



NKB HYDRAULIC ROCK BREAKERS

**DEMOLITION
PROVEN SOLUTIONS
FOR MINING AND
ROCK BREAKING**



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CONTENTS

ABOUT US	➤	2
After Sales Service	➤	4
Hydraulic Breakers	➤	6
Spare Parts	➤	11
Maintenance	➤	12
How to use?	➤	13
Suitable Excavators	➤	15



ABOUT US

ISITEK MACHINE started to work in construction and mining sector in 1991, we started with the production and service of hydraulic rock breaker spare parts. One of the first domestic crushers of Turkey in 1997 and proudly presented to the mining and construction sector.

ISITEK MACHINE provides 7/24 nonstop service and spare parts service to every region of TURKEY. It's experienced technical staff, on-site inspection and fault detection capability is proof of the success of the sector.

All of the materials used in the manufacture of breakers and spare parts has a quality assurance certificate in accordance with world standards. **ISITEK** not only provides it's own products spare parts but also other brands in the sector, **ISITEK** provides all spare parts directly from stock.

Purpose of **ISITEK** is to be the leader of it's sector by ensuring high quality manufacturing and happy customers.

4500m² CLOSED AREA PRODUCTION FACILITY



MILESTONES

**COMPANY ESTABLISHMENT
AND PRODUCTION OF SPARE PARTS**

1991

**R & D CENTER
ESTABLISHMENT**

2004

**EXPORT TO EUROPE
AND MIDDLE EAST**

2009

1997

**FULLY DOMESTIC HYDRAULIC
ROCK BREAKER PRODUCTION**

2007

**DEALERSHIP NETWORK IN
TURKEY'S ALL 7 REGIONS**



WHY HYDRAULIC BREAKER?

Hydraulic breakers are construction machines that apply a lot of force due to their usage methods. They are used for crushing activities on construction sites. Thanks to their high destructive power, breakers, compact loaders and transform excavators into powerful demolition machines. They break the materials like asphalt, rock, concrete etc. . In construction work, these materials often need to be refurbished or has to be removed from the area for construction. Thanks to the high efficiency of the hydraulic breaker, before the date of delivery many construction jobs can be completed. A hydraulic breaker as to keep all equipment maintenance, is a key point to ensure efficient operation. Keeping a hydraulic breaker in operation makes it easier to maintain.



DOMESTIC



SUITABLE



RELIABLE



STURDY



HYDRAULIC ROCK RESURRECTION PRINCIPLE

Hydraulic rock breakers are used to separate rocks into smaller pieces, the equipment. This is usually attached to an excavator and in the form of additional equipment crushers, they use the hydraulic principle. Thanks to the suppressed hydraulic oil reservoirs crushers have high pressure and force application properties. It is the ideal equipment for quarries and an excavator in demolition work.

Generally, there are two types of hydraulic rock breakers. These are Internal Valve and External Valve types. Both types have common components such as piston and cylinder. Both types of hydraulic rock breakers have front head parts that support all machines and rear head parts that contain nitrogen gas.

The crushing process of hydraulic rock breakers starts with the movement of the hydraulic oil in the reservoir. Piston is forced to move up and this action compresses the nitrogen gas in the rear head. As the piston moves upwards, the oil channel opens and the oil begins to flow towards the reservoir. The valve pulley moves upwards because the upper force is stronger than the lower force. As the valve roll is raised and the oil channel is opened, the nitrogen gas begins to apply pressure to the piston. All pressure is directed by the hammering force. The "Accumulator=battery" runs to compensate for the energy loss from the hammering energy. Many rock crushers are covered with protective and long-lasting materials.

Many models come with shock absorbers for high safety of construction equipment where hydraulic rock breakers are connected. These absorbers absorb all the mechanical forces and rebound energies. Shock absorbers also protect components of rock crushers.

HYDRAULIC BREAKERS

Bachoe Loader Breakers

Compact, lightweight and strong construction, it is ideal for light breaking work. The trouble-free long working life is the best solution for builders and excavators with low maintenance costs.

NKB 150



Operating Weight	150 kg
Oil Flow Rate	15-35 lt/min
Oil Pressure	80-100 bar
Blows per Minute	1000-1500
Length	1600 mm
Tool Diameter	48 mm
Base Machine Weight	1-3 ton
Impact Energy	340J

NKB 200



Operating Weight	220 kg
Oil Flow Rate	30-55 lt/min
Oil Pressure	90-130 bar
Blows per Minute	700-1200
Length	1.480 mm
Tool Diameter	68 mm
Base Machine Weight	2,8-5,5 ton
Impact Energy	515J



SMALL SERIES

HYDRAULIC BREAKERS

Operating Weight	300 kg
Oil Flow Rate	34-60 lt/min
Oil Pressure	95-130 bar
Blows per Minute	450-1000
Length	1.362 mm
Tool Diameter	70 mm
Base Machine Weight	2,5-7,5 ton
Impact Energy	800J

NKB 300



Operating Weight	350 kg
Oil Flow Rate	40-80 lt/min
Oil Pressure	100-140 bar
Blows per Minute	450-950
Length	1600 mm
Tool Diameter	75 mm
Base Machine Weight	5-9 ton
Impact Energy	990J

NKB 350



SMALL SERIES



HYDRAULIC BREAKERS

Excavator Breakers

It is the ideal solution for mining operations and heavy duty services with its strong chassis structure, high impact strength, trouble free long working life and low maintenance costs.

NKB 750



Operating Weight	900 kg
Oil Flow Rate	80-110 lt/min
Oil Pressure	150-170 bar
Blows per Minute	450-800
Length	2100 mm
Tool Diameter	100 mm
Base Machine Weight	9-15 ton
Impact Energy	2400 J

NKB 1150



Operating Weight	1100 kg
Oil Flow Rate	90-170 lt/min
Oil Pressure	150-170 bar
Blows per Minute	400-750
Length	2450 mm
Tool Diameter	120 mm
Base Machine Weight	13-20 ton
Impact Energy	3600 J

MIDDLE SERIES

HYDRAULIC BREAKERS

Operating Weight	1.450 kg
Oil Flow Rate	130-170 lt/min
Oil Pressure	130-170 bar
Blows per Minute	460-600
Length	2.190 mm
Tool Diameter	135 mm
Base Machine Weight	18-21 ton
Impact Energy	3900J

NKB 1450



Operating Weight	1.650 kg
Oil Flow Rate	125-150 lt/min
Oil Pressure	160-180 bar
Blows per Minute	350-700
Length	2.750 mm
Tool Diameter	135 mm
Base Machine Weight	18-25 ton
Impact Energy	3900J

NKB 1650



MIDDLE SERIES



HYDRAULIC BREAKERS

NKB 2250



Operating Weight	2.250 kg
Oil Flow Rate	150-190 lt/min
Oil Pressure	160-180 bar
Blows per Minute	300-650
Length	3.000 mm
Tool Diameter	150 mm
Base Machine Weight	25-35 ton
Impact Energy	4200J

NKB 3000



Operating Weight	3.000 kg
Oil Flow Rate	180-250 lt/min
Oil Pressure	165-185 bar
Blows per Minute	260-450
Length	3.150 mm
Tool Diameter	155 mm
Base Machine Weight	36-48 ton
Impact Energy	7350J



HEAVY SERIES

HYDRAULIC BREAKERS

Operating Weight	3.300 kg
Oil Flow Rate	200-250 lt/min
Oil Pressure	160-180 bar
Blows per Minute	300-350
Length	3.200 mm
Tool Diameter	165 mm
Base Machine Weight	38-50 ton
Impact Energy	10650J

NKB4000



HEAVY SERIES



SPARE PARTSBREAKERS

ISITEK hydraulic breaker heads are manufactured from high quality nickel alloy steel to provide the correct impact in all excavation and crushing operations. They are subjected to heat treatment several times to comply with the hardness of the breakable surface.

Crushers manufactured by ISITEK MACHINE;

- It is absolutely suitable for crusher measurements.
- Made of high quality nickel alloy steel.
- It has been subjected to multi-stage heat treatment.

AFTER SALES SERVICES

ISITEK MACHINE has a vision that targets high "Customer Satisfaction". It aims to offer the best quality and fastest service to its customers with its service network established in its own frame and contracted services around the country.

The service is provided by specially trained and qualified technical personnel and spare parts manufactured at it's own facilities. The service organization department adjusts the date and time so as not to disturb the business processes of the customers, and carries out the maintenance and repair operations at the production facility according to the situation.



MAINTENANCE

- Hydraulic breaker should not be run in water or mud.
- Hydraulic breaker's tip should be removed every week, the swelling of the tip should be cleaned and moved

DAILY MAINTENANCE

- The front end of the crusher blade must always be greasy and the crusher must be made of graphite or molybdenum grease to spoil her day.
- Make sure that the bolt has been tampered with and that it is loose.
- If the crusher falls below the standard diameter of 2 mm, the crusher must be replaced immediately. Otherwise, piston or bush breakage may occur.

50 to 100 HOURS CARE

- The operating pressure and safety pressure settings must be checked.
- The oil temperature must be controlled, even when it is hotter than the hot (red) zone.
- The crushing force should be checked, and if it is low, the service should be consulted.
- The bolts should be checked, loose ones must be tightened, missing ones must be completed.
- All hydraulic connections must be checked.
- Make sure that the hydraulic hoses are not bent.
- The oil filter of the excavator must be changed.
- Use grease with a minimum resistance of 250 ° C.

Attention must be taken to ensure that the grease used is graphitic or molybdenum.



HOW TO USE

1. Beware of wasted hit.

Always apply the breaker tool tip perpendicular to surface in order to avoid wasted hits.

2. Never apply overload!

Never use breaker tip as a lever.

3. Break the edges of durable materials.

If the tip is applied to the same spot for more than 30 seconds and does not pierce nor break the material, does not pierce or break the material change the docking point.

4. Do not operate the breaker in water or mud.

Corrosion of the piston or similar parts can cause permanent damage.

5. Be careful not to hit the breaker on the carrier machine.

6. Use the breaker at the appropriate pulse rate.

NKB hydraulic breakers have a control valve to adjust the stroke rate. Pulse velocity field adjust according to the conditions.

7. Do not operate in high temperature conditions.

If oil temperature exceeds 80 °C, use oil cooler.

8. Do not move or push rocks.

Pushing rocks with the sides of the cabin is the most important factor in breaking the cap bolts.

9. Do not use as a top lever.

10. Do not strike for more than a minute.

If the rock is not broken even with a stroke of more than 1 minute to the same point, change. Do not forget, long-lasting impact on the same spot causes early wear of the tip.

11. Start the breaker at the appropriate engine speed.

Important! The high engine does not increase the stroke power! Only by increasing the oil temperature causing premature failure of the piston and valves.

12. To break the rock, do not drop the breaker on the rock.

Hitting a rocker can cause serious damage to the breaker and the work machine.

13. Do not start the machine when it is open to the end of the cylinders.

Impacting on this sheath damages the cylinders and many parts of the work machine.

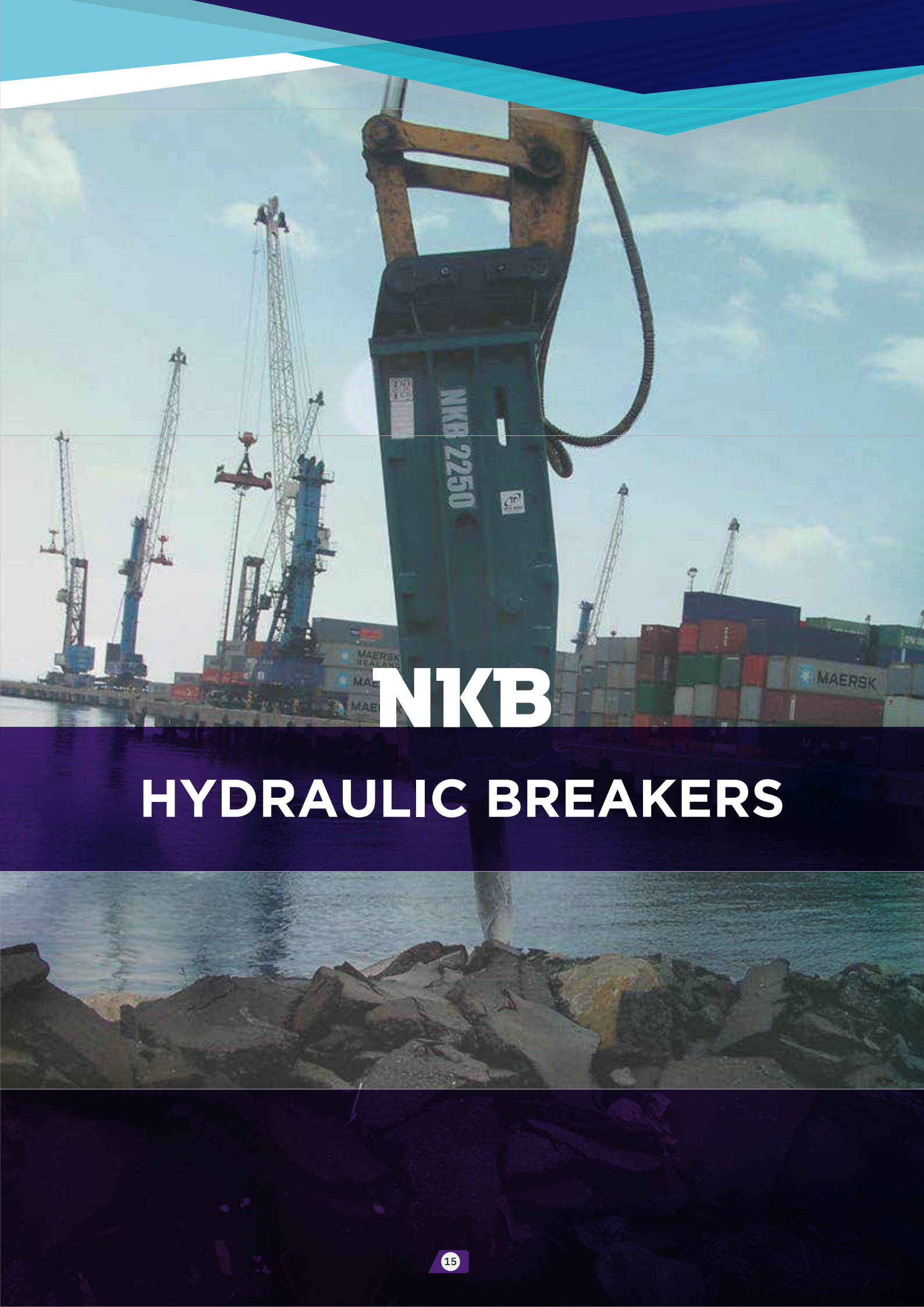
14. Do not remove objects with the breaker.

it will not only damage the breaker but also compromise the staff safety.

15. Warm up the engine of the work machine before starting work.

Heat the machine's engine for about 5-10 minutes, especially before starting to use the cutter in the winter.

16. Do not touch the breaker during crushing.



NKB

HYDRAULIC BREAKERS

SUITABLE EXCAVATORS

MODEL	NKB 150	NKB 200	NKB300	NKB350	NKB750	NKB1150	NKB1650	NKB2250	NKB3000	NKB4000
CASE	CX25 CX31 CX35	580N CX50	580N CX50	CX75SR	9010B CX130B LC	9020B, CX130 CX135, CX135 SR CX160B, CX180	9030B, 9040B CX210B, CX225 CX230, CX240B	9050B CX290 CX330	9060B CX350	CX460 CX470B
CATERPILLAR	301,4C 302,4D 302,7D 303,5 E	303,5E 416F 420F/420F IT 430F/430F IT	303,5E 416F 420F/420F IT 430F/430F IT	3,2 450F	206, 313 311, 312	211, 212 214, 215 315, 318	225, 224, 219, 240, 320, 322 320C, 320D, 320DL, 324B,	2290, 3000 33,;	235, 330, 336D 336DL, 345	349D 374D
DAEWOO	S035, S55 V S55 W, R75 V	DH040	DH040		DH130	DH07 DH08	DH210	DH280 DH320	S330LC-V, S340LC-V S360LC-V, S400LC-V S420LC-V	S450 LC-V S470 LC-V S500 LC-V
DOOSAN	DX 35	DX 60, MST 544 MST 543, MST 644, MST 642	DX 60, MST 544 MST 543, MST 644 MST 642	DX 80	DX 140LC	DX190W	DX 210LC DX225W	DX 300LC	DX 340LC DX 380LC	DX 420LC DX 480LC
HIDROMEK		HMK 102B HMK 102S	HMK 102B HMK 102S	HMK 102B SUPRA HMK 102S SUPRA	HMK 140W	HMK 140 LC HMK 200 W-2	HMK 220 LC	HMK 300 LC	HMK 370 LC	
2345623	ZX 33U-5A	ZX 48U-5A ZX 65USB-5A UE50, UE02, EX35	ZX 48U-5A ZX 65USB-5A UE50, UE02, EX35	ZX70LC-3 EX60, UH033 UH031	ZX140W-3, ZX130-3 UH051, EX100, EX120, UH061	ZX170W-3, ZX135US-3 ZX160LC-3, EX150, EX160, UH073, UH081	ZX190W-3, ZX210W-3 ZX210H-3, EX200, UH081, UH103, EX220	ZX225USCL-3 ZX250LC-3 ZX280LC-3, EX270, EX300, UH123, UH143	ZX360LC-3 UH171, EX400, U141	ZX400LC-3 ZX450-3 ZX470LC-3
2+*-753	R27Z-9	R35Z-9 R55-9 R60CR-9	R35Z-9 R55-9 R60CR-9	R80CR-9	R140LC-9 R145LCR-9 R140W-9	R160LC-9 R180LC-9 R170W-9	R210LC-9 R210W-9 R210LC-7A	R250LC-9 R290LC-9 R320LC-9 R290LC-7A	R380LC-9 30,, 4500	R480LC-9 R520LC-9
JCB	1 CX	3CX 3CX SITE MASTER	3CX 3CX SITE MASTER	4CX 4CX SITE MASTER	67/3,	67/0, JS 175W	67/-, 67/-, JS 200W	JS 240 67/33,	JS 290	67/30,
KATO		HD140 HD180	HD140 HD180	HD180 HD250	HD450 HD550	HD550 HD700 HD650	HD700 HD800 HD900	HD1220 HD1250 HD1500	HD1880	HD2045-II HD2045-III HD1880-VIIE
KOBELCO		SK35, SK40 SK45, SK30	SK35, SK40 SK45, SK30	K903 7:0,	K905, K904 SK100, SK135	K907, SK120 SK150	K909, SK235 SK200, SK230	K912, SK320 7:-2,	K916 SK430	SK450 SK450 LC
KOMATSU	PC30MR-3	PC30, PC40, PC45 PC45MR-3, PC45MR-3 PC78US-8, WB93R-5 WB93S-5	PC30, PC40, PC45 PC45MR-3, PC45MR-3 PC78US-8, WB93R-5 WB93S-5	PC60, PC45 WB97R-5 WB97S-5	PC120, PC150 PC130-8 PC138US-8	PC180, PC150 PW160-7 PC160LC-8	PC200, PW210, PC210, PC220, PC240, PW200-7, PW220-7, PC200-8 HB215LC-1, PC220LC-8	PC300, PC250 PC270-8, PC300-8 PC350LC-8	PC360, PC400 PC450, PC350-8-LRD	PC400-8 PC450LC-8
LIEBHERR					900 901	A900 C, 902 911, 912	R906 L, R916 L 921, 922	R924 C, R926 L 932, 942, 941	R934 C, 961 952, 971	R944 C
SOOSAN		MS04	MS04	97,2,	97,-, MS140	97,1,	97-3,	97-1,	9731,	
SUMITOMO		SH40, SH35 SH45, SH55	SH40, SH35 SH45, SH55	SH65 SH60	SH120 SH135 SH135-5	SH135X-3 SH160-5 SH200	SH200 SH210 LC-5 SH225X-3B	SH300 SH300 LC	SH350 SH400	SH400-3 SH450-3
SAMSUNG		MX55, MX3W SE25	MX55, MX3W SE25		MX132, MX135 MX6	MX175, SE130	MX225, MX255 MX202, SE200	MX292, MX352 78-1,	MX352, MX422 MX452	
VOLVO	ECR28 ECR38	BL61P, BL70, BL71 ECR35C, EC55B ECR58	BL61P, BL70, BL71 ECR35C, EC55B ECR58	ECR88	EC140B EW140B	EC160B EC180B	EX210B EX240B	EC250D, EX290B EC300D, EX330B	EX360B EC380D	EX460B EC480D

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