

# Operating Manual & Parts List for **DMQ SERIES QUICK COUPLER**

DMQ16, DMQ27, DMQ35, DMQ50, DMQ70, DMQ80, DMQ140, DMQ170,  
DMQ230, DMQ290, DMQ360, DMQ450, DMQ500, DMQ800



**DAEMO**

DAEMO ENGINEERING CO.,LTD.

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- Daemo Engineering Co., Ltd. would like to thank you for having interest in our products.
- Since 1989, Daemo engineering Co., Ltd. has developed a state-of-the-art hydraulic attachments. Our products have played a major role in quarries and various construction sites. Such as building disassembly, braking up roads, land development, sewage system, and all kinds of constructional demolition sites. Especially, the Quick Coupler has been designed for the safety of the operator and those around with the updated technology and tripled safety device.
- Daemo has manufactured various attachments with updated technology and well skilled workmanship. For example, the hydraulic Quick Coupler will provide excellent satisfaction for the user with simple structure and excellent maintenance function because it is made up of small number of parts.
- Excellent durability, reliability, and trouble-free operation.  
Resulting in much more profit and good performance for your job.
- Although we make our products that we can be proud of, if you do use our products properly based on our manual, there maybe unexpected accidents or malfunctions, consequently the performance and efficiency of the product will drop down sharply.  
So you must read this manual carefully and thoroughly to keep operating well and it needs periodical maintenance and correct operation for optimal results.  
We do not warranty any damages, malfunctions, and injures caused by your misuse.
- First of all, you must read and study this manual for your safety, and other around the work site. It will inform you of unexpected hazards and how to avoid them.  
If you have questions about the products or manual, please contact Daemo or our agents. Every time you want to replace any of the parts, please make sure you use Daemo genuine parts.
- We wish you get more profit by purchasing and using our products, and we would like to express our deep thanks again for your purchasing.

## EC Declaration of Conformity

According to EC Machinery Directive 98/37/EC

We hereby declare 1), **DAEMO ENGINEERING CO., LTD.**  
**No 515, 2Ba, Siwha Industrial Complex, Jeongwang-dong,**  
**Siheung-si, Gyeonggi-do, Korea**

That the following described machine in our delivered version complies with the appropriate basic safety and health requirement of the EC Machinery Directive 98/37/EC based on its design and type, as brought into circulation by us. In case of alteration of the machine, not agreed upon by us, this declaration will lose its validity.

**Description of the machine/machinery part : QUICK COUPLER**

**Machine type :**

**Serial Number :**

**Year Of Construction :**

**Applicable EC Directives: EC Machinery Directive(98/37/EC)**

**Applicable Standards :**    **EN ISO 12100-1:2003**  
                                      **EN ISO 12100-2:2003**  
                                      **EN 982:1996**  
                                      **EN 1050:1996**  
                                      **PrEN 13778:1999**

**Date/Authorized Signature :**



**Title of signatory:**

**Won Hae Lee / Chairman**

### Form requirements :

- Authorized representative
  - Fill in block letters or typescript
  - Official language suitable for user's level
  - Manufacturer's full address should be included.
  - Legally binding fabricator's signature or a person's signature empowered to sign on behalf of the manufacturer at least
- 1) The name and address of the representative who is authorized in the manufacturer
  - 2) The complete list of applied standards and technical specifications
  - 3) Provided that not corresponding harmonized standards are available yet.

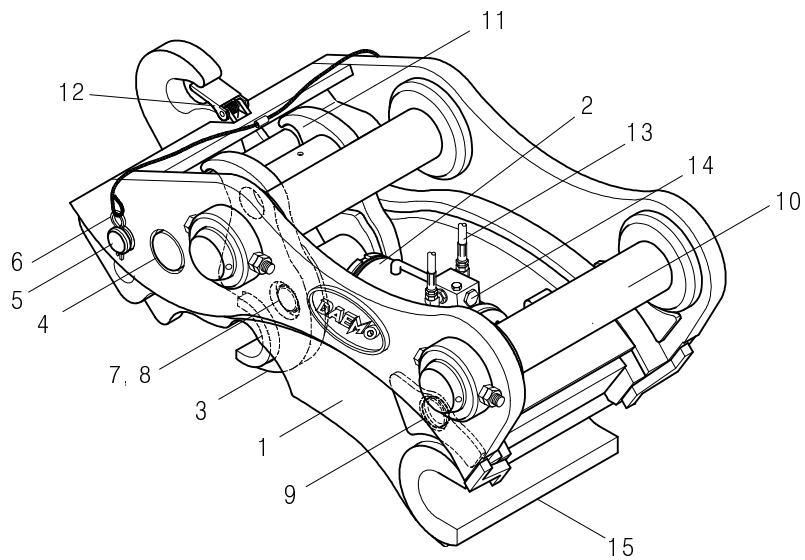
## 1.1 DMQ Quick Coupler Series

1-1) Product (Open Hook Type, PUSH TYPE)

**DMQ16, DMQ27, DMQ35, DMQ50, DMQ80**

**DMQ140, DMQ170, DMQ230**

1-2) Main parts Composition



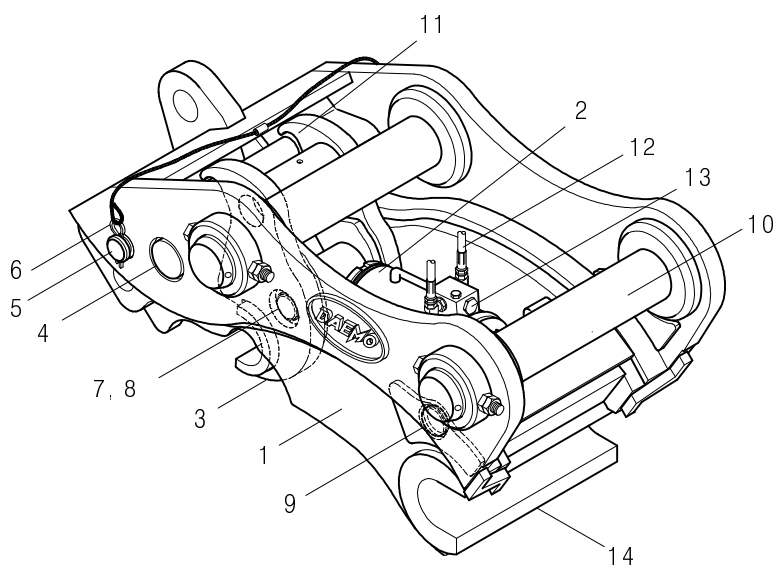
No.	Parts Name	No.	Parts Name
1	Body	9	Frame Pin
2	Cylinder	10	Bracket Pin
3	Hitch	11	Safety Bar
4	Hitch Pin	12	Latch of Safety
5	Safety Pin	13	Hydraulic Hose
6	Snap Pin	14	Check Valve
7	Cylinder Pin	15	Fixed Hook
8	Snap Ring		

2-1) Product (Closed Hook Type, PUSH TYPE)

**DMQ16, DMQ27, DMQ35, DMQ50, DMQ80**

**DMQ140, DMQ170, DMQ230**

2-2) Main parts Composition



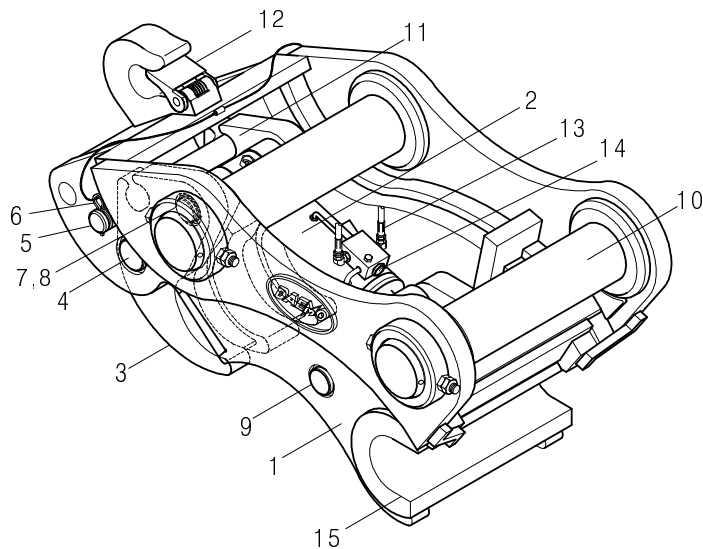
No.	Parts Name	No.	Parts Name
1	Body	8	Snap Ring
2	Cylinder	9	Frame Pin
3	Hitch	10	Bracket Pin
4	Hitch Pin	11	Safety Bar
5	Safety Pin	12	Hydraulic Hose
6	Snap Pin	13	Check Valve
7	Cylinder Pin	14	Fixed Hook

### 3-1) Product (Open Hook Type, PULL TYPE)

**DMQ50L, DMQ140L, DMQ230L, DMQ290**

**DMQ360, DMQ450, DMQ500, DMQ800**

### 3-2) Main parts Composition



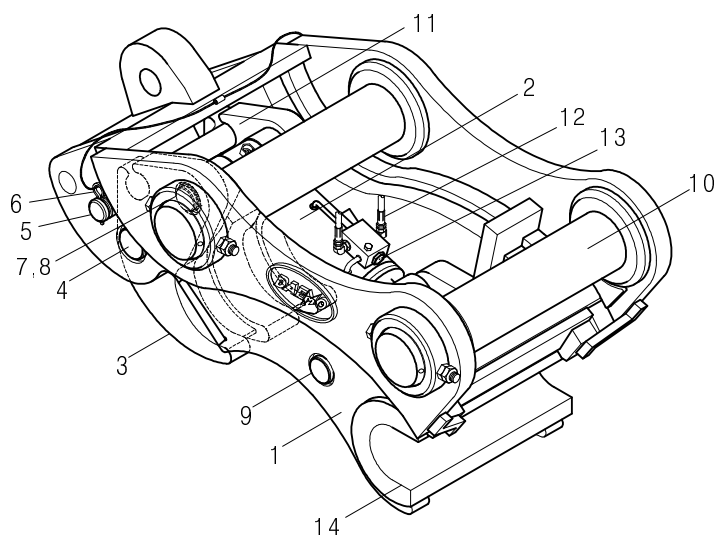
No.	Parts Name	No.	Parts Name
1	Body	9	Frame Pin
2	Cylinder	10	Bracket Pin
3	Hitch	11	Safety Bar
4	Hitch Pin	12	Latch of safety
5	Safety Pin	13	Hydraulic Hose
6	Snap Pin	14	Check Valve
7	Cylinder Pin	15	Fixed Hook
8	Snap Ring		

4-1) Product (Closed Hook Type, PULL TYPE)

**DMQ50L, DMQ140L, DMQ230L, DMQ290**

**DMQ360, DMQ450, DMQ500, DMQ800**

4-2) Main parts Composition



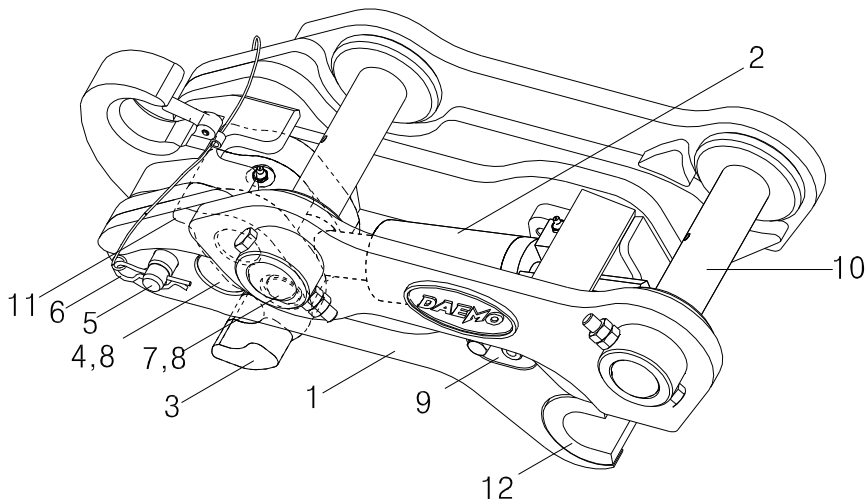
No.	Parts Name	No.	Parts Name
1	Body	8	Snap Ring
2	Cylinder	9	Frame Pin
3	Hitch	10	Bracket Pin
4	Hitch Pin	11	Safety Bar
5	Safety Pin	12	Hydraulic Hose
6	Snap Pin	13	Check Valve
7	Cylinder Pin	14	Fixed Hook



## 5-1) Product (Open Hook Type, MANUAL SCREW TYPE)

**DMQ70P**

## 5-2) Main parts Composition

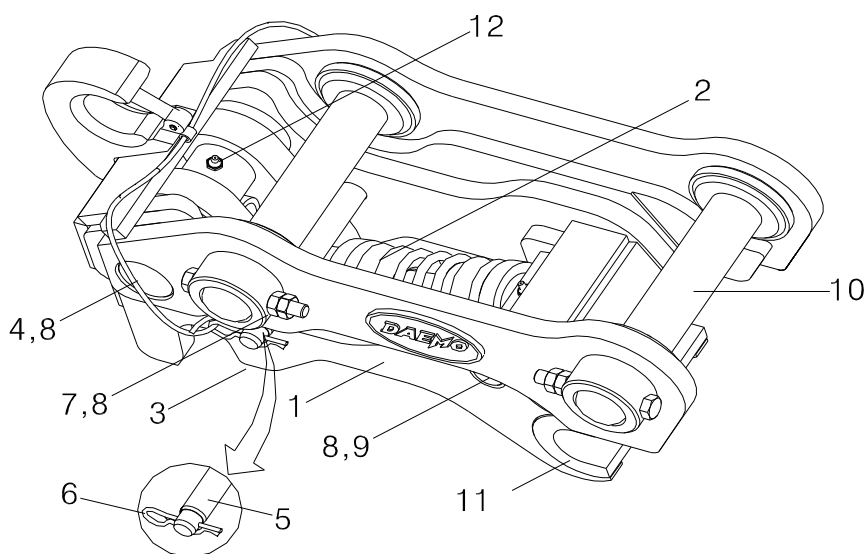


No.	Parts Name	No.	Parts Name
1	Body	7	Cylinder Pin
2	Cylinder	8	Snap Ring
3	Hitch	9	Frame Pin
4	Hitch Pin	10	Bracket Pin
5	Safety Pin	11	Safety Bar
6	Snap Pin	12	Fixed Hook

## 6-1) Product (Closed Hook Type, MANUAL WINCH TYPE)

**DMQ70P**

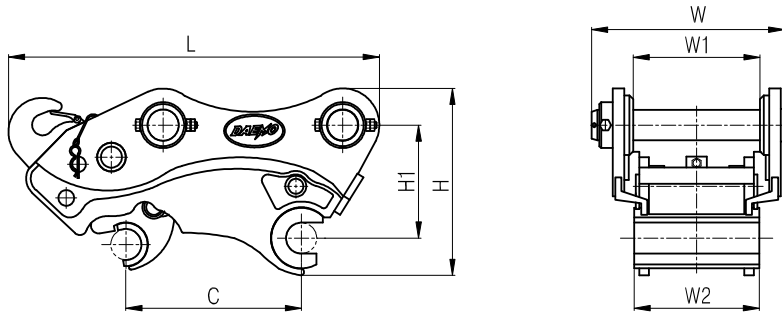
## 6-2) Main parts Composition



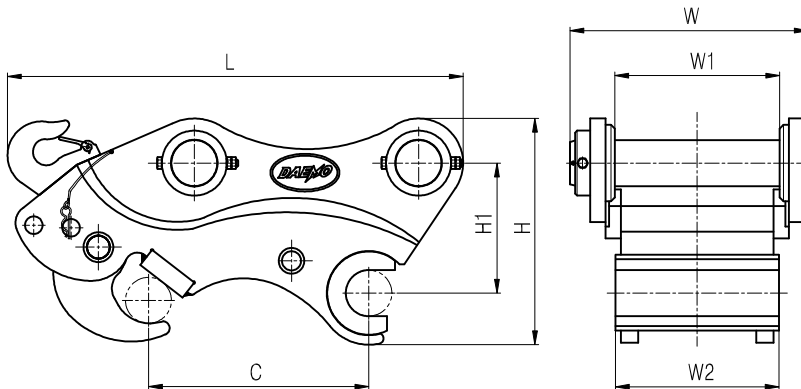
No.	Parts Name	No.	Parts Name
1	Body	7	Cylinder Pin
2	Cylinder	8	Snap Ring
3	Hitch	9	Frame Pin
4	Hitch Pin	10	Bracket Pin
5	Safety Pin	11	Fixed Hook
6	Snap Pin	12	Grease Nipple

## 2.1 Specification & Suitable Equipment (Open Hook Type)

- ▶ DMQ16, DMQ27, DMQ35, DMQ50, DMQ80  
DMQ140, DMQ170, DMQ230



- ▶ DMQ50L, DMQ140L, DMQ230L, DMQ290  
DMQ360, DMQ450, DMQ500, DMQ800



## 1) Hydraulic Quick Coupler specification (Open Hook Type)

MODEL CATEGORY		DMQ16	DMQ27	DMQ35	DMQ50		DMQ80	DMQ140		DMQ170
					PUSH	PULL		PUSH	PULL	
Operation Weight	Kg	31	38	40	72	77	92	184	202	352
Length (L)	mm	398	410	475	585	608	618	771	818	908
Height (H)	mm	244	257	263	287	306	325	389	422	496
Width (W)	mm	218	236	248	282	282	326	409	409	492
Width #1 (W1)	mm	119	135	135	164		195	259		307
Width #2 (W2)	mm	118	134	133	164	163	191	258	256	304
Installation distance (C)	mm	120~161	175~210	195~225	255~295	275~305	259~440	385~440	380~410	385~450
Diameter (D)	mm	30	35	40	45		55	65		70
Height between pins (H1)	mm	155	160	170	175	200	200	240	270	300
Pressure	Kg/cm <sup>2</sup>	40~210	40~210	40~210	40~210		40~210	40~320		40~320
Capacity	ℓ/min	10~20	10~20	10~20	10~20		10~20	10~20		10~20
Excavator model		R16-9	R27Z-9	R35Z-7 R35Z-9	R555-7 R555W-7 R555-7K R55-9 R55W-9		R80-7 R80CR-9	R110-7.9 R140LC-7.9 R140W-7.9 R145CR-9		R160LC-7.9 R170W-7.9 R180LC-7.9

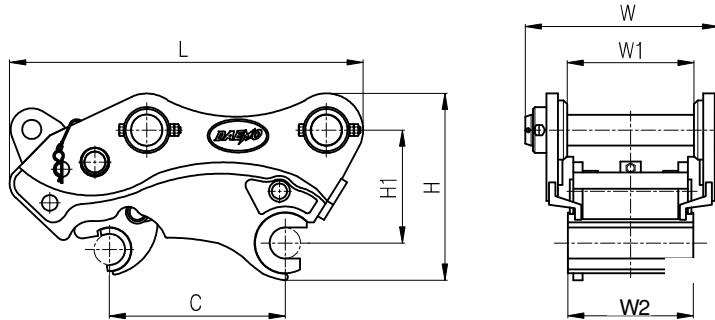
MODEL		DMQ230		DMQ290	DMQ360	DMQ450	DMQ500	DMQ800
CATEGORY		PUSH	PULL					
Operation Weight	Kg	374	334	556	680	692	719	1126
Length (L)	mm	971	958	1086	1165	1192	1192	1455
Height (H)	mm	488	494	544	582	587	607	780
Width (W)	mm	515	515	570	645	645	645	787
Width #1 (W1)	mm	330		399	430	430	430	532
Width #2 (W2)	mm	328	328	397	428	428	428	528
Installation distance (C)	mm	440~500	444~489	510~530	540~560	570~580	570~580	720~725
Diameter (D)	mm	80		90	100	100	120	130
Height between pins (H1)	mm	295	300	330	340	340	355	440
Pressure	Kg/cm <sup>2</sup>	40~320		40~350	40~350	40~350	40~350	40~350
Capacity	ℓ/min	10~20		10~20	10~20	10~20	10~20	10~20
Excavator model		R200W-7 R210LC-7.9 R210W-9 R235LCR-9		R250LC-7.9 R290LC-7.9 R305LC-7	R320LC-7.9 R360LC-7 R380LC-9	R450LC-7 R480LC-9	R500LC-7 R520LC-9	R800LC-7

1) Above weight are including bracket pins

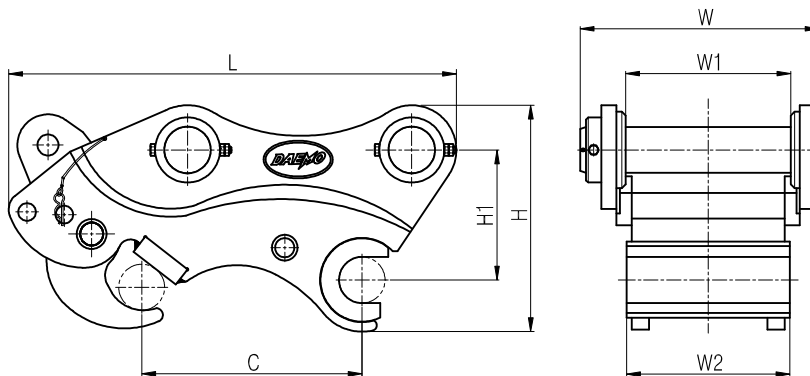
2) Above contents can be changed without any advanced notice to upgrade the quality level.

### 2.2 Specification & Suitable Equipment (Closed Hook Type)

- ▶ DMQ16, DMQ27, DMQ35, DMQ50, DMQ80  
DMQ140, DMQ170, DMQ230



- ▶ DMQ50L, DMQ140L, DMQ230L, DMQ290  
DMQ360, DMQ450, DMQ500, DMQ800



## 1) Hydraulic Quick Coupler specification (Closed Hook Type)

MODEL CATEGORY		DMQ16	DMQ27	DMQ35	DMQ50		DMQ80	DMQ140		DMQ170
					PUSH	PULL		PUSH	PULL	
Operation Weight	Kg	31	38	40	72	77	92	184	202	352
Length (L)	mm	397	410	475	585	602	623	771	818	908
Height (H)	mm	244	257	263	287	306	325	389	422	496
Width (W)	mm	218	236	248	282		326	409	392	492
Width #1 (W1)	mm	119	135	135	164		195	259		307
Width #2 (W2)	mm	118	134	133	164	163	191	258	256	304
Installation distance (C)	mm	120~161	175~210	195~225	255~295	275~290	259~341	385~440	380~395	385~450
Diameter (D)	mm	30	35	40	45		55	65		70
Height between pins (H1)	mm	155	160	170	175	200	200	240	270	300
Pressure	Kg/cm <sup>2</sup>	40~120	40~210	40~210	40~210		40~210	40~320		40~320
Capacity	ℓ/min	10~20	10~20	10~20	10~20		10~20	10~20		10~20
Excavator model		R16-9	R27Z-9	R35Z-7 R35Z-9	R555-7 R555W-7 R555-7K R55-9 R55W-9		R80-7 R80CR-9	R110-7.9 R140LC-7.9 R140W-7.9 R145CR-9		R160LC-7.9 R170W-7.9 R180LC-7.9

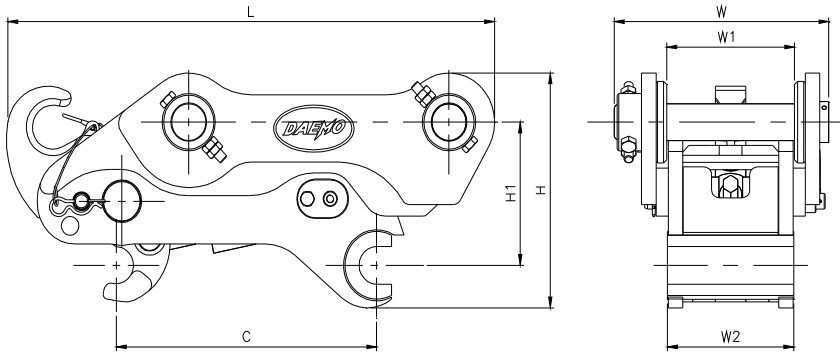
MODEL CATEGORY		DMQ230		DMQ290	DMQ360	DMQ450	DMQ500	DMQ800
		PUSH	PULL					
Operation Weight	Kg	374	330	556	680	692	719	1126
Length (L)	mm	971	907	1086	1165	1192	1192	1455
Height (H)	mm	488	494	544	582	587	607	780
Width (W)	mm	515	515	570	645	645	645	787
Width #1 (W1)	mm	330		399	430	430	430	532
Width #2 (W2)	mm	328	328	397	428	428	428	528
Installation distance (C)	mm	440~500	444~489	510~530	540~560	570~580	570~580	720~725
Diameter (D)	mm	80		90	100	100	120	130
Height between pins (H1)	mm	295	300	330	340	340	355	440
Pressure	Kg/cm <sup>2</sup>	40~320		40~350	40~350	40~350	40~350	40~350
Capacity	ℓ/min	10~20		10~20	10~20	10~20	10~20	10~20
Excavator model		R200W-7 R210LC-7.9 R210W-9 R235LCR-9		R250LC-7.9 R290LC-7.9 R305LC-7	R320LC-7.9 R360LC-7 R380LC-9	R450LC-7 R480LC-9	R500LC-7 R520LC-9	R800LC-7

1) Above weight are including bracket pins.

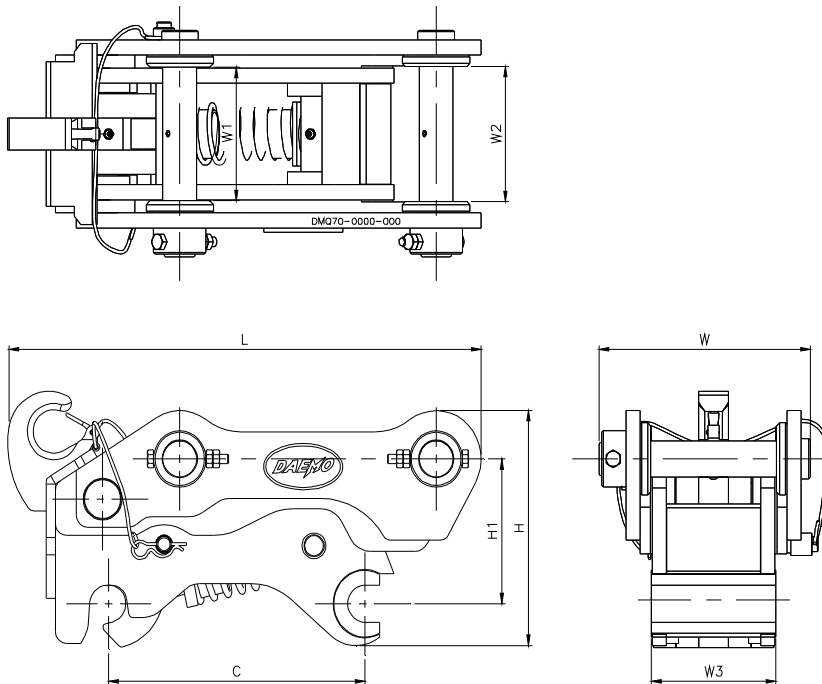
2) Above contents can be changed without any advanced notice to upgrade the quality level.

## 2.3 Specification & Suitable Equipment (Open Hook Type)

### ► DMQ70P(SCREW TYPE)



### ► DMQ70P(WINCH TYPE)



## 1) Manual Quick Coupler specification (Open Hook Type)

CATEGORY \ MODEL		DMQ70p	
		SCREW TYPE	WINCH TYPE
Operation Weight	Kg	80	85
Length (L)	mm	642	632
Height (H)	mm	287	292
Width (W)	mm	278	278
Width #1 (W1)	mm	168	166
Width #2 (W2)	mm	166	168
Width #2 (W3)	mm	-	166
Installation distance (C)	mm	311~358.5	342
Pin Diameter (D)	mm	45	
Height between pins (H1)	mm	175	180
Excavator model		H930S,H940S,H930C,H940C	

- 1) Above weight are including bracket pins.
- 2) Above contents can be changed without any advanced notice to upgrade the quality level.



### 3.1 General Information



## CAUTION

Do not insert hands into excavator's arm, pinhole of link and the inside of Quick Coupler during the alignment of excavator's pinhole and Quick Coupler. Please be sure to insert the safety pin after connecting Quick Coupler to excavator.

#### 1) Hydraulic Quick Coupler

Before operation, please review the information shown below with care. Quick Coupler is recommended to put on flat ground surface, and operator should put on proper working uniform. In order to prevent any unexpected hazards, operator must inspect the quick coupler periodically and make necessary steps, if any.

##### (1) Hitch & Hook

Function of hitch & hook is to connect the attachment's pin tightly.

##### (2) Cylinder

Make the pin to be installed or released that is done by spinning the hitch through hydraulic pressure coming from excavator when the switch is turned on. And it keeps the connection of attachment not to be moved during the operation.

##### (3) Safety Bar

Fixed with hitch and connected with safety pin to prevent heavy things from falling apart.

##### (4) Safety Valve

Safety valve is installed in the cylinder to prevent cylinder from moving to reverse direction and also prevent attachments from detaching from the arm during operation.

##### (5) Safety Pin

Please locate the safety pin before operation.

##### (6) Bracket Pin, Cylinder Pin, Hitch Pin, Frame Pin

Function of bracket pin, cylinder pin, hitch pin, frame pin is to connect various spinning parts of the quick coupler.

## 2) Manual Quick Coupler

Before operation, please review the information shown below with care. Quick Coupler is recommended to put on flat ground surface, and operator should put on proper working uniform. In order to prevent any unexpected hazards, operator must inspect the quick coupler periodically and make necessary steps, if any.

### (1) Hitch & Hook

Function of hitch & hook is to connect the attachment's pin tightly.

### (2) Cylinder

SCREW TYPE – User adjusts the distance between cylinder pins by using socket wrench and 17mm spanner to install or remove.

WINCH TYPE – User personally installs or removes by using a round bar below Ø25.


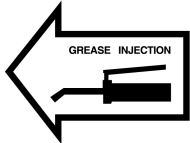
### (3) Safety Pin

Please locate the safety pin before operation to prevent falling down accident.

### (4) Bracket Pin, Cylinder Pin, Hitch Pin, Frame Pin

Function of bracket pin, cylinder pin, hitch pin, frame pin is to connect various spinning parts of the quick coupler.

## 3) Important operational signs

No.	Meaning of label	Contents	Image
1	Refer to the manual for proper service procedure	Technical manual	
2	Inject the grease with grease gun periodically	Grease gun	

#### 4) Safety Information

**Read the following contents carefully before installation/operation. Please be aware of safety information described in this manual at any time.**

- Inspect the body damage, connecting hoses, loosen parts, cracks and other noticed changes of the quick coupler.
- Hitch cylinder of Quick coupler has to be located on backward when the fixed hook is fastened on bucket (Attachment) arm pin after fastening it.  
Please let hitch cylinder forward fasten after the bucket (Attachment) is fully folded up toward cabin to prevent releasing after connecting fixed hook.
- Very important to inspect that hitch is lock onto the pin tightly when Quick Coupler moves toward. Inspect any possible crack on the arm of excavator.
- Once installation is completed, insert the safety pin tightly to prevent the attachment from falling down in spite that the cylinder moves to reverse direction during the operation.
- You must stop operation when there is any movement or vibration of bucket or attachment.  
Inspect the connection of the pin is secure.

## 4.1 Installation

### 1) Installation procedure

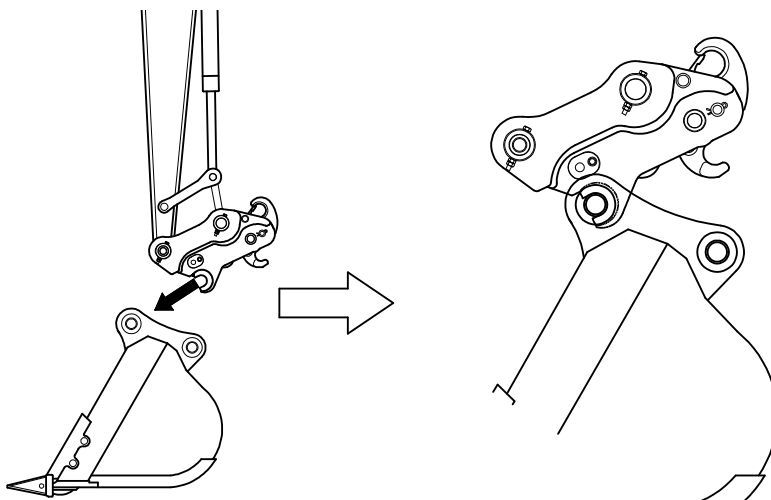
- Locate Excavator and Quick coupler on flat ground and then the fixed hook of Quick coupler should be linked first on the hitch of the Arm.
- Slowly operate the excavator arm and align Arm holes and Quick coupler link holes and insert the bracket pin.
- Depending on the excavator models, spacer and o-ring are required to install onto the arm & link part of excavator.
- Assemble the bolt and nut on pin to fix. Pins will stay in place.
- When connecting the hydraulic hoses, do not switch “Install” and “Release” line. From the point of view excavator cabin, the right side is “Install” and the left is “Release”.

But **DMQ50(L)** has reverse connection as like the right side is “Release” and left side is “Install”.

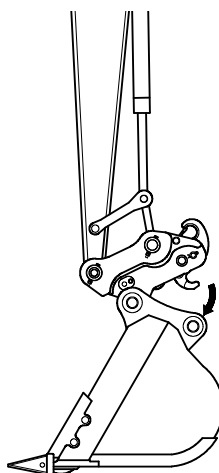
- Hoses must not be twisted or bent. Keep hose connection area always clean from dirt, dust, or any impurities. It may cause critical damage on hydraulic cylinder scratch.
- Turn on/off the operation switch several times in the cabin to test the Quick coupler's hitch operates properly.
- If all pre-installation is completed then inspect the followings before connecting the other attachments like bucket and breakers.
  - ① Interference between excavator and quick coupler
  - ② Twisted hoses
  - ③ Abnormal noise coming from quick coupler
  - ④ Leakage between cylinder and connected hoses
  - ⑤ Connection of each bolts and pins
  - ⑥ Inspect any deformation & cracks
  - ⑦ Connection of bracket pins
  - ⑧ Snap ring connection (Hitch, Frame Pin)

## 2) Hydraulic Quick Coupler Installation

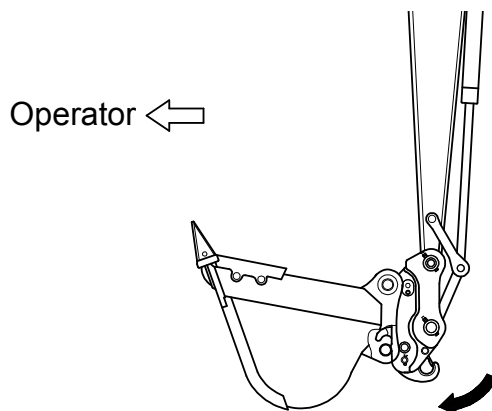
- (1) Check the safety lock pin is removed. Operate the switch to “Release” position and the Quick Coupler will start to work.
- (2) Connect quick coupler hook to the bucket pin on the arm side.



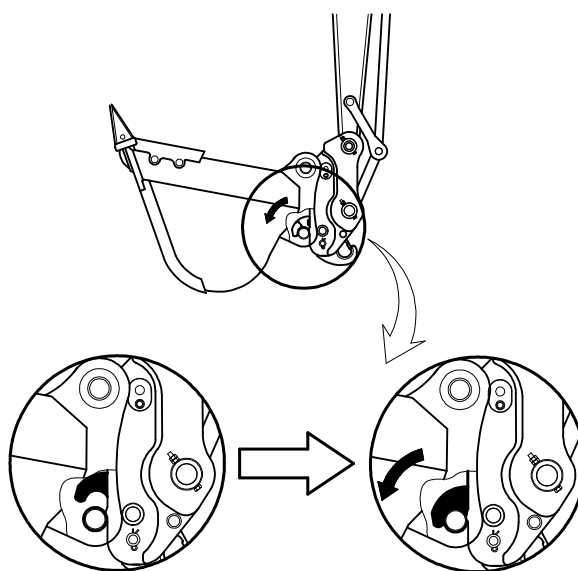
- (3) Slowly move the link portion of the Quick Coupler toward the bucket pin to connect.



- (4) Operator must fold the bucket toward the excavator cabin to (Operator) the maximum (as shown in the picture below).



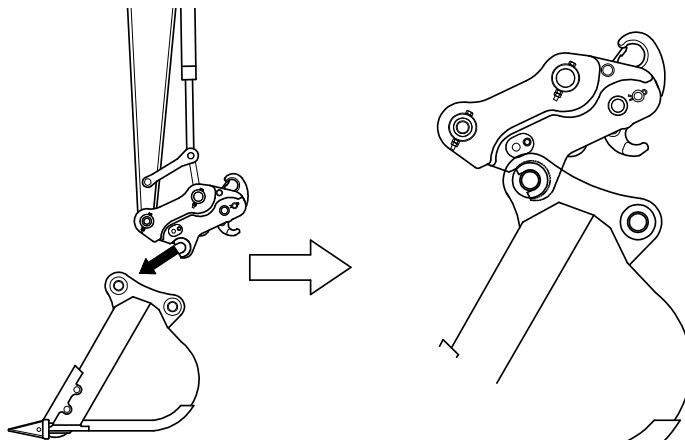
- (5) Operate the switch to "Install" position and point the hitch toward the pin of the link side.



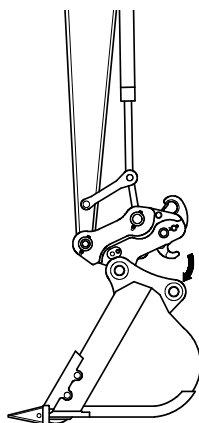
- (6) Operate the hitch forward to complete the installation.  
(7) Once the installation is completed, lock the safety pin.

### 3) Manual Quick Coupler Installation Instructions

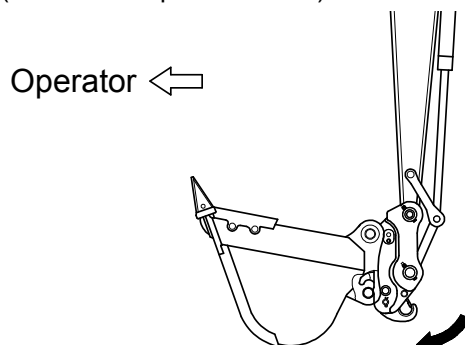
- (1) Remove the safety PIN first. Connect quick coupler hook to the bucket pin on the arm side.



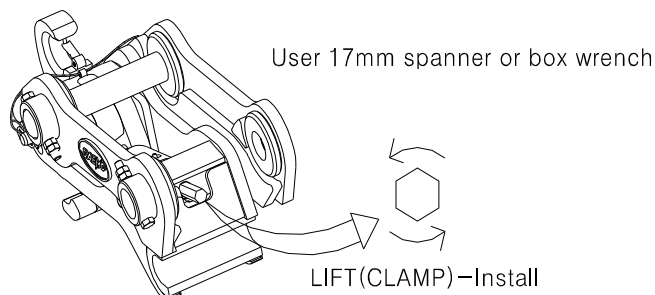
- (2) Slowly move the link portion of the Quick Coupler towards the bucket pin to connect.



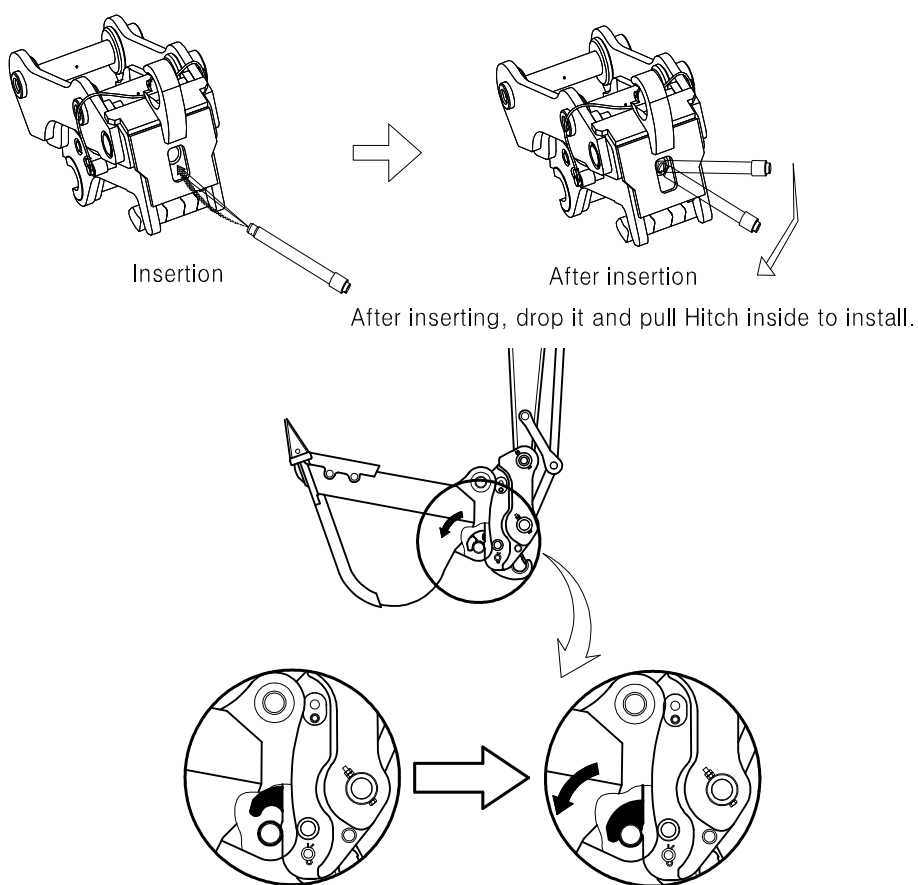
- (3) Operator must fold the bucket toward the excavator cabin to (Operator) the maximum (As shown in picture below).



- (4) Manual Quick Coupler SCREW TYPE needs to use 17mm Spanner or box wrench as below.



- (5) Winch Type of hand-operated Quick Coupler needs to use safety pin or round bar below  $\varnothing 25$  size as below.



- (6) Operate the hitch forward to complete the installation.
- (7) Once the installation is completed, lock the safety pin.



**WARNING**

Important message to know before operating the quick coupler. Make sure to insert the SAFETY PIN before the operation.

**Safety pin can be connected according to pin-to-pin distance.**

**Pin-to-pin distance per models are as follows.**

**DMQ16**

Applicable distance between pins : 120 ~ 161mm

Applicable distance between pins for SAFETY PIN : 140mm

Compatible excavator : R16-9

**DMQ27**

Applicable distance between pins : 175 ~ 210mm

Applicable distance between pins for SAFETY PIN : 200mm

Compatible excavator : R27Z-9

**DMQ35**

Applicable distance between pins : 195 ~ 225mm

Applicable distance between pins for SAFETY PIN : 200mm

Compatible excavator : R35Z-7, R35Z-9

**DMQ50, DMQ50L**

Applicable distance between pins (PUSH TYPE) : 255 ~ 295mm

Applicable distance between pins (PULL TYPE) : 275 ~ 305mm

between pins for SAFETY PIN : 285mm

Compatible excavator : R555-7, R555W-7, R555-7K, R55-7A, R55W-7A

R55-9, R55W-9, R60CR-9

**DMQ70P**

Applicable distance between pins (PUSH TYPE) : 342mm

Compatible excavator : H930S, H940S, H930C, H940C

**DMQ80**

Applicable distance between pins : 275 ~ 360mm

Applicable distance between pins for SAFETY PIN : 275mm(R80-7)  
290mm(R80CR-9)

Compatible excavator : R80Z-7, R80CR-9

**DMQ140, DMQ140L**

Applicable distance between pins (PUSH TYPE) : 385 ~ 440mm

Applicable distance between pins (PULL TYPE) : 380 ~ 410mm  
between pins for SAFETY PIN : 390mm

Compatible excavator : R110-7(A), R140LC-7(A), R140W-7(A),  
R140LC-9, R140W-9, R145CR-9

**DMQ170**

Applicable distance between pins : 385 ~ 450mm

Applicable distance between pins for SAFETY PIN : 410mm

Compatible excavator : R160LC-7(A), R170W-7(A), R180LC-7(A),  
R160LC-9, R170W-9, R180LC-9

**DMQ230, DMQ230L**

Applicable distance between pins (PUSH TYPE) : 440 ~ 500mm

Applicable distance between pins (PULL TYPE) : 450 ~ 470mm  
between pins for SAFETY PIN : 460mm

Compatible excavator : R200W-7(A), R200NLC-7(A), R210LC-7(A),  
R210W-9, R210NLC-9, R210LC-9, R235CR-9

**DMQ290**

Applicable distance between pins (PULL TYPE) : 510 ~ 530mm

between pins for SAFETY PIN : 510mm

Compatible excavator : R250LC-7(A), R290LC-7(A), R305LC-7,  
R250LC-9, R290LC-9

**DMQ360**

Applicable distance between pins : 540 ~ 560mm

Applicable distance between pins for SAFETY PIN : 550mm

Compatible excavator for SAFETY PIN : R320LC-7(A), R360LC-7(A),  
R320LC-9, R360LC-9

**DMQ450**

Applicable distance between pins : 570 ~ 580mm

Applicable distance between pins for SAFETY PIN : 577mm

Compatible excavator for SAFETY PIN : R450LC-7(A), R480LC-9

**DMQ500**

Applicable distance between pins : 570 ~ 580mm

Applicable distance between pins for SAFETY PIN : 577mm

Compatible excavator for SAFETY PIN : R500LC-7(A), R520LC-9

**DMQ800**

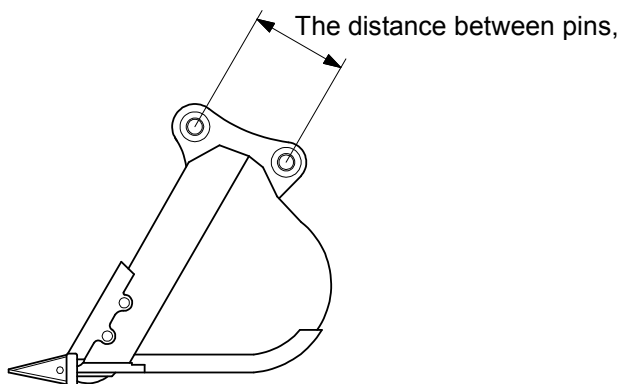
Applicable distance between pins : 720 ~ 725mm,

Applicable distance between pins for SAFETY PIN : 722mm.

Compatible excavator for SAFETY PIN : R800LC-7A

※ **Notice** : The distance between pins is same as the distance between holes of the bracket pin in each attachments (Bucket, Breaker, Crusher, Shear).

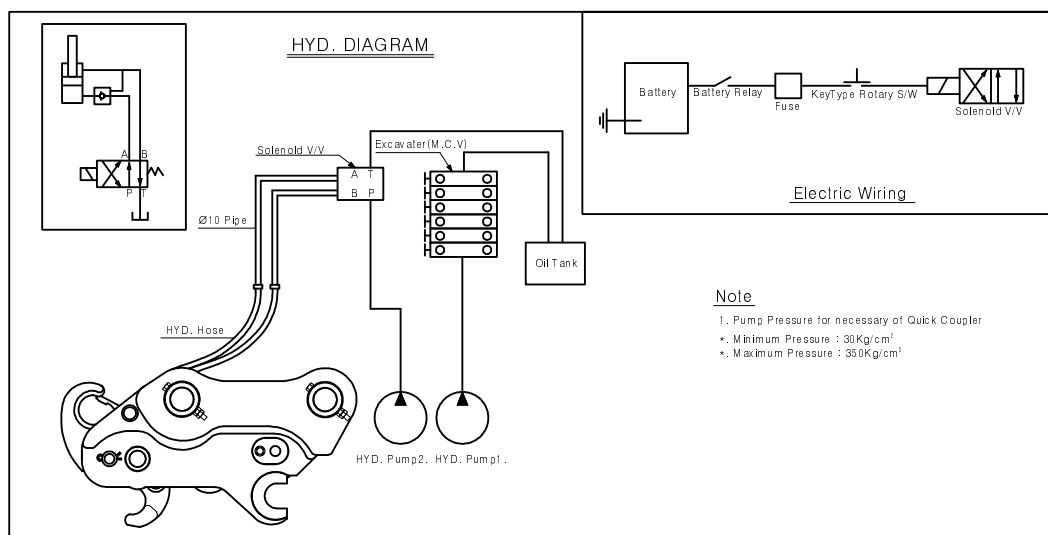
※ The distance between pins.



#### 4) Piping Installation

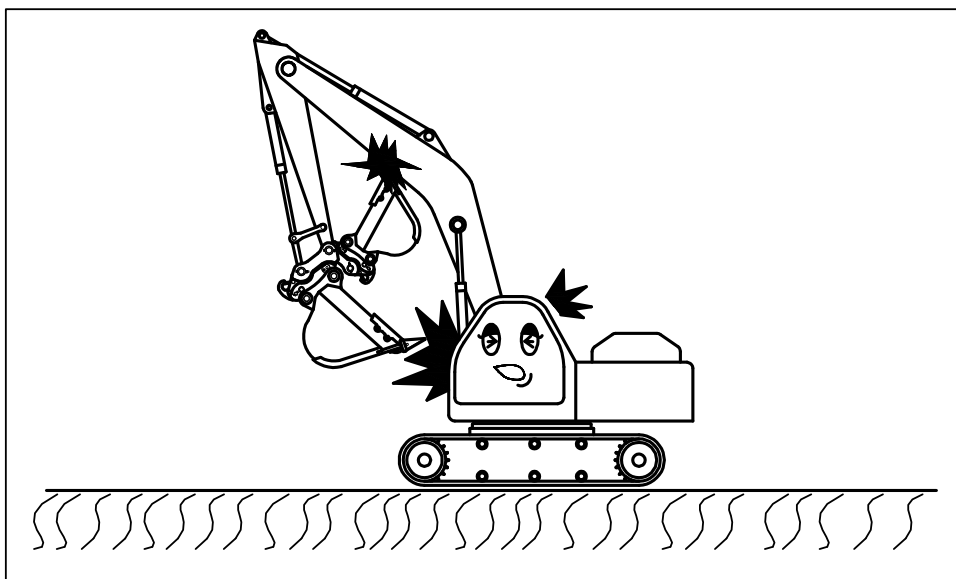
- (1) Improper installation of piping may cause short life span of the excavator and attachment, therefore please consult Daemo service center for correct piping installation.
- (2) Pipe, hose, solenoid valve & other parts must be able to resist the maximum pressure allowed by the pump.  
Strongly recommend using Daemo genuine parts.
- (3) Any dust and impurities in the hose should be cleaned, for proper maintenance.
- (4) Supply line of quick coupler must be connected to the excavator pump that is above the minimum pressure allowed to operate the quick coupler.
- (5) Direction of the piping is decided based from the driver's side of the excavator, right side is "install" and the left side is "release".  
For DMQ50(L) (View from the driver's side), right is "release" and the left side is "install".  
For example, if the hose is installed in reverse direction, then the operating switch of the Quick Coupler automatically becomes reverse.  
Therefore high attention is required before operating.
- (6) Operating voltage of solenoid valve has to be same as excavator battery voltage. Be careful with +/- connection of the wires, in general negative (-) side is connect to the body part of the excavator.
- (7) Switch wire must be connected with battery relayed from the excavator.  
Direct connection from the battery may cause damage to the parts and the machine.

#### ※ Hydraulic Diagram

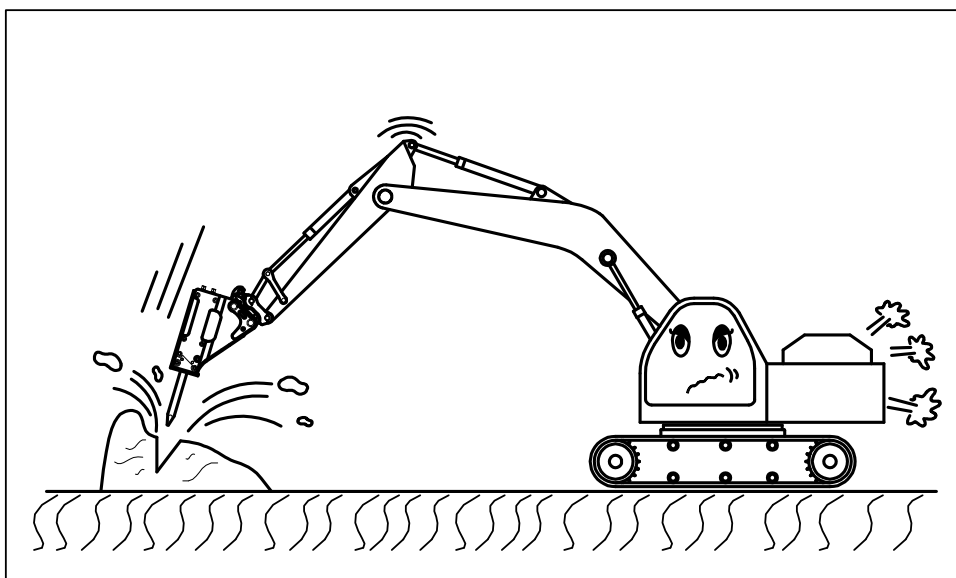


## 5.1 Important reminders during operation

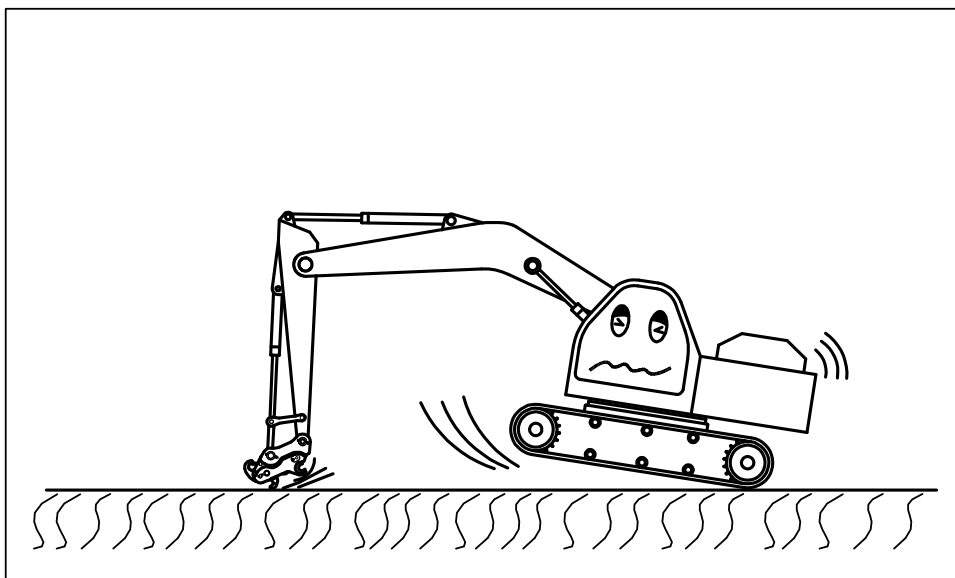
- 1) Once the quick coupler is installed, operating (Spinning) distance increases therefore be careful when operating the bucket or attachment to prevent any collision with the excavator.



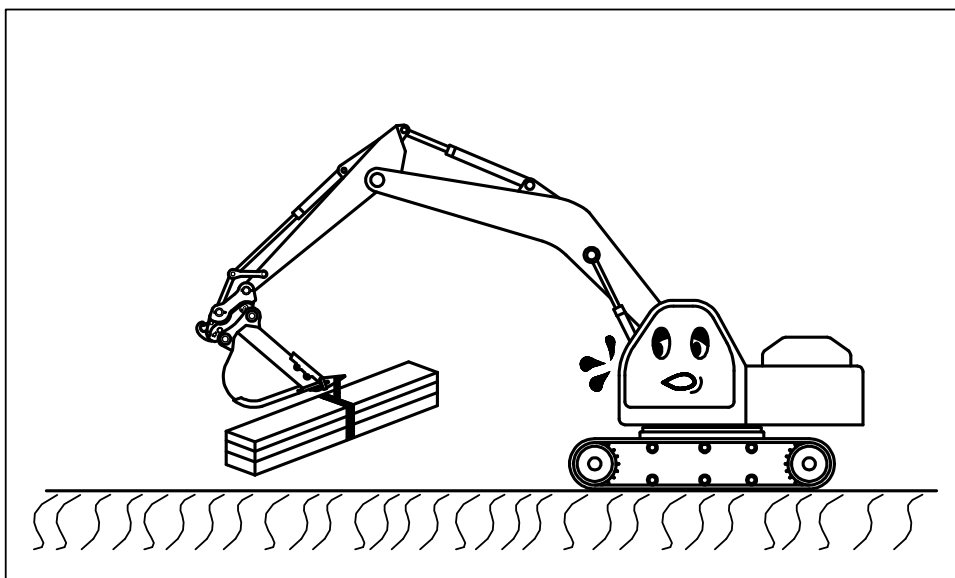
- 2) Overloaded operation may cause a short life span of quick coupler, attachment and the excavator.



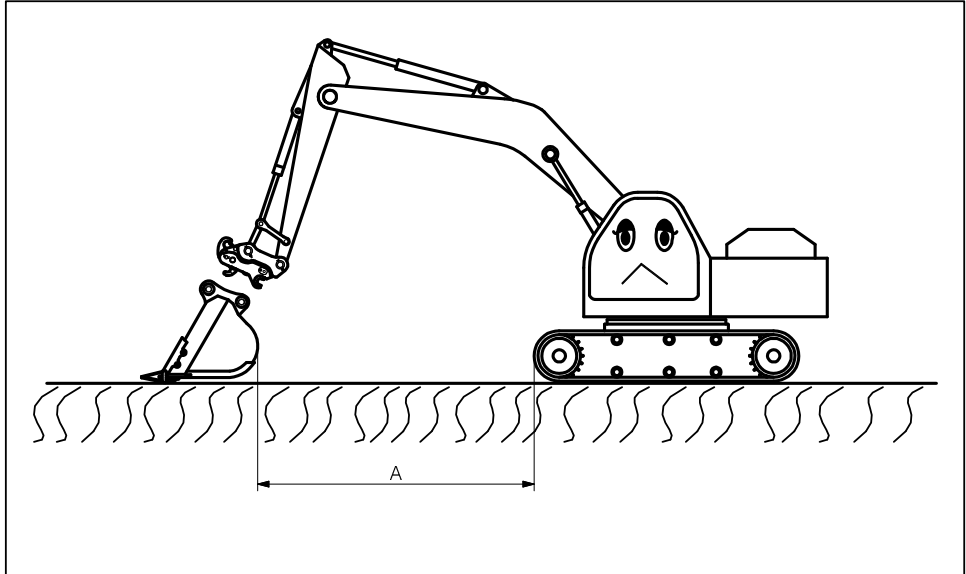
- 3) Quick coupler may not be operated without the installation of a bucket or attachment.



- 4) Lifting heavy object through quick coupler is very dangerous and may cause the short life span of the quick coupler.



- 5) In case of installation of a bucket or attachment in reverse direction(face position), high attention is required to keep enough distance(A) to allow entering angle on hook. Please keep this enough distance(A) for correct linkage.



- 6) You must install the safety pin before starting operation for your safety. It is essential to keep this rule. If you do not obey this rule, we will not take responsibility for any safety accident.

**WARNING**

For maximum life span and efficient operation of the quick coupler, periodic inspection is required.

Followings are regarding inspection and maintenance information.

## 6.1 Inspection & Maintenance

- (1) Please keep your hands away from the moving parts or inner body part during operation of the Quick Coupler. It may cause serious injury.
- (2) Moisture or impurities must be kept away during cleaning or assembly of the cylinder.
- (3) When replacing or installing parts, we strongly recommend you to use Daemo genuine parts.  
Daemo will not be responsible for the damage caused by not using Daemo genuine parts.
- (4) Before polishing, any dirt or dust from the quick coupler, it must be cleaned. Apply grease every 5 times that an attachment is changed and on the 5th changing, apply grease 3 times in to the grease nipple.  
※ Apply grease onto the hitch part twice a day.
- (5) It is easy for cylinder rod and pin to become dirty, therefore they must be cleaned after using.  
Manufacturer is not responsible for any cylinder problems caused by lazy maintenance.

### 1) Important issue on repair inspection

- (1) **Cylinder** : Inspection must be done every 120 operating hours, to check any potential problem with the cylinder.
- (2) **Piping** : Piping is required to connect Quick Coupler to the excavator.  
Must be inspected every 120 operating hours for any leakage or damage to the pipe or connecting pipes.
- (3) **Bolt & Nut** : Prevent possible accidents by inspecting loosen bolts and nuts every 120 operating hours.
- (4) Cylinder rod must be kept clean and maintained without any damage to prevent leakage.



## 2) Reason for break down &amp; repair method

Problem		Cause	How to fix
Quick coupler is not working	Disconnected electric voltage	Blown fuse	Replace a new fuse
		Wires cut	Operating switch and the solenoid valve's wires, must be inspected if disconnected reconnect the wire.
	Voltage in solenoid is flowing, but there is no pressure in the hose.	Solenoid failure	Solenoid valves, electric connector must be changed.
		Solenoid valve failure	Disassemble the solenoid block and clean the inside and reassemble.
		Oil leak from hose, or hose failure	Tighten the hose nut, and if still leaking replace the hose
	Pressure is in the hose, but cylinder is not working.	Relief valve is not working	Disassemble the relief valve, and inspect the valve. If still not working must be replaced.
		Cylinder has remaining high pressure	Slowly turn the plug on the cylinder to release the high pressure.
		Cylinder is not working	Contact to Daemo service center Personnel.
	Cylinder is pushed back when operating.	Relief valve is not working	Relief valve must be checked often, or replaced.
During operations Quick Coupler sounds abnormally.		Lack of polishing of pin rotator	Apply grease to pin.
Oil leak for cylinder	Damage to cylinder O-ring		Contact to Daemo service center Personnel.
	Damage to load packing		Contact to Daemo service center Personnel.
Oil leaks from hose		Damaged hose	Replace hose.

## 3) Proper torque

Description	Model	Torque (Kg · m)	Remarks
Safety valve	All model	4~5	Apply exclusive tools
Connecting hose	All model	5	
Cylinder rod cover	DMQ16	45~50	
	DMQ27		
	DMQ35		
	DMQ50,DMQ50L		
	DMQ80	55~60	
	DMQ140,DMQ140L		
	DMQ170	75~80	
	DMQ230,DMQ230L		
	DMQ290	85~100	
	DMQ360		
	DMQ450		
	DMQ500		
DMQ800			

## 4) Designated tools

Model	Tool	Size	Quantity	Remarks
DMQ16	Spanner	17mm	1pc/each	Connecting clamp hose
DMQ27				
DMQ35				
DMQ50,DMQ50L				
DMQ80				
DMQ140,DMQ140L				
DMQ170		19mm	1pc/each	Connecting hose
DMQ230,DMQ230L				
DMQ290		24mm	1pc/each	Connecting safety valve
DMQ360				
DMQ450				
DMQ500				
DMQ800				
DMQ70 (SCREW TYPE)		17mm	1pc	Cylinder Labber Control