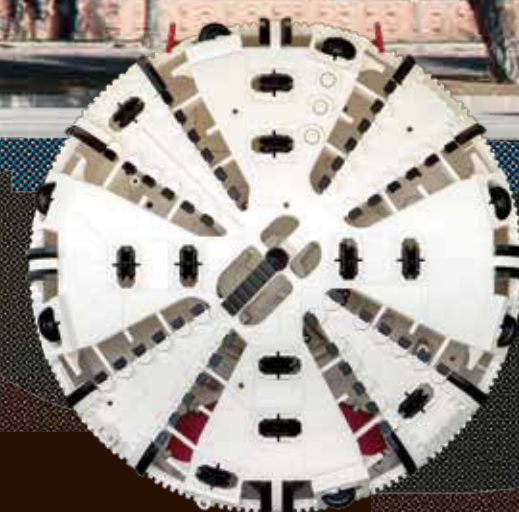
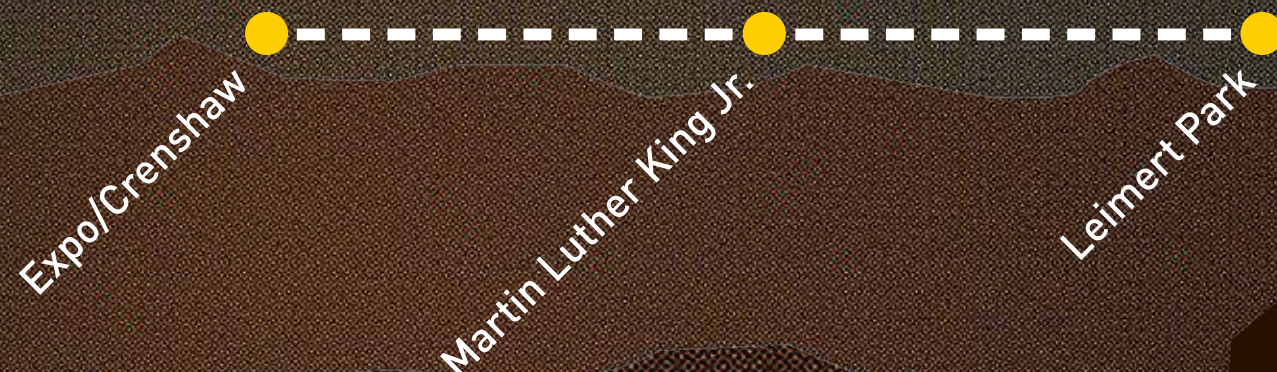


Crenshaw/LAX Transit Project

The TBM will dig a tunnel along Crenshaw Blvd from Exposition Blvd to Vernon St. Then it will turn around and dig all the way back to the beginning.



How does it work?

The front section of the TBM is called the shield. At the front of the shield is the cutter head. The cutter head is like a giant round circular cheese grater. The shield has two jobs; it drills through the ground to create a large hole which it then lines with concrete segments to form complete rings.

The center of the earth is about 3,959 miles down. It would take approximately 1,980 years for the TBM to bore a tunnel to the center of the earth.

Like ships, TBMs are named before they begin work for the first time, to bring good luck. A female name is chosen because historically, underground workers looked to Saint Barbara for protection. She is the patron saint for military engineers, miners and others who work underground.

TBM

TUNNEL BORING MACHINE



HEIGHT 21 1/2 FEET TALL

As tall as 4 construction workers – standing on each other's shoulders



WEIGHT 950 TONS OR 1.9 MILLION LBS

As heavy as 12 Endeavor Space Shuttles.



WIDTH 21 1/2 FEET IN DIAMETER

As wide as the donut on top of Randy's.



× 320,545

MASS 141,000 CUBIC YARDS OF SOIL EXCAVATED

The dirt from the tunnel would be enough to fill 320,545 bathtubs.*



SPEED 3 INCHES PER MINUTE

As fast as a snail... or should we say slow?



LENGTH 400 FEET LONG

As long as 10 school buses.

SIZE 21 1/2 FEET DIAMETER, SEATTLE'S BERTHA IS A GIANT 57 FEET

Big, but not as big as Bertha.



CRENSHAW TBM CUTTER HEAD

VS.



BERTHA CUTTER HEAD

What is a Tunnel Boring Machine (TBM)?
A TBM is like a giant drill. The TBM will slowly drill through the earth, digging the tunnels needed for the trains to travel underground. The tunnels will connect three stations from Expo/Crenshaw to Leimert Park.

***What do they do with all that dirt?**
The soil that has been grated away by the TBM is taken out of the tunnel in large rail cars and hauled away to a dump site.



Metro