

Finding the right route was the biggest challenge for Bigge Crane & Rigging transporting a 400,000 pound transporter from Seattle through the mountains to a power station in Cashmere. *ACT* reports

Cascade cruise



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The day Bigge Crane & Rigging loaded the 400,000-pound transformer onto its rig was the official start of the project to haul the over-sized cargo some 200 miles across the mountainous Washington state terrain. But the job had actually started months before, with Bigge's Seattle-based division challenged with finding the perfect route for the transformer that had arrived into the Port of Seattle via barge from Asia. Bigge would handle the transport from the port to Andrew York Power Station in Cashmere, WA.

Route challenges

"Our biggest problem or challenge for this project was finding a route that the state would let us travel," says Jimmy Throne, Bigge project manager. "We were denied a permit four times before finding the route that would work for the state and all the other [entities involved]."

Throne says it took him about three weeks of work to chart out the route that the state would agree to and that all the counties involved would also approve. At issue were small county roads through the Cascade Mountains



Among the special conditions that complicated over three months of planning and permitting for this long distance haul were police escorts, pilot cars, disruption of traffic, a multitude of bridges, major interstates and railroads, overhead traffic signals and utilities, and steep mountain grades

at Snoqualmie Pass and Bluet Pass.

The route was finally approved when Throne found a route combination that involved turning off from I-90 and traveling down a county road to avoid construction, traffic, clearance and load-axle issues.

Bridge analysis

The route bypass did require that the company hire a bridge engineer to make sure one particular bridge on the county road could accommodate the weight. Once it was

determined the bridge could handle the load, it was “all systems go.”

The transformer was loaded onto Bigge’s specialized 12-axle beam and dolly trailer, which was powered by two prime movers. The overall dimensions of the tractor and trailer combination was 200 feet long, 16 feet wide and 17 feet tall and, including the trailer, weighed 574,000 pounds.

The trip began in Seattle at midnight and included a convoy of police escorts and pilot cars. The crew traveled an average of 40 miles a day through the metropolitan areas of Seattle and Bellevue, and then on through the Cascade Mountains.

Daily adventures

Throne says things went according to plan, but it was slow going with each day a new adventure due to the time of day they were allowed to roll.

“We could only travel after midnight in Seattle and from 02:30 to 06:30 a.m. through the Bellevue district,” he says. “Once we left

that district, we were required to travel during the daytime and then back to midnight to 5 a.m. when we reached the pass at Cle Ellum, WA.”

The trip started on a Saturday and culminated at the power plant the following Thursday. Each day had a different requirement: some allotted time in the night hours and some allotted time in the daylight hours.

At one point, the team parked the rig all day for the crew to get the rest needed to carry on.

“There were certain areas along the route where we would need escorts from Washington state troopers,” says Throne. “Our load was 200 feet from bumper to bumper using a pull truck and push truck.”

Once at the power station the transformer was offloaded using a jack and skid process.

“We don’t use cranes at power stations for the most part,” Throne says. “There are usually too many overhead obstructions. For this unit, we jacked it up and put it on a slide system moving it to the pad.”

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START:
Port of Seattle, WA
(transformer had arrived by barge from Asia)

FINISH:
Andrew York Power Station, Cashmere, WA

TOTAL DISTANCE:
Approximately 200 miles

TIME SPAN:
Saturday through Thursday

WEIGHT OF TRANSFORMER:
400,000 pounds
Total weight (including trailer) 574,000 pounds

DIMENSIONS OF TRACTOR AND TRAILER COMBINATION:
16 feet wide, 17 feet tall, 200 feet long

TRACTORS UTILIZED:
Two prime movers: one push, one pull

TRAILER:
Specialized 12-axle beam and dolly trailer



LEFT: Each day was different depending on the stage of the route traveled. Some stages required night travel and others required daytime travel only

BELOW: The transformer was loaded onto Bigge’s specialized 12-axle beam and dolly trailer, which was powered by two prime movers

