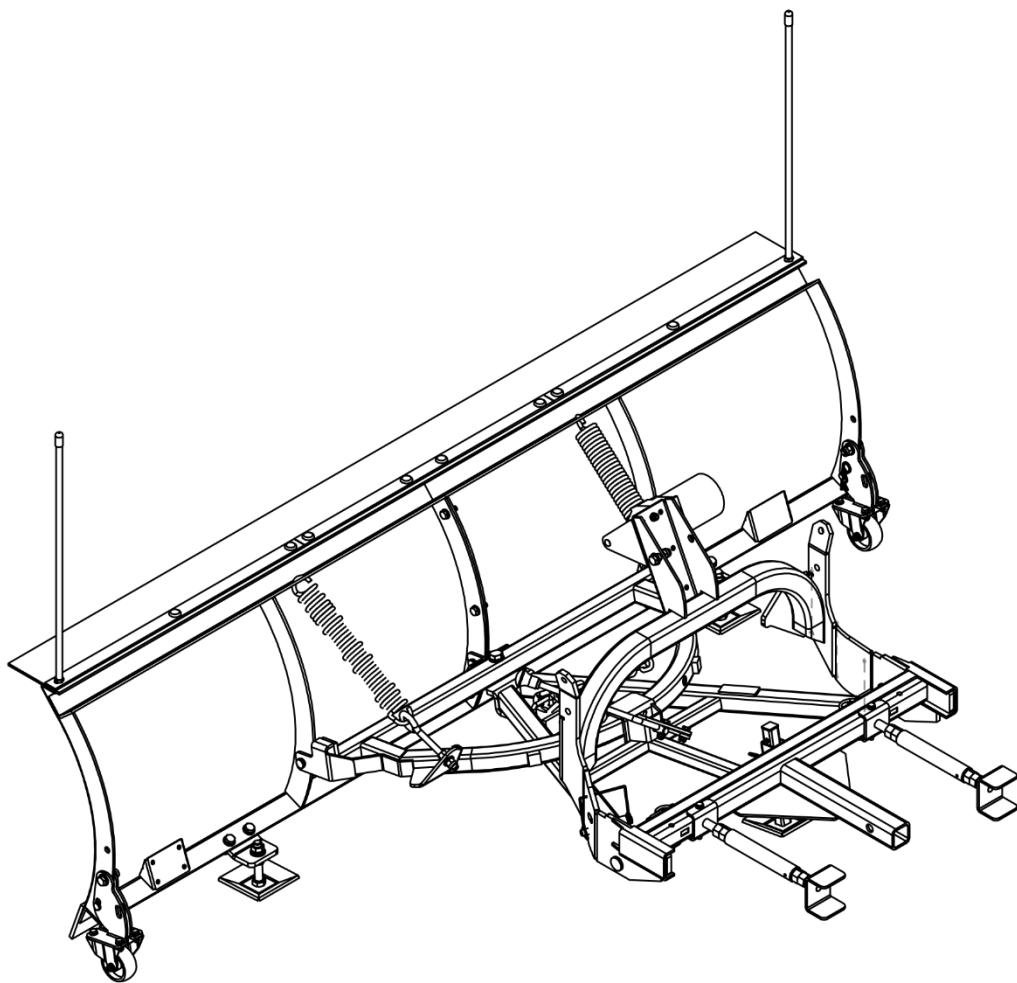


84"-HITCH MOUNTED TRUCK SNOW PLOW



- 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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SAFETY INSTRUCTIONS




Before operating the Snow plow read the following safety instructions. Failure to comply with these warnings may result in serious injury or death.

SAFETY DECALS




⚠ ATTENTION
Attach safety chains when transporting the snow plow and detach them during operation.
TMG-ATTA-2042

⚠ ATTENTION
Before operating your snow plow, ensure the castor wheels are flipped up.
TMG-ATTA-2041

⚠ WARNING
IMPORTANT: Always read the manual before using this equipment.
DANGER: Avoid sitting or riding on the snowplow; it's hazardous.
WARNING: Keep a safe distance (10 feet minimum) from a blade in motion.
WARNING: Ensure your hands and feet are clear of the blade and winch.
WARNING: Before use, inspect the plow for any loose or worn-out parts.
REMEMBER: The TSP plow is intended for personal use, not for commercial tasks.
CAUTION: Disconnect the battery before making any adjustments to the winch or wiring.
 TMG-ATTA-2045

⚠ CAUTION

 Do not operate snow plow at speeds over 16 km/h (10 MPH) to avoid vehicle engine overheating.
 <16 KM/H(10 MPH)
 TMG-ATTA-2046

⚠ WARNING
Remove the safety pin before operating the snow plow.
TMG-ATTA-2045

 TMG-ATTA-2043
 TMG-ATTA-2044
 TMG-ATTA-2017

⚠️ WARNING

IMPORTANT: Always read the manual before using this equipment.
DANGER: Avoid sitting or riding on the snowplow; it's hazardous.
WARNING: Keep a safe distance (10 feet minimum) from a blade in motion.
WARNING: Ensure your hands and feet are clear of the blade and winch.
WARNING: Before use, inspect the plow for any loose or worn-out parts.
REMINDER: The TSP plow is intended for personal use, not for commercial tasks.
CAUTION: Disconnect the battery before making any adjustments to the winch or wiring.

TMG-ATTA-2040

⚠️ ATTENTION

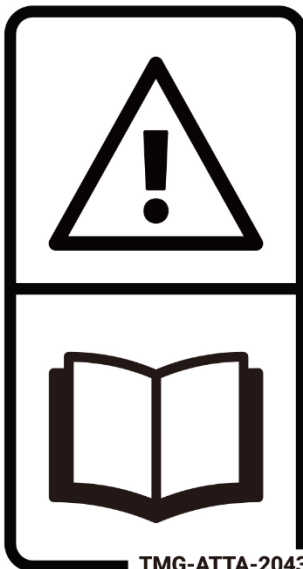
Before operating your snow plow, ensure the castor wheels are flipped up.

TMG-ATTA-2041

⚠️ ATTENTION

Attach safety chains when transporting the snow plow and detach them during operation.

TMG-ATTA-2042



⚠️ WARNING

Remove the safety pin before operating the snow plow.

TMG-ATTA-2045

⚠️ CAUTION



Do not operate snow plow at speeds over 16 km/h (10 MPH) to avoid vehicle engine overheating.

TMG-ATTA-2046

SAFETY RULE

✧ WARNING

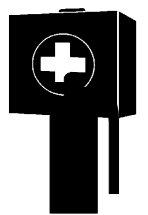
Careful operation is your best assurance against an accident. All operators, no matter how much experience they may have, should carefully read this manual and other related manuals before operating the power machine and this implement.



- Thoroughly read and understand the "Safety Label" section. Read all instructions noted on them.
- Do not operate the equipment while under the influence of drugs or alcohol, as they impair your ability to safely and properly operate the equipment.
- The operator should be familiar with all functions of the light trucks and attached implement, and be able to handle emergencies quickly.
- Make sure all guards and shields appropriate for the operation are in place and secured before operating the implement.
- Keep all bystanders away from equipment and work area.
- Operate light trucks and controls from the driver's seat only.
- Never dismount from a moving vehicle or leave light trucks unattended with engine running.
- Do not allow anyone to stand between the implement and vehicle while backing up to the implement.
- Keep hands, feet, and clothing away from power-driven parts.
- While transporting and operating equipment, watch out for objects overhead and along the sides such as fences, trees, buildings, wires, etc.
- Store implement in a safe and secure area where children normally do not play. When needed, secure implement against falling with support blocks.

✧ PREPARATION

- Keep a first aid kit and fire extinguisher handy.
- Wear protective clothing and equipment appropriate for the job such as safety shoes, safety glasses, hard hat, dust mask, and ear plugs
- Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating a machine safely requires the operator's full attention. Avoid wearing headphones while operating Equipment



❖ PERSONAL SAFETY

Tragedy can occur if the operator is not alert to the presence of children, Children generally are attracted to implements and their work

- Never assume children will remain where you last saw them.
- Keep children out of the work area and under the watchful eye of a responsible adult.
- Sitting or riding on the Snow Plow is extremely dangerous. This could inflict serious injury.
- Never stand between the vehicle and the blade nor stand within 3 m (10 feet) of a blade in motion. Moving or falling blades can cause serious personal harm.
- At all times, keep your hands and feet clear of the blade and winch.
- Remove ignition key and put the vehicle in PARK or in gear to prevent others from starting the vehicle during installation or service.
- Wear only snug-fitting clothing while working on your vehicle or snowplow
- Do not wear jewelry or a necktie, and secure long hair.
- Wear safety goggles to protect your eyes from battery acid, gasoline, dirt, and dust
- Avoid touching hot surfaces such as the engine, radiator, hoses, and exhaust pipes.
- Always have a fire extinguisher rated BC handy, for flammable liquids and electrical fires.

❖ Wear Personal Protective Equipment

- Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating a machine safely requires the operator's full attention. Avoid wearing headphones while operating equipment.



❖ Snow Plow

- Maintain the Snow Plow and keep it clean and lubricated. This applies even when the unit is not in use so as to avoid corrosion. In the off season, inspect the unit and apply corrosion-resistant paint to any areas that show corrosion to prevent further damage. If stored outside, cover the winch assembly.
- Carefully inspect your Snow Plow before every use. Particularly check the alignment of moving parts and tighten any loose screws and bolts.
- With heavier full-sized vehicles, mainly through momentum, it may be easier to damage the plow assembly. Cautious use will help extend your years of trouble-free service

❖ Pre-Operational

- Thoroughly inspect the area where the equipment is to be used. Make yourself familiar with the terrain you are plowing and avoid all obstacles.
- Remove all foreign objects such as doormats, newspapers, sleds, boards, wires, and other items.
- Before use, ensure that the plow is attached to your custom front mount and safely secure the quick mount locking plates.
- Stay away from any obstacles. Familiarize yourself with the area and potential difficulty before plowing.
- Never attempt to make any adjustments while vehicle is running, except where specifically recommended in the operator's manual(s).
- Exercise caution when changing direction and while operating on slopes.
- During continuous snowfalls, plow as snow builds to between 8 and 15 cm
- Plan your snow plowing pattern to avoid discharge towards windows, walls, cars, etc., thus avoiding possible property damage or personal injury. Never direct discharge at children, bystanders, and pets nor allow anyone in front of the plow.

❖ Important Safe Operating Practices

- Make it a practice to completely lower the blade to the ground every time the vehicle is parked. A raised blade may drop unexpectedly and this can result in serious personal injury.
- When mounting or removing the Snow Plow, keep hands and feet clear of the blade, mounting assembly and winch. Moving or falling assemblies have a potential to cause personal injury. Never use your finger to check alignment. Moving or falling assemblies could crush your finger.
- Transport speed should never exceed 70 km/h (45 mph). Adverse travel conditions may dictate a further speed reduction. Must use appropriate driving lights- Never operate the accessory at high transport speeds on slippery surfaces . Use care when backing up.
- Wear a seat belt when plowing snow. Hidden obstacles could make the vehicle stop suddenly, resulting in personal injury.
- Put the vehicle in park or into gear and remove the ignition key to prevent others from starting the vehicle when installing or servicing the plow.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts. For warmth, wear layers of clothing, taking off layers as you get warmer.
- For work connected with the vehicle, avoid touching any hot surfaces such as the engine, radiator, hoses and exhaust pipes.
- Always have a fire extinguisher, rated BC, handy for flammable liquid and electrical fires.
- Do not plow snow with your head out the window. Sudden stops or protruding obstacles could result in personal injury.
- The driver only should be in the vehicle when plowing snow.

❖ Operating Safety

- Keep bystanders, helpers, pets and children at least 8 metres (25 feet) from the plow while it is in operation. Stop using it if anyone enters the area. Never allow children to operate it.
- Never allow anyone to ride on the plow in operation. Sitting on it may lead to serious injury.
- Do not overload plow capacity by attempting to clear snow at too fast a rate.
- Never operate this machine without good visibility or light. Extra lighting is highly recommended and, depending on the jurisdiction, may be required on roadways for nighttime plowing.
- Never operate the plow at high transport speeds over 16km/h (10 mph). Above this speed Never operate the plow at high transport speeds over 16 km/h (10 mph).
- Exercise caution, especially when operating in reverse.
 - Transport speed should never exceed 70 km/h (45 mph). Adverse travel conditions may dictate a further speed reduction. Must use appropriate driving lights- Never operate the accessory at high transport speeds on slippery surfaces . Use care when backing up.
- Exercise caution, especially when operating in reverse.
- Do not operate without wearing adequate winter outer garments. Do not wear jewelry, long scarves or other loose clothing which could become entangled in moving parts. Wear footwear which will improve footing on slippery surfaces. Always make sure any material and waste products from the repair and maintenance of the implement are properly collected and disposed.
- Restrict the use of this plow to persons who read, understand and follow the warnings and instructions in this manual and on the machine.
- The warnings, cautions, and instructions detailed in this manual cannot cover all possible conditions and situations that occur. It must be understood by the operator that COMMON SENSE AND CAUTION ARE FACTORS that cannot be built into this product, but MUST BE SUPPLIED BY THE OPERATOR.

❖ Driving

- Always be certain the quick-mount locking plates on your custom front mount are secured. If the plow is insecurely attached to the mount, it will likely pull away from the vehicle, fall off and cause significant damage
- The use of lights is recommended, if not required by local regulations, while plowing at night. Regular vehicle headlights will likely be obscured by the blade.
- Do not drive on public roads with the Snow Plow attached at the front of your vehicle.
- Connect a safety hook when transporting the Snow Plow in the raised position Check that all the lights, reflectors and other lighting requirements are installed and in good working condition.
- Do not attempt to change the blade position while traveling as you could accidentally suddenly lower the plow blade
- Consult local/ provincial laws regarding vehicle restrictions that might apply when the Snow Plow is not attached. Such restrictions may mandate the removal of the mounting, lift frame, lift arm, winch mechanism or any other protruding elements mounted to the front of the vehicle during certain times of the year.

✧ Vehicle

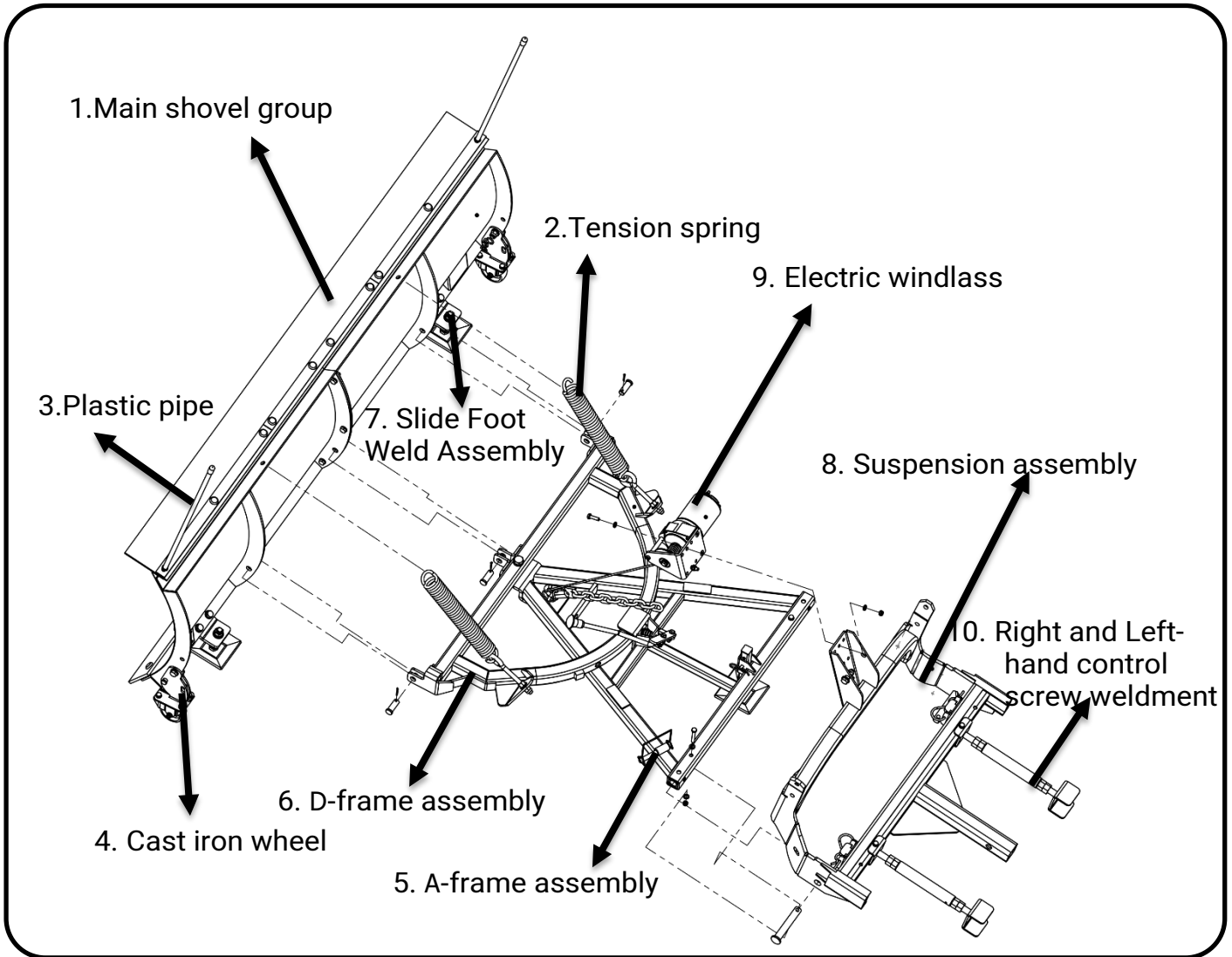
- Do not overload the vehicle. Take into account the loaded vehicle weight, including the entire Snow Plow assembly, all accessories, driver and passenger, fluids, and cargo. This weight is not to exceed the front/rear Gross Axle
- Weight Rating (GAWR), and total Gross Vehicle Weight Rating (GVWR). The specific ratings for your vehicle are noted on the safety compliance certification label attached to the driver's side door opening. Rear ballast weight may be necessary to prevent exceeding the front GAWR
- The sudden jarring stop incurred when hitting hidden obstacles in the snow could trigger release of your vehicle's airbags. Consult your vehicle manual or your vehicle dealer to mitigate this.
- Should it become necessary to place the vehicle on a hoist, first remove the blade assembly

✧ Vehicle application information

Vehicle application recommendations are based on the following:

- The vehicle with the snowplow installed must comply with applicable Federal Motor Vehicle Safety Standards (FMVSS)
- The vehicle with the snowplow installed must comply with the vehicle manufacturer's stated gross vehicle and axle weight ratings (found on the driver-side door corner post of the vehicle) and the front and rear weight distribution ratio. In some cases, rear ballast may be required to comply with these requirements. See "Ballast Requirements" in this section.
- Selection system is based on available vehicle capacity for snowplow equipment on a representative
- Weights of front seat occupants can be adjusted above 300 lb (136 kg), but vehicle with snowplow must not exceed vehicle GVWR or GAWR.
- In some cases there may be additional limitations and requirements.
- Installation, modification, and addition of accessories must comply with published recommendations and instructions. Available capacity decreases as the vehicle is loaded with cargo or other truck equipment, or snowplow accessories are installed.
- If there is uncertainty as to whether available capacity exists, the actual vehicle as configured must be weighed.

PARTS DESCRIPTION AND FUNCTION



1. Main shovel group

Pushes and channels the snow away

2. Tension spring

Allows blade to trip forward when hitting obstructions, absorbing shock to plow, vehicle, and operator

3. Plastic pipe

Brightly coloured to locate the extreme outside corners of blade in blowing snow or low visibility

4. Cast iron wheel

Carries the weight of the plow during mounting, dismounting, and storage

5. A-frame assembly

Main frame mounting plow to vehicle

6. D-frame assembly

Carries the blade and holds its angle to direction of travel

7. Slide Foot Weld Assembly

Holds the scraper edge at a set height during plowing

8. Suspension assembly

Connects the Snow Plow frame to the vehicle mounting brackets or front-mount receiver

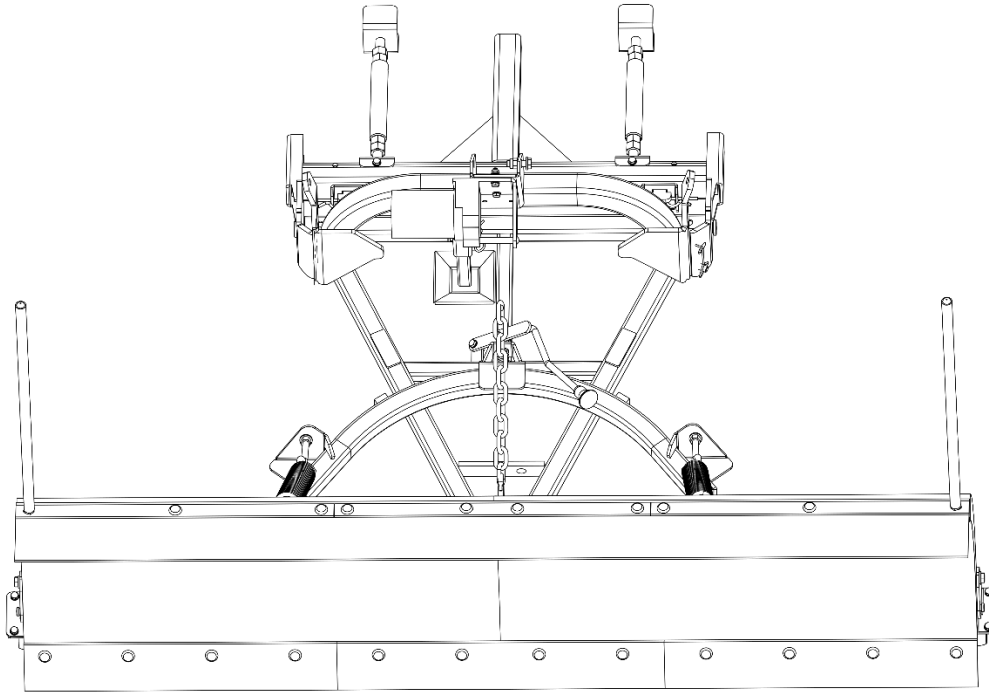
9. Electric windlass

Raises and lowers the blade

10. Right and Left-hand control screw weldment

It is used to lengthen and shorten the distance of connecting pickups

PRODUCTS SPECIFICATIONS



Snow Plows Attachment

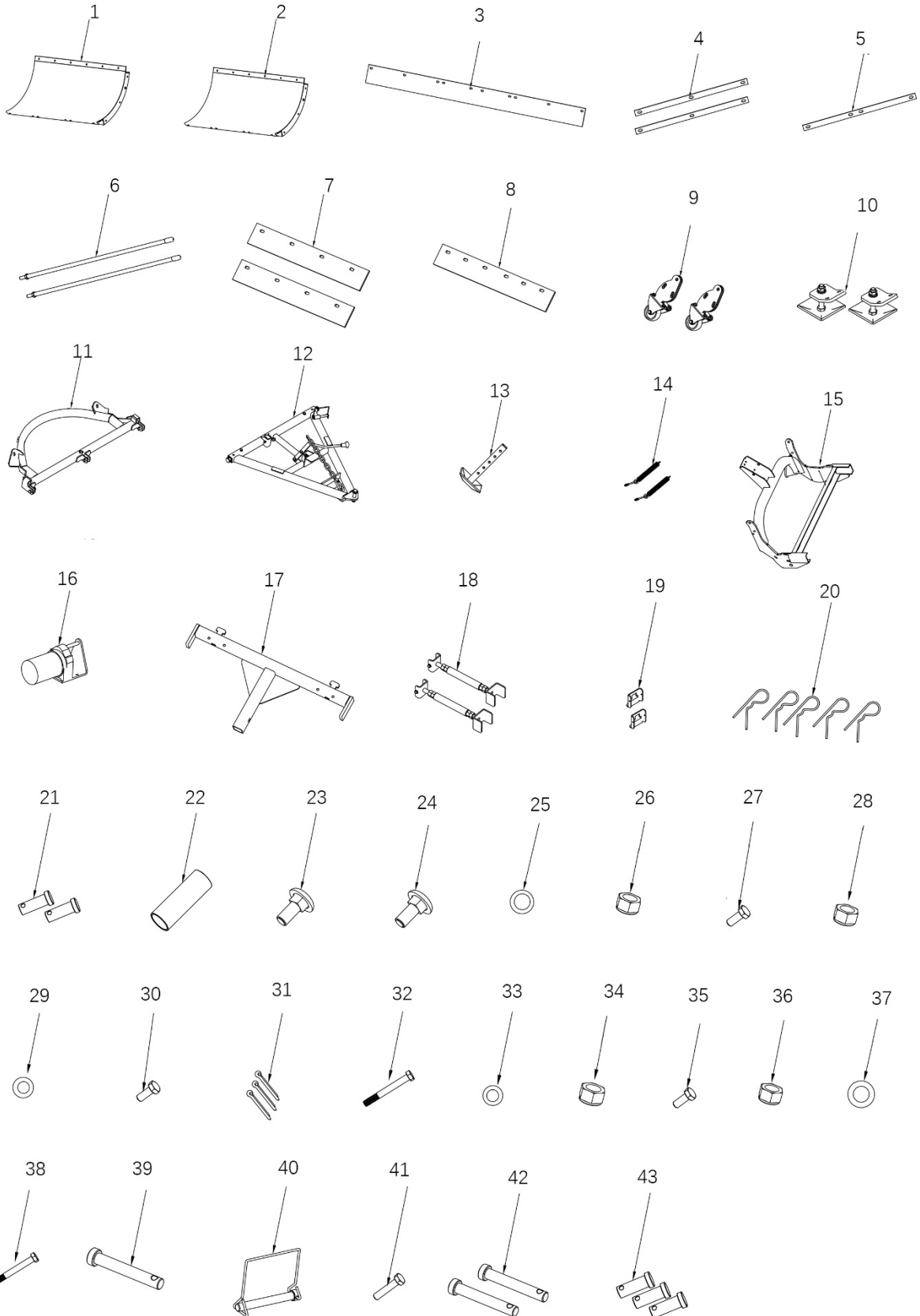
Model No	TMG-TSP84
Overall width	86.7"
Cutting width	84"
Overall length	60.3"
Overall height	49"
Cutting height	23"
Rated line pull	2000lbs(907kgs)
Motor	DV12 Permanent magnet 0.5KW/0.7hp
Operating weight	306lbs(139kg)
Matchable trailer hitch	Fits ANY vehicle that has a 2" Class III front mount receiver

Features:

- Fits most Pickup trucks and SUVs.
- Equipped with two Adjusting lever group to add strength by improving the mounting connection from one point to three.
- 3 locking angles, to either side or straight ahead carries the blade and holds its angle to direction of travel.
- Equipped with two Castor assembly to carry the weight of the plow during mounting, dismounting, and storage.
- Snow plow blades and Slide foot are hardened to ensure long-term reliable use.
- Tension spring allows blade to trip forward when hitting obstructions, absorbing shock to plow, vehicle, and operator.
- Equipped with two Visual width rod assembly brightly colored to locate the extreme outside corners of blade in blowing snow or low visibility.
- Equipped with Winch to raise and lower the blade.
- Equipped with Winch control box to supply power to the winch as commanded by the winch control button.
- Winch control switch with lead or wireless Remote Conversion kit operates the winch and therefore the plow, up and down from within the vehicle. (wireless Remote Conversion kit optional)

UNPACKING & ASSEMBLY

After unpacking, check the following components

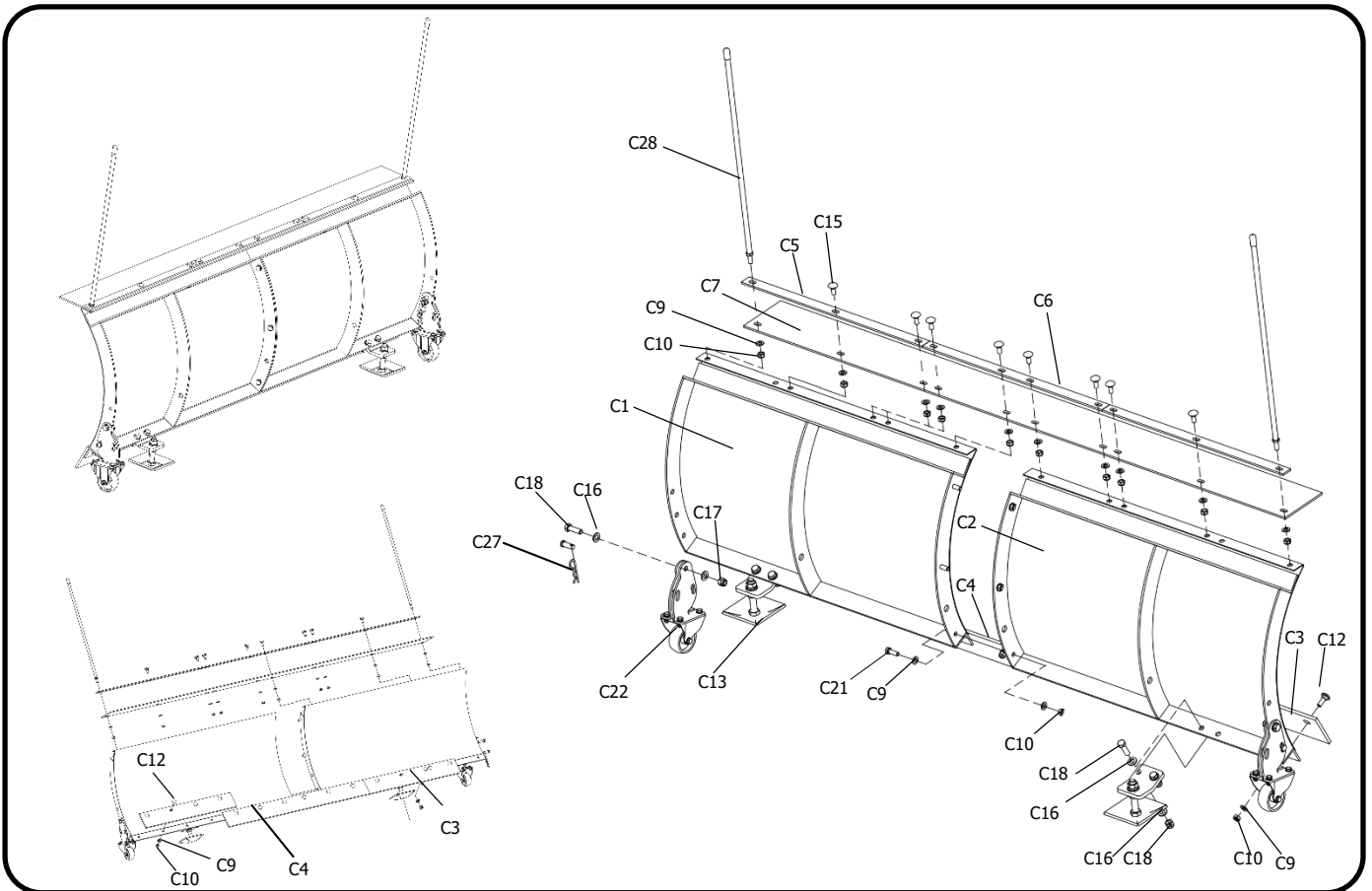


NO.	DESCRIPTION	QTY	NO.	DESCRIPTION	QTY
1	Right Main Shovel Weldment	1	23	Strengthened cap head square neck bolts M10×25	8
2	Left Main Shovel Weldment	1	24	Strengthened cap head square neck bolts M10×30	14
3	Rubber sheet	1	25	Plain Washers M10	30
4	Pressure Plates 1	2	26	1 Non-metallic insert hexagonal locknuts M10	27
5	Pressure Plate 2	1	27	Full Thread Hexagon Bolts M12×40	6
6	Plastic pipes	2	28	1 Non-metallic insert hexagonal locknuts M12	8
7	Short flat Knives	2	29	Plain Washers Ø12	16
8	Long flat Knife	1	30	Full Thread Hexagon Bolts M10×30	3
9	cast iron wheels	2	31	Split pin 3.2 X 25	3
10	Slide Foot Weldment Assemblies	2	32	Hexagon Head Bolt M16 X 80	1
11	D-frame weldment	1	33	Plain Washers Ø16	2
12	A-frame weldment	1	34	1 Non-metallic insert hexagonal locknuts M16	1
13	Strut Weldment	1	35	Full Thread Hexagon Bolts M8×30	2
14	Tension Springs M12	2	36	1 non-metallic insert hexagonal locknuts M8	6
15	Suspension weldment	1	37	Plain Washers Ø8	12
16	Electric windlass	1	38	Hexagon Head Bolts M8 X 80	2
17	T-Frame Weldment Assembly	1	39	Pin	1
18	Right and Left-hand control screw weldment	2	40	Square pin	1
19	Locking Plates	2	41	Full Thread Hexagon Bolts M8×55	2
20	R Pins Ø (4; 5X130)	4	42	Connecting Pins	2
21	Stop pins 5x130	2	43	Pins	3
22	Screened pipe	1			

*** All numbers are not part numbers in the drawings. For correct part numbers, see explosive diagram.**

Tools used for installation				
No	Description	Specification	Conditions of Use	QTY
1	Open end wrench	13/16/18/24	M8,M10,M12,M16 bolt fastening	2
2	hammer			1
3	Torque wrench	10-220N.m	Measuring torque	1
4	Wind gun	1280t	Match the corresponding sleeve instead of the wrench to tighten the bolt	1

1. Install the Main shovel group



Installation steps:

1. Connect the left main shovel weldment (C1) and the right main shovel weldment (C2) by means of M10×30 hexagonal head all-thread bolts (C21), (C9) flat washers 10 (2PCS), and (C10) M10 type 1 non-metallic insert hexagonal locknuts.
2. Connect the pressure plate (C5) and Rubber sheet (C7) to the Main shovel group (C1+C2) by means of head square neck bolts (C15), (C9) flat washers 10 (2PCS), and (C10) M10 type 1 non-metallic insert hexagonal locknuts.
3. Connect the long flat knife (C4) and the short flat knife (C3) to the Main shovel group (C1+C2) by means of Strengthened cap head square neck bolt (C12), (C9) flat washers 10 (2PCS), and (C10) M10 type 1 non-metallic insert hexagonal locknuts.
4. Connect the cast iron wheels (C22) and Main shovel group (C1+C2) by Full-thread hexagon bolts(C18), (C16) flat washers 10 (2PCS), and (C17) M10 type 1 non-metallic insert hexagonal locknuts. The lower hole is connected to the R-pin (C27) by means of a pin.
5. Connect the sliding foot weldment assembly (C13) and Main shovel group (C1+C2) by Full-thread hexagon bolts(C18), (C16) flat washers 10 (2PCS), and (C17) M10 type 1 non-metallic insert hexagonal locknuts.

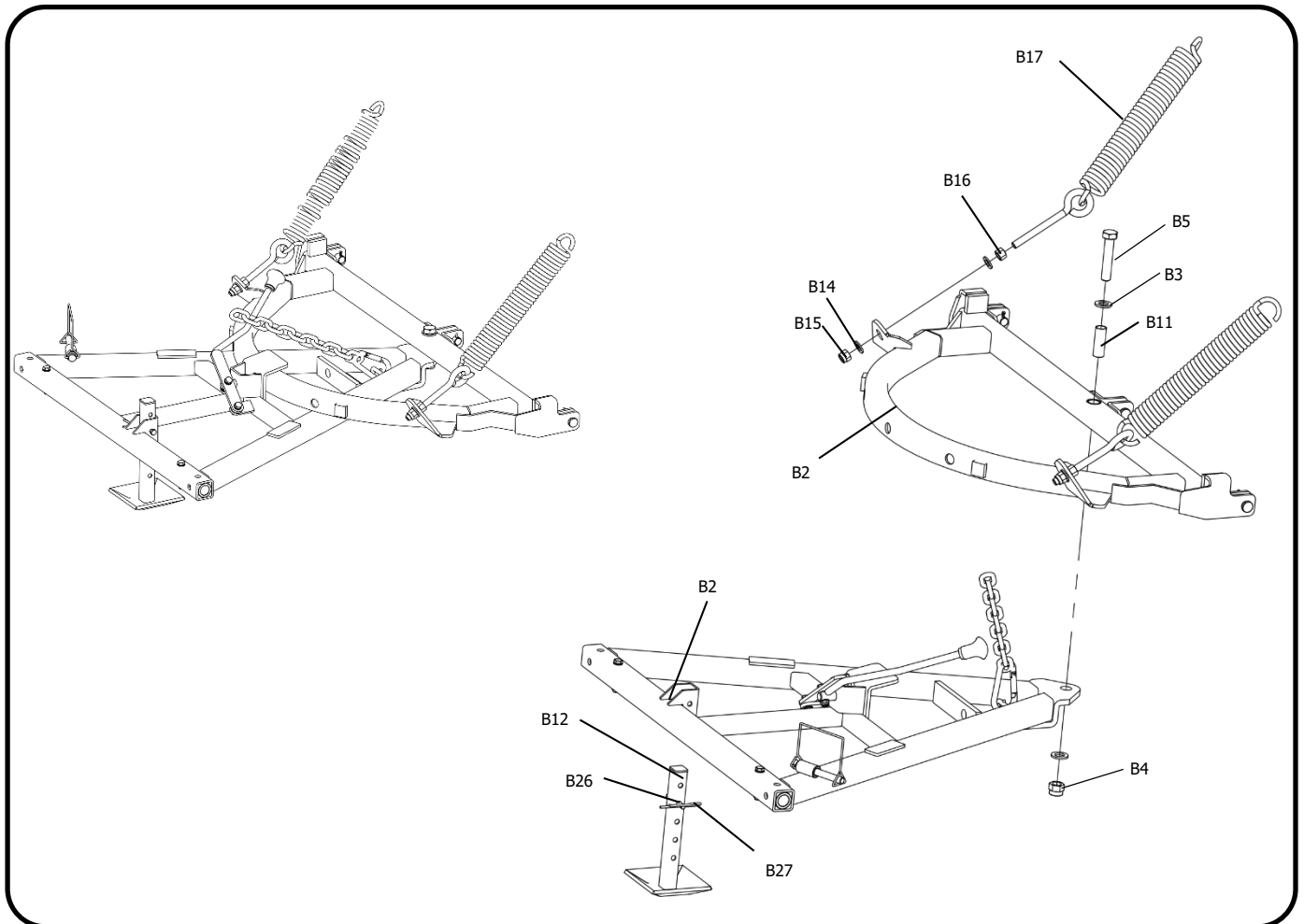
Importance: All bolts are locked in place without shaking



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

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
C1	Left main shovel weldment	1	C13	Sliding foot weldment assembly	3
C2	Right main shovel weldment	1	C15	Strengthened cap head square neck bolts M10×25	8
C3	Short flat knives	2	C16	Plain washers Ø12	12
C4	Long flat knife	1	C17	1 Non-metallic insert hexagonal locknuts M12	6
C5	Pressure Plates 1	2	C18	Full-thread hexagon bolts M12×40	6
C6	Pressure Plate 1	1	C20	Hexagon Nuts M16	4
C7	Rubber sheet	1	C21	Full-thread hexagon bolts M10×30	3
C9	Plain washers Ø10	30	C22	3 inch medium cast iron wheels	2
C10	1 Non-metallic insert hexagonal locknuts M10	27	C27	R Pins Ø4	2
C11	Slide foot support plates	2	C28	Plastic pipes	2
C12	Strengthened cap head square neck bolts M10×30	14			

2. Install the A-frame and D-frame



Installation steps:

1. Connect the D-frame weldment assembly (B2) and Tension spring (B17) by 1 Non-metallic insert hexagonal locknuts (C15), (C16) flat washers 10 (2PCS), and Hexagon Nuts(B16)
2. Connect the A-frame weldment assembly (B1) and Strut weldment (B12) by R pin (B27) and pin (B26).
3. Connect the A-frame weldment assembly (B1) and D-frame weldment assembly (B2) by Screened pipe(B11)),Hexagon head bolts(B5) and hexagonal locknut(B4), put one Plain washer (B3) front and one back

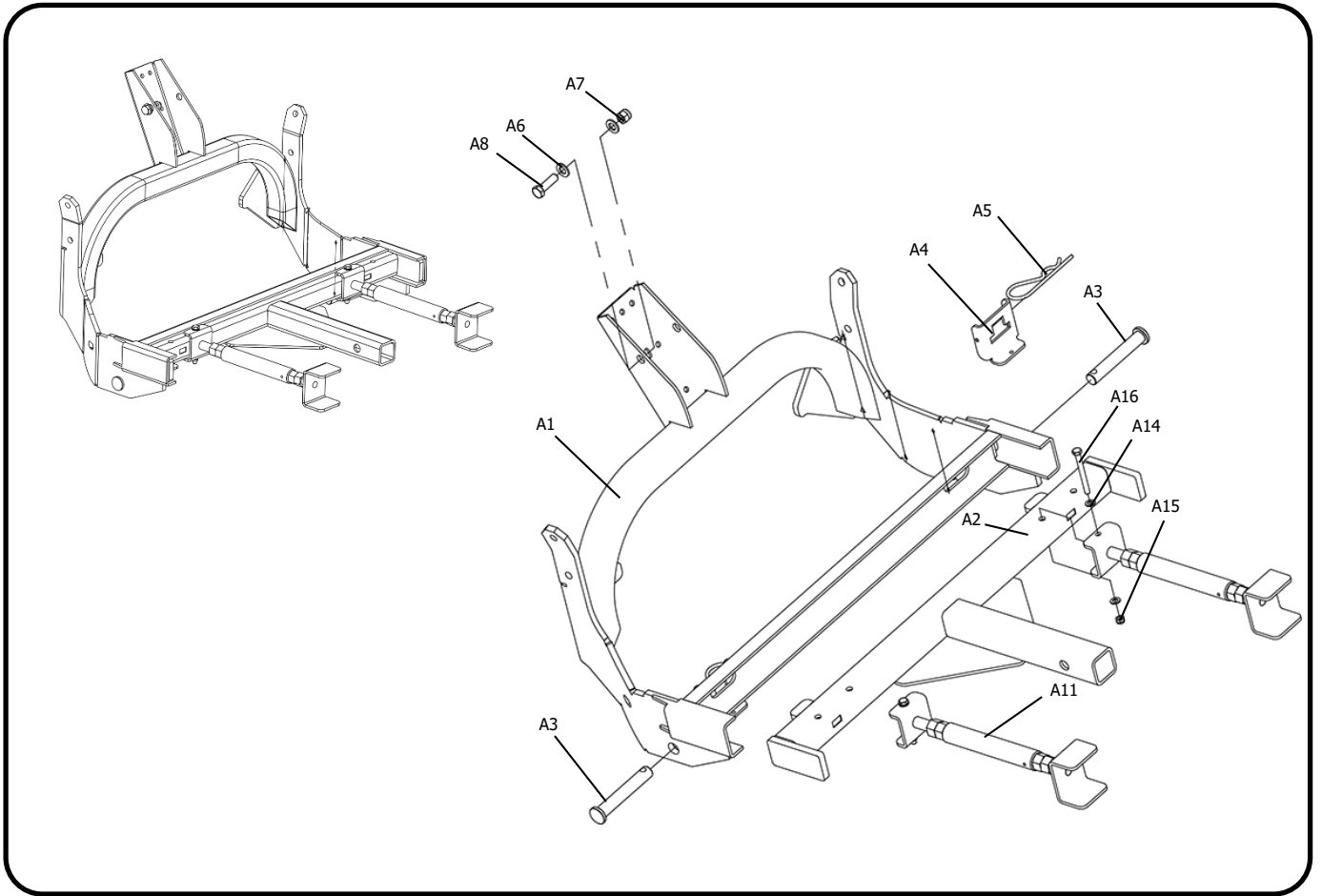
importance: All bolts are locked in place without shaking.



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

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
B1	A-frame weldment	1	B14	Plain washer Ø12	6
B2	D-frame weldment	1	B15	1 Non-metallic insert hexagonal locknuts M12	2
B3	Plain washers Ø16	2	B16	Hexagon Nuts M12	2
B4	1 Non-metallic insert hexagonal locknut M16	1	B17	Tension springs	2
B5	Hexagon head bolt M16×80	1	B26	pin	1
B11	Screened pipe	1	B27	R Pin Ø4	1
B12	Strut weldment	1			

3. Install the Suspension Weldment Assembly



Installation steps:

1. Connect the T-frame weldment assembly (A2) and hand control screw weldment (A11), by 1 Non-metallic insert hexagonal locknuts (A15) and Hexagon head bolts (A16), put one Plain washer (A14) front and one back
2. Connect the T-frame weldment assembly (A2) and suspension weldment assembly (A1), by Connecting pins (A3) and R pin (A5), lock plate (A4)

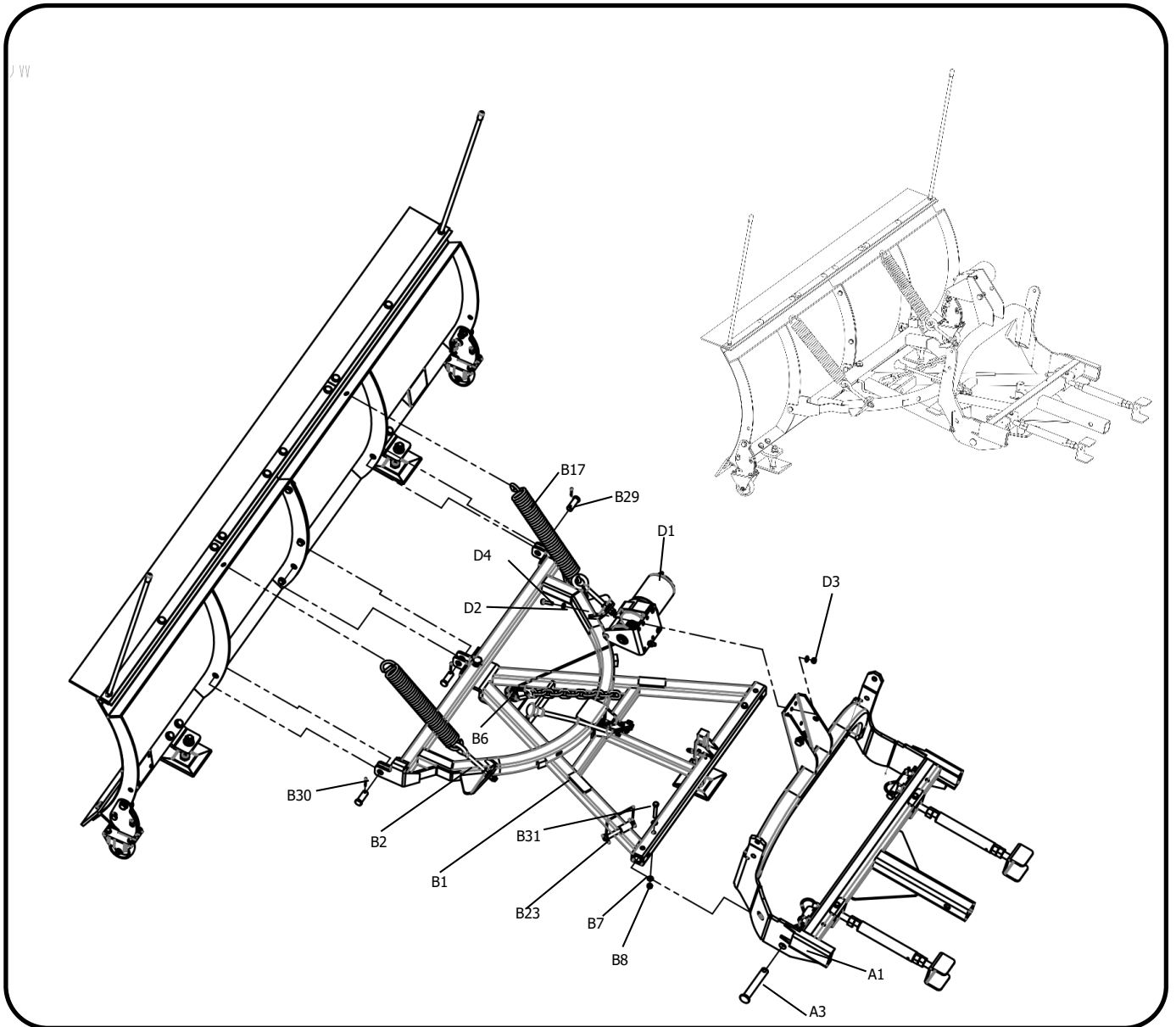
Importance: All bolts are locked in place without shaking.



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

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
A1	suspension weldment assembly	1	A7	1 Non-metallic insert hexagonal locknut M12	1
A2	T-frame weldment	1	A8	Full-thread hexagon bolt M12×40	1
A3	Connecting pins	2	A11	Left-hand control screw weldment	2
A4	Lock plates	2	A14	Plain washers Ø8	4
A5	R pins Ø 5X130	2	A15	1 Non-metallic insert hexagonal locknuts M8	2
A6	Plain washers Ø12	2	A16	Hexagon head bolts M8×80	2

4.Final installation



Installation steps:

1. Connect the Electric windlass (D1) and the suspension weldment assembly (A1) ,by hexagonal locknuts (D3) and Full-thread hexagon bolts (D4) , put one Plain washer(D2) and one back.
2. Connect the A-frame weldment assembly(B1) and the suspension weldment assembly (A1) ,by connection pin (A3) , M8×55 hexagon bolt (B31) and 1 Non-metallic insert hexagonal locknuts (B8) , put one Plain washer(B7) and one back, and both sides of the Square pin(B23) fixed.
3. Connect the D-frame welded assembly(B2) and the Tension spring (B17) ,and the spring end is hooked; The lower end is connected by pin (B29) and Split pin (B30).
4. Connect the Electric windlass (D1)and A-frame welded assembly(B1) ,by the U-bolt (B6)



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

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
A1	Suspension weldment	1	B23	Square pin	1
A3	Connecting pins	2	B29	pins	3
B1	A-frame weldment	1	B30	Split pins 3.2×25	3
B2	D-frame weldment	1	B31	Full-thread hexagon bolts M8×55	2
B6	u-bolt	1	D1	Electric windlass	1
B7	Plain washers Ø8	4	D2	Plain washers Ø8	4
B8	1 Non-metallic insert hexagonal locknuts M8	2	D3	1 Non-metallic insert hexagonal locknuts M8	2
B17	Tension springs	2	D4	Full-thread hexagon bolts M8×30	2

MATCHABLE TRAILER HITCH

Fits ANY vehicle that has a 2" Class III front mount receiver , below is a quick breakdown of the matching hitch ratings, associated load carrying capacity and typical receiver sizes :

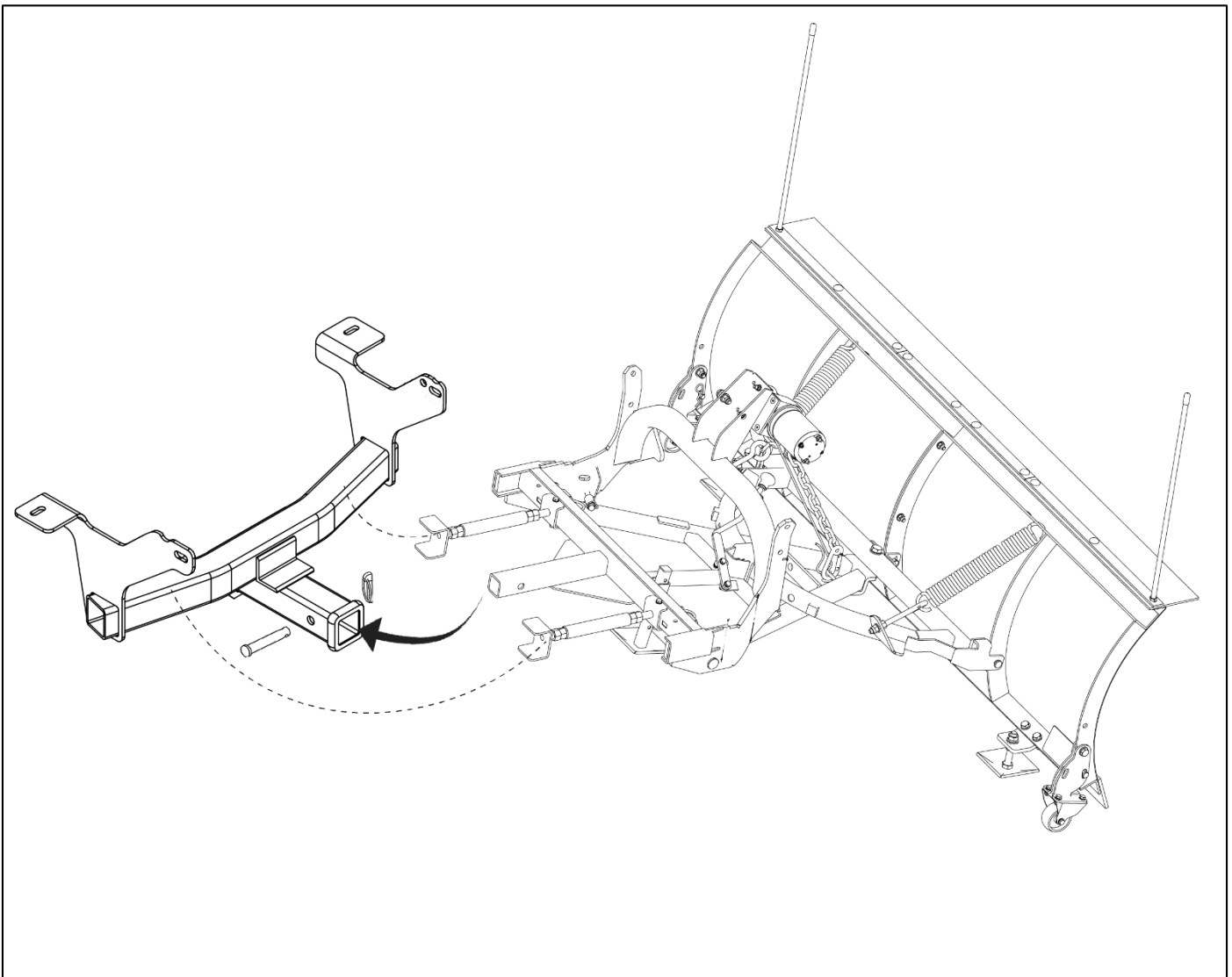
	GTW	TW	Receiver Size
Class III	3500-8000lbs	300-800 lbs	2"

Step 1:

Insert the square tube of the snow plow suspension into the square opening of the pickup truck suspension securing it with a pin.

Step 2:

Adjust the left and right control weldment and tighten them on both sides of the suspension.



OPERATION



WARNING!

Always inspect Snow Plow components, connections, and fasteners for wear or damage every time you attach or detach the Snow Plow. Worn or damaged components may allow the Snow Plow to fail without warning, resulting in serious injury or vehicle damage.

Before plowing the first time, be sure all fixtures, connections, and parts are tight and properly aligned.

1. Lift the plow using the control for the winch.
2. The plow angle can now be adjusted using the handle to release the angle lock pin from the holes in the D frame.
Move the handle away from the blade toward the front of the vehicle and then rotate the blade and D frame. The plow can be positioned at an angle to the left and to the right of the line of travel or straight across the front of the vehicle. Releasing the handle will allow the spring-loaded pin to fall into the appropriate hole in the back of the D frame to hold its position
3. After the first use, it is recommended that all bolts in the assembly are checked and re-tightened.
4. 2-wheel-drive vehicles and some others may have lower clearance. This will likely be further reduced by the front mount as well as the added weight of the plow. You may feel it helpful to adding spring height or increasing tire size to provide extra clearance needed. Though plowing ability will not be affected, because of its extension ahead of the front wheels, there is an increased likelihood of catching the plow assembly on raised or uneven surfaces.
5. This plow was intended to ease the clearance of newly fallen snow. The Snow Plow is not intended to clear the snow deposits created by large municipal or commercial Snow Plows, which contain heavy compacted, frozen lumps of snow and ice, and could damage the plow and vehicle. Do not use it for removing or pushing excessive amounts of snow, nor for ice, sand or gravel.
6. Mainly because of the design of the blade elevation and lowering mechanism, back-dragging with this unit is not practical nor recommended.

PLOWING INSTRUCTIONS

1. Before beginning to plow, always check the main frame and the custom mount are correctly installed and secured using the two quick mount locking plates. Pull strongly forward on the plow. It should not move out of the front mount.
2. In heavy, continuing snowfalls, do not delay; plow regularly every 8 to 15 cm (3 to 6 inches) of snow accumulation.
With heavy, wet snow increase the frequency.
3. To plow higher snow drifts, raise the blade and remove layer of snow from the top, lowering the blade by degrees on successive passes until the full depth is removed.
4. Do not allow the snow to become icy. Plowing immediately after each snowfall reduces the possibility the plow be used to break through ice.
5. Be familiar with the area being plowed or have someone who is familiar point out hazards. Exercise caution because hidden obstacles can inflict severe damage to both plow and vehicle.
6. Keep a distance of a metre (3 ft.) from obstacles such as building walls, telephone poles, and gates because the vehicle may slip sideways and cause the plow to contact them.
7. Ramming into a pile of snow will void your warranty and may cause damage to your vehicle. This plow is not designed for ice blocks
8. Do not attempt plowing snow at speeds above 16 km/h (10 mph). Faster may overload the unit or contribute to loss of control of the vehicle.
9. Should the plow appear to hop when plowing, a reduction in speed is recommended.
10. The Snow Plow will, by design, trip forward if overloaded or on striking an obstacle buried under the snow. The trip springs will then pull it back to the correct position. Before carrying on with caution, it is prudent to search out any hidden obstacles.
11. Before backing up, elevate the plow.
12. Make it a practice to lower the blade to the ground every time the vehicle is parked.
13. Do not leave the plow mounted on the vehicle between uses. It is easy to remove and re-attach.

TIPS AND TRICKS

Staking – Before snow even begins to fall, use stakes or wands to mark the edges of places that need to be plowed, so that you can plow safely and neatly without damaging the surrounding lawns and gardens. You can also mark hydrants, utility boxes, gas meters, sewer vent pipes, etc.

Drains – Through the season, ensure driveway drains remain clear and unobstructed, allowing snow an escape when it melts and less opportunity to re-freeze.

Speed – Plowing requires a safe, manageable speed limit, generally 16 km/h (10 mph). Faster speed reduces your visibility by pushing or blowing snow onto the windshield. If you hit an obstruction while plowing, the faster you're going, the greater the potential for personal injury or damage to equipment.

Plan – Think of the season ahead when determining where to push snow. Start snow banks back far enough that you have room for future snowfalls. Also, try to push snow away from buildings first, if possible.

Stacking – As you near the far side of the lot, reduce speed and raise the blade to prevent scraping turf, as well as to help stack the snow. Do not stack snow with the blade set at an angle.

Overloading – Allow the snow depth and water content to determine the width of your pass, or how much blade overlap you use for each pass. Move just enough snow with each pass to clear efficiently without overloading your equipment the plow or vehicle.

Back-dragging – A common technique used in plowing driveways more than three car lengths long, back-dragging may not be practical with a winch operated, gravity-lowered plow. It involves driving forward to the starting point (usually the garage door), dropping the blade, and pulling the snow back at least the length of your vehicle plus plow (about two car lengths).

Repeat the process across the full width of the driveway. Turn around and back into the area just back-dragged clear and push the snow to where the snow will be piled.

Angle – A blade set at an angle is more effective for cutting and clearing hard-packed snow.

Traction – Ballast and snow chains, where allowed, are effective ways to increase traction. Plowing deep snow requires a steady movement of the vehicle.

OPERATING FINISH

DETACHING THE SNOW PLOW

1. Drive the vehicle to a clear area.
2. Raise the blade.
3. Lower the 2 flip-down castors and lower the rear support plate. Secure with pins.
4. Lower the blade.
5. Disconnect the electrical connections.
6. Remove the two locking plates from the custom mount.
7. Roll the plow to its storage place
8. To re-attach the Snow Plow to the vehicle, reverse the process above.

TROUBLESHOOTING

THE PLOW BLADE ROCKS OR TIPS FROM SIDE TO SIDE.

1. It is normal for the whole assembly to rock back and forth when mounted on a vehicle, with the plow blade moving side to side from 20 to 25 cm (8 to 10 in.) This compensates for differences in terrain between what the plow rides on and what the vehicle is riding on. It should not be reduced with shims or washers.
2. If the rocking is excessive, check the pivot bolt to ensure that there is no more than 6 mm (1/4") of play. You can tighten the lock nut, if need be.
3. The springs and eye bolts may not have enough tension. If the springs look as though they are loose, loosen the inner nuts and re-tighten the nuts to the point where the springs are just tight. Then turn the nuts, shortening the take-up by 6 mm (1/4 inch) so the springs open slightly. Snug up the inner M12 nut to hold the assembly tight.

THE WINCH DOES NOT START, OR IT HESITATES

1. Check that the battery cable is securely connected to the battery's negative terminal. Do not connect the black (negative ground) wire to the vehicle chassis or bodywork. It must lead directly to the negative battery terminal.
2. Check that the control box switch (in the engine compartment) is "ON".
3. Check that the winch contacts and the two 2" plug connectors are tight and free of corrosion or dirt. Dielectric grease works well to protect electrical connections.

PLOW OPERATION WORKS OPPOSITE TO THE DIRECTIONS ON THE CONTROLLER

1. Check that the red lead is connected to the positive (upper) terminal on the winch, and the black lead connected to the negative (lower) winch terminal.

THE WIRING, CONTROL SWITCH OR CONTROL BOX ARE HOT.

1. Be sure that a circuit breaker has been installed between the red battery cable and the battery's positive terminal. The breaker bracket must be connected between the battery and the brass terminal on the circuit breaker.

MAINTENANCE SCHEDULE

Using it in commercial applications or travelling above the recommended speeds will result in us voiding your warranty. It can also cause serious damage to the plow, or to your vehicle as well as possible personal injury.

RECOMMENDS THE FOLLOWING GENERAL MAINTENANCE INFORMATION:

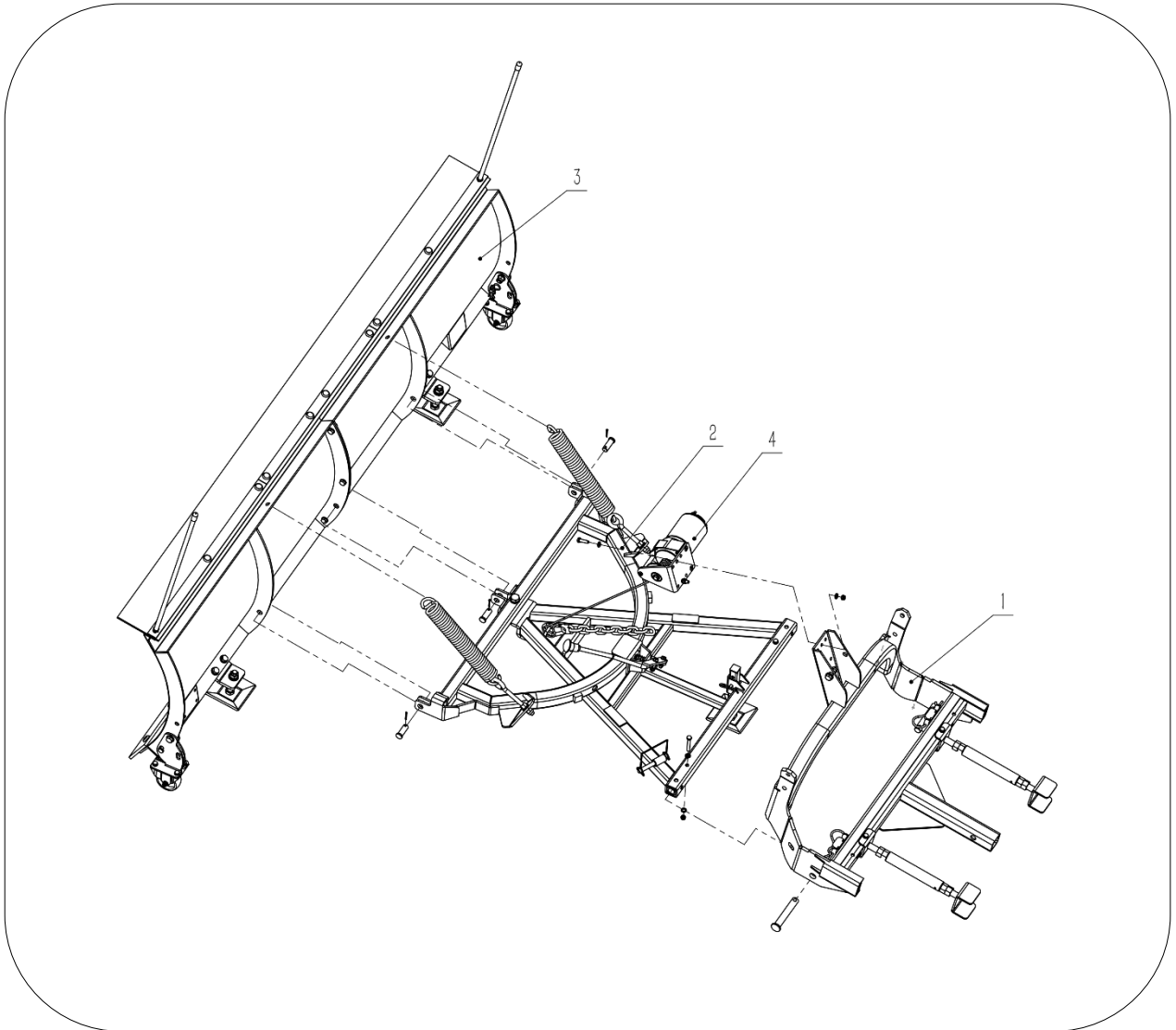
1. Continuous heavy operation may demand a more intensive service regimen. Snow Plowing will subject any vehicle to very heavy demands. As a result, thorough inspection and bringing both the Snow Plow and the vehicle up to the best possible operating condition is extremely important.
2. Before the beginning the plowing season, and after each use, inspect both the vehicle and Snow Plow.
3. Lubricate all moving parts with synthetic grease. Check all electrical connections for corrosion or wear.

PRE-SEASON VEHICLE MAINTENANCE

1. Have all scheduled vehicle maintenance performed as recommended by the manufacturer.
2. In addition to generally keeping equipment in order, ensure specifically that
3. Windshield wipers, heaters, and lights are working correctly
4. Emergency flasher lights are engaged to increase visibility and safety.
5. Your vehicle is equipped with chains when necessary.
6. The operator uses protective clothing and rubber gloves when handling caustic snow-melting chemicals.

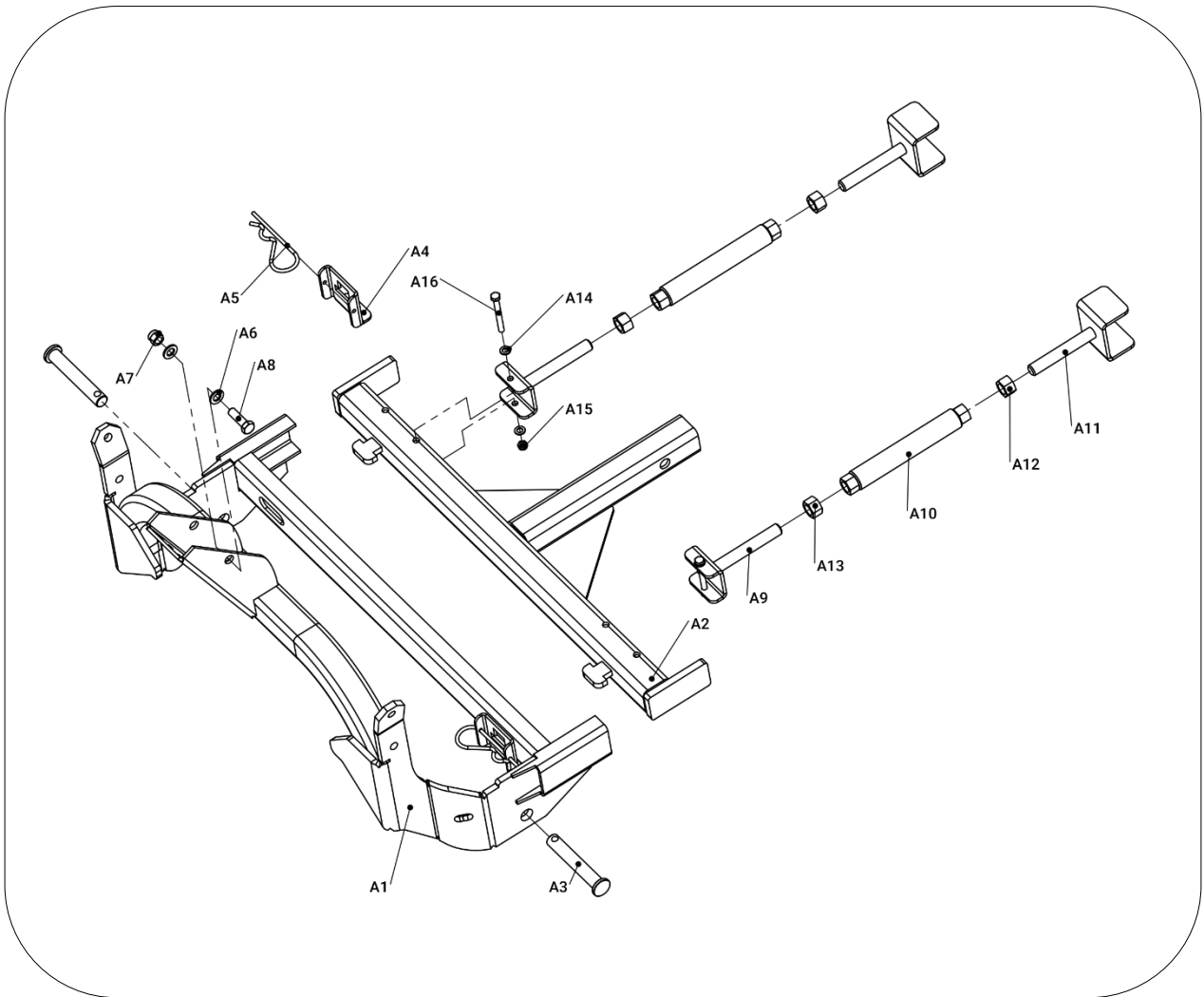
EXPLODED VIEW & PARTS LIST

1. Snow Plow



PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
1	Suspension assembly	1	3	Main shovel group	1
2	Connecting frame assembly	1	4	Motorized module	1

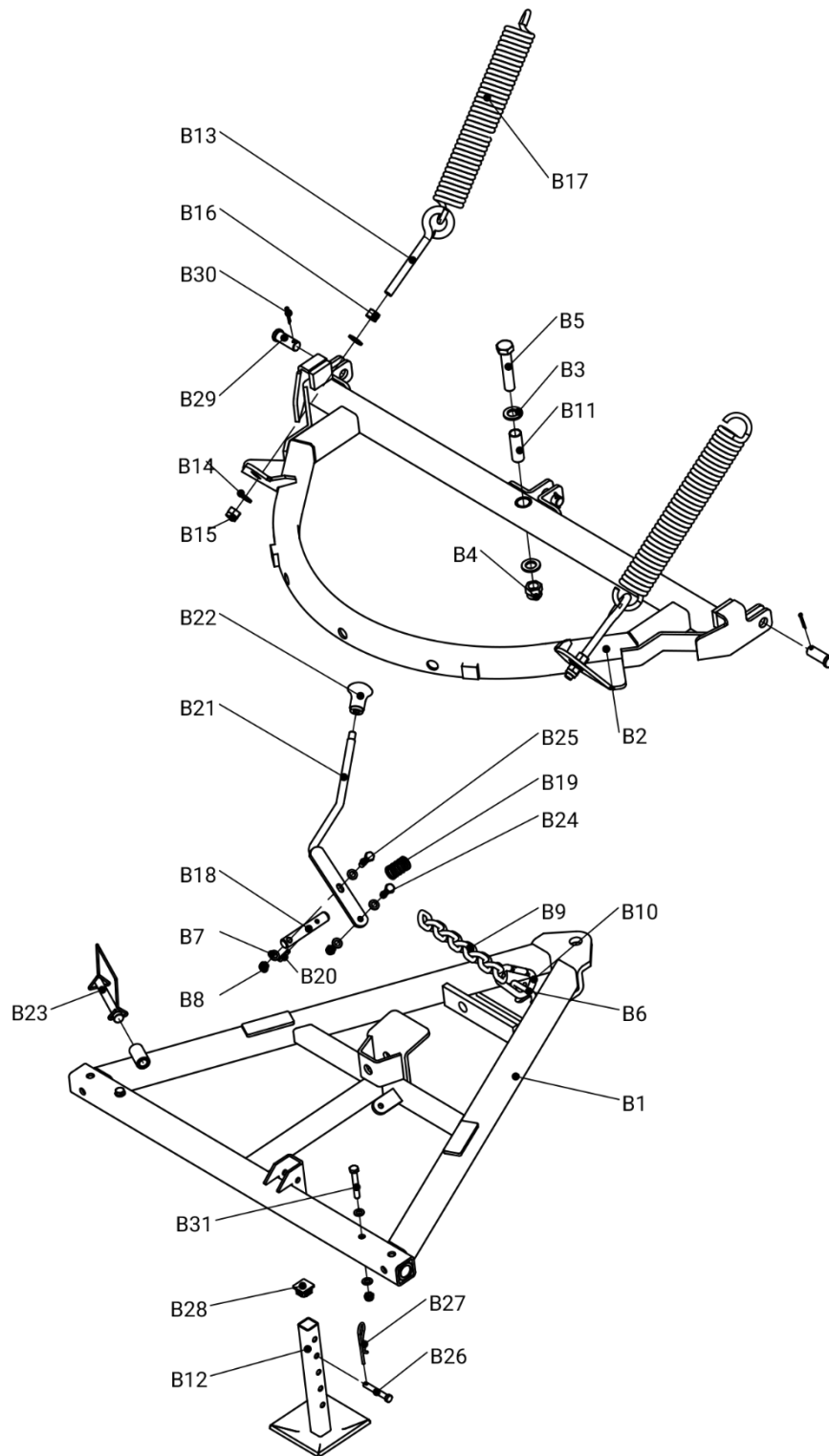
2. Suspension assembly



PARTS LIST

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
A1	Suspension weldment	1	A9	Right-hand adjusting screw weldment	2
A2	T-frame weldment	1	A10	Adjusting tube weldment	2
A3	Connecting pins	2	A11	Left-hand control screw weldment	2
A4	Lock plates	2	A12	Hexagon Nuts (levorotation) M18	2
A5	R pins Ø 5X130	2	A13	Hexagon Nuts M18	2
A6	Plain washers Ø12	2	A14	Plain washers M8	4
A7	1 Non-metallic insert hexagonal locknut M12	1	A15	1 Non-metallic insert hexagonal locknuts M8	2
A8	Full-thread hexagon bolt M12x40	1	A16	Hexagon head bolts M8x80	2

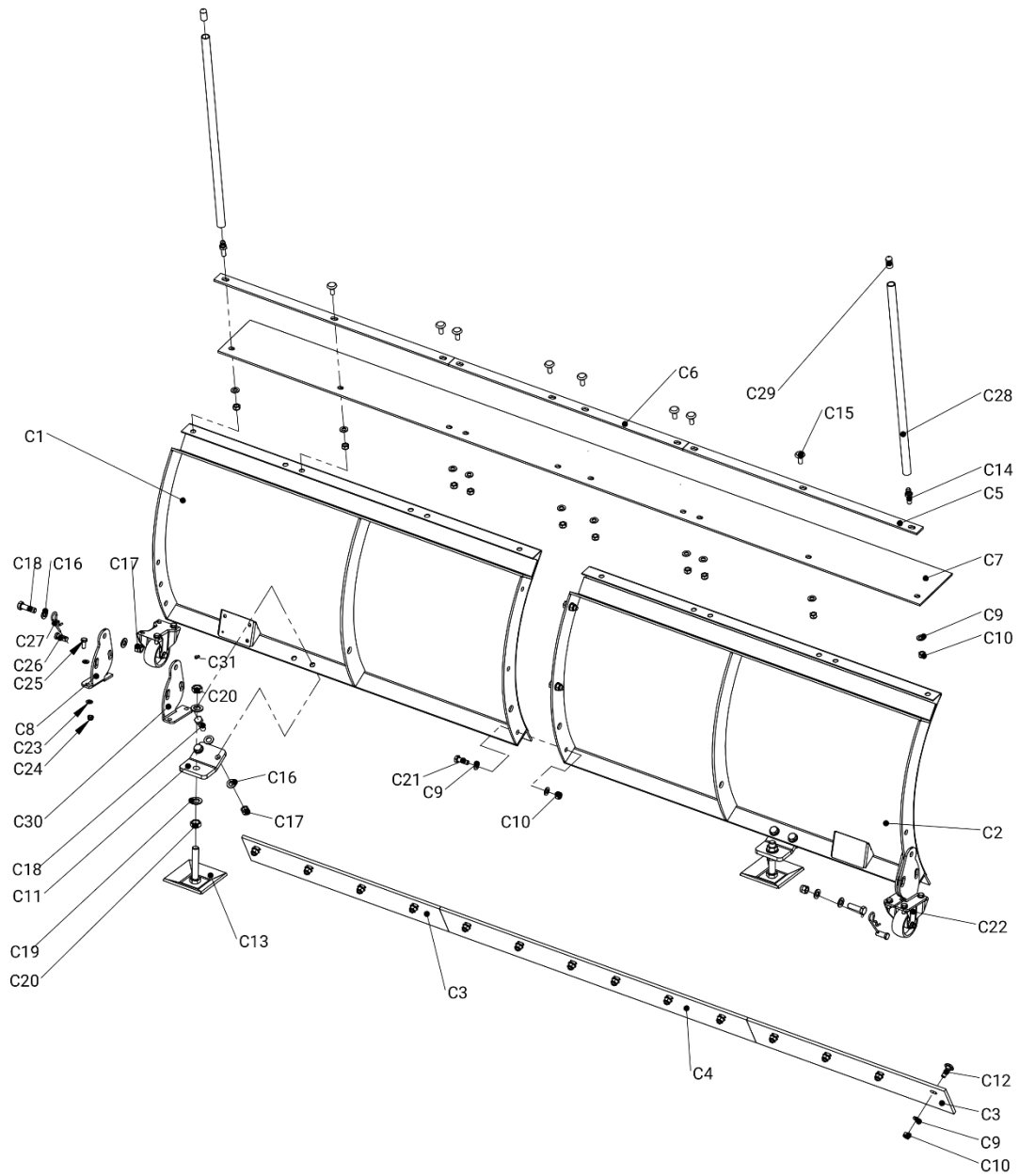
3.Connecting frame assembly



PARTS LIST

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
B1	A-frame weldment	1	B17	Tension springs	2
B2	D-frame weldment	1	B18	plug	1
B3	Plain washers Ø16	2	B19	Compression spring	1
B4	1 Non-metallic insert hexagonal locknut M16	1	B20	Spring-type straight pin	1
B5	Hexagon head bolts M16×80	1	B21	Handle bonding	1
B6	u-bolt	1	B22	Haft	1
B7	Plain washers Ø8	10	B23	Square pin	1
B8	1 Non-metallic insert hexagonal locknuts M8	6	B24	Full-thread hexagon bolt M8×30	1
B9	Galvanized chain 8×47×30	1	B25	Full-thread hexagon bolt M8×35	1
B10	With spring safety catch	1	B26	pin	1
B11	Screened pipe	1	B27	R Pin Ø4	1
B12	Strut weldment	1	B28	Pipe Plug 25X25 (inner20X20)	1
B13	Eye screw rings	2	B29	pins	3
B14	Plain washers Ø12	4	B30	Split pins 3.2×25	3
B15	1 Non-metallic insert hexagonal locknuts M12	2	B31	Full-thread hexagon bolts M8×55	2
B16	Hexagon Nuts M12	2			

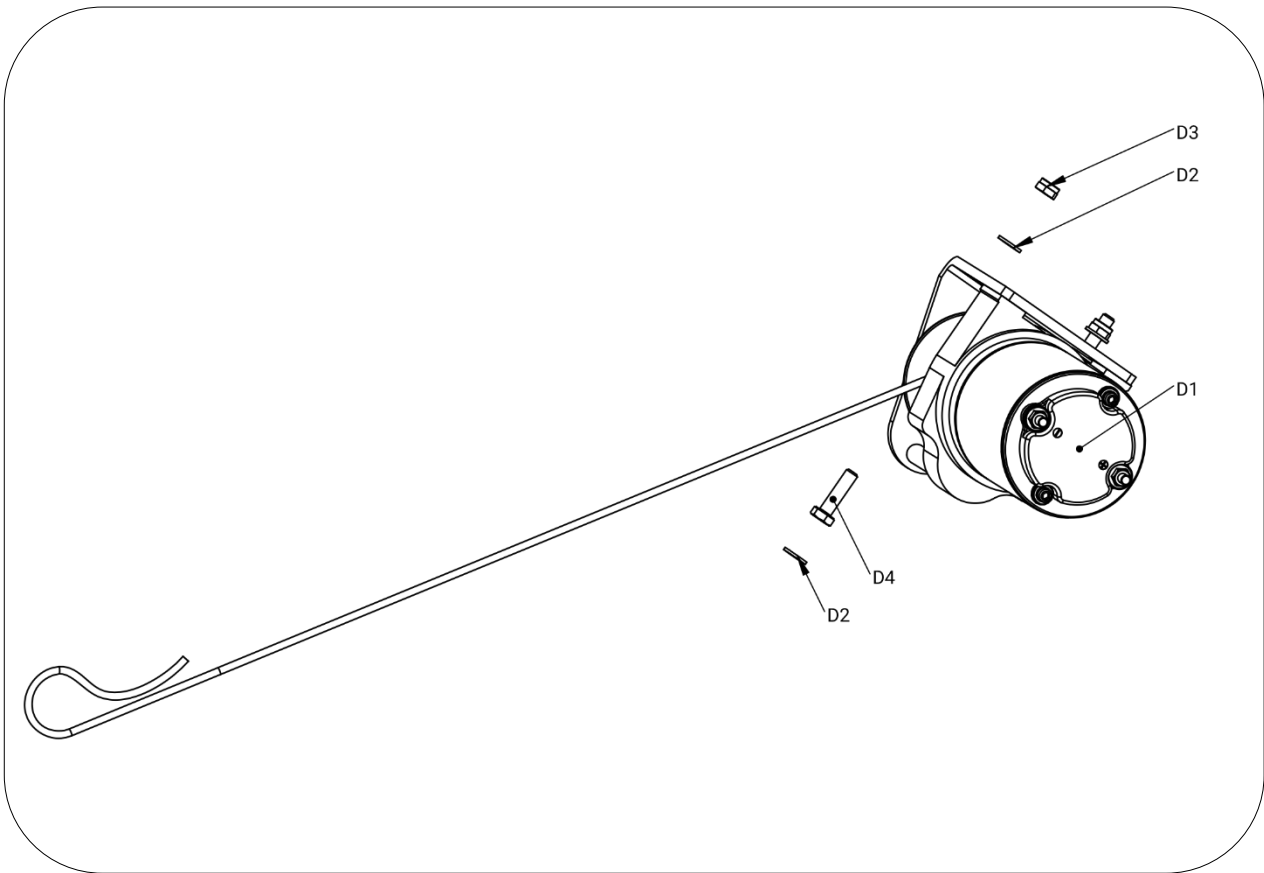
4. Main shovel group



PARTS LIST

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
C1	Left main shovel weldment	1	C17	1 Non-metallic insert hexagonal locknuts M12	6
C2	Right main shovel weldment	1	C18	Full-thread hexagon bolts M12×40	6
C3	Short flat knives	2	C19	Plain washers Ø16	4
C4	Long flat knife	1	C20	Hexagon Nuts M16	4
C5	Pressure Plates 1	2	C21	Full-thread hexagon bolts M10×30	3
C6	Pressure Plate 1	1	C22	3 inch medium cast iron wheels	2
C7	Rubber sheet	1	C23	Plain washers Ø8	16
C8	Caster support plates 1	2	C24	1 Non-metallic insert hexagonal locknuts M8	8
C9	Plain washers Ø10	30	C25	Full-thread hexagon bolts M8×20	8
C10	1 Non-metallic insert hexagonal locknuts M10	27	C26	Stop pins	2
C11	Slide foot support plates	2	C27	R Pins Ø4	2
C12	Strengthened cap head square neck bolts M10×30	14	C28	Plastic pipes	2
C13	Slide foot weldment	3	C29	Rubber caps	2
C14	studs	2	C30	Caster support plates 2	2
C15	Strengthened cap head square neck bolts M10×25	8	C31	Open end Oind rivets	4
C16	Plain washers M12	12			

5. Motorized module



PARTS LIST

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
D1	Electric windlass	1	D3	1 Non-metallic insert hexagonal locknuts M8	2
D2	Plain washers Ø8	4	D4	Full-thread hexagon bolts M8×30	2

WARRANTY INFORMATION:

Please refer to our website for detailed warranty conditions and coverage.
For the most up-to-date and comprehensive warranty information, visit www.tmgindustrial.com