

Katch Kan 'catches' on: New fluid containment system gaining acceptance in drilling industry

IADC STATISTICS SHOW that more than 35% of rig accidents occur on the rig floor, and doubtless a significant portion of these are due to slippery conditions due to drilling fluids. With this key fact in mind, **Katch Kan Enterprises Ltd** in 1995 introduced a simple solution to unwanted rig-floor fluid discharge. The initial goals were to improve safety and rig-floor cleanliness, but the Canadian company quickly realized that their Minimum Discharge Systems are an important environmental tool to contain fluid discharge.

"Our systems were designed with safety in mind," explained Katch Kan Operations Manager **Tracy McIntosh**. "This equipment will help eliminate near-fatal mistakes due to people slipping on the rig floor."

The MDS system comprises 2 main components—the Kelly Kan and the Katch Kan. The cylindrical Kelly Kan clamps to the string connection, redirecting fluids down through the rotary table and slips into the Katch Kan, sort of an inverted, flat-topped hollow pyramid. As the name implies, the Katch Kan collects fluids that can then be re-circulated or disposed of. It is installed below or between the beams under the drilling floor.

At the same time, the MDS system cuts costs, Katch Kan says. First, it conserves often-costly drilling fluids. The company estimates that the MDS system can save \$4,500 in mud in one month of rig operations. This is based on 15 gal lost per connection, 10 connections/day and \$1/gal average mud costs. This equates to a \$150/day savings. Another savings is on reduced reclamation. Katch Kan says these costs can be cut as much as 40%. In addition, clean-up and vacuum-truck costs are smaller. The company also says the system cuts operational costs. Cellar cleanout is less burdensome. Also, because the Katch Kan junk basket allows running a stripper at all times, tools are prevented from falling down the hole, minimizing fishing trips.

So far, Katch Kan has caught on. In

Canada, the company's MDS systems are in use on more than 65% of active rigs.

"Since 1995, our first retrofit in Canada, it didn't take long for the drilling community to see the advantages of our system," Mr McIntosh said.

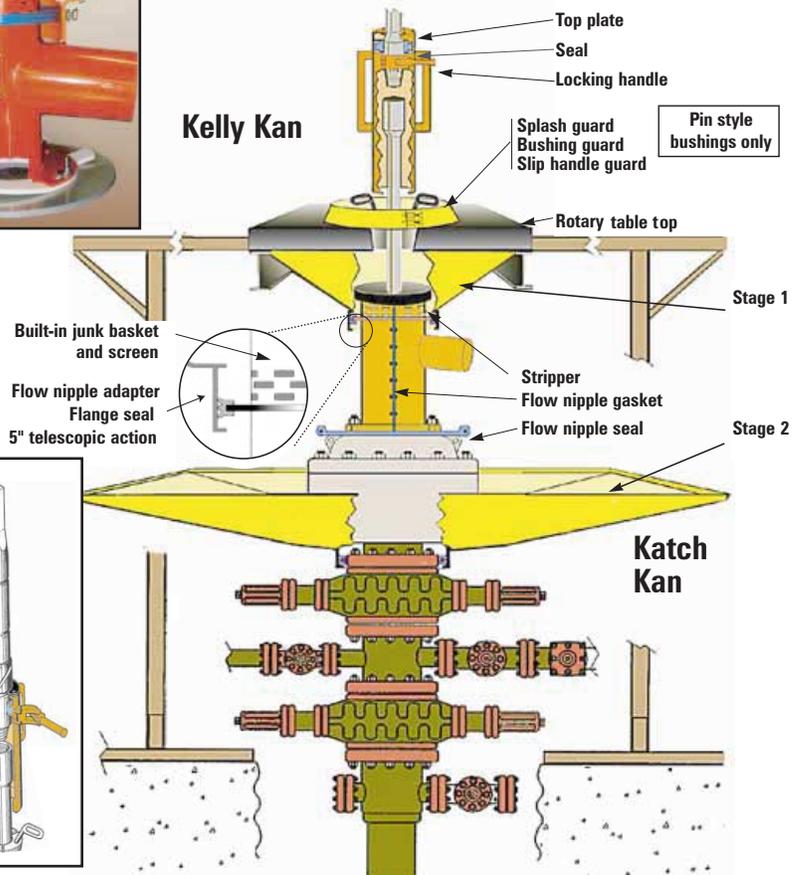
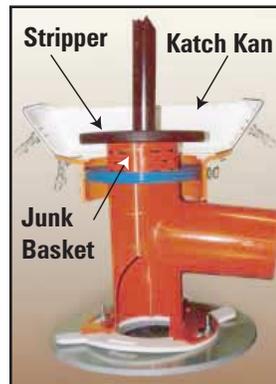
More recently, the system has begun making strong inroads among US-based land contractors, he added.

Another part of the beauty of the system lies in its ease of installation. The Kelly Kan weighs just 27 lb. A single person can install this mud can quick-

ly and without tools. This mud can is said to work on all sizes of drilling and service rigs. A variety of quick-exchange seals allow the unit to attach to service tubing, heavy-weight drill pipe, kelly, drill collars or test tools with diameters ranging from 2 in. to 7.5 in., according to the company. The seals remain supple in temperatures down to -75° C. The unit is compatible with all types of fluids, including hydrocarbons.

The Katch Kan seals to the upper 8 in. of the flow nipple and to the beams under the drilling floor. The catch area that collects the drilling fluid for return to the mud tank is available in sizes from 16-50 sq ft. Telescoping action allows for rig settling and ensures a leak-proof seal around the bottom of the rig table.

The Katch Kan experience is just one example of how new field technology doesn't have to be rocket science. "There's going to be a lot of these types of simple solutions to drilling problems," Tracy McIntosh predicted. ■



Katch and Kelly Kan: Minimizing unwanted rig-floor fluid discharge will improve safety, enhance environmental protection and cut costs, says Katch Kan Enterprises. Their Minimum Discharge System comprises a cylindrical Kelly Kan that clamps to the drill string and redirects fluids through the rotary table and slips into the Katch Kan. Insets: Top photo shows a cutaway view of the Katch Kan. Bottom inset shows an artist's rendition of the Kelly Kan attaching to regular drill pipe.