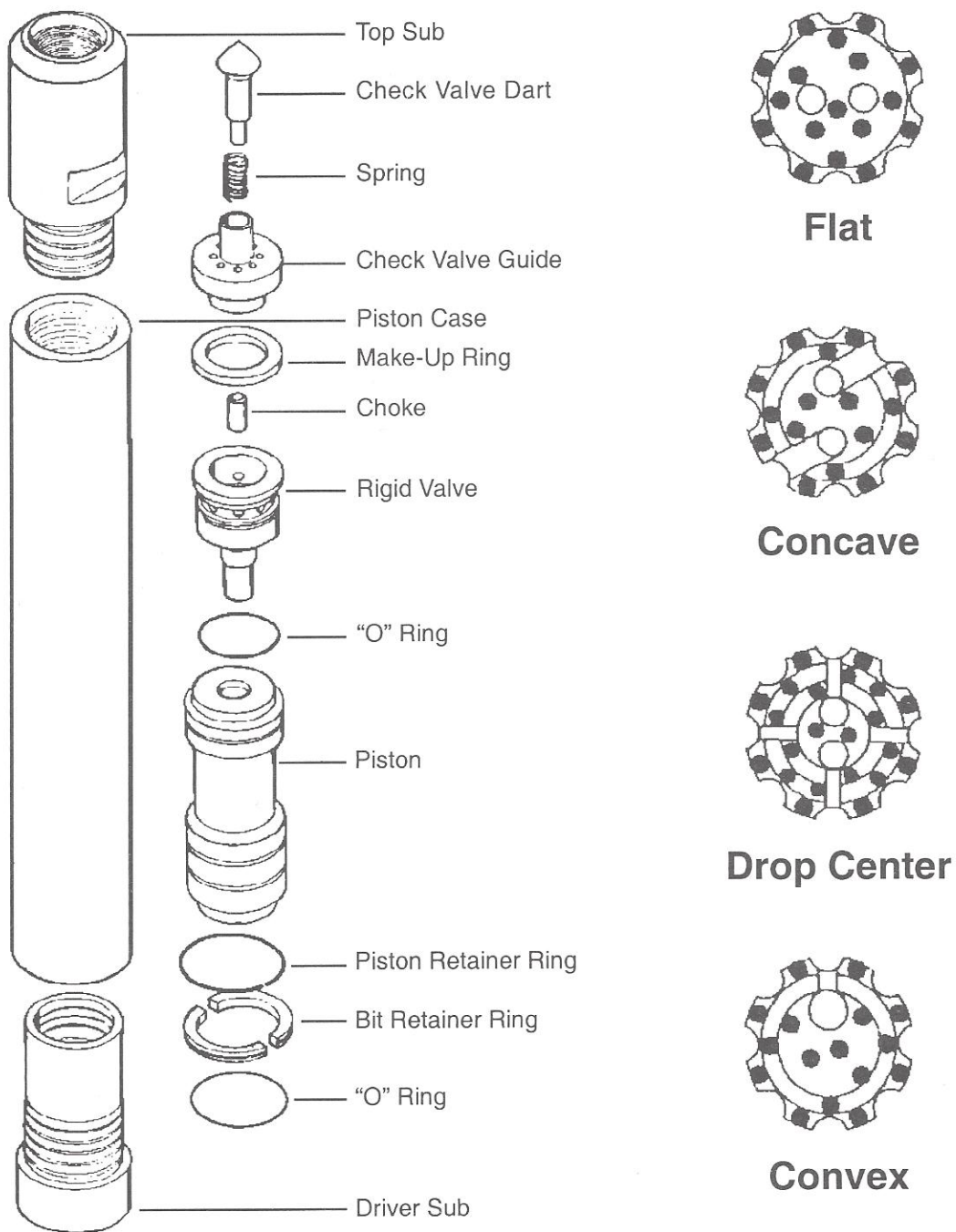


DOWN HOLE TOOLS - 4" to 17"

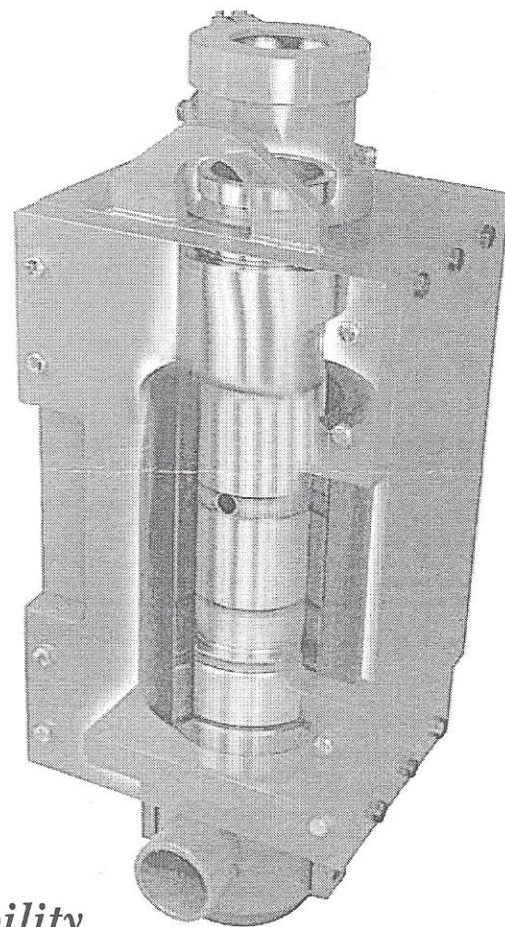
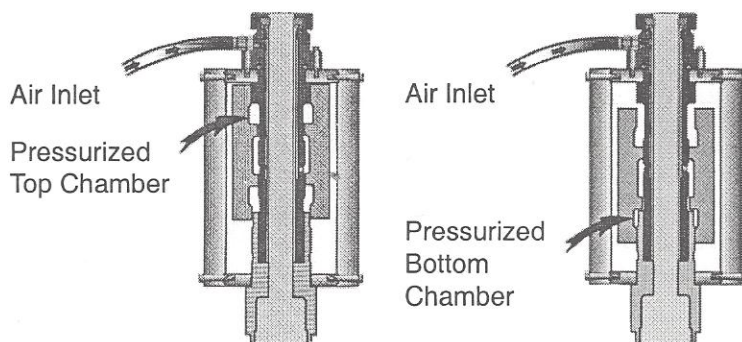


Casing Hammers for Air Rotary Rigs

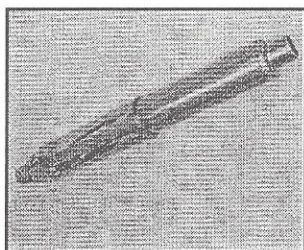
Midfrequency piston operation for accelerated casing advancement with minimum stress on equipment

- No moving valves or cylinders
- High grade chrome moly billet steel, heat treated to optimum hardness for impact and wear resistance
- The piston is the only moving part
- Unique 360 degree internal port-timed piston automatically centers on the valve body

Air Flow Diagram



Compare Performance, Price and Reliability



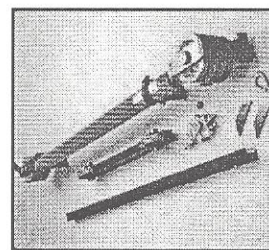
Perforator

Slots in seconds
Pull up to retract blade
Push down to perforate
Tool steel slotting wheel
Fast pneumatic engagement



Extractor Hammers

Exposes well screen
Pull surface seal pipe
Retrieves stuck tooling
Pull & rotate simultaneously
Attaches in line with drill string



Lifting Cylinder

Isolates hammer
Universal design
Simple installation
Keeps winch line free
Speeds make-up time

Drillers' Comments

"...Fires first time, every time and increased our drilling footage by 25% - 30%.

Lynnie Arnott
A & A Drilling
Lopez Island, WA
360 468-2587

"Absolutely the sweetest casing hammer I've ever used. My two hammers never freeze up or give me problems. They let me drive deeper than other hammers I've owned and do not break welds"

Vernon Rank
Water Wells Drilling
Yakima, WA
509 966-7409

"I can regulate it to hammer as lightly or as hard as I intend ... I have drilled through boulders, tapping gently, as well as drilling 400 feet in gravel formations using 6" steel casing. Maintenance is not a factor, I probably add 1 quart of oil every 2-3 months.

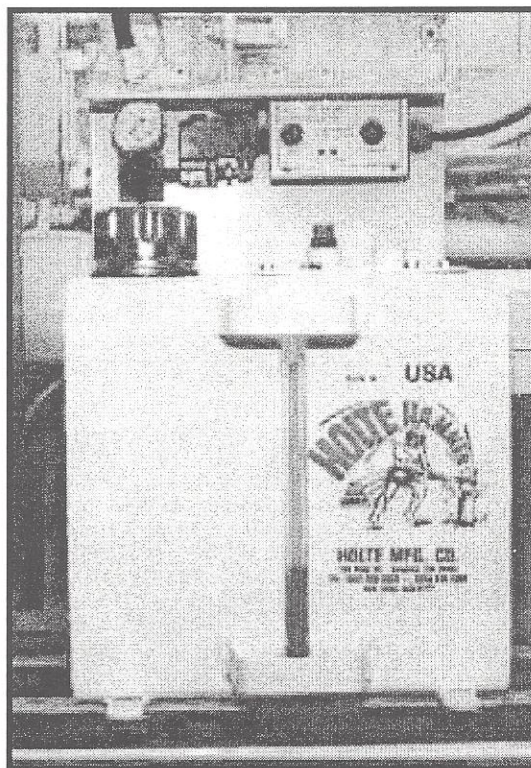
Chet Graham
Graham Drilling, Inc.,
Sheridan, MT
406 842-5214

Oiler

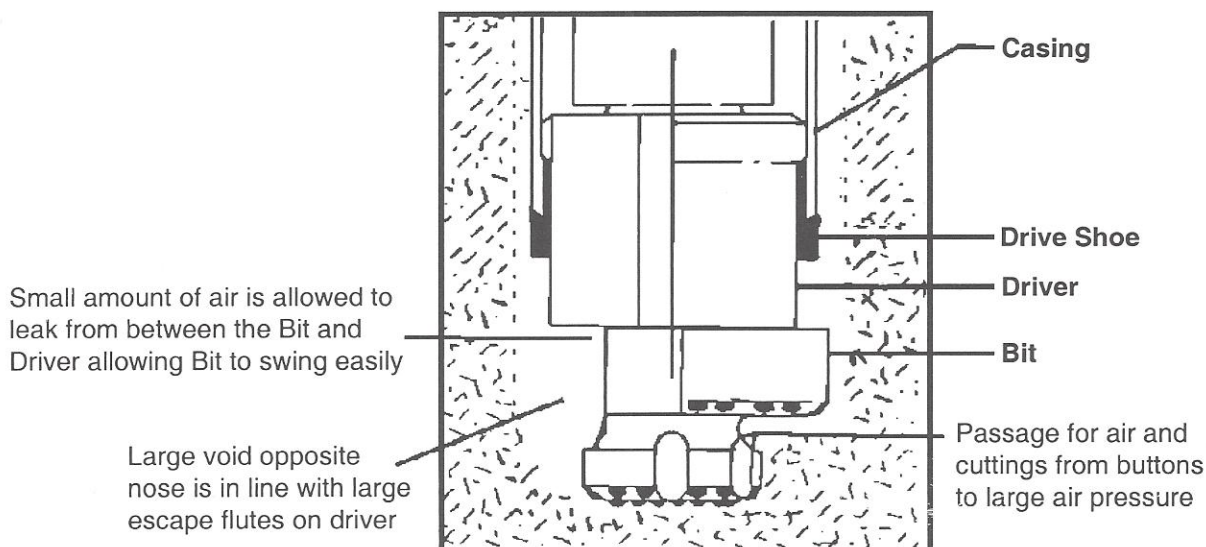
The **Holte Manufacturing Oiler** has a positive displacement pump that is air powered. The air gets to the pump through a solenoid valve. The solenoid valve gets a signal from an electronic timer that has a variable frequency set by the operator. Each pulse from the timer results in 1/2 cubic inch of oil. The pressure ratio between air supplied to the pump and oil coming out of the pump is about 4-1/2 to 1. This enables 100 PSI of air to push 450 PSI of oil. When the electronic signal is off, the pump recharges by means of a return spring in the pump. This simple system is durable and dependable.

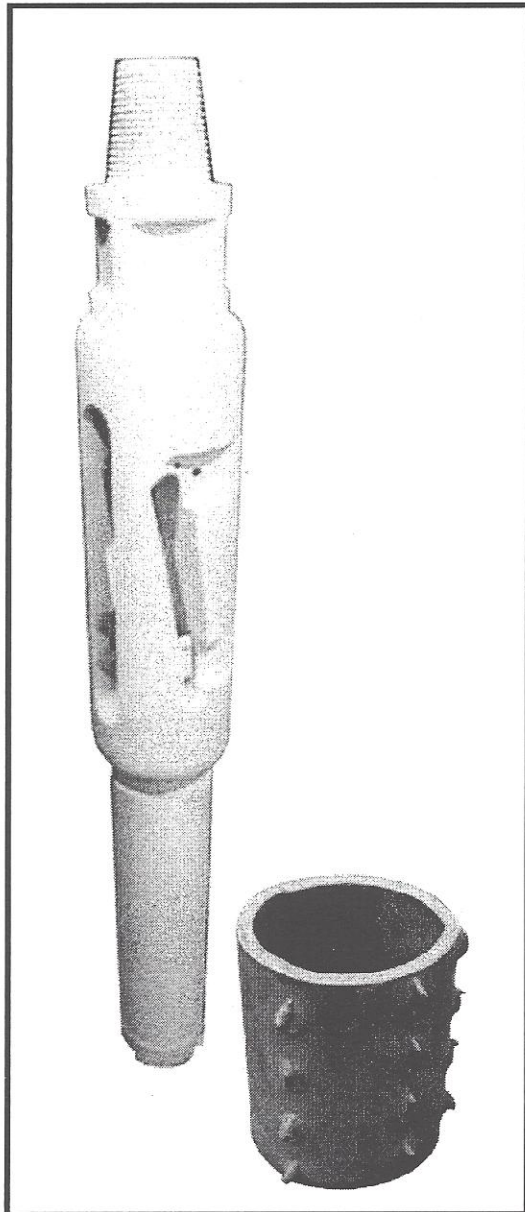
A diagram on the face of the 7-1/2 gallon tank tells the operator the recommended amount of oil to use with the air volume he has available. It then shows where to set the knob for the desired amount of oil.

Holte now has barrel pump oilers that can be regulated to pump from one of five gallons per hour and another that can empty the entire barrel in minutes.



UNDERREAMER





Perforator

The **Holte Manufacturing Tool** effectively perforates the wall of installed steel and PVC well casing. This tool screws to the end of drill pipe and will puncture rows of approximately 1" x 1/10" slots in steel casing having a thick wall up to .450".

The PVC blade cuts approximately .400" x .050" slots in plastic pipe and are easily interchangeable with the steel cutter blade.

The most popular size is the 6" perforator having an actual diameter of 5.9" and is ready to be used on 6-5/8 O.D. casing with a .280" or .250" wall. When perforating 6" casing with thin wall such as .150", the puncture size can be adjusted by removing the cutter travel stops. By removing the stops, a slightly larger perforation can be made.

What You Can Expect From Holte Perforators

- 1. New precision machined body. Holte has found that a sound body is necessary to keep axle pins and other internal parts from becoming warped resulting in a short life of the tool. The latest machined hard case body is improved over our old fabricated body which did not stand up well to heavy use and abuse.
- 2. Quality carbon treated body and internal parts. Holte has been making the best perforators in the drilling industry for 20 years and stocks replacement parts.
- 3. Adapters for larger size casing are available. Slide shoes adapt a 6" perforator to perforate 8" and 10" casing and roller shoe to 12".
- 4. 3" and 4" units with adapters to 5" casing, 6" units with adapters through 12", and larger units through 26". Holte will quote a perforator for sizes above 26".

Typical Roller Shoe Adapter

