

**TOKU** 

# **TNB HYDRAULIC BREAKERS**

**Ver.3.05**



# TNB-Hydraulic Breakers Features

- Advanced accumulator free technology enables simple structure yet efficient.
- Simple design allows less parts and realizes low running cost.
- Adaptable for wide range of oil pressure and flow.
- Auto grease system as optional. (TNB-7J, 151LU2, 30K, 40K and 400LU2)

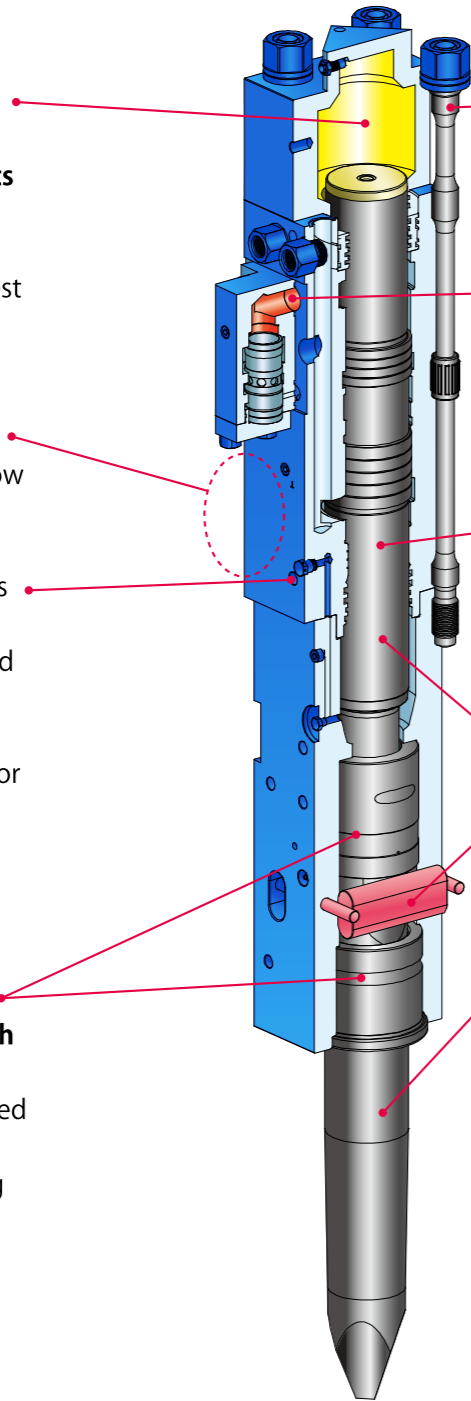
## Breaker body

**Cushion Chamber:** It is an important impact source since TNB-breakers source **its Impact Energy 70% from Nitrogen Gas Pressure** of cushion chamber and the rest of **30% from the Operation Oil Circuit.**

**Accumulator Free Breaker Structure** allows easy and low cost maintenance.

**Dust Preventing Valve** takes cleaner air from upper area into the impact chamber and blows out the dusty air to bottom. This valve port is also used for **Underwater Application** to lead the high pressure air from a compressor.

Direct and Independent Grease Supply to **Chisel Bush** and **Chisel Holder Bush.** A chisel is the most consumed item and this system contributes well for the long life of chisel.



**Durable Side Bolts:** It has stress scattered structure and partially rubber coated for anti-vibration.

**Short Oil Path:** The oil path between control valve and cylinder is taken shortest as less as possible to avoid any secondary trouble.

**Long Stroke Piston:** It gives more powerful impact energy and brings a stable breaker operation.

**Dual Oval Retainer Pins** are robust and guarantees correct tool alignment and long life.

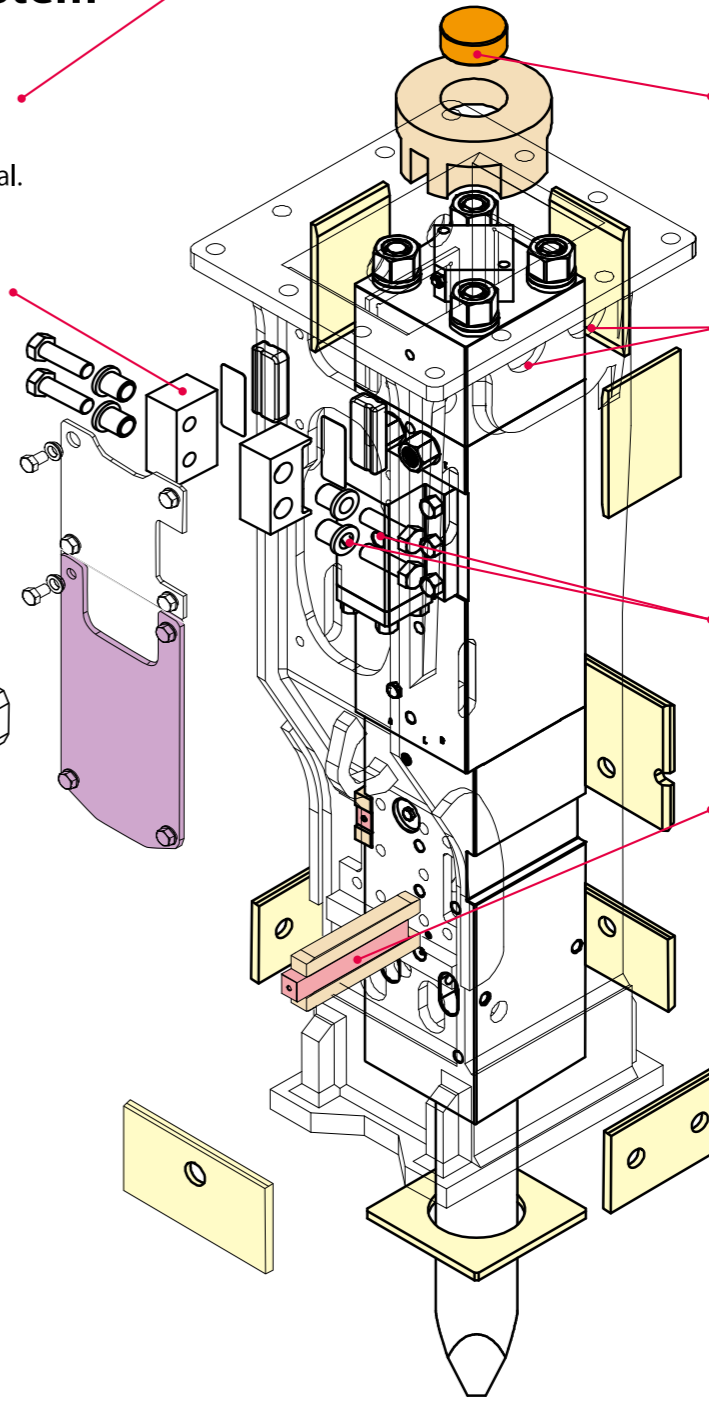
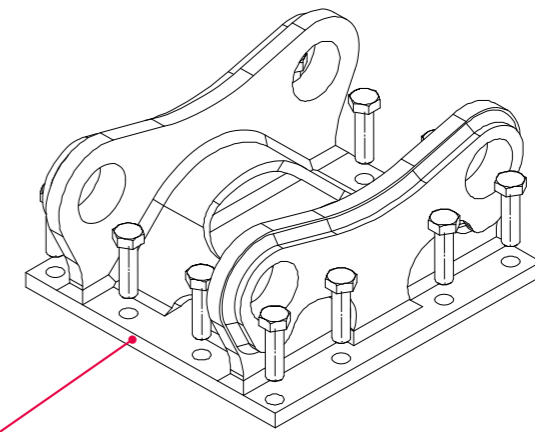
**50/50 Piston to Tool Weight Ratio** efficiently transfers blow energy into the material and reduces recoil.

## Box Bracket system

New design for **the Bracket Adapter** with enforced rigidity using thicker material.

Durable **Guide Plate** with a collar of bolts to avoid bolts shearing.

**Auto Grease System** as optional.



**Hard Urethan Core** to hold a distance between cylinder head and bracket adapter.

**New Windows** to check the marking for slack of side bolt nuts.

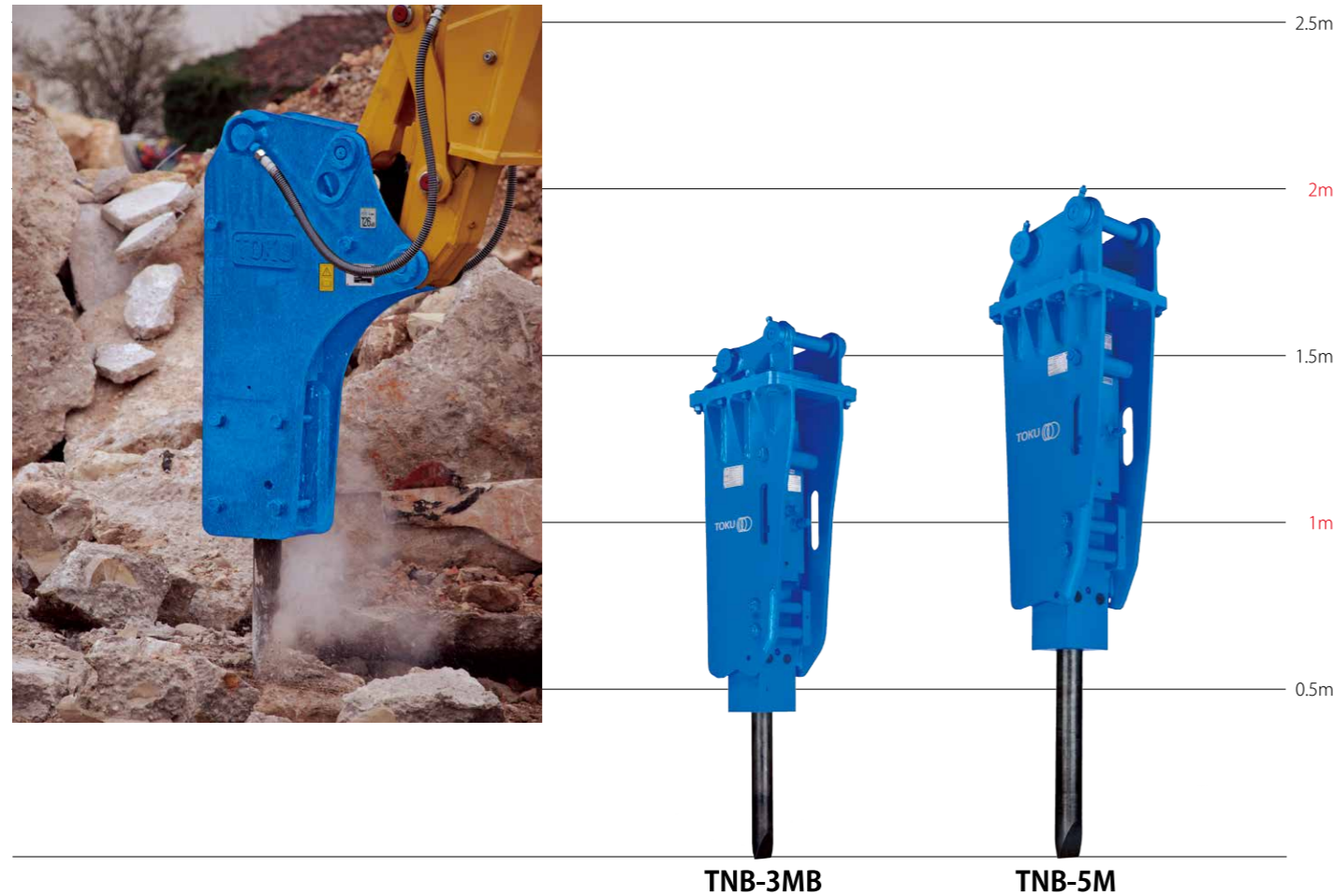
**High and Low-Pressure Oil Port** for driving a retrofit Auto-grease.

**The Key** to hold breaker body and the urethan sandwich system absorbs the vibration of breaker body.



# All 15 Models line up

## Mini range : 6 models



TNB-3MB

TNB-5M

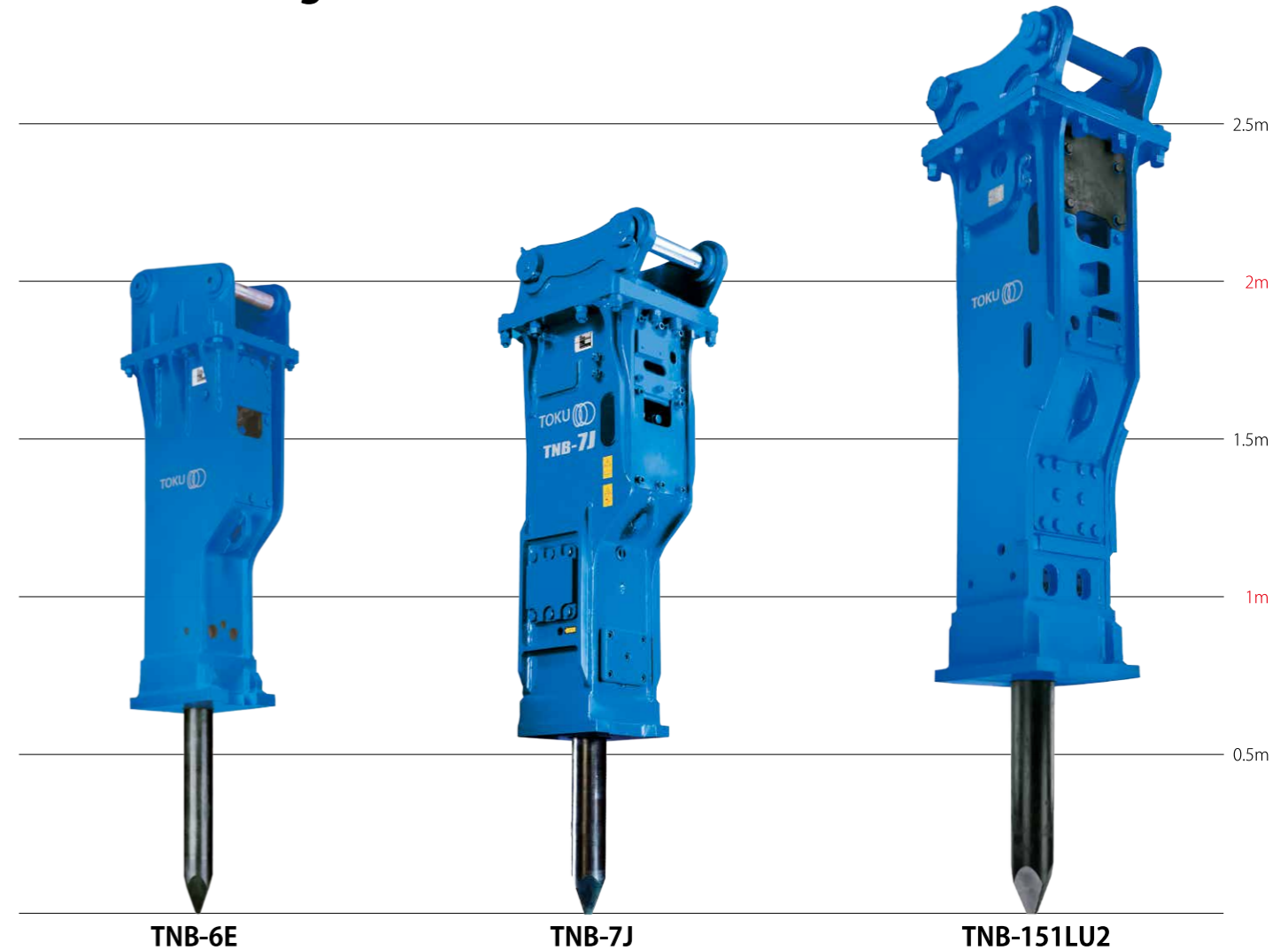
MODEL		TNB-08M	TNB-1M	TNB-2M	TNB-3MB	TNB-4M	TNB-5M	
Impact rate	bpm	930-1300	700-1200	600-1150	550-1000	580-1060	550-1000	
Tool diameter	mm	φ40	φ45	φ50	φ58	φ64	φ75	
Working weight *1	2pc top mount type	kg	75	100	140	210	255	315
	Box case	kg	85	125	170	250	340	400
Oil flow	L/min	18-25	20-30	20-35	25-45	30-55	35-60	
Operating pressure	MPa	6-13	7-14	8-15	10-15	10-16	10-16	
Hose I.D.	Inch	3/8	1/2	1/2	1/2	1/2	1/2	
Gas pressure *2	MPa	0.8	0.8	0.8	0.8	0.8	0.8	
Carrier range	ton	0.7-1.5	1-2	1.5-2.5	2.4-4	3-4.5	3.8-6	

NOTE)

\*1) Working weight does not include bracket bushings and bracket pins.

\*2) When the breaker body temperature is 40 °C (104 °F).

## Medium range : 5 models



TNB-6E

TNB-7J

TNB-151LU2

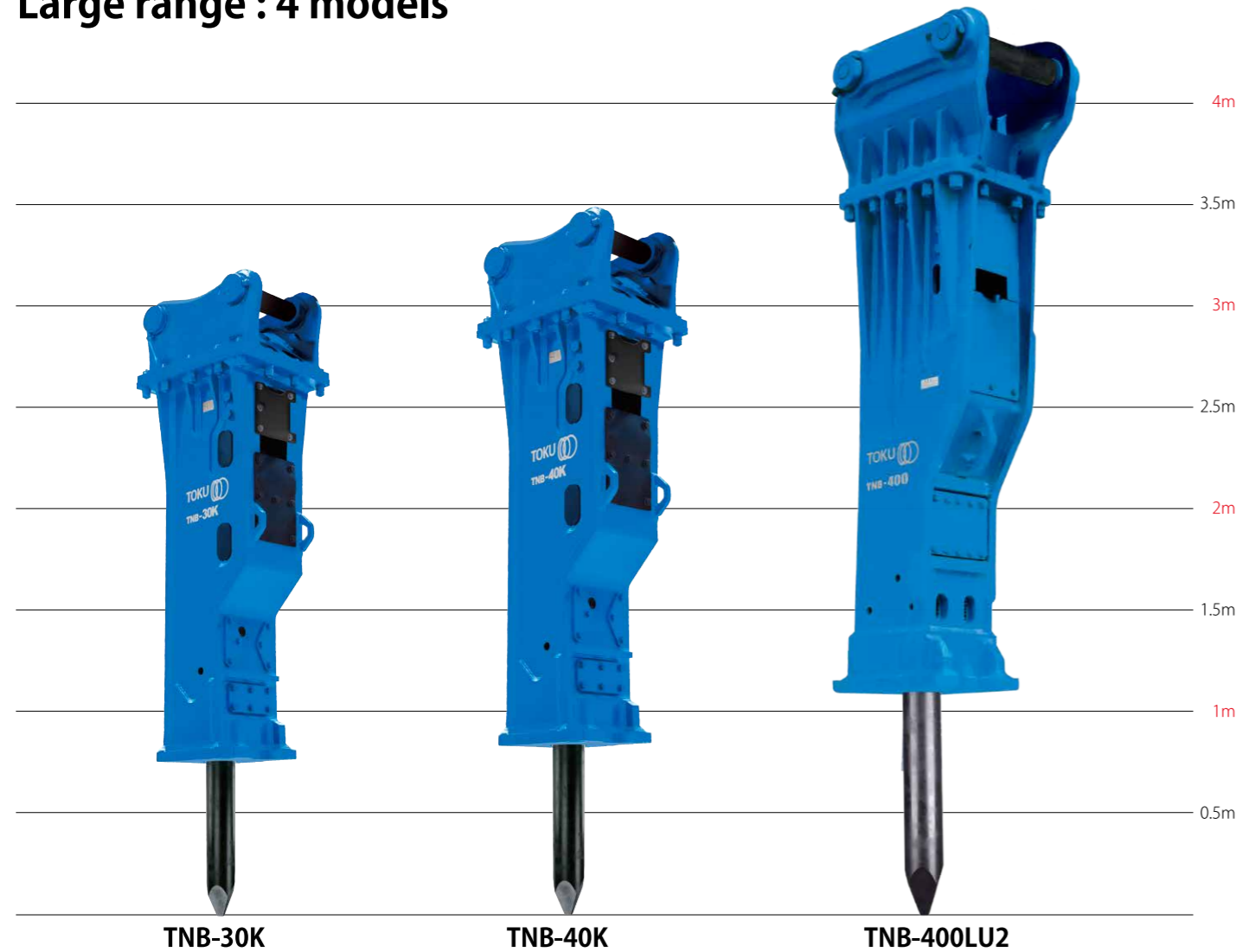
MODEL		TNB-6M	TNB-6E	TNB-7J	TNB-110	TNB-151LU2	
Impact rate	bpm	600-1050	550-1000	450-720	430-600	450-630	
Tool diameter	mm	φ75	φ95	φ105	φ115	φ135	
Working weight *1	2pc top mount type	kg	350	465	-	-	
	Box case	kg	440	585	950	1240	1800
	Oil flow	L/min	40-70	45-80	80-120	100-140	160-200
Operating pressure	MPa	10-16	10-16	14-18	12-17	14-18	
Hose I.D.	Inch	3/4	3/4	3/4	1"	1"	
Gas pressure *2	MPa	1	0.8	0.9	0.8	1.1	
Carrier range	ton	5.5-8	6-11	8-14	14-20	18-25	

NOTE)

\*1) Working weight does not include bracket bushings and bracket pins.

\*2) When the breaker body temperature is 40 °C (104 °F).

## Large range : 4 models



MODEL		TNB-190LU2	TNB-30K	TNB-40K	TNB-400LU2
Impact rate	bpm	370-490	350-450	290-440	310-470
Tool diameter	mm	φ140	φ155	φ170	φ178
Working weight *1					
Box case	kg	2250	2880	3900	5100
Oil flow	L/min	160-210	180-230	240-300	280-390
Operating pressure	MPa	14-18	13-18	14-18	14-18
Hose I.D.	Inch	1"	1"	1"-1 1/4"	1"-1/4"
Gas pressure *2	MPa	0.8	0.95	1.0	0.8
Carrier range	ton	20-30	27-40	40-53	45-70

NOTE)  
 \*1) Working weight does not include bracket bushings and bracket pins.  
 \*2) When the breaker body temperature is 40 °C (104 °F).

## Auto Grease System (Option)



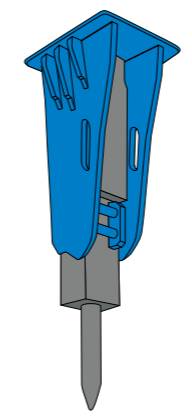
### Saving time for greasing!

About TOKU Auto Grease System  
 -Utilizing hydraulic high-pressure oil from base machine, TOKU Auto Grease System automatically supplies appropriate amount of grease to hydraulic breakers during breaker operation.

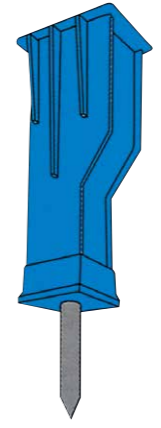
### Reducing the running cost of hydraulic breakers!

Benefit of TOKU Auto Grease System  
 -By supplying appropriate grease to the breaker all the time during breaker operation, the wear of most consumable parts such as chisel bushing and retainer pins could be minimized, which extends lifetime of spare parts and reduces hydraulic breakers running cost.

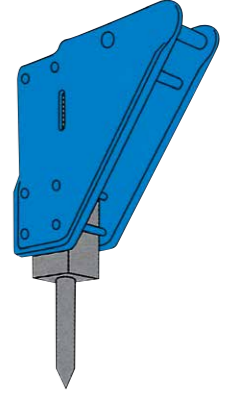
## Bracket type :



**2 pc open box type**  
 ● Available for TNB-08M~TNB-6E  
 ● Light weight type  
 ● Easy maintenance



**Box (silenced) type**  
 ● Available for all models  
 ● Suitable for work in residential area



**Side mount type**  
 ● Available for TNB-08M~TNB-30K  
 ● Easy handling

## Tool selection :

Type	Purpose	Application	Shape
<b>Moil point</b>	Largely breaking	Reinforced concrete rock bed	
<b>Flat</b>	Wedge action	Trenching and slope finishing	
<b>Flat end</b>	Large stone into small	Boulders and concrete	

"Long type tools are available as option"

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Main Plant



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