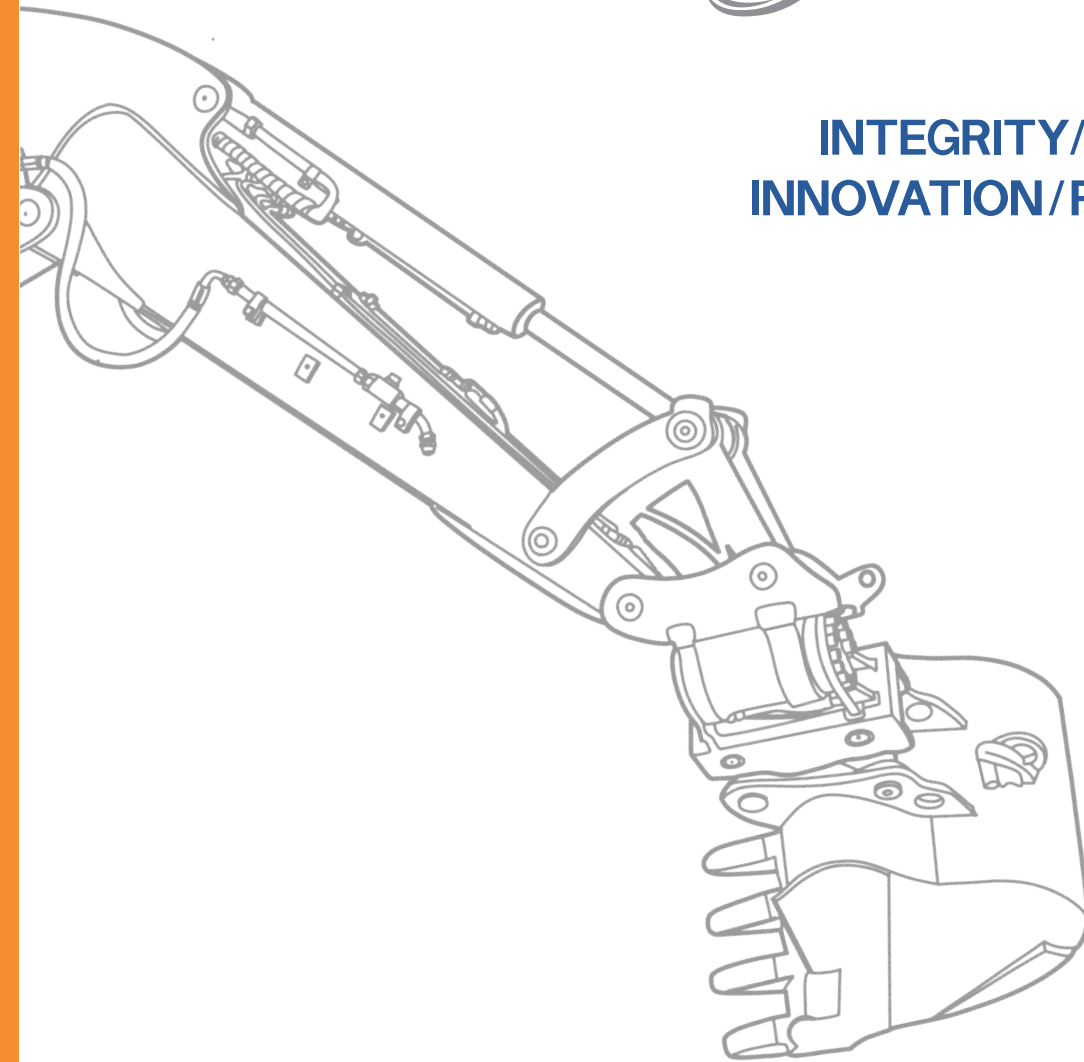


**INTEGRITY/EFFICIENCY/
INNOVATION/RECIPROCITY**

诚信 / 高效 / 创新 / 互惠



WEIHAI BUQI MACHINERY CO., LTD

威海埠崎机械股份有限公司

Address: No. 2, Industrial Zone, Yangting Town, Huancui District, Weihai City, Shandong Province

Website: www.buqijixie.com

Service Hotline: 86 15725610793/86 13181110779
/0631 5772997

E-mail: buqijixie@buqijixie.com



WEIHAI BUQI MACHINERY CO., LTD
威海埠崎机械股份有限公司

**EXCAVATOR
HYDRAULIC
TILT CYLINDER**

DEVELOPMENT HISTORY

Weihai Buqi Machinery Co., Ltd. was established on August 17, 2001. It is a national high-tech enterprise engaged in the R & D and production of mechanical equipment. The company covers an area of 32,000 square meters, with over 10,000 square meters of standard workshops and more than 6,000 square meters of office space. The registered capital is 7 million yuan. Since its establishment, the company has been committed to the R & D and manufacturing of precision mechanical equipment and special equipment for the industry.

Core Equipment

- CNC Horizontal Machining Centers: DMG MORI, MAZAK;
- CNC Gantry Machining Centers: OKUMA, HAITIAN Vertical Machining Centers;
- CNC Lathes: DOOSAN Tornado Mill Turn Centers Custom Hydraulic Cylinder Machining Systems;
- High-Precision Inspection & Testing Equipment: Hexagon Coordinate Measuring Machines (CMM);
- Hydraulic Load Test Benches.

Team

It has 6 professional technicians in rotary swing cylinders. Senior technicians account for 40%, including two Qilu Craftsmen and three Weihai Chief Technicians.

Quality Certification

Certified under GB/T 19001-2016/ISO 9001:2015 Quality Management System.

Corporate Philosophy

Driven by customer-centric innovation. We uphold integrity, foster collaborative partnerships, and pursue sustainable growth with like-minded stakeholders.

Key Products

Oscillating Hydraulic Cylinders 、 Hydraulic Lift-and-Rotate Worktables 、 Hydraulic Power Units.

Target Industries

CNC Machine Tools 、 Petroleum Equipment 、 Mining Machinery 、 Construction Machinery 、 Defense & Military.

Major Clients

XCMG, Huatai Mining & Metallurgy, Zhonggui Heavy Industry, Lanhai Intelligence -Global Exports: South Korea, Japan, Europe, and the Americas.

SINCE
2001

Factory Space
10000 m²

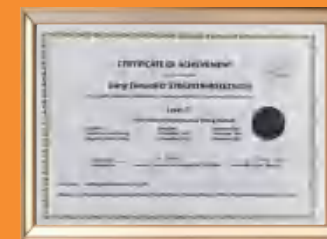
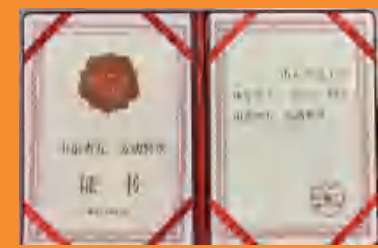
HONOR CERTIFICATEHONORPATENT

Utility Modrl Patent Design Patent

20⁺ **10⁺**

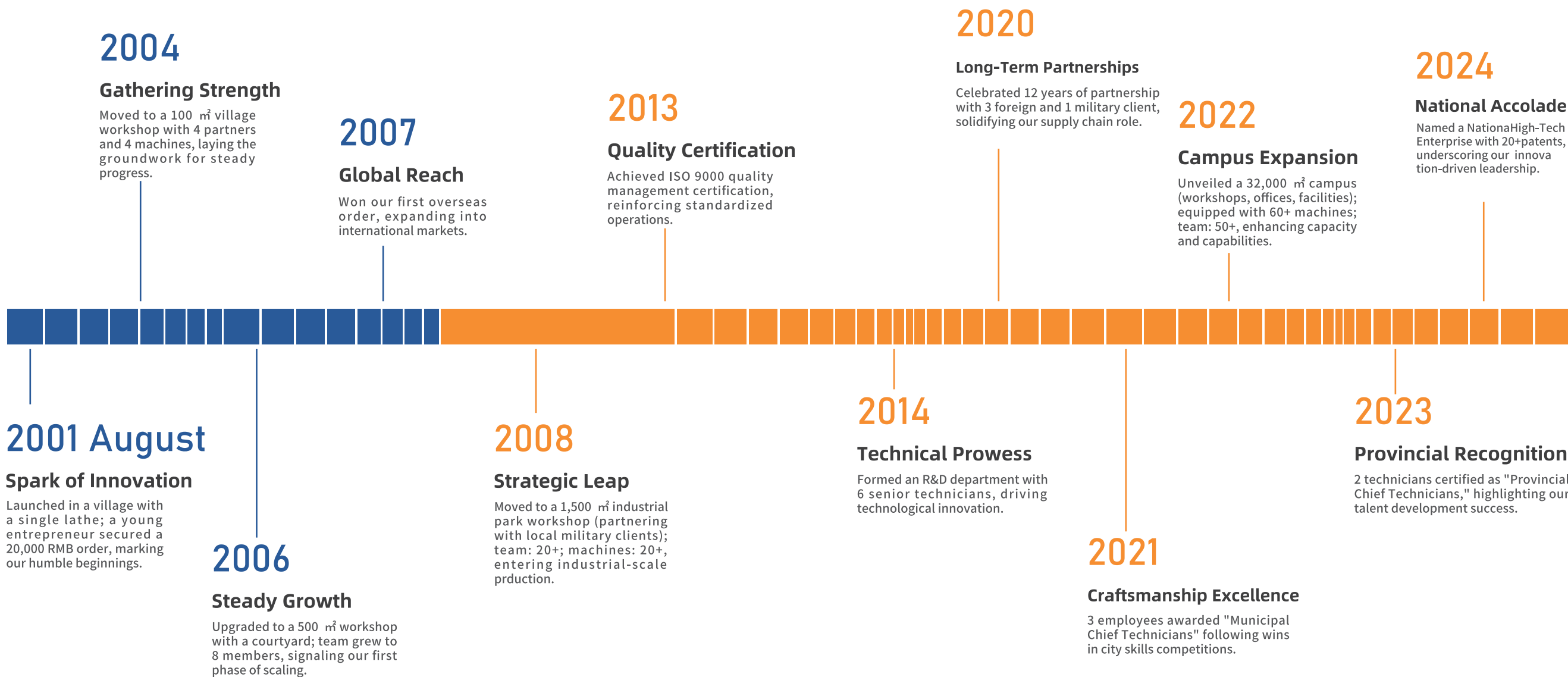
Invention Patent

5⁺



HONOR

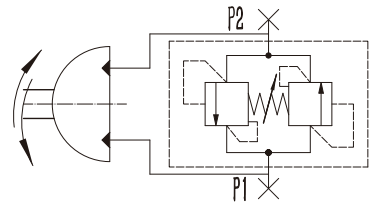
DEVELOPMENT HISTORY



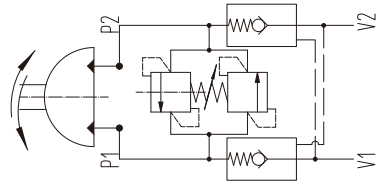
Product Application



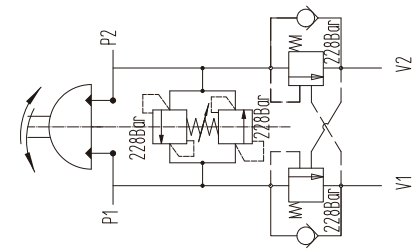
Valve block diagram



All Excavator Hydraulic Tilt Cylinder incorporate built-in cross-over relief valves. The set pressure is 228 BAR $\pm$ 21 BAR, providing impact resistance and overload protection.

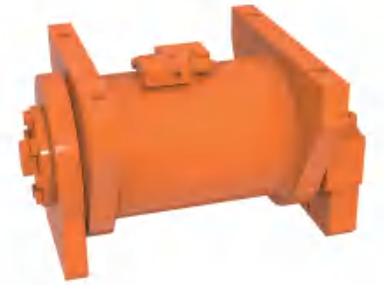


For excavators $\leq$ 2 tons: The Hydraulic Tilt Cylinder module includes a hydraulic lock (pilot-operated check valve) and a cross-over relief valve. The cross-over relief valve set pressure is 228 BAR $\pm$ 21 BAR. Functions include impact resistance, overload protection, and burst protection (hose failure prevention)



For excavators > 2 tons:
The Hydraulic Tilt Cylinder module consists of a double-acting counterbalance valve and a built-in cross-over relief valve. The double-acting counterbalance valve has a pilot ratio of 3:1 and a set pressure of 250 BAR $\pm$ 21 BAR. The cross-over relief valve set pressure is 228 BAR $\pm$ 21 BAR. Functions include impact resistance, overload protection, smooth movement, and burst protection

Valve block diagram



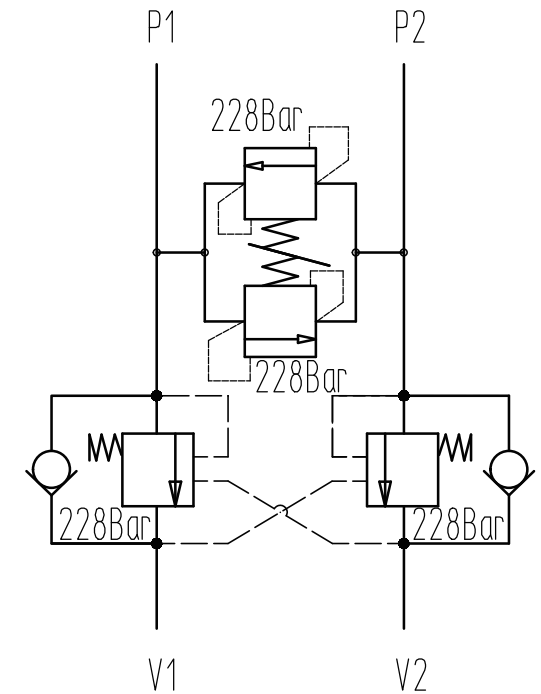
BQ8 (with balancing valve)

BQ5 (with balancing valve)

BQ16 flange with balancing valve

Principle diagram of balance valve

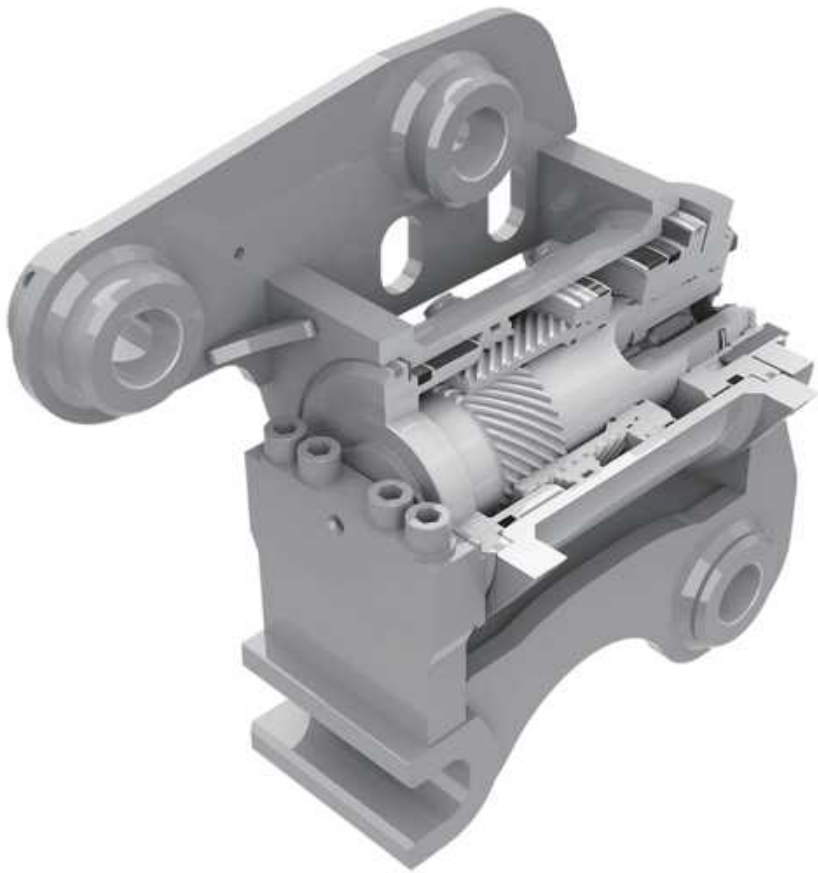
The factory offers an optional counterbalance valve. In the event of hydraulic line failure, this valve prevents cylinder rotation; when the load crosses the center position, it controls cylinder rotation; and it protects the cylinder from damage caused by excessive torque loads.



Counterbalance Valve + Cross-over Relief Valve

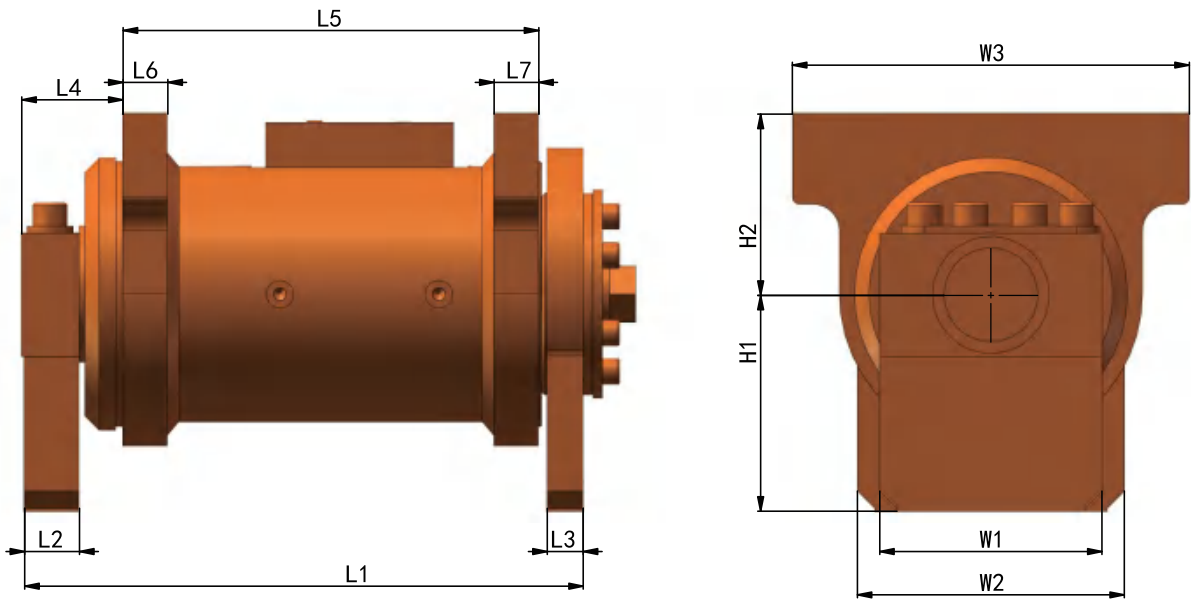
Optional Hydraulic Schematic with Counterbalance Valve

Product specification series



BQ5 Series Hydraulic Excavator Tilt Cylinder							
Model	Maximum tonnage of excavator (t)	Drive torque (NM)	Maintain torque (NM)	Weight (Kg)	Displacement (cc)	Flow rate (L/min)	Rotation angle (°)
BQ5-009-180QDYJ	1.8	900	2400	21	234	2-4	180
BQ5-028-180SDYJ	4.8	2800	6800	65	688	5-16	
BQ5-047-180SDYJ	6.8	4700	12000	84	1180	11-32	
BQ5-073-180SDYJ	9.1	7300	18000	135	1870	15-44	
BQ5-105-140SDYJ	13	10500	26000	210	2086	19-58	
BQ5-140-140SDYJ	20	14000	35000	270	2754	26-78	140
BQ5-180-140SDYJ	27	18000	46000	320	3618	35-105	
BQ5-240-140SDYJ	34	24000	59000	430	4539	45-136	

Product specification series



BQ5 Series Hydraulic Excavator Tilt Cylinder												
Model	L1	L2	L3	L4	L5	L6	L7	H1	H2	W1	W2	W3
BQ5-009-180SDYJ	216	12.7	12.7	14.3	211	25.4	25.4	104	88.9	96	96	160
BQ5-028-180SDYJ	318	37	22	54	238	26	26	130	113	154	154	240
BQ5-047-180SDYJ	387	38	25	70	288	31	31	150	125	154	185	275
BQ5-073-180SDYJ	454	38	32	75	345	32	32	170	140	190	206	325
BQ5-105-140SDYJ	536	44	32	64	437	38	38	175	151	228	280	420
BQ5-140-140SDYJ	533	51	38	80	408	44	44	187	160	254	292	445
BQ5-180-140SDYJ	640	50	38	96	496	49	49	225	190	267	305	430
BQ5-240-140SDYJ	640	57	44	92.5	492	57	57	241	205	318	267	530

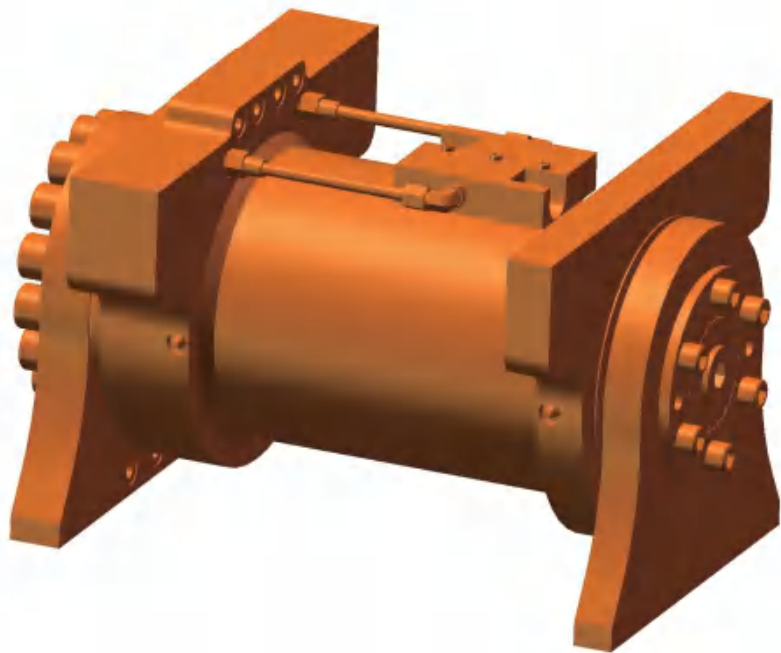
The specific external dimensions shall be subject to the actual provided external drawing.

Product specification series

Introduction to the second generation excavator cylinder of Buzaki

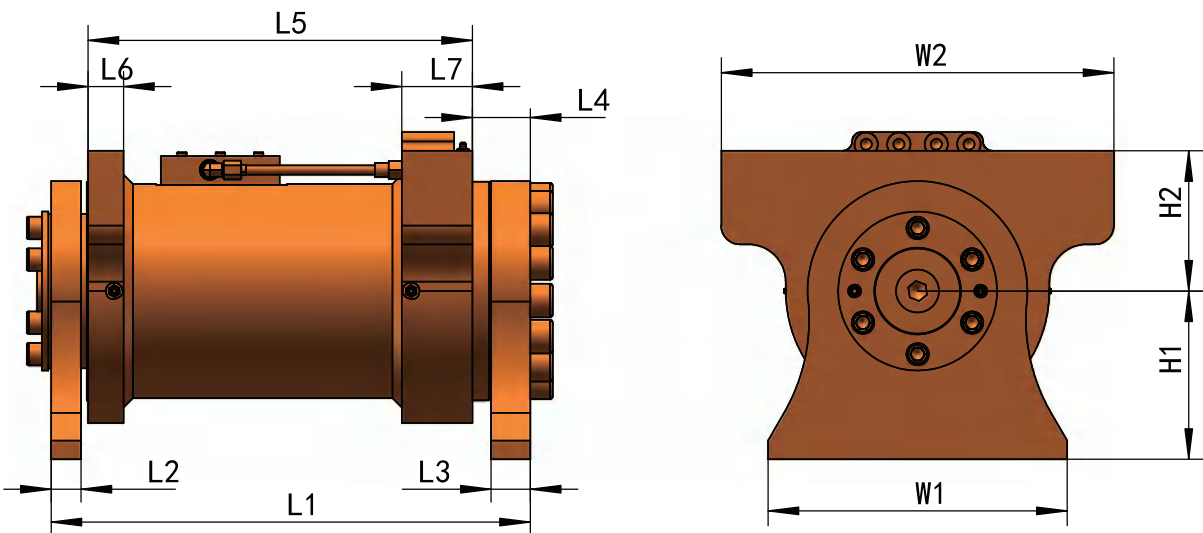
Compared to the commonly used linear excavator attachments swing mechanism on the market, the first generation swing excavator cylinder has a smaller size and larger swing angle, meeting customers' needs for improving the flexibility of excavator attachments. However, in the promotion of the first generation swing oil cylinder of excavators, we found that although the attachments have been made very flexible in the swing mechanism, users often interfere with the oil pipe around the swing mechanism during use, which affects work efficiency.

In response to this phenomenon, we have launched the second-generation excavator swing quick change. We have added a rotating oil circuit for users to pass oil on the basis of the first generation of digging cylinders, and also integrated our own pipeline into one side of the cylinder to ensure a better user experience while keeping the volume unchanged.



BQ16 Series Hydraulic Excavator Tilt Cylinder									
Model	BQ16-009 -180SDYJ	BQ16-016 -180SDYJ	BQ16-028 -180SDYJ	BQ16-047 -180SDYJ	BQ16-070 -180SDYJ	BQ16-090 -140SDYJ	BQ16-125 -140SDYJ	BQ16-160 -140SDYJ	BQ16-210- 140SDYJ
Maximum tonnage of excavator (t)	2	4	4.8	6.8	9.1	13	20	27	34
Drive torque(NM)	900	1600	2300	4200	6700	9000	12500	16000	21000
Maintain torque(NM)	2400	3400	6800	12000	18000	26000	35000	46000	59000
Weight (Kg)	21	38	71	91	143	230	300	340	470
Displacement(cc)	232	492	620	1062	1683	1877	2479	3271	4668
Flow rate (L/min)	3-5	3-5	5-6	11-32	15-44	19-58	26-78	35-105	45-136
Rotation angle (°)	180			140					

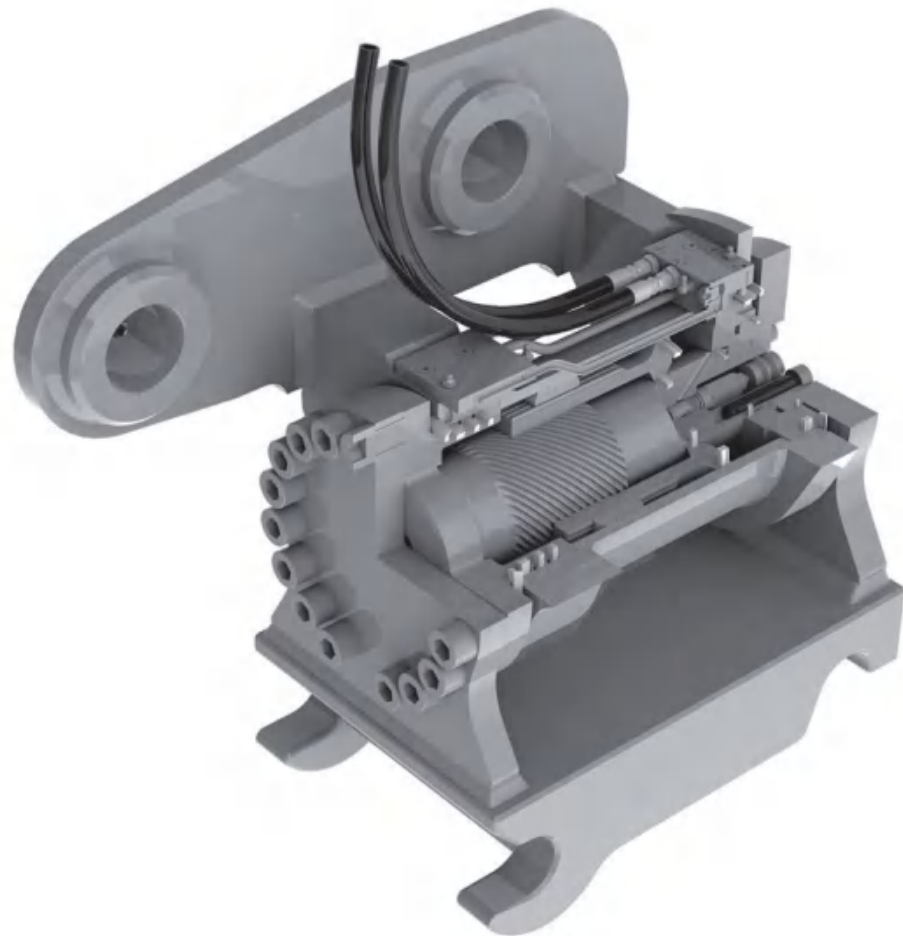
Product specification series



BQ16 Series Hydraulic Excavator Tilt Cylinder											
Model	L1	L2	L3	L4	L5	L6	L7	H1	H2	W1	W2
BQ16-009-180SDYJ	283.4	13.5	13.5	43.6	216.4	25.4	50	104	88.9	90	190
BQ16-016-180SDYJ	313	16	20	30.2	258.3	24	60.3	110	90	120	180
BQ16-028-180SDYJ	357	20	22	54	277	26	65	130	113	154	240
BQ16-047-180SDYJ	404	22	30	62	314.5	31	60.3	150	125	185	261
BQ16-070-180SDYJ	427	30	30	61.7	329	32	63	160	140	209	297
BQ16-090-140SDYJ	500	35	35	71	389	38	65	180	150	242	400
BQ16-125-140SDYJ	517	35	35	72	403	44	65	202	160	292	445
BQ16-160-140SDYJ	591	45	45	77	515	49	90	225	190	305	430
BQ16-210-140SDYJ	630	45	45	82	494	52	82	210	200	310	500

The specific external dimensions shall be subject to the actual provided external drawing.

Product specification series



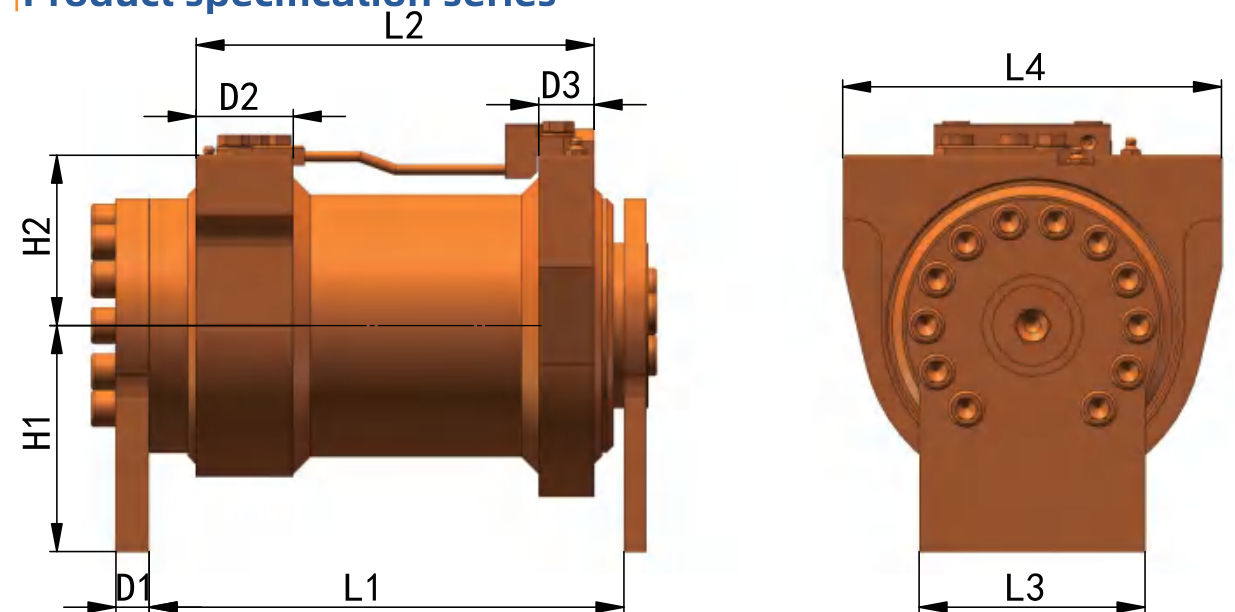
BQ8 Series Hydraulic Excavator Tilt Cylinder

Model	Maximum tonnage of excavator (t)	Drive torque (NM)	Maintain torque (NM)	Weight (Kg)	Displacement (cc)	Flow rate (L/min)	Rotation angle (°)
BQ8-009-180SDYJ	1.8	900	2400	25	234	2-4	180
BQ8-016-180SDYJ	3	1630	6425	38	623	6-19	
BQ8-026-180SDYJ	5	2600	9300	48	831	8-25	
BQ8-032-180SDYJ	5.5	3200	7200	54	1056	8-25	
BQ8-043-180SDYJ	7	4375	14850	83	1262	13-38	
BQ8-70-180SDYJ	8	7000	20000	92	2100	19-58	
BQ8-90-180SDYJ	12	9000	26100	148	2600	26-78	
BQ8-150-134SDYJ	20	15000	4300	201	3200	35-105	134
BQ8-200-120SDYJ	26	20000	58000	272	4300	41-126	120
BQ8-280-120SDYJ	34	28000	75000	376	5500	51-165	
BQ8-450-120SDYJ	50	44300	989500	546	12000	102-350	

Product specification series



Product specification series



BQ8 Series Hydraulic Excavator Tilt Cylinder

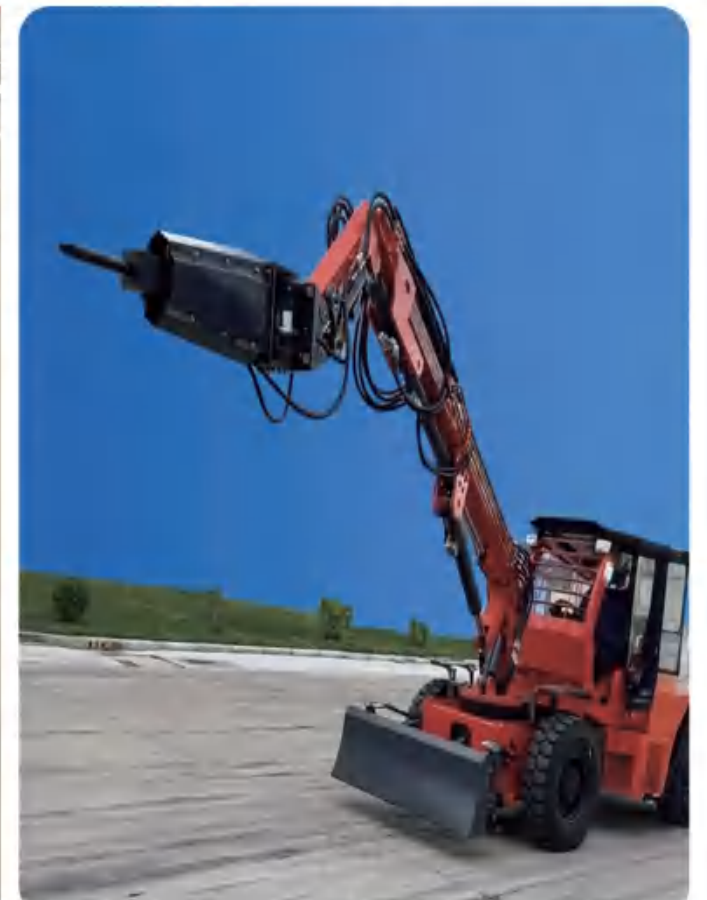
Model	Maximum tonnage of excavator (t)	H1 (mm)	H2 (mm)	L1 (mm)	D1 (mm)	L2 (mm)	D2 (mm)	D3 (mm)	L3 (mm)	L4 (mm)
BQ8-009-180SDYJ	1.8	104	85	239	12.7	221.4	25	25	96	160
BQ8-016-180SDYJ	3	110	82	242.1	19.1	217.1	55.9	31.8	120	190
BQ8-026-180SDYJ	5	130	93	271.1	19.1	229	55.9	31.8	130	218
BQ8-032-180SDYJ	5.5	145	105	307	20	282.1	30	30	130	223
BQ8-043-180SDYJ	7	145	114	343.3	24.4	290.2	62.2	43.2	160	254
BQ8-070-180SDYJ	8	150	115	385	25	340.6	40	40	160	250
BQ8-090-180SDYJ	12	170	155	457	30	405.2	42	42	180	320
BQ8-150-134SDYJ	20	180	160	479	30	451.4	50	50	200	385
BQ8-200-120SDYJ	26	220	167	495	40	466	60	60	220	398
BQ8-280-120SDYJ	34	220	180	546	45	479	65	65	330	440
BQ8-450-120SDYJ	50	346	277	623	55	535	73	73	400	550

The specific external dimensions shall be subject to the actual provided external drawing.

Application example



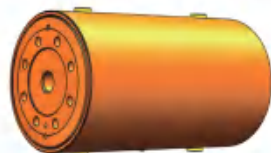
Application example



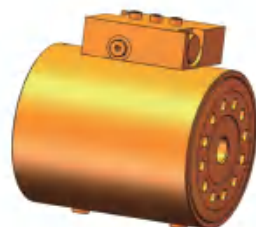
Other product series



BQ8 (带平衡阀)



BQ1-006-360QHWJ



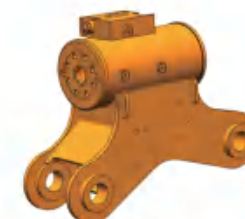
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BQ2-009-180QMYJ-H



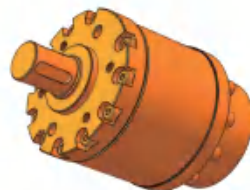
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BQ17-009-90-D



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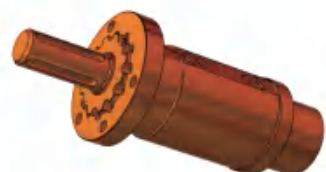
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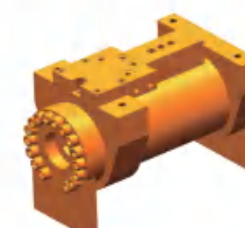
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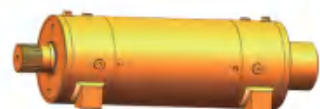
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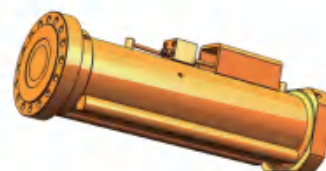
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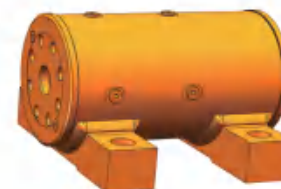
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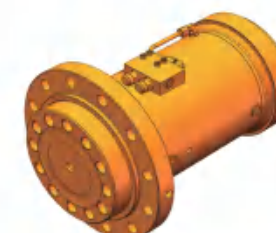
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