



# LARGE HYDRAULIC BREAKERS

The large-size breakers in details for wheeled and crawler excavators





# CONSISTENT POWER, DURABILITY AND BREAKING FORCE

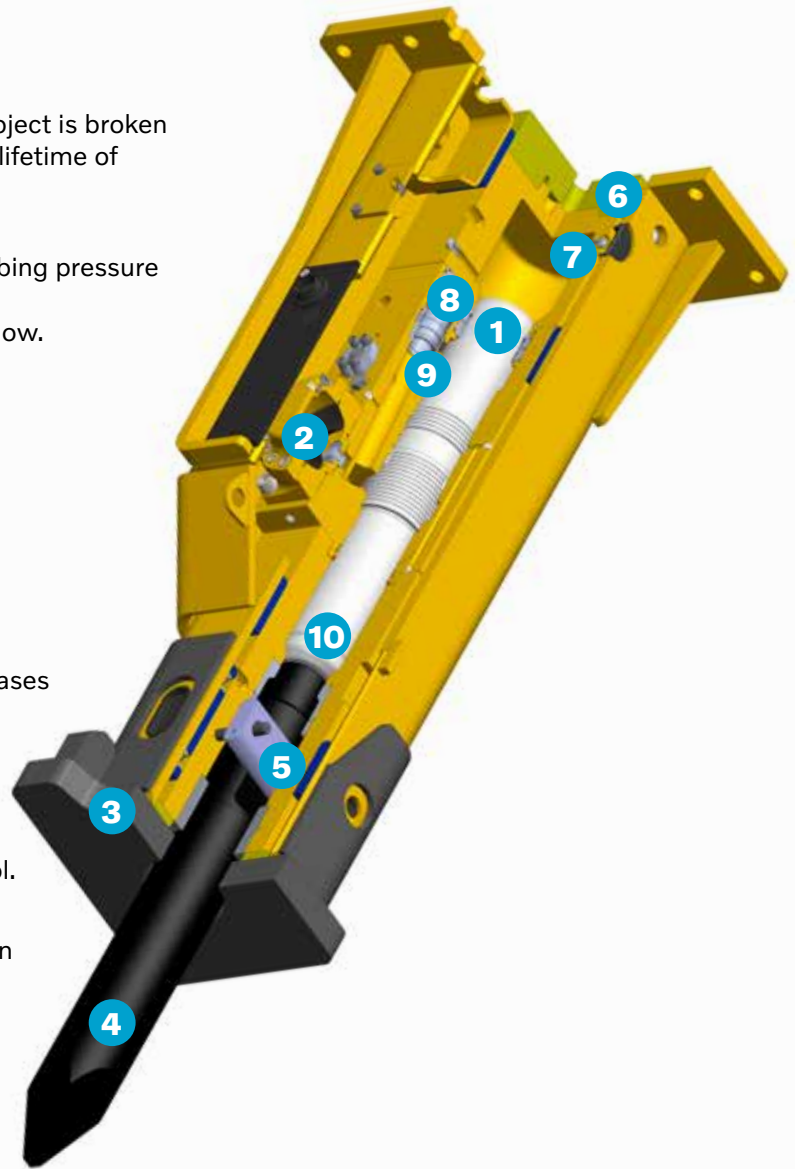
**Whatever the task at hand, Volvo hydraulic breakers are designed to deliver impressive results. With outstanding impact energy, two-speed control and an extensive range of available work tools, Volvo breakers deliver flexibility and a tailored solution for every application.**

Every detail of the Volvo breaker has been designed to work in harmony with your Volvo machine and our breakers are supplied as an all-in-one package – including your choice of hoses, brackets and tools – so you can get straight to work.

Breakers and carriers are sold and serviced through your local Volvo dealer and come with a solid manufacturer warranty.

# Features and specifications quick check

- 1 Anti blank firing**  
Automatically stops operation of breaker when object is broken which protects damage to parts and extends the lifetime of breaker.
- 2 Accumulator installed**
  1. Less stress to hydraulic components as absorbing pressure fluctuation.
  2. Increases efficiency by replenishing short oil flow.
- 3 Rock dragger with anti-abrasion steel**  
Used anti-abrasion steel.
- 4 Well heat-treated tool**
  1. Longer life by high quality material.
  2. Minimize the impact caused by blank fire.
- 5 Wide Chisel pin**  
Safe from abnormal wearing.
- 6 Cushion Damper**  
Absorbs repercussion from hammering and increases camier endurance.
- 7 Roomier Gas Chamber**  
Ensures higher impact power.
- 8 Two speed valve**  
Maximize productivity from variable speed control.
- Main valve**
- 9 Internal control valve system**  
Internal control valve system is more efficient than other breaker's valve, stays cooler and makes the quicker and harder-hitting.
- Piston**
- 10 Higher impact power with long stroke**



## Specifications

**BREAKER SPECIFICATION TABLE (HB TOP MOUNT TYPE)**

| Description                                     | Unit       | HB14   | HB15    | HB18    | HB21    | HB22    | HB25    | HB30    | HB36    | HB38    | HB48    | HB75    |         |
|---|------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Operating weight**                              | kg         | 1 088  | 1 238   | 1 521   | 1 739   | 1 944   | 2 120   | 2 729   | 3 090   | 3 785   | 4 207   | 7 383   |         |
| Overall length with direct fit bracket and tool | mm         | 2 285  | 2 389   | 2 602   | 2 725   | 2 793   | 2 953   | 3 045   | 3 173   | 3 398   | 3 611   | 4 355   |         |
| Tool diameter                                   | mm         | 105    | 115     | 125     | 135     | 135     | 145     | 150     | 155     | 165     | 175     | 205     |         |
| Sound power level (Directive2000/14/EC)         | dB(A)      | 124    | 124     | 124     | 124     | 124     | 125     | 125     | 126     | 126     | 126     | 127     |         |
| Operating pressure                              | Mpa        | 14-19  | 14-19   | 13-19   | 16-19   | 16-19   | 16-19   | 16-19   | 16-19   | 15-19   | 15-19   | 17-21   |         |
| Oil flow  | lpm        | 68-119 | 85-127  | 95-140  | 115-155 | 120-170 | 127-178 | 153-204 | 170-238 | 165-255 | 204-300 | 350-420 |         |
| Blow rate                                       | Low speed  | bpm    | 350-550 | 350-550 | 320-480 | 320-480 | 340-450 | 270-400 | 250-380 | 230-400 | 225-350 | 230-330 | 280-350 |
|   | High speed | bpm    | 600-900 | 400-700 | 400-650 | 400-600 | 420-550 | 330-500 | 330-450 | 270-470 | 270-410 | 270-500 | 320-520 |
| Automatic Lubrication                           |            | Option | Option  | Option  | Option  | Option  | Option  | Option  | Option  | Option  | Option  | Option  |         |
| Suitable carrier                                | ton        | 10-15  | 12-18   | 16-22   | 18-24   | 20-26   | 24-30   | 25-36   | 28-42   | 34-50   | 40-60   | 60-100  |         |

\*\* Operating weight including hoses, tool and bracket. Bracket weight varies depending on the interface type and the machine model so the average weight is used for the operational weight.

-- HB14 to HB75: BODY + ALS(MANUAL) + HOSE + BB(DIRECT) + TOOL(PYARMID MOIL)

# Application guide with standard tools



B



C



M



P

| ROADBUILDING/<br>CONSTRUCTION                | HB14       | HB15       | HB18       | HB21       | HB22       | HB25       | HB30       | HB36       | HB38       | HB48       | HB75       |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Breaking of road surface                     | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Breaking uneven bedrock to lay a road        | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Primary breaking to prepare road bed         |            |            |            |            |            | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Trench excavation for drainage               | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Demolition of bridges                        | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P |
| Heavily reinforced bridge pillars            |            |            |            |            |            | B          | B          | B          | B          | B          | B          |
| Making holes (for traffic signs, lamp posts) | M          | M          | M          | M          | M          | M          | M          | M          | M          | M          | M          |
| Breaking of frozen ground                    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |

## Demolition/housing development

|   |            |            |            |            |            |            |            |            |            |            |            |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Demolition of concrete walls, roofs, floors                 | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P |
| Demolition of light, reinforced concrete foundation (<.5 m) | B, M, P    | B, M, P    | B, M, P    | B, M, P    | B, M, P    | B, M, P    | B, M, P    | B, M, P    |            |            |            |
| Brick walls   | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P |
| Rock trenches for mains/water supply/utilities              | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Rock excavation for foundation                              | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Mass excavation of rock for industrial building bases       |            |            | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    |
| Massive reinforced concrete foundations                     |            |            |            |            |            | M, P       | M, P       | M, P       | M, P       | M, P       | M, P       |
| Separating rebar from concrete (for recycling)              | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P |

## Quarrying/open cast mining

|   |            |            |            |            |            |            |            |            |            |            |         |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|
| Secondary boulder breaking                        | B          | B          | B          | B          | B          | B          | B          | B          | B          | B          | B       |
| Primary breaking of rock                          |            |            |            |            | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P    | C, M, P |
| Breaking oversizes on a crusher/feeder/feed chute | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P | B, C, M, P |         |

## Underground applications

|         |   |   |   |  |  |  |  |  |  |  |  |
|---------|---|---|---|--|--|--|--|--|--|--|--|
| Scaling | C | C | C |  |  |  |  |  |  |  |  |
|---------|---|---|---|--|--|--|--|--|--|--|--|

## Other applications

|                                      |         |         |         |         |         |         |         |         |         |         |         |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Demolition/Rock breaking under water | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P | C, M, P |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|

B = Blunt C = Chisel M = Moil P = Pyramid

# Technical talk about key features



## Auto lubrication system (ALS)

### Concept

- Hydraulic motor type, powered by working pressure & flow
- Lubrication only while operating the breaker
- Volvo genuine breaker paste
- Disposable cartridge, lasting 8 operating hours

### Benefits

- Reliable performance in all applications and all climates
- Common cartridge throughout the seasons  
No need to change lubricant types
- Breaker paste, working from -20°C up to 1,100°C
- Grease nipple for manual greasing available
- Better protection for tool & bush, longer service life



## Two speed valve

### Concept

- Speed mode
  - Suitable for secondary light limestone breaking
- Power mode
  - Suitable for occasional hard rock breaking

### Benefits

- Easy to start, No delayed response time
- Easy to shift model in the field
- Higher productivity
- Still prevent breaker failure risks from blank fire when running at power mode.



## Anti blank firing

### Concept

- Self-arresting system when the material has been fully broken
- Either in the speed mode or power mode, this function is always on
- No operator skills are needed, the system works fully automatically

### Benefits

- Damage prevention to tool, tool pins, front head as well as the housing
- No unnecessary hydraulic peaks in the system
- Longer lifetime of the breaker



**VOLVO**

**Volvo Construction Equipment**

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