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SOOSAN HYDRAULIC BREAKERS

SQ Line Silenced Series



SOOSAN

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The latest design from Soosan is the SQ breaker. It is the result of more than 2 decades of experience since the company's inception in 1984. Through active communication and monitoring of a large group of valuable customers from around the world, we have gained working experience from quarry, mining and construction industries. The SQ series are practically an innovated hydraulic breaker while maintaining the superiority of the percussion mechanism and easy maintenance of the existing SB series.

The SQ-series have been designed with many special features :

The advanced gas & oil percussion mechanism generates extra power by accumulated gas pressure which ensures a very reliable performance with a wide range of excavator pump conditions.

IPC & ABH System,
Integrated Power Control & Anti-Blank Hammering System
allows you to choose from 3 different modes.

The automatic anti blank hammering function (shut off) can be switched off or on. The operator can select the correct operating mode from high frequency with normal power to low frequency with extra power. With this advanced system, the operator may choose the correct mode in accordance with site requirements in a matter of minutes and with a minimum of hassle.

Auto shut-off & easy start function

Breaker operation can be automatically stopped in order to prevent consequential damage to the power cell due to the blank hammering. Especially in secondary breaking or when the operator is unskilled.
Breaker operation is easy to restart when soft pressure is applied to the chisel to the work surface.

Enhanced vibration dampening & sound suppression system

Meet strict noise regulations and allow more comfort for the operator.
Further features are standard connections for underwater operation and an automatic lubrication pump.

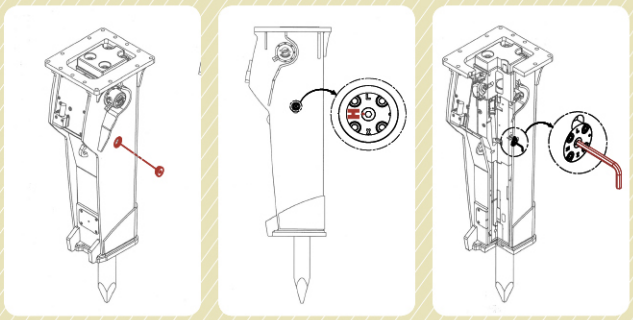






IPC & ABH SYSTEM CONTROL

| Technical Specifications SQ line |



Selector Switch offers three operating modes and can be simply altered to each mode :

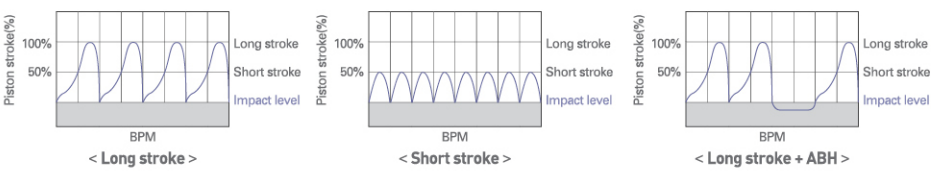
- **H – mode** : Long stroke with maximum power, ABH is off
- **L – mode** : Short stroke with maximum frequency, ABH is off
- **X – mode** : Long stroke with maximum power, ABH is on
  (Blank hammering → Auto stop)
- **Easy start**

Power control & Anti blank hammering system

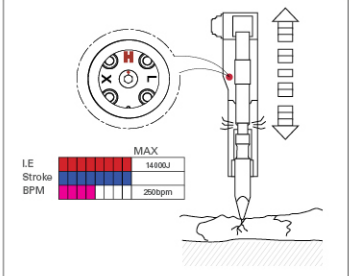
H – mode : Long stroke & Extra power, ABH is OFF
- · Mode used for hard rock breaking such as primary breaking, trench works and foundation works where the rock condition is constant.
- · Hammer can be started without applying contact pressure to the working tool.

L – mode : Short stroke & Maximum frequency, ABH is OFF
- · Hammer can be started without applying contact pressure to the working tool.
- · This mode is used for soft rock and semi-hard rock breaking.
- · High impact frequency and normal power provides higher productivity and reduces strain on the hammer and the carrier

X – mode : Long Stroke & Extra power, ABH is ON
- · This mode is used for hard rock breaking such as primary breaking, trench work, and secondary reduction works, where the rock condition is not constant.
- · In ABH (Anti-blank hammering) working mode, it switches off the hammer automatically and prevents the blank hammering, as soon as the material is broken.
- · The hammer can be easily restarted when minimal contact pressure is applied to the working tool.
- · The ABH system reduces strain on the hammer and the carrier.

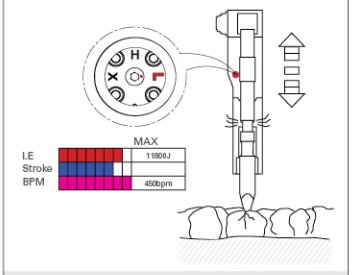


H - MODE



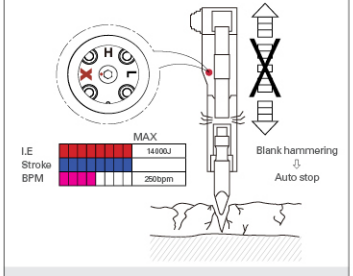
Long stroke & extra power. ABH system is OFF

L - MODE

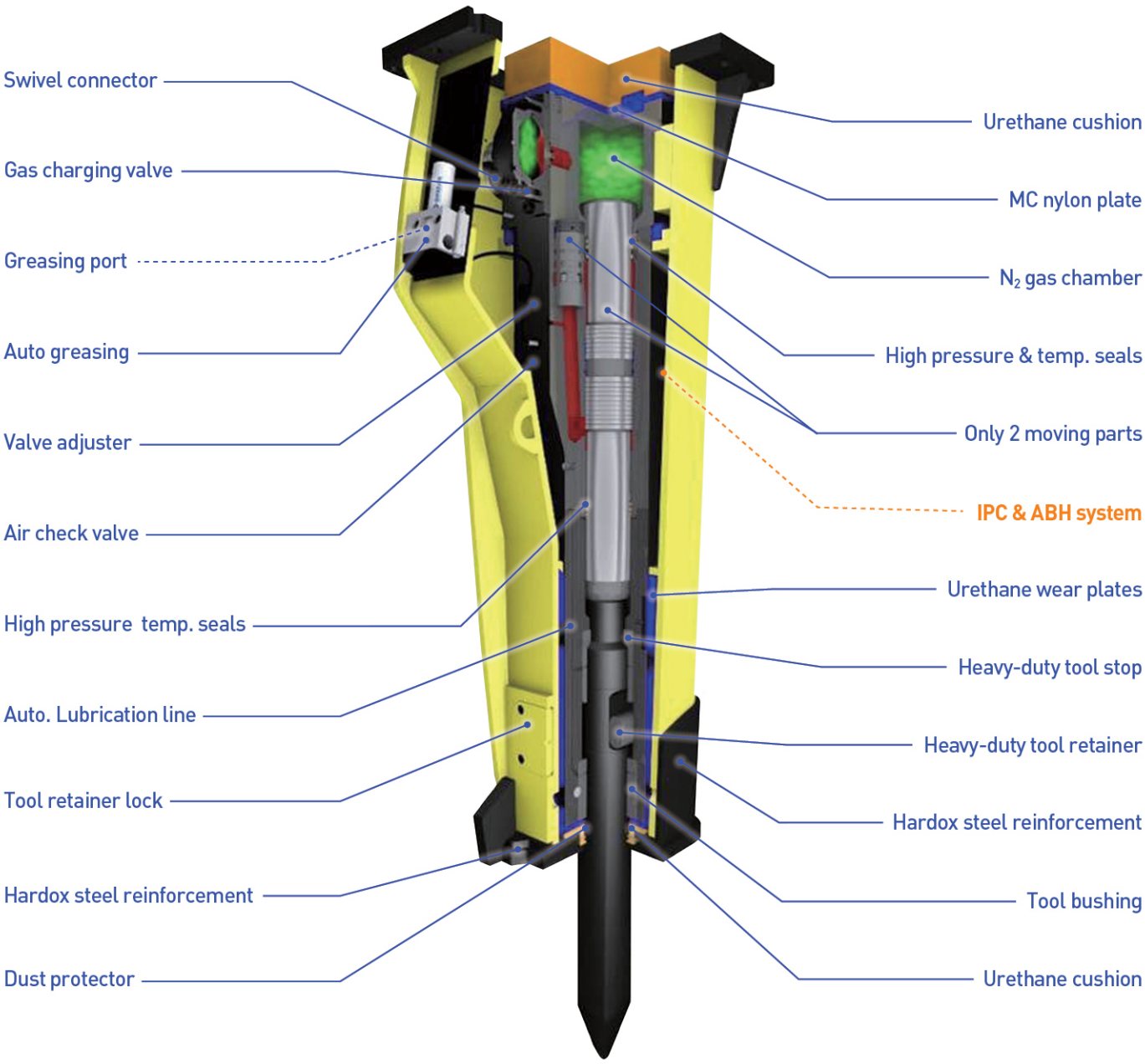


Short stroke & maximum frequency. ABH system is OFF

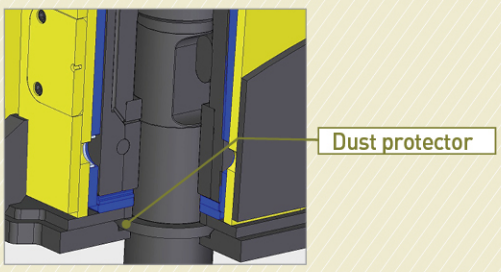
X - MODE



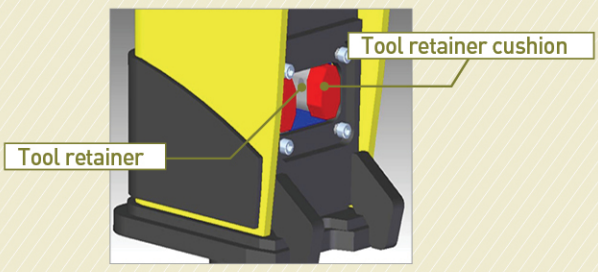
Long stroke & extra power. ABH system is ON



· Dust protector reduces the noise level and dirt incoming



· Improved tool retaining system.



Advanced design technology for output energy

The well known powerful performance of the SB breakers is continued on the SQ line. With improvements to the percussion mechanism allows even more reliable and durable operation than the SB line.

Slim profile with robust structure

State of art slim profile for better visibility in narrow trench work. Hardox steel reinforcements at the lower end of the housing, protect the casing and power cell.

Improved vibration damping system

Fully isolated power cell with premium quality urethane cushions and wear plates absorbs shock and vibration resulting in reduced wear.

Fully enclosed housing and dust protector

For quieter operation and reduced dirt contamination.

Enhanced performance & productivity

By using a valve adjuster and an advanced power control system, SQ breakers can be adjusted to the excavator's specifications and jobsite conditions to enable maximum productivity.

Service and maintenance friendly

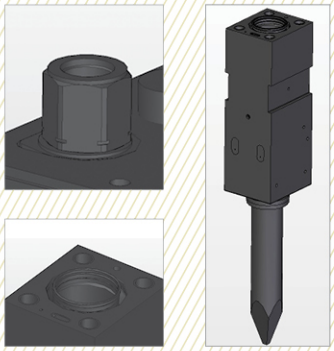
The greasing port is located on the service panel. The service panel gives direct and easy access to key components without removing the power cell from the housing.

Locking device for the tie bolt nut

This prevents the power cell from consequential damage that may be caused by the loosening of the tie bolt.

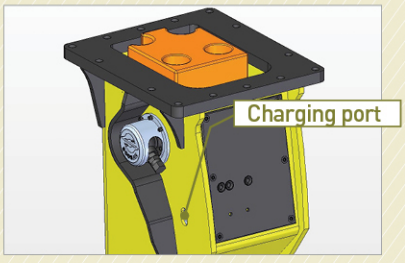
High power to weight ratio

The use of high quality materials and high technology results in less weight, and higher performance.

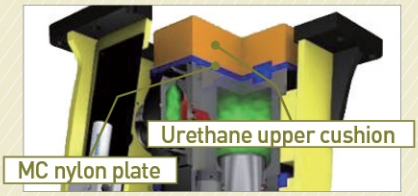


- Tie rods with helisert coil
- Larger cross-sectional area reduces the possibility of crack on Front Head even under extreme working condition

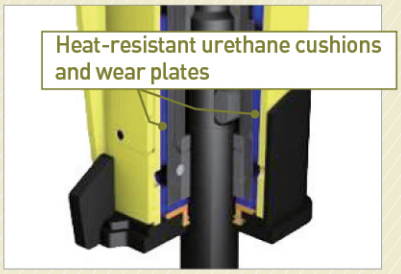
· Nitrogen gas is rechargeable without window cover removal



· Improved vibration damping system



MC nylon plate : protecting Upper Cushion from heat.



Medium & Heavy duty range of breakers

| Technical Specifications SQ line |





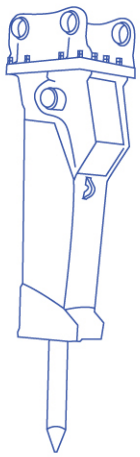


Special Features

IF Design Award – Winner
Advanced power control & anti blank hammering system
Premium quality materials
Enhanced performance, productivity and durability
Improved vibration-noise damping system
Robust housing including dust protector
Reduced noise levels

Applications ;

- Primary and secondary breaking in quarries
- Site preparation, foundation works
- Road construction
- Demolition works, highly reinforced concrete
- Trenching
- Tunneling
- Bench leveling
- General construction works



Medium range ;

For excavators from 15 ~ 25 ton

Heavy-duty range ;

For excavators from 21 ~ 100 ton

Specifications

Description		Unit	SQ60	SQ70	SQ80	SQ100	SQ120
Operating weight		kg (lbs)	1,607 (3,543)	1,759 (3,878)	2,053 (4,526)	2,185 (4,817)	2,671 (5,889)
Carrier weight		ton (lbs)	15~18 (33,069~39,683)	16~21 (35,274~46,297)	18~26 (39,683~57,320)	25~30 (55,116~66,139)	28~35 (61,729~77,162)
Height		mm (inch)	2,561 (101)	2,656 (105)	2,806 (110)	2,924 (115)	3,168 (125)
Required oil flow		l / min (g / min)	90~120 (23.8~31.7)	100~150 (26.4~39.6)	120~180 (31.0~47.0)	150~210 (40.0~55.0)	180~240 (47.6~63.4)
Operating pressure		bar (psi)	150~170 (2,134~2,418)	160~180 (2,276~2,560)	160~180 (2,276~2,560)	160~180 (2,276~2,560)	160~180 (2,276~2,560)
Impact rate	H-mode	bpm	350~650	350~600	350~500	300~450	300~450
	L-mode		600~850	500~850	500~700	430~580	430~580
Tool diameter		mm (inch)	125 (4.9)	135 (5.3)	140 (5.5)	150 (5.9)	155 (6.1)

Description		Unit	SQ130	SQ140	SQ150	SQ181
Operating weight		kg (lbs)	3,033 (6,687)	3,169 (6,986)	3,950 (8,708)	5,889 (12,983)
Carrier weight		ton (lbs)	30~45 (66,139~99,208)	30~45 (66,139~99,208)	40~55 (88,185~121,254)	50~90 (110,231~198,416)
Height		mm (inch)	3,360 (132)	3,441 (135)	3,677 (145)	4,112 (162)
Required oil flow		l / min (g / min)	200~260 (52.8~68.7)	200~260 (50.8~68.7)	210~290 (55.5~76.6)	350~450 (93~119)
Operating pressure		bar (psi)	160~180 (2,276~2,560)	160~180 (2,276~2,560)	160~180 (2,276~2,560)	180~200 (2,560~2,845)
Impact rate	H-mode	bpm	250~400	200~350	200~350	200~300
	L-mode		380~550	300~500	320~470	300~400
Tool diameter		mm (inch)	165 (6.5)	165 (6.5)	175 (6.9)	200 (7.9)



SQ Line Silenced Series

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