

HDD Market Stabilizing At Healthy Rate

Further Niche Expansion, Development Key To Long-Term Market Health

by Robert Carpenter ■ Editor

After experiencing almost a boom year for horizontal directional drilling in 2005, the market in 2006 appears to be stabilizing at a healthy, more sustainable level. Overall, the HDD market remains strong and vibrant in most areas while making inroads in the sewer and water industry along with further growth for specialty applications. This data and more was reflected in *Underground Construction* magazine's exclusive 8th Annual HDD Survey.

Several of the HDD rig manufacturers actually saw a small drop in first quarter sales of equipment from a year ago, though most predict they will finish the year near 2005 levels. However, 2005 was a year that many contractors were playing catch-

up by replenishing their equipment fleets that had been neglected after the economic recession in 2001. Contractors are still updating and expanding their HDD fleets in 2006, but at a less urgent pace, the survey revealed. Plus, the industry rush to accommodate fiber-to-the-premises (FTTP) build-outs, particularly from Verizon work, also prompted contractors to invest in new equipment perhaps a bit sooner than they had originally planned. As AT&T's revised program to initiate its FTTP work kicks off, along with project launches from other major players and private networks, HDD equipment could see another sales boost in the near future.

And, while sales may lag a bit behind 2005, actual dollars

spent in 2006 are projected to be more. Much of that can be attributed to an anticipating increase in sales of mid-sized rigs.

Underground Construction's research was conducted in April and May of this year. Survey's were sent to approximately 4,650 contractors, utilities and pipeline companies who own/rent/lease and operate HDD equipment.

Comments were many and concerns varied but one statement by an Illinois contractor perhaps summed up the role of HDD best when he said simply: "it's here to stay."

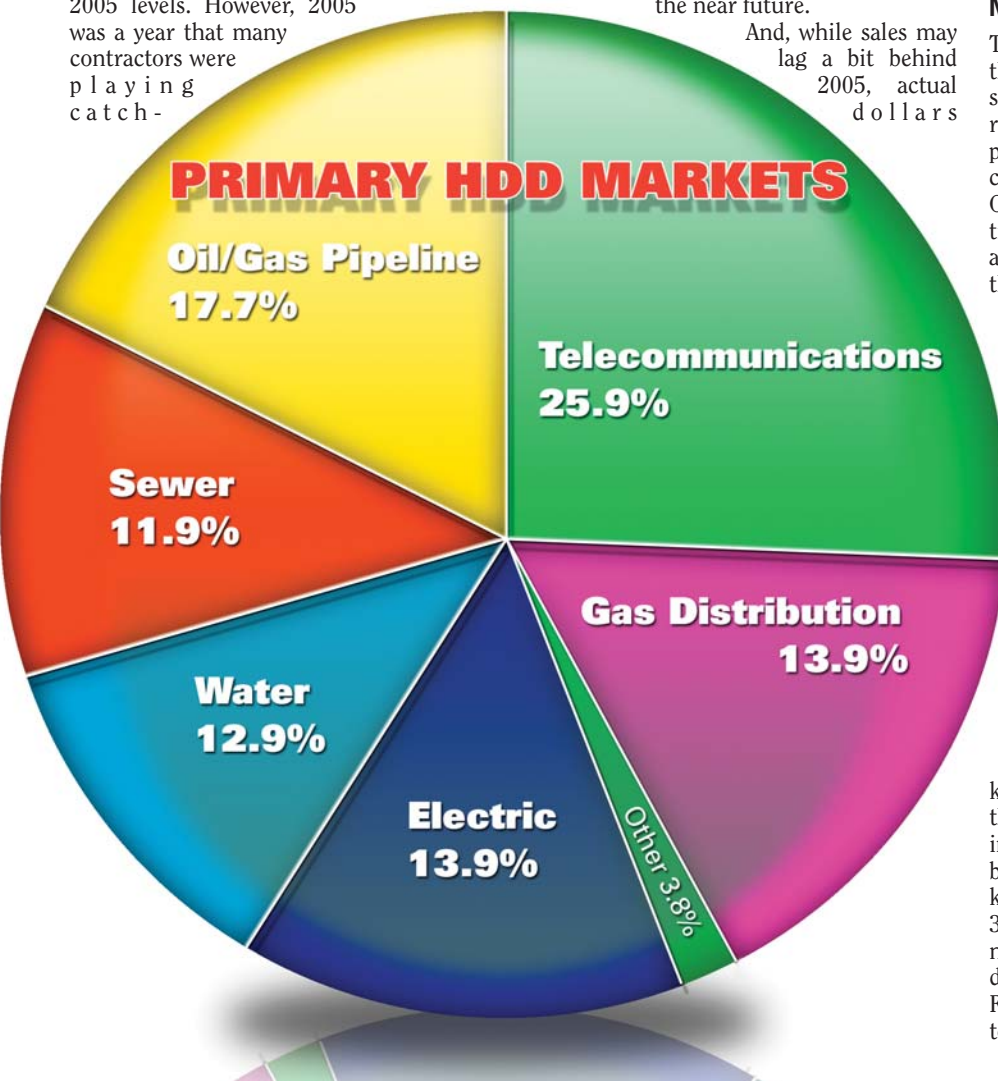
Market shares

The initial flurry of activity from FTTP that helped resurrect the HDD market has subsided somewhat into more of a routine roll-out. But as the economy continues to pick up speed, the percent of HDD in overall construction has actually dropped slightly. Of those contractors and utilities that actively own and operate HDD equipment, it accounts for approximately 40.8 percent of their construction methods compared to 43 percent in 2005.

The FTTP initiatives are relying heavily upon the use of small HDD rigs to quickly and efficiently install the shorter fiber drops. Predictably, this work has helped to once again expand the share of telecom work in the HDD market to 25.9 percent, an increase of over 4 percent from 2005.

Comprising the second largest market segment was gas distribution at 17.7 percent. Oil and gas pipeline work will occupy 11.9 percent of the market in 2006. Both markets are expected to increase as pipeline and distribution construction has entered a major growth cycle.

Electrical work saw a jump in its market share from 12.3 to 13.9 percent, and the water market grew from 13.4 percent in 2005 to 14.9 percent this year, followed by continued expansion in the sewer market from 12.3 to 12.9. The "other" category, 3.8 percent, includes a variety of specialty niches for HDD that are continuing to be discovered and expanded on a regular basis. For example, the use of specially-designed tools in conjunction with HDD rigs are now



able to efficiently and cost-effectively clean culverts. However, as contractors moved into other higher demand markets, the overall impetus to expand HDD into speciality niche markets contracted from its 2005 market share of 10.1 percent.

Small rigs (defined as having 50,000 pounds or less of pullback force) continue to dominate both new sales and existing fleets, accounting for roughly 76.6 percent of the market. However, the trend towards utilization of more mid-sized rigs (between 50,000 and 100,000 pounds of pullback force) continues with that category accounting for 16.3 percent of the market, up from 13.6 percent a year ago. Large rigs (over 100,000 pounds of pullback) gained ground slightly from 6.0 to 7.1 percent.

Mid-sized rigs should continue to see an increase in market share as almost half of the survey respondents indicated they would seriously look at purchasing mid-sized rigs in 2006 to compliment their small rig operations. Several of the contractor respondents explained that they believe owning mid-sized units is an important business strategy as they continue to diversify their HDD operations.

As one would expect, the Big Three rig manufacturers – Vermeer, Ditch Witch and Astec/American Augers – dominate the rigs in use today. However, in recent years, companies such as Barbco, TT Technologies, Robbins HDD and Central Mine Equip-

ment have slowly established a solid market niche, the survey showed.

Fleet information

Respondents were queried about the age of their active HDD fleet and found that 12.4 percent of currently operational rigs are over 10 years old; 30.5 percent at between five and 10 years old; 45.7 percent are between two and 5 years old; and 11.4 percent of all active rigs are less than two years old.

Considering the telecom bust and subsequent overall economic recession that began in late 2001, it is not surprising to note that most HDD contractors tend to hang onto their equipment. Almost 62 percent of respondents indicated that they are still operating rigs they've owned since beginning HDD operations.

In 2005, respondents averaged 1.6 new rig purchases per company. In 2006, that figure, as indicated earlier, is expected to cool slightly to 1.4 rig purchases per firm. About 16.5 percent of HDD equipment owners say they rent or lease rigs.

The used or refurbished rig market continues to thrive. Over 50 percent of the survey respondents have purchased used rigs over the past few years, averaging almost two used rig purchases each. About 54.2 percent said they would strongly consider buying a used rig as their next purchase.

Each contractor/utility's HDD fleet value (including mud systems) averages almost \$400,000 in value per company.

Industry personnel continue to believe in a strong future for HDD. Respondents indicated they expect that HDD will comprise about 39.5 percent of their underground work in 2006 and, looking five years down the road to 2011, they anticipate HDD will grow to 53.7 percent of their underground construction activities.

Bullish

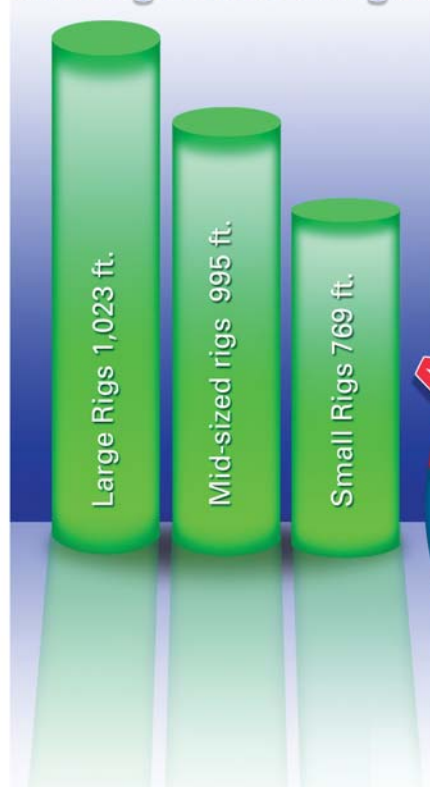
Survey respondents as a whole were very bullish on the long-term future of HDD. Many of those comments hinged upon how the industry continues to recover from past problems while continuing to develop other markets.

"It (HDD) should get better, but rates are still too cheap due to the telecom problems in past years," observed this contractor from a mountain west state. A California respondent said that the market "is sustainable if you keep opening your mind to the challenges." Cautioned a Midwest contractor "the work load is getting strong, but there are also more rigs back on the market looking for work." A Southeast contractor sees a "steady increase as more understanding of HDD broadens the market."

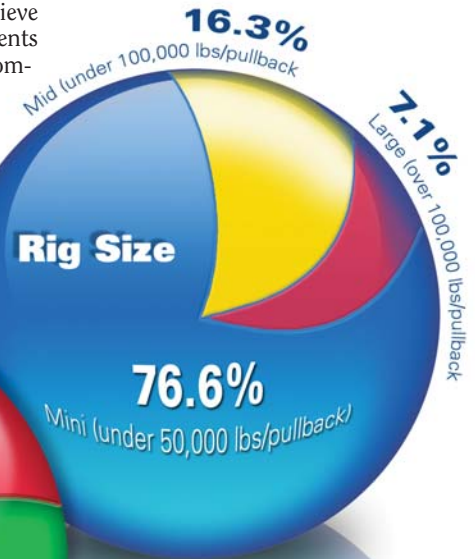
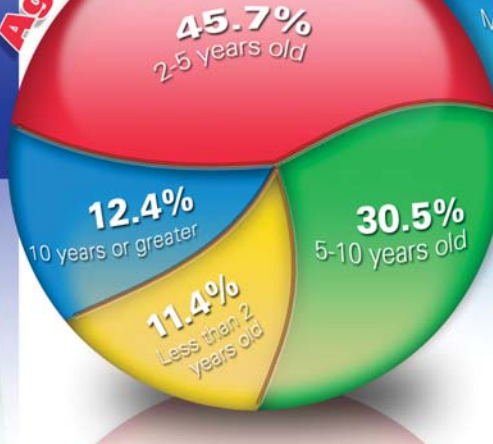
Several respondents believe new markets, particularly from the municipal sector, will continue to offer a high growth niche. "The near-term market will be stable, but long term will increase dramatically as on-grade sewer installation increases," said this Midwest contractor. A Western states respondent pointed out that "aging infrastructure and excessive costs of open cut dictate strong growth." And a New England respondent replied that he "expects the percentage of HDD work to rise as engineers become better educated on its applications."

Of the contractors responding to the survey, 50.9 percent said the overall value of the directional drilling contracts in 2005

Average Bore Length



Age of HDD Fleet



was under \$500,000, while 20.9 percent had contracts valued between \$500,000 and \$1 million, 22.6 percent had contracts between \$1 million and \$5 million, 4.6 percent had contracts between \$5 million and \$10 million, and 1 percent had contracts valued over \$10 million.

Contractors continue to install pipe and conduit via HDD at a record pace, averaging 69,472 feet compared to 60,975 feet in 2005. Though many are still complaining about low prices in some parts of the country, the overall price per foot (through average soils, no rock) climbed to \$28.72 from \$23.44 in 2005 and \$20.84 in 2000.

Average bore lengths for small rigs is 769 feet; for mid-sized units the average bore length is 995 feet; and large rigs average 1,024 feet.

When queried about what qualities were most important from their HDD equipment/service providers, 66.4 percent cited "service," 51.6 cited "quality," 50.8 percent emphasized "technical knowledge," 50 percent believe "availability" is important. Surprisingly, the "cost of equipment and services" was cited the least at 43.8 percent.

Challenges

Many challenges face the continued health of the HDD market. Survey respondents highlighted several areas of pressing concerns.

Price continues to be a leading headache, according to several contractors. A Rocky Mountain area contractor complained that "competition is keeping prices too low," while an upper Midwest respondent claimed that there are still "too many companies bidding against each other and are keeping prices down." This New England contractor went even further when he explained that the biggest challenge facing the HDD market is "to keep the foot price up in order to keep quality of work high; that will keep integrity up so the contractors can afford

Average Per Foot Charge



to train and educate their employees to be safe and knowledgeable about the work environment."

Project information and preparation are other areas contractors believe need to see dramatic improvement. "Getting projects specified properly is a big challenge," said this New England respondent." A Florida contractor stated that he sees "locating existing facilities and getting better locating equipment to pick up sonde depths below 20 feet," as a huge industry benefit. This Midwest contractor agreed that "unforeseen ground conditions" are a significant problem, made worse by the fact that they are "not getting extra costs for challenging ground conditions." Indeed, another Midwest contractor observed that two steps are needed to improve safety and damage prevention on HDD projects: "First, reliable and accurate locates by utility companies

and contract locators are needed; and second, we need proper training of drill crews with emphasis on avoiding utility hits."

So-called "Cowboy Contractors" continue to be a sore point for many industry personnel. "Irresponsible and uneducated contractors," are hurting the industry says this Southeast contractor.

Market expansion

Expanding the market was a significant challenge cited by several respondents. "Getting government agencies and utilities to move toward HDD is critical," said this West Coast contractor. "We have to work at convincing utility owners/cities that this is the right method," stressed a Midwest respondent. A Mountain West respondent said that for the market to grow, contractors must do "consistent, quality work to gain better perceptions from small cities while doing less damage to existing utilities."

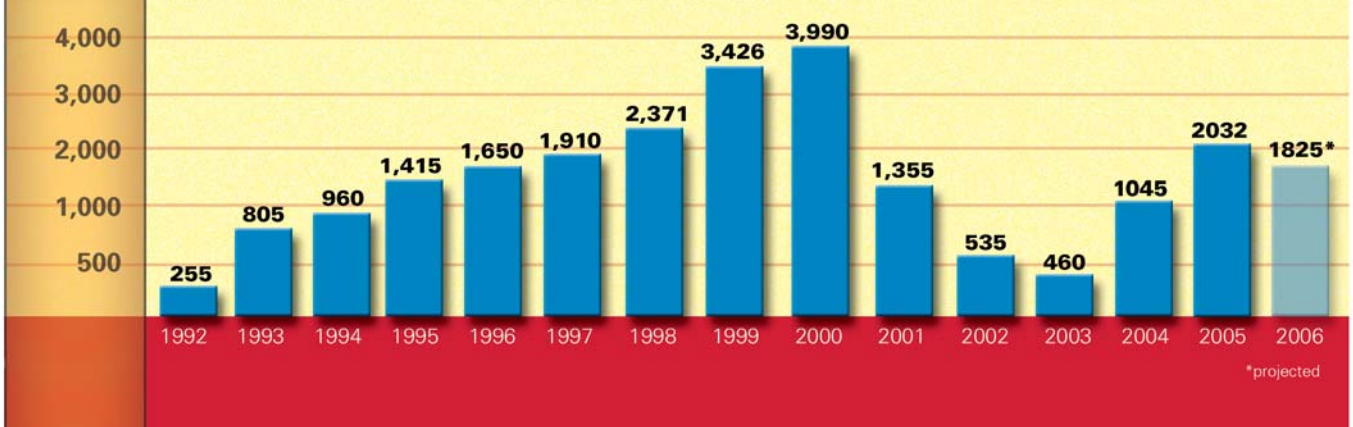
Another Midwest respondent explained that "There is still a need for adequately trained jobsite inspection staff. Most consulting engineers still have no clue as to how HDD is done." And, doing the job right should be a high priority, says this Southwest contractor: "It is very important for us to create good builds for all utilities installed for obvious reasons."

Other areas cited as among the other greatest challenges for the HDD industry were: "getting rid of spoils," "steering/control of line and grade for gravity systems," "liabilities including cost of insurance," and "cities not allowing HDPE pipe under code."

All things considered, 2006 finds the HDD industry continuing to gain strength with a bright future. But as an Ohio respondent cautioned: "directional drilling has come a long way in a short number of years – but it still has a long way to go." ■

HDD Units Manufactured & Sold

Approximately 24,032 units have entered the market since 1992.



*projected