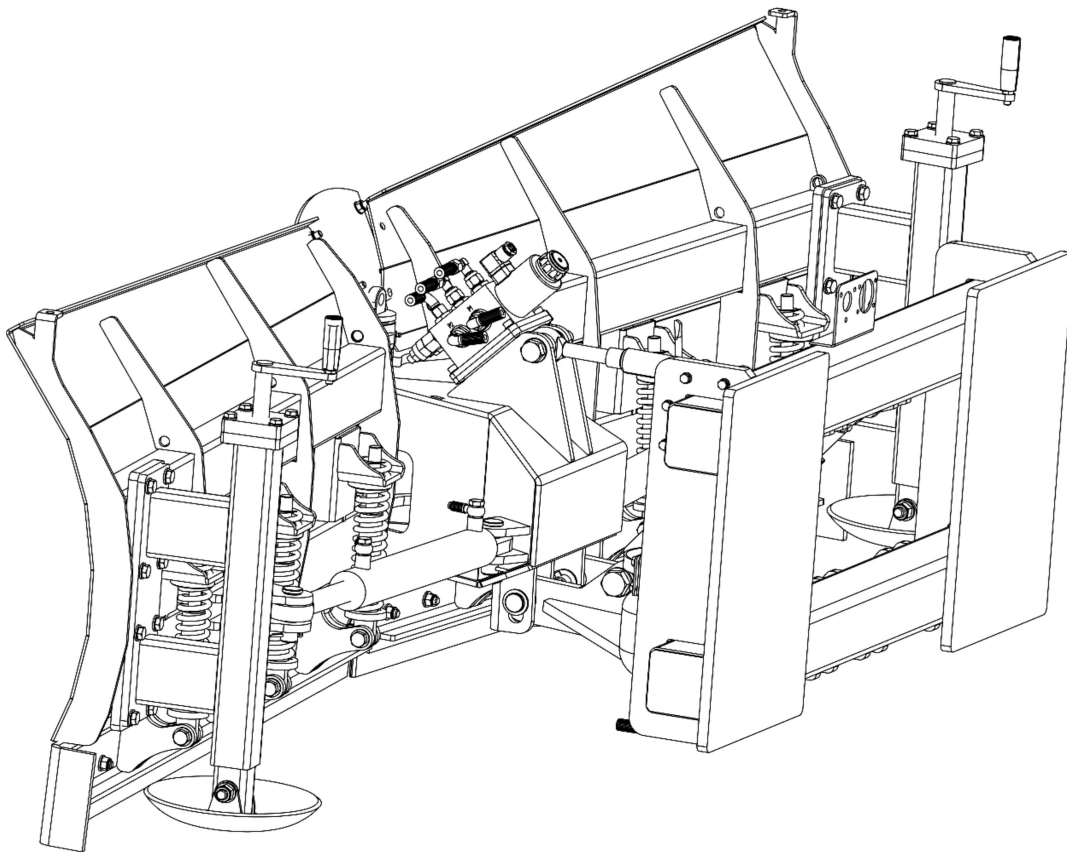


SNOW PLOW PUSHER

10 FT, UN Angle Blade, with Q/c Lugging



⚠ WARNING



- Please read and understand the product manual completely before assembly
- Check against the parts list to make sure all parts are received
- Wear proper safety goggles or other protective gears while in assembly
- Do not return the product to dealer. They are not equipped to handle your requests.

Missing parts or have questions on assembly?

Please call: 1-877-761-2819 or email: cs@tmgindustrial.com

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⚠ Warning instructions for safe operation

Meaning of warning labels



NOTICE! Read the instruction manual carefully before using the machine. Failure to follow this warning may cause injury.







WARNING ! Keep away from the cutting area of the running machine. If this warning is not followed, a personal injury accident may occur



WARNING ! Keep a safe distance while driving the machine. If this warning is not followed, a personal injury accident may occur

1. Precautions for safe operation

-  Read the operating instructions of the machine carefully, and be familiar with the performance and how to operate all the control devices!
-  Understand all the safety labels on the equipment, and keep the labels clean. Please do not paint or move any safety labels casually. If they are damaged, they should be replaced immediately!
-  A warning sign should be set up in the work area where the operator is to tell others not to approach it to prevent splashing!
-  Do not clean up close to people, buildings, vehicles or other objects that may be damaged by flying debris!

Notice! Failure to follow this warning may cause injury.

Preparations before operation

Read the instructions carefully
before doing the homework

NOTICE !

★ If you do not fully understand the safety precautions and use essentials described in the instruction manual, unexpected accidents may occur. before operation, please fully understand the warning signs affixed to the product, the safety precautions and the essentials in the instruction manual before proceeding.

Place the instruction manual
around the product

NOTICE !

★ If you do not know how to operate the machine, because the instruction manual is not placed around the product, if you use your own judgment to deal with it, unexpected accidents may occur and cause injuries. Make sure that the instruction manual is kept around the product, and you can read it at any time when you don't know how to use it.

Do not operate under the following
conditions

WARNING !

★ Unexpected accidents may occur when operating in situations where the body is uncomfortable or the machine operation is unfamiliar.

Do not operate under the following conditions:

- When over-fatigue, sickness, drug influence, and other reasons make it impossible to concentrate on work.
- After drinking alcohol.
- Personnel who are unskilled in mechanical operation.

Clothing selection during operation

WARNING !

★ If you wear inappropriate clothing to operate the machine, a part of the clothing will be caught by the machine and cause injury. In severe cases, a major fatal accident may occur.

Please operate according to the clothes suggested below:

- Do not wear oversized tops and pants.
 - The sleeves and hem should not be too fat.
 - Wear a safety helmet.
- Do not wear banded or flocculent items such as turbans or towels on the head and waist.

Before operation

DANGER !

- ★ Make sure that the snow shovel and the car (other) connecting frame have been connected.
- ★ Operate in a safe area.
- ★ Ensure that the snow shovel is installed firmly.
- ★ Ensure that all hydraulic joints and hydraulic devices are firmly connected.
- ★ Replace vulnerable devices and hoses.
- ★ Determine the power supply voltage. If the voltage is less than the required voltage, it will affect the performance of the snow shovel.
- ★ If people or objects are loaded on the working machine, it will cause injury accidents after falling. Do not carry people or anything on the working machine.

During operation

DANGER !

- ★ Press the button on the remote control before starting to remove snow. Place the snow shovel at an appropriate angle.
- ★ Use the up and down buttons of the remote control to adjust the snow shovel to be parallel to the road surface.
- ★ After adjusting the up and down and angle of the snow shovel, you can start the vehicle to move forward and perform snow removal operations.
- ★ When walking on the slope at high speed, it may cause side slip or rollover. Please downshift and slow down before entering the slope and cross the slope smoothly.
- ★ Be sure to concentrate and drive carefully when working.
- ★ If someone approaches when lifting the shovel, it may cause injury. Please stay away.
- ★ When making machine adjustments and removing debris, be sure to cut off the engine. Otherwise, due to the carelessness of a third party, the work machine suddenly starts, which may cause unexpected things to happen.
- ★ After the snow removal operation is completed, the shovel must be lifted up and allowed to enter to avoid damage to the road surface.

After operation

NOTICE !

- ★ After the machine is used, the shovel body and joints should be cleaned with a high-pressure water gun.
- ★ Grease the exposed cylinder rod
- ★ Thoroughly remove all dirt, dirt and grease on the clean surface.
- ★ The interfaces of hydraulic oil pipes, cylinders and battery valves are capped and sealed
- ★ Check the connecting bolts and tighten all loose bolts and nuts.
- ★ Fill all lubrication points with butter.
- ★ Replace damaged or obscure identification labels.

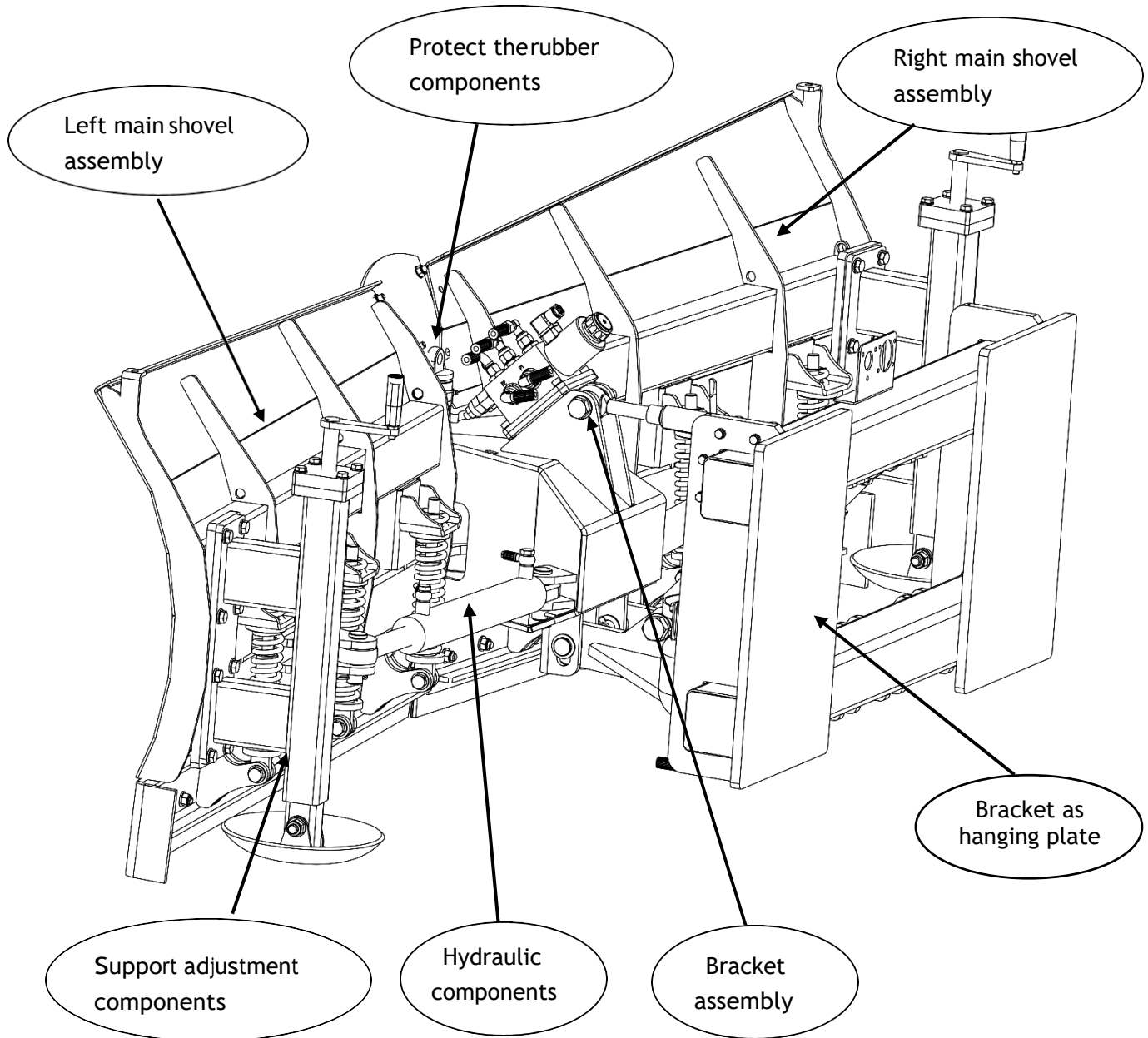
Storage instructions

NOTICE !

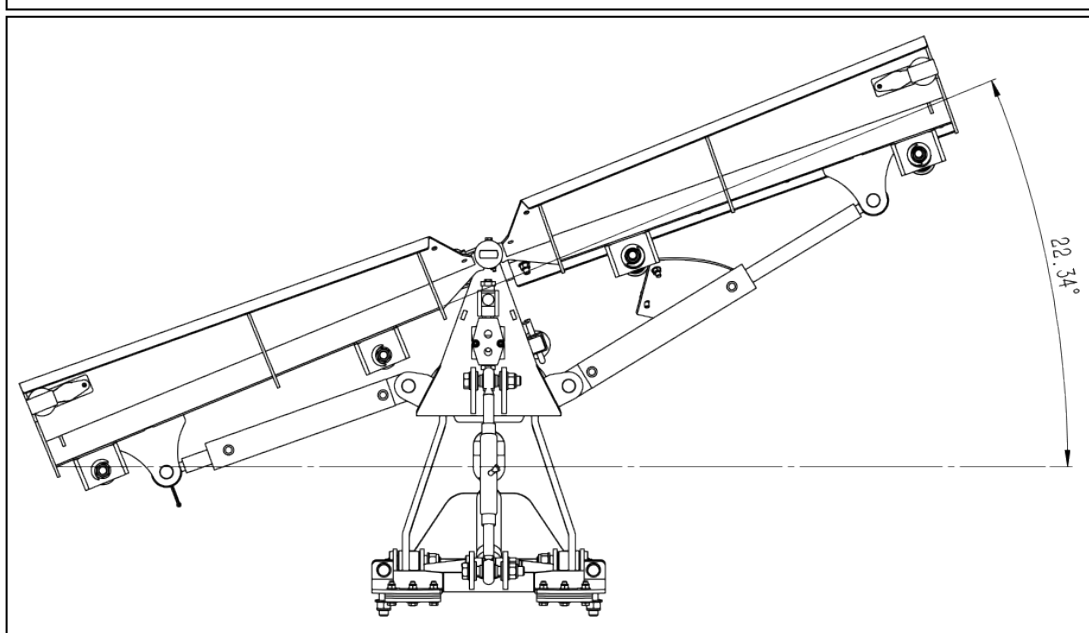
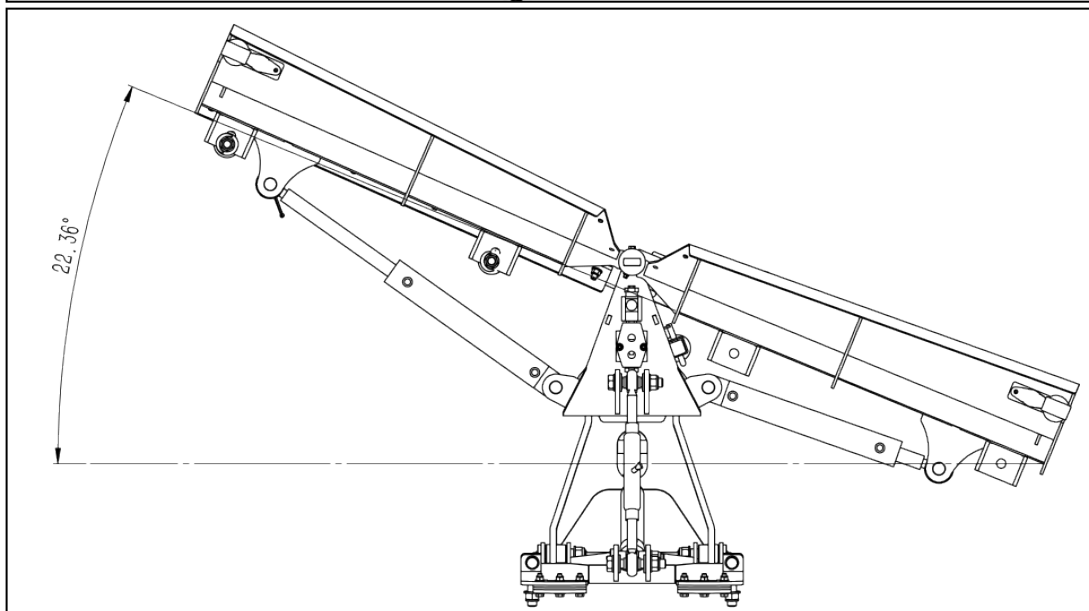
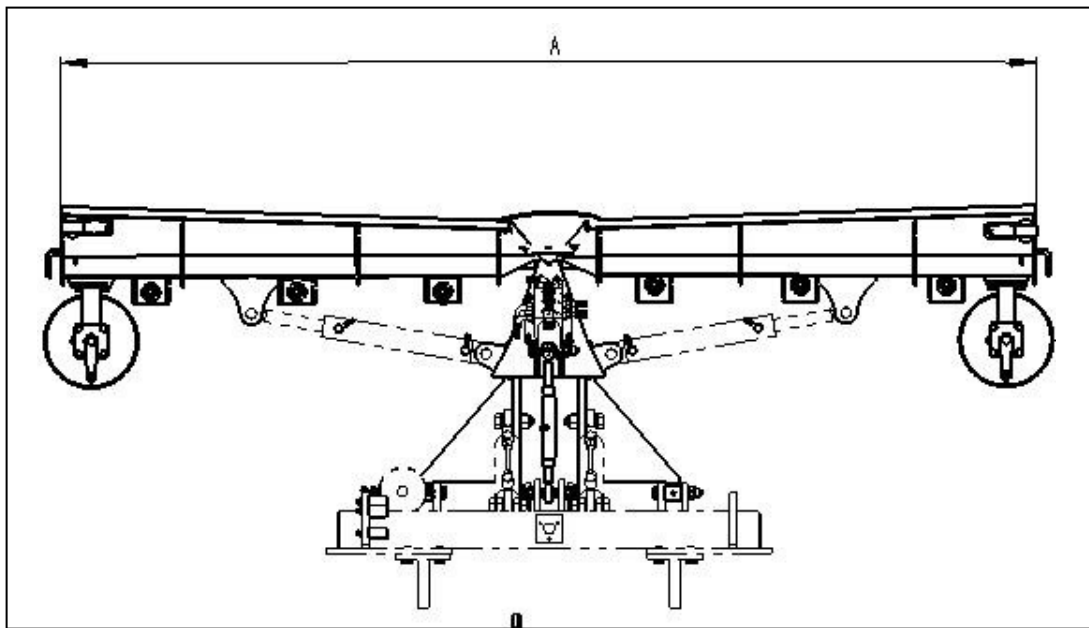
- ★ The snow shovel must be cleaned up before storage to prevent rainwater and hemolytic agent from corroding the shovel body.
- ★ In storage, the support frame of the snow shovel must be lowered, and the jack must be placed at the lowest level.
- ★ Cover the electrical parts with rain-proof cloth to prevent aging due to exposure to the sun.

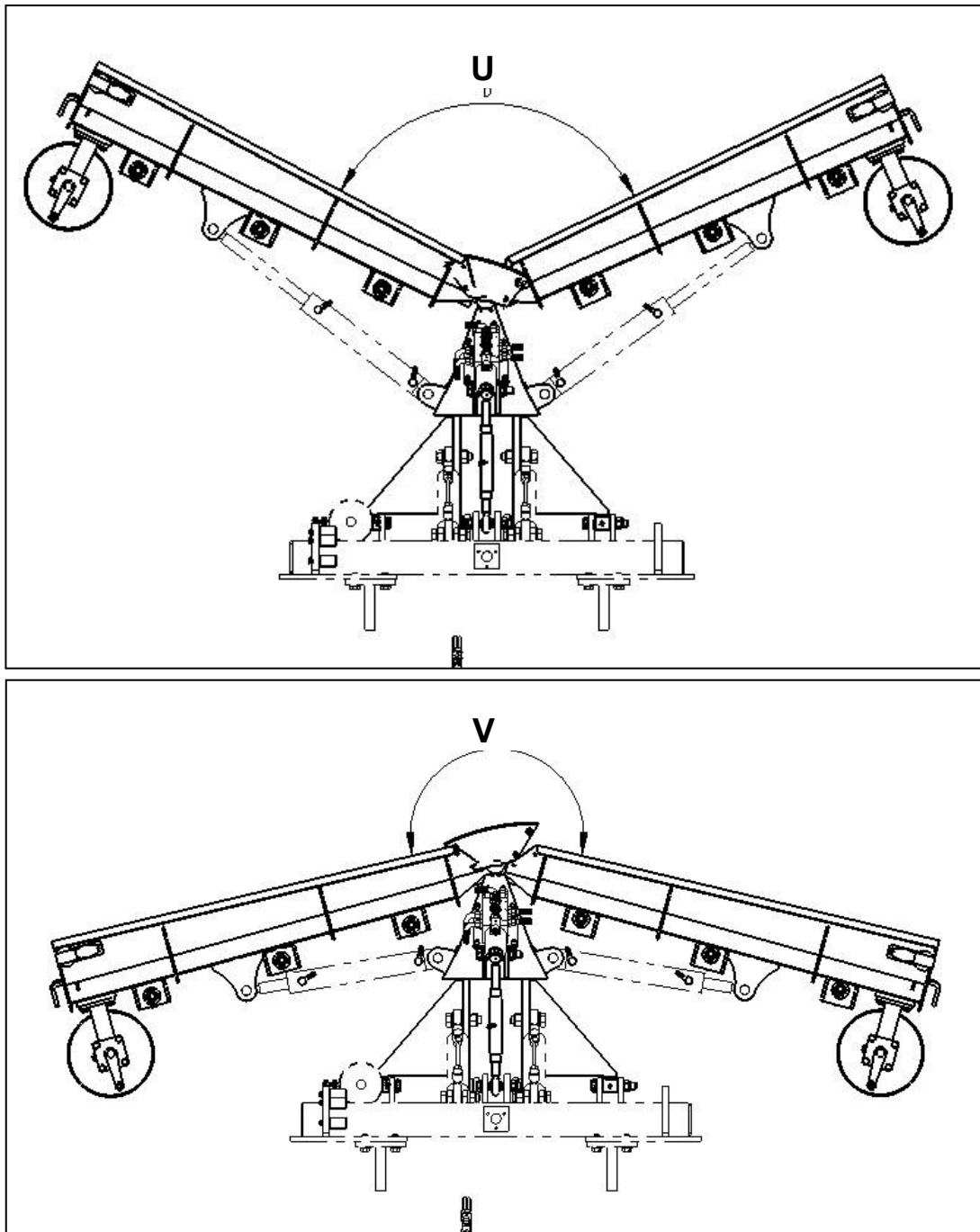
2. Machine introduce

Products part names and functions



Products Specifications

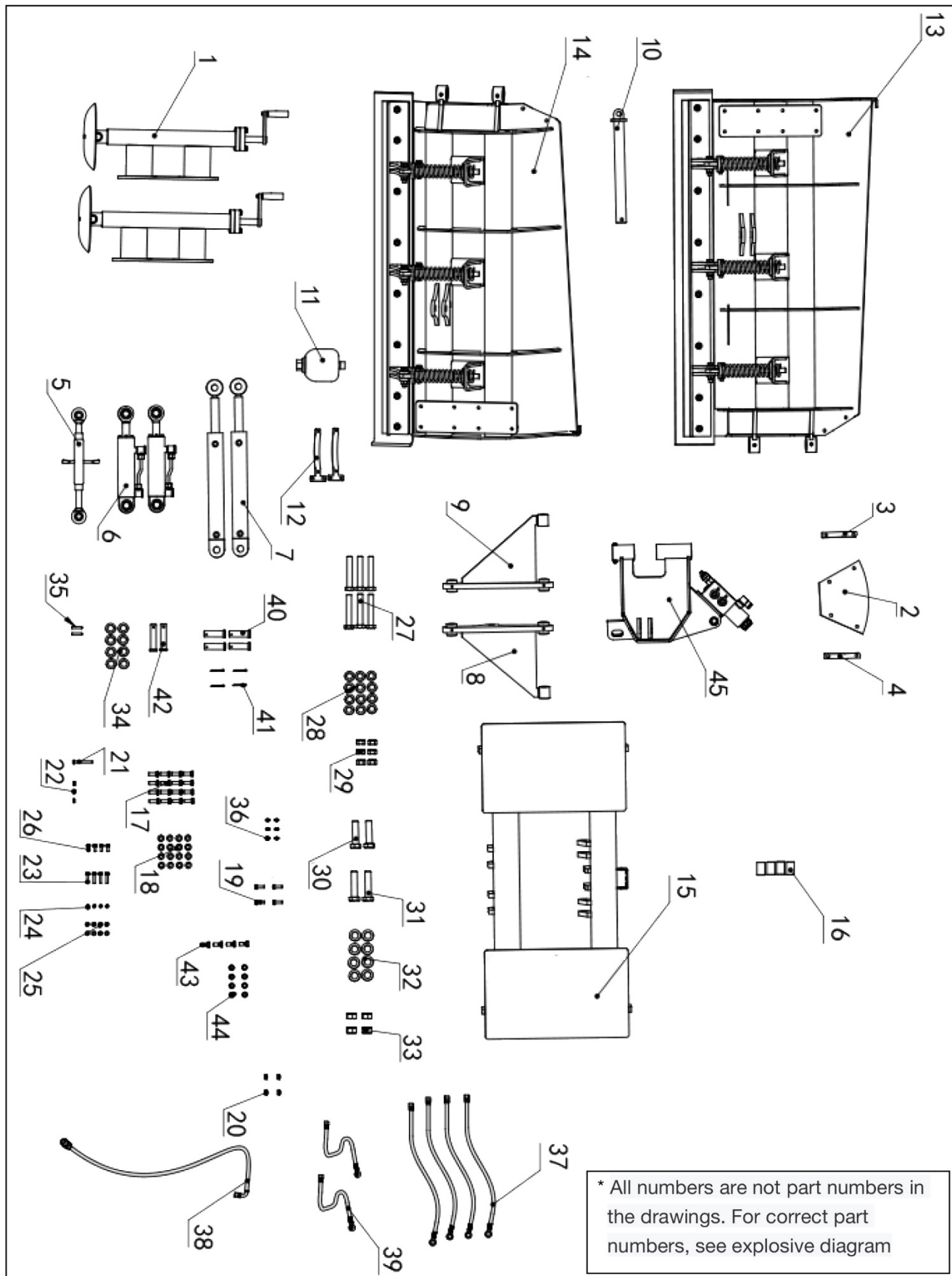




Model No.	TMG-SP10X
Max Working Pressure	3050PSI
Max Working Flow	8.0GPM
Working Width	10ft(118")
Working Voltage	DC 12V
U blade	up to 140 degree
V blade	up to 215 degree
Blade Angle	22 degrees left or right
Hydraulic Hose Diameter	3/8"(I.D)/1"(O.D)
Fitting	1/2" NPT
Shipping Weight	1370 lb
Shipping Size	75"x36"x24"

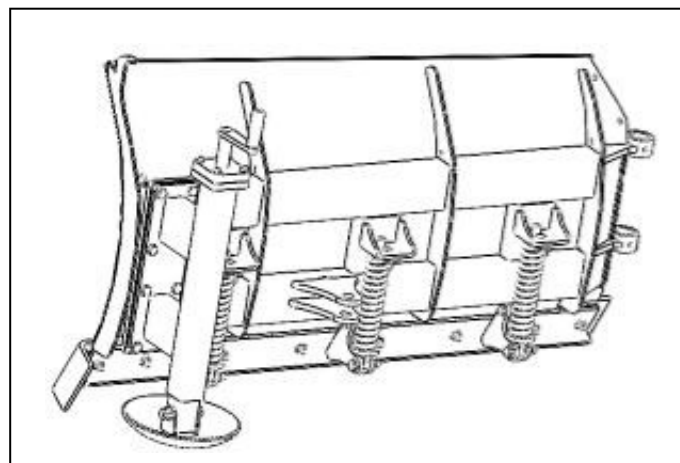
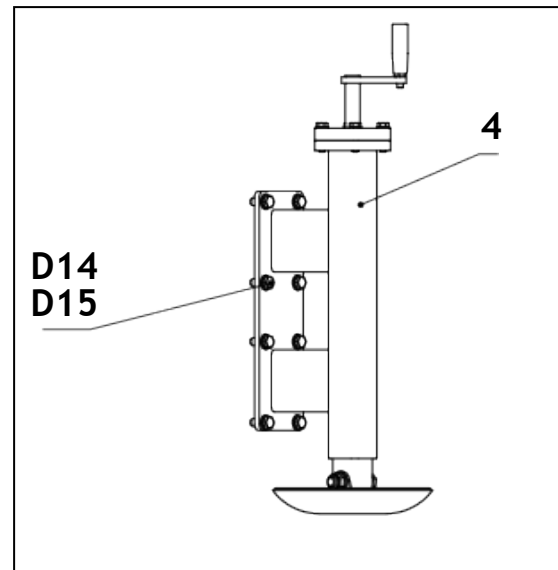
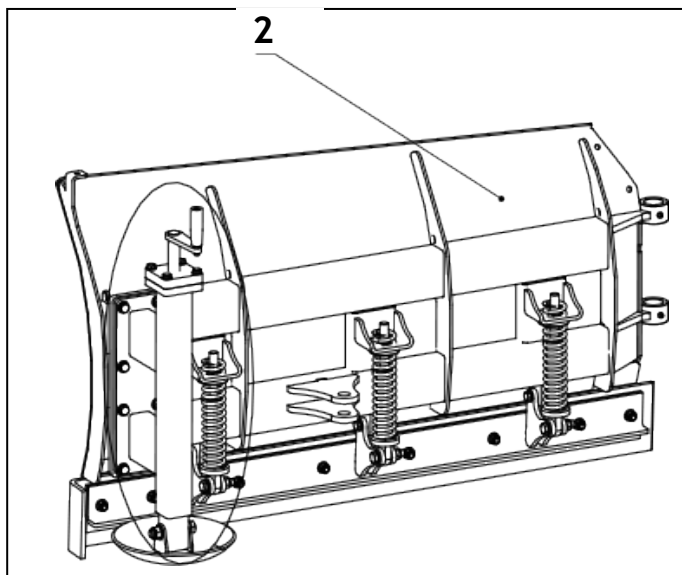
3. Assembly work instruction

1. After unpacking, check the following components



REF#	SPECIFICATION	QTY	REF#	SPECIFICATION	QTY
1	Support adjustment components	2	24	Spring washer Ø8	4
2	Protection eraser	1	25	Flat washer Ø8	8
3	Rubber splint	1	26	Hexagon bolts with full thread, M8x20	4
4	Rubber splint two	1	27	Hexagon bolts with full thread, M20x120	6
5	Adjust the rod assembly	1	28	Flat washer Ø20	12
6	Shock absorber hydraulic cylinder 50x28x100	2	29	Hexagon lock nut M20	6
7	Shovel cylinder 50x32x255	2	30	Hexagon bolts with full thread, M24x90	2
8	Bracket weldment - left	1	31	Hexagon bolts with full thread, M24x100	2
9	Bracket weldment - right	1	32	Flat washer Ø24	8
10	King pin shaft welded parts	1	33	Hexagon lock nut M24	4
11	Accumulator	1	34	Flat washer Ø22	8
12	Hoop	2	35	Elastic cylindrical pin	2
13	Left main shovel assembly	1	36	Straight-through pressure oil cup	6
14	Right main shovel assembly	1	37	Hydraulic Hose 7/8"x750mm	4
15	Suspension frame	1	38	Hydraulic Hose 7/8"x1000mm	1
16	Male docking station	4	39	Hydraulic Hose 1"x2000mm	2
17	Hexagon bolts with full thread ,M12x30	16	40	Cylinder pin 2	4
18	Flat washer Ø12	16	41	Split pin	4
19	Hexagon bolts with full thread, M10x30	4	42	Cylinder pin 1	2
20	Hexagon nuts M10	4	43	Hollow bolt	4
21	Hexagon head bolts M8x70	1	44	Combination washer	8
22	Hexagon lock nut M8	3	45	Bracket	1
23	Hexagon bolts with full thread, M8x35	4			

2. Installation of left main shovel assembly and support adjustment assembly



Installation steps: Fasten the support adjustment component to the left main shovel with M12*30 bolts (D15) according to the position in the above figure.

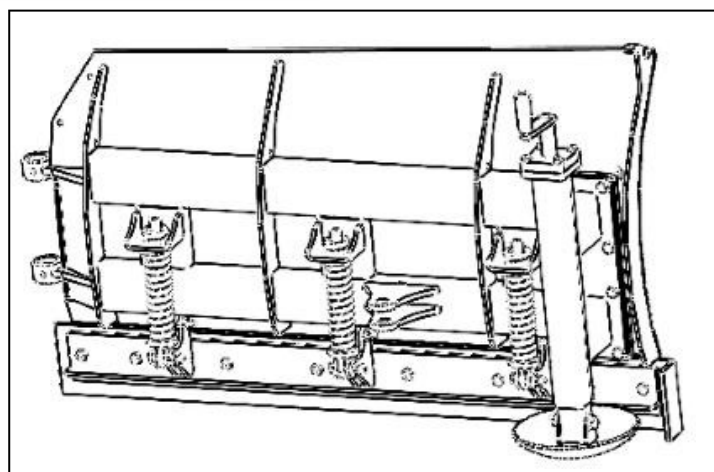
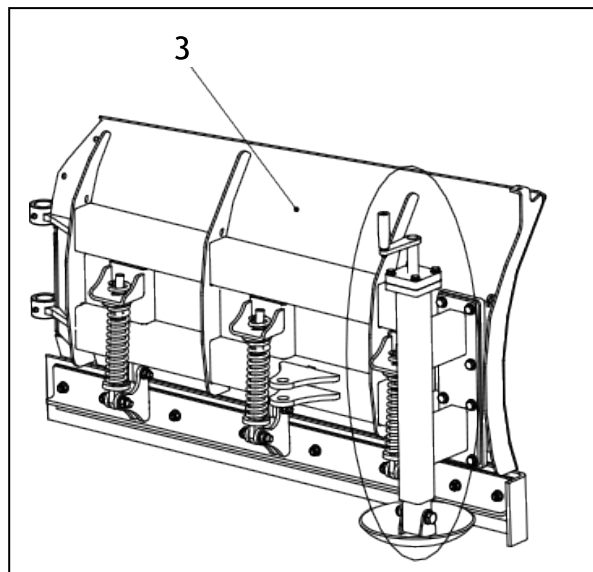
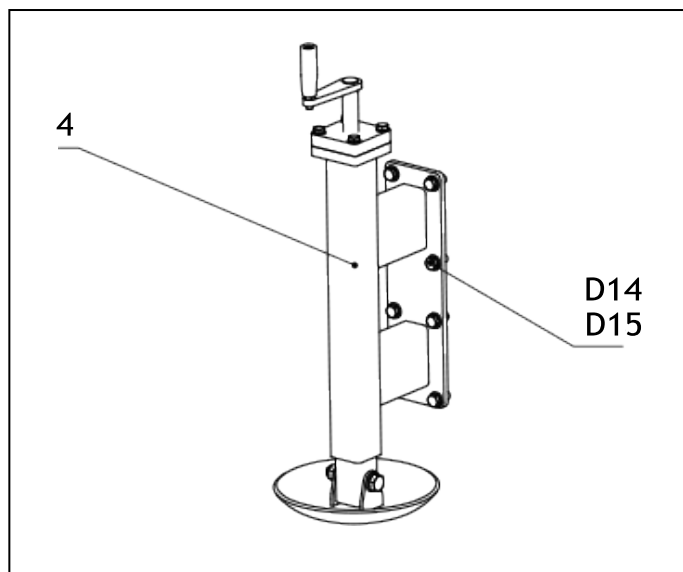
Importance: All bolts are locked in place without shaking.

⚠ WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
2	Shovel as-left main	1
4	Adjustment as- support	1
D14	Plain washer Ø12	8
D15	Full-thread hexagon bolts M12x30	8

3. Installation of the right main shovel assembly and support adjustment assembly



Installation steps: Fasten the support adjustment component to the right main shovel with M12*30 bolts (D15) according to the position in the above figure.

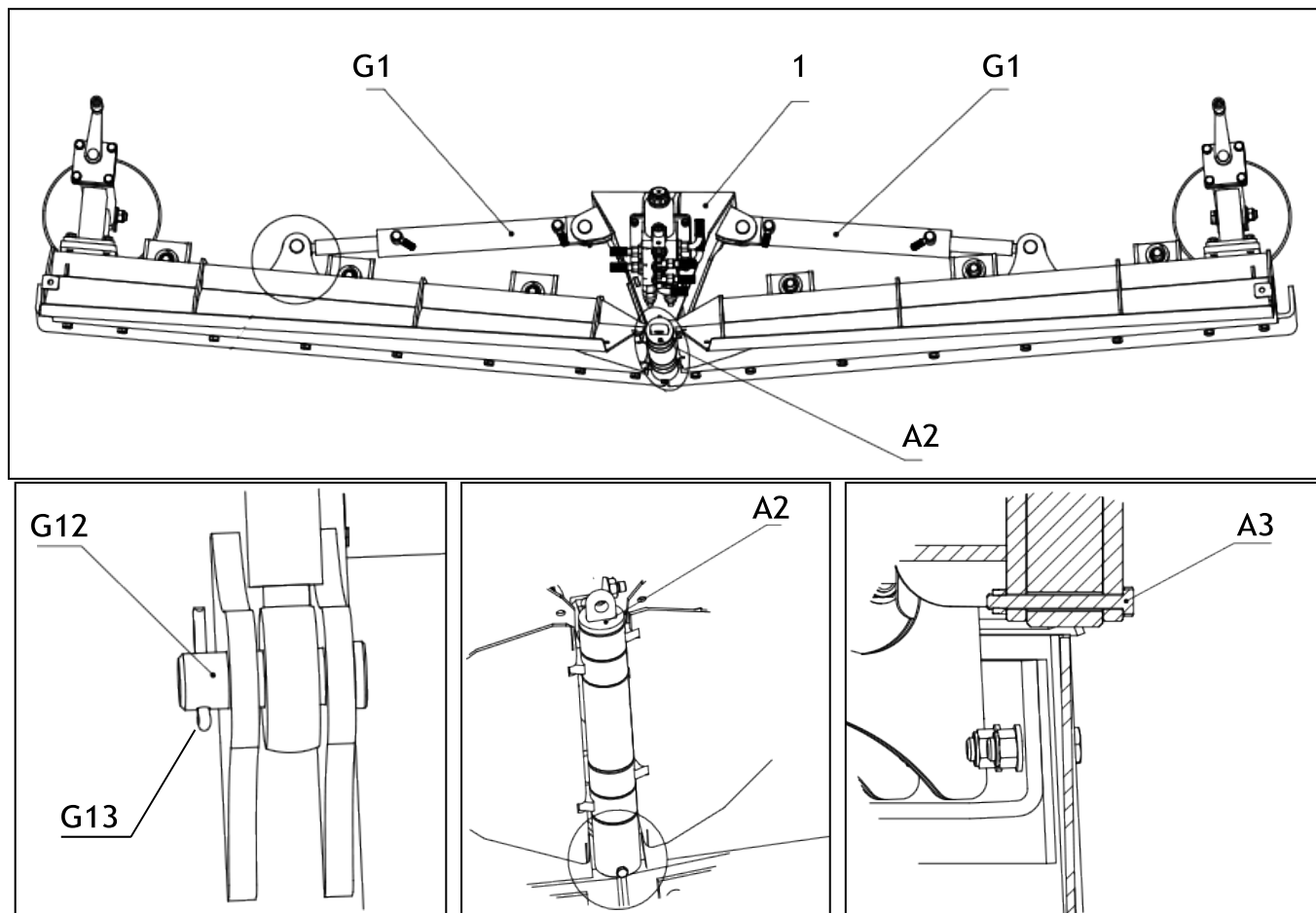
Importance: All bolts are locked in place without shaking.

⚠ WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
3	Shovel as-right main	1
4	Adjustment as- support	1
D14	Plain washer Ø12	8
D15	Full-thread hexagon bolts M12x30	8

4. Installation of bracket component



Installation steps:

1. Align the right main shovel (3), bracket(1), and left main shovel (2) in sequence and insert the main pin shaft weldment (A2), then adjust the hole position at the end of the main pin shaft to be perpendicular to the bracket. Then use M8*70 bolts (A3) to insert and fasten.
2. After installing the bracket, install the shovel cylinder (G1) according to the cylinder position in the above figure, and fix it with cylinder pins (G12) and split pins (G13).

Note: The oil port of the oil cylinder is facing upwards, and the position of the cotter pin of the oil cylinder pin is facing downwards.

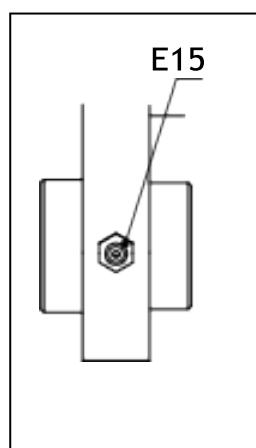
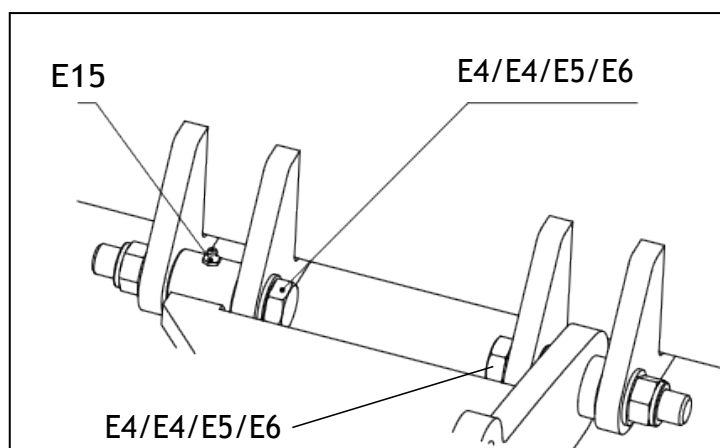
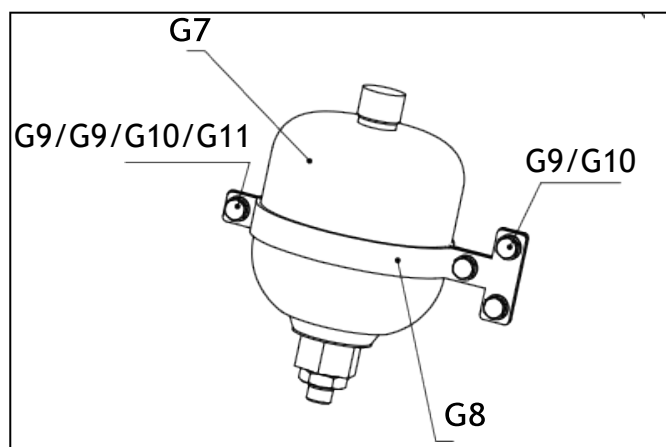
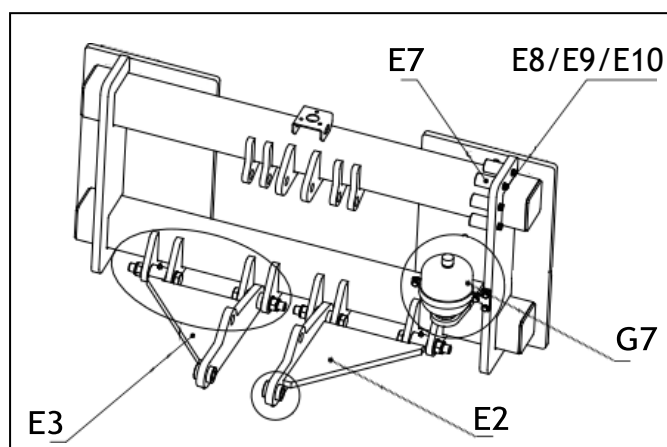
Importance: All bolts are locked in place without shaking.

⚠ WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
1	Bracket assembly	1
A2	Main pin shaft weldment	1
A3	Hexagon head bolt M8x70	1
G1	Hydraulic cylinder 50x32x255	2
G12	Cylinder pin 2	4
G13	Split pin 5x40	4

5. Installation of suspension assembly



Installation steps:


1. The docking station of the male connector (E7) is tightened with M8*35 bolts (E8) and flat washers (E9) according to the position shown in the figure above.
2. Install the accumulator (G7) with the hoop (G8), M8*35 bolts (G10) and flat washers (G9) in the position shown in the figure.

Note: the accumulator oil port faces downwards

3. Tighten the left and right bracket welded parts (E2,E3) with M20*120 bolts (E5) and flat washers (E4) according to the positions in the above figure .

Note: there are four places where the left and right bracket welded parts need to be installed with grease nipple(E15), and the positions are shown in the above figure.

Importance: All bolts are locked in place without shaking.

 **WARNING:** Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
E1	Suspension frame	1
E2	Bracket weldment - left	1
E3	Bracket weldment - right	1
E4	Plain washer Ø20	8
E5	Full-thread hexagon bolts M20x120	4
E6	Lock nut M20	4
E7	Docking station of the male connector	4
E8	Full-thread hexagon bolts M8x35	4
E9	Lifting cylinder 40x22x160	1
E10	Cylinder gasket	4
E15	Grease nipple	2
G7	Accumulator	1
G8	Hoop	2
G9	Plain washer Ø8	8
G10	Full-thread hexagon bolts M8x20	4
G11	Lock nut M8	2

6. Installation of the hanger assembly

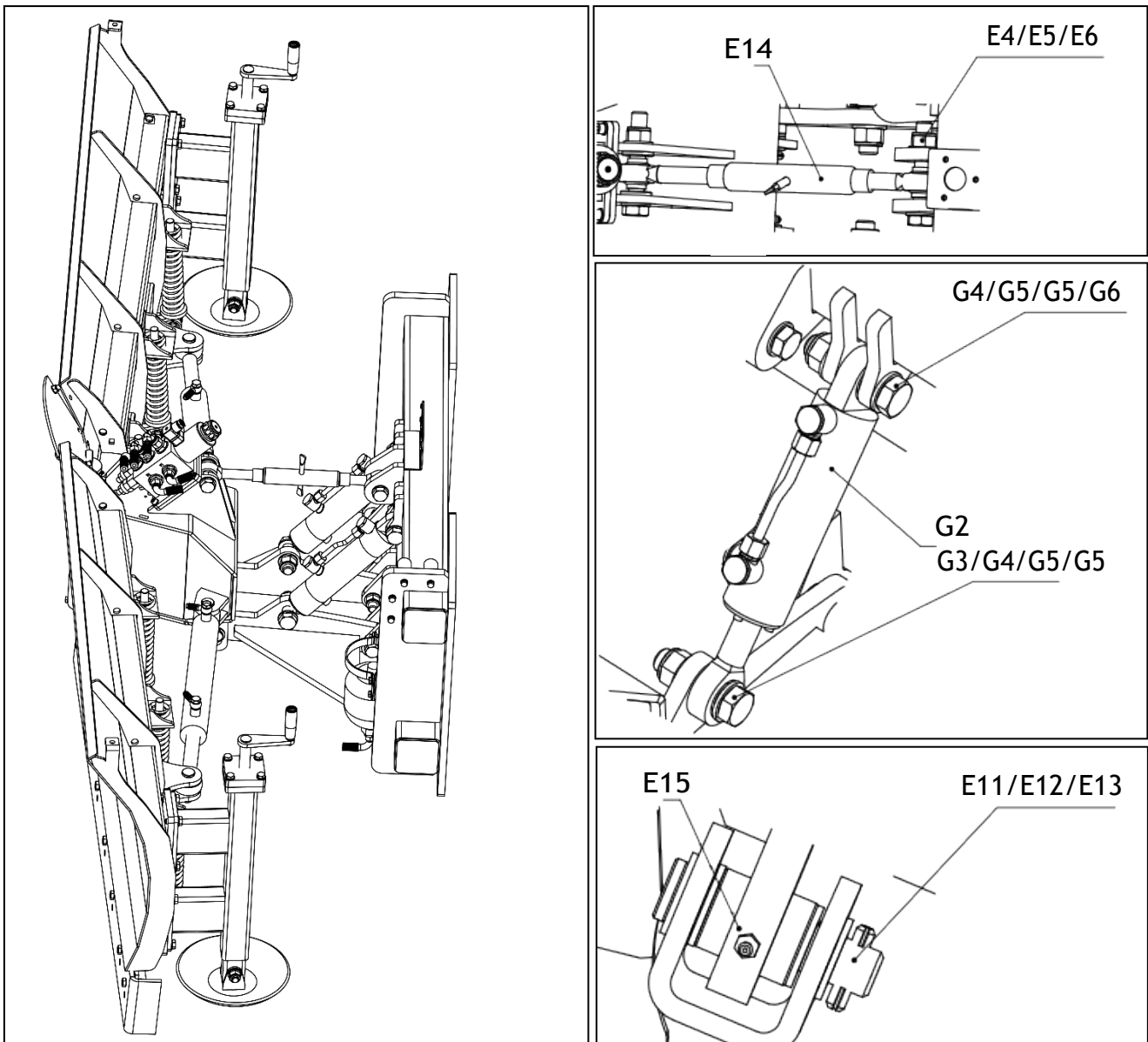
Installation steps:

1. Align the left and right bracket welded parts (E2,E3) with the holes at the bottom of the bracket, insert and padded the Ø22 plain washers (E11) with the cylinder pins (E12), and then knock in the spring-type straight pin (E13)

Note: there are two places where the left and right bracket welded parts need to be installed with grease nipple (E15), and the positions are shown in the above figure.

2. Installation the shock absorber hydraulic cylinder (G2) on the suspension frame (E1), and insert M24*100 bolts (G6) with washers (G5) and lock nuts (G4) to tighten. Adjust the angle of the suspension bracket to align the mounting holes of the shock absorber cylinder with the holes on the left and right bracket welded parts (E2,E3), and insert M24*90 bolts (G3) with washers (G5) and lock nuts (G4) to tighten.

3. Adjust the length of the tie rod assembly (E14) to make the mounting holes of the tie rod assembly align with the holes on the suspension frame and bracket, and insert the M20*120



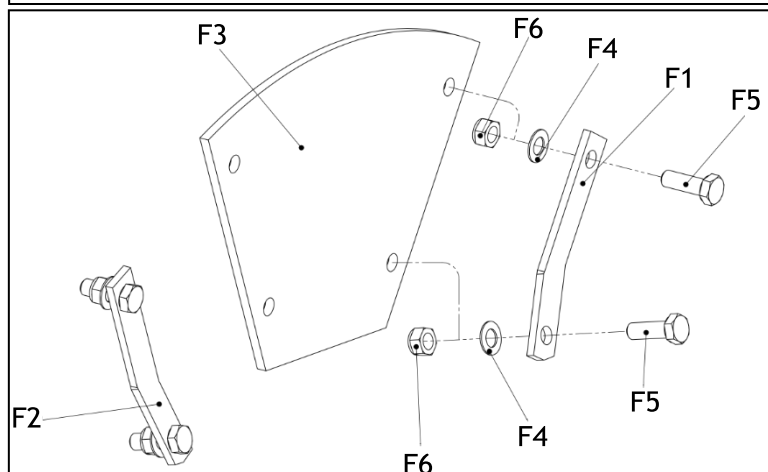
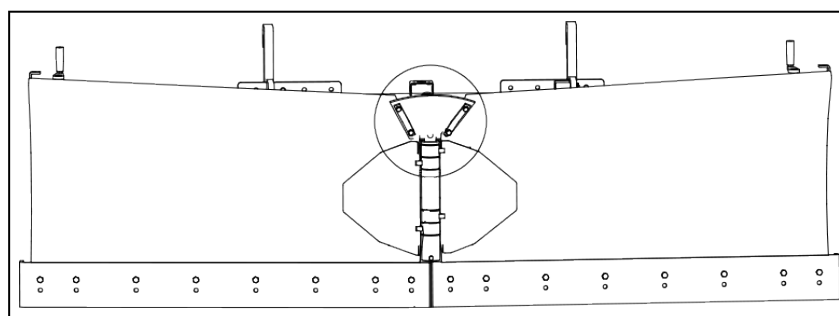
bolt (E5) with the washer (E4) and lock nut (E6) to tighten. The ring and lock nut are tightened.
Importance: All bolts are locked in place without shaking.

⚠ WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
E4	Plain washer Ø20	4
E5	Full-thread hexagon bolts M20x120	2
E6	Lock nut M20	2
E11	Plain washer Ø22	8
E12	Cylinder pin 1	2
E13	Spring-type straight pin	2
E14	Tie rod assembly	1
E15	Grease nipple	2
G2	Shock absorber hydraulic cylinder 50x28x100	2
G3	Full-thread hexagon bolts M24x90	2
G4	Lock nut M24	4
G5	Plain washer Ø24	8
G6	Full-thread hexagon bolts M24x100	2

7. Installation of rubber as-protection



Installation steps: Assemble the eraser in the order of the style above.

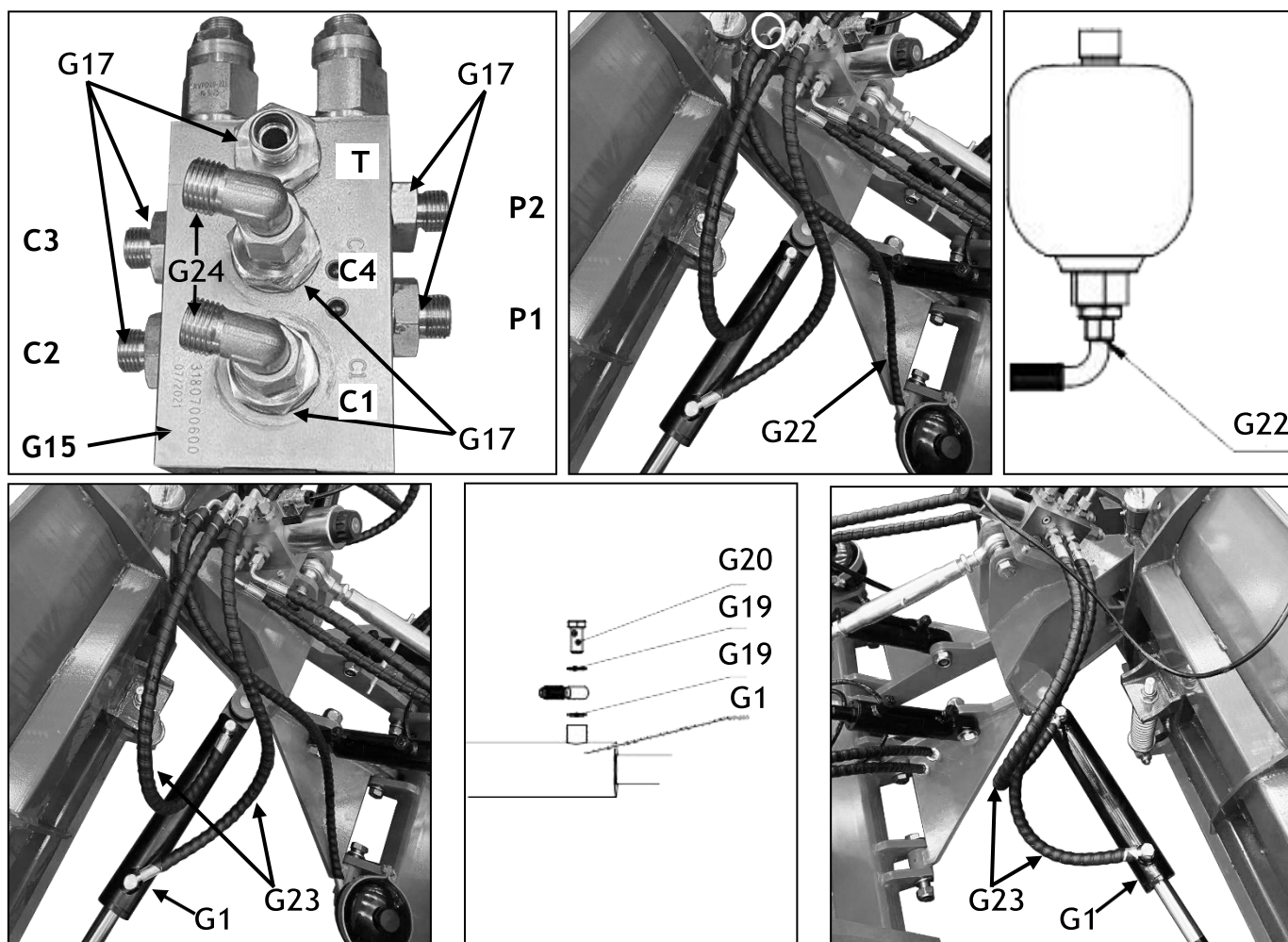
Importance: All bolts are locked in place without shaking.

⚠ WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
F1	Rubber splint II	1
F2	Rubber splint	1
F3	Rubber sheet	1
F4	Plain washer Ø10	4
F5	Full-thread hexagon bolts M10x30	4
F6	Lock nut M10	4

8. Cylinder and oil pipe connection



Installation steps:

1. Installation connect the transition joint (G17) and the right-angle combined joint (G24) to the solenoid valve (G15) according to the position shown in the figure above.

Noted:the accumulator oil port also has a transition joint.


2. The hydraulic hose(G22) is connected to the accumulator at one end and the T port on the solenoid valve (G15) at the other end.

3. The cylinder (G1) of the main shovel on the left is connected to the hydraulic hose (G23) with the hollow bolt (G20) and the combined sealing gaskets (G19), which are respectively connected to the C1 and C4 ends of the solenoid valve (G15).

4. The cylinder (G1) of the main shovel on the right is connected to the hydraulic hose (G23) with the hollow bolt (G20) and the combined sealing gaskets (G19), which are respectively connected to the C2 and C3 ends of the solenoid valve (G15).

5. The P1 and P2 ends of the solenoid valve (G15) are respectively connected to hydraulic hose (G21) (the other end is connected to the tractor oil pump).

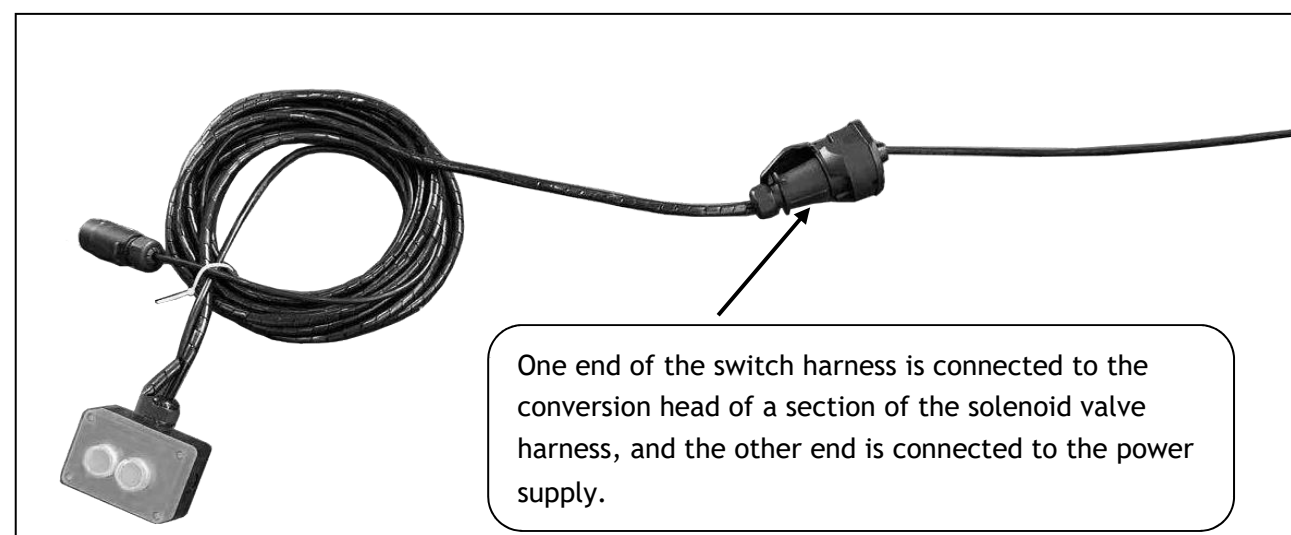
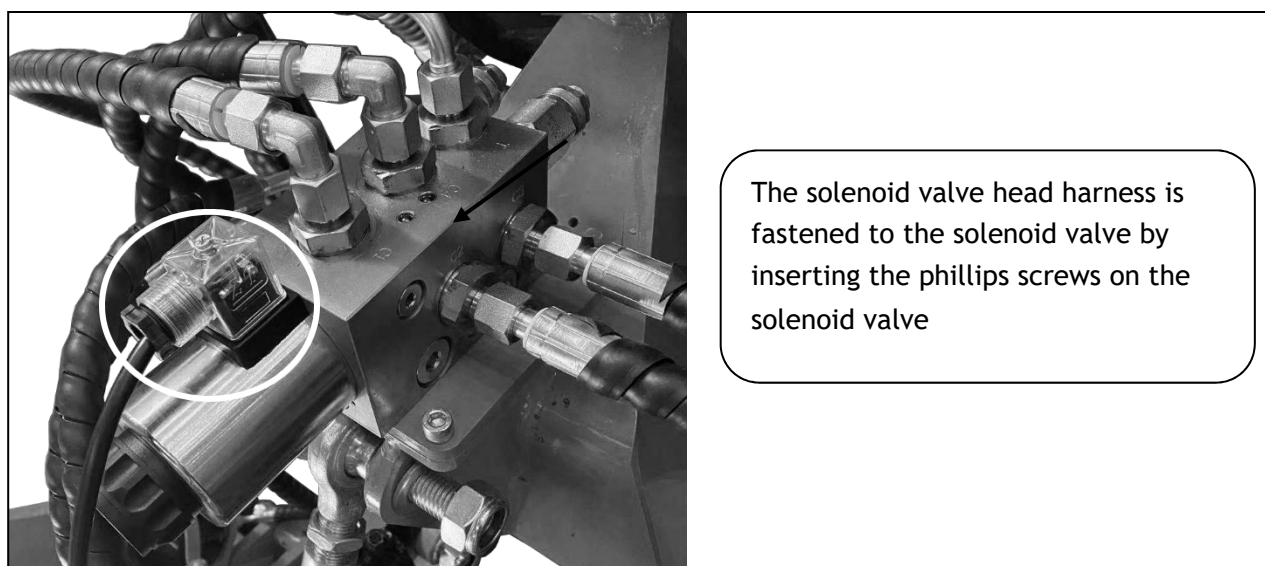
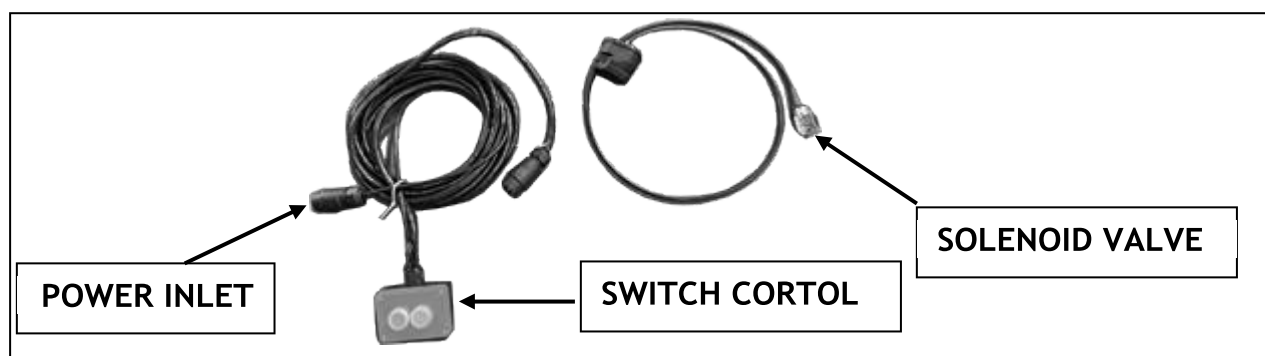
Importance: All bolts are locked in place without shaking.

 **WARNING:** Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification		
REF No	Specification	QTY
G1	Hydraulic cylinder 50x32x255	2
G15	Solenoid valve	1
G17	Transition Joints	8
G19	Combined sealing gaskets	8
G20	Hollow bolt G1/4	4
G21	Hydraulic Hose1"x2000mm with NPT 1/2 male end, M16x1.5 fitting	2
G22	Hydraulic Hose 7/8"x1000mm with M16x1.5 fitting	1
G23	Hydraulic Hose 7/8"x750mm with M16x1.5 fitting	4
G24	Transition joints	2

9. Electrical circuit connection



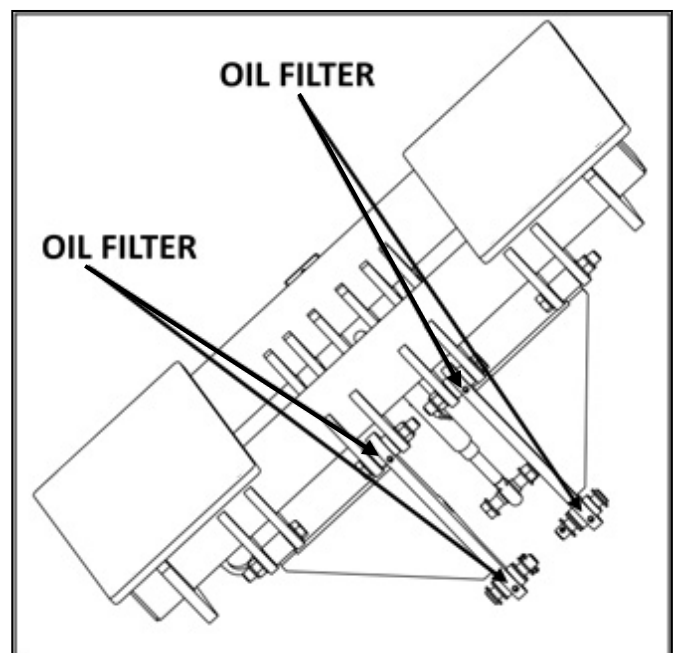
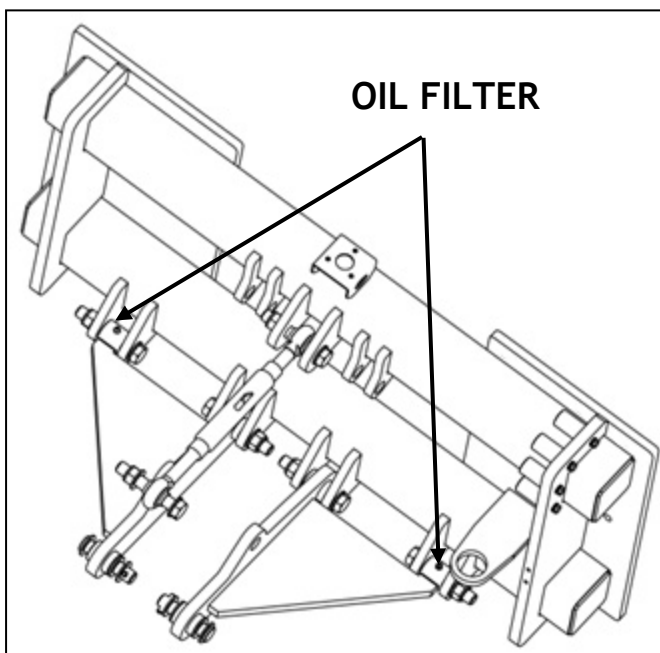
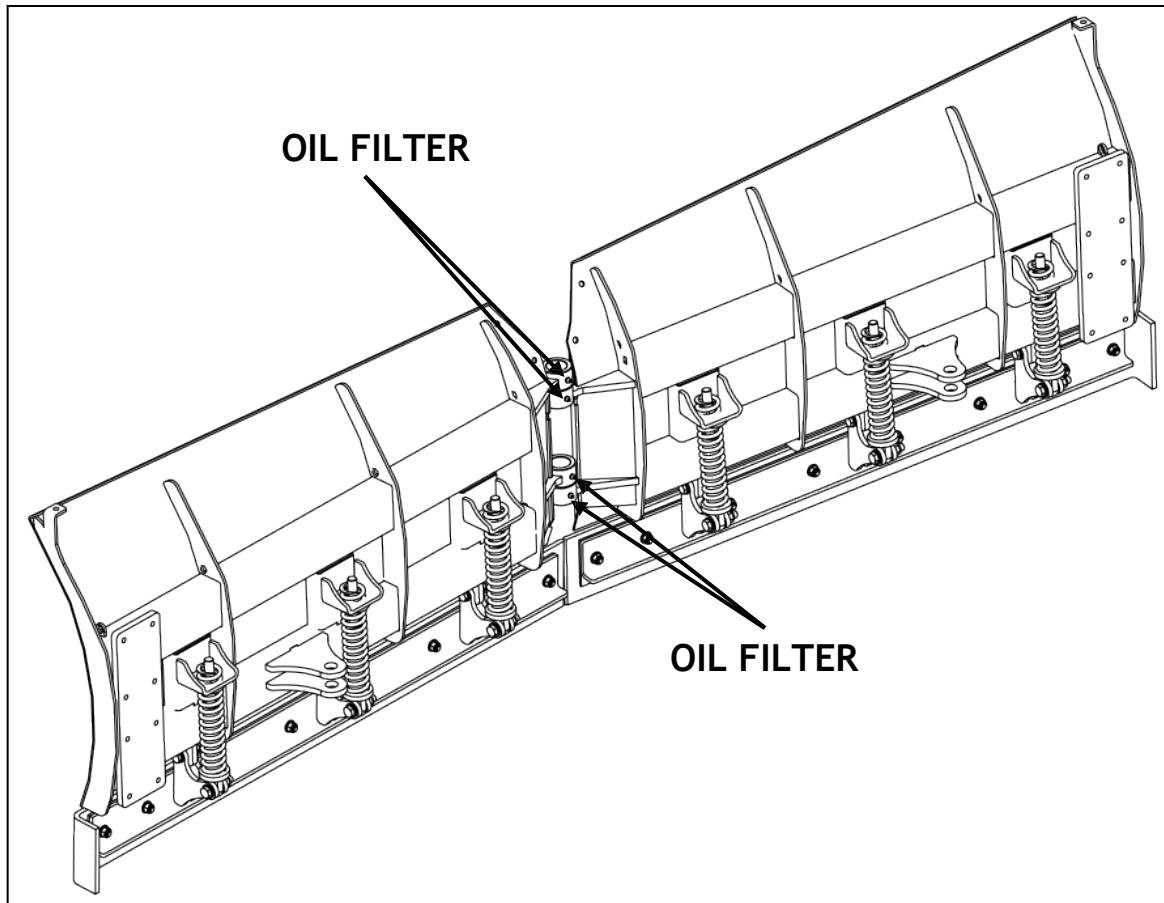
10. Lubricating grease



WARNING

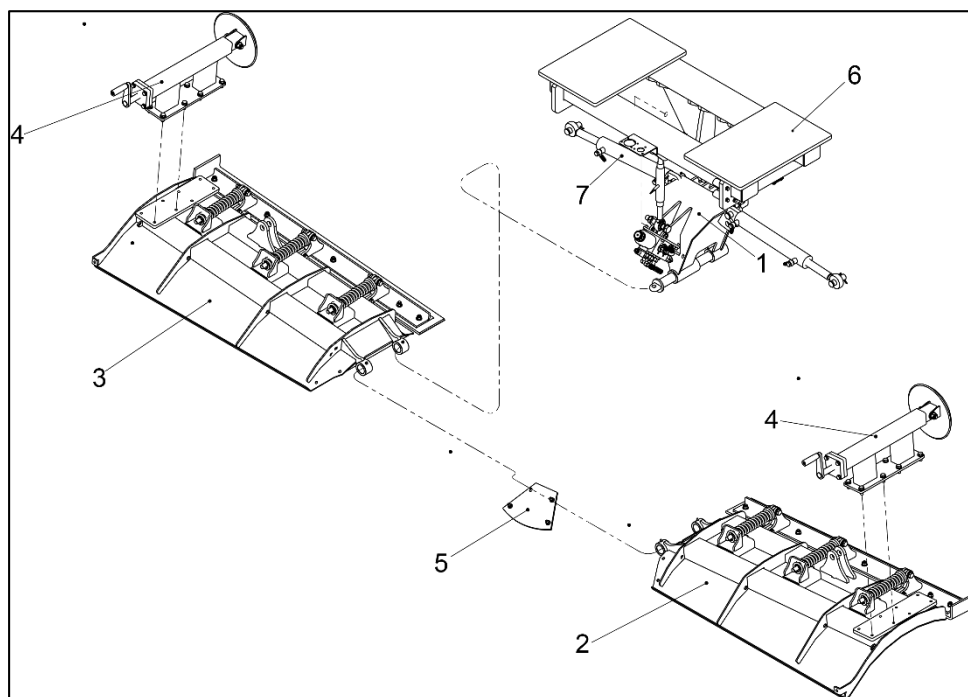
Lubricate the bearing before each use, Otherwise, the service life of the machine will be affected

Type of Lubrication: General purpose lithium grease No.1 (GP-A)



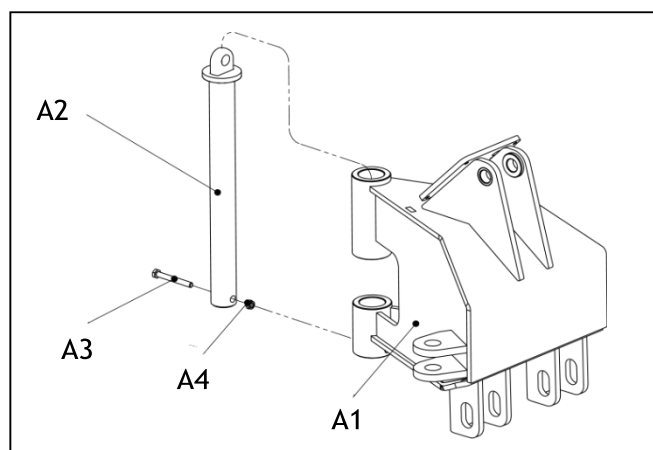
4.Explosion diagram and Product Parts

1. Explosive diagram of major components



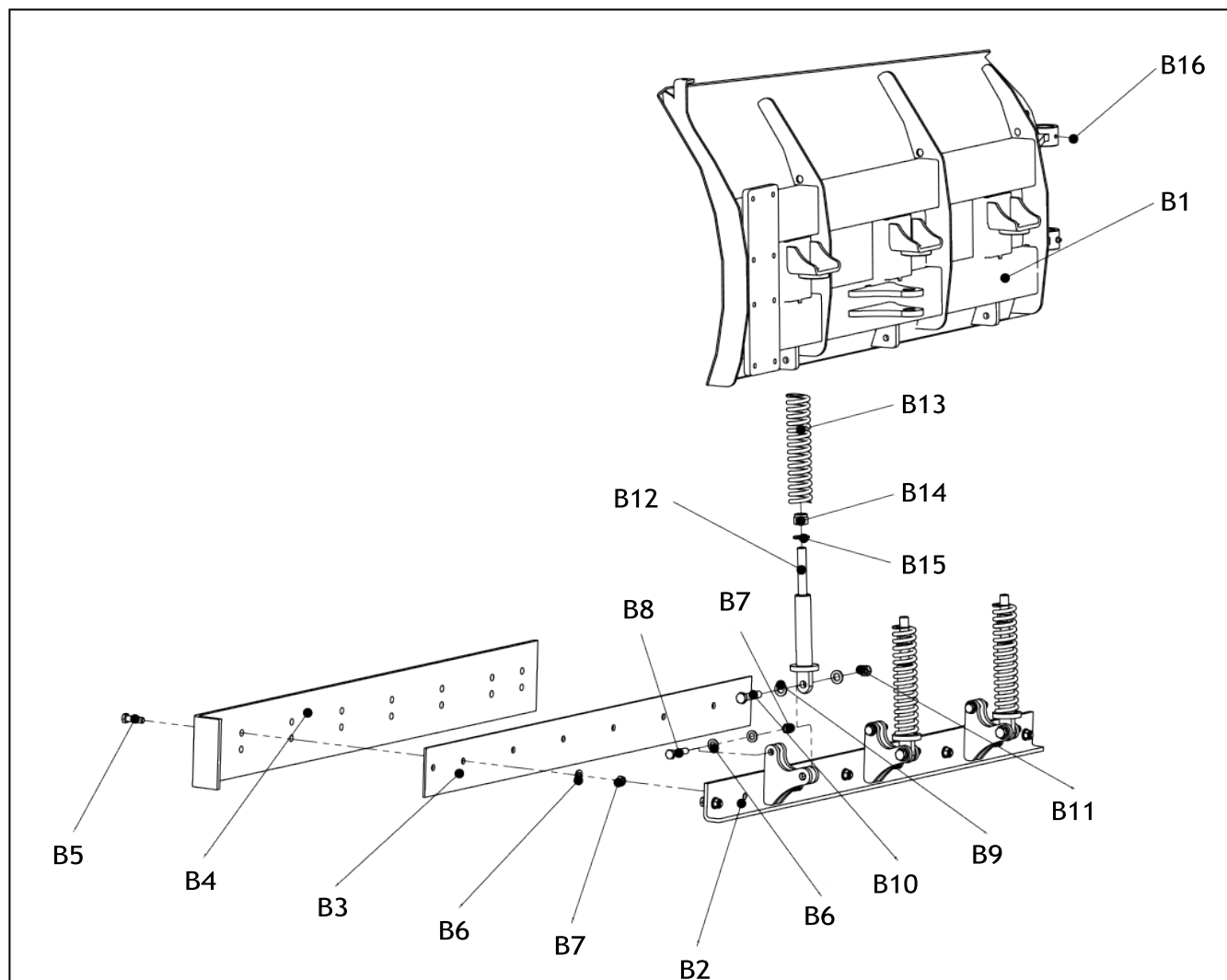
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	Bracket assembly	1	5	Rubber as-protection	1
2	Shovel as-left main	1	6	Bracket as hanging plate assembly	1
3	Shovel as-right main	1	7	Hydraulic assembly	1
4	Adjustment as- support	2			

2. Explosive diagram of Bracket Assembly



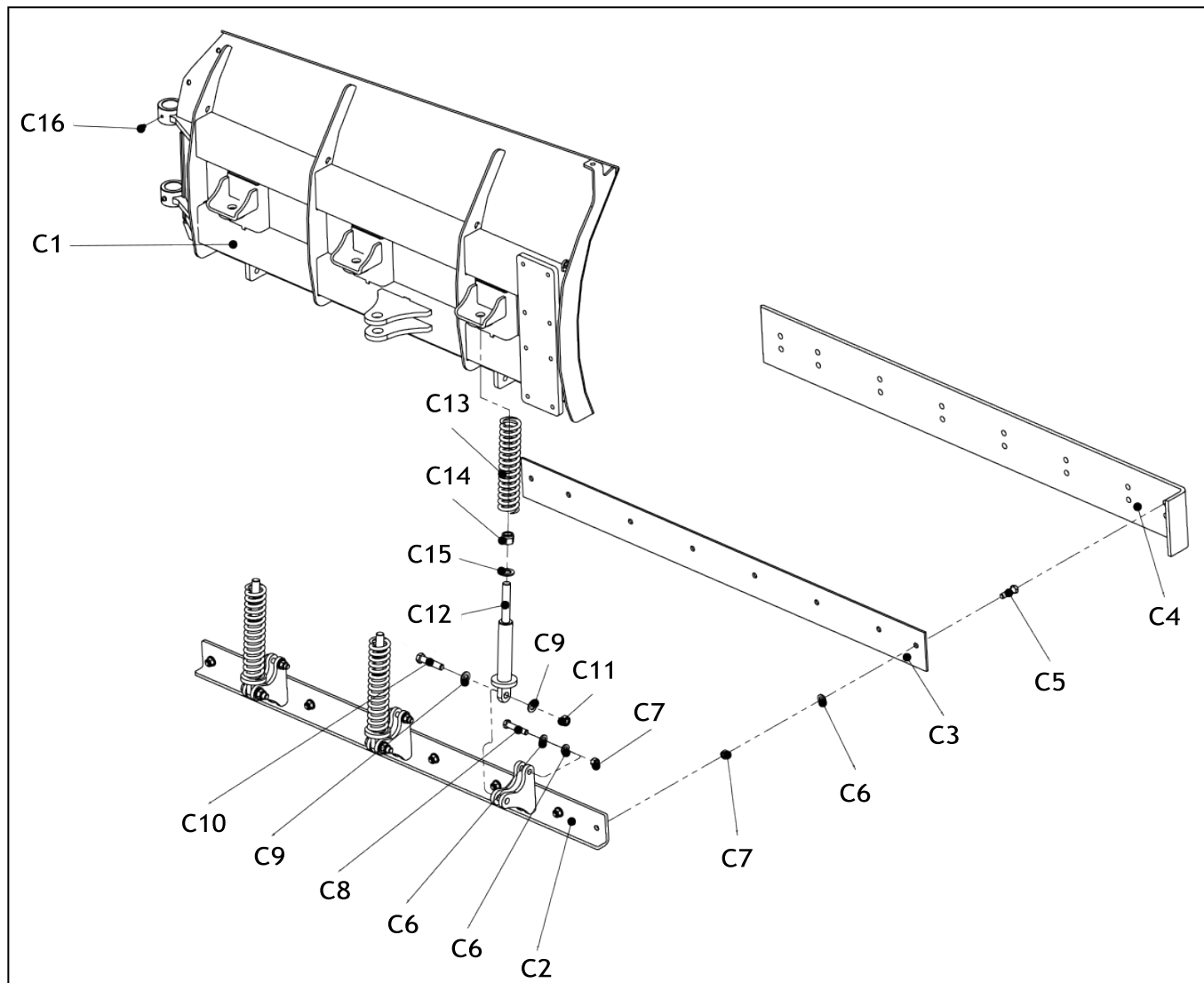
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
A1	Bracket weldment	1	A3	Hexagon head bolt M8x70	1
A2	Main pin shaft weldment	1	A4	Lock nut M8	1

3. Explosive diagram of Shovel as-lest main



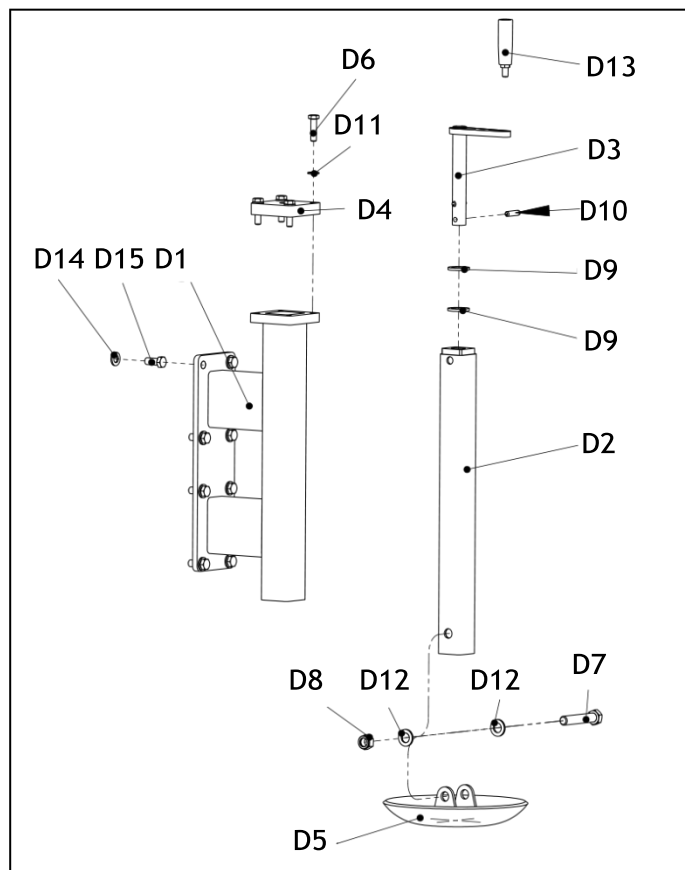
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
B1	Left main shovel plate weldment	1	B9	Plain washer Ø14	6
B2	Left rubber pressing plate weldment	1	B10	Full-thread hexagon bolt M14x65	3
B3	Backing plate	1	B11	Lock nut M14	3
B4	Scraper	1	B12	Spring pin shaft weldment	3
B5	Full-thread hexagon bolt M12x40	8	B13	Spring 50x15x230	3
B6	Plain washer Ø12	14	B14	Lock nut M18	3
B7	Lock nut M12	11	B15	Plain washer Ø18	3
B8	Full-thread hexagon bolt M12x60	3	B16	Grease nipple	2

4. Explosive diagram of Shovel as-right main



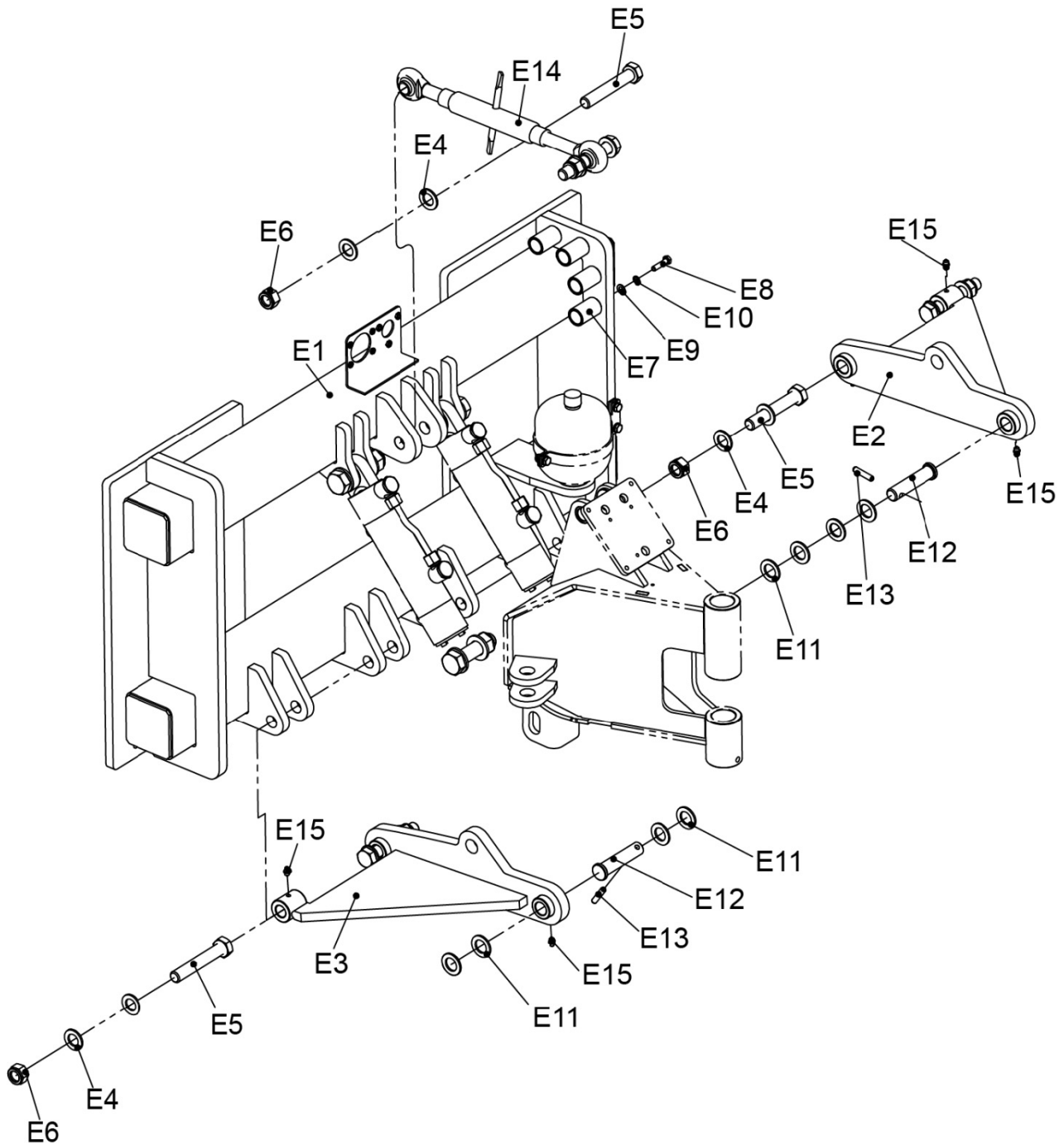
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
C1	Right main shovel plate weldment	1	C9	Plain washer Ø14	6
C2	Right rubber pressing plate weldment	1	C10	Full-thread hexagon bolt M14x65	3
C3	Backing plate	1	C11	Lock nut M14	3
C4	Scraper	1	C12	Spring pin shaft weldment	3
C5	Full-thread hexagon bolt M12x40	8	C13	Spring 50x15x230	3
C6	Plain washer Ø12	14	C14	Lock nut M18	3
C7	Lock nut M12	11	C15	Plain washer Ø18	3
C8	Full-thread hexagon bolt M12x60	3	C16	Grease nipple	2

5. Explosive diagram of Adjustment as-support



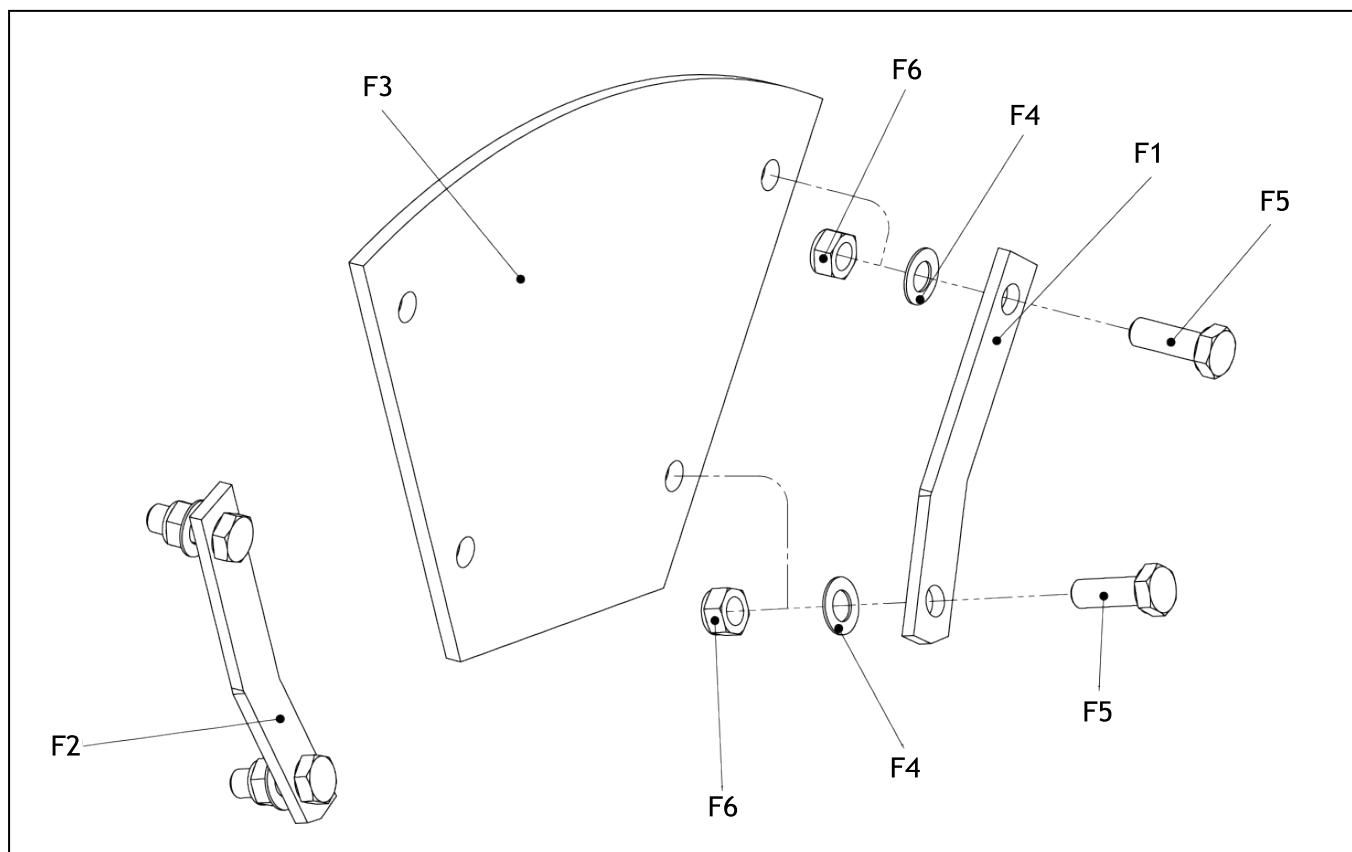
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
D1	Adjusting bracket	1	D9	Shim	2
D2	Support foot weldment	1	D10	Spring-type straight pin	2
D3	Lifting screw welding	1	D11	Plain washer Ø10	4
D4	Threaded cover plate	1	D12	Plain washer Ø16	2
D5	Welding of support plate	1	D13	Handle	1
D6	Full-thread hexagon bolts M10x40	4	D14	Plain washer Ø12	8
D7	Hexagon head bolt M16x90	1	D15	Full-thread hexagon bolts M12x30	8
D8	Lock nut M16	1			

6. Explosive diagram of Bracket as hanging plate assembly



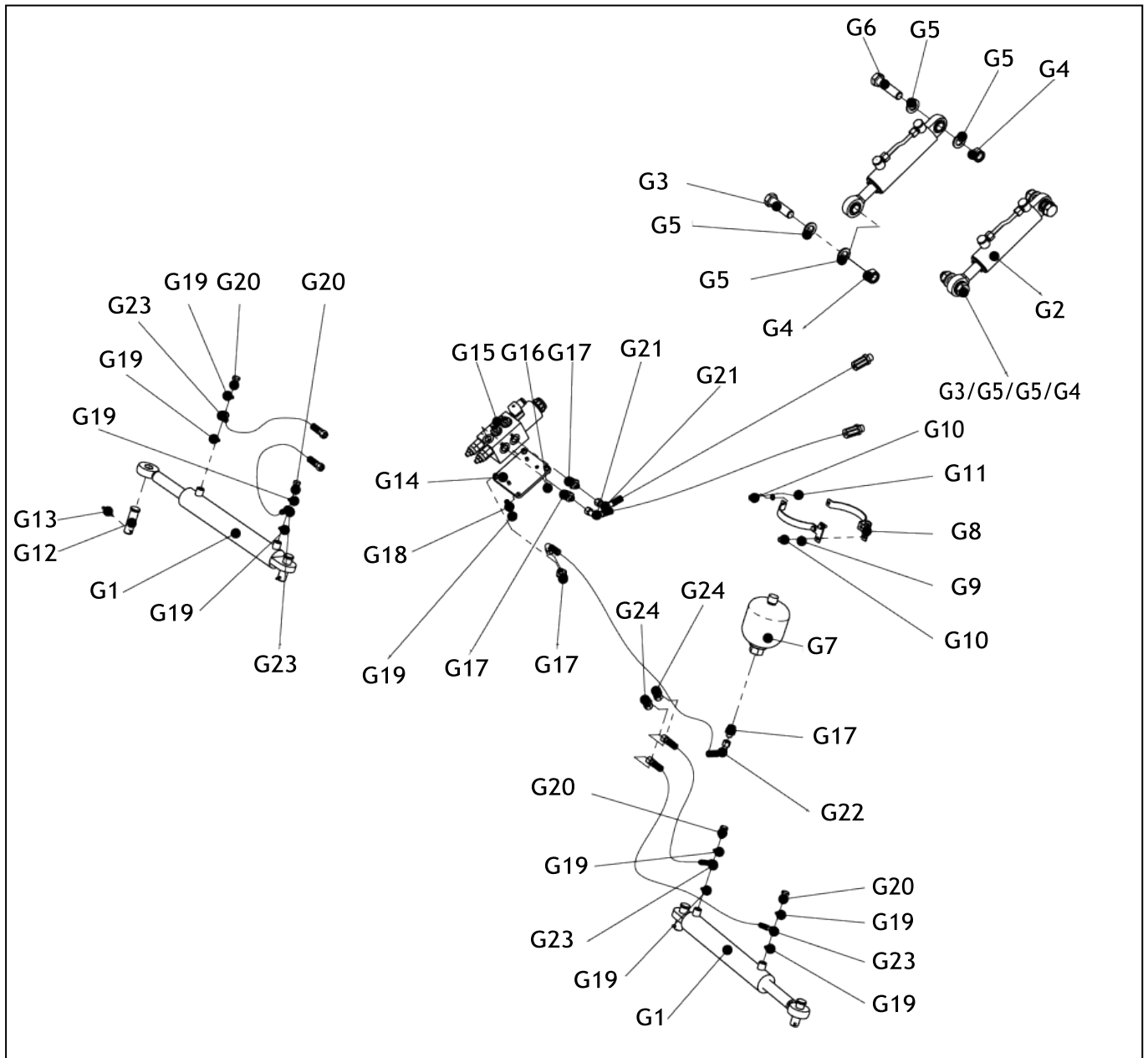
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
E1	Suspension frame	1	E9	Plain washer Ø8	4
E2	Bracket weldment - left	1	E10	Spring washer Ø8	4
E3	Bracket weldment - right	1	E11	Plain washer Ø22	8
E4	Plain washer Ø20	12	E12	Cylinder pin 1	2
E5	Full-thread hexagon bolts M20x120	6	E13	Spring-type straight pin	2
E6	Lock nut M20	6	E14	Tie rod assembly	1
E7	Rubber	4	E15	Grease nipple	6
E8	Full-thread hexagon bolts M8x35	4			

7. Explosive diagram of Rubber as-protection



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
F1	Rubber splint II	1	F4	Plain washer Ø10	4
F2	Rubber splint	1	F5	Full-thread hexagon bolts M10x30	4
F3	Rubber sheet	1	F6	Lock nut M10	4

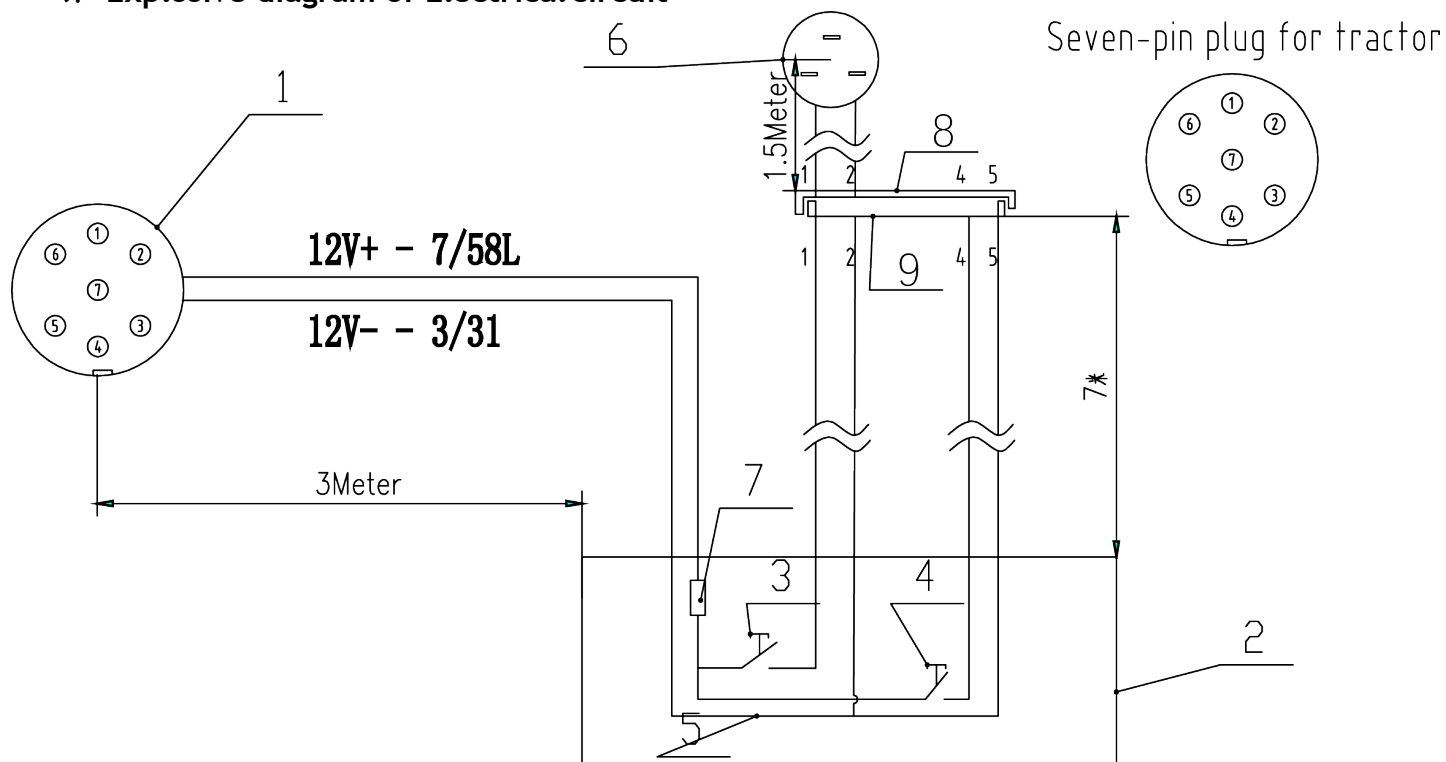
8. Explosive diagram of Hydraulic assembly



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
G1	Hydraulic cylinder 50x32x255	2	G13	Split pin 5x40	4
G2	Shock absorber hydraulic cylinder 50x28x100	2	G14	Connecting plate	1
G3	Full-thread hexagon bolts M24x90	2	G15	Solenoid Valve	1
G4	Lock nut M24	4	G16	HSCS - countersunk	3
G5	Plain washer Ø24	8	G17	Transition Joints	8
G6	Full-thread hexagon bolts M24x100	2	G18	Hexagon socket head cap screws M8X20	4
G7	Accumulator	1	G19	Combined sealing gaskets	8
G8	Hoop	2	G20	Hollow bolt G1/4	4
G9	Plain washer Ø8	8	G21	Hydraulic Hose 1"x2000mm with	2

				NPT 1/2 male end, M16x1.5 fitting	
G10	Full-thread hexagon bolts M8x20	4	G22	Hydraulic Hose 7/8"x1000mm with M16x1.5 fitting	1
G11	Lock nut M8	2	G23	Hydraulic Hose 7/8"x750mm with M16x1.5 fitting	4
G12	Cylinder pin 2	4	G24	Transition joints	2

9. Explosive diagram of Electrical circuit



POS	SPECIFICATION	QTY	MATERIAL
1	American seven-pin trailer plug	1	Engineering plastics
2	Double hole button box	1	Engineering plastics
3	Red button A38-11 self-locking	1	Engineering plastics
4	Green button A38-11 self-locking	1	Engineering plastics
5	Button label	1	Engineering plastics
6	Hydraulic solenoid valve coil plug	1	Engineering plastics
7	14AWG small fuse holder	1	Engineering plastics
8	American seven-pin trailer socket	1	Engineering plastics
9	American seven-pin trailer plug	1	Engineering plastics