know-how has stood the test of time.

SOT: Ray Trapp, crawler manager: "One of the decisions that they had to make back then for Apollo was how to get the vehicle out to the pad.

They looked at rail, and they looked at the barge, and both of those had issues,

and then they finally settled on the crawler.

And those guys who designed and built this thing really did a great job."
"It's a testament to the design and how they put it together that 50 years later this
thing is still hauling 12 million pounds around."

SOT: Bob Myers, crawler systems engineer: "When they built the crawler, they overbuilt it, and that's a great thing
because it's able to last all these years."

"I think it's a great machine that could last another 50 years if it needed to."

"It's capable, of course, of moving a shuttle and all of its parts and the mobile launcher platform.
I mean, we're talking about 12 million pounds, the vehicle itself being 6 million.
You have about 18 million pounds rolling down the road."

And as might be imagined, it takes incredible power to move that mass.

SOT Trapp: "This is one of two 2,750 horse power, 16 cylinder Alco diesel engines.
On the other end of these are two 1,000 kilowatt DC generators.
So this engine and one just like it on the other end of the crawler is what makes us move."

"These engines have about 4,000 hours on them, or so. So for a 45-year old,
really a 50 year old engine, they're like brand new."
Of course, we've maintained these engines, over the years very well. So these engines will go for another 50 years."

So with all that weight in motion, what's it like to drive a crawler?

"The steering wheel's about the size of a go-cart racer. But it's all electronic, it's all fly-by-wire, so to speak."

So, it's kind of funny you go up there and that little steering wheel's there,

but that steering wheel turns some big cylinders, you know, moves some big trucks, so it is impressive."

One of the things about driving the crawler is you have to plan ahead, because obviously it doesn't turn on a dime.

So you have to really be on your game and you have to be thinking ahead about where you want to be one, two, three minutes ahead of time."

The critical nature of the long rollout to the launch pad is not lost on those who operate this huge piece of machinery.

"It's very important that all of our systems function properly and safely from the time we leave the safety of the Vehicle Assembly Building until we get out to the launch pad. During that six hours or so while we're out on the crawlerway, it's pretty much just us, my team and the crawler getting the vehicle out to the pad, and it's a critical time."

With the end of the space shuttle program in sight, soon there will be no more shuttle stacks to ferry to the launch pad.
But to those who work on them, the trusty crawlers seem fully capable of moving future launch vehicles if called upon.

SOT Myers: "Seeing the shuttle program come to an end really will be a sad day for us.

The crawler actually has gone through Apollo and Shuttle,

so it's been around for quite a long time, you know, 40 years.

And we'd like to see it carry on to another program if they give us the capability.

The crawler's ready to go. It can take on whatever you throw at it."