

HYDRAULIC BREAKERS

TOKU 

URL: <http://www.toku-net.co.jp/en/>

E

Ver 1.00



TOKU PNEUMATIC CO., LTD.

The Toku hydraulic breaker design incorporates only two internal moving parts, offering reliability and long life.

Each breaker has a wide range of oil flow allowing for mounting of the same breaker on a wide range of equipment, suiting a variety of applications such as Constructions, Demolition, Recycling, Mining and quarrying.

With breakers available in 15 models from 73kg to 4000kg class, you can be assured of finding just the right capabilities.

Design features:

● Unified Construction:

Based on the concept "simple is the best" Toku breakers are built under the identical design philosophy from smallest breaker (TNB-08M) up to largest breaker (TNB-400).

● Non accumulators:

Designed to eliminate the traditional rubber bladder type accumulator to minimize maintenance and downtime.

● Cushion chamber:

It is nitrogen filled and low pressure. Absorbs recoil energy and increase output energy. The gas pressure in cushion chamber is relatively low with 8-11 bar.



M Series

Short Tie Rods
utilizing protected threads yield long life and high reliability.

Nitrogen Cushion Chamber
designed to absorb piston recoil and recycle the energy to increase output on the next blow.

Auto-grease system.
(option)

Large Piston mass and supporting area
provides for positive alignment, transferring maximum energy and efficiency to the tool.

Control Valve
Simplicity of the valve's design minimizes interruption of oil flow, reducing hydraulic pulsations.

Under water application.
(Port for air inlet)

Piston and Tool
50 : 50 weight ratio brings the ideal energy transfer and least recoil back to the excavator.

Dual Retainer Pins
ensure positive tool alignment and easy tool replacement.

Hardened, Special Alloy Tool
Designed to balance the need for hardness and durability, accommodating a wide range of applications.

● Low running cost

Fewer and durable parts, simple structure and easy maintenance enable low running cost in the long run. This is actually invisible feature of Toku breakers and difficult to convince, however once you use it in long period (5-6 years) then it will give you clear result compared to others.

● Auto-grease system (option) (Bracket mounted)

Toku breakers above TNB-4M can be equipped with Auto grease system as option. The system is fully incorporated on the bracket of breaker and requires no other power source to drive. It is convenient to operate breakers without greasing regularly and secures longer breaker life.



M Series for mini range



E, O Series for medium & large range

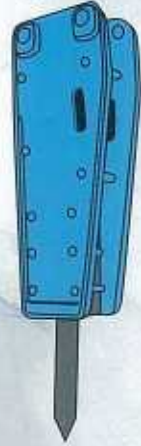


※ photo of Autogrease system as option

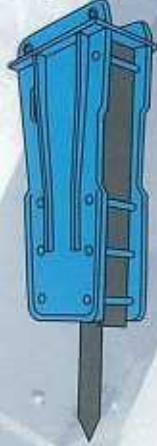
Specifications		TNB-08M	TNB-1M	TNB-2M	TNB-3M	TNB-4M	TNB-5M	TNB-6M	TNB-6E	TNB-7E	TNB-100	TNB-150	TNB-190	TNB-230	TNB-310	TNB-400
Working weight	kg															
1 pc plate case		71	84	110	187	220	301	361	415	920	1058	1628	2380	2580	-	-
2 pc plate case		74	98	140	207	254	315	346	532	1003	1113	1758	2207	2740	3380	4420
box case		88	117	164	254	319	385	405	565	1099	1236	1947	2200	2650	3565	4514
Oil flow	l/min	18-25	20-30	20-35	25-45	30-55	35-60	40-70	45-80	70-110	100-140	160-200	160-210	180-230	240-300	280-390
Operating pressure	Mpa	6-13	7-14	8-15	10-15	10-16	10-16	10-16	10-16	12-17	12-17	14-18	14-18	13-18	14-18	14-18
Impact rate	bpm	930-1300	700-1200	600-1150	550-1000	580-1060	550-1000	600-1050	550-1000	450-700	430-600	450-600	370-490	380-450	370-470	370-470
Tool diameter	mm	40	45	50	58	64	75	75	95	115	115	135	140	146	160	178
Impact energy	J	99.9	158.3	230.4	320.9	454.7	494.7	577.8	690	1502	2217	3579	4691	5719	7306.8	-
Hose size	inch	3/8	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	1	1	1	1	1-1/4	1-1/4
Gas pressure	Mpa	0.8	0.8	0.8	0.8	0.8	0.8	1	0.8	0.8	0.8	1.1	0.8	0.8	0.8	0.8
Base machine	t	0.7-1.5	1-2	1.5-2.5	2.4-4	3-4.5	3.8-6	5.5-8	6-11	8-15	14-20	18-25	20-30	27-40	38-50	45-70

Bracket type :

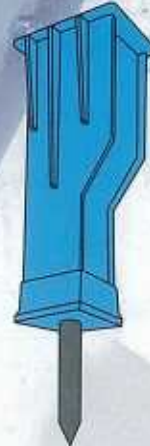
1 pc top mount type



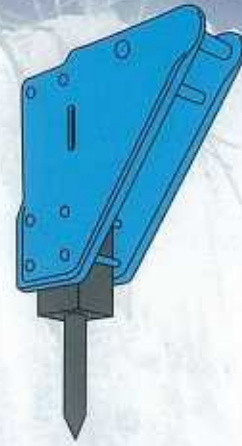
2 pc top mount type



Box (silenced) type



Side mount type



Auto grease system : TLS-07-L, TLS-07-S bracket mounted system (Option)

Merit :

- Save human negligence of filling grease
- No control is necessary on greasing several times a day
- Contributing to for longer machine life, especially for chisels
- No extra power source to drive

Applicable hammers are from TNB-4M to TNB-400.

TLS-07-S : TNB-4M ~ TNB-100

TLS-07-L : TNB-150 ~ TNB-400



Underwater application :

Through the air port on the hammer body compressed air is supplied into hammer inside and prevent water coming in and enables hammering work in the water.



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 ”

Base machine match up table :

Model	TNB-08M	TNB-1M	TNB-2M	TNB-3M	TNB-4M	TNB-5M	TNB-6M	TNB-6E	TNB-7E	TNB-100	TNB-150	TNB-190	TNB-230	TNB-310	TNB-400	
Base carrier / t	0.7-1.5	1-2	1.5-2.5	2.4-4	3-4.5	3.8-6	5.5-8	6-11	8-15	14-20	18-25	20-30	27-40	38-50	45-70	
IHI	7J 12NX 12JX 7GX	12NX 15NX 15J 18J 12JX	15NX 20NX 25NX 15J 18J 25J 28J 20JX 25JX	28N 35N 25NX 30NX 35NX 28J 30J 32J 35J 25JX 30JX 35JX	35N 45N 30NX 35NX 40NX 45N 32J 35J 30JX 35JX 40JX	45N 55N 40NX 45NX 45J 55J 40JX	80NX 70J	80NX 70J	110J 120J 125UJ 135UJ		200J 215JX 225JX	220J	310J 350J	450J		
KUBOTA	K008 K013 U008 U10	K013 K015 U10 U15	K015 K020 K022 K025 U15 U20 U25	K025 K028 K030 K035 U25 U30 U35	K030 K035 K038 K040 K045 U30 U35 U40 U45	K040 K045 U40 U45	K70 K75 KX60 KX75	K70 K75 KX60 KX75 KX80 KH90	K110 K120 K125 K135 KX100 KX120 KX135	K160 KX150 KH150	K200 K225 KX200	K230 K270 KX220 KX270 KH270				
KOBELCO	SK007 SK013 SK09SR SK13SR	SK013 SK015 SK13SR SK15SR	SK015 SK020 SK025 SK15SR SK20SR SK25SR	SK025 SK030 SK035 SK25SR SK30SR SK35SR	SK030 SK035 SK045 SK30SR SK35SR SK40SR SK45SR	SK045 SK050 SK40SR SK45SR	SK60 SK60SR	SK60 SK60SR	SK100 SK115 SK120 SK135		SK200 SK210 SK235	SK220 SK250	SK300 SK310 SK320 SK350	SK400 SK430 SK450 SK480	SK600	
KOMATSU	PC03 PC05 PC12R-8 PC10MR	PC05 PC07 PC12R-8 PC15R-8 PC15MR	PC10 PC15 PC15R08 PC20R-8 PC25R-8 PC15MR PC20MR	PC20 PC25 PC30 PC25R-8 PC27R-8 PC30R-8 PC35R-8 PC27MR PC30MR PC35MR	PC25 PC30 PC40 PC45 PC30R-8 PC35R-8 PC40R-8 PC45R-8 PC30MR PC35MR PC40MR PC45MR	PC40 PC45 PC50 PC40R-8 PC45R-8 PC40MR PC45MR	PC60 PC70 PC75 PC78	PC60 PC70 PC75 PC78 PC80	PC100 PC120 PC128 PC130 PC138	PC150 PC158	PC200 PC210 PC228	PC220 PC230	PC300 PC310 PC350	PC400 PC410 PC450	PC600 PC650 PC710 PC750	
CATERPILLAR						416		416B	307,307B 311,311B 416C,426 426B,426C 428,428B 436,436B 436C,446 446B,470B	205,206 211,212 312 312B E120B E140	213 214 215 315 E180 E200B	215B 219,224 225 320,320B E240	225B 225D 229 322,322B 325,325B 330,330B E300	231D 235 235B 235C 345B	245 350 375 375L	
BOBCAT			320 453 553	231 325 751 753 763 773	331 763H 863 863H 873 943	337 953 963										
TAKEUCHI	TB108 TB014 TB007 TB120	TB014 TB016 TB120	TB125 TB016 TB020	TB125 TB135 TB025 TB030 TB035	TB135 TB145 TB030 TB035	TB145 TB045	TB175 TB070	TB175 TB070								
HITACHI	EX8 EX12 EX10U	EX12 EX15 EX18 EX10U EX15U	EX15 EX18 EX22 EX25 EX15U EX20U	ZX27U ZX30U ZX35U EX25 EX30 EX35 EX27U EX30U EX33U EX35U EX33Mu	ZX30U ZX35U ZX40U EX30 EX35 EX40 EX45 EX30U EX33U EX35U EX40U	ZX40U EX40 EX45 EX40U EX50U EX58Mu	ZX70 ZX75 ZX80 EX60 EX70 EX75	ZX70 ZX75 ZX80 EX60 EX70 EX75 EX80 EX90	ZX110 ZX120 ZX125 ZX130 ZX135 EX100 EX120 EX130 EX135	ZX160 EX150 EX180	ZX200 ZX210 ZX225 EX200 EX210 EX225	ZX230 ZX240 ZX270 EX220 EX230 EX270 EX280	ZX330 ZX350 EX300 EX350 EX370	ZX450 EX400 EX450	ZX600 ZX650 EX550 EX600 EX700 EX750	
AIRMAN	AX08 AX12 AX10U	AX12 AX15 AX18 AX10U	AX15 AX18 AX22 AX25 AX20U	AX25 AX30 AX35 AX27U AX30U AX35U AX35Mu	AX30 AX35 AX40 AX45 AX30U AX35U AX40U	AX40 AX45 AX40U AX50U AX58Mu										
YANMAR	B08 B12 Vio10 SV08 SV13	B12 B17 Vio10 Vio15 SV13	B17 B22 B25 Vio15 Vio20	B25 B27 B32 B37 Vio27 Vio30 Vio35	B32 B37 B50 Vio30 Vio35 Vio40	B50 Vio40 Vio50	Vio70 Vio70									

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Main Plant



Kamimine Plant



Kishima Plant



Hirokawa Plant

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