Drilling sets the tone for your whole operation, impacting the speed, efficiency and cost of all downstream operations. Cat® Down-the-Hole (DTH) Hammers and Bits offer fast and reliable operation that lets you cut down on costs, reduce time spent drilling and get to work producing.

Cat DTH Hammers are designed to drill faster and last longer in even the toughest blasthole applications. Efficient design, proprietary materials and advanced heat-treating give them longer wear life than other manufacturers’ models, resulting in reliable operation and a long life—even in the toughest drilling conditions.
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SD HAMMER
For 75-250 Mpa
This hammer is suited to a wide range of applications. The piston design is 18% heavier than comparable high-frequency hammers. The hammer's focus is high-impact load at reduced blow frequency suitable for low- or medium-hardness rock formations. It’s a simple and robust design for cost-focused drilling operations.

HP HAMMER
For 250-550 Mpa
This hammer is built tough for production drilling in hard rock. It has an optimized performance curve of impact force and blow frequency for the upper range of rock hardness. In the 6-inch class, it has a tunable air valve that can be adjusted for different air packages, resulting in a perfect balance between speed and air consumption. And its reversible barrel design maximizes wear characteristics.

TF HAMMER
For 150-360 Mpa
This hammer has the same attributes of the HP hammer, but it is shorter and lighter — making it easier to handle. Additionally, this hammer design is valveless and uses shorter shank bits, giving it maximum durability with fewer part replacements required. An exclusive bit shank design features a retention system consisting of a three-piece drive chuck and an internal sleeve. The sleeve is a unique wear item that lowers drive chuck replacement costs, further driving down your operating costs.
## DRILL MATCH

<table>
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<tr>
<th></th>
<th>6 INCH CLASS</th>
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<th>8 INCH CLASS</th>
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<td></td>
<td>SD</td>
<td>HP</td>
<td>TF</td>
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<tr>
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<tr>
<td>1500CFM / 500 psi</td>
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</table>
SD HAMMER

Advanced materials and heat-treatment provide long wear life and reliable operation, even in difficult drilling conditions.

Cat DTH Hammers are designed for cost-effective rebuilds.
SD HAMMER FEATURES
6-inch class hammer shown

- Piston designed and manufactured for longer life
- Reliable and efficient operation with foot valve design
- Maximum impact power when paired with Cat DTH Hammer Bits
6" CLASS SD HAMMER
558-7046

SPECIFICATIONS

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<tr>
<th>Specification</th>
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<td>Weight (no bit)</td>
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<tr>
<td>Length (with bit retracted)</td>
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<td>Length (with bit extended)</td>
<td>1245 mm</td>
<td>49.0 in</td>
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<td>Hole Diameter range</td>
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<td>6.5–8.0 in</td>
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<tr>
<td>Bit Shank Type</td>
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<td>Connection Thread*</td>
<td>3 ½ in API reg</td>
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*Also available in BECO or other thread sizes

OPERATING PARAMETERS

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<tr>
<th>Parameter</th>
<th>Value 1</th>
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<tr>
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<td>100–500 psi</td>
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<tr>
<td>Impact Rate</td>
<td>1512 BPM @ 300 psi</td>
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</tr>
<tr>
<td>Recommended Speed</td>
<td>20–30 RPM</td>
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</tr>
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<td>Air Consumption</td>
<td>967 SCFM @ 350 psi</td>
<td>1425 SCFM @ 500 psi</td>
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</table>

Air Consumption

Blows per minute

SERVICEABLE COMPONENTS

- Top Adaptor
- O-Ring (top adaptor)
- Check Valve
- Spring
- Buffer
- Air Distributor
- Internal Cylinder
- Piston
- External Cylinder
- Guide Sleeve
- O-Ring (Stop ring)
- Stop Ring
- Drive Chuck
8" CLASS SD HAMMER
569-8322

SPECIFICATIONS

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<tr>
<th>Specification</th>
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<td>Weight (no bit)</td>
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<td>Shoulder-to-Shoulder Length</td>
<td>1363 mm 53.5 in</td>
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<td>Length (with bit retracted)</td>
<td>1490 mm 58.7 in</td>
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<tr>
<td>Length (with bit extended)</td>
<td>1538 mm 60.6 in</td>
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<tr>
<td>Hole Diameter range</td>
<td>216–254 mm 8.5–10.0 in</td>
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<td>Bit Shank Type</td>
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<td>Connection Thread*</td>
<td>4 ½ in API reg</td>
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*Also available in BECO or other thread sizes

OPERATING PARAMETERS

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<tr>
<th>Parameter</th>
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<tr>
<td>Working Pressure</td>
<td>0.7–3.4 MPa 100–500 psi</td>
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<tr>
<td>Impact Rate</td>
<td>1155 BPM @ 245 psi</td>
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<tr>
<td>Recommended Speed</td>
<td>15–25 RPM</td>
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<tr>
<td>Air Consumption</td>
<td>1260 SCFM @ 350 psi</td>
</tr>
<tr>
<td></td>
<td>1890 SCFM @ 500 psi</td>
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</tbody>
</table>

Air Consumption

Blows per minute

SERVICEABLE COMPONENTS

- Top Adaptor
- Spacer
- O-Ring (top adapter)
- Check Valve
- Spring
- Buffer
- Air Distributor
- Internal Cylinder
- Piston
- External Cylinder
- Guide Sleeve
- O-Ring (stop ring)
- Stop Ring
- Drive Chuck
Advanced materials and heat-treatment provide long wear life and reliable operation, even in difficult drilling conditions.

Designed for production drilling in hard rock with optimum performance curve of impact force and blow frequency.

Higher BPM allows faster RPM, resulting in greater penetration rates.
HP HAMMER FEATURES
6-inch class hammer shown

- Manually adjustable air flow valve maintains high impact forces*  
  *applies to 6-inch class
- Reversible sleeve lowers rebuild costs
- Piston designed and manufactured for efficient energy transfer
- Reliable and efficient operation with foot valve design
- Maximum impact power when paired with Cat DTH Hammer Bits

Maximum impact power when paired with Cat DTH Hammer Bits
**SPECIFICATIONS**

- **Weight (no bit)**: 100.5 kg / 222 lbs
- **Outside Diameter**: 146 mm / 5.7 in
- **Shoulder-to-Shoulder Length**: 1082 mm / 42.6 in
- **Length (with bit retracted)**: 1184 mm / 46.6 in
- **Length (with bit extended)**: 1218 mm / 48.0 in
- **Hole Diameter range**: 165–203 mm / 6.5–8.0 in
- **Bit Shank Type**: QL60
- **Connection Thread**: 3 ½ in API reg
  
  *Also available in BECO or other thread sizes*

**OPERATING PARAMETERS**

- **Working Pressure**: 0.7–3.4 MPa / 100–500 psi
- **Impact Rate**: 1643 BPM @ 300 psi
- **Recommended Speed**: 30–60 RPM
- **Air Consumption**: 937 SCFM @ 350 psi
  1392 SCFM @ 500 psi

---

**SERVICEABLE COMPONENTS**

- Top Adaptor
- O-Ring (top adaptor)
- O-Ring (check valve)
- Check Valve
- Spring
- Compression disc
- Air Distributor Stem
- Air Distributor
- O-Ring (valve)
- Valve
- O-Ring (valve)
- Internal Cylinder
- Retaining Ring
- Piston
- External Cylinder
- O-Ring (guide sleeve)
- Guide Sleeve
- O-Ring (stop ring)
- Stop Ring
- Drive Chuck
8" CLASS HP HAMMER
590-7920

**SPECIFICATIONS**

- Weight (no bit): 210 kg / 462 lbs
- Outside Diameter: 194 mm / 7.6 in
- Shoulder-to-Shoulder Length: 1281 mm / 50.4 in
- Length (with bit retracted): 1408 mm / 55.4 in
- Length (with bit extended): 1459 mm / 57.4 in
- Hole Diameter range: 222-254 mm / 8.75–10.0 in
- Bit Shank Type: QL80
- Connection Thread*: 4 ½ in API reg

*Also available in BECO or other thread sizes

**OPERATING PARAMETERS**

- Working Pressure: 0.7–3.4 MPa / 100–500 psi
- Impact Rate: 1257 BPM @ 245 psi
- Recommended Speed: 20-35 RPM
- Air Consumption: 
  - 1441 SCFM @ 350 psi
  - 2067 SCFM @ 500 psi

---

**SERVICEABLE COMPONENTS**

- Check valve
- Valve Cover
- Spring
- Top Adaptor
- Spacer
- O-Ring (top adaptor)
- Piston
- External Cylinder
- Retaining Ring
- Guide Sleeve
- O-Ring (guide sleeve)
- Stop Ring
- Spacer
- Drive Chuck
Advanced materials and heat-treatment provide long wear life and reliable operation, even in difficult drilling conditions.

Efficient design offers similar air consumption to HP hammers.

High frequency piston cycle delivers greater penetration rates.

30% shorter length and 25% lesser weight makes handling safe and convenient.
TF HAMMER FEATURES

6-inch class hammer shown

Manually adjustable air flow valve maintains high impact forces

Piston designed for high BPM and minimal rebound to maximize impact energy transfer

Replaceable chuck sleeve reduces hammer running cost
# 6" CLASS TF HAMMER

## 596-3353

### SPECIFICATIONS

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<td>Length (with bit retracted)</td>
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<td>Hole Diameter range</td>
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<td>Bit Shank Type</td>
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<tr>
<td>Connection Thread*</td>
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*Also available in BECO or other thread sizes

### OPERATING PARAMETERS

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<th>Parameter</th>
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<tr>
<td>Air Consumption</td>
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### SERVICEABLE COMPONENTS

- Top Adaptor
- O-Ring (top adaptor)
- O-Ring (check valve)
- Check Valve
- Spring
- Air Distributor Stem
- Air Distributor
- O-Ring (air distributor)
- Compression disc
- O-Ring (valve)
- Valve
- O-Ring (valve)
- Internal Cylinder
- Retaining Ring
- Piston
- External Cylinder
- Retaining Ring
- Stem Bearing
- Chuck Sleeve
- Drive Chuck
TF BIT

+ 40% lighter bit with higher spline contact area reduces chance of bit failure.

BIT RETENTION SYSTEM

+ A Caterpillar exclusive, the TF bit, with the unique bit retention system, reduces overall operating cost.
CAT® DTH DRILL BIT
CATERPILLAR OFFERS CUSTOM BIT DESIGN FOR EACH APPLICATION

FEATURES
+ Optimized airflow for material discharge
+ Upgraded foot valve design
+ Maximized insert retention
+ Quality carbides ensure long bit life

SUPERIOR MATERIALS
+ Caterpillar specified steel alloy — allows maximum hardness without sacrificing toughness
+ Alloy after treatment surface provides additional wear life
+ Manufacturing precision for repeatable results

TESTED & PROVEN
+ Dynamic simulations improve designs
+ Lab tested
+ Field proven

DTH BIT SELECTION CODE

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<tr>
<th>BIT DIAMETER</th>
<th>SHANK</th>
<th>FLUSHING HOLE</th>
<th>GAUGE BUTTON (OUTER ROW)</th>
<th>INTERMEDIATE ROW &amp; FACE</th>
<th>WEAR PROTECTION BUTTONS</th>
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<td>14 x 19mm</td>
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FACE SHAPE
- Concave (CC)
- Convex (CV)
- Flat Face (FF)
- Concave-Convex (CCV)

BUTTON TYPE
- All Spherical (SS)
- Spherical + ballistic (SB)
- DGR (all spherical) (DS)
- DGR (S+B) (DB)

WEAR PROTECTION BUTTONS
- Gauge protection (GP)
- Back reaming (BR)
- Gauge protection + back reaming (GB)
- None (N)
CAT® DTH MAINTENANCE

+ Worldwide parts availability
+ High quality Cat Parts
+ Straightforward service manuals
+ Service tools designed for a safe operation
+ Caterpillar trained service technicians
For more complete information on Cat products, dealer services and industry solutions, visit us at www.cat.com.

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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