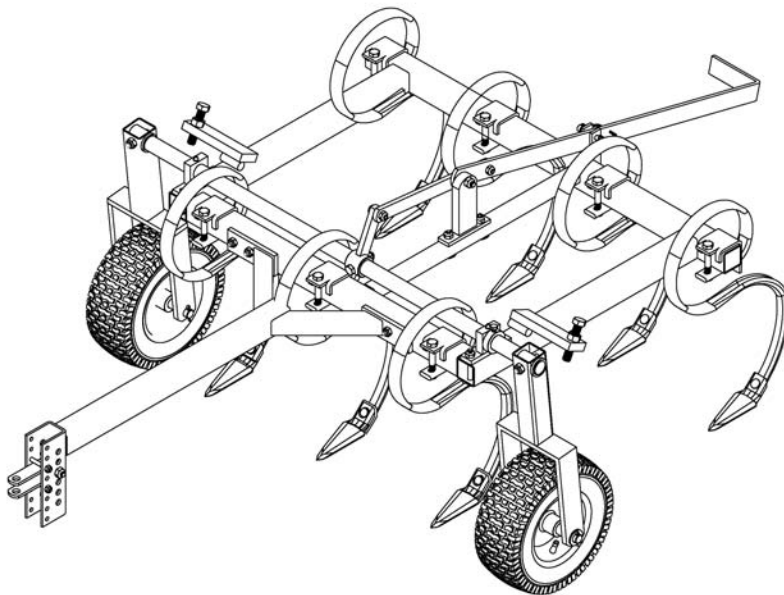




CULTIVATOR

OWNER'S MANUAL



WARNING:

Read carefully and understand all **ASSEMBLY AND OPERATION INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

12112009

Item# ATV-470

Thank you very much for choosing this product! For future reference, please complete the owner's record below:

Model: ___ATV-470_____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. We strongly recommend this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted us to determine if it can or should be performed on the product.

For technical questions please call **1-952-938-5222**.

TECHNICAL SPECIFICATIONS

4' Wide Cultivator
Includes 7 shanks and shovels
Adjustable depth control
13" pneumatic tires, Weight: 172LBS
Manual lever to raise and lower
(Requires 500 cc or larger ATV)

GENERAL SAFETY RULES



WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in serious injury.



CAUTION: Do not allow persons to operate or assemble this cultivator until they have read this manual and have developed a thorough understanding of how the cultivator works.



WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

WORK AREA

- **Keep work area clean**, free of clutter and well lit. Cluttered and dark work areas can cause accidents.
- **Keep children and bystanders** away while operating the cultivator. Distractions can cause you to lose control, so visitors should remain at a safe distance from the work area.
- **Be aware of all power lines, electrical circuits**, water pipes and other mechanical hazards in your work area, particularly those hazards below the work surface hidden from the operator's view that may be unintentionally contacted and may cause personal harm or property damage.
- **Be alert of your surroundings**. Using the cultivator in confined work areas may put you dangerously close to cutting tools and rotating parts.

PERSONAL SAFETY

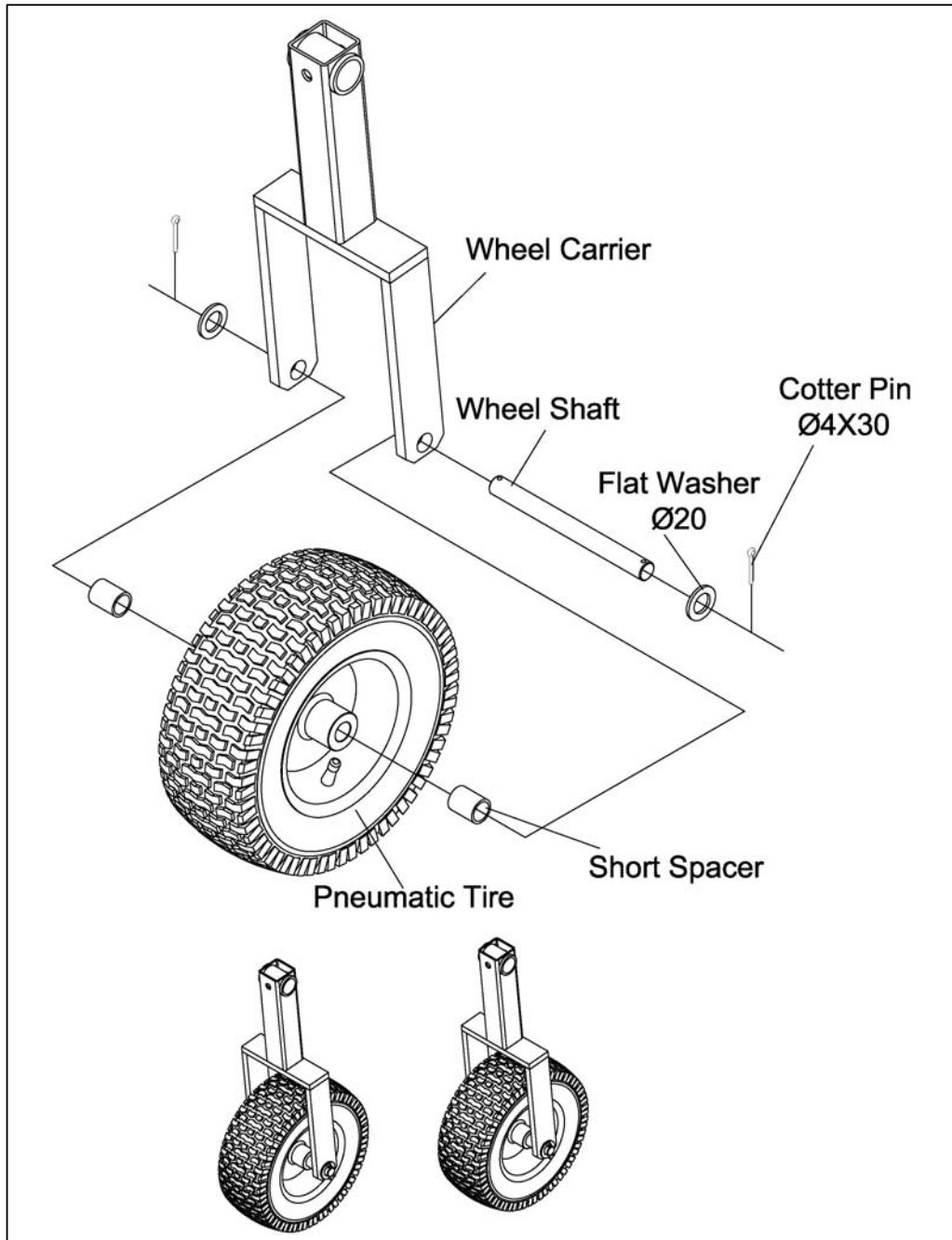
- **Stay alert**, watch what you are doing and use common sense when using the cultivator. Do not use the cultivator while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating the cultivator may result in serious personal injury.
- **Dress properly**. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- **Use safety apparel and equipment**. Use safety goggles or safety glasses with side shields which comply with current national standards, or when needed, a face shield. Use as dust mask in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, hardhat, gloves, dust collection systems, and hearing protection when appropriate.

CULTIVATOR USE AND CARE

- **Do not modify the cultivator in any way**. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment. There are specific applications for which the cultivator was designed.
- **Always check of damaged or worn out parts before using the cultivator**. Broken parts will affect the cultivator operation. Replace or repair damaged or worn parts immediately.
- **Do not exceed the cultivator load capacity**.
- **Distribute the load evenly**. Uneven loads may cause the cultivator to tip, resulting in personal injury to the operator or others.
- **Use the cultivator on flat and level surfaces** capable of supporting the cultivator and its maximum load. Pulling or pushing a load on a slanted or uneven surface can result in loss of control.
- **Store idle cultivator**. When the cultivator is not in use, store it in a secure place out of the reach of children. Inspect it for good working condition prior to storage and before re-use.

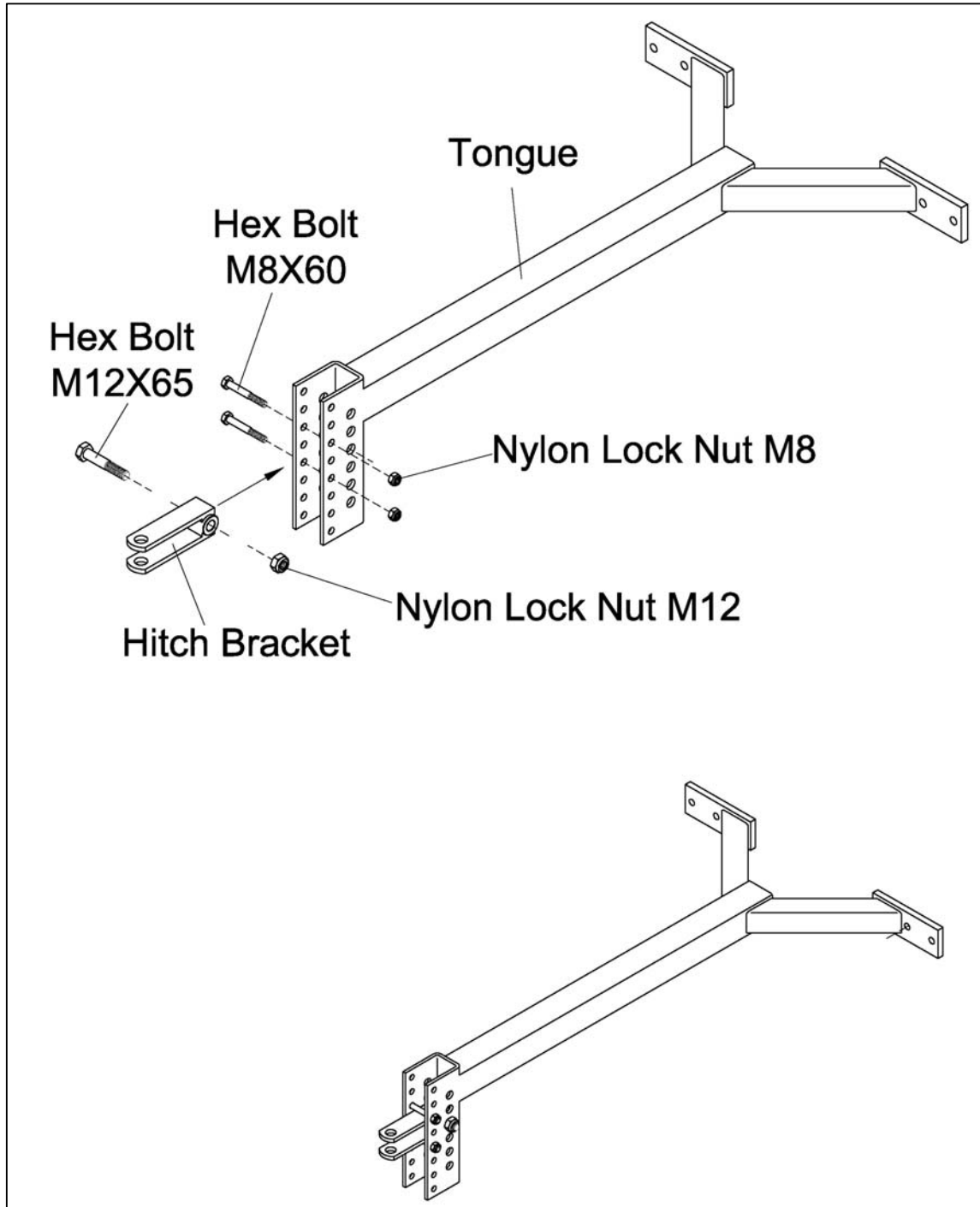
ASSEMBLY

Step 1: Assemble the Tire to the Wheel Carrier using the Wheel Shaft, Short Spacers, Flat Washers Ø20 and Cotter Pins Ø4x30 as shown in Picture 1. Assemble the other tire in the same way.



Picture 1

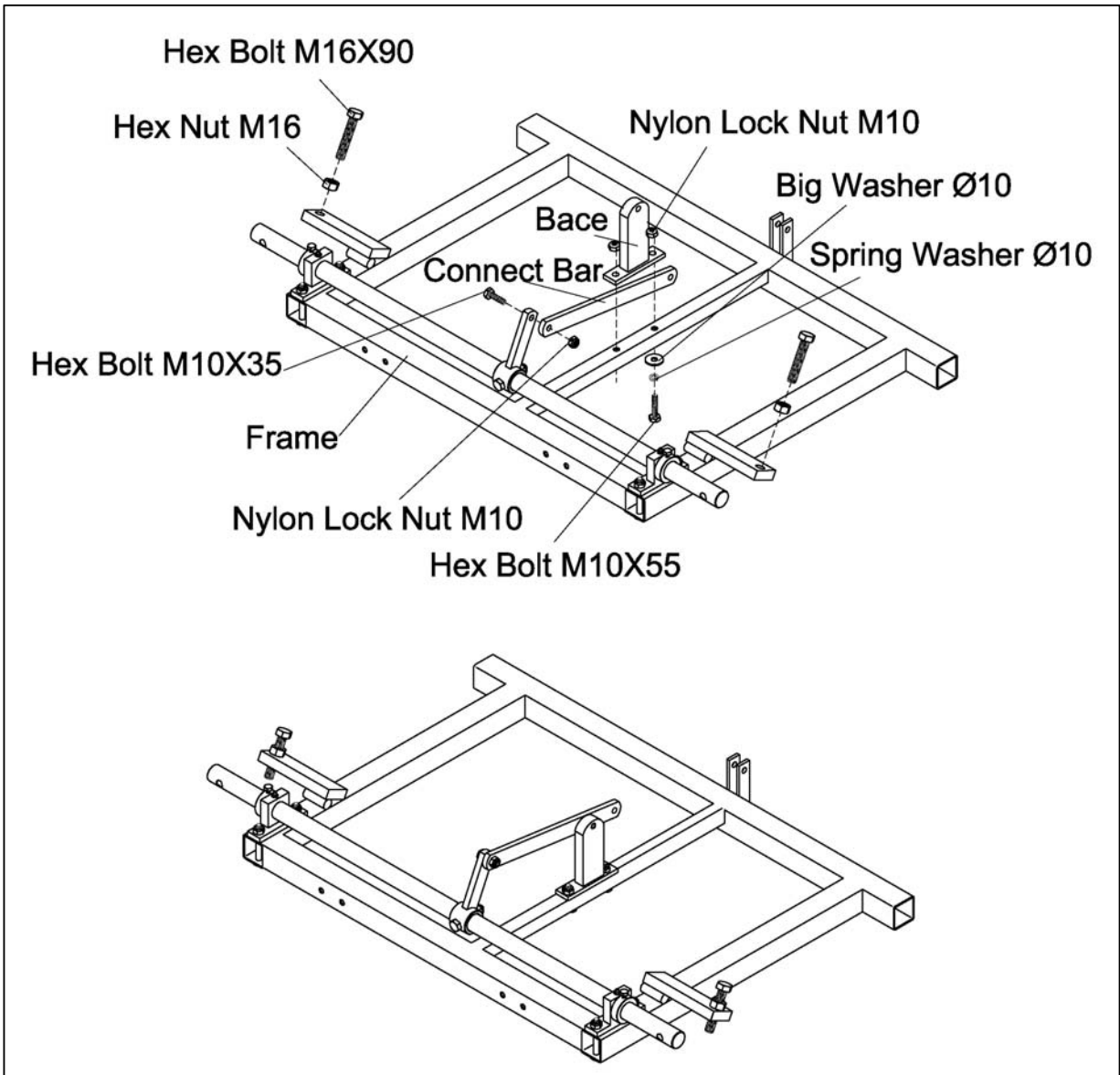
Step 2: Attach the Hitch Bracket to the Tongue using the Hex Bolt M12x65 and Nylon Lock Nut M12. Fix the Hitch Bracket using the Hex Bolts M8x60 and Nylon Lock Nuts M8.



Picture 2

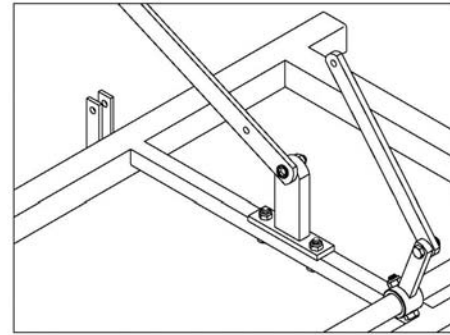
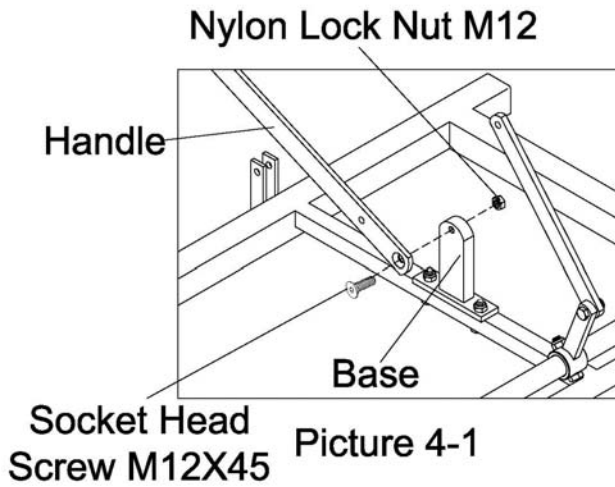
Step 3: Attach the Base to The Frame using the Hex Bolts M10x55, Spring Washer Ø10, Big Washer Ø10 and Nylon Lock Nut M10. Attach the Connect Bar to the Joint on Axle using the Hex Bolt M10x35 and Nylon Lock Nut M10.

Install the Hex Bolts M16x90 and Hex Nuts M16 to the Frame as shown in Picture 3.

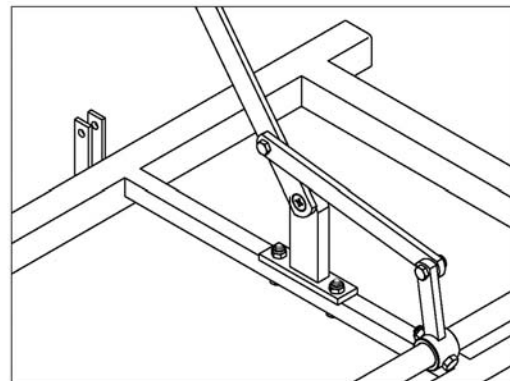
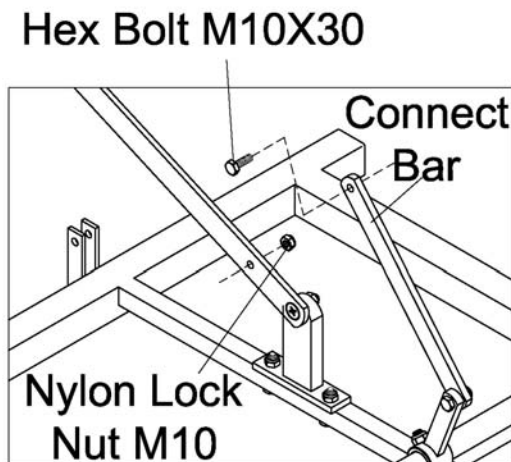


Picture 3

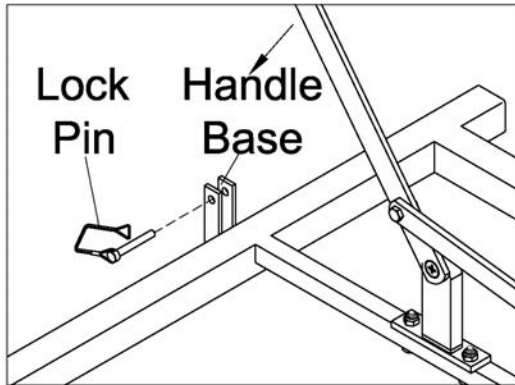
Step 4: Attach the Handle to the Base using the Socket Head Screw M12x45 and Nylon Lock Nut M12. Note: Do not over tighten Socket Head Screw M12x45 and Nylon Lock Nut M12, the Handle should rotate freely.



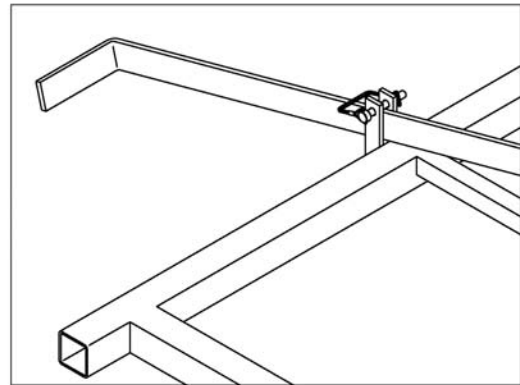
Step 5: Connect the Handle and the Connect Bar together using Hex Bolt M10x30 and Nylon Lock Nut M10.



Step 6: Pull the Handle into the middle of Base and lock it by the Lock Pin.

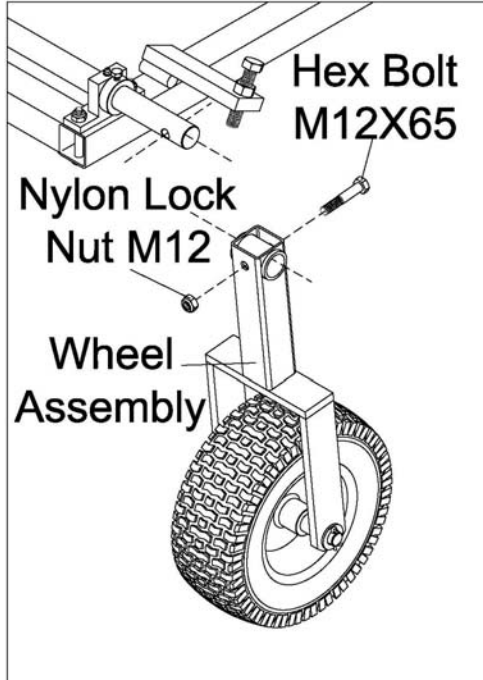


Picture 6-1

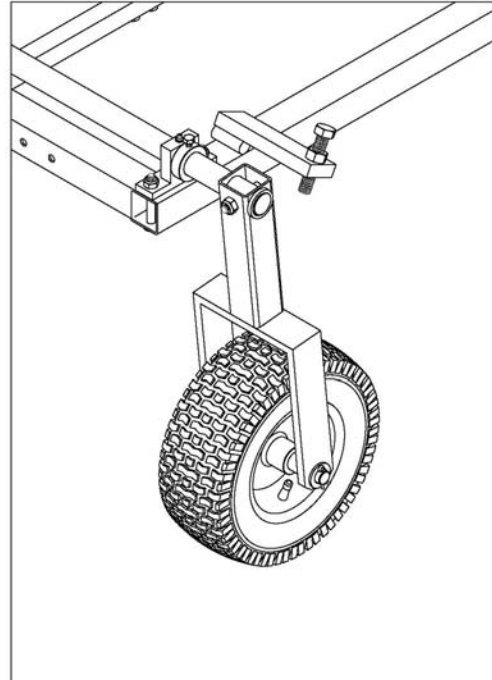


Picture 6-2

Step 7: Install the Wheel Assembly to the Axle using Hex Bolt M12x65 and Nylon Lock Nut M12. Repeat above procedure for the other side. Note: Keep the valves outward.

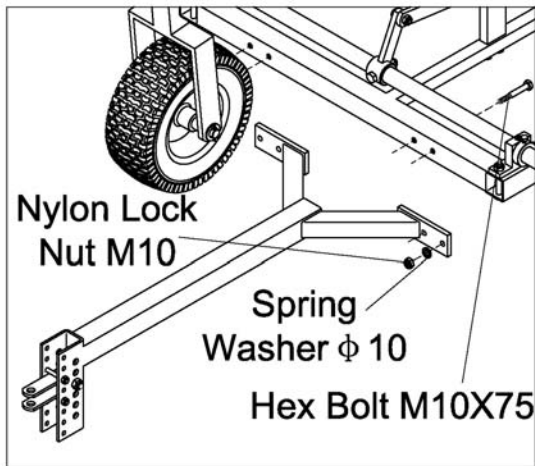


Picture 7-1

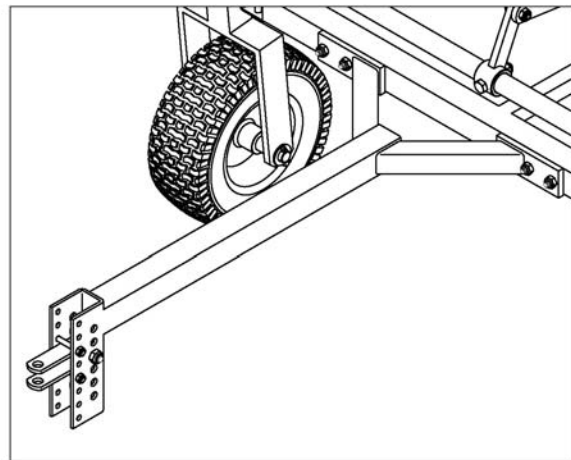


Picture 7-2

Step 8: Install the Tongue Assembly to the Frame using Hex Bolts M10x75, Spring Washers $\varnothing 10$ and Nylon Lock Nuts M10.

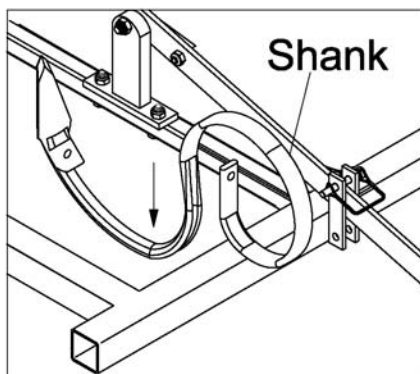


Picture 8-1

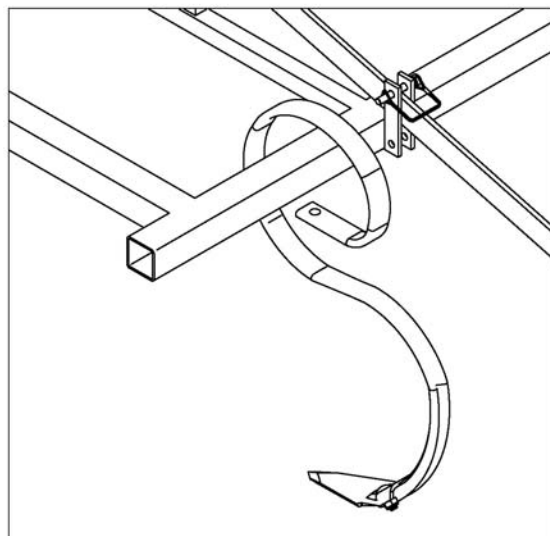


Picture 8-2

Step 9: Put the Shank to the Frame as shown in Picture 9-2.



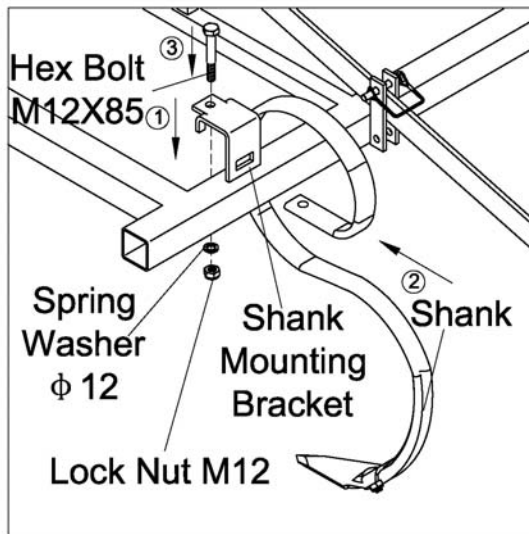
Picture 9-1



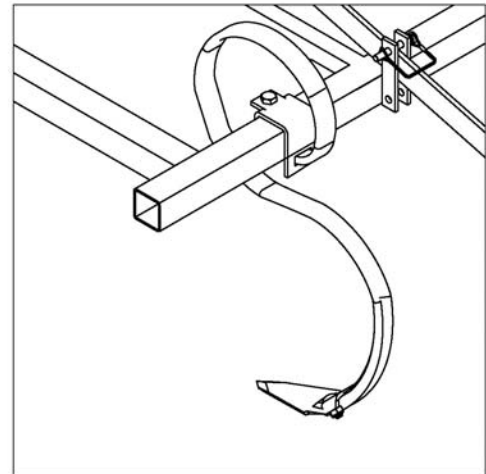
Picture 9-2

Step 10: Put the Shank Mounting Bracket on the tube of the Frame and insert the Shank into the square hole on the Shank Mounting Bracket. Fix the Shank Mounting Bracket and the Shank onto the Frame using Hex Bolt M12x85, Spring Washer $\phi 12$ and Nylon Lock Nut M12.

Install the rest 6 shanks in the same way. Adjust the position of the shanks if necessary.

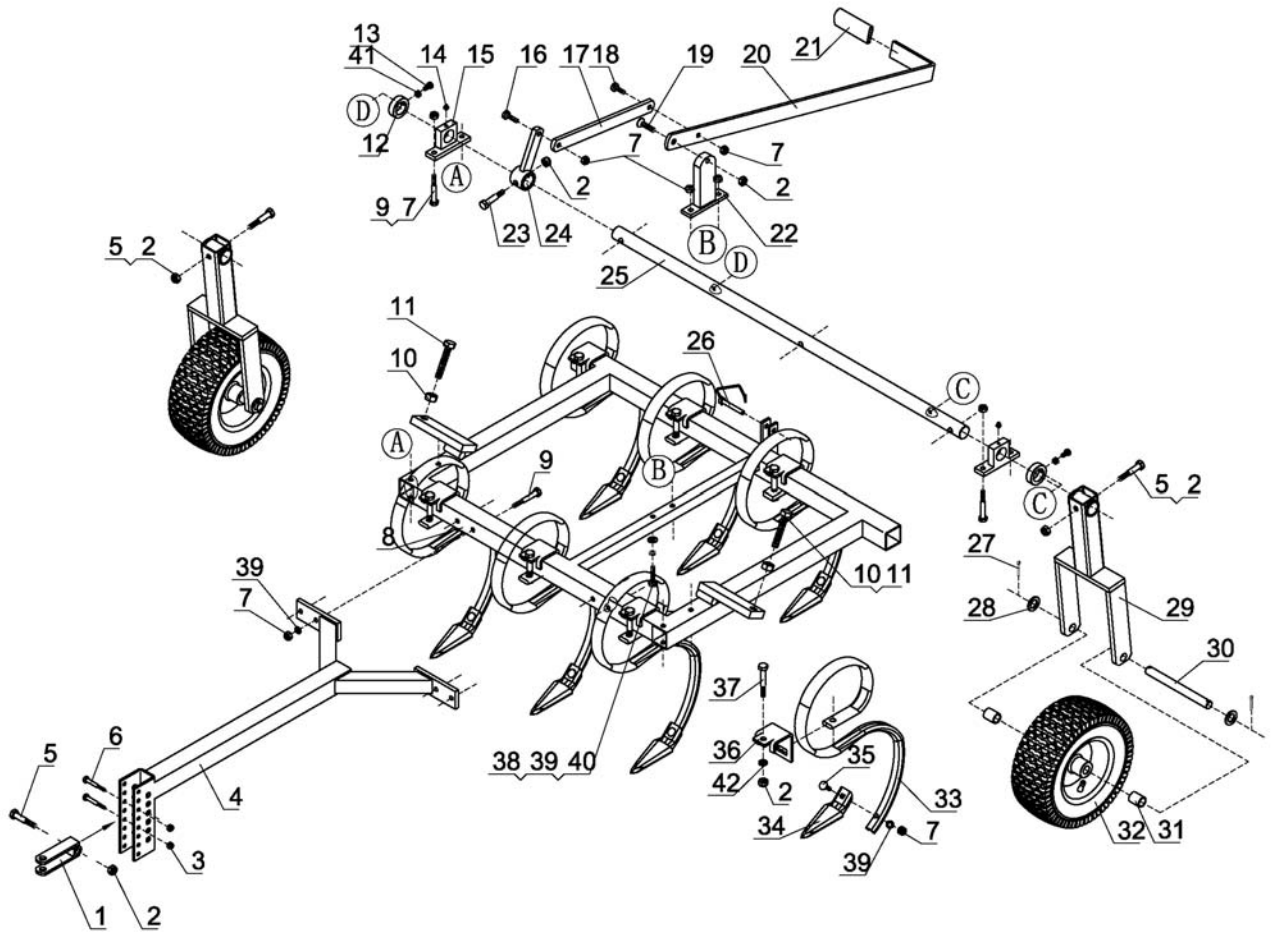


Picture 10-1



Picture10-2

PARTS BREAKDOWN



PARTS LIST

PART #	DESC	QTY	PART #	DESC	QTY
1	Hitch Bracket	1	22	Base	1
2	Nylon Lock Nut M12	12	23	Hex Bolt M12x60	1
3	Nylon Lock Nut M8	2	24	Joint	1
4	Tongue	1	25	Axle	1
5	Hex Bolt M12x65	3	26	Lock Tube	1
6	Hex Bolt M8x60	2	27	Cotter Pin Ø4x30	4
7	Nylon Lock Nut M10	19	28	Flat Washer Ø20	4
8	Frame	1	29	Wheel Carrier	2
9	Hex Bolt M10x75	8	30	Wheel Shaft	2
10	Hex Nut M16	2	31	Short Spacer	4
11	Hex Bolt M16x90	2	32	Pneumatic Tire	2
12	Locating Ring	2	33	Shank	7
13	Hex Bolt M8x25	2	34	Shovel	7
14	Oil Cup M6	2	35	Step Bolt M10x35	7
15	Axle Holder	2	36	Shank Mounting Bracket	7
16	Hex Bolt M10x35	1	37	Hex Bolt M12x85	7
17	Connect Bar	1	38	Hex Bolt M10x55	2
18	Hex Bolt M10x30	1	39	Spring Washer Ø10	13
19	Socket Head Screw M12x45	1	40	Big Washer Ø10	2
20	Handle	1	41	Hex Nut M8	2
21	Handle Grip	1	42	Spring Washer Ø12	7

For replacement parts and technical questions, please call **1-952-938-5222**.

MAINTENANCE

- **Maintain your cultivator.** It is recommended that the general condition of any the cultivator be examined before it is used. Keep your cultivator in good repair by adopting a program of conscientious repair and maintenance. If any abnormal vibrations or noise occurs, have the problem corrected before further use. Have necessary repairs made by qualified service personnel.

WARRANTY

One-year limited warranty



TG
PO BOX 202
Hopkins, MN 55343
Made in CHINA