



FRONT MOUNT PLOW SYSTEM

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USER MANUAL



code.ironbaltic.com/u/bysr7cqN

Code 20.6200 / 20.6400

Version 23012024



Keep this manual for future reference!

If you need any spare parts, please send this packaging data to your local dealer or to Iron Baltic
sales@ironbaltic.com

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EC DECLARATION OF CONFORMITY

Manufactured by: Iron Baltic OÜ

Address: Põldmäe tee 1, Vatsla 76915

Product: **Front mount plow system**
Type: **20.6200 / 20.6400**
Model: **04.20000 / 04.21000 / 04.22000 / 04.23000 / 04.38000 /
04.39000 / 04.40000 / 04.41000 / 04.55000 / 04.56000**

Hereby we confirm that this product is in conformity with the requirements of Directive **2006/42/EC**, applicable to the safety and functionality of machinery, regarding the replaceable equipment and it is in compliance with the standard **EN12100** Safety of machinery – General principles for design – Risk assessment and risk reduction.

In witness whereof CE marking is attached to the product.

Place and date of issue of the declaration: 11.07.2019



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Tiit Norak
Member of the Board

INTRODUCTION

Thank you for choosing the product by Iron Baltic. This manual provides instructions on the assembly and safe operation of the front mount plow system. This product is designed for pushing snow, sand, gravel, soil and other solid materials. The non-intended use of the system may cause economic loss and cause injuries; hence it is very important that the person who uses the product, reads this manual carefully and uses the product accordingly. Any misuse of the product releases the manufacturer from the responsibility for occurred damage and compensation of costs.

NOTE: Photos and drawings in this manual may not necessarily depict the actual models of plow system or their accessories. They are merely given as a frame of reference and are based on the latest available information at the time of publication.



This symbol is used throughout the manual and on warning signs in order to warn users of the potential for serious injury. Before using the vehicle and plow system, carefully read the safety instructions and make sure that you have understood them. Follow all instructions and ensure that everyone who uses the equipment follows them!



Your plow system and hardware were designed with safety in mind. In order to protect you and your ATV, certain parts of the product and/or its hardware are designed to fail when equipment is over-stressed. For this reason, push tubes, blade hinges, mounting brackets, and clevis pins are not covered by warranty.

Keep this manual for future reference.

Based on the specifications for your model, please check that you have received all of the parts for your particular set.

SAFETY INSTRUCTIONS

Most accidents occur due to negligence or carelessness. Avoid unnecessary accidents and follow the safety instructions given below.

TRAINING

1. Read the safety instructions, terms and conditions of use carefully. Make sure that you have the potential to safely use both the vehicle and plow system.
2. Never allow children to use the vehicle or plow system. Never allow adults to use the vehicle or plow system unless they have received appropriate instruction.
3. The vehicle or plow system should not be used when intoxicated or under the influence of drugs which may affect perception or reactions.
4. Make sure that there are no persons, especially infants, or animals in the equipment's operating area.



PROHIBITIONS

- Never operate the vehicle on slopes greater than 10° with the plow system installed.
- Never use the plow system unless all of the parts are correctly installed.
- Never use the plow system before you have carefully read the entire user manual.
- Never exceed a speed of 10 km/h when transporting the plow system.
- Never exceed a speed of 5km/h when working with the plow system.
- Never use the plow system in the dark, unless you are using artificial lighting.
- Never stand or ride on the plow system.

COMPULSORY TASKS

- Follow every instruction given by the ATV's manufacturer.
- Always use proper protective equipment (helmet etc.) when using the vehicle.
- Always inspect the plow system mechanism, fasteners, cable, winch rope and adjustments before operating. Replace all worn or damaged parts before operating.
- The safe road-steadiness of the vehicle must always be ensured by using the correct accessories for the task in hand (chains, counterbalances, etc).
- Make sure that all of the safety stickers are in good condition. Replace damaged stickers as required.
- Before starting work, check that the plow system and winch are working properly.
- Make sure that bystanders are moved to a safe distance when operating the plow system.
- Be aware of objects that could be hidden under snow.
- Slow down the speed when working on a slope or on an uneven surface.
- Keep away from blade and moving parts during operation.
- Before adjusting blade angle, stop the ATV and operate the handbrake.
- When plowing snow or soil into piles, start backing up before raising the blade.
- Do not ram the blade into piles of soil or snow. Ensure that you slow down before hitting the pile.
- Always wear thick leather gloves when handling the winch rope.
- Always remain clear of moving parts and joints. Keep others away when operating or adjusting the plow.
- Always lower the plow system to the down position before leaving the ATV unattended.



IN PRIOR WORKING WITH PLOW SYSTEM ALWAYS CHECK TO HAVE ENOUGH CLEARANCE IN BETWEEN BLADE, PLOW ADAPTER AND ATV FRONT WHEELS WITH EVERY POSSIBLE STEERING ANGLE! MAKE SURE THAT THE PLOW IS NOT IN CONTACT WITH THE WHEELS OF THE ATV.



IF ANYTHING, THAT MIGHT DAMAGE EQUIPMENT HAPPENS DURING OPERATION, THE EQUIPMENT MUST BE INSPECTED TO DETECT AND ASSESS POSSIBLE DAMAGES. DAMAGES (FRACTURES IN THE STRUCTURE OR WELD, DEFORMED DETAILS) MAY HARM PROPERTY AND HEALTH OF PEOPLE. DO NOT CONTINUE OPERATING THE EQUIPMENT BEFORE ELIMINATION OF DAMAGES.

SAFETY LABELS

	Read the manual before use!
	Maximum permitted speed 10 km/h!
	It is forbidden to drive slopes over 10°!
	Make sure that all bystanders are at a safe distance while working with the plow system! Risk of collision!
	Avoid getting your hands and feet between moving parts!
	Make sure that all bystanders are at a safe distance while working with the plow system! Risk of flying objects!

WARNING!

INSPECT WINCH, CABLE, PULLEY
AND RETAINING DEVICES. ENSURE
ALL ARE IN PROPER AND SAFE
OPERATING CONDITION
PRIOR TO OPERATION.

**FAILURE TO DO SO
MAY RESULT IN INJURY OR DEATH**

PRODUCT DESCRIPTION

The front mount system of Iron Baltic can be attached to ATV or UTV and has justified itself as a robust product that is intended for snow clearance or ground planning.

The front mount system can be equipped with 1280 mm or 1500 mm straight blade, 1500 mm plastic blade and 1500 mm high throw blade. The straight blades can be extended with side extensions by 150 mm.

The 1500 mm push broom can also be attached to the push tube. The broom is designed for cleaning large areas, such as streets, footways, roads, squares and warehouse spaces from rubbish, leaves, snow, etc.

The model-specific installation kit is needed for installing to the vehicle (see front mount adapters).

The operating and transport position of the front mount plow can be quickly changed with the vehicle's winch and so movement between different work areas is fast and convenient.

The operating angle of the plow / broom can be adjusted between five positions and the blade's angle towards the ground can be adjusted in four different positions. Use of springs ensures free movement of the plow over fixed obstacles without damaging the plow or the vehicle.

Standard equipment set:

- Push tube 20.6200 / 20.6400
- Blade 1280 / Blade 1500 / High throw blade / Push broom / Plastic blade 1500
- Model-specific mount adapter

Additional equipment:

- Rubber blades
- Plow extensions (for straight blades)
- Bucket module (for straight blades)
- Hydraulic or electrohydraulic rotation
- Hydraulic or electrohydraulic lifting

Possible kits of the standard push tube (20.6200)					
Product	Blade 1280	Blade 1500	Push broom	High throw blade	Plastic blade 1500
Model	04.22000	04.23000	04.38000	04.39000	04.55000
Max working width	1280 mm	1500 mm	1500 mm	1500 mm	1500 mm
Min working width	1169 mm	1370 mm	1370 mm	1370 mm	1370 mm
Height	450 mm	450 mm	300 mm	440–690 mm	545 mm
Turning angle	-24°...24°	-24°...24°	-24°...24°	-24°...24°	-24°...24°
Weight	38 kg	43 kg	45 kg	52 kg	44 kg
Installation	Model-specific adapter	Model-specific adapter	Model-specific adapter	Model-specific adapter	Model-specific adapter

Table 1. Technical specification of the standard push tube (20.6200)

Possible kits of the narrow push tube (20.6400)					
Product	Blade 1280	Blade 1500	High throw blade	Push broom	Plastic blade 1500
Model	04.20000	04.21000	04.41000	04.40000	04.56000
Max working width	1280 mm	1500 mm	1500 mm	1500 mm	1500 mm
Min working width	1169 mm	1370 mm	1370 mm	1370 mm	1370 mm
Height	450 mm	450 mm	440–690 mm	300 mm	545 mm
Turning angle	-24°...24°	-24°...24°	-24°...24°	-24°...24°	-24°...24°
Weight	38 kg	43 kg	52 kg	45 kg	44 kg
Installation	Model-specific adapter	Model-specific adapter	Model-specific adapter	Model-specific adapter	Model-specific adapter

Table 2. Technical specification of a narrow push tube (20.6400)

INSTALLATION GUIDE

For installation you need following parts:



Blade



Push tube



Mounting kit

Step 1

Install the model-specific mounting kit to ATV. Instructions are included in mounting kit package.



Step 2

Install angle regulators to push tubes. For fastening use M10x30 bolts, Ø10 mm washers and M12 nyloc nuts. Use 17 mm socket wrench and spanner. NB! Do not tighten the bolts completely!



Step 3

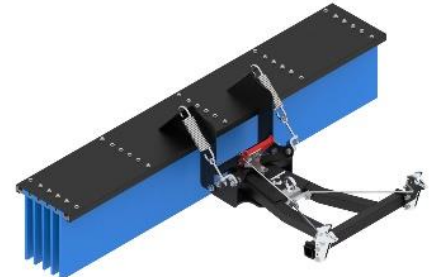
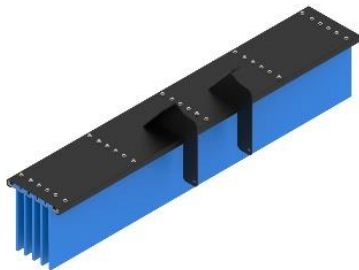
Install spring holder to push tubes. For fastening use M10x30 bolts, Ø10 mm washers and M12 nyloc nuts. Use 17 mm socket wrench and spanner. NB! Tighten bolts so that the spring holder can rotate freely!



Step 4

Connect blade / broom to push tube; use M12x35 bolts, Ø12mm washers, bushes (20.103) and M12 Nyloc nuts. Use 19mm socket wrench and 19mm spanner.





Step 5

Install and tension the springs. For fastening use eyebolts, Ø8 mm washers and M8 nyloc nuts. Use 13mm socket wrench or spanner.



Step 6

To adjust the angle of the blade, turn the regulator to a suitable position and tighten the M10x30 bolts. Use 17mm socket wrench and 17mm spanner.



Step 7

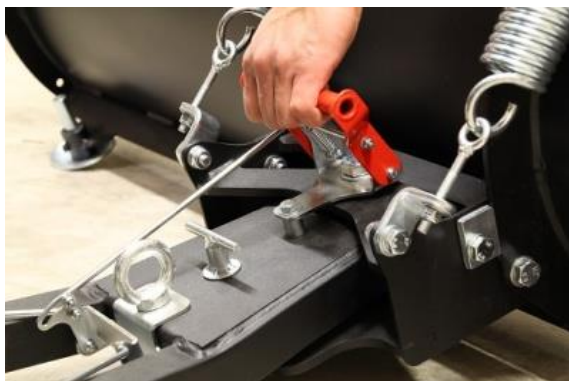
To adjust the working height of the blade, loosen the screw and set the skid at a suitable position. Use 6mm allen key.



USER GUIDE

Step 1

To open latches, pull lever towards the blade until it locks into place.



Step 2

Lift the plow and push it back, so that latches go on to plow mounting bushes.



Step 3

To close latches pull the wire with fingers and push the lever towards ATV.



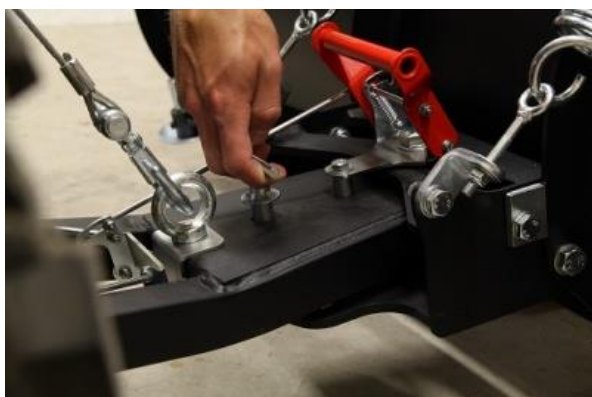
Step 4

Attach winch line to snow plow push tube.



Step 5

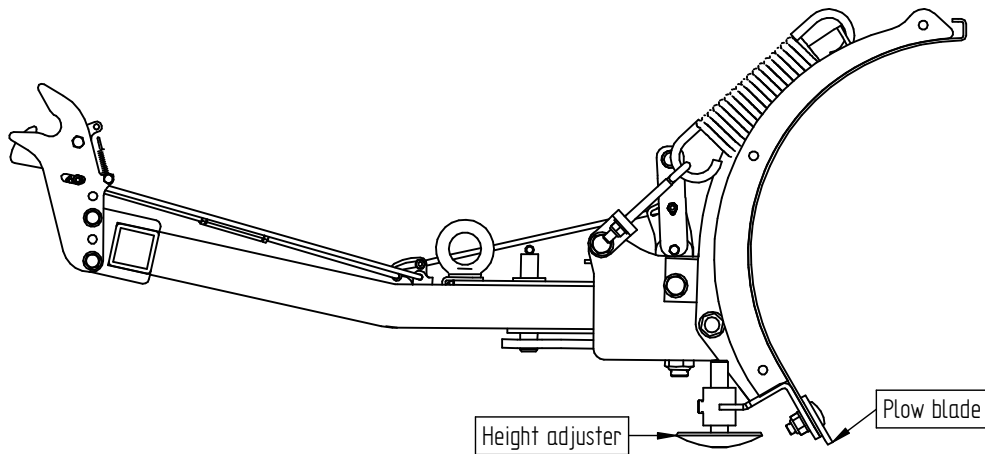
To change the angle of the blade pull pin up and turn the blade to desired position.



TROUBLESHOOTING

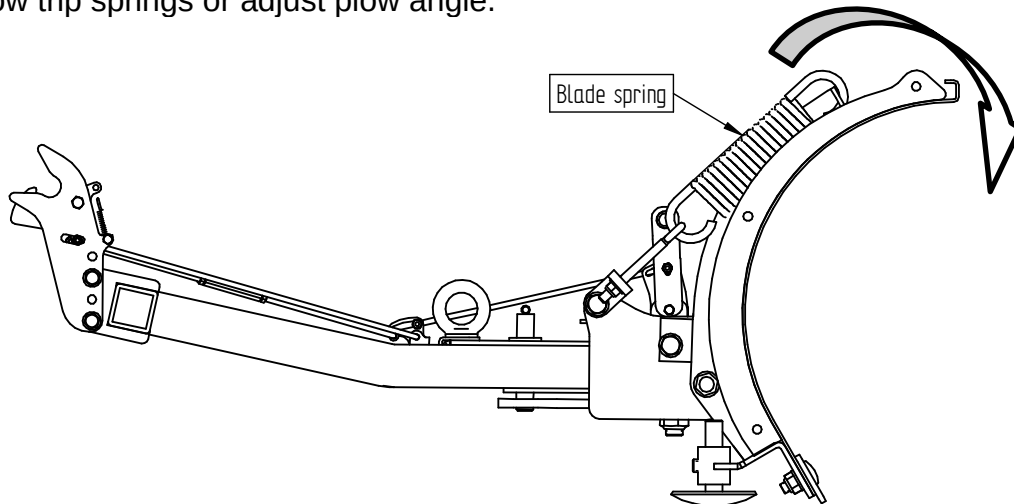
Q: Blade is wearing out too quick.

A: Check and adjust height adjusters. Blade should be higher than height adjuster bottom slider.



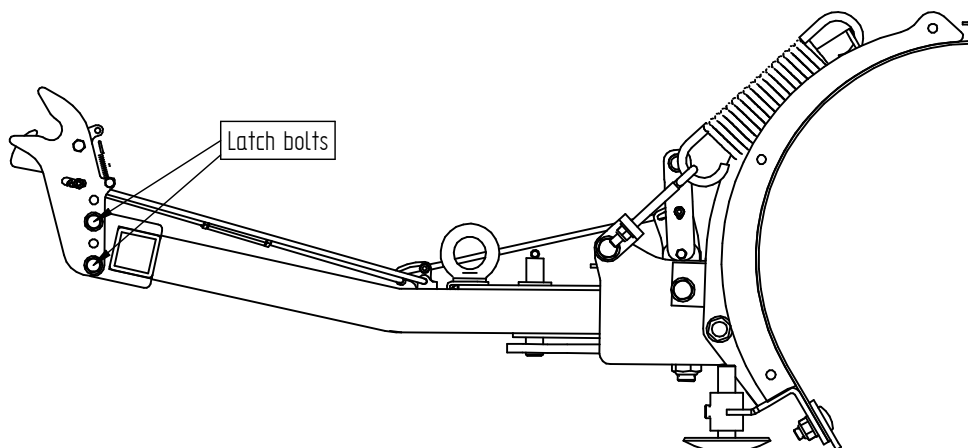
Q: Plow trips over too easily when driving over obstacles.

A: Tighten plow trip springs or adjust plow angle.



Q: Bolts holding latches to the frame break.

A: Lower your plowing speed. Too much force is applied to the bolts if plowing speed is too high!

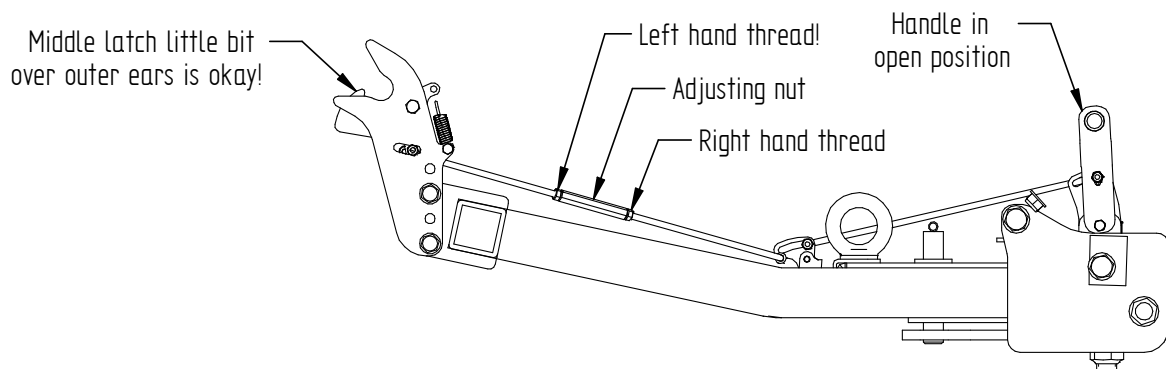
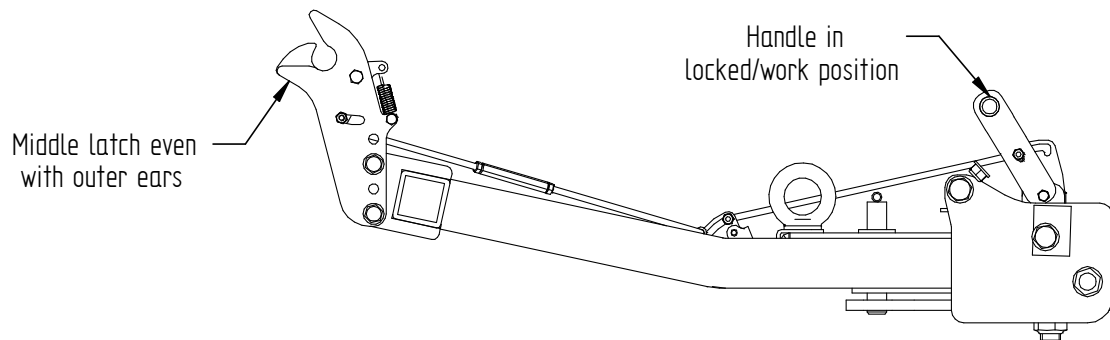


ADJUSTING LATCHES

In case when locking wires get bent or when frame is hard to install or comes off too easy then it may be necessary to adjust the locking latches.

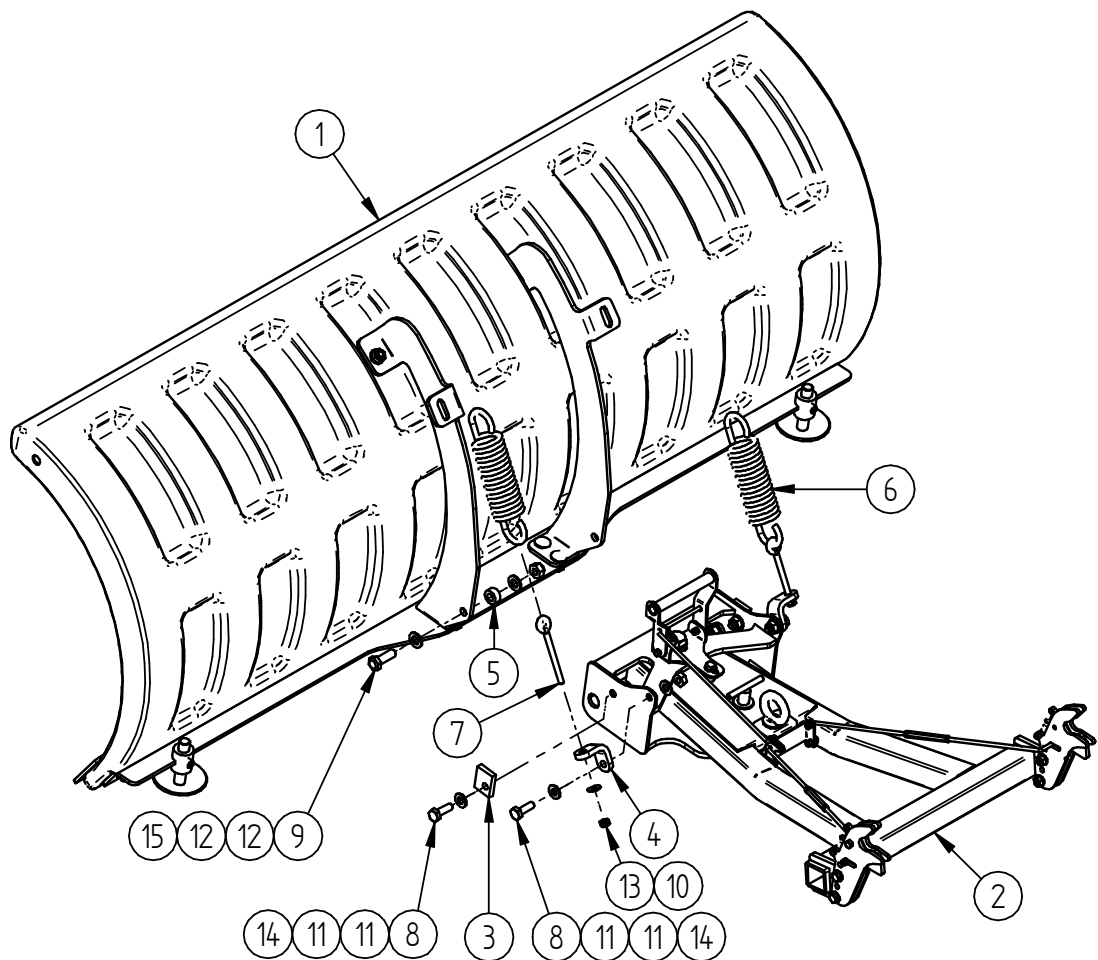
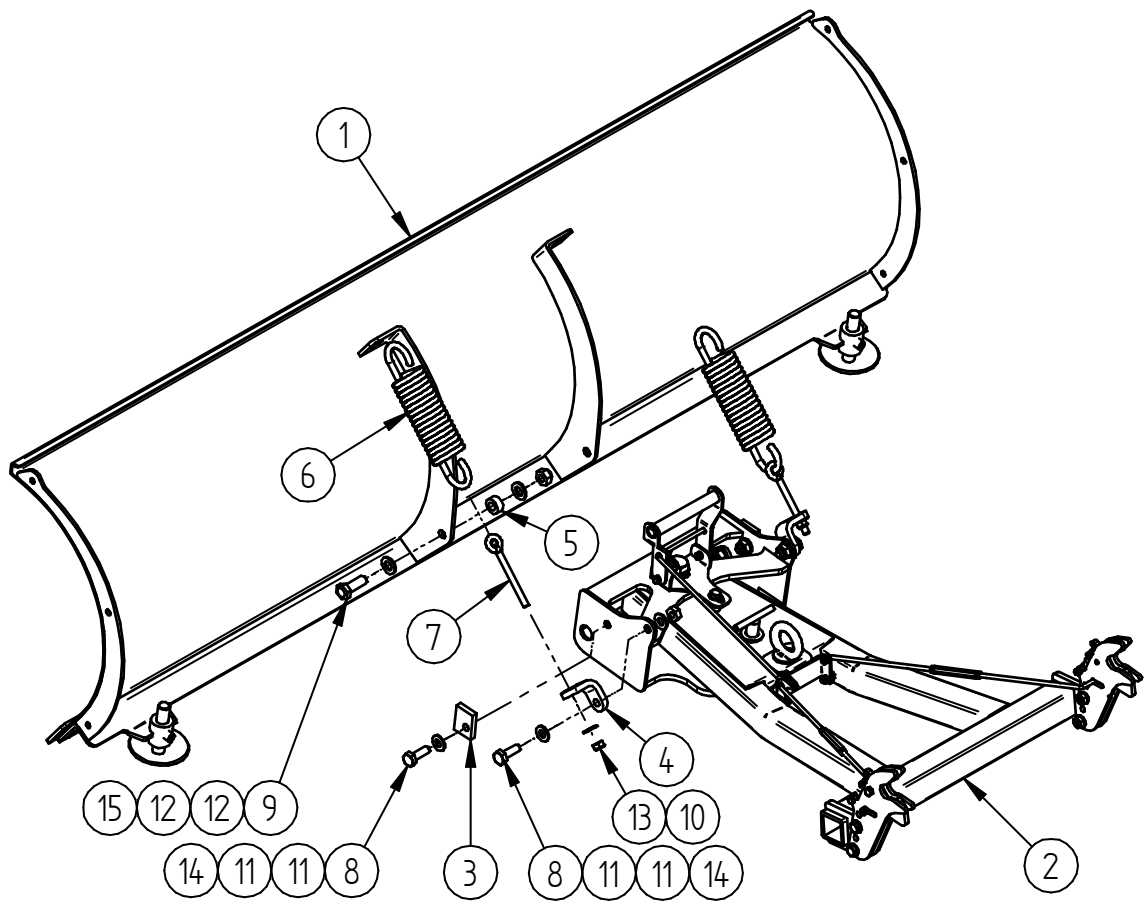
To do so:

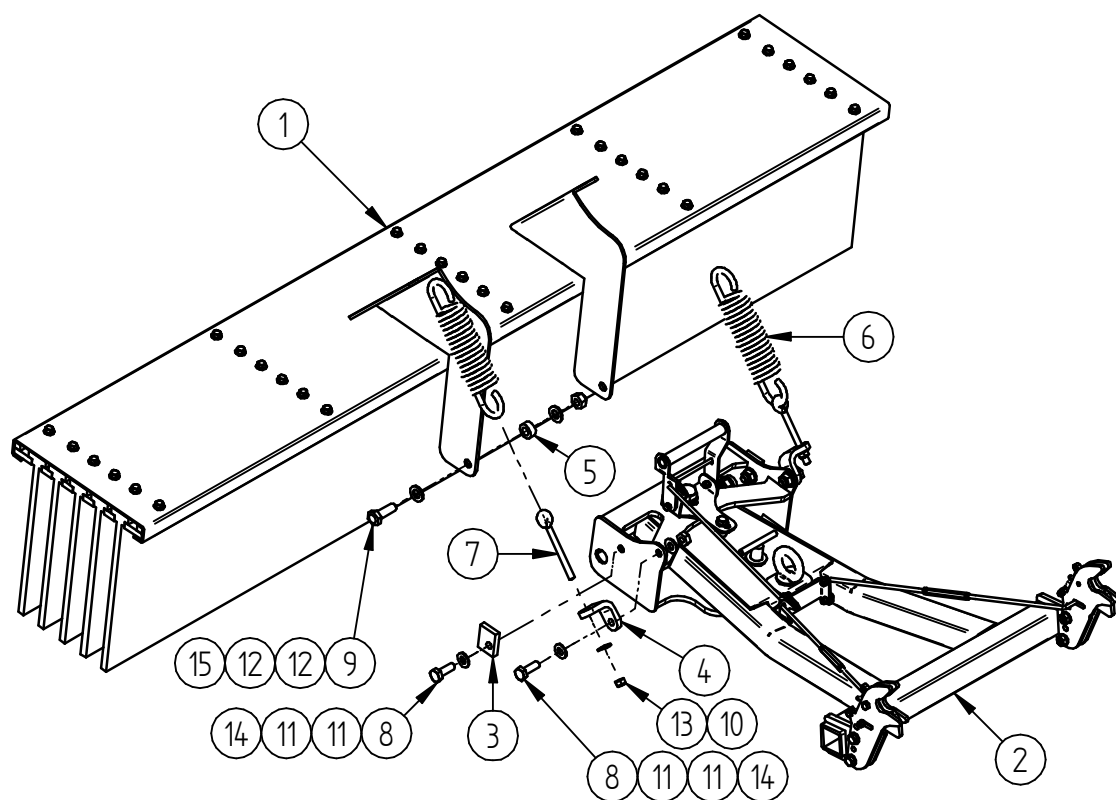
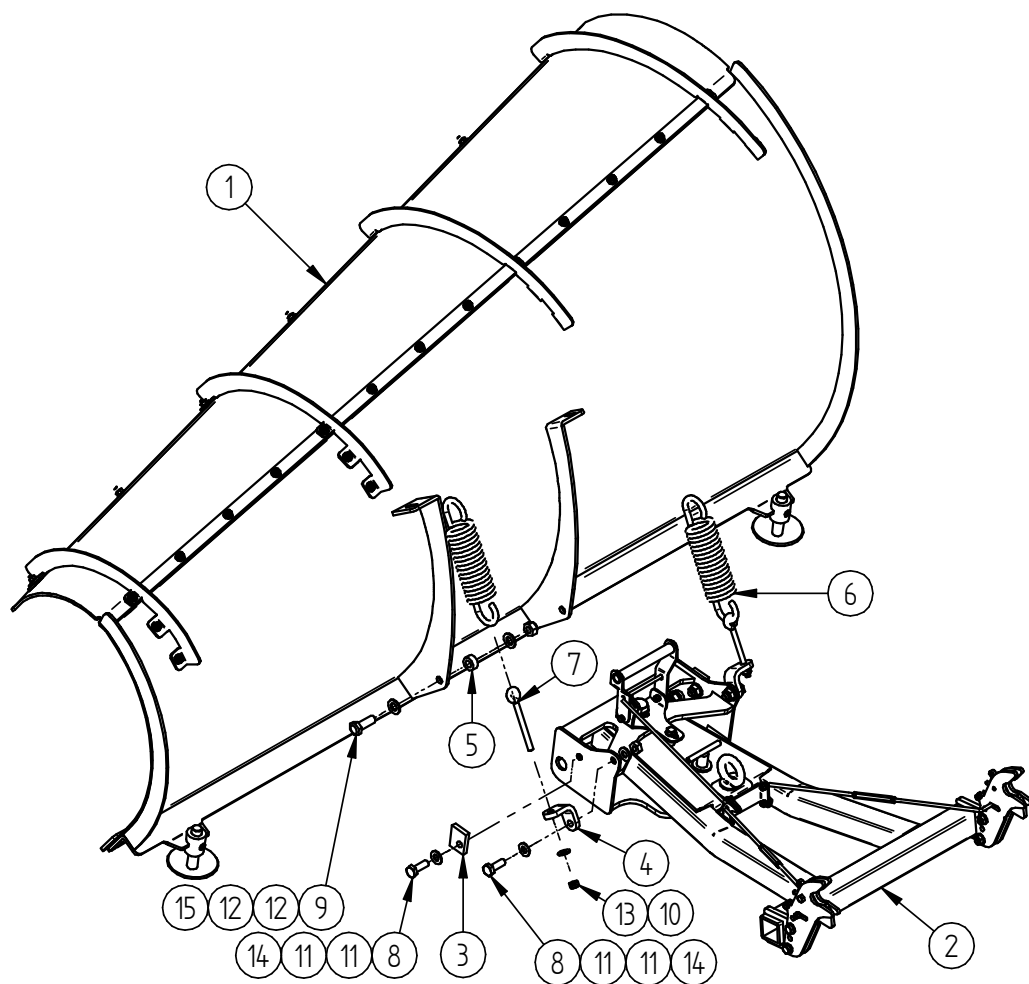
1. Put the handle into locked/working position.
2. Open adjusting nut counternuts. NB! Counternut on the latches side is with left hand thread!
3. Turn the adjusting nut until middle latch bottom side is even with outer ear bottom sides. Try the frame to your mounting adapter. If needed turn the adjusting nut little bit more, until frame attaches and removes from adapter with ease.
4. Hold the adjusting nut and tighten counternuts.



SPECIFICATION

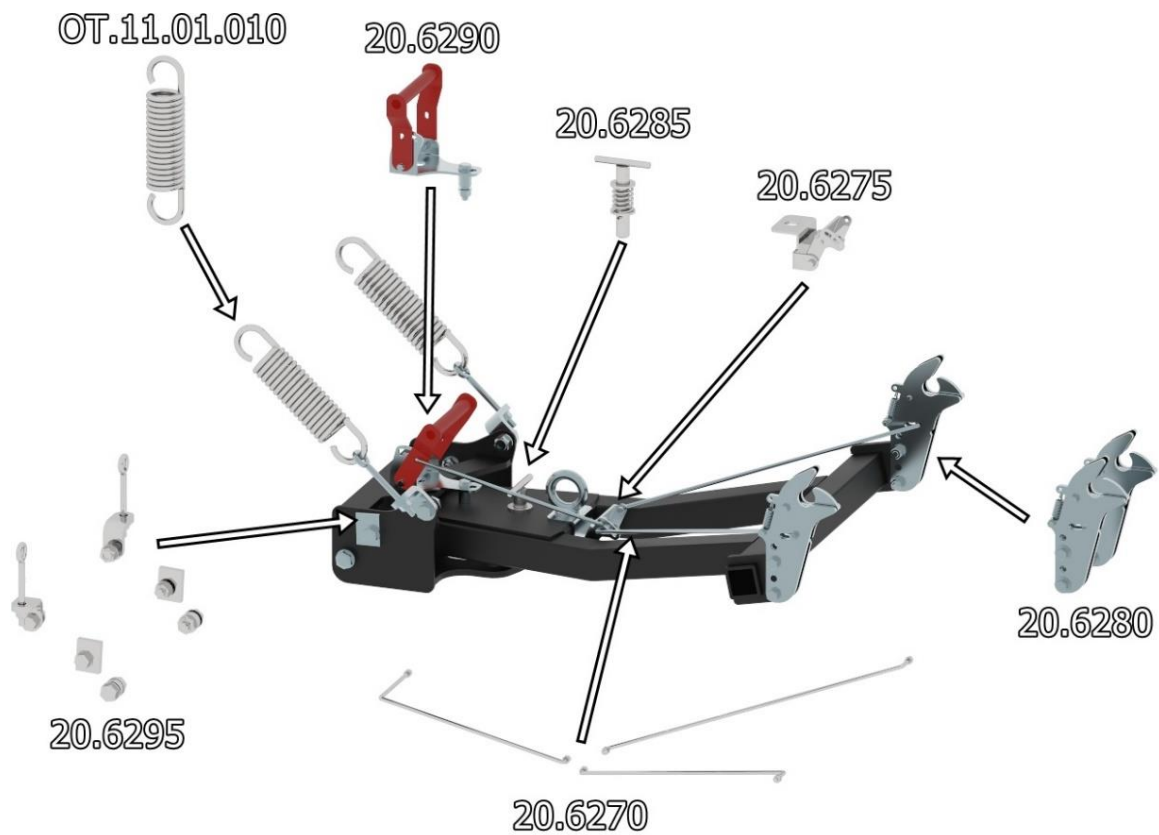
Pos.	Description	Code	Amount
1	Blade / Broom	04.100 / 04.300 / 20.1000 / 20.7200 / 20.7700	1
2	Push tube	20.6200RK / 20.6400RK	1
3	Angle regulator	20.101	2
4	Spring holder	20.102	2
5	Bush	20.103	2
6	Spring 7x50x200	OT.11.01.010	2
7	Eyebolt M8x60 R88136	OT.21.00.010	2
8	Bolt M10x30 DIN933	OT.02.02.320	4
9	Bolt M12x35 DIN933	OT.02.02.400	2
10	Washer Ø8/20 SFS3738	OT.04.03.030	2
11	Washer M10 DIN125	OT.04.01.040	8
12	Washer M12 DIN125	OT.04.01.050	4
13	Nyloc nut M8 DIN985	OT.03.02.040	2
14	Nyloc nut M10 DIN985	OT.03.02.050	4
15	Nyloc nut M12 DIN985	OT.03.02.060	2



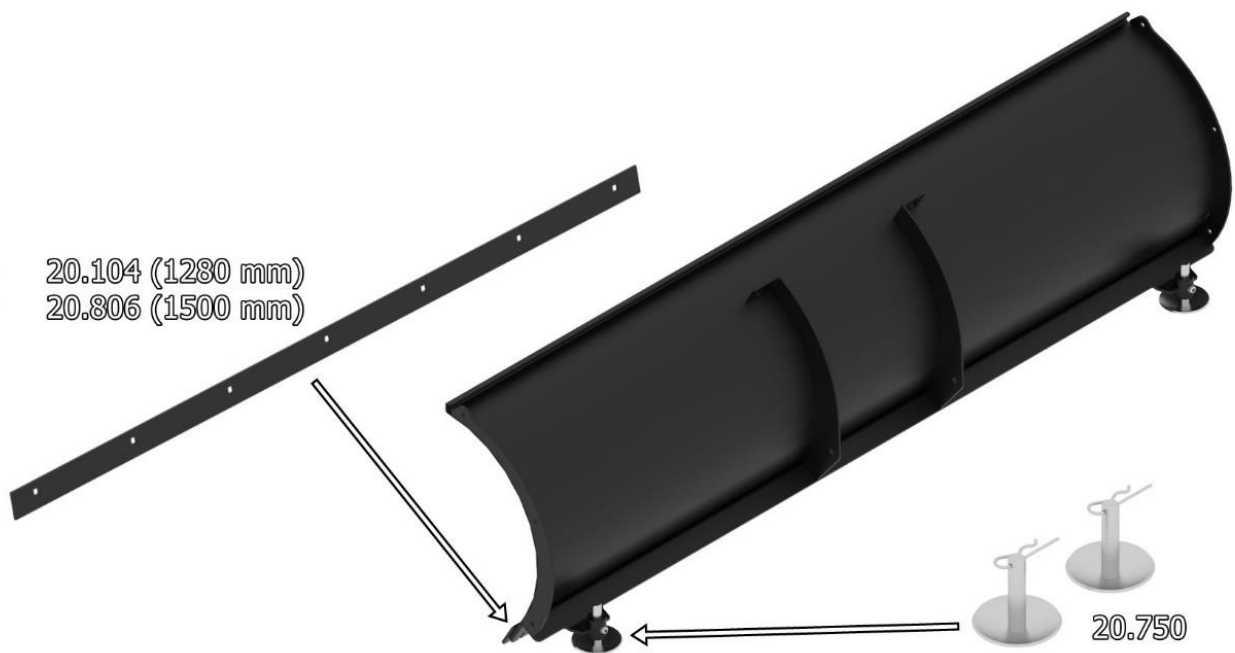


SPARE PARTS

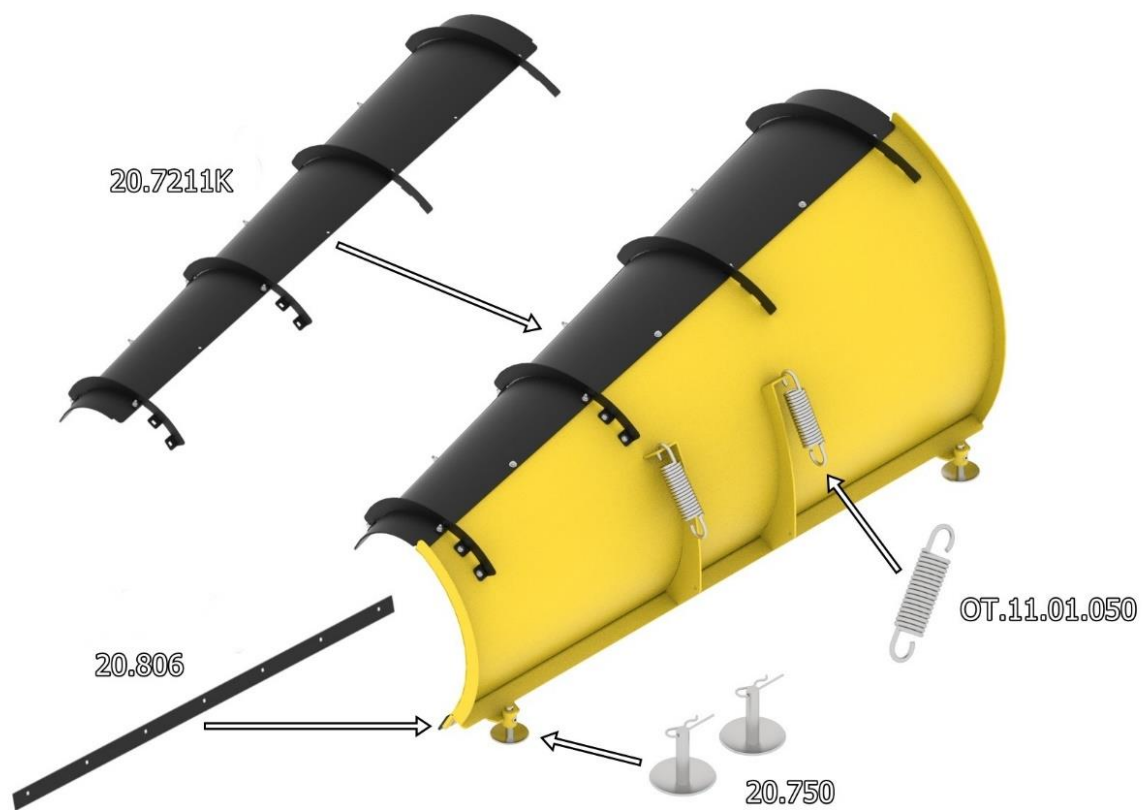
20.6200 / 20.6400 – Push tube



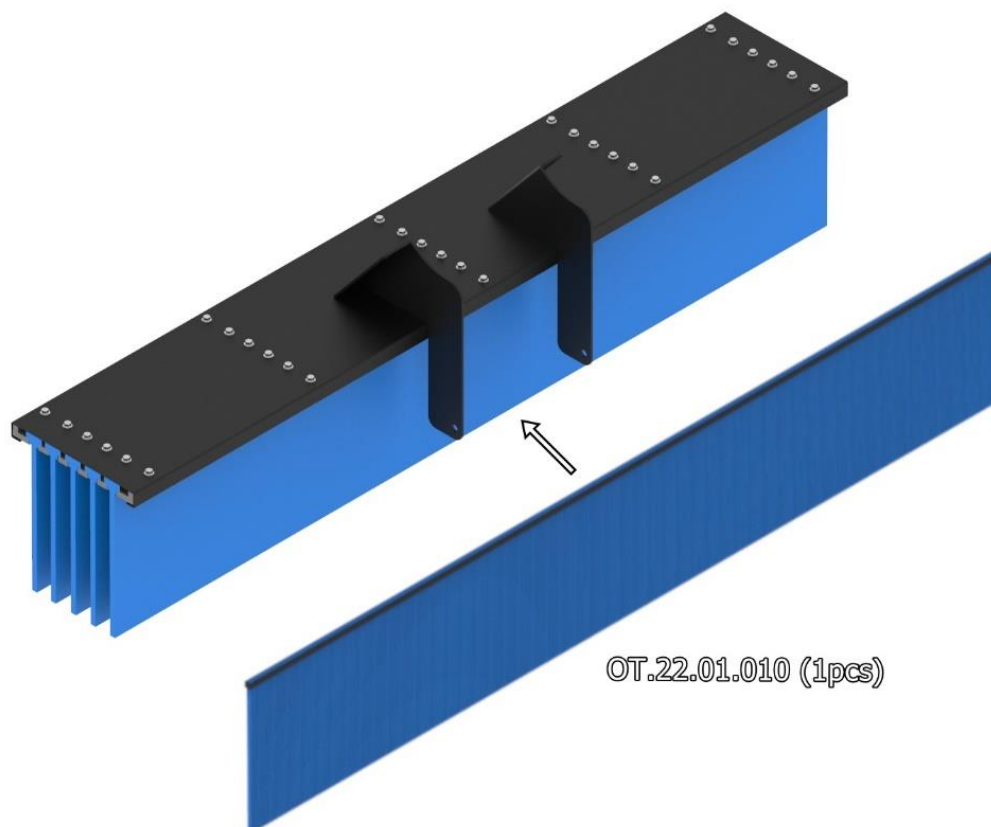
04.100 / 04.300 – Blade



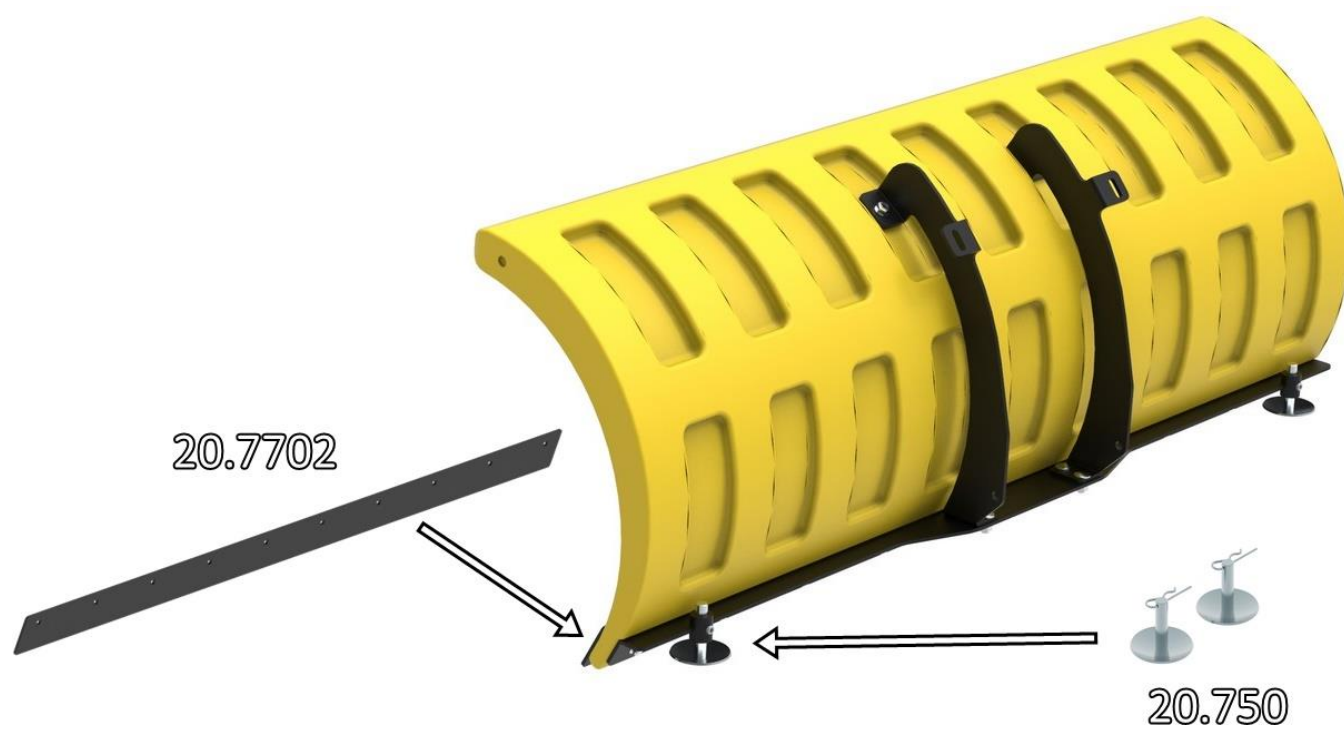
20.7200 – High throw blade



20.1000 – Broom



20.7700 – Plastic blade



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