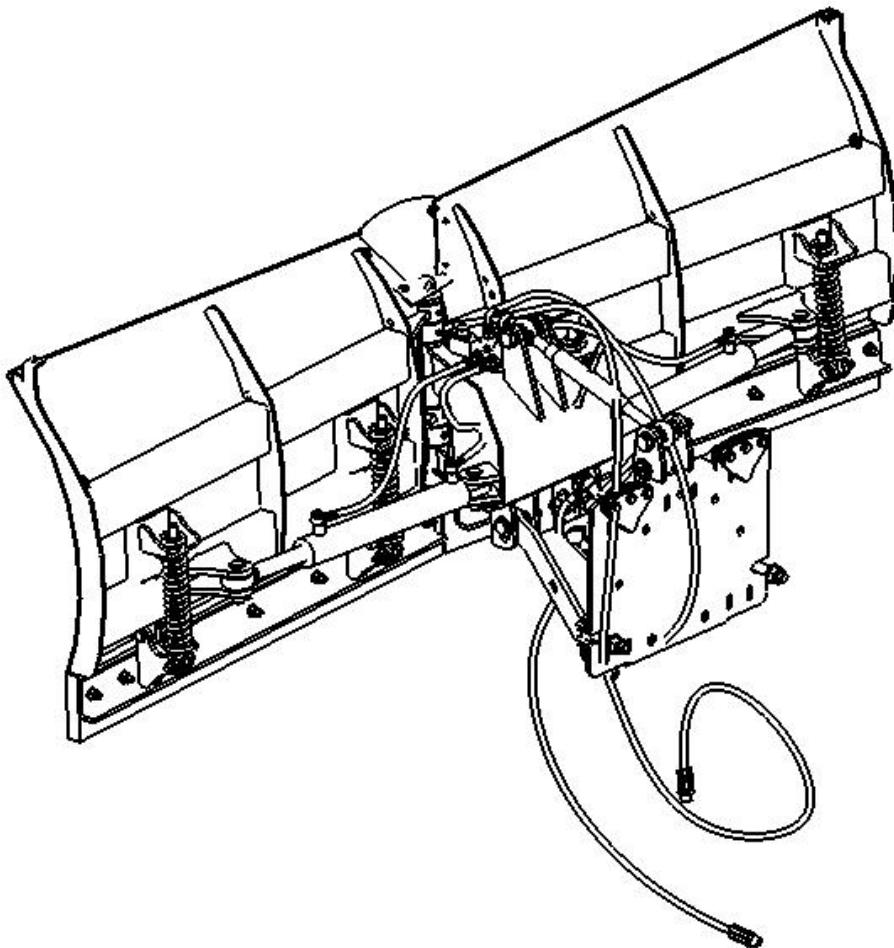


Snow Plow Pusher

10 FT, U/V Angle Blade

MODEL: TMG-SP10V



- Please read 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

Missing parts or questions on assembly?

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

Do not return the product to dealer, they are not equipped to handle your requests

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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.

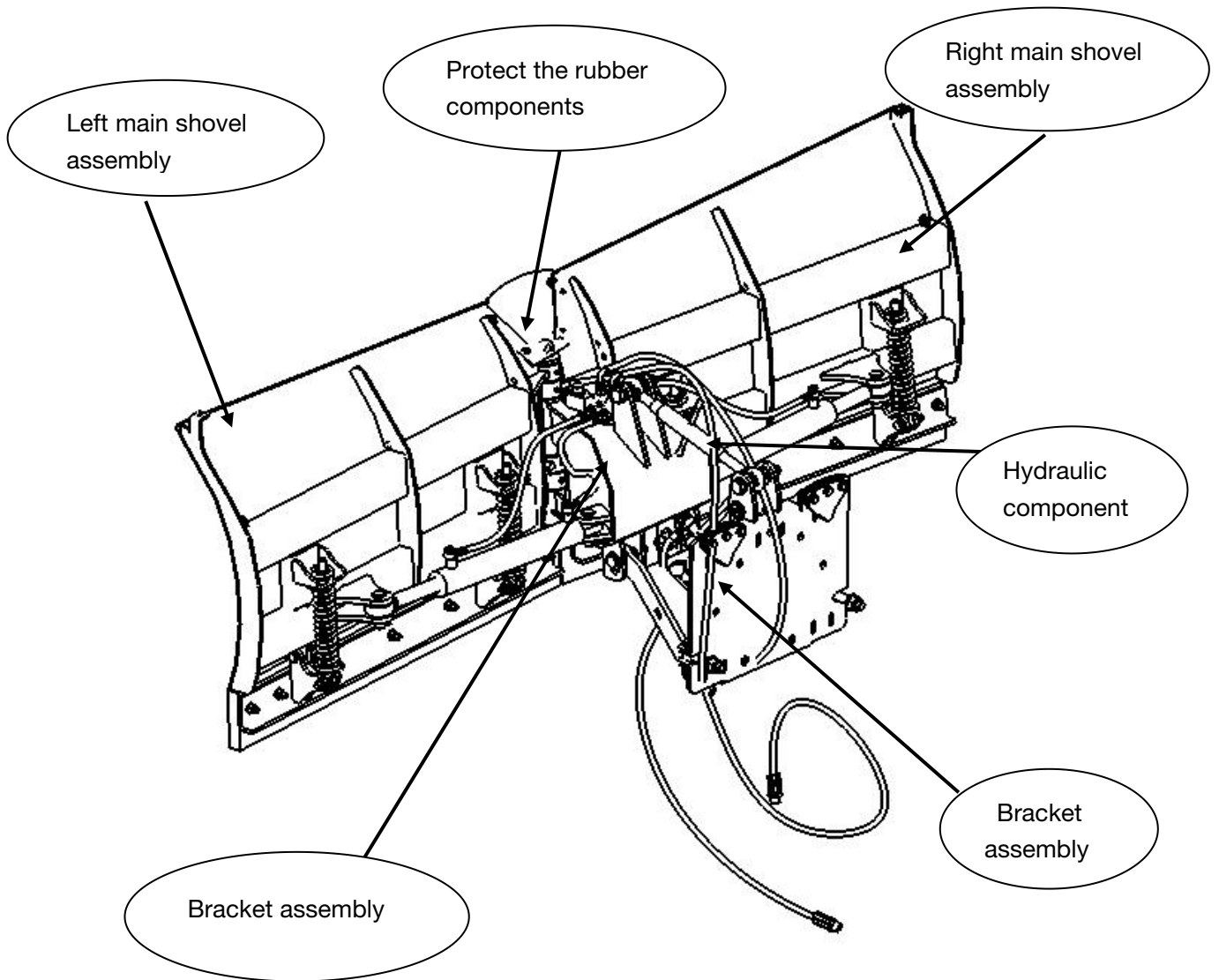
Storage instructions

NOTICE !

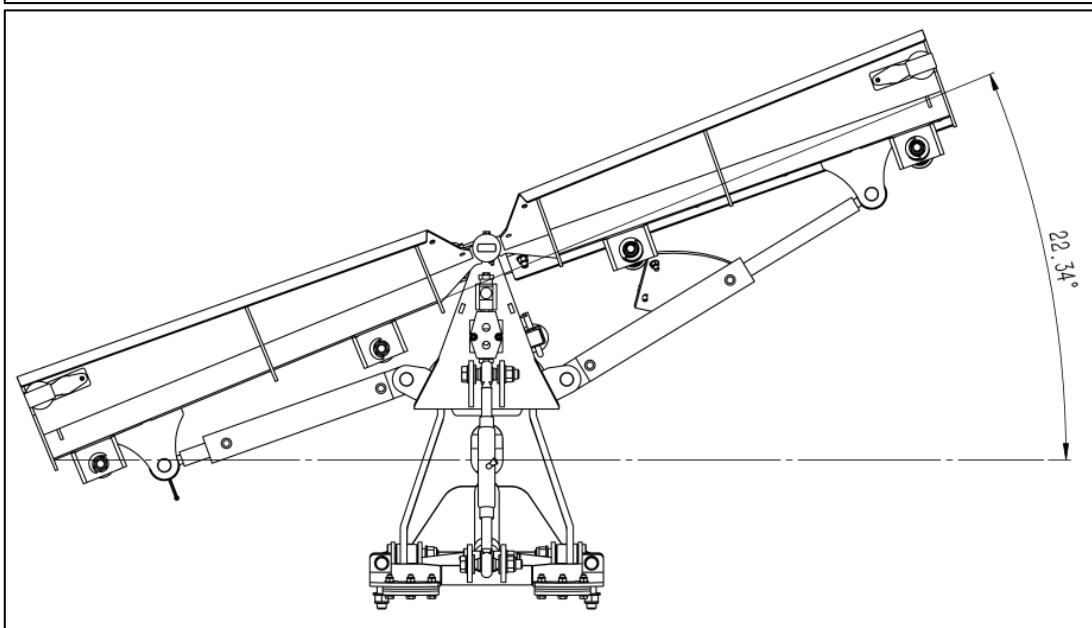
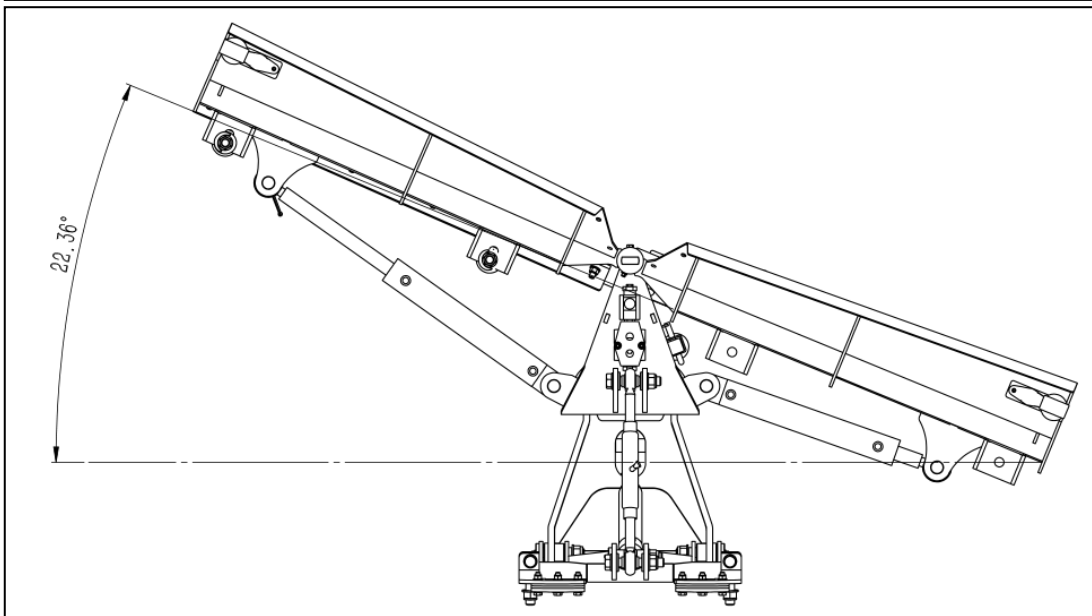
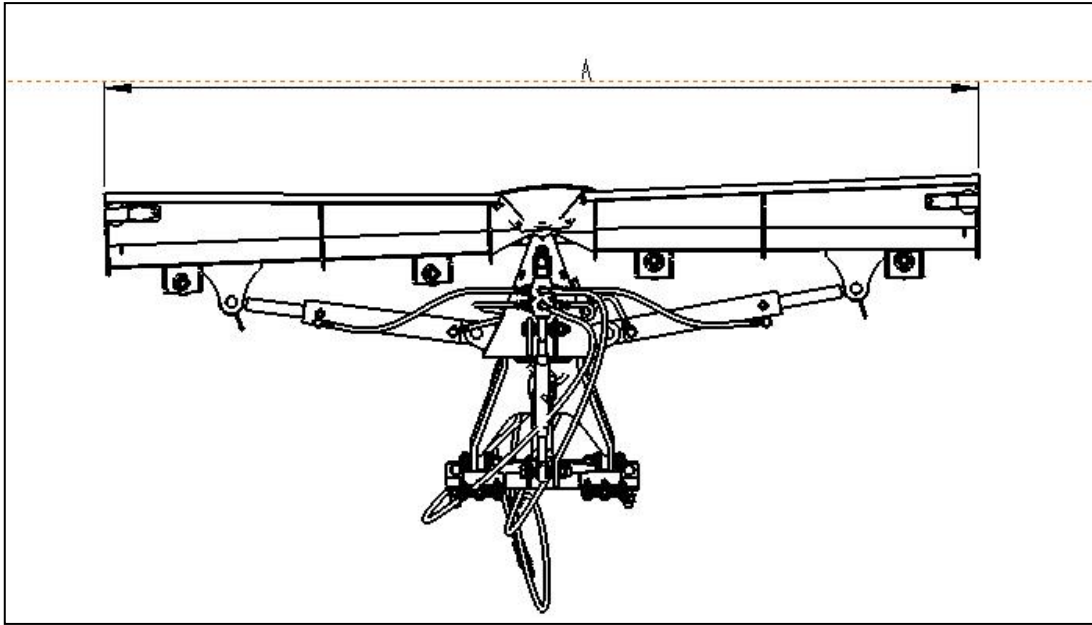
- ★ The snow shovel must be cleaned up before storage to prevent rainwater and hemolytic agent from corroding the shovel body.
- ★ In storage, the support frame of the snow shovel must be lowered, and the jack must be placed at the lowest level.
- ★ Cover the electrical parts with rain-proof cloth to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

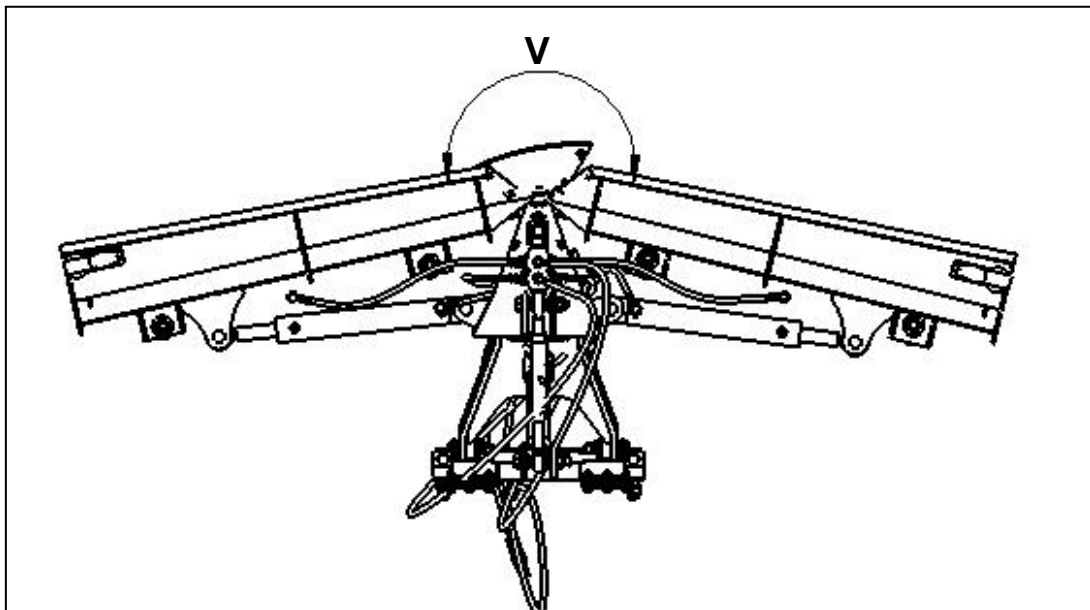
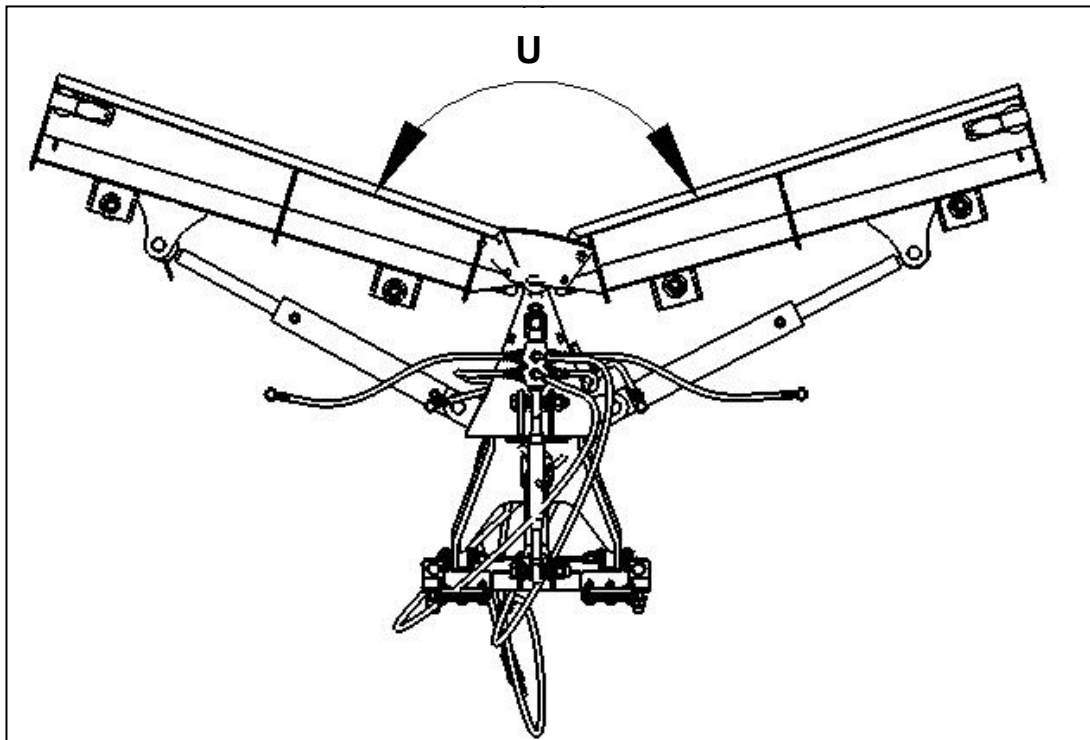
2. Machine introduce

Products part names and functions



Products Specifications

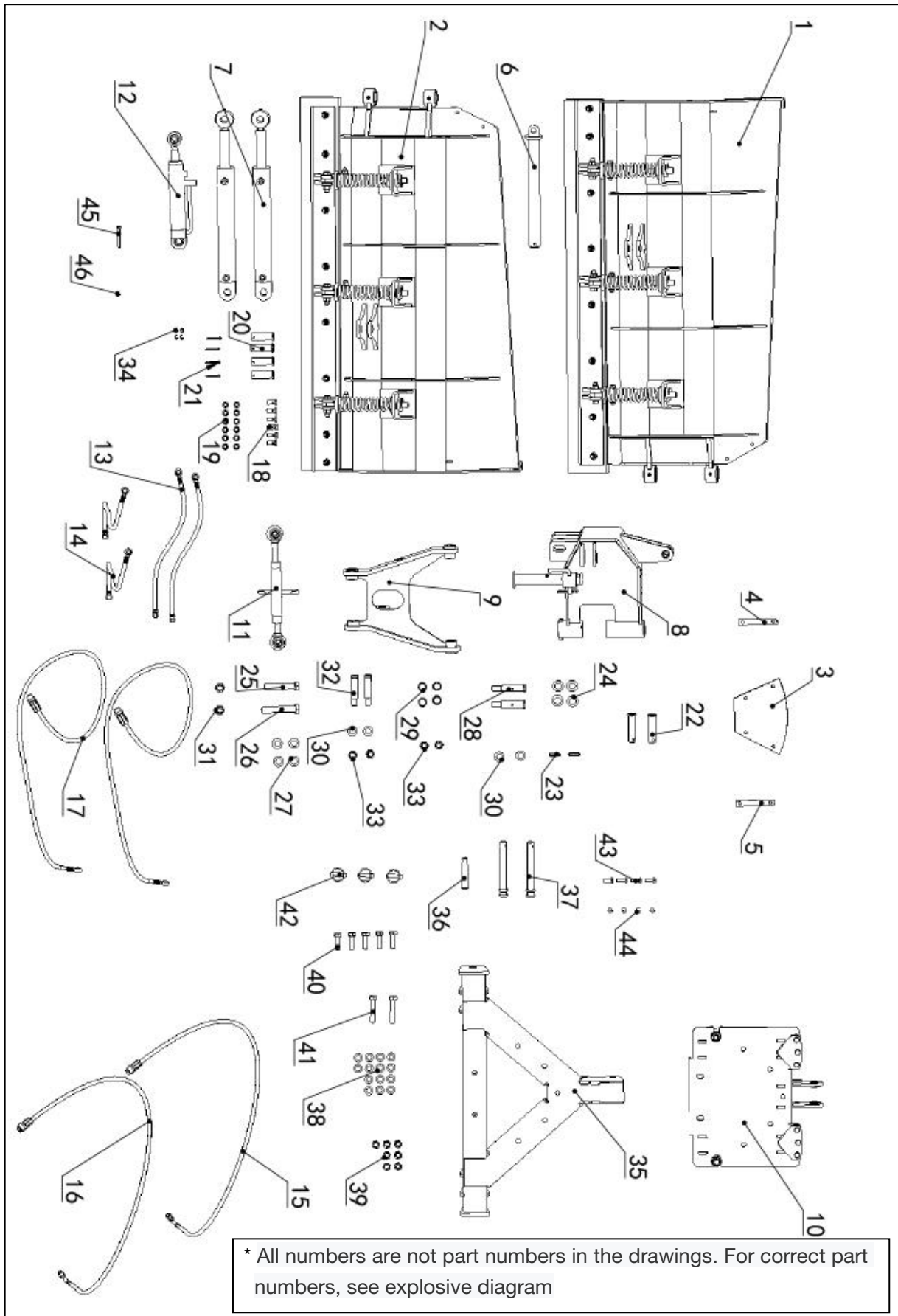




Model No.	TMG-SP10V
Max Working Pressure	3050PSI
Max Working Flow	8.0GPM
Working Width	10ft(118")
Working Voltage	DC 12V
U blade	up to 140 degree
V blade	up to 215 degree
Blade Angle	22 degrees left or right
Hydraulic Hose Diameter	1/4"(I.D)/1/2"(O.D)
Fitting	1/2" NPT
Shipping Weight	790 lb
Shipping Size	83"x36"x24"

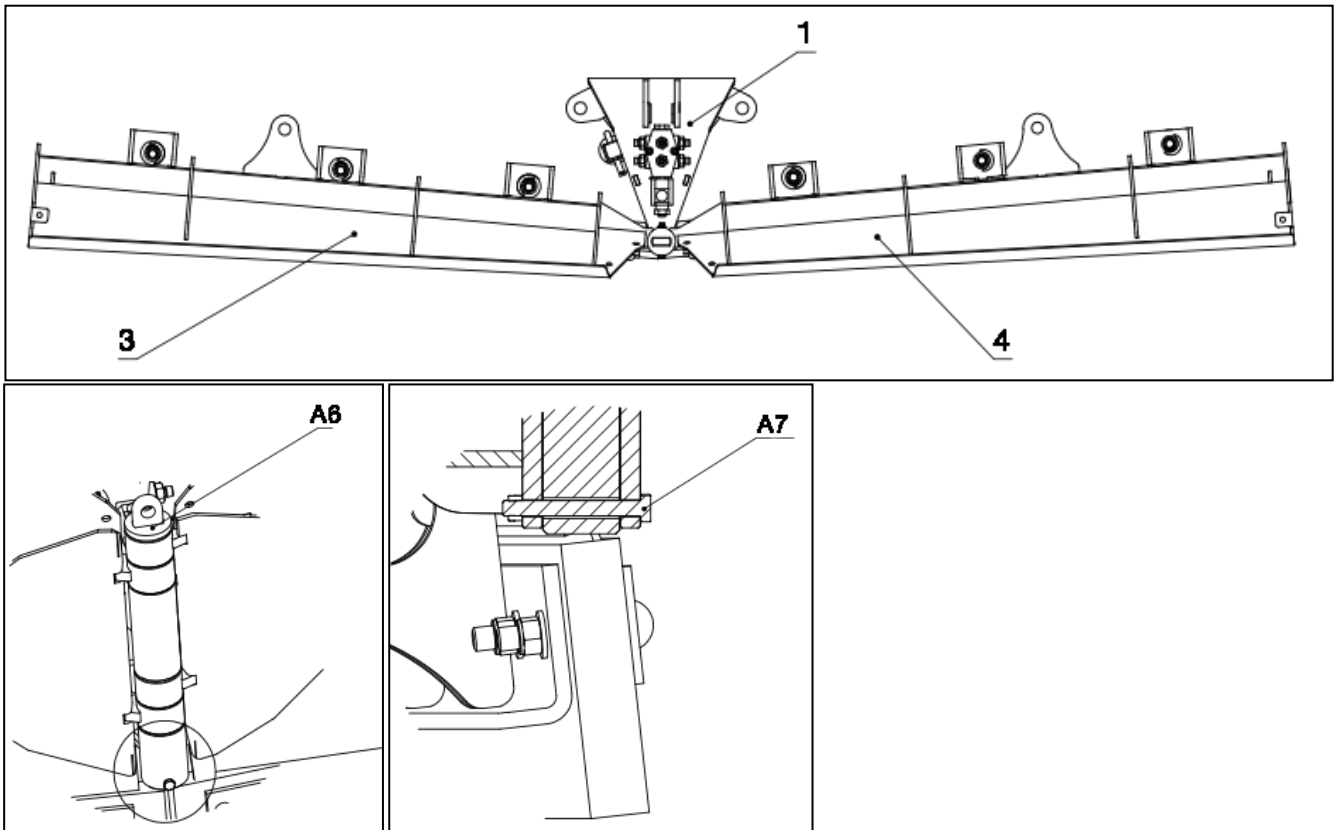
3.Assembly work instruction

1. After unpacking, check the following components



REF#	SPECIFICATION	QTY	REF#	SPECIFICATION	QTY
1	Left main shovel assembly	1	24	Flat Washers Ø22	4
2	Right main shovel assembly	1	25	Hex Bolts M20x120	1
3	Protection eraser	1	26	Hex Bolts M20x110	1
4	Rubber splint	1	27	Flat Washers Ø20	4
5	Rubber splint two	1	28	Cylinder pin	2
6	King pin shaft welded parts	1	29	Cylinder head gasket 2	4
7	Shovel cylinder 50x32x255	2	30	Flat Washers Ø18	4
8	Bracket welded parts	1	31	Hexagon lock nuts with non-metallic inserts M20	2
9	Lower bracket welded parts	1	32	Pin one	2
10	Rear bracket welded parts	1	33	Hexagon lock nuts with non-metallic inserts M18	4
11	Adjust the rod assembly	1	34	Straight-through pressure oil cup	4
12	Lifting cylinder 40X22X160	1	35	Three-point suspension welding	1
13	Hydraulic hose-1/2"x650mm	2	36	Upper suspension pin	1
14	Hydraulic hose-1/2"x600mm	2	37	Suspension connecting pin	2
15	Hydraulic hose-1/2"x4100mm	1	38	Flat Washers Ø16	14
16	Hydraulic hose-1/2"x4000mm	1	39	Non-metallic insert hexagonal lock nut Ø16	7
17	Hydraulic hose-1/2"x4000mm	2	40	Hexagon bolts with full thread M16x50	5
18	Hollow bolt	6	41	Hexagon bolts with full thread M16x85	2
19	Combination washer	12	42	Lock pin	3
20	Cylinder pin 2	4	43	Hexagon bolts with full thread M10x30	4
21	Split pin	4	44	Hexagon lock nuts with non-metallic inserts M10	4
22	Cylinder pin 1	2	45	Hexagon head bolts M8x70	1
23	Elastic cylindrical pin	2	46	Hexagon lock nuts with non-metallic inserts Ø8	1

2. Assembly of bracket and shovel



Installation steps: align the right main shovel(3), bracket(1), and left main shovel (4) in sequence and align them with the king pin shaft welded parts (A6), then adjust the hole position at the end of the king pin shaft to be perpendicular to the bracket, Then use M8*70 bolts (A7) to insert and fasten.

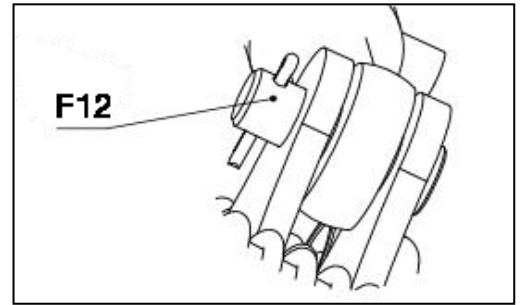
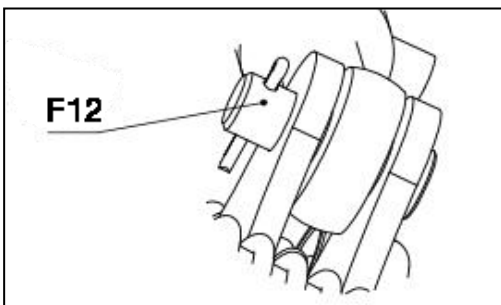
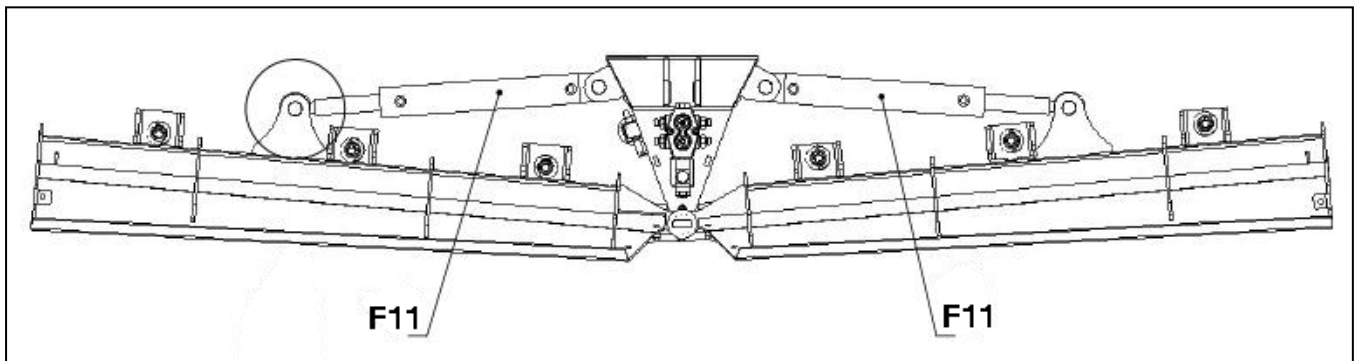
Importance: All bolts are locked in place without shaking.

⚠ 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
3	Right main shovel assembly	1
4	Left main shovel assembly	1
A6	King pin shaft welded parts	1
A7	Hexagon head bolts M8×70	1
A8	Lock nut M8	1

3. Installation of shovel cylinder



Installation steps: After installing the bracket, install the shovel cylinder(F11) according to the cylinder position in the above figure, and fix it with the cylinder pin(F12) and the split pin.

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.

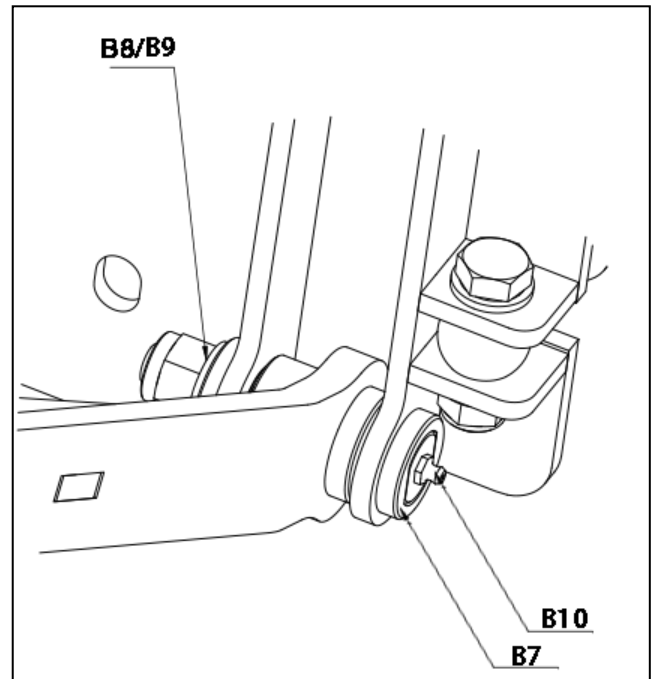
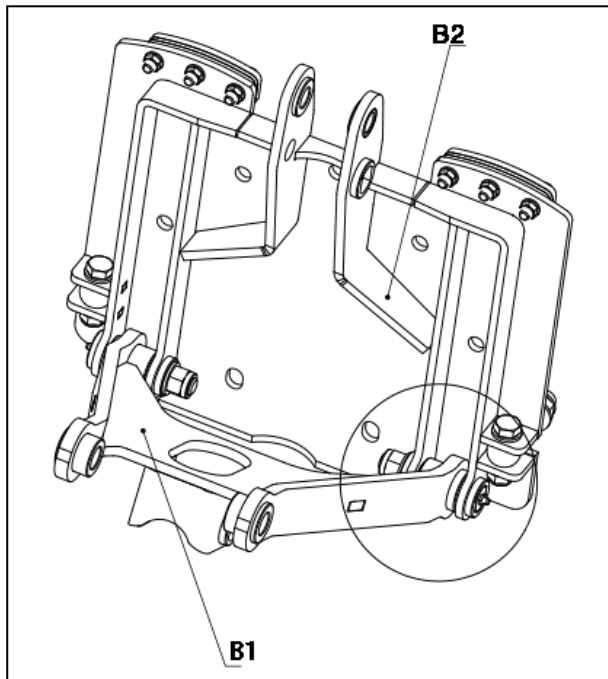
Importance: All bolts are locked in place without shaking.

⚠ 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
F11	Shovel cylinder 50x32x255	2
F12	Cylinder pin	4
F13	Split pin 5x40	4

4. Installation of bracket component



Installation steps: 1. Align the mounting holes on the B1 and B2 pieces according to the style of the above figure, and then fix them with a pin with a flat washer and a lock nut.

Note: Do not reverse the direction of the lower bracket assembly.

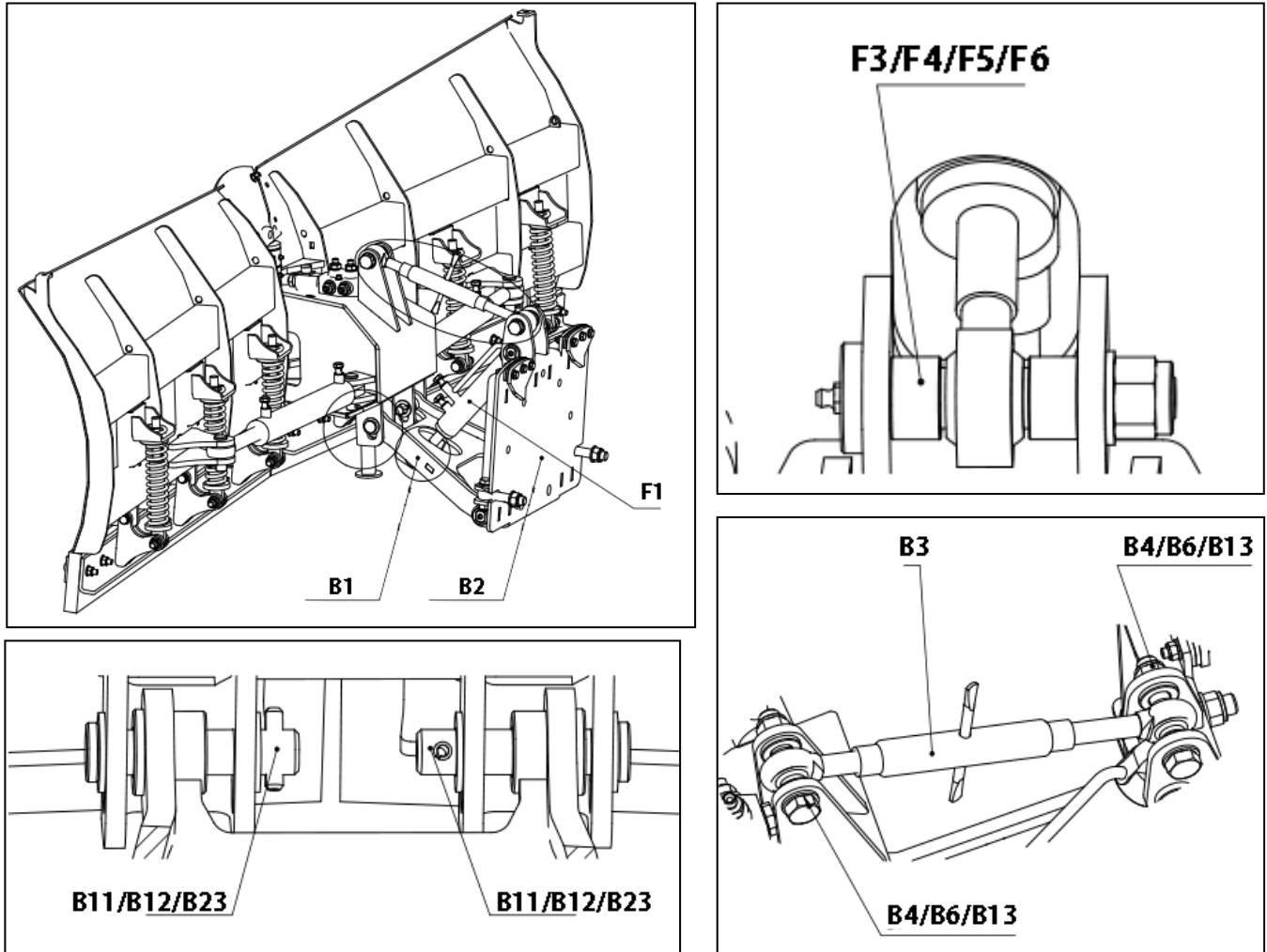
Importance: All bolts are locked in place without shaking.

⚠ 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
B1	Lower bracket welded parts	1
B2	Rear bracket welded parts	1
B7	Pin shaft (L=109)	2
B8	Plain washer Ø18	2
B9	Lock nut M18	2

5. Installation of bracket assembly and bracket



Installation steps:

1. First align the Lower bracket welded parts (B1) with the hole on the Bracket Assembly (1) according to the style of the above figure, and then fix the cylindrical pin (B11) with the spring-type straight pin (B12) .
2. Installing the lifting cylinder (F1), first connect the connecting end with the lower bracket (B1), and install the other end after adjusting the angle of the bracket
Note: when connecting the cylinder, you need to add two gaskets as shown in the figure.
3. First adjust the length of the tie rod assembly (B3), so that the length can be matched with the bracket and bracket, and then use M20*120 bolts (B13) to insert and tighten the nuts(B6).

Importance: All bolts are locked in place without shaking.

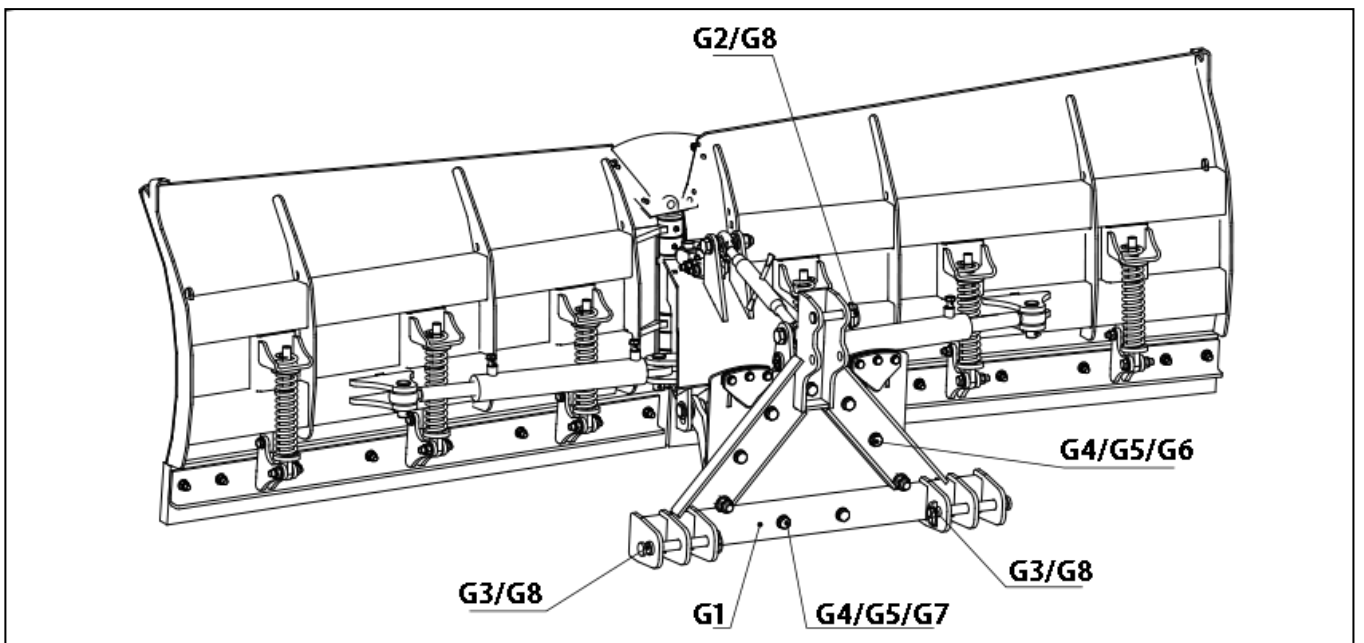
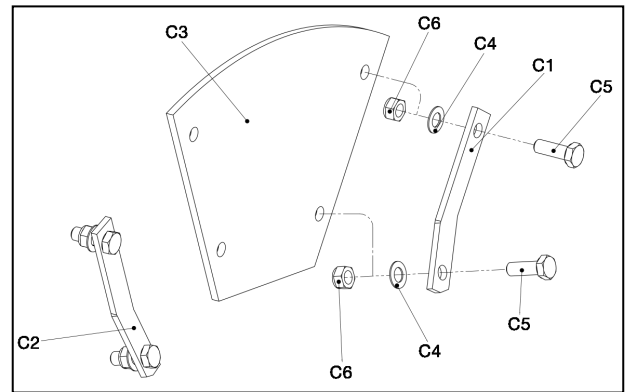
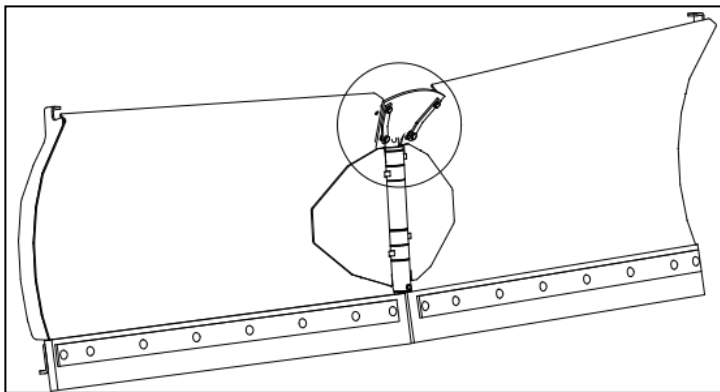
⚠ WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

Inspection: Check whether each bolt is loose.

Part name and specification

REF No	Specification	QTY
B1-B2	Bracket assembly	1
B3	Adjust the rod assembly	1
B4	Plain washer Ø20	4
B6	Lock nut M20	2
B11	Cylinder pin	2
B12	Spring-type straight pin 8×40	2
B13	Hexagon head bolts M20×120	2
B23	Plain washer Ø22	4
F1	Lifting cylinder 40x22x160	1
F3	Cylinder gasket	4
F4	Cylinder pin shaft (L=121)	2
F5	Plain washer Ø18	2
F6	Lock nut M18	2

6. Installation of rubber components and three-point suspension



Installation steps:

1. Assemble the eraser in the order of the style above.
2. Install the three-point suspension according to the above figure with M16*50 bolts (G6) and flat washers (G4) and nuts (G5) to tighten, and finally fit the lock pin (G8) to insert the suspension connecting pin (G3) and the upper suspension pin (G2).

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
C1	Rubber splint II	1
C2	Rubber splint	1
C3	Rubber sheet	1
C4	Plain washer	4
C5	Full-thread hexagon bolts M10×30	4
C6	Lock nut M10	4
G1	Three-point suspension welding	1
G2	Upper suspension pin	1
G3	Suspension connecting pin	2
G4	Plain washer Ø16	14
G5	Lock nut M16	7
G6	Full-thread hexagon bolts M16x50	5
G7	Full-thread hexagon bolts M16x85	2
G8	Lock pin	3

7. Cylinder and oil pipe connection

Installation steps:

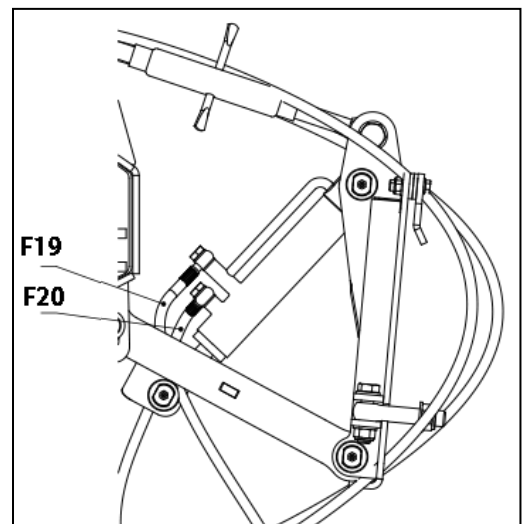
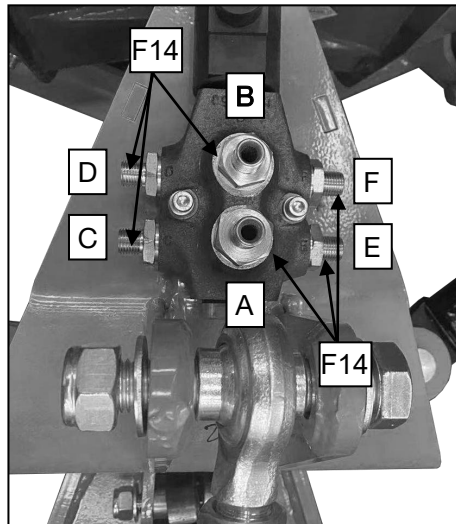
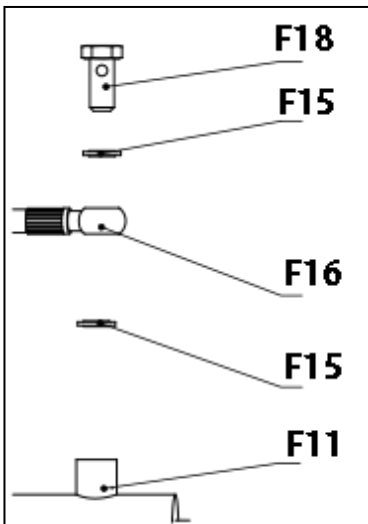
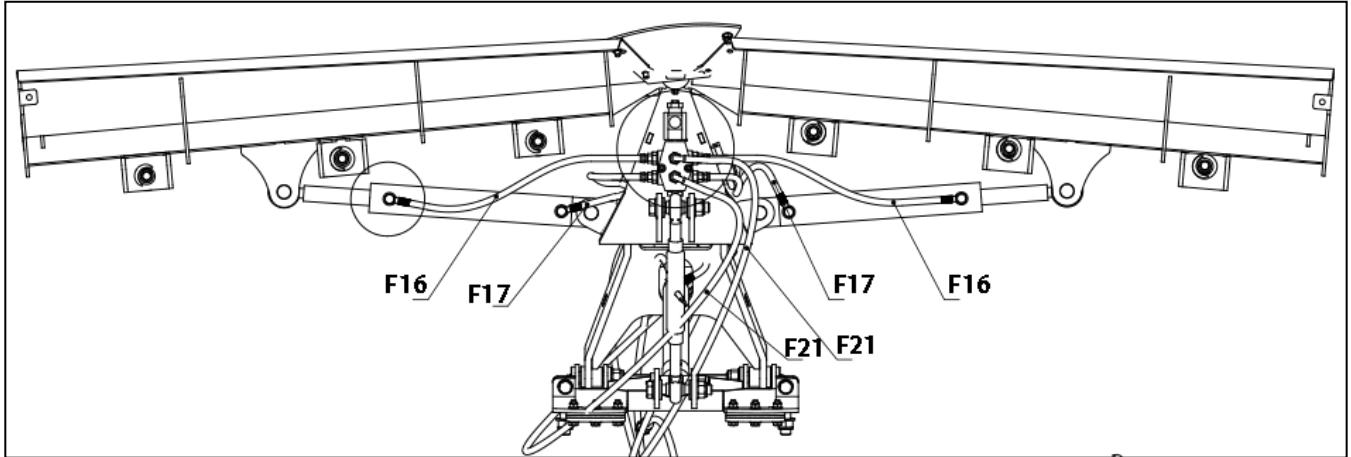
1. Firstly fasten the transition joints (F14) to the 6 ports of the solenoid valve.
2. Connect the left shovel cylinder with hollow bolts (F18) and combination washers (F15) to the hydraulic hose (F16,F17) to connect the solenoid valve **D** and **C** ends, and the right shovel cylinder with hollow bolts (F18) and combination washers (F15) to connect the hydraulic hose (F16,F17) to the solenoid valve **F** and **E** ports. The **A** and **B** ends of the solenoid valve are connected to the hydraulic hose (F21) (the other end of the oil pipe is connected to the tractor oil pump)
3. The lifting oil cylinder is connected to the hydraulic hose (F19, F20) respectively with the hollow bolt and the combined washer (the other end of the oil pipe 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.

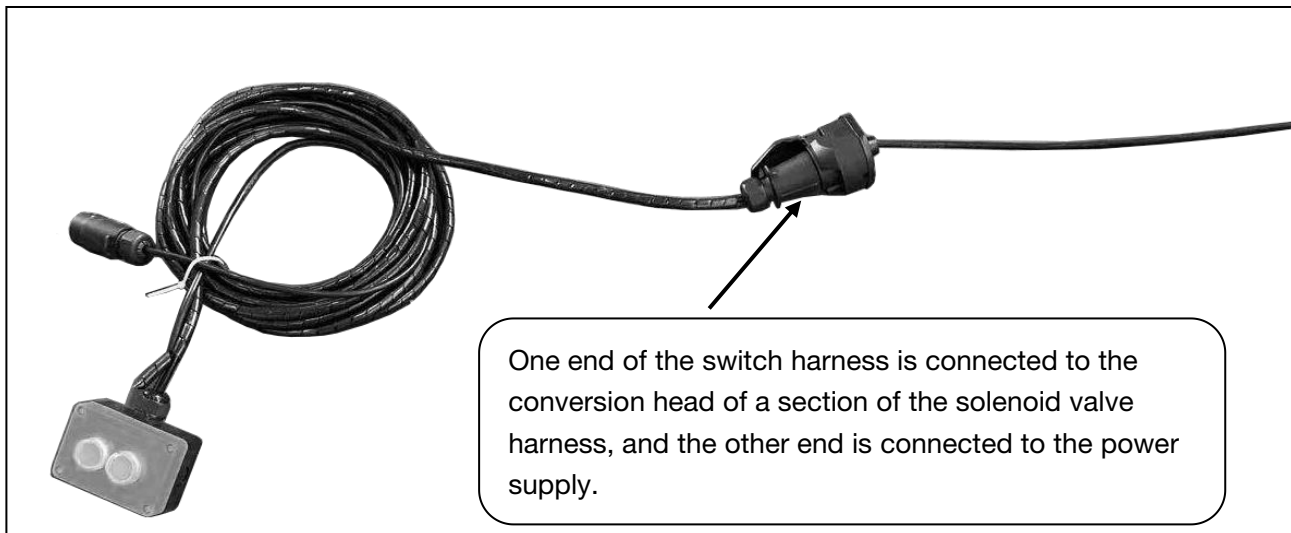
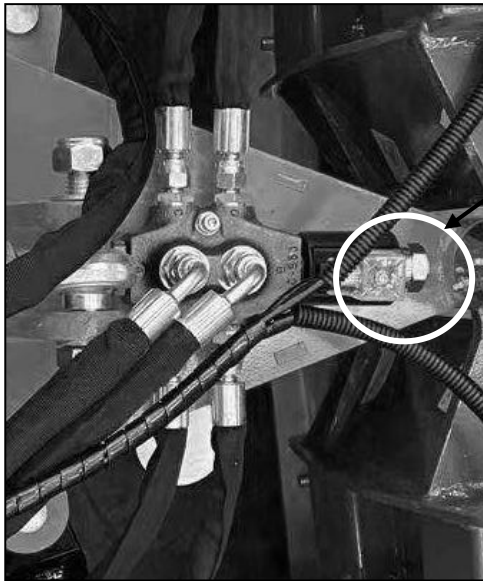
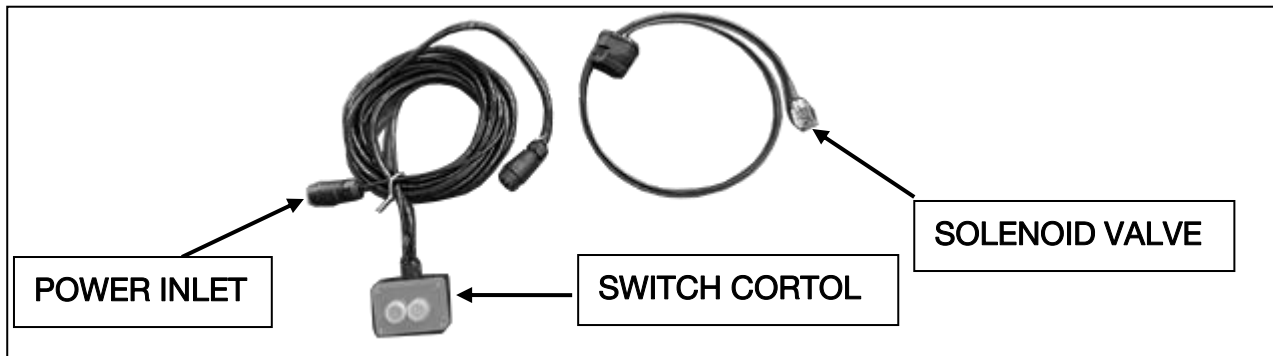
Inspection: Check whether each bolt is loose.



Part name and specification

REF No	Specification	QTY
F2	Hydraulic manifold	1
F14	Transition Joints	6
F15	Combined sealing gaskets	12
F16	Hydraulic hose 1/2"x650mm with BSP G1/4 fitting	2
F17	Hydraulic hose 1/2"x600mm with BSP G1/4 fitting	2
F18	Hollow bolt	6
F19	Hydraulic hose 1/2"x4000mm with NPT 1/2 male end, BSP G1/4 fitting	1
F20	Hydraulic hose 1/2"x4100mm with NPT 1/2 male end, BSP G1/4 fitting	1
F21	Hydraulic hose 1/2"x4000mm with NPT 1/2 male end, BSP G1/4 fitting	2

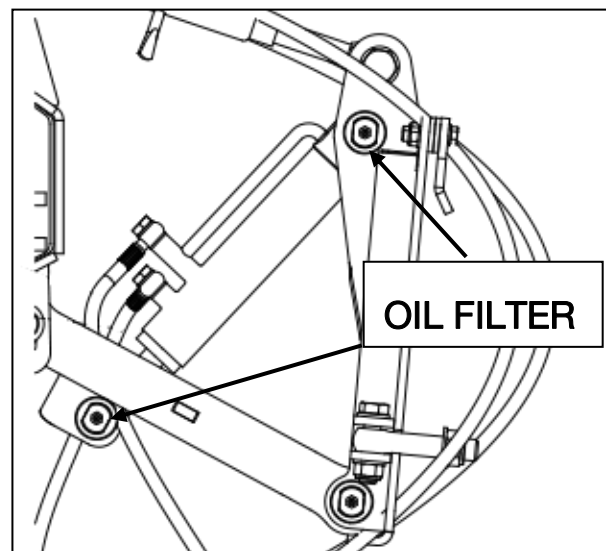
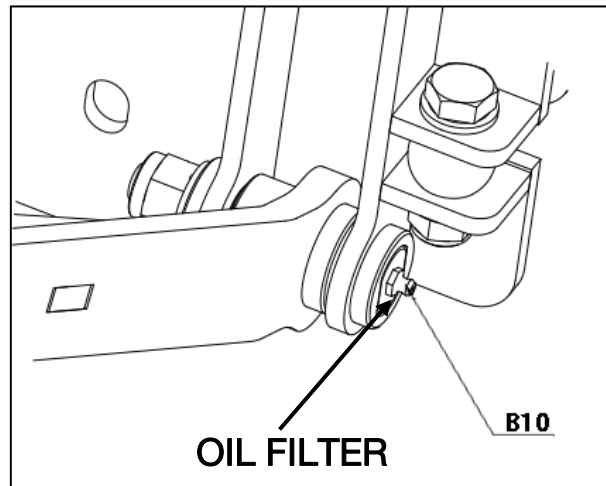
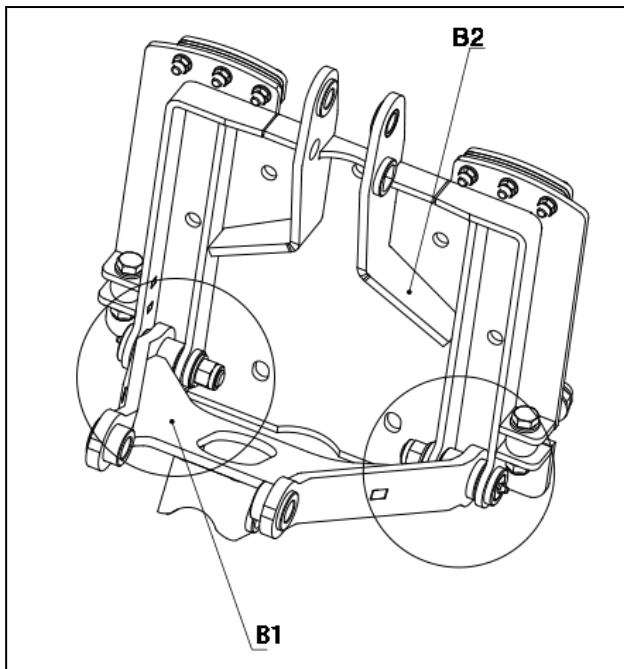
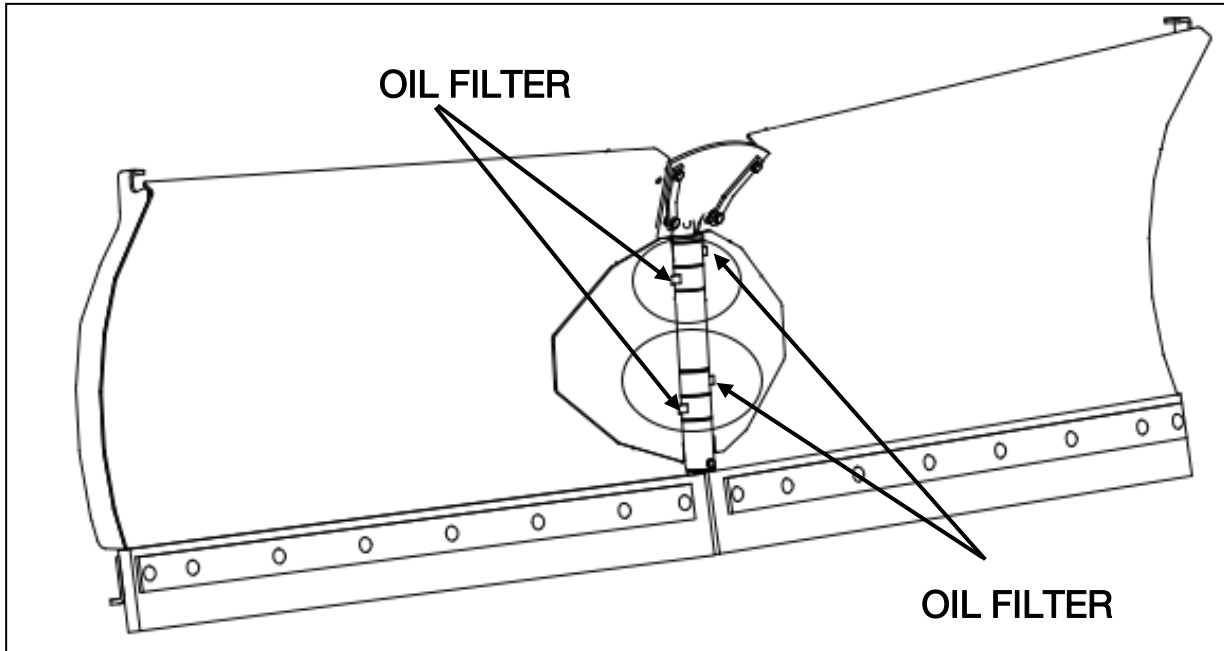
8. Electrical circuit connection



9. Lubricating grease

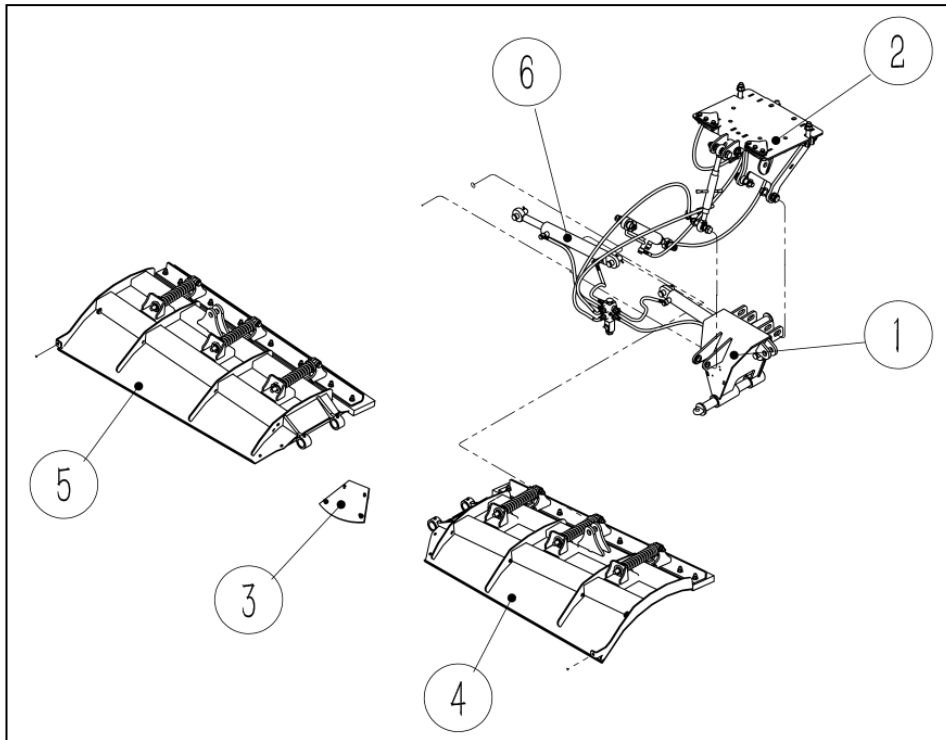
WARNING

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



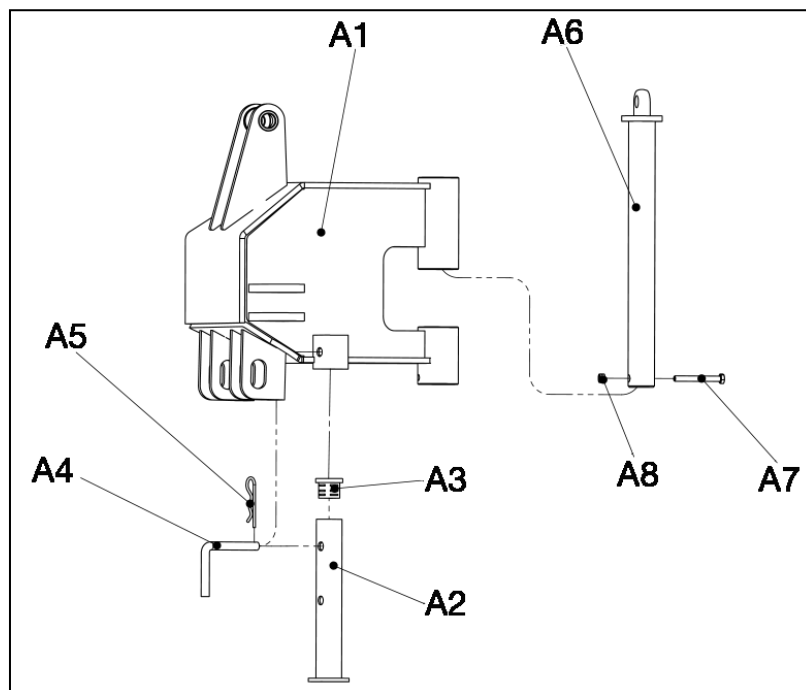
4. Explosion diagram and Product Parts

1. Explosive diagram of major components



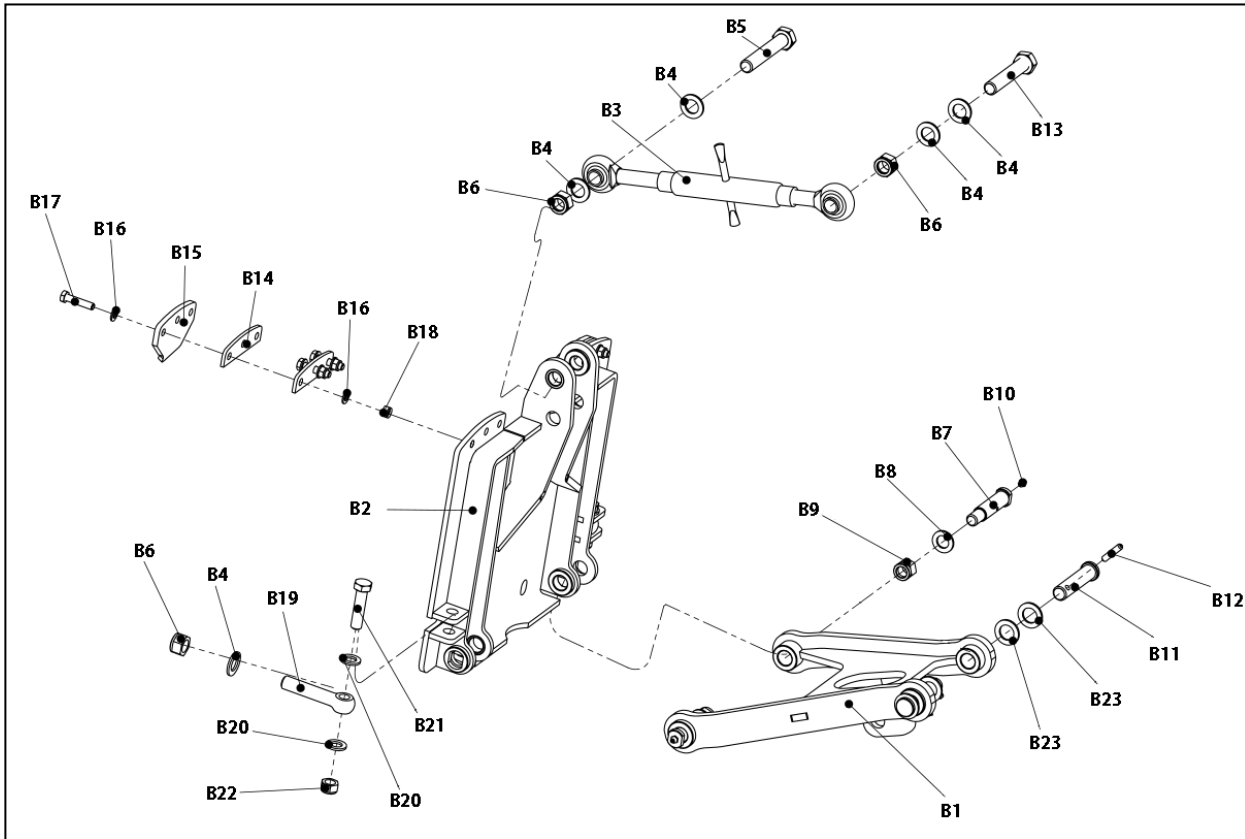
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	Bracket assembly	1	4	Shovel as-left main	1
2	Bracket assembly	1	5	Shovel as-right main	1
3	Rubber as-protection	1	6	Hydraulic components	1

2. Explosive diagram of Bracket Assembly



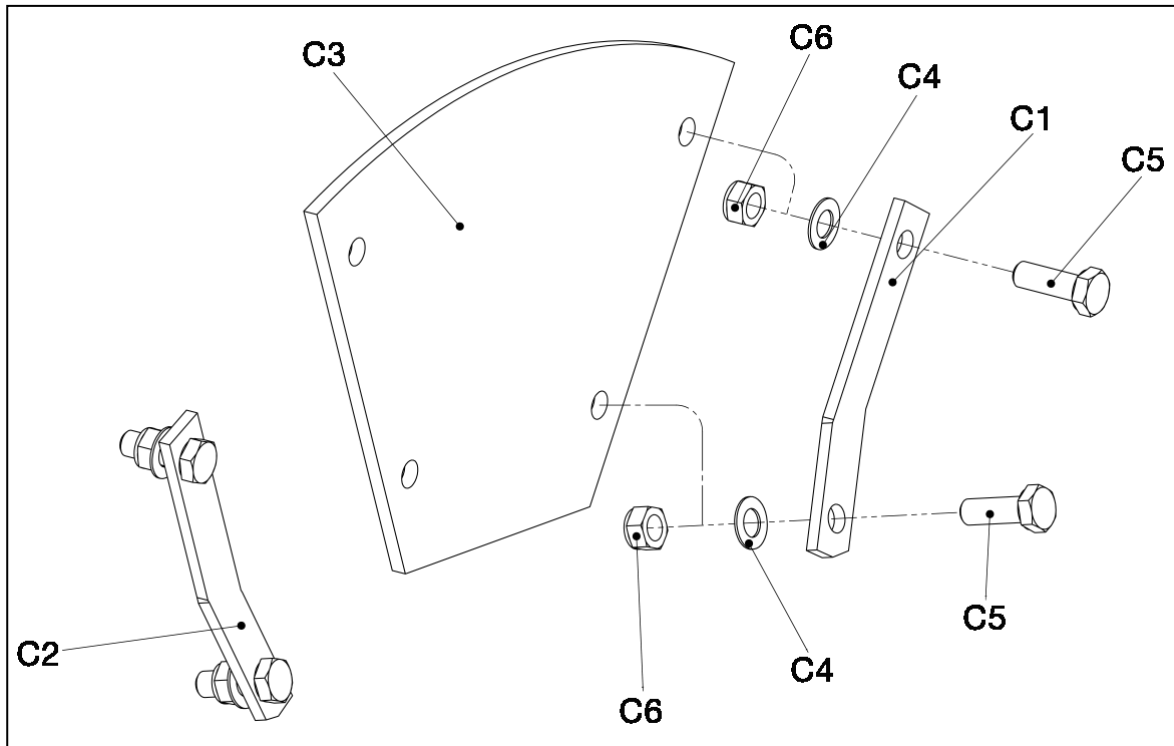
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
A1	Bracket weldment	1	A5	R pin	1
A2	Leg weldment	1	A6	Main pin shaft weldment	1
A3	Pipe plug	1	A7	Hexagon head bolts M8x70	1
A4	Raker pin	1	A8	Lock nut M8	1

3.Explosive diagram of Bracket Assembly



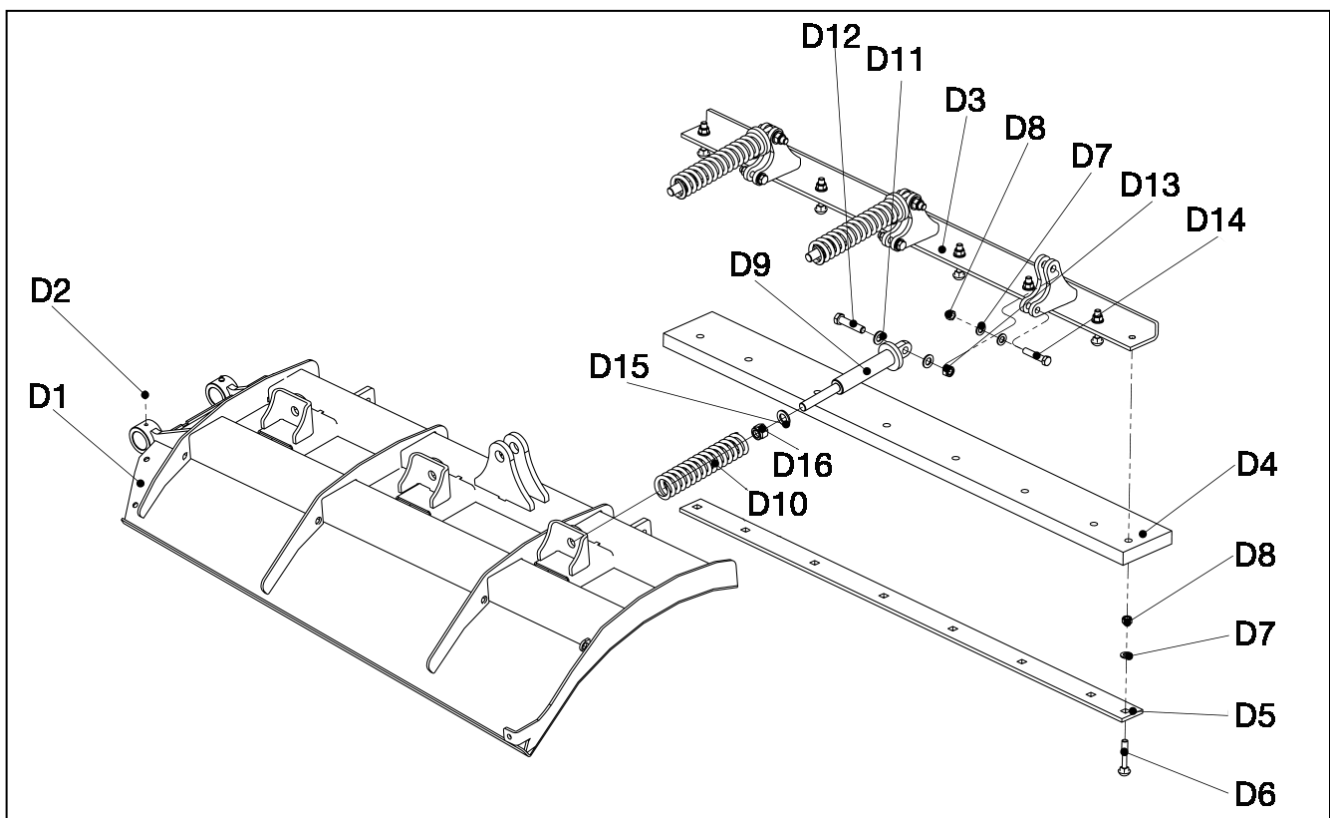
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
B1	Lower bracket weldment	1	B13	Hexagon head bolts M20x110	1
B2	Fear bracket weldment	1	B14	Adjusting plate	4
B3	Tie rod assembly	1	B15	Locking plate	2
B4	Plain washer Ø20	6	B16	Plain washer Ø10	12
B5	Hexagon head bolts M20x120	1	B17	Full-thread hexagon bolts M10x45	6
B6	Lock nut M20	4	B18	Lock nut M10	6
B7	Pin shaft	2	B19	Eyelet bolt M20x100	2
B8	Plain washer Ø18	2	B20	Plain washer Ø16	4
B9	Lock nut M18	2	B21	Full-thread hexagon bolts M16x65	2
B10	Grease nipple	2	B22	Lock nut M16	2
B11	Cylinder pin 1	2	B23	Plain washer Ø22	4
B12	Spring-type straight pin	2			

4. Explosive diagram of As-protection



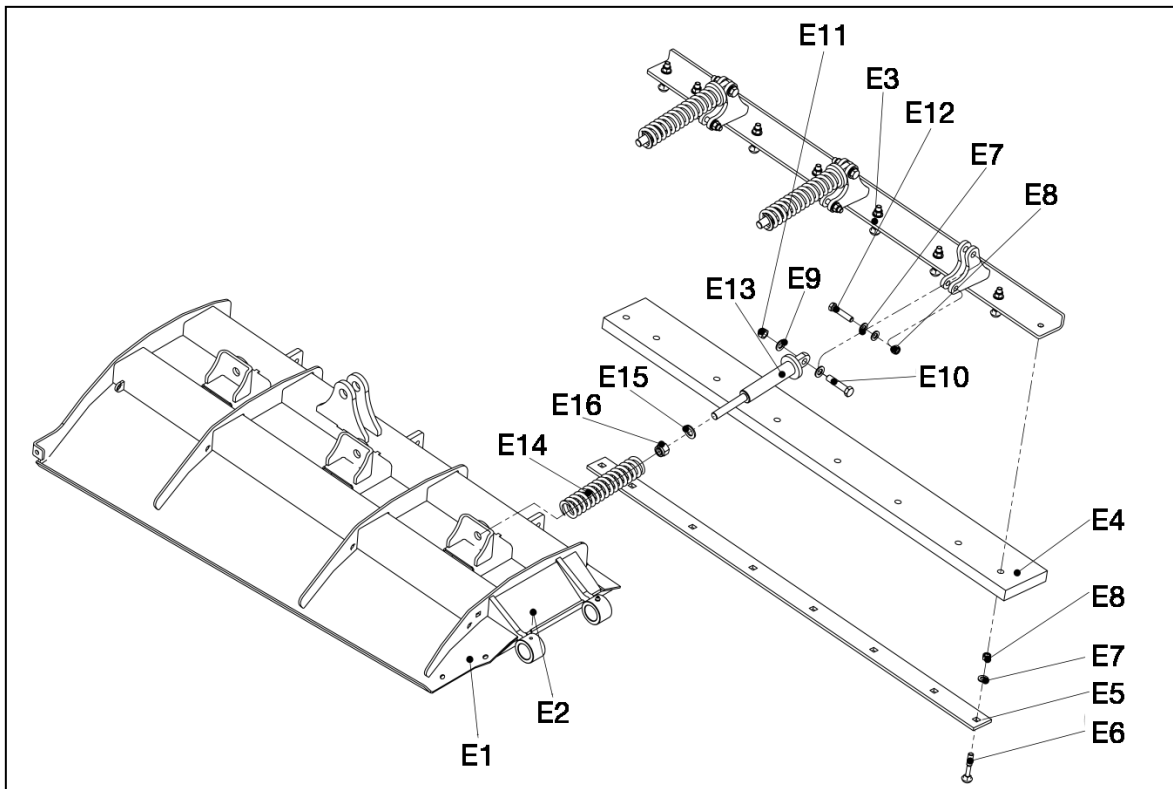
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
C1	Rubber splint II	1	C4	Plain washer Ø10	4
C2	Rubber splint	1	C5	Full-thread hexagon bolts M10x30	4
C3	Rubber sheet	1	C6	Lock nut M10	4

5. Explosive diagram of Shovel as-left main



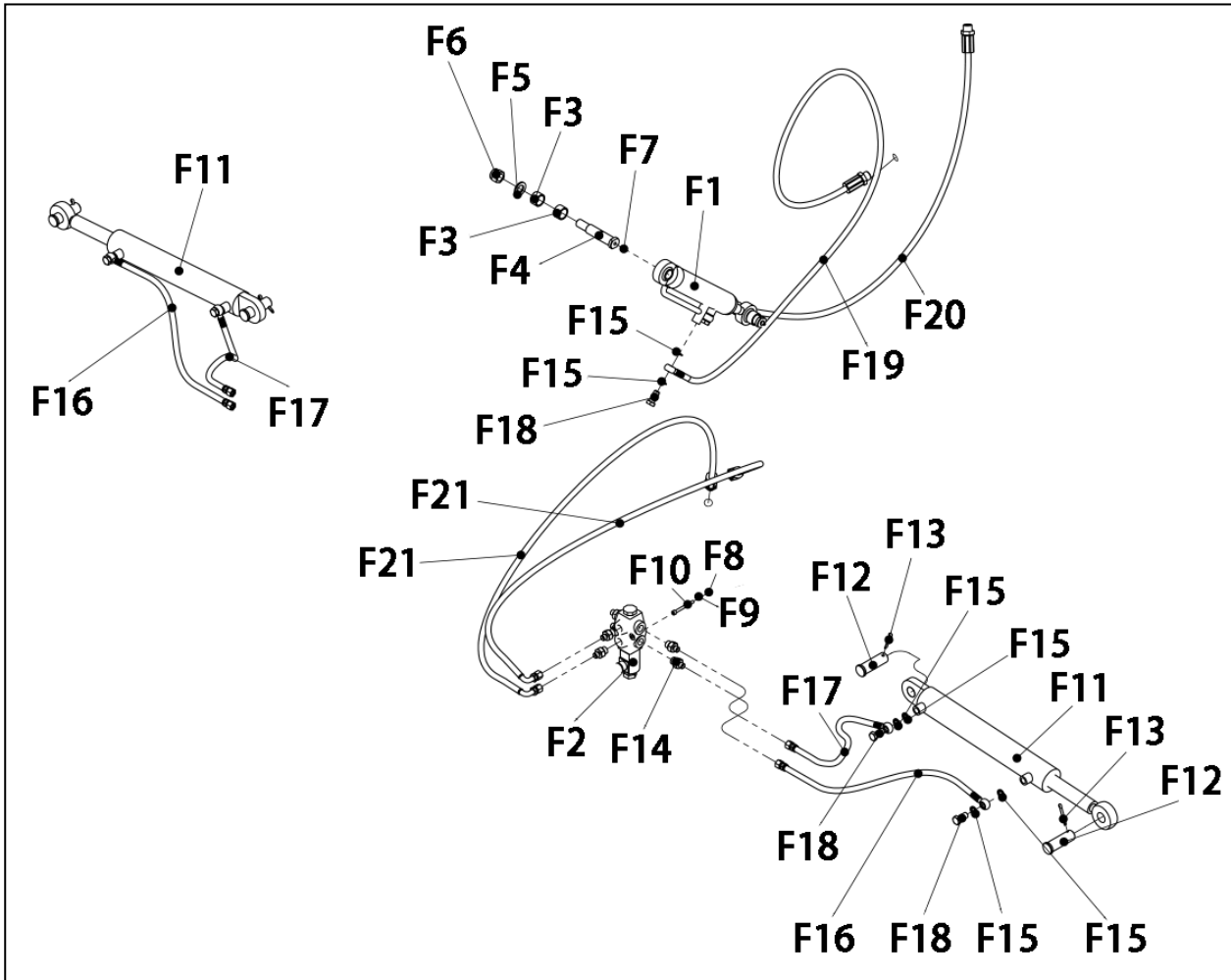
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
D1	Left main shovel plate weldment	1	D9	Spring pin shaft weldment	3
D2	Grease nipple	2	D10	Spring	3
D3	Left rubber pressing plate weldment	1	D11	Plain washer Ø14	6
D4	Rubber sheet	1	D12	Full-thread hexagon bolts M14x65	3
D5	Front cover plate	1	D13	Lock nut M14	3
D6	Cup head square neck bolts M12x70	8	D14	Full-thread hexagon bolts M12x60	3
D7	Plain washer Ø12	14	D15	Plain washer Ø18	3
D8	Lock nut M12	11	D16	Lock nut M18	3

6. Explosive diagram of Shovel as-right main



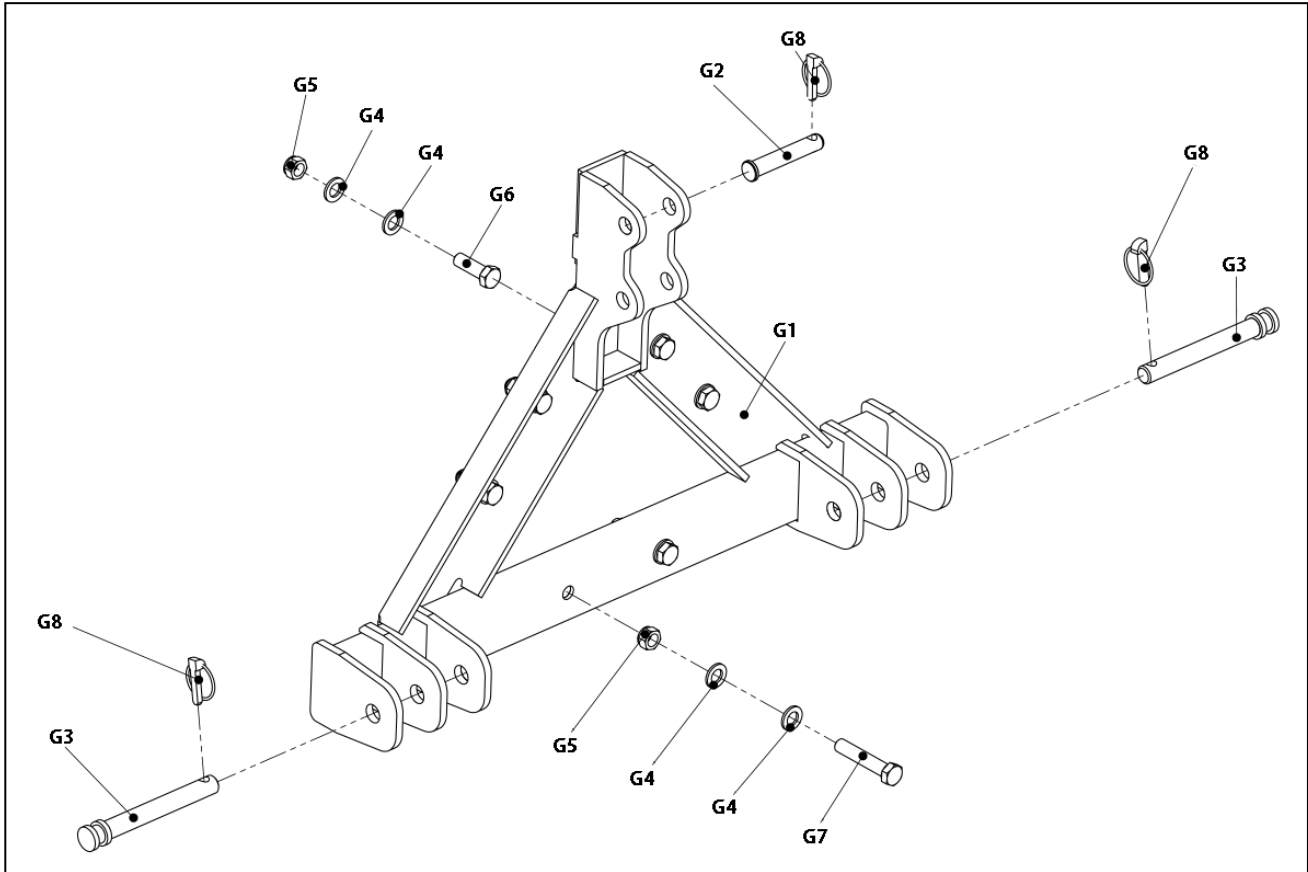
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
E1	Right main shovel plate weldment	1	E9	Plain washer Ø14	6
E2	Grease nipple	2	E10	Full-thread hexagon bolts M14x65	3
E3	Right rubber pressing plate weldment	1	E11	Lock nut M14	3
E4	Rubber sheet	1	E12	Full-thread hexagon bolts M12x60	3
E5	Front cover plate	1	E13	Spring pin shaft weldment	3
E6	Cup head square neck bolts M12x70	8	E14	Spring	3
E7	Plain washer Ø12	14	E15	Plain washer Ø18	3
E8	Lock nut M12	11	E16	Lock nut M18	3

7. Explosive diagram of Hydraulic Components



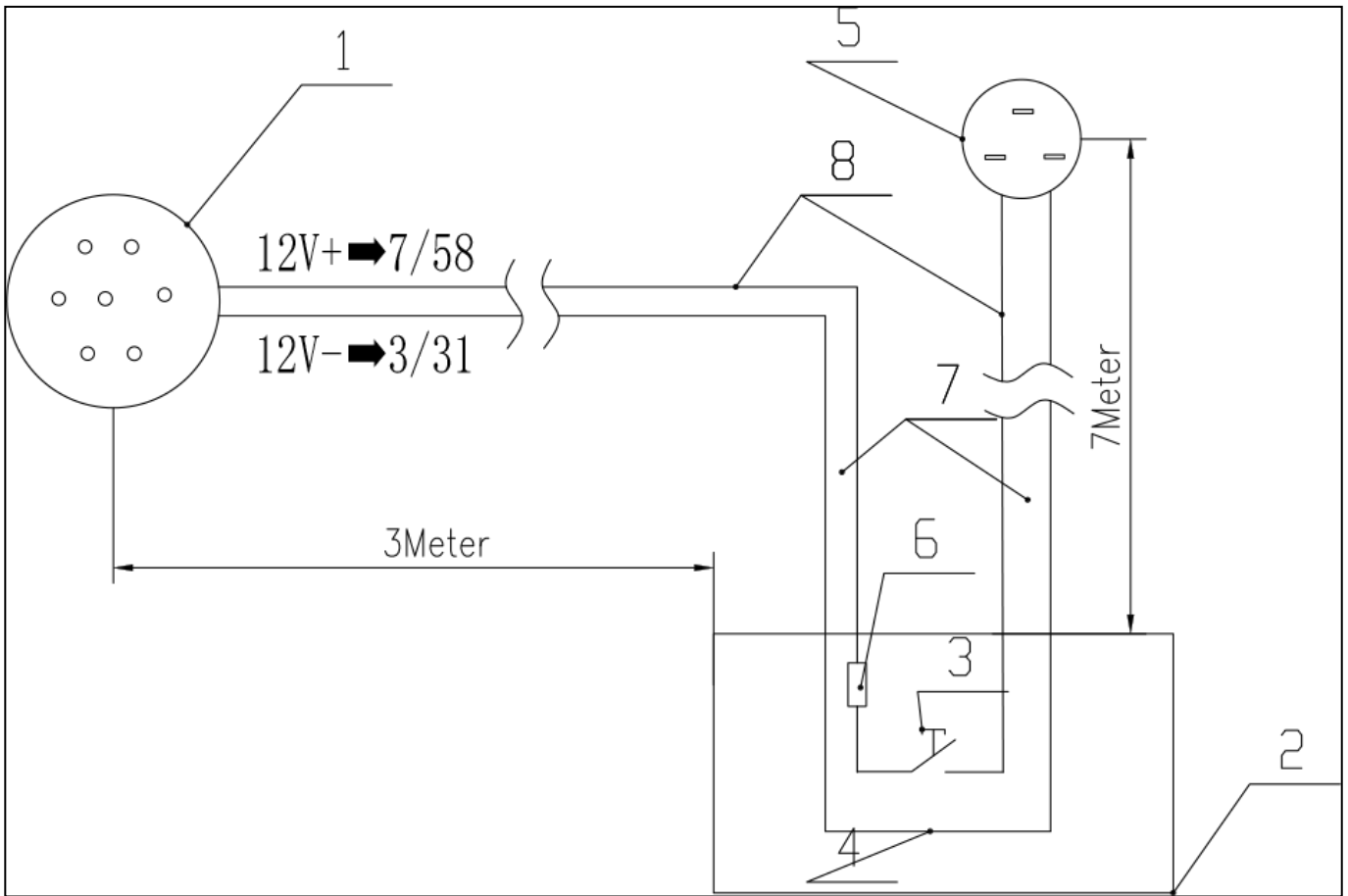
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
F1	Hydraulic cylinder 40X22X160	1	F12	Cylinder pin	4
F2	Hydraulic manifold	1	F13	Split pin 5x40	4
F3	Cylinder gasket	4	F14	Transition joints	6
F4	Cylinder pin shaft M18 x121	2	F15	Combined sealing gaskets	12
F5	Plain washer Ø18	2	F16	Hydraulic hose 1/2"x650mm with BSP G1/4 fitting	2
F6	Lock nut M18	2	F17	Hydraulic hose 1/2"x600mm with BSP G1/4 fitting	2
F7	Grease nipple M8x1	2	F18	Hollow bolt	6
F8	Plain washer Ø6	2	F19	Hydraulic hose 1/2"x4000mm with NPT 1/2 male end, BSP G1/4 fitting	1
F9	Spring washer Ø6	2	F20	Hydraulic hose 1/2"x4100mm with NPT 1/2 male end, BSP G1/4 fitting	1
F10	Hexagon socket head cap screws M6x60	2	F21	Hydraulic hose 1/2"x4000mm with NPT 1/2 male end, BSP G1/4 fitting	2
F11	Hydraulic cylinder 50X32X255	2			

8.Explosive diagram of Three-point suspension



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
G1	Three point suspension welding	1	G5	Lock nut M16	7
G2	Upper suspension pin	1	G6	Full-thread hexagon bolts M16x50	5
G3	Suspension connecting pin	2	G7	Full-thread hexagon bolts M16x85	2
G4	Plain washer Ø16	14	G8	Lock pin	3

9. Explosive diagram of Electrical circuit



POS	Specification	QTY	Material
1	Seven-pin plug for tractor	1	Engineering plastics
2	Single hole button box	1	Engineering plastics
3	Green button A38-11 self-locking	1	Engineering plastics
4	Button label box	1	Engineering plastics
5	Hydraulic solenoid valve coil plug	1	Engineering plastics
6	12AWG small fuse holder	1	Engineering plastics
7	RVC2*1	1	Copper
8	AD13 hose	1	Copper