# HYDRAULIC BREAKER AND QUICK CLAMP

1. SELECTING HYDRAULIC BREAKER

1) Become familiar with the manual and select breakers suitable to machine specifications.

2) Make careful selection in consideration of oil quantity, pressure and striking force, to enable satisfied performance.

3) When apply a breaker to the machine, consult your local dealer of Hyundai for further explanation.
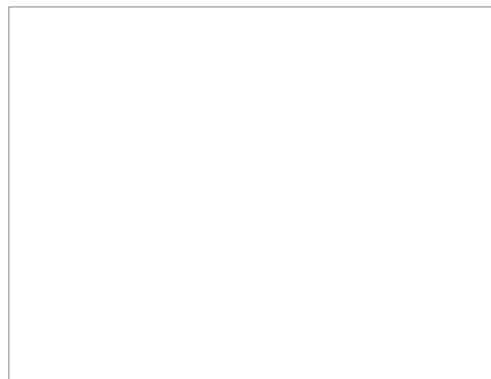
2. CIRCUIT CONFIGURATION

1) As for breaker oil pressure line, use extra spool of main control valve.

2) Set proper breaker pressure on load relief valve.

3) The pressure of the ROBEX80-7 system is 280kgf/cm²(3980psi).

4) The accumulator should be used to the breaker charging and return line.
   If the accumulator is not used, it will be damage as the input wave is delivered.
※ **Keep the pressure pulsation of pump below 60kgf/cm²(853psi) by installing the accumulator.**

5) Do not connect the breaker return line to the main control, but connect to the return line front of the cooler.

6) Do not connect the breaker return line to drain lines, such as of swing motor, travel motor or pump, otherwise they should be damaged.

7) One of spool of the main control valve should be connected to the tank.

8) Select the size of pipe laying considering the back pressure.

9) Shimless tube should be used for the piping. The hose and seal should be used Hyundai genuine parts.

10) Weld the bracket for pipe clamp to prevent damage caused by vibration.

3. MAINTENANCE

1) MAINTENANCE OF HYDRAULIC OIL AND FILTER

(1) As machine with an hydraulic breaker provides the hydraulic oil becomes severely contaminated.

(2) So, unless frequently maintained, the machine may easily go out of order.

(3) Inspect and maintain hydraulic oil and 4 kinds of filter elements in particular, in order to prolong machine life.

(4) Replace when the breaker work is used for short time according to the standard of right graph.
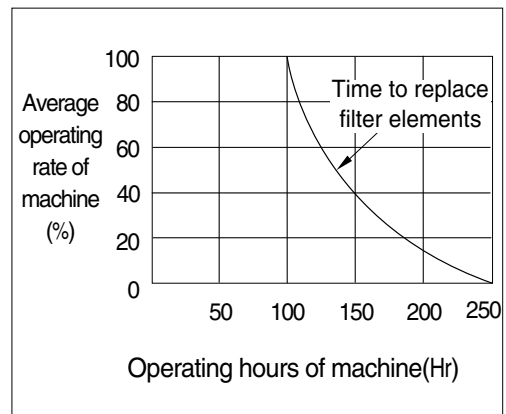
2) RELEASE THE PRESSURE IN BREAKER CIRCUIT

When breaker operating is finished, stop engine and push pedal or switch for breaker to release pressure in breaker circuit.
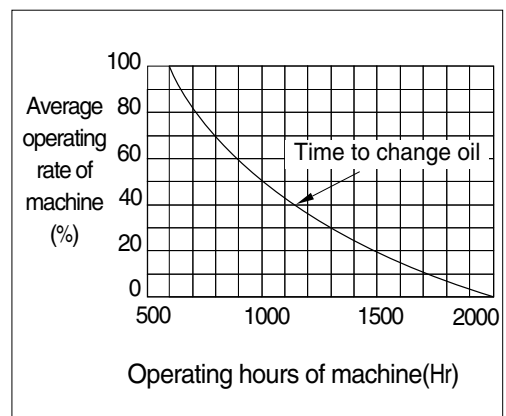
If pressure still remains, the lifetime of the diaphragm in the accumulator will be shortened.

3) Be careful to prevent contamination by dust, sand and etc.

If such pollution become mixed into the oil, the pump moving parts will wear abnormally, shorten lifetime and become damaged.

4) When operating breaker, bolts and nuts of main equipment may be loosened by vibration. So, it must be inspected periodically.

Service interval

unit : hours

Attachment	Operating rate	Hydraulic oil	Filter element
Bucket	100%	2,000	250
Breaker	100%	600	100

● **Replace following filter same time**
· Hydraulic return filter : 1EA
· Pilot line filter : 1EA
· Element in hydraulic tank breather : 1EA
· Drain filter cartridge : 1EA

Filter replace guide for hydraulic breaker

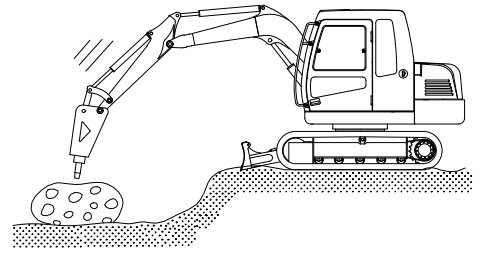Oil change guide for hydraulic breaker

4. PRECAUTIONS WHILE OPERATING THE BREAKER

1) DO NOT BREAK ROCK WHILE LOWERING

As the breaker is heavy in comparison with bucket, it must be operated slowly.
If breaker is rapidly pushed down, working device may be damaged.
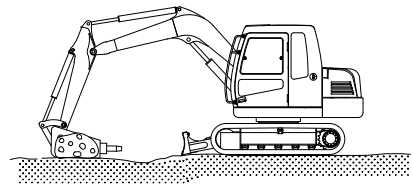
Incorrect

7078OA01

2) DO NOT USE BREAKER TO CARRY BROKEN STONE OR ROCK BY SWING OPERATING

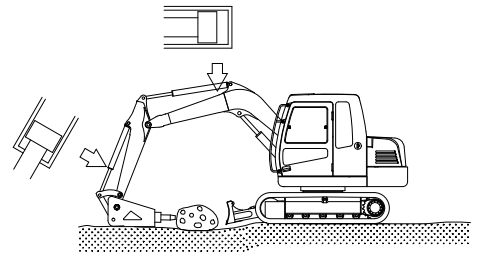This may damage the operation device and swing system.

Incorrect

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3) OPERATE BREAKER WITH A GAP IN EXCESS OF 100mm(4 inches) FROM THE END OF THE STROKE TIP

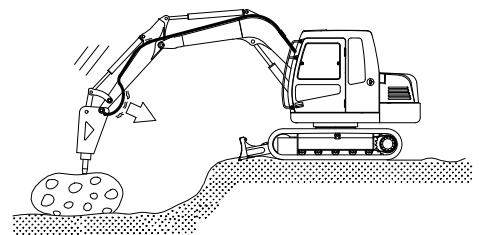If breaker is operated with the end tip, the cylinder may be damaged.

Incorrect

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4) IF THE HYDRAULIC HOSES VIBRATE EXCESSIVELY

If the machine used in this condition continuously this will effect badly on the machine such as loosening bolt, oil leakage, damage of pump pipe and etc.
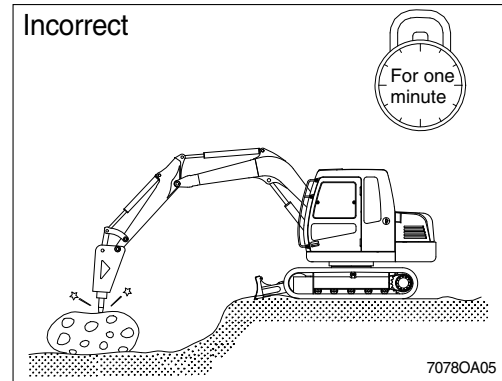
Incorrect

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## 5) DO NOT CONTINUE TO WORKING OVER ONE MINUTE AT SAME POSITION OF BOOM AND ARM

This will increase the temperature of the oil, and cause problem in the accumulator and seals.

Incorrect

For one minute

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6) DO NOT MOVE MACHINE OR BREAKER WHILE STRIKING

Do not move hammer while striking.
This will cause damage to the working device and the swing system.

Incorrect

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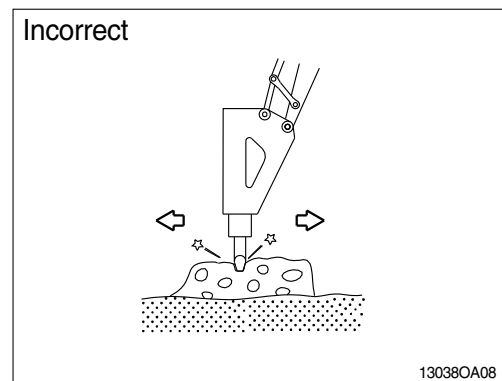
7) DO NOT WORK WHILE SWING STATE

Do not work while swing position of superstructure.
It cause the band of track shoe, oil leakage of roller.

Prohibition

Work   Work

Prohibition

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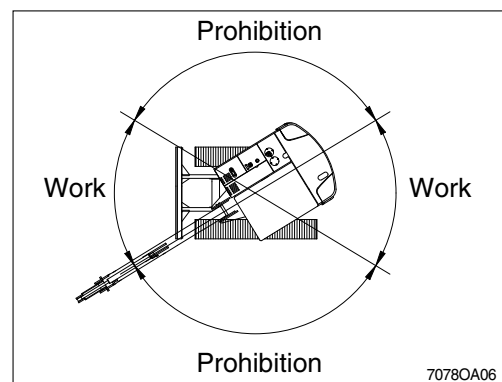
8) TAKE CARE OF CHISEL AND BOOM INTERFACE

Make sure of the arm and bucket control lever operation.

Incorrect

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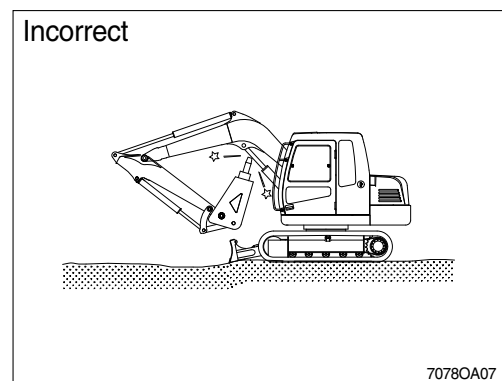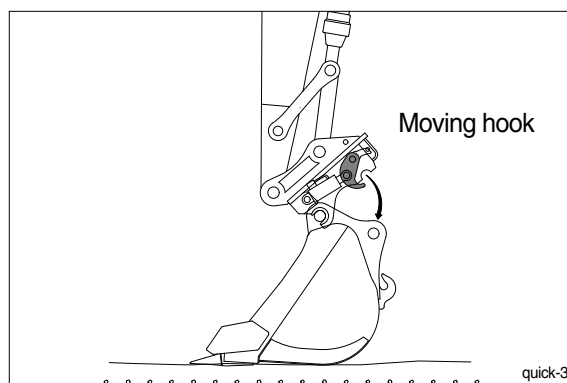
5. QUICK CLAMP

1) FIXING BUCKET WITH QUICK CLAMP

(1) Before fixing bucket, remove safety pin of the moving hook.

(2) Pulling safety button, press the quick clamp switch to unlock position. Then, the moving hook is placed on release position.


Quick clamp switch
Safety button
Safety pin
quick-1
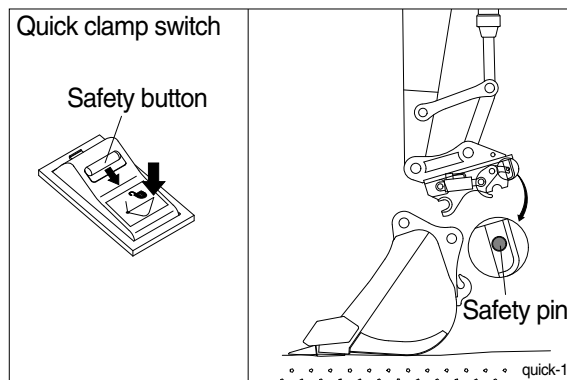
(3) Aligning the arm and bucket, insert static hook of quick clamp to the bucket pin.


Static hook
quick-2
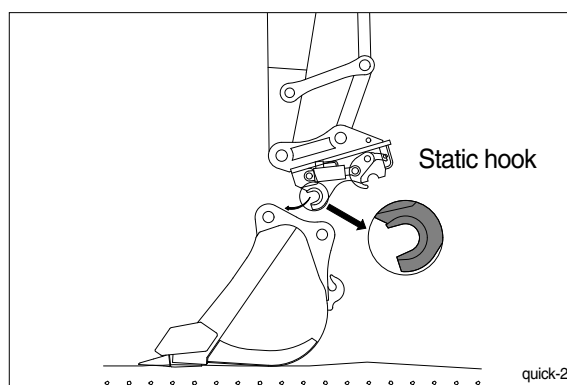
(4) Operate RCV lever to bucket-in position. Then, the moving hook is coupled with the bucket link pin.
Make sure that the moving hook is completely contacted with bucket link pin.

Moving hook
quick-3

(5) Press quick clamp switch to lock position. Operate RCV lever to bucket-in position.

※ **Be sure to check connection status between bucket pins and hooks of quick clamp**

RCV(RH)
Front
quick-4
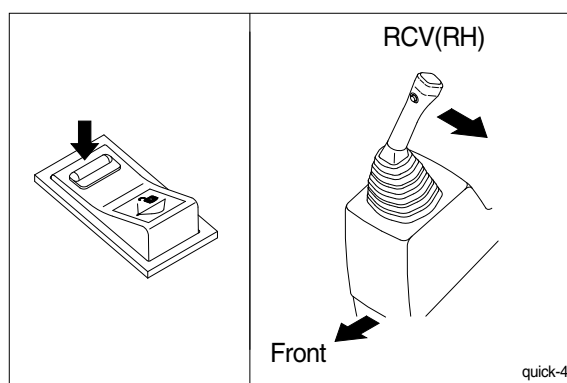
(6) After checking the connection status between bucket pins and hooks of quick clamp, **insert safety pin of moving hook to lock position**.
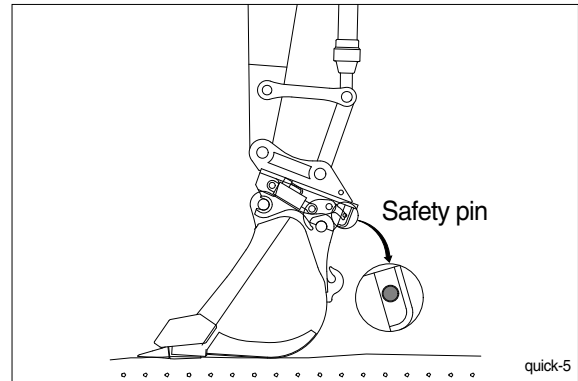
Safety pin

quick-5

2) REMOVE BUCKET FROM QUICK CLAMP

Removing procedure is reverse of fixing.

3) PRE-CAUTION OF USING QUICK CLAMP.

⚠ When operating the machine with quick clamp, confirm that the quick clamp switch is lock position and safety pin of moving hook is inserted.
Operating the machine with quick clamp switch unlocked and without safety pin of moving hook can cause the bucket to drop off and bring about the accident.

⚠ Serious injury or death can result from this accident.

⚠ Be careful to operate the machine equipped with quick clamp. The bucket may hit cab, boom and boom cylinders when it reaches vicinity of them.

※ HYUNDAI will not be responsible for any injury or damage in case that safety pin is not installed properly.

Lock   Unlock

quick-6

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