Disassembly and Assembly

Disassembly

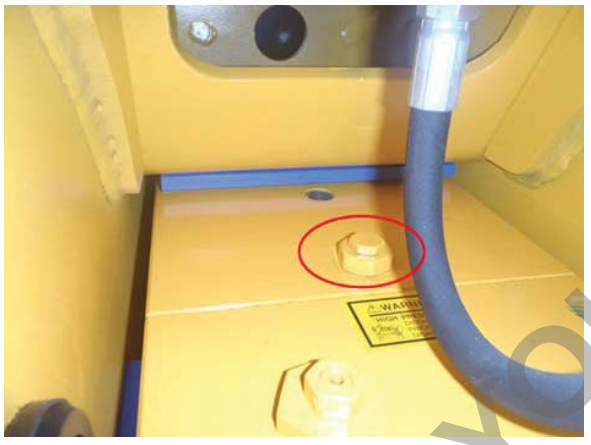
Accumulators Discharge

Important: *Wear protective gloves and safety glass.*

Low Pressure Accumulators

Use the JCB part 332/A2236 charging kit to discharge the accumulator.

1 Remove the gas charging valve plug from the head.



P046730-11

Fig 19.

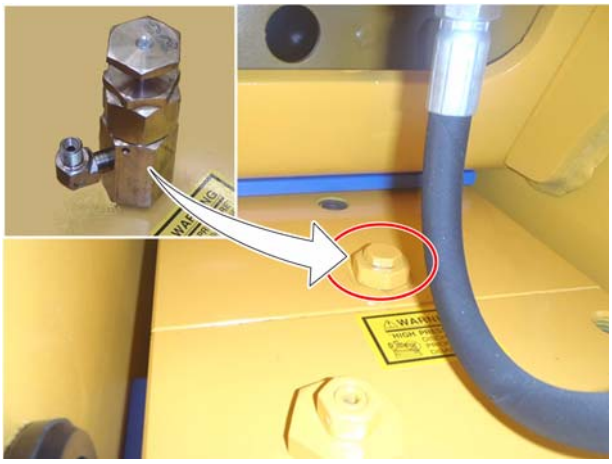
2 Make sure the pin in the gas charge adaptor is screwed in.



P046730-10

Fig 20.

3 Connect the gas charge adaptor.



P046730-13

Fig 21.

4 Slowly turn the hand wheel on the gas charge adaptor to dischage the accumulator.

High Pressure Accumulators (HM026T - HM054T)

Use the JCB part 332/A2236 charging kit to discharge the accumulator.

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Tightening Way

In case of no power torque wrench, refer to the below table for tightening.

Model	Through Bolt (N.m)	Turning (N.m)							
		1 Step		2 Step		3 Step		4 Step	
		Setting	Turning	Setting	Turning (from 0 flat)	Setting	Turning (from previous step)	Setting	Turning (from previous step)(1)
HM012T	294	147	-	-	-	-	-	294	-
HM018T	441	196	-	-	-	-	-	441	-
HM026T	490	196	-	-	-	-	-	490	-
HM033T	490	196	-	-	-	-	-	490	-
HM049T	490	490	-	-	-	-	-	931	2.5/6
HM054T	931	490	-	-	-	-	-	931	2.5/6
HM080T	1274	490	-	882	1/6	-	-	1274	2.2/6
HM090T	1568	490	-	882	1/6	-	-	1568	2.2/6
HM120T	2352 (2646)	490	-	882	0.5/6	1470	1.5/6	2352	1/6 (1.4/6)
HM160T	2646 (3038)	490	-	882	0.5/6	1470	1.5/6	2646	1/6 (1.7/6)
HM180T	3234 (3724)	490	-	1470	1.5/6	2450	1.5/6	3234	0.5/6 (1/6)
HM200T	3234 (3724)	490	-	1470	1.5/6	2450	1.5/6	3234	0.5/6 (1/6)
HM270T	3822 (4410)	490	-	1470	1/6	2450	1.5/6	3822	1.2/6 (1.8/6)
HM380T	6076 (6958)	490	-	1960	1/6	3920	2/6	6076	1/6 (1.3/6)

(1) Value in brackets () is applicable to Middle East, India and Mexico.Turning flat (nut degree) on 3rd step and 4th step should be turned from previous step.

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Fault Finding

Problem	Cause	Solution	Remarks
The Breaker does not start or Run	Connected back wards	Check connections: P = pump/pressure line T = tank/return line	
	Auxilliary ball valve closed	Check connections	Use retainer to open lock
	Switch spool siezed	Contact your JCB dealer	Inspect
	No load on tool	Blank fire protection needs load on tool	
		Non genuine tool	
	Too low pressure setting on carrier machine	Contact your JCB dealer	Inspect
	Too much pressure in low pressure accumulator	Piston can not lift	
	High Back pressure	Piston can not lift	Check return line and renew filter
	Oil leaked into low pressure accumulator	Piston can not lift	
	Piston failure	Contact your JCB dealer	
The Breaker runs slow	Too much pressure in low pressure accumulator	Forcing oil over relief valve	Combined with overheating
	Low relef valve setting	Low flow	
	High pressure accumulator high on gas pressure	Forcing oil over relief valve	
	Incorrect restrictor	Too small	Forcing oil over relief valve
	Insufficient oil flow	Correct pump mode	
		Pilot pressure valve pressure setting	
	Ball valve partially closed	Check	Use retainer to lock open
	Oil leaked into low pressure accumulator	Check	
	Correct setting of adjuster valve	Check	
	Check stroke valve	Adjust	

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Specification

Machine Specification

JCB MODEL		HM012T	HM018T	HM026T	HM033T	HM049T	HM054T	HM080T	HM090T	HM120T	HM160T	HM180T	HM200T	HM270T	HM380T
Operating Weight	kg	120	187	260	330	495	545	800	900	1,150	1,580	1,800	2,000	2,700	3,800
	lb	265	412	573	728	1,091	1,202	1,764	1,984	2,535	3,483	3,968	4,409	5,952	8,378
Overall Length	mm	1,135	1,450	1,513	1,639	1,894	2,062	2,125	2,234	2,442	2,589	2,775	2,906	3,085	3,580
	inch	44.69	57.09	59.57	64.53	74.6	81.18	83.66	87.95	96.14	101.93	109.25	114.41	121.46	140.94
Tool Diameter	mm	45	57	70	75	80	90	95	105	115	135	135	145	155	175
	inch	1.77	2.24	2.76	2.95	3.15	3.54	3.74	4.13	4.53	5.31	5.31	5.71	6.1	6.89
Carrier Relief Valve Setting		-	-	-	-	-	-	-	210	210	210	210	210	230	210
		-	-	-	-	-	-	-	3,000	3,000	3,000	3,000	3,000	3,300	3,000
Operating Pressure	bar	90~120	90~120	110~165	120~165	140~170	140~170	140~180	140~190	140~190	160~190	160~190	160~190	160~190	150~190
	psi	1280~1700	1280~1700	1565~2350	1700~2350	1990~2420	1990~2420	1990~2560	1,990~2700	1,990~2700	2,275~2700	2,275~2700	2,275~1700	2,275~2700	2,130~2700
JCB Recommended Data Plate Pressure		90~120	90~120	110~165	120~165	140~170	140~170	160~170	160~170	160~170	160~170	160~170	160~170	160~170	150~170
Oil Flow	l/m	12~25	23~70	29~65	34~76	38~85	42~94	63~102	68~119	85~127	115~155	119~161	127~178	170~238	204~272
	gal/min	3.2~6.6	6.1~18.5	7.7~17.2	9~20.1	10.0~22.5	11.1~24.8	16.4~27	18~31.5	22.5~33.5	30.5~41	31.5~42.5	33.5~47	45~63	54~72
Blow Rate Low	bpm	550~1000	600~1500	380~1000	380~900	400~800	350~700	350~600	350~550	320~550	320~480	340~450	270~400	230~400	230~330
Blow Rate High		-	-	-	-	600~1100	490~1000	600~900	600~900	400~700	400~600	420~550	400~700	270~470	270~500
Low Pressure Accumulator	bar	10~14	14~16	10~14	16~18	10~14	10~14	10~14	10~14	14~16	14~16	14~16	14~16	14~16	14~16
	psi	142-199	199-228	142-199	228~256	142~199	142~199	142~199	142~199	199~228	199~228	199~228	199~228	199~228	199~228

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77

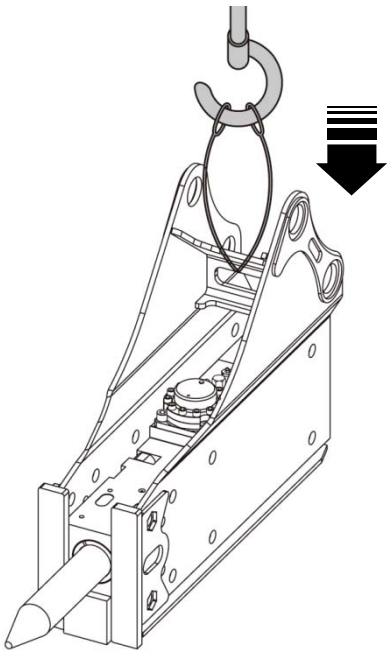
Part Numbers

Breaker Models

MODEL	MACHINE FITMENT	PICKUP	PART NUMBER	COMPRISES OF	
				Breaker	Installation Kit
HM012T	Micro	25mm x 90mm CRS	980/A6283		
	Universal	Flange 242 x 242mm	980/A6282		
HM018T	802 , 8025, 8030, 8035, 804 (130crs only)	35mm x 130mm CRS	980/B0260		
	8020	25mm x 90mm CRS	980/B0261		
	1CX	35mm x 130mm CRS	980/B0263		
	Universal	Flange 300 x 260mm	980/B0262		
HM026T	803, 8035 804	35mm x 130mm CRS	980/B0254		
	47Z,51C,55Z&56C	45mm x 245mm	980/B0259		
	2CX 3CX Compact	1 1/4" x 231mm CRS	980/B0256		
	Universal	Flange 420 x 360mm	980/B0255		
HM033T	8052 - 8086 65R, 67C, 85Z 86C 85Z 86C 90Z 100C	1 3/4" x 343mm CRS	980/B0251		
	48/55ZTS/51RTS/57CTS	45mm x 245mm	980/B0258		
	3CX, 4CX, 5CX	1 3/4" x 343mm CRS	980/B0250		
	Universal	Flange 480 x 320mm	980/B0253		
HM054T	8080 - 8086 85Z 86C 85Z 86C 90Z 100C	1 3/4" x 343mm CRS	980/B0264		
	4CX, 5CX	1 3/4" x 343mm CRS	980/B0265		
	Universal	Flange 480 x 320mm	980/B0265		
HM080T	JS130 - 145 Including JZ Varients	65mm x 385mm CRS	980/B0200	980/B0222	980/B0235
	Universal	Flange 580 x 420mm	980/B0222		
HM090T	JS130 - 145 Including JZ Varients	65mm x 385mm CRS	980/B0201	980/B0223	980/B0235
	JS160 - 190	80mm x 435mm CRS	980/B0202	980/B0223	980/B0236
	JS 200W	80mm x 450mm CRS	980/B0203	980/B0223	980/B0237
	Universal	Flange 580 x 420mm	980/B0223		
HM120T	JS 160 - 190	80mm x 435mm CRS	980/B0204	980/B0206	980/B0238
	JS200W	80mm x 450mm CRS	980/B0205	980/B0206	980/B0239
	Universal	Flange 580 x 420mm	980/B0206		
HM160T	JS 200 - 220 Including JZ Varients	80mm x 450mm CRS	980/B0207	980/B0209	980/B0239
	JS 240/260	90mm x 490mm CRS	980/B0208	980/B0209	980/B0240
	Universal	Flange 580 x 420mm	980/B0209		

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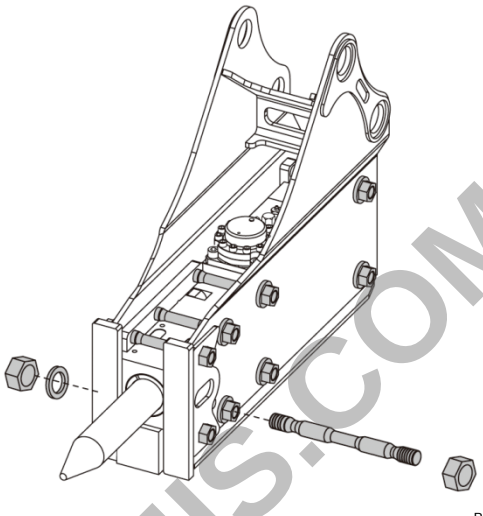
Fig 31.

3 Remove the hoses.

4 Put the caps to the open ports and hoses.

5 Record the hose connections to the associated **P** and **T** on the breaker power cell (due to the variety of terminations on machine).

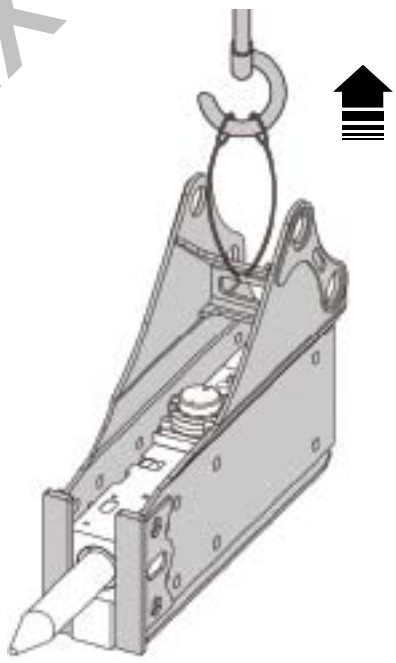
6 Remove the side bolts.



P047460-08

Fig 32.

7 Lift the side plates away.



P047460-09

Fig 33.

Power Cell

1 Install the eyebolt in the top of the head.

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Final Assembly

Installment of Power Cell into Housing

1 Place the housing over a vertical bar or tube welded to a plate.

2 Inspect all the internal wear pads and buffers for wear. Refer the table for wear limits and replace if necessary.

3 Install an eyebolt to the top of the head.

4 Lift the power cell and lower into the breaker housing. Be careful not to dislodge the side wear pads.

5 Remove the eyebolt.

6 Install the upper buffer.

7 Install the power cell holder and its associated wear pad.

8 Use a suitable lifting strap to lift the hanger bracket.

   a HM012T to HM054T Model : Attach with nuts, bolts and nordlock washers.

   b HM080T to HM380T Model : Inspect heli-coil inserts, replace if necessary and attach with socket cap bolts and nordlock washers.

9 Tighten to the correct torque value. Refer to **Table 2**.

Table 2.

Model	Bolt Size	Torque Nm
HM012T	M16	200
HM018T	M18	250
HM026T	M18	250
HM033T	M18	250
HM054T	M18	250
HM080T	M24	690
HM090T	M24	690
HM120T	M24	690
HM160T	M24	690
HM180T	M24	690
HM200T	M24	690
HM270T	M36	2400
HM380T	M36	2400

10 For models HM080T and above, connect the grease hose from the power cell to the auto greaser.

11 Remove the caps from the breakers power cell ports.

12 Feed the hoses through the front panel and connect the hoses. All breakers use the same hose for feed and return but the adaptor or **QRC** fitted on the hose makes it the feed or return hose. The ports on the power cell are marked with **P** and **T**.

13 Tighten to the torques as specified in the **Hose Torque Settings**.

Installment of Power Cell into Side Plates

1 Place the power cell on the three blocks. Make sure the blocks should fit between the side plates and carry the weight of the power cell.

2 Install the side plates.

3 Install the side bolts.

4 Tighten the bolts to a torque value of 10Nm.

5 Check the following:

   a Alignment of the pivot bores

   b Installment of dipper and tipping link pivot pins

6 Tighten to the specified torque value.

7 Make sure that the pivot bores are aligned.

8 Install the breaker tool. Refer to the **Operator Manual** for more details.

9 Install the hoses. Make sure that the correct QRC on the hose connects to the correct port.

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Problem	Cause	Solution	Remarks
Loss of breaking power	Loss of precharge in HP accumulator	Check pressure	If problem persists inspect accumualtor - also hose vibration
		Check for debris	Strip breaker and clean
	Loss of precharge in LP accumulator	Check pressure	If problem persists inspect piston and seal
	Low flow	Carry out flow and pressure check on machine	Worn machine or faulty ARV/MRV
		Machine in wrong setting	See opertaor manual
	Ball valve partially closed	Check	Use retainer to lock open
			May lead to over heating
	Over heating	Check cooling capacity	Drop in oil viscosity
		Check oil grade	Incorrect oil viscosity
		Worn piston and bore	High internal leakage
		Ball valve partially closed	Check and lock open if necessary
	Oil degraded	Loss of viscosity / increased leakage	Take oil sample for analysis
		Over greasing allowing grease past piston seal	
	Loss of precharge in low pressure accumulator	Check and adjust if neccesary	Always check at the correct temperature and recheck 5 minutes later
Hose vibration	Loss of precharge in HP accumulator	Check / Adjust and re-check 5 minutes later	If problem persists inspect HP accumualtor

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