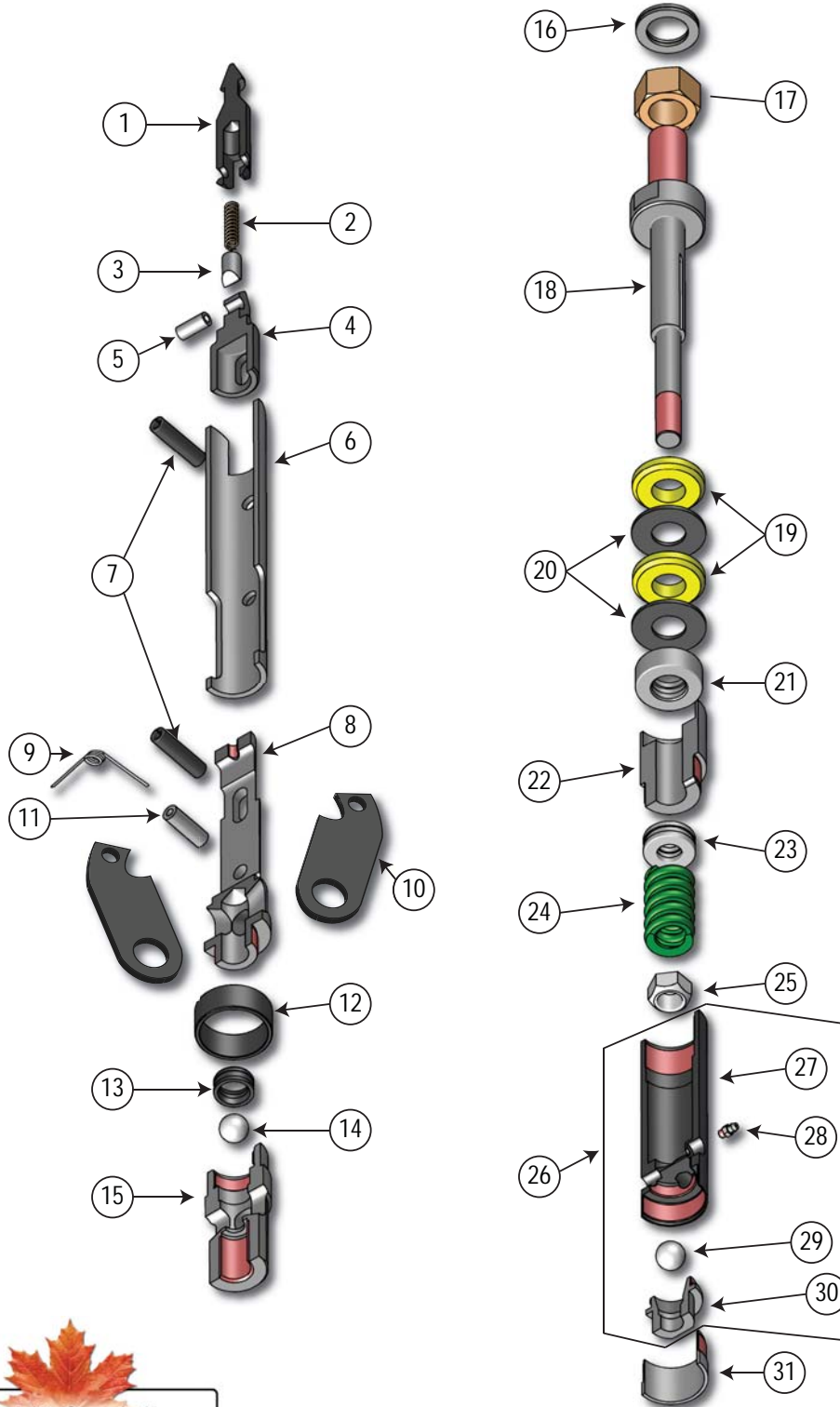


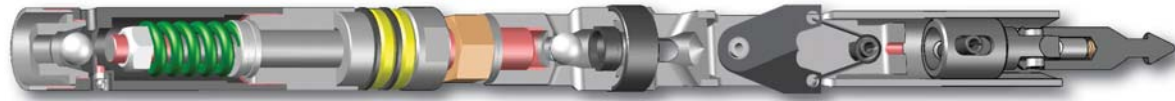
Drilling & Exploration - Core Barrels

Core Barrel - Spring Latch Head Assembly



Drilling & Exploration - Core Barrels

Core Barrel - Spring Latch Head Assembly



| Item | Description | Part Numbers for Each Size | | | |
|------|--|----------------------------|--------------|--------------|--------------|
| | | B | N | N2 | H |
| | Assembly | 90-20-302 | 90-20-402 | 90-27-402 | 90-21-502 |
| 1 | Spearhead Point | 90-22-301 | 90-22-301 | 90-22-301 | 90-22-301 |
| 2 | Spring, Compression | 90-22-302 | 90-22-302 | 90-22-302 | 90-22-302 |
| 3 | Detent Plunger | 90-22-303 | 90-22-303 | 90-22-303 | 90-22-303 |
| 4 | Base, Spearhead | 90-22-304 | 90-22-404 | 90-22-404 | 90-22-504 |
| 5 | Pin, Spirol | 90-22-305 | 90-22-305 | 90-22-305 | 90-22-305 |
| 6 | Latch Retracting Case | 90-22-306 | 90-22-406 | 90-22-406 | 90-22-506 |
| 7 | Pin, Spring | 90-21-303 | 90-21-403 | 90-21-403 | 90-21-503 |
| 8 | Latch Body, Upper | 90-29-309-1 | 90-29-409-1 | 90-29-409-1 | 90-29-509-1 |
| 9 | Latch Spring | 90-21-304 | 90-21-404 | 90-21-404 | 90-21-404 |
| 10 | Latch | 90-21-305 | 90-21-405 | 90-21-405 | 90-21-505 |
| 11 | Pin, Spirol, Latch Pivot | 90-21-306 | 90-21-406 | 90-21-406 | 90-21-506 |
| 12 | Landing Shoulder | 90-29-309-2 | 90-29-409-2 | 90-27-409 | 90-29-509-2 |
| 13 | Bushing, Landing Indicator | 90-29-380 | 90-29-380 | 90-29-380 | 90-29-380 |
| 14 | Ball, Landing Indicator | 90-21-421 | 90-21-421 | 90-21-421 | 90-21-421 |
| 15 | Latch Body, Lower | 90-29-309-3 | 90-29-409-3 | 90-29-409-3 | 90-29-509-3 |
| 16 | Lockwasher | 90-21-310-LW | 90-21-410-LW | 90-21-410-LW | 90-21-510-LW |
| 17 | Jam Nut | 90-21-310 | 90-21-410 | 90-21-410 | 90-21-510 |
| 18 | Spindle | 90-21-311 | 90-21-411 | 90-21-411 | 90-21-511 |
| 19 | Shut Off Valve | 90-21-312-U | 90-21-412-U | 90-21-412-U | 90-21-512-U |
| 20 | Washer | 90-21-313 | 90-21-413 | 90-21-413 | 90-21-513 |
| 21 | Bearing, Spindle, Upper | 90-21-314 | 90-21-414 | 90-21-414 | 90-21-514 |
| 22 | Bushing, Spindle | 90-21-315 | 90-21-415 | 90-21-415 | 90-21-515 |
| 23 | Bearing, Spindle, Lower | 90-21-324 | 90-21-424 | 90-21-424 | 90-21-524 |
| 24 | Spring, Compression | 90-21-316 | 90-21-416 | 90-21-416 | 90-21-516 |
| 25 | Lock Nut | 90-21-317 | 90-21-417 | 90-21-417 | 90-21-517 |
| 26 | Assembly, Inner Tube Cap (includes 27-30) | 90-21-319 | 90-21-419 | 90-27-419 | 90-21-519 |
| 27 | Cap, Inner Tube Body | 90-21-320 | 90-21-420 | 90-27-420 | 90-21-520 |
| 28 | Grease Fitting | 90-29-020 | 90-29-020 | 90-29-020 | 90-29-020 |
| 29 | Ball | 90-21-321 | 90-21-421 | 90-21-421 | 90-21-521 |
| 30 | Check Valve Body | 90-21-323 | 90-21-423 | 90-21-423 | 90-21-523 |
| 31 | Protector, Inner Tube Cap | 90-21-360 | 90-21-460 | 90-21-460 | 90-21-560 |

