



Long's Handles "Nightmare" Excavating

Mini-Excavators Allow Contractor to Dig in Complex, Tight Locations

Article/photos by Hol Wagner

JOBs that would be the worst nightmare of most excavating contractors are the specialty of Torrington, Wyo.-based Long's Excavation & Construction.

The business was founded in 1987 by Kyle D. Long, who along with his father, Jerry R. Long, are the two principal equipment operators. They have combined experience of over 66 years, including oil and gas pipeline, uranium and coal mining, electrical, environmental and all aspects of residential work.

The company specializes in small, complex excavating jobs and in the past few years has found compact mini-excavators to be ideally suited to this work, supplanting both traditional backhoe/loaders and hand digging.

"We've developed a niche in the excavation field using smaller, more compact equipment

that has nearly eliminated the need for a shovel," explains Kyle. "This equipment can enter areas that traditionally have been done by hand."

Long's keeps a John Deere 310D backhoe/loader around for use where needed, but the primary excavating fleet now consists of Kobelco mini-excavators, a pair of SK35s and an SK70. "These are probably the most well-balanced machines on the market," Kyle says of the minis. "Design wise, everything is in the right spot."

A Case 1840 skid-steer loader handles loader chores on most Long's jobs. And a Petersen Pow-R Mole boring machine/pipe pusher is used where excavation is not practical.

Long's has become something of a regional specialist in excavating for complex underground electrical system upgrades for oil pipeline and mining operations. One of the

SK35s was used at the massive Black Thunder coal mine south of Gillette, Wyo., to dig electrical duct banks for power upgrading. Major upgrades have been completed for Amoco Pipeline Co. at its Fort Laramie, Wyo., pumping station, Conoco Pipeline at its Ault, Colo., station, and Platte Pipe Line Co. at its Guernsey, Wyo., and Gurley, Hebron and Moorefield, Neb., stations. A second major project was recently undertaken at the Guernsey station, with similar work at Platte's

This maze of electrical conduit and piping at Amoco Pipeline's Fort Laramie, Wyo., pump station is typical of the trenching work done by Long's Excavation using mini-excavators.

-- Photo courtesy
Long's Excavation



Another advantage of the miniexcavators: they can fit through doorways, facilitating excavation work inside buildings, as here at Platte Pipe Lines Moorefield, Neb., station, where lines serving the unit pumps had to be uncovered and reset.

-- Photo courtesy Long's Excavation

Kyle Long, right, president of Long's Excavation, discusses work at Platte Pipe Line's Guernsey, Wyo., station with his father, Jerry.



Above and left: Long's latest work at Platte's Guernsey facility was done as a subcontractor to Automation Electronics of Casper, which was installing a totally new electrical control system at the pumping station. Cranes from B&W Crane Service and Black Hawk Crane are seen placing the new control structure, above, while a portion of the maze of electrical lines emanating from the structure is seen at left in trenches excavated by Long's.

Right: The SK70 backfills a trench through the yard at the Guernsey station. Benching the trenches to prevent collapse is easily accomplished with the mini-excavators.





Casper station next on the agenda.

Work at the Guernsey station is typical of what Long's does for the oil pipeline companies. The first project involved preparation for the new Express Pipeline, adding a substantial amount to the volume of oil pumped through the facility. All the pump unit lines had to be uncovered for hydro testing, trenches had to be dug for upgrading of the electrical lines, and old drain lines had to be exposed so they could be rerouted and new lines added for the new pump units. The second project involved installing all new electrical controls for the entire station.

None of the lines are overly deep (the deepest being 9 ft.), but the great number of buried lines crisscrossing the site at varying depths made the excavation a real

Above: Even use of the mini-excavators doesn't totally obviate the need for hand digging. This is one of Long's SK35s uncovering electrical conduit, drain lines and oil pipes at Conoco Pipeline's Ault, Colo., station.

-- Photo courtesy Long's Excavation



In addition to its efficiency on the job, small equipment is easier to transport. Pickup easily hauls trailer carrying mini-excavator, skid-steer loader and tool box.

-- Photo courtesy Long's Excavation has the admirable record of never having cut an active line.

challenge. And complicating the work, a lack of workable space meant all the excavated dirt had to be removed and stored outside the yard, then hauled back for backfilling. A total of 4,500 cu. yd. was excavated in the first project, with about 10,000 cu. yd. moved in excavating 6,500 ft. of trenches in the second project.

Since the pumping stations must remain fully operational throughout the work, it is essential that Long's perform the work without damaging or disrupting any of the systems exposed in the excavation. Pipes cannot be scratched or scraped, and electrical lines cannot be severed. In its 12 years handling this sort of work, Long's

In addition to its work for oil pipeline companies, Long's uses the mini-excavators to dig basements for new homes in the eastern Wyoming area. Because of the region's sandy soil, the little SK35s are ideal for benching the excavation to prevent cave-ins.

With over a year's experience with the mini-excavators, Kyle Long has become a real proponent of the versatile little machines. "I've trenched about 50,000 ft. with these machines," he says. "They're very efficient, I've cut my fuel costs in half. They're very economical on the jobsite."



Jerry Long uses one of the Kobelco SK35s to dig a trench alongside a pumphouse at Guernsey. Zero tailswing of the diminutive excavator allows it to work right beside the structure.



Not all the digging at the Guernsey station was in confined, congested areas. Here, the Kobelco SK70 digs, and later backfills, lengthy trench to carry electrical control cable to adjacent tank farm.



Above and right: In addition to the Kobelco minis, Long's uses a Case 1840 skid-steer loader, seen here removing and stockpiling gravel surfacing, and a John Deere 310D backhoe/loader, seen picking up excavated soil for stockpiling out of the way of the ongoing work.

