



PATRIOT™
Patriot Creep Feeder
Owner's Manual

Models
20 Bushel
70 Bushel
150 Bushel
310 Bushel
316 Bushel

Manufactured by
Minden Machine Shop Inc.
1302 K Road
Minden NE 68959
1-800-264-6587

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SAFETY AND OPERATION RULES

GENERAL SAFETY STATEMENTS

Safety precautions are essential when the use of any mechanical equipment is involved. These precautions are necessary when using, storing, and servicing mechanical equipment. Using this equipment with the respect and caution demanded will considerably lessen the possibilities of personal injury. If safety precautions are overlooked or ignored, personal injury or property damage may occur.

This unit was designed for specific applications to feed livestock. It should not be modified or/and used for any application other than which it was designed. If there are any questions regarding its application, write or call. Do not use this unit until you have been advised. For more information, call 1-800-264-6587.

Read this entire manual carefully - know your equipment. Consider the application, limitations, and the potential hazards specific to your unit. Occupational safety is of prime concern to us. This manual was written with the safety of the operator and others who come in contact with the equipment as our prime concern. The manual presents some of the day-to-day work problems encountered by the operator and other personnel. We wrote this manual to help you understand safe operating procedures for Patriot Creep Feeders. We want you as our partner in safety. A copy of this manual should be available to all persons who may operate this machine.

It is your responsibility as an owner or operator or supervisor to know what specific requirements, precautions, and work hazards exist and to make these known to all other personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required. Avoid any alterations of the equipment. Such alterations may create a dangerous situation where serious injury or death may occur.

Why is SAFETY important to you?

3 BIG REASONS

1	Accidents disable and kill
2	Accidents cost money
3	Accidents can be avoided

Signal Words

Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with safety messages. The appropriate signal word for each message has been selected using the following guidelines:

DANGER – An immediate and specific hazard, which will result in severe personal injury or death if proper precautions are not taken.

WARNING – A specific hazard or unsafe practice, which could result in severe personal injury or death if proper precautions are not taken.

CAUTION – Unsafe practices which could result in personal injury if proper precautions are not taken, or a reminder of good safety practices.

SAFETY ALERT SYMBOL



The Symbol Shown Above Is Used To Call Your Attention To Instructions Concerning Your Personal Safety. Watch This Symbol - It Points Out Important Safety Precautions. It Means ATTENTION! Become Alert! Your Personal Safety Is Involved! Read The Message That Follows And Be Alert To The Possibility Of Personal Injury Or Death.

Anyone who will operate or work around a Creep Feeder shall first read this manual! This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of equipment.

SAFETY EQUIPMENT

Be sure ALL safety shields and protective devices are installed and properly maintained. If you find any shields or guards damaged or missing, contact Minden Machine Shop Inc. at 1-800-264-6587 for the correct items.

SERIAL NUMBER

To ensure efficient and prompt service, please furnish us with the model and serial number of your Patriot Creep Feeder in all correspondence or other contact. The Serial Number is located on the front of the creep feeder.



SAFETY PROCEDURES

1. Use proper equipment to fill the creep feeder.
2. Do not use makeshift systems to handle feed or equipment as you may create an unsafe condition.
3. Do not attempt to raise the Patriot Creep Feeder unit by hoist or forklift when it is loaded with creep feed product.
4. When transporting the Patriot Creep Feeder full, do not exceed 20 miles per hour.
5. Place the Patriot Creep Feeder on a level surface.
6. Lower the jack stands on all four corners of the Patriot Creep Feeder to secure in place.
7. Do not operate unit without safety shields or guards in place.
8. Do not allow any riders on the Patriot Creep Feeder.
9. Do not enter the hopper while it is being filled or when it has product in it as suffocation could result.

10. When lowering or raising the gates, be aware of pinch points to avoid and prevent injury.
11. When lowering or raising the gates, use proper lifting techniques to avoid strain or injury.
12. Securely place the hold down bars to keep the gates in place when they are in the lowered position.
13. Replace any worn or damaged decals/safety decals.
14. Replace any broken gate springs immediately to avoid injury when lifting or lowering the gates as the gates will be heavier without the spring assist.
15. When moving/transporting the Patriot Creep Feeder, always have the gates in the transport position and secured to avoid damage to the gates and/or the Patriot Creep Feeder.
16. In case of any defect or awareness of potential danger, please contact the plant at 1-800-264-6587 immediately.

LIGHTING AND MARKING

It is the responsibility of the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.



OPERATOR QUALIFICATIONS

Operation of this Creep Feeder shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a Creep Feeder must use good common sense. In order to be qualified, they must also know and meet all other requirements, such as:

1. Some regulations specify that no one under the age of 18 may operate power machinery. This includes Creep Feeders. It is your responsibility to know what these regulations are in your own area or situation.
2. Current OSHA regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee or user in the safe operation and servicing of all equipment with which the employee or user is, or will be involved.”
3. Unqualified persons are to stay out of the work area as shown in the work diagrams.
4. A person who has not read and understood all operating and safety instruction is not qualified to operate the machine.

SAFETY OVERVIEW

YOU are responsible for **SAFE** operation and maintenance of your Patriot Creep Feeder.

YOU must ensure that you and anyone who is going to operate, maintain, or work around the creep feeder must be familiar with the operating, maintenance, and safety information contained in the manual. This manual will take you step by step through your working day and alerts you to all good safety practices while operating the creep feeder.

Remember **YOU** are the key to safety. **GOOD PRACTICES** protect not only you but also the people around you. Make these practices a working part of your safety program. Be certain **EVERYONE**

operating this machine is familiar with the procedures recommended and follows safety precautions. Remember, most accidents can be prevented. Do not risk injury or death by ignoring any information addressed.

Creep feeder owners must give operating instructions to operators before allowing them to operate the creep feeder. They must be reviewed at least annually thereafter per OSHA regulation 1928.57.

The most important safety device on the equipment is a SAFE OPERATOR. It is the operator's responsibility to read and understand ALL instructions in the manual and to follow them. All accidents can be avoided!

Any person who has not read and understood all operation and safety instructions is not qualified to operate the creep feeder. An untrained operator exposes himself and bystanders to possible serious injury or death.

Do not modify the equipment in any way. Unauthorized modifications may impair the functions and/or safety and could affect the life of the equipment.

SAFETY AFFIRMATION

I have read and understand the operator's manual and all safety signs before operation, maintenance, adjusting or unplugging the creep feeder.

I will allow only trained persons to operate the Patriot Creep Feeder. An untrained operator is not qualified to operate this equipment.

I have access to a fire extinguisher.

I have all guards in place and will not operate the Patriot Creep Feeder without them.

I will not allow riders on the Patriot Creep Feeder.

I understand the danger of moving parts and the associated pinch points.

I understand that any accidents that occur with the Patriot Creep Feeder are my responsibility.

I understand the danger associated while the hopper is being filled or has product inside of it and I will not enter the hopper.

I will use proper lifting techniques when raising or lowering the gates to avoid injury.

I understand that Minden Machine Shop will not be held responsible for any accidents that involve the Patriot Creep Feeder.

SIGN OFF SHEET (this must be signed annually as part of your safety program)

As a requirement of OSHA, it is necessary for the employer to train the employee in the safe operation and safety procedures with the Patriot Creep Feeder. We include this sign off sheet for your convenience and personal record keeping.

DATE	EMPLOYER SIGNATURE	EMPLOYEE SIGNATURE



MACHINE INSPECTION

After delivery of your new Patriot Creep Feeder and/or completion of assembly and before each use, inspection of the machine is mandatory. This inspection should include, but not be limited to:

1. Check to see that all guards are in place, secured, and functional.
2. Are all fasteners tight?
3. Check that all tires are properly inflated and road worthy.

SAFETY DECALS

1. Keep safety decals clear and legible at all times.
2. Replace decals and signs that are missing or have become unreadable.
3. Safety signs are available from your Dealer or the Manufacture.

How to install Safety Signs

1. Be sure that the installation area is clean and dry.
2. Decide on the exact position before you remove the backing paper.
3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
5. Small air pockets can be pierced with a pin and smoothed out using a piece of decal backing paper.

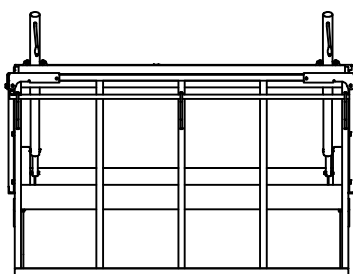
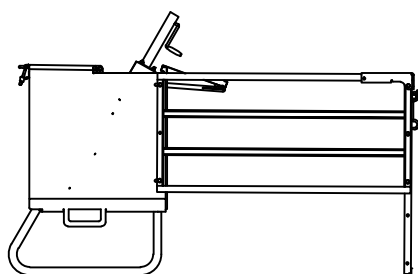
CREEP FEEDER DECALS



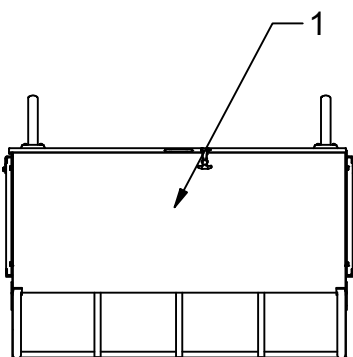
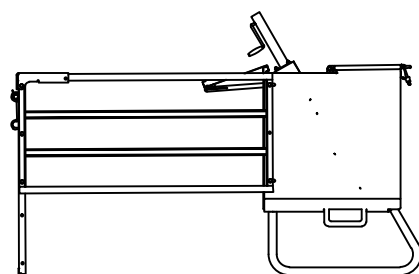
Use the above reference and the following pages for decal placement on your respective model of creep feeder. The number to the left of the decal will correspond to the number on the following reference pages.

Please note, all creep feeders are shown with the optional rain shield that can be purchased separately for the creep feeder.

Decal Placement Model 20

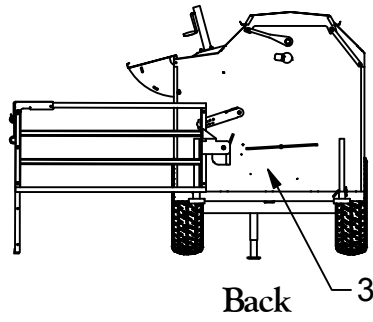
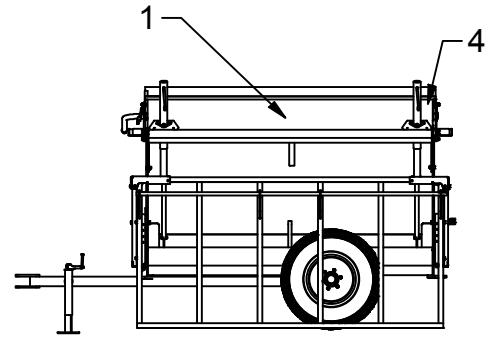
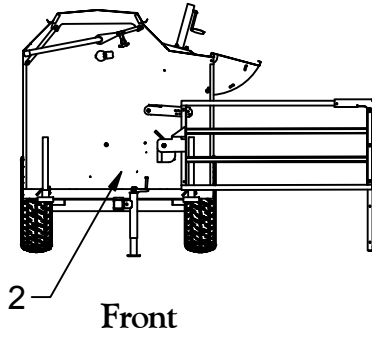
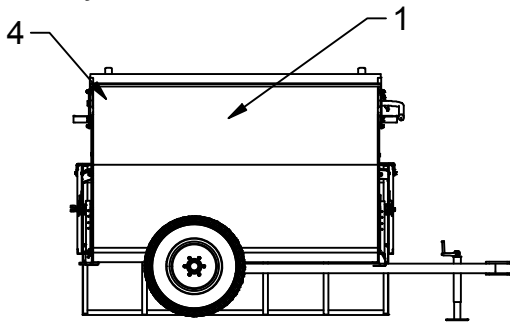


Front

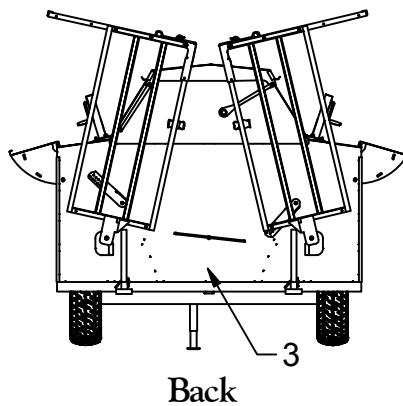
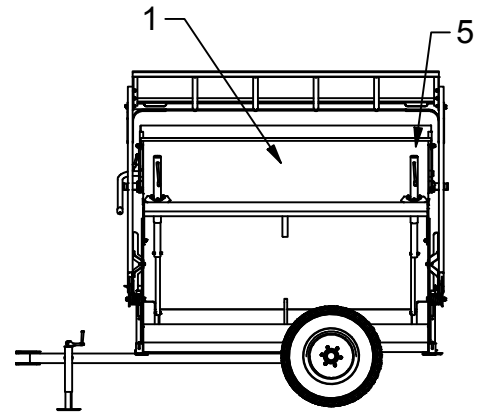
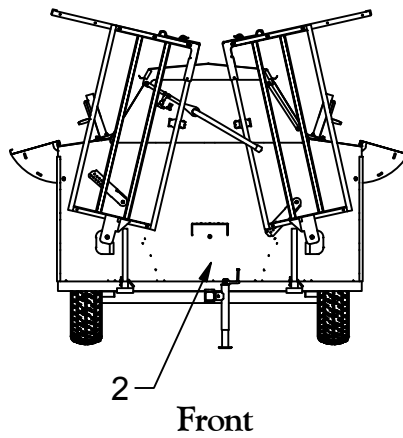
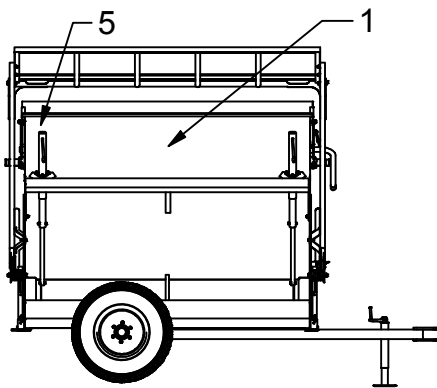


Back

70 Model

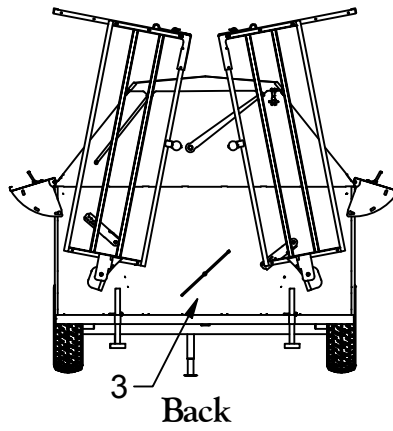
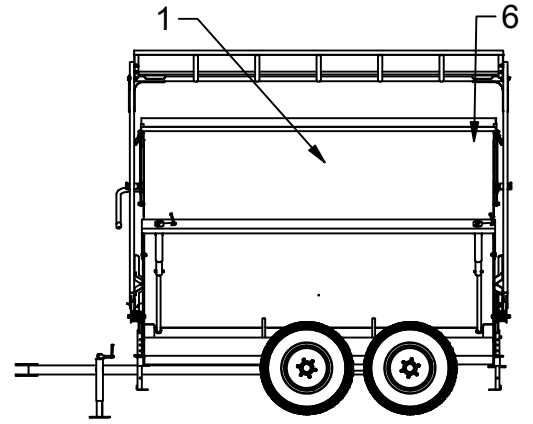
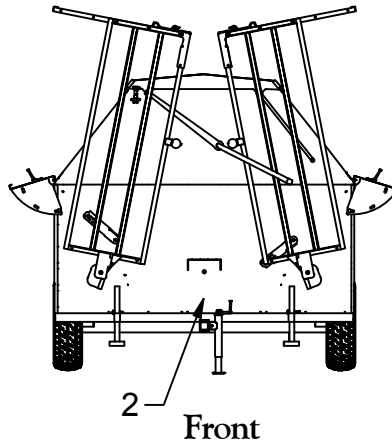
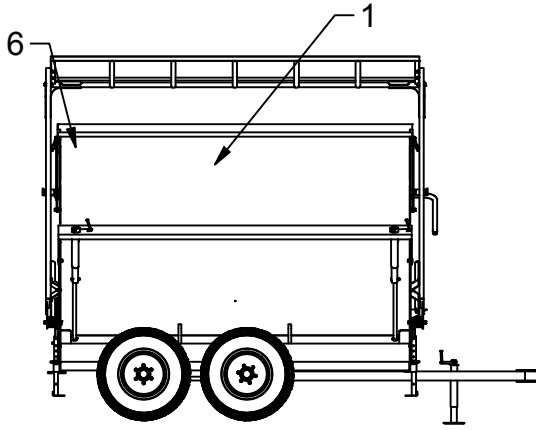


150 Model

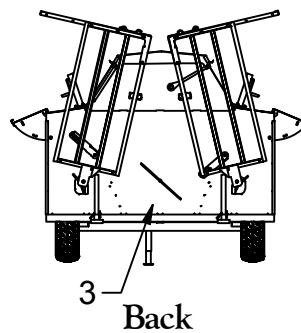
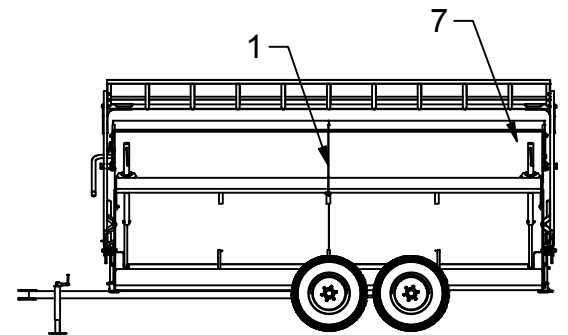
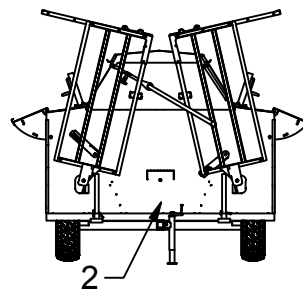
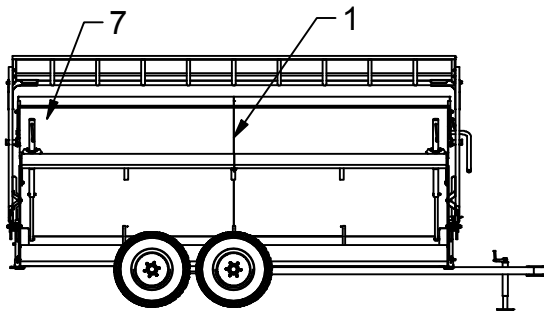


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 800-264-6587 / 308-832-0220

310 Model



316 Model



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Creep Feeder Decals with Part Numbers



TS2000

70

TS4003

150

TS4000

310

TS4004

316

TS4005

! CAUTION

1. Leveling jacks must be used when feeder is in use. The 2,000 lb. Jack is only to be used when raising or lowering, to set leveling jacks, or hooking to tow vehicle.
2. Panels must be in the upright tow position when moving feeders.
3. All pins and bolts must be in proper position at all times when feeder is being towed.
4. When creep panels are down, make sure panels are properly pinned together, bolts tight, and brace rods secured in place.
5. **MAXIMUM TOWING CAPACITIES: E Series Feeders**
P8-150-E: 2 Ton of product
P8-70-E 1-1/2 Ton of product
Towing capacities are figured with new tires of proper capacity.
When used or recap tires are used, towing capacity is based on tire capacity.
6. Maximum Towing Speed: 20 MPH

TS4002

! CAUTION

Rear hitch is not designed to tow another feeder containing product or any other equipment.

Hitch is not designed to tow more than one piece of equipment at a time.

When towing one piece of equipment behind the other, always have the larger unit in front.

MAXIMUM TOWING SPEED – 20 m.p.h.

TS4001

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INTRODUCTION

Models: 20 Bushel, 70 Bushel, 150 Bushel
310 Bushel and 316 Bushel

Purpose:

The Patriot Creep Feeder serves as a mobile/fixed supplemental bulk creep feeding system for livestock. The creep feeder allows the user to fill with creep feed at the supplier point and then place at the point of feeding for the user's livestock (except the 20 bushel model that is a fixed feeding point). The hopper of the creep feeder is easily accessible with the ground controlled lid that easily opens from the ground by the individual user. Also, the creep feeder can serve as a fixed feeding point that can be replenished with creep feed on site. The creep feeder also serves as a mobile feeding point that can be easily moved to meet the producer's feeding needs. The creep feeder keeps the creep feed dry and allows for a metered dispensing rate with the adjustable feed gates. The creep feeder can be used with rain shields that will protect the creep feed from moisture as it is in the feed trough. Finally, the adjustable height bars are used to allow or keep out predetermined sizes of livestock.

Features:

- Hopper – Designed for flow-ability of creep feed.
- Ground Controlled Lid – This unique design protects the creep from moisture and is easily opened and closed from the ground
- Spring Assisted Livestock Gates – As the gates are raised or lowered, they are assisted with a spring that reduces the amount of weight that has to be handled by the user
- Steps – Allow the user to look into the hopper.
- Screw adjust feed gate – Top wind jacks are used on the feed gate to enable the user to adjust the feed gate accurately and easily.
- Rain Shields - option that can be used provide additional protection from moisture for creep feed that is in the trough.
- Jack stands - Used to secure the creep feeder in the desired location
- Locking arms - Allows the gates to be locked in position (raised or lowered).

Thank you for choosing the Patriot Creep Feeder. This manual covers the operation and maintenance of the Patriot Creep Feeder. All information in this manual is based on the latest production information available at the time of printing. For the latest version of this catalog please call 1-800-264-6587.

Minden Machine Shop Inc. reserves the right to make changes at any time without notice and without incurring any obligation. Please become familiar with all safety, operating, maintenance, and troubleshooting information. This will ensure your safety and long life for the system.

TIRE SAFETY



- Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to do the job
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
- Always order and install tires and wheels with appropriate capacity to meet or exceed the anticipated weight to be placed on the equipment.

TRANSPORTING CREEP FEEDER



DANGER: Do not transport Creep Feeder at speeds in excess of 20 MPH and comply with your state and local regulations governing marking, towing, and maximum width. Observe safe driving and operation practices.



DANGER: Be alert to overhead obstructions and electrical wires. Failure to do so may result in electrocution. Maintain at least ten (10) feet of clearance. See chart below showing the height of the creep feeder. Check the chart to determine the height of your creep feeder. Make certain everyone is clear of the work area before moving.

DESIGNATED WORK AREA

WORK AREA DIAGRAM

Before setting up the Patriot Creep Feeder, a designated work area should be established. The work area should be a perimeter in which no persons should be allowed that are not directly involved in the setting up of the Patriot Creep Feeder. Also, all persons in the work area must have read and understood this manual.

RULES FOR SAFE WORK AREA

Under no circumstances should persons not involved in the operation be allowed to trespass into the work area. It shall be the duty of all operators to see that children and/or other persons stay out of the work area! Trespass into the work area by anyone not involved in the actual operation, or trespass into hazard area by anyone, shall result in immediate shut down of operation by the operator. It shall be the responsibility of all operators to see that the work area has secure footing, is clean and free of all debris and tools which might cause tripping and/or falling. It shall also be their responsibility to keep the work area clean and orderly during the operation.

OPERATING PROCEDURES



OPERATING GUIDELINES

The Patriot Creep Feeder is designed to safely and efficiently transport creep feed to the feeding area and be set up to supplemental feed your livestock. Following all safety and operating guidelines should ensure many years of safe and affordable use.

PRE-OPERATION CHECKLIST

When operating this unit for the first time and each time you use it, the following information should be reviewed.

1. The creep feeder is secured and ready for use.
2. Check that the lid is properly latched.
3. Make sure the rain shields are properly installed, if the creep feeder has the optional rain shields.
4. The gates are secure before transporting.
5. Check that the feed gates work freely.
6. Make sure you understand how to lower and secure the gates as well as the feed gates.
7. Carefully study and understand this manual.
8. Do not wear loose-fitting clothing which may catch in pinch areas.
9. Always wear protective clothing and proper shoes.
10. The operator may come in contact with certain materials which may require specific safety equipment, relative to the handling of such materials (examples: extremely dusty, molds, fungus, bulk feeds, etc.).

11. Keep wheel lug nuts or bolts tightened to specified torque.
12. Assure that the tires are inflated evenly and to the proper PSI.
13. Give the unit a visual inspection for any loose bolts, worn part or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
14. Be sure there are no tools lying on or in the equipment.
15. Do not use the unit until you are sure that the area is clear, especially children and animals.
16. Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
17. Practice operation of your creep feeder and its attachments. Completely familiarize yourself and other operators with its operation before using.
18. Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.
19. Securely attach the unit to the towing vehicle using the appropriate hitch pin with the proper rating.

DURING OPERATION

1. Beware of bystanders, **PARTICULARLY CHILDREN!** Always look around to make sure it is safe to start the towing vehicle to move the creep feeder.
2. **NO PASSENGERS ALLOWED** - Do not carry passengers anywhere on or in the equipment.
3. Keep hands and clothing clear of moving parts.
4. When setting the creep feeder, set the towing vehicles brakes, and shut off the engine, and remove the ignition key.
5. Be especially observant of the operating area and terrain – look for holes, rocks, or other objects that may cause you to trip and fall. Always inspect area prior to operation.
6. Pick the flattest possible route when transporting across fields/pastures. Avoid the edges of ditches or gullies and steep hillsides.
7. Maneuver the creep feeder at safe speeds. Never exceed 20 mph.
8. Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
9. Allow for the units' length when making turns.
10. Do not walk under or work on raised components or attachment unless securely positioned and blocked.
11. Keep all bystanders, pets, and livestock clear of the work area.
12. As a precaution, always recheck the hardware on the equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.

Set up

1. Establish an area for the creep feeder to be located
2. Place the creep feeder
3. Lower the jack stands on each corner of the creep feeder until they are on the ground.
4. Detach the creep feeder from the towing vehicle
5. Open the feed gates to the desired height by using the jacks
6. If the creep feeder has the optional rain shields, adjust the rain shields to the desired level by using the slotted holes on the sides of the rain shields.
7. Lower one side of the creep feeder gate assembly. Remove the pin on the locking bars that are attached to the end gates (small gates). Lower the gate assembly to the desired height.

Reinstall pins on the locking bars to the end gates (small gates) to keep the gates in place while in use.

8. Lower the other gate assembly on the opposite side. Follow the directions in step 6.
9. Fill the creep feeder with product if not already done
10. Creep feeder is ready for use

GATE REST MOVING

The Patriot Creep Feeder will come from the factory with the gates locked in the up position or transport position. To have the full functionality of the gates, the gate rest clamps will have to be moved to the outer position.



Notice how the gates are on the gate rests towards the inside of the creep feeder. The gates are locked in position with a locking bracket (see picture below). Remove the bolts from the gate rest bracket. After the bolts are removed, the locking bracket can be removed and the gate rest bracket can be moved to the outside position.





The picture to the left illustrates the gate rest brackets after they have been moved to the outer position.



The picture to the left shows the amount of room that is present when the gate rest brackets are in the outer position. The position allows for the creep feeder lid to open and fill the creep feeder with the gates in the raised position.



A completed creep feeder with the gate rests moved to the outside position.

FILLING

With the creep feeder gates in the lowered position

1. Unlatch the retaining strap on the end of the creep feeder
2. Open the creep feeder lid by using the handle and moving the lid over
3. Fill the creep feeder
4. Close the creep feeder lid by reversing the movement of the handle to close the lid
5. Latch the retaining strap back in position to keep the lid in the closed position



The above figure shows the gates in the lowered position.

With the creep feeder gates in the transport position

1. The Patriot Creep Feeder can be filled with the gates in the raised position
2. The creep feeder gates must be put into the user transport mode. The creep feeder is shipped in the transport mode from the factory. Remove the gate rest locking bracket and the gate rest bracket. Place the gate locking bracket on the backside of the gate rest bracket. Move the gate rest bracket to the outside of the mounting bracket. Repeat on all four gate rest brackets. This simple move will allow for enough room for the creep feeder lid to be opened.
3. Unlatch the retaining strap on the end of the creep feeder
4. Open the creep feeder lid by using the handle and moving the lid over
5. Fill the creep feeder
6. Close the creep feeder lid by reversing the movement of the handle to close the lid
7. Latch the retaining strap back in position to keep the lid in the closed position



The above figure shows the creep feeder gates in the transport position.

TAKEDOWN

1. Inspect the tires on the creep feeder to ensure they are ready for transport
2. Lift the feed gates. Remove the pins from the lock bars. Raise the feed gate assembly into transport position. Reinstall the pins from the lock bars to the small gates to keep in place while in transport.
3. Repeat for the opposite side
4. Lower the feed gates to the closed position
5. If the creep feeder has the optional rain shields, place the shields in the lowered position for transport.
6. Raise the jack stands on all four corners. Remove the retaining pin, raise and reinstall the retaining pin so the jack stand remains in the raised position.
7. Attach creep feeder to tow vehicle. Be sure to have retaining clip in hitch pin to ensure that it will not come out during transport.

HIGHWAY AND TRANSPORT OPERATIONS

1. Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Do not exceed 20 mph.
2. Reduce speed prior to turns to avoid the risk of overturning.
3. Avoid sudden uphill turns on steep slopes.
4. Always keep towing vehicle in gear to provide engine braking when going downhill. Do not coast.
5. Do not drink and drive.
6. Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
7. Use approved accessory lighting, flags, and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport.
8. The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.

9. When driving the equipment on the road or highway under 20 MPH at night or during the day. Use flashing amber warning lights and slow moving vehicle (SMV) identification emblem.
10. Plan your route to avoid heavy traffic.
11. Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
12. Be observant of bridge load ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
13. Watch for obstructions overhead and to the side while transporting.
14. Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.

LUBRICATION & MAINTENANCE

1. **WARNING** Keep all safety shields and devices in place. Never clean, adjust, or lubricate a machine that is in operation.
2. Cosmetic – any exposed metal where paint or powder has been chipped, gouged, scratched, or worn should be lightly sanded, then primed and painted with good enamel paint. If color is hard to match, contact Minden Machine Shop Inc.
3. To prevent stone chips on units being pulled by a truck, you should have a set of mud flaps large enough to remedy possible chipping.
4. Bearings should be examined annually for wear and tear.
5. Replace all shields and guards after servicing and before moving.
6. After servicing, be sure all tools, parts, and service equipment are removed.
7. Do not allow grease or oil to build up on any step or platform.
8. Never replace hex bolts with less than grade five bolts unless otherwise specified. Refer to bolt torque chart for head identification markings.
9. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
10. If equipment has been altered in any way from original design, the manufacture does not accept any liability for injury or warranty.
11. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this or any equipment.

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause a crash or could cause an injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Minden Machine Shop, Inc.

If NHTSA receives similar complaints, it may open an investigation and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Minden Machine Shop, Inc.

To contact NHTSA, you may call the Auto Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or Write to: NHTSA, US Department of Transportation,

1200 New Jersey SE, Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.



Torque Specifications

Bolt Torque for Standard bolts *

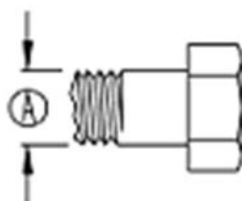
"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	120	(570)	650	(880)
1"	225	(300)	330	(850)	970	(1310)

Bolt Torque for Metric bolts *

"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

*GRADE or CLASS value for bolts and capscrews are identified by their head markings.



GRADE-2 GRADE-5 GRADE-8



CLASS 8.8

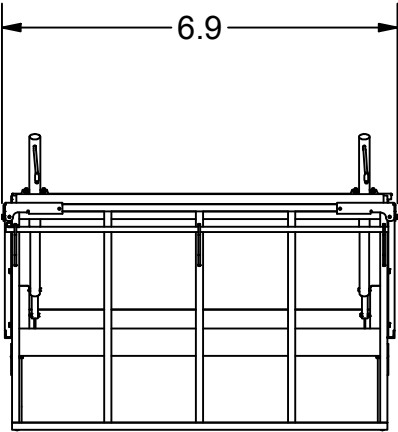
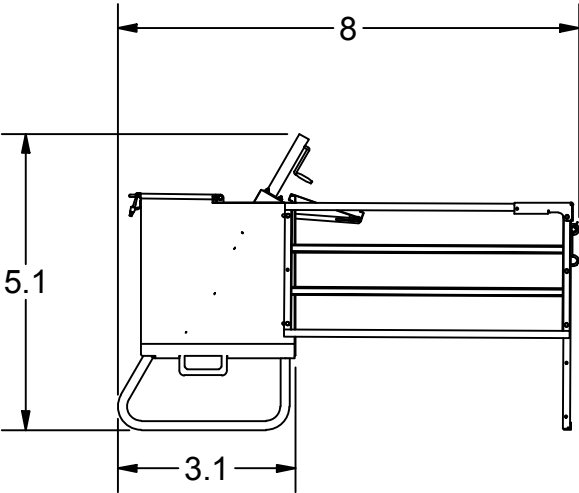
CLASS 9.8

CLASS 10.9

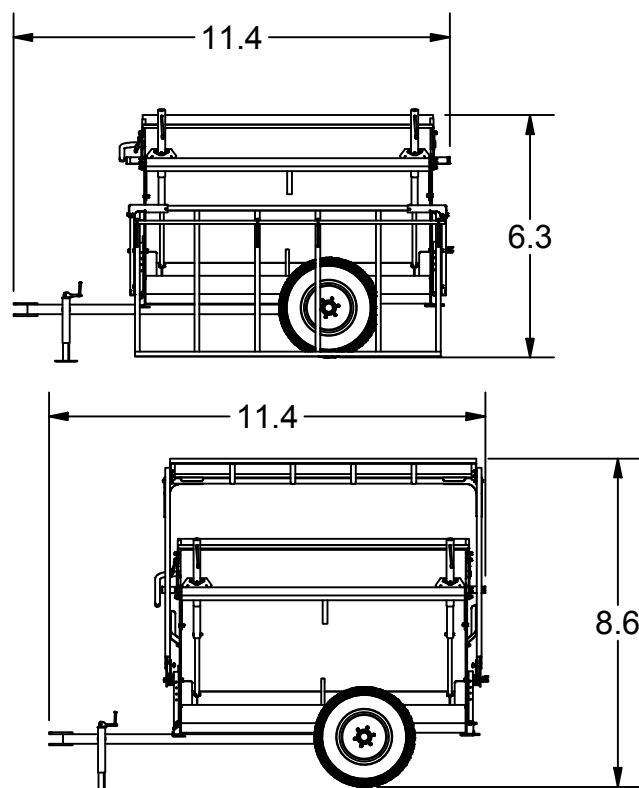
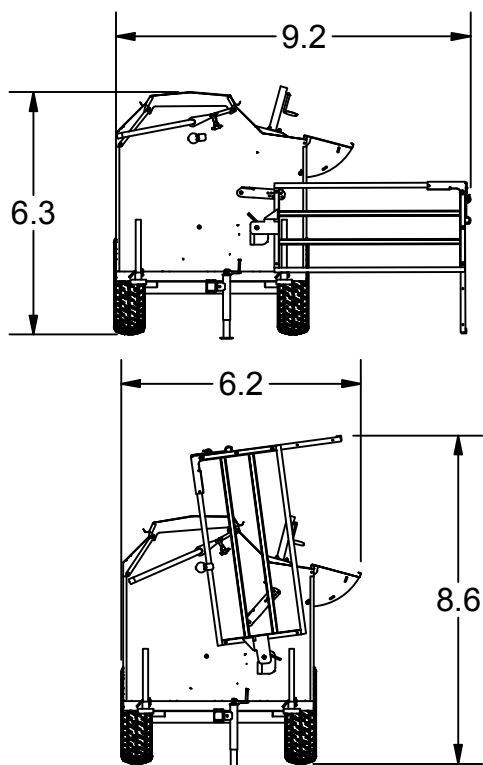


Creep Feeder Dimensions

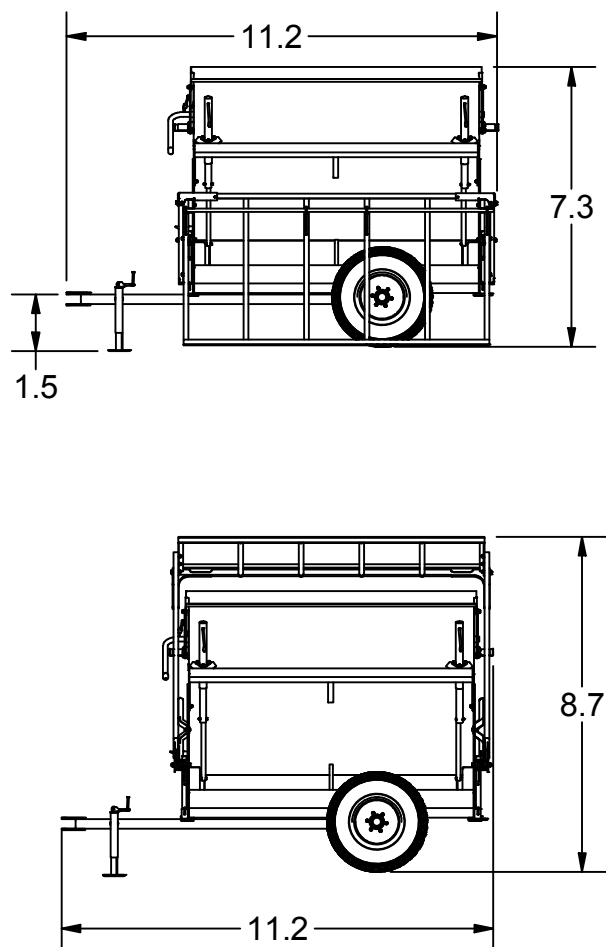
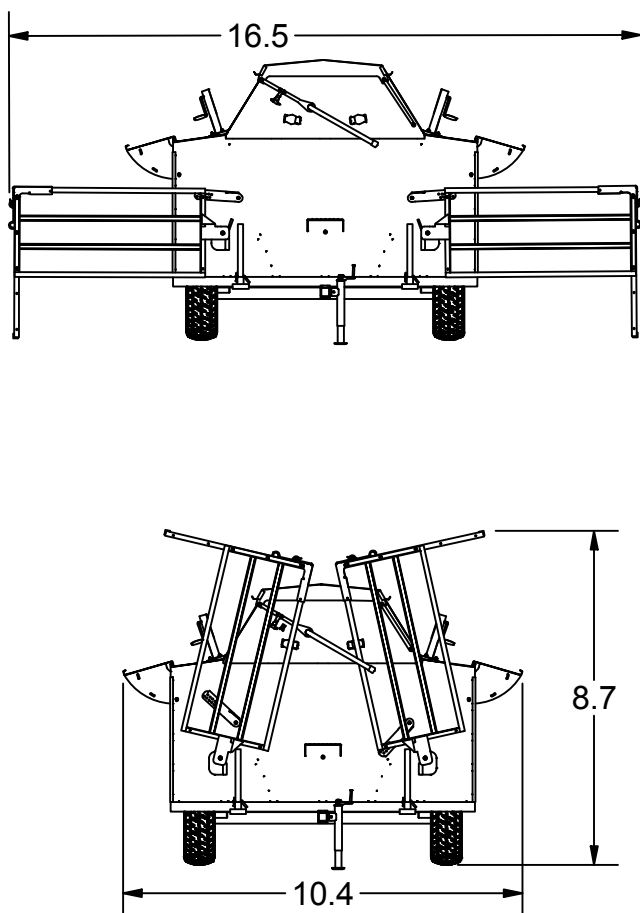
Model 20 Dimensions



Model 70 Dimensions

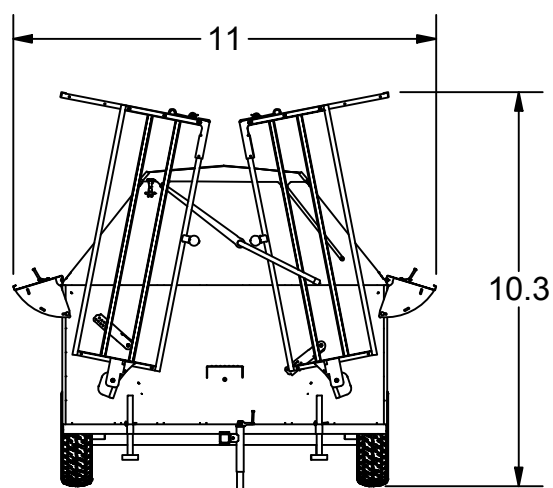
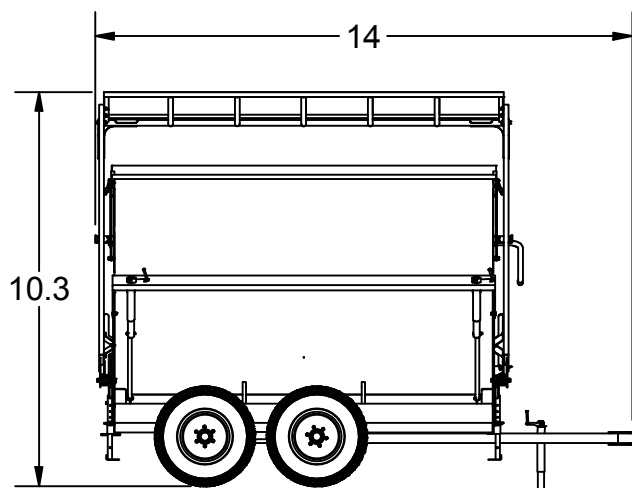
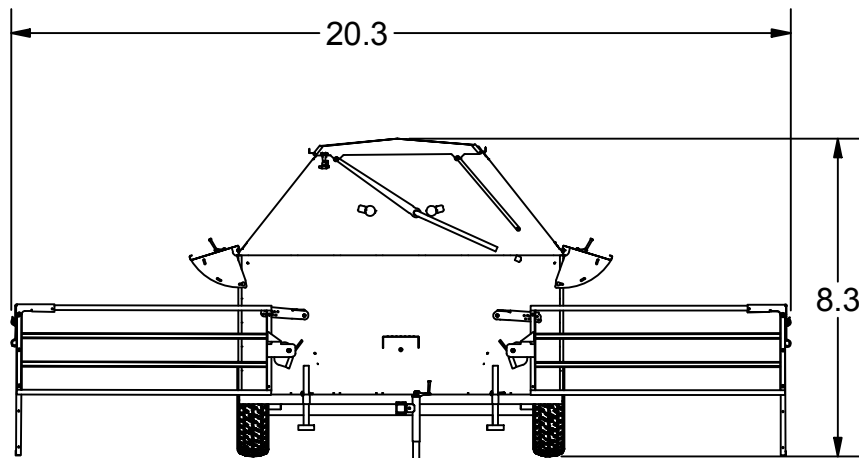
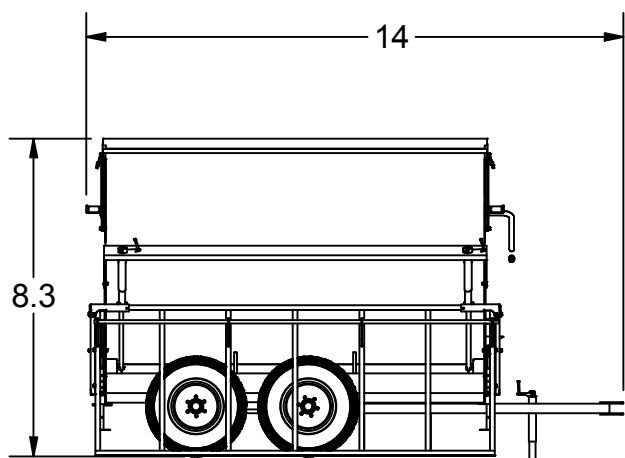


Model 150 Dimensions



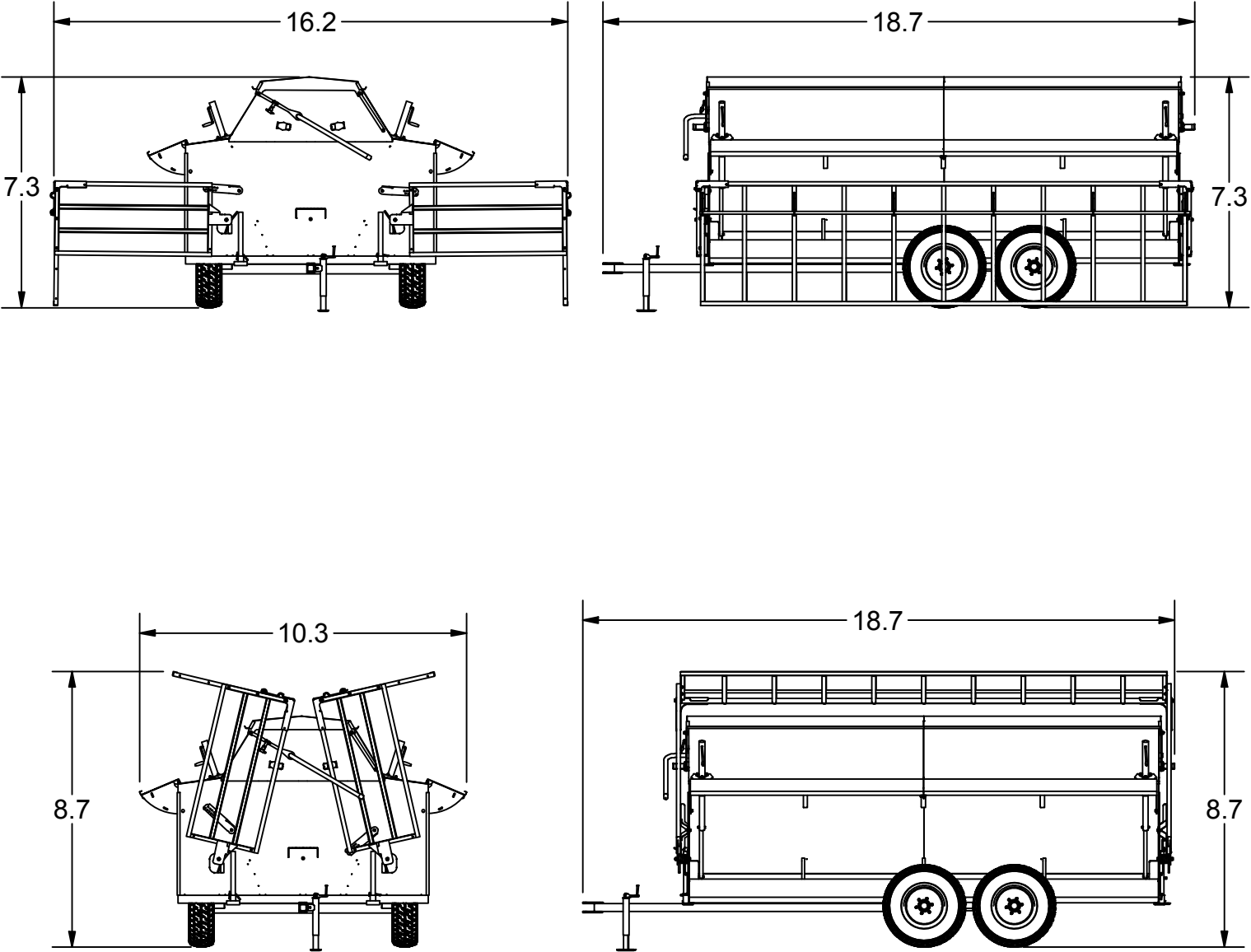
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Model 310 Dimensions



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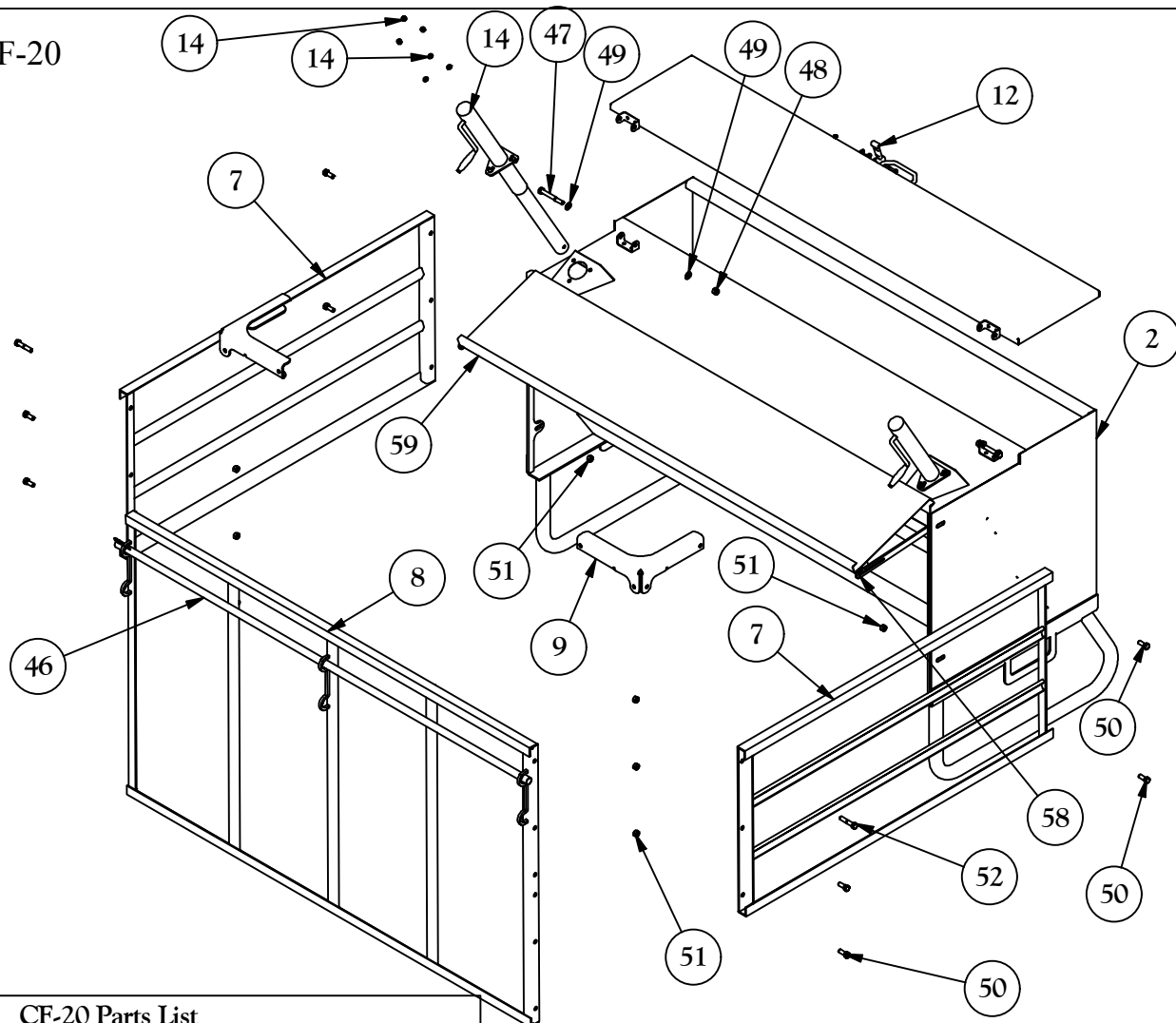
Model 316 Dimensions



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Creep Feeder Parts

Creep Feeder CF-20

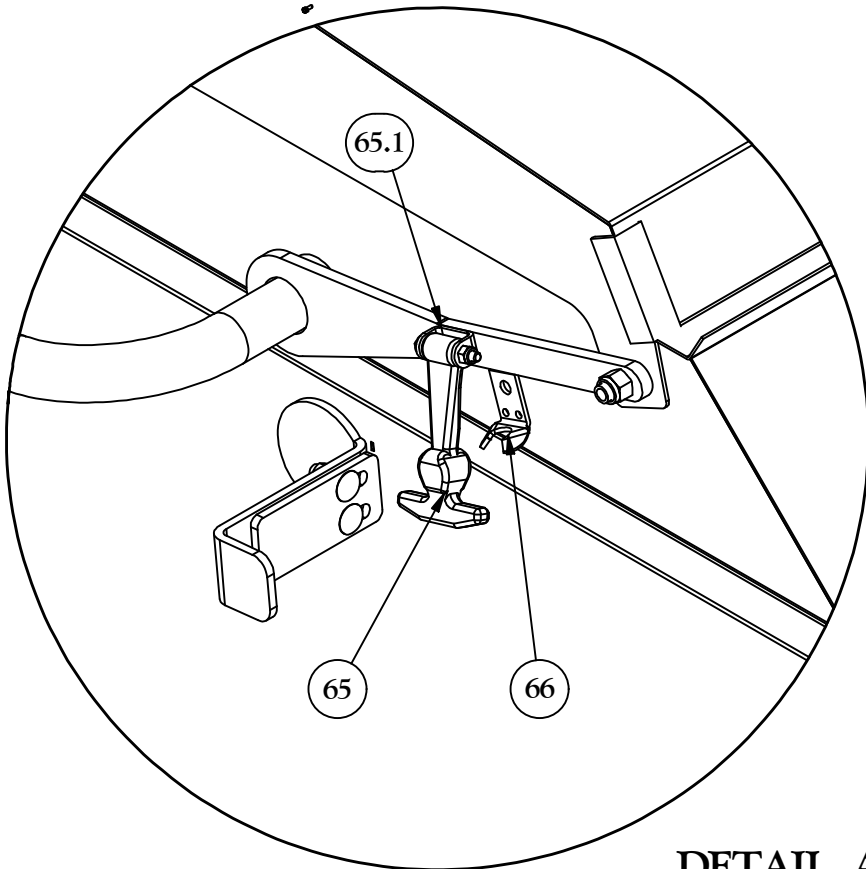
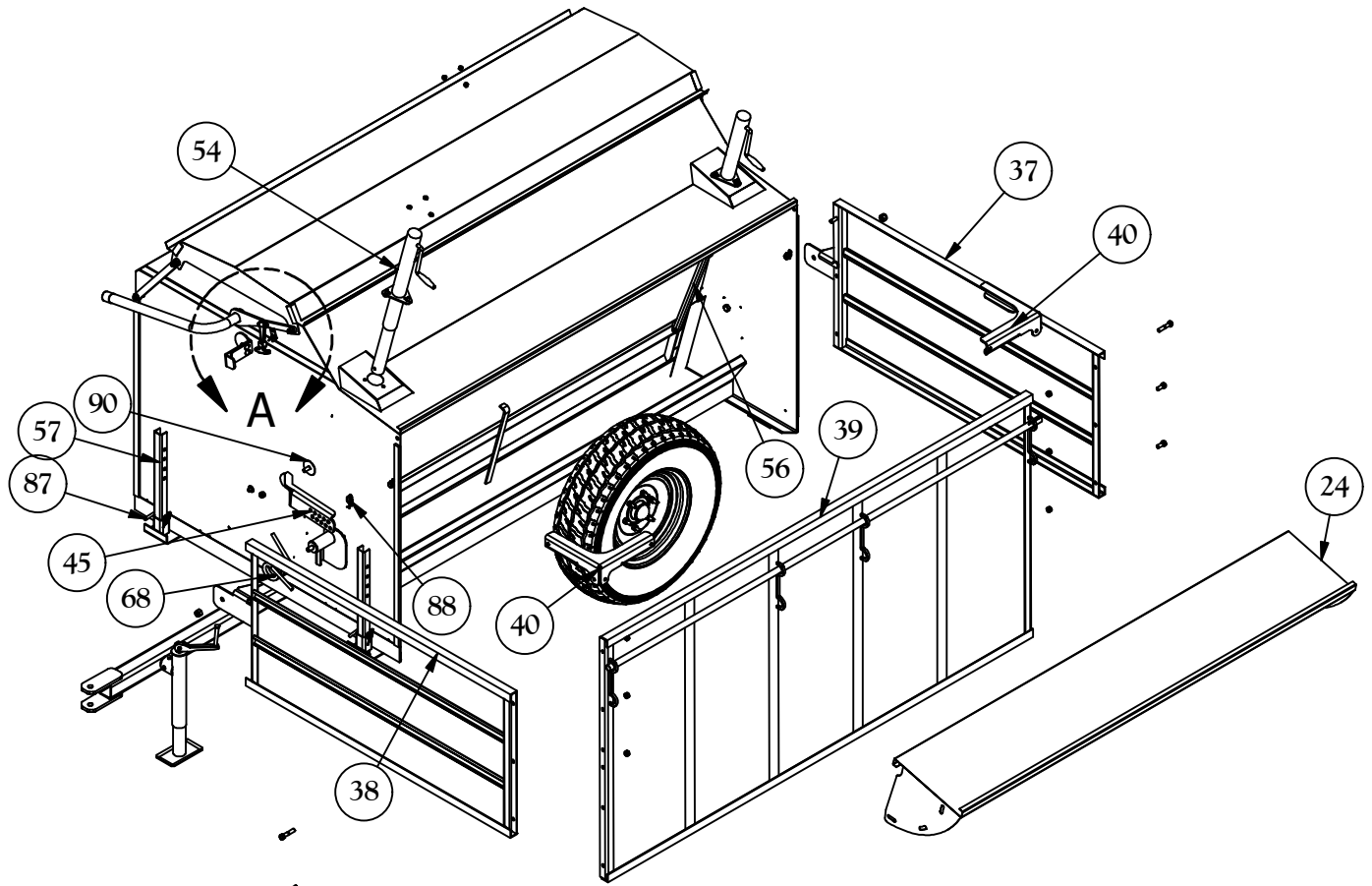


CF-20 Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION
7	2	CF-20-A003	Side Corral Weldment
8	1	CF-20-A002	Front Corral Weldment
9	2	CF-CP-P031	Gate Brace
10	1	CF-20-P008	Lid Handle
11	1	S4808	Bent Latch
12	1	S4805	4" Rubber Hood Latch
12.1	1	S4809	Lid Latch
14	2	TR1631	A-Frame Jack
15	1	CF-20-A001	Feedgate Weldment
16	2	CF-20-P001	Jack Link
17	2	CF-CP-P042	Feed Gate End Guide
46	1	CF-20-A004	Adjustable Front Tube
47	2	B1/2X4	Hex Bolt
48	2	N1/2NYL	Nylock Nut
49	4	W1/2F	Flat Washer
50	8	B1/2x1.25	Hex Bolt
51	10	N1/2L	Lock Nut
52	2	B1/2x2.5	Hex Bolt
53	2	B3/8x2.5	Hex Bolt
54	2	B3/8x1.75	Hex Bolt
55	4	N3/8L	Lock Nut
58	2	CF-20-P023	Rain Shield Support
59	1	CF-20-A006	20 bu Rain Shield Weldment

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Model 70 Creep Feeder



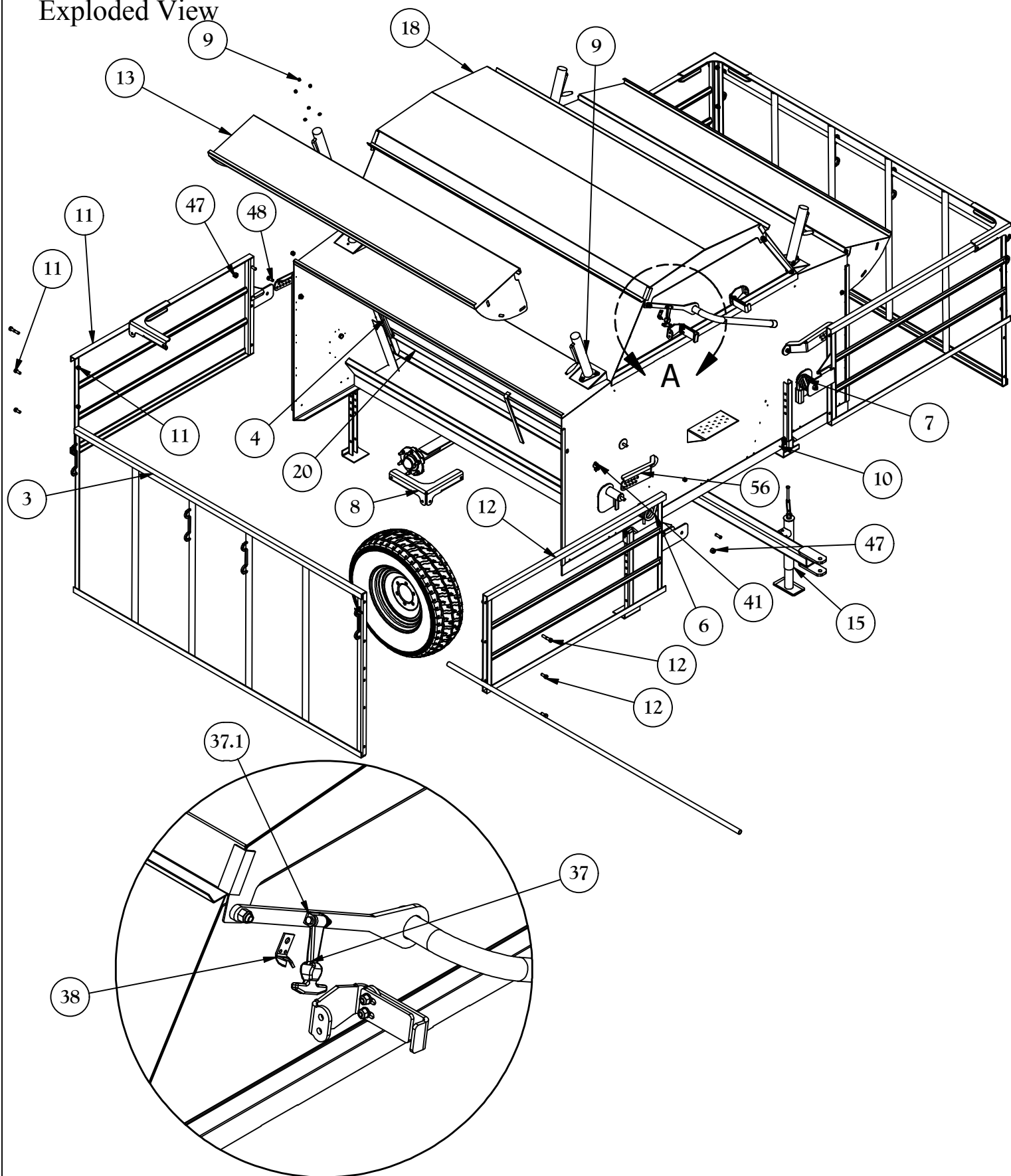
DETAIL A

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Model 70 Creep Feeder

70 Model Creep Feeder			
ITEM	QTY	PART NUMBER	DESCRIPTION
37	1	CF-CP-A006	Side Corral Weldment LH
38	1	CF-CP-A007	Side Corral Weldment RH
39	1	CF-CP-A004	Front Corral For 70 and 150 Bu
40	2	CF-CP-P031	Gate Brace
45	1	CF-CP-P075	Gate Lock Bar Boxed
46	1	SP4003	Gate Spring
49	2	CF-CP-P034	Beef Washer
54	2	TR1631	A Frame Jack
56	2	CF-CP-P013	Jack Link
57	4	CF-CP-A013	Jack Stand Weldment
58	12	N1/2NYL	Nylock Nut
65	1	S4805	4" Rubber Hood Latch
65.1	1	S4808	Bent Latch
66	1	S4809	Lid Latch
68	1	SP1060	Gate Spring
83	2	CF-CP-P074	Gate Lock Tab
87	4	CF1020	Jack Pin
88	2	CRR0Z/RUE36	Rue Ring
90	2	W1/2x2.5F	Wide Washer Lock Bar
91	2	B5/8x5.5	Hex Bolt
92	2	N5/8NYL	Nylock Nut
93	8	N1/2NYL	Nylock Nut
94	3	B1/2x1.5	Hex Bolt
95	4	B1/2x1.25CB	Carriage Bolt
96	2	B1/2x1.25	Hex Bolt
97	4	W1/2F	Plain Washer
98	2	B3/8x2.5	Hex Bolt
99	2	B3/8x1.5	Hex Bolt
100	4	B3/8x1.25CB	Carriage Bolt
101	4	W3/8L	Lock Washer
102	4	N3/8N	Hex Nut
103	2	N1/2DL	Lock Nut
104	4	N3/8DL	Lock Nut
105	1	CF-CP-P083	Gate Lock Bar Boxed LH

150 Model Exploded View

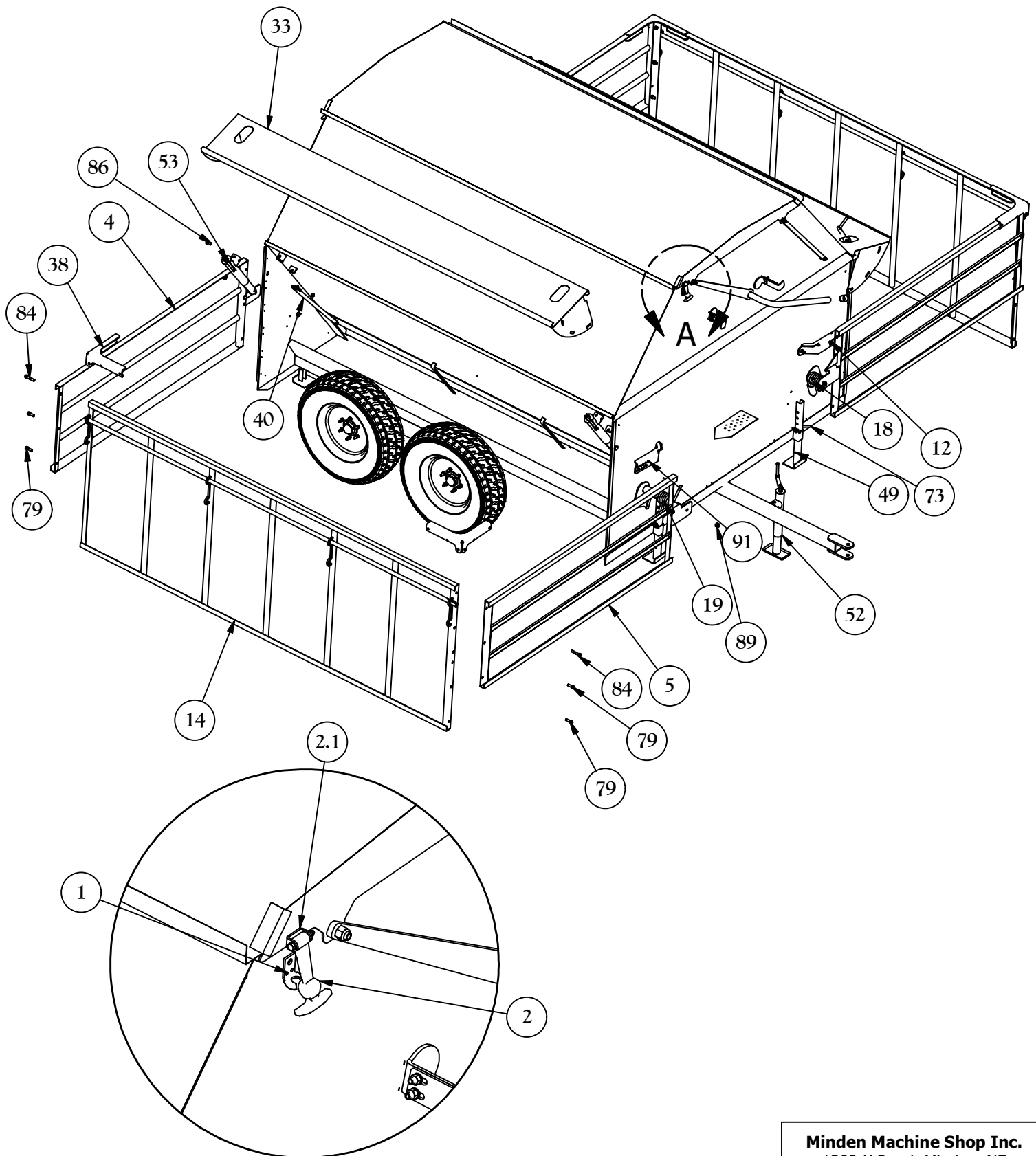


DETAIL A

Minden Machine Shop Inc.
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150 Creep Feeder Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
2	2	CF-CP-P075	Gate Lock Bar Boxed
3	2	CF-CP-A004	Front Corral For 70 and 150 Bu
4	4	CF-CP-P013	Jack Link
5	4	CF-CP-P008	Gate Stop
6	2	SP4003	Gate Spring
7	2	SP1060	Gate Spring
8	4	CF-CP-P031	Gate Brace
9	4	TR1631	A Frame Jack
10	4	CF-CP-A013	Jack Stand Weldment
11	2	CF-CP-A007	Side Corral Weldment RH
12	2	CF-CP-A006	Side Corral Weldment Lh
13	2	CF-CP-A014	Rain Sheild Weldment
14	1	CF-150-A004	Lid Handle Assembly
15	1	TR1600	Top Wind Jack
18	1	CF-150-A003	Lid Assembly
19	2	CF-CP-P011	Lid Arm Long
20	2	CF-CP-A008	Feedgate Weldment
22	12	N1/2NYL	Nylock Nut
24	18	W1/2F	Plain Washer
29	4	CF-CP-P074	Gate Lock Tab
36	4	W1/2x2.5F	Wide Washer
37	1	S4805	4" Hood Latch
37.1	1	S4808	Bent Latch
38	1	S4809	Lid Latch
40	4	CF1020	Jack Pin
41	4	CRR0Z/RUE36	Rue Ring
43	5	B1/2x1.5	Hex Bolt
44	4	B1/2x1.25CB	Carriage Bolt
45	4	B5/8x5.5	Hex Bolt
46	10	N1/2NYL	Nylock Nut
47	4	N5/8NYL	Nylock Nut
48	4	B1/2x1.25	Hex Bolt
49	4	N1/2DL	Lock Nut
50	8	B3/8x1.25CB	Carriage Bolt
51	8	W3/8L	Lock Washer
52	8	N3/8N	Hex Nut
53	4	B3/8x2.5	Hex Bolt
54	4	B3/8x1.5	Hex Bolt
55	8	N3/8DL	Lock Nut
56	2	CF-CP-P083	Gate Lock Bar Boxed LH

Model 310 Creep Feeder



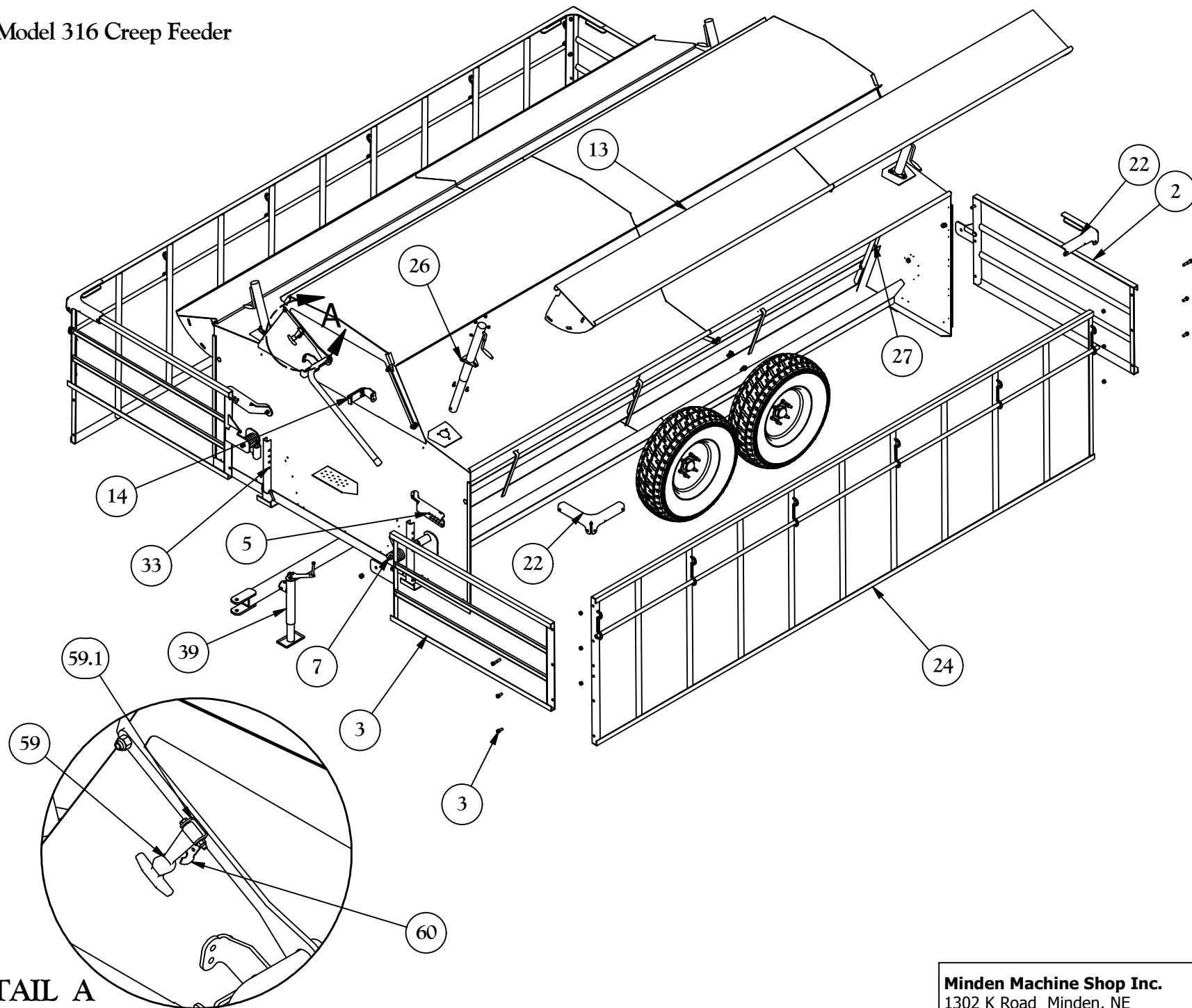
DETAIL A

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 1302 K Road Minden, NE
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Model 310 Creep Feeder

Model 310 Creep Feeder			
ITEM	QTY	PART NUMBER	DESCRIPTION
4	2	CF-310-A003	Side Corral Weldment RH
5	2	CF-310-A002	Side Corral Weldment LH
12	2	CF-CP-P075	Gate Lock Bar Boxed
14	2	CF-310-A005	Long Corral Panel
18	2	SP1060	Gate Spring
19	2	SP4003	Gate Spring
33	2	CF-310-A009	Rain Sheild Weldment
38	4	CF-CP-P031	Gate Brace
41	2	CF-310-A010	Feedgate Weldment
49	4	CF-CP-A013	Jack Stand Weldment
52	1	TR1600	Tongue Jack
53	4	TR1600	Feed Gate Control Jack
58	4	W1/2x2.5F	Wide Washer
68	4	CF-CP-P074	Gate Lock Tab
73	4	CF1020	Jack Pin
74	4	CRR0Z/RUE36	Rue Ring
75	8	B3/8x1.25CB	Carriage Bolt
76	8	W3/8L	Lock Washer
77	8	N3/8N	Hex Nut
78	4	B1/2x1.25CB	Carriage Bolt
79	14	B1/2x1.5	Hex Bolt
80	10	N1/2NYL	Nylock Nut
81	4	B3/8x2.5	Hex Bolt
82	4	B3/8x1.5	Hex Bolt
83	8	N3/8DL	Lock Nut
84	4	B1/2x2.5	Hex Bolt
85	16	N1/2DL	Lock Nut
86	4	B1/2x1.25CB	Carriage Bolt
87	20	W1/2F	Plain Washer
88	4	B5/8X5.5	Hex Bolt
89	4	N5/8NYL	N5/8NYL
91	2	CF-CP-P083	Gate Lock Bar Boxed LH

Model 316 Creep Feeder



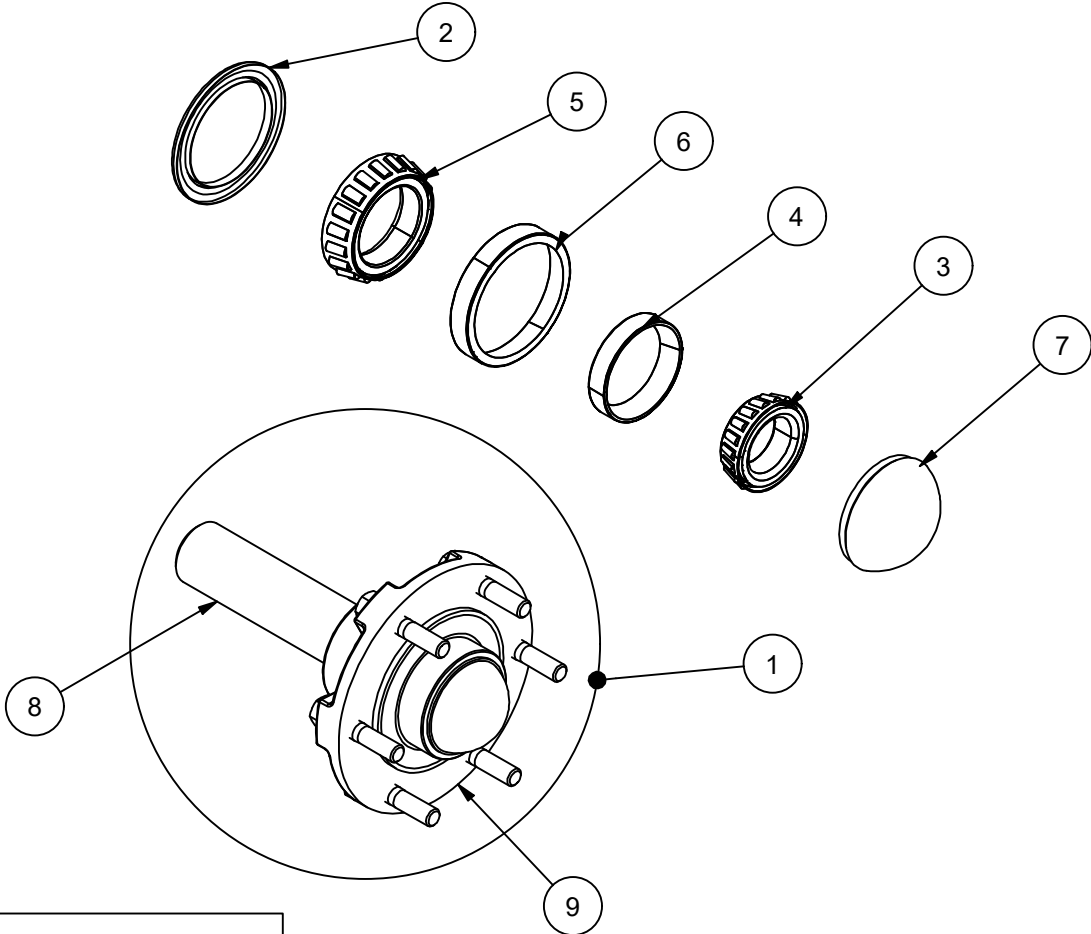
DETAIL A

Minden Machine Shop Inc.
 1302 K Road Minden, NE
 800-264-6587 / 308-832-0220

Model 316 Creep Feeder				Model 316 Creep Feeder			
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
2	2	CF-CP-A006	Side Corral Weldment LH	59.1	1	S4808	Bent Latch
3	2	CF-CP-A007	Side Corral Weldment RH	60	1	S4809	Lid Latch
5	2	CF-CP-P075	Gate Lock Bar Boxed	61	4	W1/2x2.5F	Wide Washer
7	4	SP4003	Gate Spring	62	2	CF-316-A001	Front Corral Adjustable Tube
13	2	CF-316-A002	Rain Sheild Assembly	64	4	CF-CP-P074	Gate Lock Tab
14	4	CF-CP-P008	Gate Stop	65	12	B1/2x1.5	Hex Bolt
22	4	CF-CP-P031	Gate Brace	66	30	W1/2F	Plain Washer
24	2	CF-316-A010	Front Corral Panel	67	12	N1/2DL	Lock Nut
26	4	TR1631	A Frame Jack	68	4	B3/8x2.5	Hex Bolt
27	4	CF-CP-P013	Jack Link	69	8	N3/8DL	Lock Nut
30	24	N1/2NYL	Nylock Nut	70	4	B3/8x1.5	Hex Bolt
33	4	CF-CP-A013	Jack Stand Weldment	71	4	B1/2x1.25C	Carriage Bolt
35	2	CF-316-A005	Feedgate Weldment	72	10	N1/2NYL	Nylock Nut
36	1	CF-316-A003	Lid Assembly	73	8	B3/8x1.25C	Carriage Bolt
37	1	CF-316-A004	Lid Handle Assembly	74	8	W3/8L	Lock Washer
38	2	CF-CP-P011	Lid Arm Long	75	8	N3/8N	Hex Nut
39	1	TR1600	Jack	76	4	B1/2x1.5	Carriage Bolt
40	2	CF-316-P014	Rain Shield Support	77	4	B5/8x5.5	Hex Bolt
57	4	CF1020	Jack Pin	78	4	N5/8NYL	5/8 Std NC Nylock Nut
58	4	CRR0Z/RUE36	Rue Ring	80	2	CF-CP-P083	Gate Lock Bar Boxed LH
59	1	S4805	4" Hood Latch				

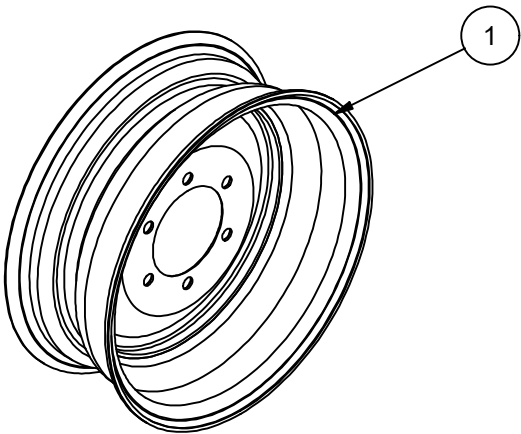
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Hub, Spindle and Bearings

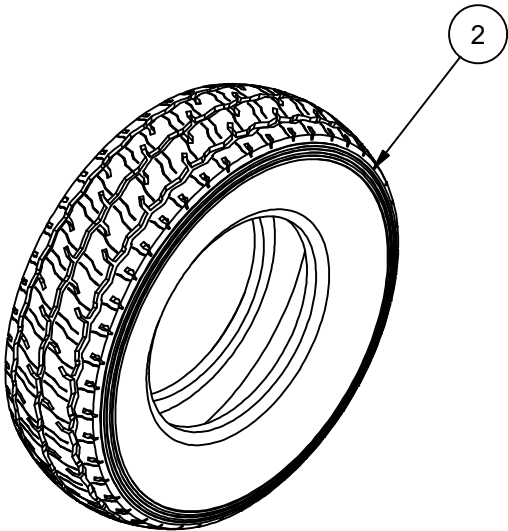


Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	SPD888-10.5	Complete Hub and Spindle
2	1	16289	Seal
3	1	LM67048	Outer Cone (Bearing)
4	1	LM67010	Outer Cup
5	1	JL69349	Inner Cone (Bearing)
6	1	JL69310	Inner Cup
7	1	SPD888-4	Dust Cap
8	1	SPD888-5	Spindle Only (10.5")
9	1	SPD888-6	Hub Only
10	1	SPD888-7	Castle Nut
11	1	SPD888-9	Washer

CREEP FEEDER TIRES AND RIMS



CREEP FEEDER TIRES AND RIMS			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2-4	TR1080-1	NEW AG 6 ON 6 RIM; 8" WIDE
2	2-4	TR1076	235/80R16 TIRE ONLY LIVESTOCK
3	2-4	TR1075	NEW 235/80R16 TIRE ON AG 6 ON 6 RIM
4	2-4	CF1070	USED 16" TRUCK TIRE ON 6 BOLT AG RIM
5	2-4	CF1071	USED 16" TRUCK TIRE



Minden Machine Shop Inc

LIMITED WARRANTY

Minden Machine Shop Inc warrants all products manufactured by it to be free of defect in material and workmanship for a period of one (1) year from the date of purchase.

This Minden Machine Shop Inc. warranty does not cover:

1. Parts and accessories supplied by Minden Machine Shop Inc. but manufactured by others. Minden Machine Shop Inc. will facilitate the other manufacturer warranty for the benefit of the purchaser but will not be bound thereby (example: augers, motors, trailers, tanks, etc.).
2. Products that have been altered by anyone other than a Minden Machine Shop Inc. employee or are used by the purchaser, for purposes other than what was intended at time of manufacture or used in excess of the "built specifications".
3. Products that are custom manufactured by Minden Machine Shop Inc. utilizing the purchaser's design which deviates from Minden Machine Shop Inc. normal production line manufactured or customized features of the products.
4. Malfunctions or damages to the product from misuse, negligence, customer alteration, accidents or product abuse due to incoming material or poor material flow ability or lack of required performance or required maintenance (e.g., poor material flow ability caused by incoming wet fertilizer or hot soybean meal, etc).
5. Loss of time, inconvenience, loss of material, down time or any other consequential damage.
6. Product use for a function that is different than designed intent (e.g., storing soybean meal in grain bin, unacceptable material in the bin such as hot bean meal when product originally designed for other application, etc).
7. Minden Machine Shop Inc is not responsible for any equipment that this product is attached to or mounted on.

To activate this warranty, the purchaser must make contact in writing with Minden Machine Shop Inc. within one (1) year of date of purchase. After contact, Minden Machine Shop Inc. has the right to determine the cause and qualify the legitimacy of the claim. Minden Machine Shop Inc., upon acceptance of a warranty claim, shall have a reasonable time to plan any repair or replacement and may affect repair or replacement out of its factory or through contract with a local repair service. If a purchaser after warranty notice is made, chooses to make the repair itself, Minden Machine Shop Inc. must approve any expenses before they are incurred to be responsible for customer reimbursement. Minden Machine Shop Inc. shall be liable on a warranty claim for repair or replacement of any defective products and this is the purchaser's sole and exclusive remedy. Minden Machine Shop Inc. will not be liable for any other or further remedy including claims for personal injury, property damage or consequential damage. The law of the State of Nebraska shall govern and any such claim and any issues with regard to the same shall be resolved in the Nebraska District Court for the county of Kearney.

RETURN OF MERCHANDISE

Merchandise may not be returned without written approval from the factory. All returns must have a return authorization number. Obtain this number before the return and show it on all return items. A 15% restocking charge is made on merchandise returned. Returned merchandise must be shipped pre-paid.

RECEIVING MERCHANDISE AND FILING CLAIMS

When receiving merchandise it is important to check both the number of parts and their description with packing slip. The consignee must make all claims for freight damage or shortage within 10 days from the date of delivery.

When the material leaves the factory it becomes the property of the consignee. It is the responsibility of the consignee to file a claim on any possible damage or loss. Please list your preferred routing on purchase orders.

MODIFICATIONS

It is the policy of Minden Machine Shop Inc. to improve its products whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time without incurring the obligation to make such changes, improvements and modifications on any equipment sold previously.

WARRANTY REGISTRATION

To register equipment, or file a claim, copy and paste the words on this page into an email or word document, fill out the appropriate information completely, and email it to larry@mindenmachine.com with the subject as EQUIPMENT WARRANTY, or fill it out and fax it to 308-832-1340.

Dealer Information: Not Applicable, check here: []

Dealer Name:

Address:

City:

State:

Zip Code:

Phone #:

Email:

End User Information:

Purchaser:

Address:

City:

State:

Zip Code:

Phone #:

Email:

Equipment:

Serial #:

Date Of Purchase: / /