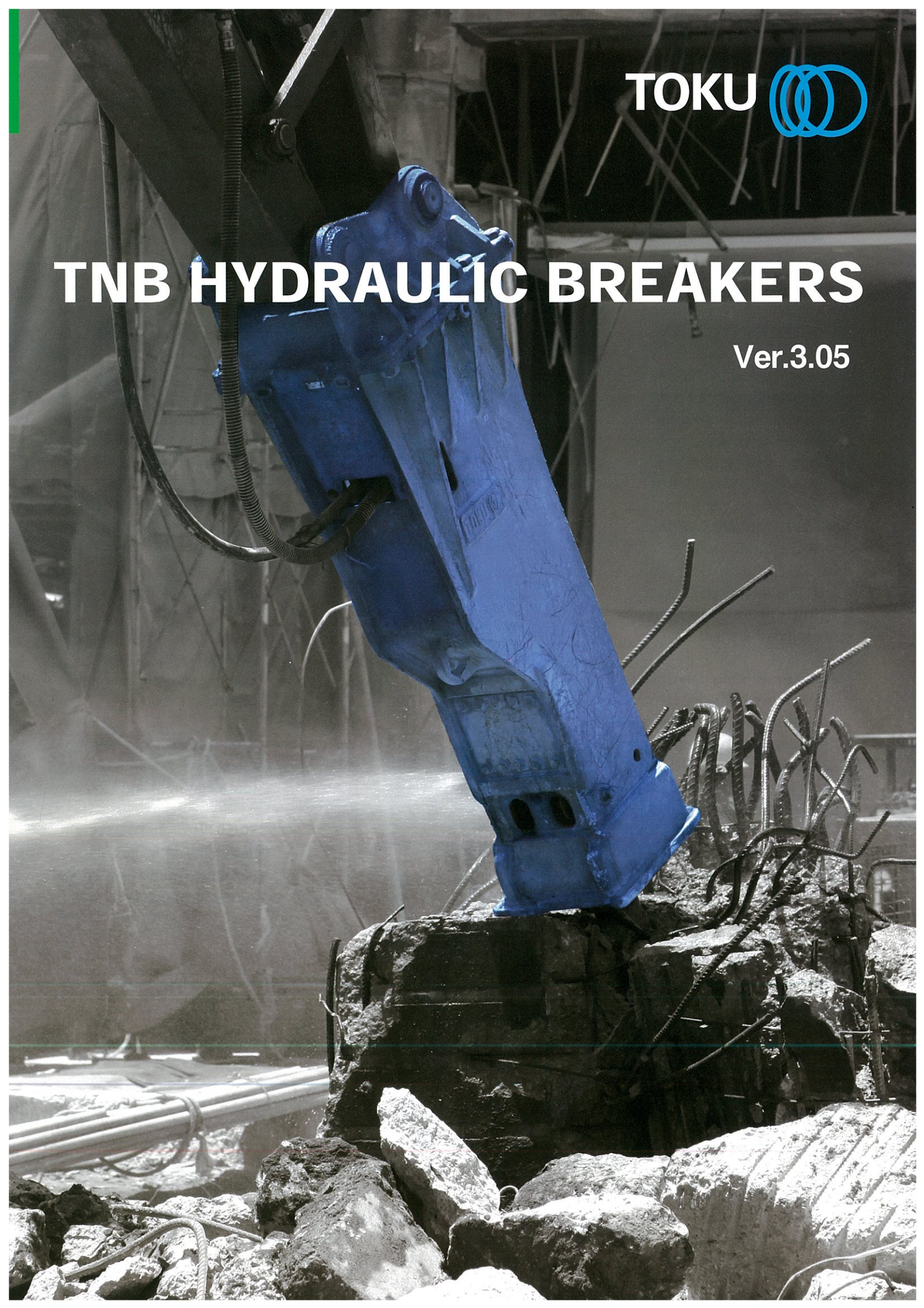




TOKU

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)

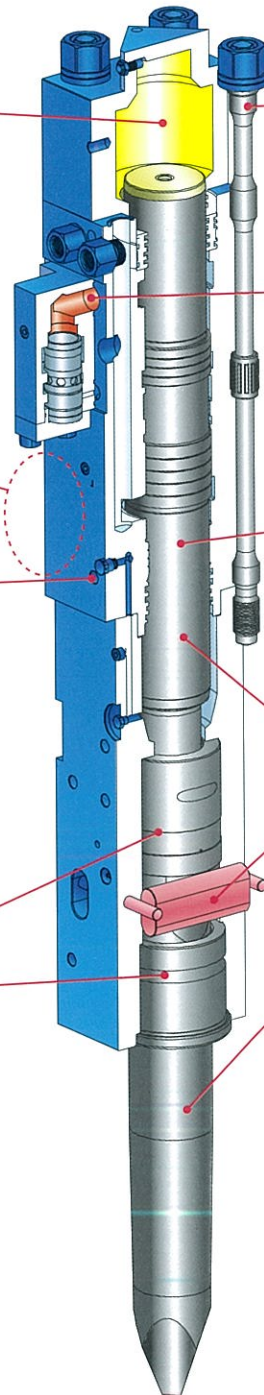
Breaker body

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.

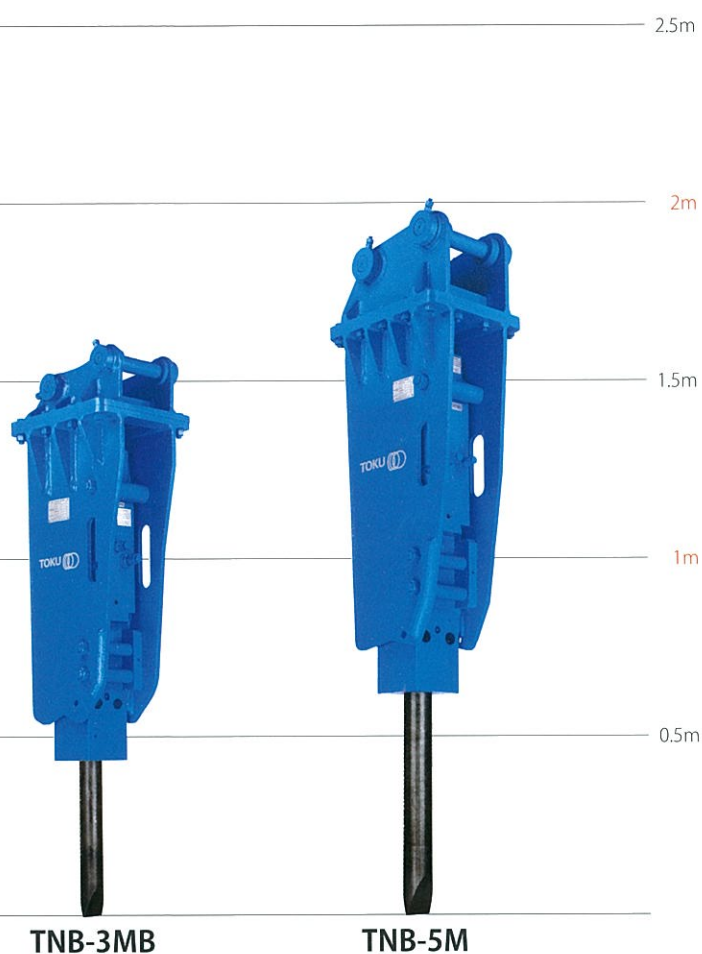
New Windows to check the marking for slack of side bolt nuts.

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



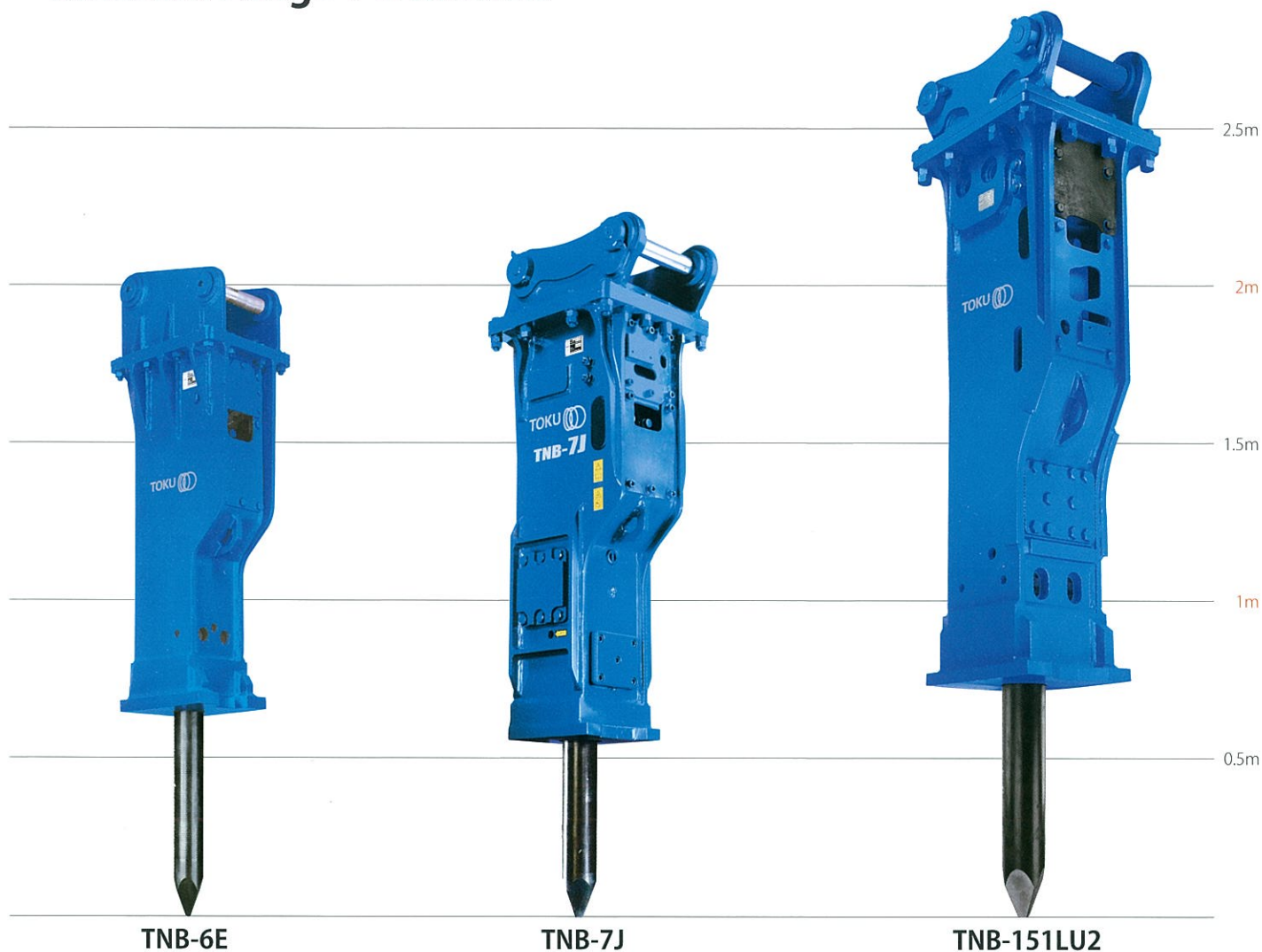
| MODEL | | TNB-08M | TNB-1M | TNB-2M | TNB-3MB | TNB-4M | TNB-5M |
|--------------------|-------|----------|----------|----------|----------|----------|----------|
| Impact rate | bpm | 930-1300 | 700-1200 | 600-1150 | 550-1000 | 580-1060 | 550-1000 |
| Tool diameter | mm | φ 40 | φ 45 | φ 50 | φ 58 | φ 64 | φ 75 |
| 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



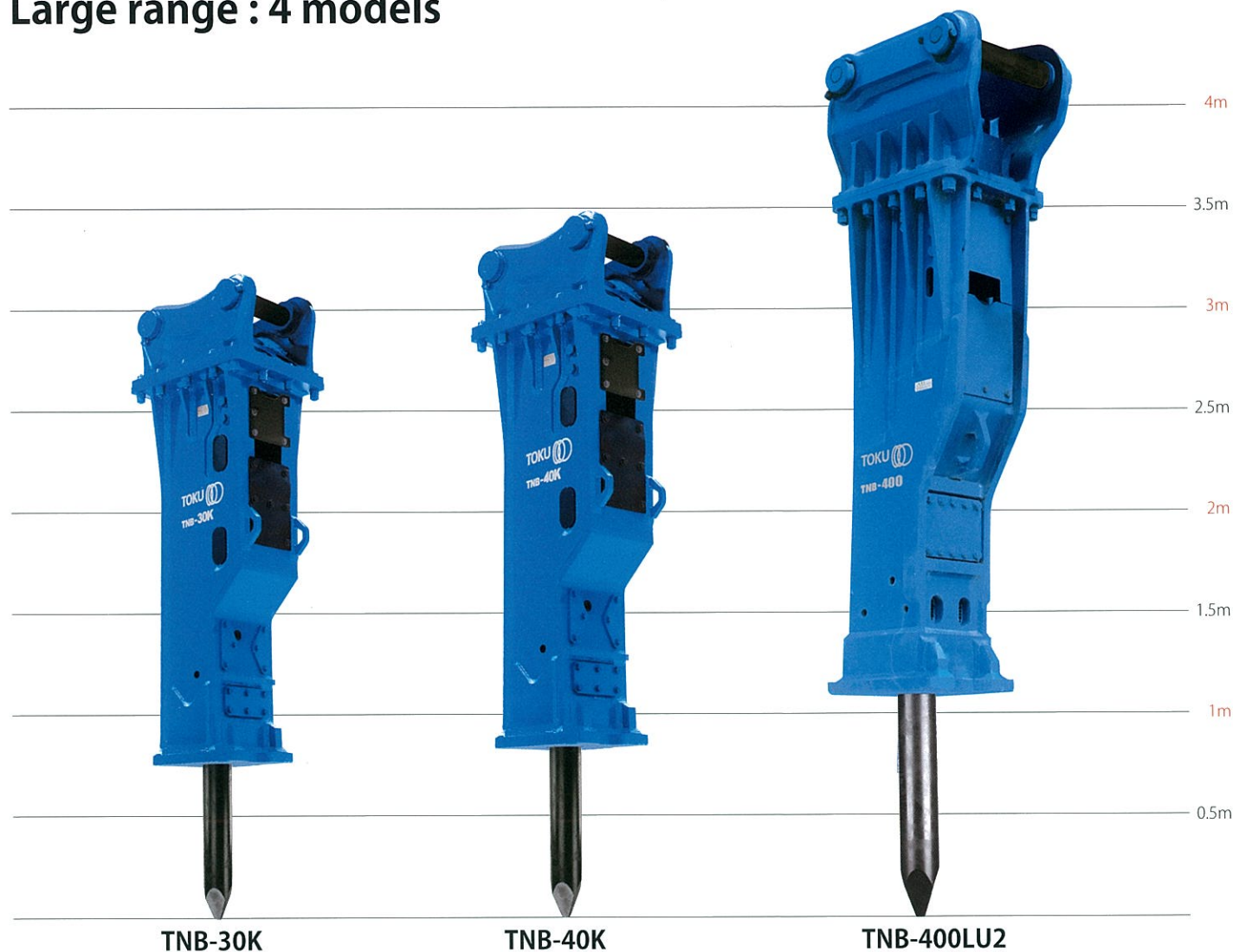
| MODEL | | TNB-6M | TNB-6E | TNB-7J | TNB-110 | TNB-151LU2 |
|--------------------|-------|----------|----------|---------|---------|------------|
| Impact rate | bpm | 600-1050 | 550-1000 | 450-720 | 430-600 | 450-630 |
| Tool diameter | mm | φ 75 | φ 95 | φ 105 | φ 115 | φ 135 |
| Working weight *1 | | | | | | |
| 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 | φ 140 | φ 155 | φ 170 | φ 178 |
| 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 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

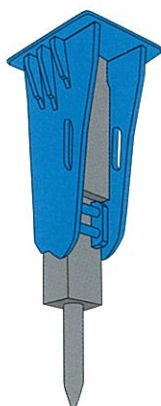
-Utilizing hydraulic high-pressure oil from base machine, TOKU Auto Grease System automatically supplies appropriate amount of grease to hydraulic breakers during breaker operation.

Reducing the running cost of hydraulic breakers!

Benefit of TOKU Auto Grease System

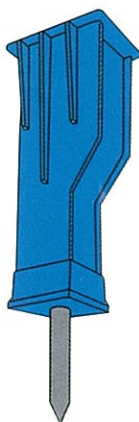
-By supplying appropriate grease to the breaker all the time during breaker operation, the wear of most consumable parts such as chisel bushing and retainer pins could be minimized, which extends lifetime of spare parts and reduces hydraulic breakers running cost.

Bracket type :



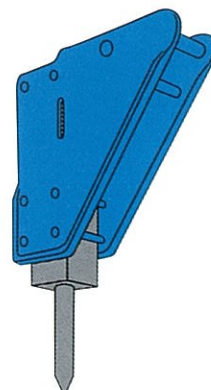
2 pc open box type

- 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 |
|-------------------|---------------------------|----------------------------------|---|
| Moil point | Largely breaking | Reinforced concrete rock bed |  |
| Flat | Wedge action | Trenching and slope finishing |  |
| Flat end | Large stone into small | Boulders and concrete |  |

"Long type tools are available as option"