



**SPARTAN
EQUIPMENT®**

AUGER BUCKET

MODELS

3110

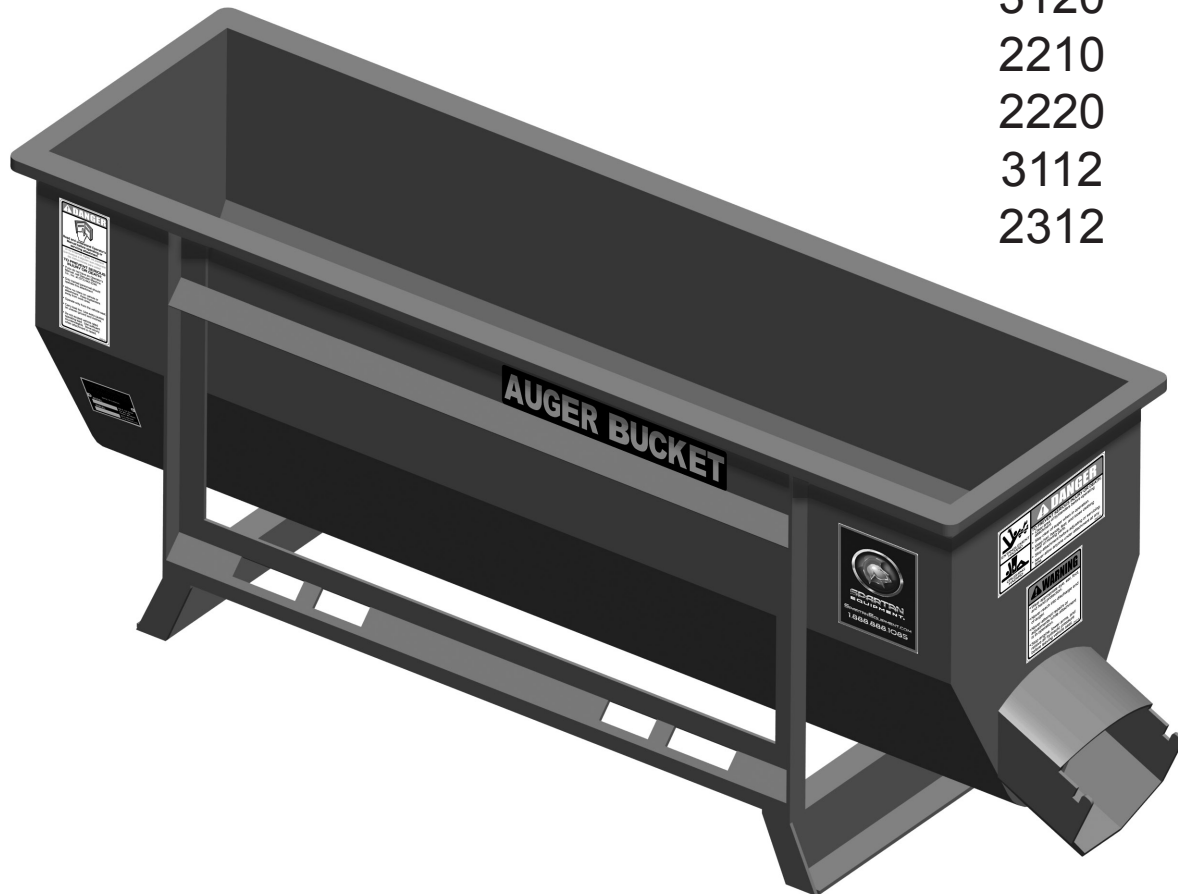
3120

2210

2220

3112

2312



Owner: _____

Date Purchased: _____

Model #: _____ Serial #: _____

Manual #: 9MBUCK2454970



DANGER

Si no entiende ingles, se prefiere que busque a alguien que interprete las instrucciones para usted.

Operator's Manual

Spartan Equipment
503 Pulaski Hwy.
Joppa, Maryland 21085
Phone: 1-888-888-1085
E-mail: contact@SpartanEquipment.com
Website: www.SpartanEquipment.com

Spartan Equipment

Dear Owner/Operator,

Thank you for purchasing this Spartan Equipment Auger Bucket. We appreciate your business.

Your safety as an operator of our product is very important to us. Therefore, *before* you assemble, install, operate, maintain, service, remove, or move your Spartan Equipment Auger Bucket, read and understand this manual thoroughly. If there is anything you do not understand, immediately contact your dealer, or contact our factory direct.

Phone: 1-888-888-1085
E-mail: contact@SpartanEquipment.com

Your satisfaction in the performance and longevity of our product is also very important to us and can be prolonged by proper assembly, installation, operation, maintenance, service, and removal as instructed in this manual.

Thank you again for your business and for your trust in our product. Please feel free to contact us at any time for further assistance.

Sincerely,

Spartan Equipment

503 Pulaski Hwy. Joppa, MD 21085
Phone: 1-888-888-1085
E-mail: contact@SpartanEquipment.com
Website: www.SpartanEquipment.com

Foreword


Please read this manual thoroughly!

Before you assemble, install, operate, maintain, service, remove, or move your Spartan Equipment Auger Bucket, read this manual thoroughly. If there is anything you do not understand, immediately contact your dealer, or call our factory direct at 1-888-888-1085. Powered equipment can be dangerous if not assembled, installed, operated, maintained, serviced, removed, or moved properly.

Warranty Registration

To activate your warranty coverage and to provide you with efficient customer service, please fill out your WARRANTY REGISTRATION FORM. This form is included in your unit's paperwork package. If you did not complete a WARRANTY REGISTRATION FORM or did not receive one, please call Spartan Equipment. Your satisfaction with our product and your safety as a user of our product are both very important to us.

Symbols

 This SAFETY ALERT symbol identifies important safety messages. Carefully read each safety message that follows. Failure to understand and obey a safety message, or recognize a safety hazard, could result in injury or death to you or others around you. The operator is ultimately responsible for the safety of himself, as well as others, in the operating area of the Auger Bucket.





<i>Symbol</i>	<i>Meaning</i>
	This is important information for proper use of this equipment. Failure to comply may lead to premature equipment failure.
 CAUTION	Failure to follow these instructions may cause damage to the implement or the vehicle, or minor personal injury.
 WARNING	Failure to follow these instructions may result in personal injury or death.
 DANGER	Immediate hazard! Failure to understand and obey this warning is likely to result in personal injury or death.

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Improper operation of this Auger Bucket can cause serious personal injury or death. Operation of this Auger Bucket should only be done by a competent adult acting in compliance with the Operator's Manual. Since Auger Bucket operations are beyond our control, we disclaim all liability for any damages, injuries or death which may result.



Working with unfamiliar equipment can lead to careless injuries. Read and understand this manual and the manual for your vehicle before assembling, installing, operating, maintaining, servicing, removing, or moving this Auger Bucket. If there is anything in this manual you do not understand, contact your dealer or Spartan Equipment. The safe use of this attachment is strictly up to you, the operator. If this attachment is used, loaned, or rented by any other person, it is the owner's responsibility to make certain that the operator prior to operating:

- Reads and understands the Operator's Manuals
 - Is instructed in safe and proper use
- The Auger Bucket is designed to be operated from the vehicle seat. Keep bystanders away from the work area. Do not operate with another person in contact with any part of the Auger Bucket.
 - All operators of this attachment must read and understand this entire manual, paying particular attention to safety messages and operation instructions, prior to assembling, installing, operating, maintaining, servicing, removing, or moving the Auger Bucket.
 - Please remember it is also important that you read, understand, and follow the safety signs on the attachment. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety as well as the safety of others. Spartan Equipment will furnish new safety signs upon request at no charge.
 - All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices.
 - Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, maintenance, service, removal, or movement of attachment.
 - When the use of hand tools is required to perform any part of assembly, installation, operation, maintenance, or service of the attachment, be sure the tools used are designed and recommended by the tool manufacturer for that specific task.
 - Never check pressurized system for leaks with your bare hand. Wear proper hand and eye protection and use wood or cardboard when searching for suspected leaks. Oil escaping from pinhole leaks under pressure can penetrate skin and create a serious medical emergency. If any fluid is injected into the skin, gangrene, blood poisoning, even death may result. Obtain medical attention immediately.
 - Always use two people to handle heavy, unwieldy components during assembly, installation, maintenance, service, removal, or movement of the Auger Bucket.
 - Never place any part of your body where it would be in danger if movement should occur during assembly, installation, operation, maintenance, service, removal, or movement of the Auger Bucket.
 - Only properly trained people should operate this equipment. Do not allow anyone who has not read this entire manual and understood the safety rules, safety signs, and operation instructions to use this attachment.
 - Never allow children to operate or be around the Auger Bucket.
 - Do not allow riders on the equipment at any time. There is no safe place for any riders.
 - Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this equipment while taking prescription medications.

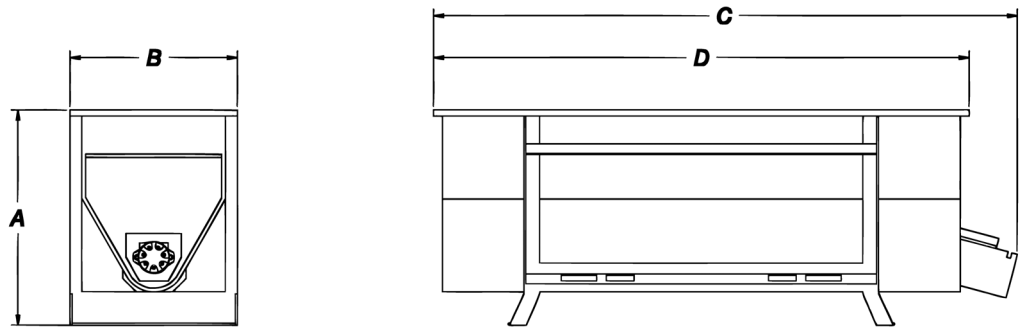
Safety

(continued)

- Before you operate the attachment, check over pins and connections to be sure all are securely in place. Make sure the Auger Bucket is securely latched to the skid-steer.
- Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
- Never place yourself between the vehicle and the attachment.
- Never allow anyone under the attachment at any time.
- Never reach into discharge end of auger.
- Keep clear of auger while in operation. Never position the material by hand or with any tool when the auger is rotating.
- Do not exceed the vehicle's rated operating load. Use sufficient counterweights. Move the vehicle slowly when the attachment is raised.
- Carry the load low. A heavy load can cause instability of the vehicle. Use extreme care during travel. Slow down on turns and watch out for bumps. Use all safety devices, including a seat belt, as recommended in the vehicle operator's manual.
- Do not operate the Auger Bucket on steep hillsides. When operating the Auger Bucket on uneven or hilly terrain, position the vehicle with the attachment uphill. With the attachment downhill, the vehicle could tip when attempting to raise the Auger Bucket. Consult your vehicle operator's manual for maximum incline allowable.
- Always shut off the vehicle engine and remove the key before dismounting the vehicle, adjusting the attachment, or servicing the Auger Bucket. Never leave equipment unattended with the vehicle running.
- Never attempt repairs or adjustments while the equipment is in operation.
- Before disconnecting hydraulic lines or fittings be sure to relieve all pressure by cycling all hydraulic controls after shutdown. Remember hydraulic systems are under pressure whenever the engine is running and may hold pressure after shutdown.
- Always use care when operating the Auger Bucket. Most accidents occur because of neglect or carelessness.

Safety is a primary concern in the design, manufacture, sale, and use of Auger Buckets. Spartan Equipment confirms to you, our customer, our concern for safety.

Specifications



Overall Height	(A)	27"
Overall Width	(B)	21-1/2"
Overall Length	(C)	74-1/2"
Overall Bucket Length	(D)	68-1/2"
Weight		380 lbs.
Hydraulic Requirements		12 GPM 2000 PSI
Auger Length		61-1/2"
Auger Diameter without Rubber		4"
Auger Diameter with Rubber		6-1/2"
Auger Flighting Spacing		4"

- Mix, transport, and dispense concrete (up to 1" slump), sand, washed gravel (3/4" max.), wildlife feed, asphalt, agricultural grains, etc.
- 1/2 yard capacity; 3/4 yard capacity capable with optional hopper extension
- Accurate and controlled discharge – 1/2 yard in 50 seconds
- Horizontal steel auger with orbital motor drive
- Replaceable protective rubber flighting prevents binding of coarse material.
- Universal skid-steer attachment
- Quick attach frame on either side allows right- or left-hand discharge.
- Self loading from loose piles
- 7' hose kit with flat face couplers included.
- 2 multi-linked chutes (24" & 36" long) included.

Hydraulic Requirements

Filtration Requirements:

- A filter of, at least, 25 micron filtration is required. A filter capable of 10 micron filtration is preferred. The majority of paper type filters are 25 microns or better.

NOTE

The life of the hydraulic motor is almost entirely dependent upon cleanliness of the oil. Instructions in your vehicle operator's manual regarding filter and oil changes should be carefully followed. Even small amounts of dirt in the hydraulic oil can cause premature motor failure that is not covered by warranty.

- A low pressure type filter can be installed in the return line from the control valves to the sump. A low pressure type filter can, also, be installed in the sump or pump intake line, but must be sized large enough to avoid starving the pump.
- A high pressure type filter can be used between the pump and the control valves.
- If the source of the hydraulic power does not have a filter, it will be necessary to install one at some point in the system so, at least, part of the hydraulic oil is being filtered whenever the system is operating. After a filter is installed and before attaching the Auger Bucket, the entire hydraulic system should be drained, filled with new oil, and operated for 30 minutes or until the system is warm. During this run time, operate all valves, cylinders, and hydraulic motors on the attachment.

Pressure and Flow Requirements:

- The Auger Bucket is designed to operate at 12 GPM and 2000 PSI.

Valve Requirements:

- The hydraulic system used to power the Auger Bucket should be equipped with a four-way valve large enough to carry full pump outlet without restricting flow and causing oil heating.
- The four-way valve requires a relief valve which will open and relieve extreme pressures between the Auger Bucket and control valve, even when the control valve is in a neutral position. This feature can be obtained by connecting two external relief valves between the main lines running from the control valve to the Auger Bucket in such a way that high pressure in either line will be relieved to the other line.

Hydraulic Fluid Selection Requirements:

- Premium grade petroleum based fluids will provide the best performance.
- Fluids that contain anti-wear agents, rust inhibitors, anti-foaming agents, and oxidation inhibitors are recommended.
- The viscosity of the fluid should never fall below 70 SUS (13 cST). The best viscosity range of the Auger Bucket is 100-200 SUS (20-43 cST).

Assembly & Installation

Prepare the Vehicle

Read and understand the manual for your vehicle before assembling or installing the Auger Bucket. The skid-steer must be equipped with a universal quick attach hitch and auxiliary hydraulics. The use of the Auger Bucket may require the addition of counterweights to ensure the combined weight of the bucket and the material does not exceed the rated capacity of your vehicle.



Do not exceed the vehicle's rated operating load. If necessary, use sufficient counterweights.

NOTE

Here is an easy formula for calculating weight:

1/2 yard bucket & material = empty bucket weight (380 lbs.) + 2,000 lbs.

3/4 yard bucket & material = empty bucket weight (380 lbs.) + 3,000 lbs.

Select the Right Auger Bucket

MIXING AUGER BUCKET

- The mixing auger should be used anytime you are mixing your own material. Turn the auger in reverse for mixing and then forward for discharge. This auger has the wear rubber reversed for the first half of the auger (motor end). For added durability, this auger also has 40% more hardware than a discharge auger.

DISCHARGE AUGER BUCKET

- The discharge auger should be used for dispensing material(s). The rubber flights have wear rubber on the discharge side.



Do not use the discharge auger for mixing. Running this auger in the reverse direction for mixing will result in extreme premature wear of the rubber fighting.

STEP 1: Remove the chutes and hydraulic hoses from inside the Auger Bucket.

STEP 2: Remove the dust plugs from the hydraulic motor ports.

STEP 3: Locate the hydraulic fittings from the chute box, and install them into the motor.

NOTE

All hoses and fittings used to connect the Auger Bucket should be thoroughly cleaned before use. Care should be taken to see that no thread sealer or metal chips are forced to the inside of the joints when connections are being tightened.

STEP 4: Tighten the fittings into the motor, and install the hydraulic hoses provided.

STEP 5: Install the Auger Bucket by following your vehicle operator's manual for installing an attachment. Be sure to securely latch the Auger Bucket to the skid-steer.



Make sure the Auger Bucket is securely latched to the skid-steer. Failure to do so could result in separation of the attachment from the skid-steer.

STEP 6: Use the quick couplers to connect the hydraulic hoses to the vehicle's auxiliary hydraulics.



Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, maintenance, service, removal, or movement of the Auger Bucket.

Assembly & Installation

(continued)



WARNING

Remember hydraulic systems are under pressure whenever the engine is running and may hold pressure after shutdown. Before connecting or disconnecting hydraulic hoses, be sure to relieve all pressure by cycling all hydraulic controls after shutdown.

STEP 7: Activate the vehicle's auxiliary hydraulics to ensure the auger rotates toward the discharge end.

STEP 8: Check the hydraulic system for leaks.



WARNING

Never check pressurized system for leaks with your bare hand. Wear proper hand and eye protection and use wood or cardboard when searching for suspected leaks. Oil escaping from pinhole leaks under pressure can penetrate skin and create a serious medical emergency. If any fluid is injected into the skin, gangrene, blood poisoning, even death may result. Obtain medical attention immediately.

NOTE

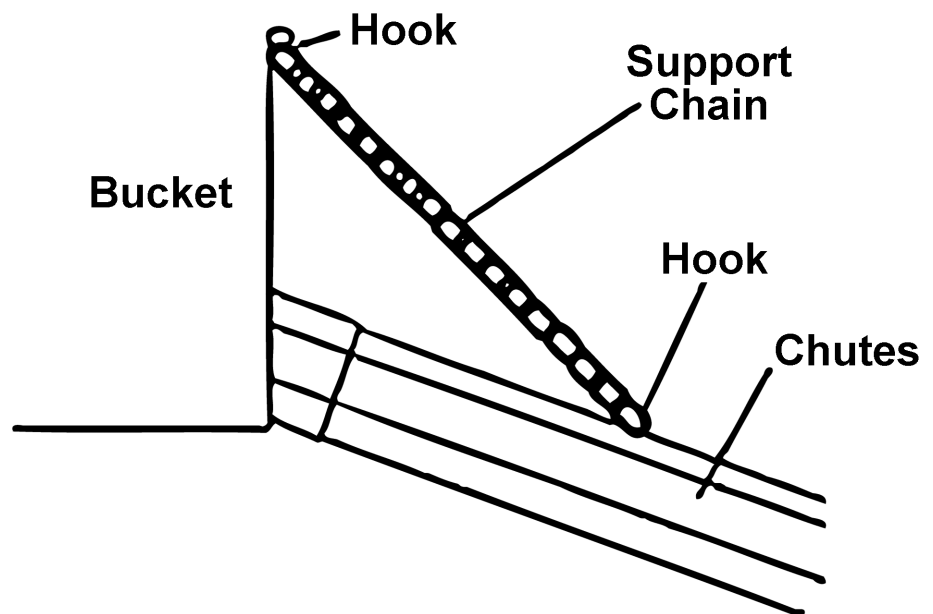
For ease of cleaning, coat the bucket with a water based releasing agent.



CAUTION

Do not coat the bucket with a petroleum based cleaning agent. Damage to rubber components will occur.

STEP 9: Install the chute(s) to the discharge end of the Auger Bucket. If you are using more than 8' of discharge chutes, then we recommend you weld a hook to the bucket and another half way down the chutes. Then install a support chain.



Operation

Mixing Auger Bucket

DANGER

The Auger Bucket is designed to be operated from the vehicle seat. Keep bystanders away from the work area. Do not operate with another person in contact with any part of the Auger Bucket.

DANGER

Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.

DANGER

Never allow anyone under the attachment at any time.

WARNING

Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, maintenance, service, removal, or movement of the Auger Bucket.

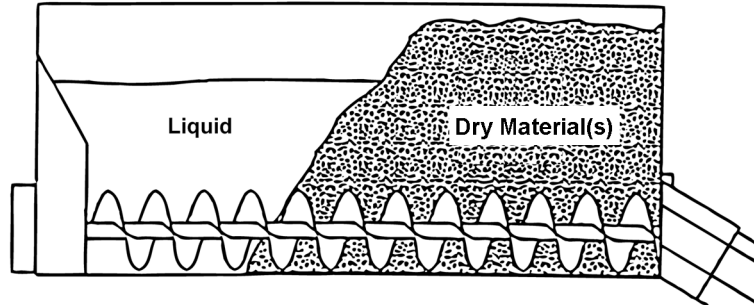
DANGER

Before you operate the attachment, check over pins and connections to be sure all are securely in place. Make sure the Auger Bucket is securely latched to the skid-steer.

NOTE

Failure to follow these mixing instructions will result in excessive wear of the rubber flighting and will void manufacturer's warranty.

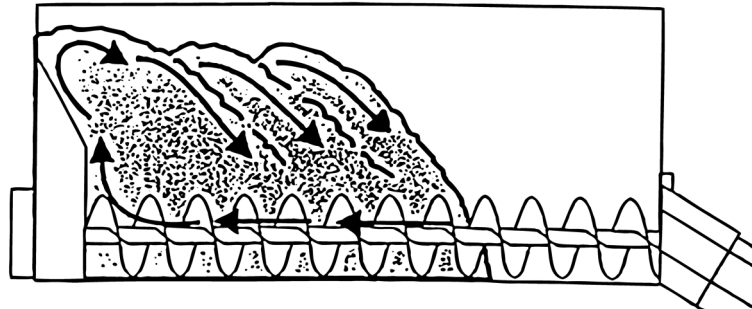
STEP 1: With the Auger Bucket stationary, add dry material(s) to the discharge chute end of the bucket and then the liquid (water) to the motor end of the bucket.



STEP 2: Run the auger in reverse. This will draw the dry material(s) into the liquid and up the motor end of the bucket. The mixture will roll back into the mixing material.

DANGER

Keep clear of auger while in operation. Never position the material by hand or with any tool when the auger is rotating.



STEP 3: Continue to add more dry material(s) and liquid to get the quantity and mix you require.

NOTE

Motor stalling could occur if the mixture is too dry.

STEP 4: When mixing is complete, position the vehicle so the discharge chute is directly over the forms or desired location. Run the auger in the forward direction to discharge the mixture.

WARNING

Move the vehicle slowly when the attachment is raised, and carry the load low. A heavy load can cause instability of the vehicle. Use extreme care during travel. Slow down on turns and watch out for bumps. Use all safety devices, including a seat belt, as recommended in the vehicle operator's manual.

Operation

Discharging Auger Bucket

DANGER

The Auger Bucket is designed to be operated from the vehicle seat. Keep bystanders away from the work area. Do not operate with another person in contact with any part of the Auger Bucket.

WARNING

Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, maintenance, service, removal, or movement of the Auger Bucket.

DANGER

Before you operate the attachment, check over pins and connections to be sure all are securely in place. Make sure the Auger Bucket is securely latched to the skid-steer.

STEP 1: With the Auger Bucket stationary, add material(s) to the bucket.

NOTE

Do not attempt to dig with the Auger Bucket. If the optional Scraper Blade is installed, then scoop from loose piles only.

STEP 2: Position the vehicle so the discharge chute is directly over the desired location. Run the auger in the forward direction to discharge the material(s).

DANGER

Keep clear of auger while in operation. Never position the material by hand or with any tool when the auger is rotating.

DANGER

Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.

DANGER

Never allow anyone under the attachment at any time.

WARNING

Move the vehicle slowly when the attachment is raised, and carry the load low. A heavy load can cause instability of the vehicle. Use extreme care during travel. Slow down on turns and watch out for bumps. Use all safety devices, including a seat belt, as recommended in the vehicle operator's manual.

Clean Up

DANGER

Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.

DANGER

Never place yourself between the vehicle and the attachment.

DANGER

Never allow anyone under the attachment at any time.

WARNING

Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, maintenance, service, removal, or movement of the Auger Bucket.

STEP 1: Run the Auger Bucket until all of the material is removed from the bucket.

STEP 2: The operator should remain in the vehicle seat and run the auger in reverse. A second person, standing a safe distance away from the Auger Bucket, should use a hose to add water to the discharge end of the bucket.

DANGER

Keep clear of auger while in operation. Never position the material by hand or with any tool when the auger is rotating.

DANGER

Never reach into discharge end of auger.

STEP 3: After most of the material has been cleaned from the bucket, raise the bucket and tilt it forward. This will allow the second person, standing a safe distance away from the Auger Bucket, to use the hose to rinse out any remaining material.

STEP 4: Level the Auger Bucket, and lower it to the ground.

STEP 5: Shut off the vehicle engine, lower the arms, relieve all hydraulic pressure (by activating the vehicle controls), and remove the vehicle key before leaving the vehicle seat.

WARNING

Before disconnecting hydraulic lines or fittings be sure to relieve all pressure by cycling all hydraulic controls after shutdown. Remember hydraulic systems are under pressure whenever the engine is running and may hold pressure after shutdown.

STEP 6: Disconnect the hydraulic hoses from the vehicle's auxiliary hydraulics.

STEP 7: Remove the cotter pin, and lift the splash shield at the discharge end of the bucket. Clean it with water. Make sure there is not any material between the auger and the discharge casing.

STEP 8: Replace the splash shield, and secure it with the cotter pin.

STEP 9: Coat the bucket with a water based releasing agent. Do not allow concrete to dry in the bucket or water to freeze in the bucket. This will cause damage to the rubber flighting and damage the bucket itself.

Removal & Storage

Before storage, the Auger Bucket should be thoroughly cleaned per the instructions in the Clean Up section. Always store the Auger Bucket in a dry location. Do not allow concrete to dry in the bucket or water to freeze in the bucket. This will cause damage to the rubber flighting and damage the bucket itself.

STEP 1: Lower the Auger Bucket onto a flat, level surface.



Never allow anyone under the attachment at any time.

STEP 2: Shut off the vehicle engine, lower the arms, relieve all hydraulic pressure (by activating the vehicle controls), and remove the vehicle key before leaving the vehicle seat.



Before disconnecting hydraulic lines or fittings be sure to relieve all pressure by cycling all hydraulic controls after shutdown. Remember hydraulic systems are under pressure whenever the engine is running and may hold pressure after shutdown.

STEP 3: Disconnect the hydraulic hoses from the vehicle's auxiliary hydraulics.

NOTE

Connect quick couplers together to prevent contaminants from entering the bucket hydraulic system.

STEP 4: Follow your vehicle operator's manual for removing an attachment.

STEP 5: Coat the bucket with a water based releasing agent.



Do not coat the bucket with a petroleum based cleaning agent. Damage to rubber components will occur.



Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, maintenance, service, removal, or movement of the Auger Bucket.

PROBLEM	POSSIBLE CAUSE	SOLUTION
<i>Slow Speed</i>	<ul style="list-style-type: none"> a) Low flow b) Fittings or connections are too small or incompatible c) Line restrictions d) Dirty oil or oil filter e) Hydraulic pump worn or damaged 	<p>Check with flow meter. If low, investigate the cause.</p> <p>Replace with proper fittings.</p> <p>Clear lines.</p> <p>Change oil and oil filter according to vehicle manufacturer's recommendation.</p> <p>See your dealer for repairs.</p>
<i>Lacks Mixing/ Discharge Power</i>	<ul style="list-style-type: none"> a) Low system pressure (PSI) 	<p>Check with pressure gauge. If low, investigate the cause.</p>
<i>Oil Leaks</i>	<ul style="list-style-type: none"> a) Fittings loose or damaged b) Hoses loose or damaged c) Hydraulic motor seals worn or damaged 	<p>Tighten or replace fittings.</p> <p>Tighten or replace hoses.</p> <p>See your dealer for repairs.</p>
<i>Oil Over Heating</i>	<ul style="list-style-type: none"> a) Low quantity of hydraulic oil b) Improper oil c) Dirty oil or oil filter d) Fittings damaged e) Hoses damaged f) Improper hose size 	<p>Fill reservoir to proper level. Increase reservoir storage capacity.</p> <p>Replace with proper oil.</p> <p>Change oil and oil filter according to vehicle manufacturer's recommendation.</p> <p>Replace fittings.</p> <p>Replace hoses.</p> <p>Check hose diameter and length requirements.</p>
<i>Hydraulic Hose Failure</i>	<ul style="list-style-type: none"> a) Hydraulic relief pressure setting too high b) Hoses worn or damaged c) Hose rating too low for hydraulic system pressure d) Hoses pinched 	<p>Adjust vehicle hydraulic relief pressure setting.</p> <p>Replace hoses.</p> <p>Replace with hoses with working pressure rated higher than vehicle hydraulic pressure.</p> <p>Reroute hoses.</p>

For additional assistance, please call your dealer or contact Spartan Equipment direct:

Phone: 1-888-888-1085

E-mail: contact@SpartanEquipment.com

Maintenance

The Auger Bucket is practically maintenance free. There is only one grease zerk used to lubricate the motor seal. The zerk is located in the motor mounting plate. Grease the motor seal every 40 hours.

Thoroughly clean the Auger Bucket after each use, and apply a water based, non-corrosive releasing agent. Do not allow concrete to dry in the bucket or water to freeze in the bucket. This will cause damage to the rubber flighting and damage the bucket itself.

Service



DANGER

Never attempt repairs or adjustments while the equipment is in operation.

Rubber flighting disc replacement should be done only when performance has been reduced or material leaks out of the discharge end when the auger is not rotating. It is not necessary to replace all of the rubber flights at once. Replace only the flights that have extensive wear (usually the ones at the discharge end of the auger).

NOTE

Use genuine Spartan Equipment replacement parts only. Substitute parts may not meet the standards required for safe, dependable operation.

STEP 1: Lower the Auger Bucket onto a flat, level surface.



DANGER

Never allow anyone under the attachment at any time.

STEP 2: Shut off the vehicle engine, lower the arms, relieve all hydraulic pressure (by activating the vehicle controls), and remove the vehicle key before leaving the vehicle seat.

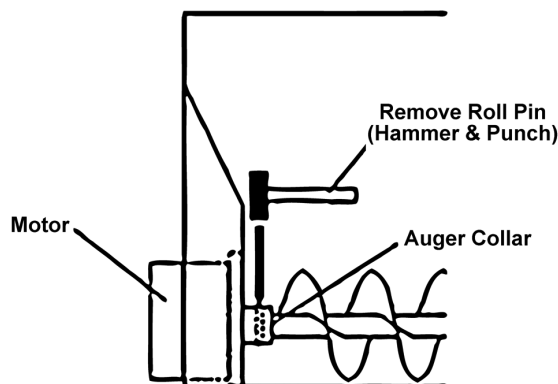


WARNING

Before disconnecting hydraulic lines or fittings be sure to relieve all pressure by cycling all hydraulic controls after shutdown. Remember hydraulic systems are under pressure whenever the engine is running and may hold pressure after shutdown.

STEP 3: Disconnect the hydraulic hoses from the vehicle's auxiliary hydraulics.

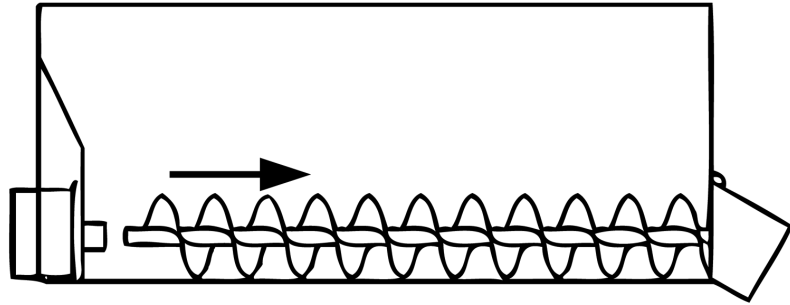
STEP 4: Using a 5/16" punch and hammer, remove the spring pin in the auger collar.



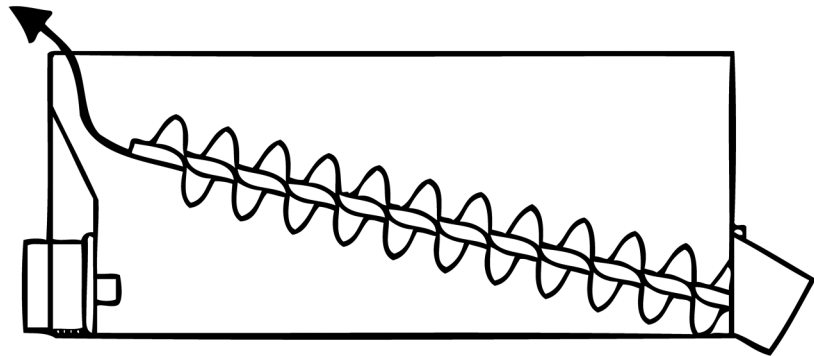
Service

(continued)

STEP 5: Slide the auger away from the motor until the collar clears the shaft.



STEP 6: Pull up and slide the auger toward the motor end of the bucket until the auger is free of the discharge casing.



STEP 7: Place the auger on a secure work platform. Use a hammer and chisel to remove the lock nuts from the flights to be replaced.

NOTE One disc has been cut down in size. This disc replaces the disc closest to the motor end of the bucket.

STEP 8: Using the supplied hardware, replace worn rubber flights per the instructions below.

NOTE Mixing augers require seven sets of hardware per flight, and discharge augers require four sets of hardware per flight.

Mixing Flight Replacement



Wear Face
Belting

Motor End Discharge End

Install the first seven rubber discs with the wear face toward the motor end of the bucket. Install the rest with the wear face toward the discharge end of the bucket.

Discharge Flight Replacement

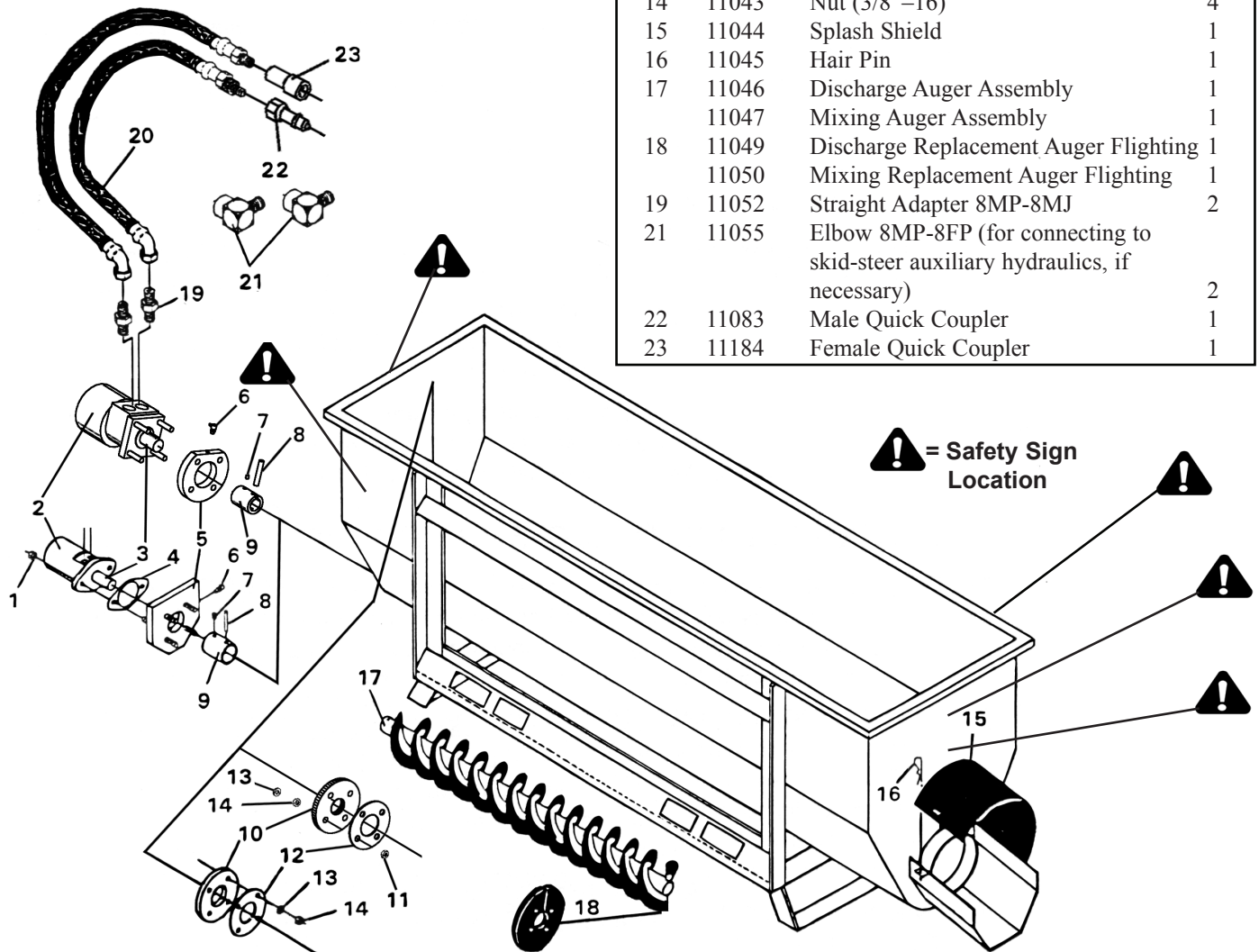


Belting
Wear Face

Motor End Discharge End

Install all rubber discs with the wear face toward the discharge end of the bucket.

Parts

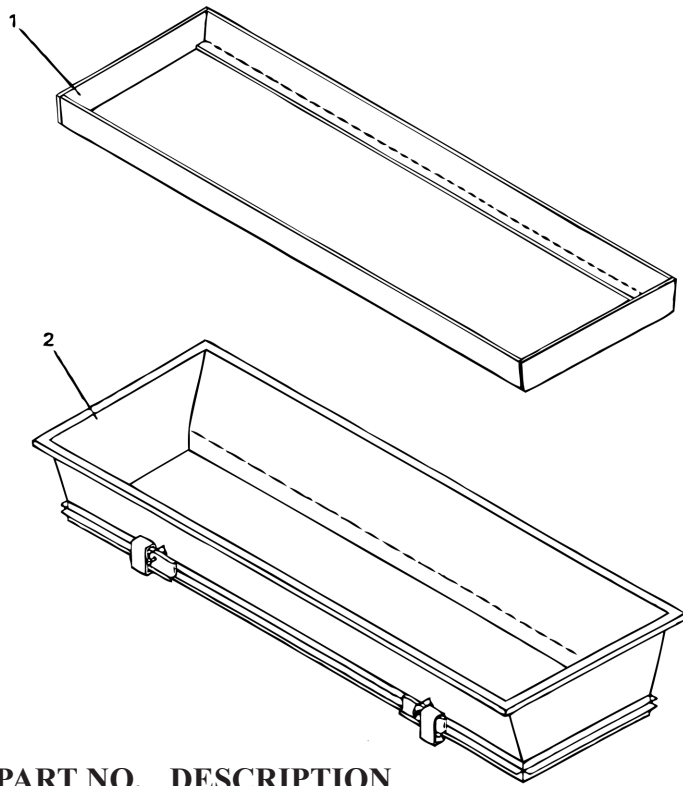


SHARED PARTS BY ALL MODELS			
REF. PART		DESCRIPTION	QTY.
NO.	NO.		
3	11033	Key	1
6	11036	90° Grease Zerk (1/4"-28)	1
13	11042	Lock Washer (3/8")	4
14	11043	Nut (3/8"-16)	4
15	11044	Splash Shield	1
16	11045	Hair Pin	1
17	11046	Discharge Auger Assembly	1
	11047	Mixing Auger Assembly	1
18	11049	Discharge Replacement Auger Flighting	1
	11050	Mixing Replacement Auger Flighting	1
19	11052	Straight Adapter 8MP-8MJ	2
21	11055	Elbow 8MP-8FP (for connecting to skid-steer auxiliary hydraulics, if necessary)	2
22	11083	Male Quick Coupler	1
23	11184	Female Quick Coupler	1

! = Safety Sign Location

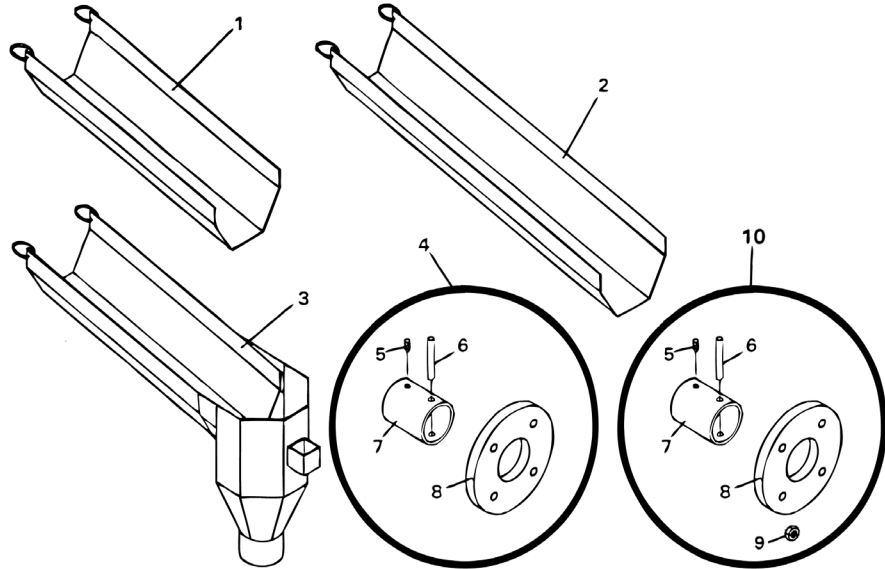
STANDARD HYDRAULIC MOTOR MODELS 3110, 3112, AND 3120			
REF. PART		DESCRIPTION	QTY.
NO.	NO.		
2	11059	Standard Hydraulic Motor	1
5	11058	Motor Mounting Plate	1
	11061	Hub and Seal Kit (Includes REF. NOS. 7-11)	1
7		Set Screw (5/16" x 19/64")	1
8		Roll Pin (3/8" x 2")	1
9		Collar	1
10		Motor Seal	1
11		Nut-Stover (3/8"-16)	4
12	11060	Seal Retainer	1
20	11053	Standard Motor Hose Assembly (1/2" x 84")	2

HEAVY SERVICE HYDRAULIC MOTOR MODELS 2210, 2220, AND 2312			
REF. PART		DESCRIPTION	QTY.
NO.	NO.		
1	11030	Nut (1/2"-13)	2
2	11032	Heavy Service Hydraulic Motor	1
4	11034	Motor Spacer	2
5	11035	Motor Mounting Plate	1
	11022	Hub and Seal Kit (Includes REF. NOS. 7-10)	1
7		Set Screw (5/16" x 19/64")	1
8		Roll Pin (3/8" x 2")	1
9		Collar	1
10		Motor Seal	2
12	11041	Seal Retainer	1
20	11054	Heavy Service Motor Hose Assembly (1/2" x 84")	2



REF. NO.	PART NO.	DESCRIPTION	QTY.
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1	11015	Scraper Blade (Welding Required for Field Installation)	1
2	11017	3/4 Yard Hopper Extension	1



REF. NO.	PART NO.	DESCRIPTION	QTY.
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1	11019	24" Chute (Included with Auger Bucket)	1
2	11020	36" Chute (Included with Auger Bucket)	1
3	11021	4" Hose Adapter (24" Chute with Adapter)	1
4	11022	Hub and Seal Kit (Includes REF. NOS. 5-8) For Models 2210, 2220, and 2312	1
5		Set Screw	1
6		Roll Pin (3/8" x 2")	1
7		Collar	1
8		Motor Seal	1
9		Nut-Stover (3/8"-16)	4
10	11061	Hub and Seal Kit (Includes REF. NOS. 5-9) For Models 3110, 3112, and 3120	1

Decals & Safety Signs

WARNING

Clean or replace all safety signs if they cannot be clearly read and understood.

PART NO. DIG20
Locations: front & rear

AUGER BUCKET

WARNING



HIGH-PRESSURE FLUID HAZARD
To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.

DIG5

PART NO. DIG5
Location: motor end



Model No. & Serial No.



PART NO. DIG13
Locations: front & rear

DANGER



Read and understand Operator's Manual before operating or servicing attachment.

Si no entiende ingles, se prefiere que busque a alguien que interprete las instrucciones para usted.

TO PREVENT SERIOUS INJURY OR DEATH:

- If you do not have an Operator's Manual, call Danuser Machine Co., Inc. at (573) 642-2246.
- Only trained personnel should operate this attachment.
- Allow no riders on vehicle or attachment. Keep bystanders away from work area.
- Operate only from the vehicle seat.
- Carry load low. Use extra caution on uneven ground and inclines.
- Do not exceed vehicle rated operating load. Use sufficient counterweights. Move slowly when attachment is raised.


DIG13

PART NO. DIG19
Location: discharge end

DANGER



ENTANGLEMENT HAZARD



CRUSHING HAZARD

TO PREVENT SERIOUS INJURY OR DEATH:

- Clear area of bystanders before operating attachment.
- Stay clear of auger when in operation.
- Keep hair, hands, feet, and loose clothing clear of moving parts.
- Stop attachment before adjusting or servicing.
- Never allow anyone under attachment at any time.

DIG19

PART NO. DIG15
Location: discharge end

WARNING

- Wear appropriate eye, ear, foot, and hand protection.
- Never reach into discharge end of auger.
- Never attempt repairs or adjustments while attachment is in operation.
- Stop engine, lower arms, and relieve all hydraulic pressure before leaving vehicle seat.

DIG15

LIMITED WARRANTY

Spartan Equipment warrants its products, under normal use and maintenance, to be free from defects in material and workmanship for periods specified below from the purchase date from an authorized Spartan Equipment Dealer. Start of the warranty period is determined by purchase date given on your returned WARRANTY REGISTRATION FORM. Proof of purchase may be required. This Limited Warranty is extended only to the original purchaser of Spartan Equipment products.

Auger Bucket - 1 Year

1. During the applicable warranty period, Spartan Equipment, at its option, will repair or replace any part determined by Spartan Equipment to be defective. Such repair or replacement shall take place at Spartan Equipment's factory or a location designated by Spartan Equipment. Under no circumstances shall Spartan Equipment be obligated for the cost of any repair or replacement by anyone other than Spartan Equipment without its express written consent.
2. Parts may not be returned without written authorization from Spartan Equipment.
3. Some purchased components, including but not limited to hydraulic components are subject to the inspection and warranty of the respective manufacturer. Thus, delays in a warranty determination can be expected while Spartan Equipment awaits their decision.
4. This warranty is void if any attempt is made to make field repairs to hydraulic components. To qualify for warranty inspection, the "failed" part must be returned in its original "failed" condition.
5. To make a claim under this warranty, first contact your authorized Spartan Equipment Dealer. The Spartan Equipment Dealer shall complete the Warranty Claim Form and obtain written authorization from Spartan Equipment to return parts. All warranty claims must include detailed information regarding make and model of vehicle on which the Spartan Equipment product was mounted, hours of use, description of events that led up to the failure, and any other information helpful in reviewing the warranty claim. All warranty returns must be prepaid. Shipments arriving at our factory on a freight collect basis will be refused by our receiving department. The freight charge will be credited if the parts are determined by Spartan Equipment to be defective, and the associated freight costs in returning those parts will be prepaid by Spartan Equipment. **NOTE:** Hydraulic motors must arrive with all ports sealed from dirt and moisture. If a motor arrives with open ports, the warranty is void and no inspection will be made.
6. Products or parts thereof which, as determined by Spartan Equipment's examination, show wear from normal use, have been improperly operated, damaged by accident or negligence, field repaired, altered or modified are not considered defective in material and workmanship and are not covered by this warranty. This warranty does not apply to parts subject to normal wear, such as auger flighting, or to damage caused by the failure to perform recommended maintenance or to replace worn parts. This warranty shall not obligate Spartan Equipment to bear any cost of labor for field repair, replacement, testing, or adjustment nor for damage caused by accident, abuse, misuse, or environmental elements.
7. Any parts or labor required to repair or replace parts not covered under this warranty will be charged to the customer. Parts repaired or replaced by Spartan Equipment are then covered by this warranty only for the remainder of the original warranty as if such parts were original parts.
8. Spartan Equipment reserves the right to change its specifications and designs at any time.

This warranty is exclusive and in lieu of all other express warranties, if any, including the implied warranties of merchantability and fitness for a particular purpose. It shall not extend beyond the duration of the expressed warranty provided herein and the remedy for violations of any implied warranty shall be limited to repair or replacement of the defective part pursuant to the terms contained herein. No employee, dealer, salesman, or representative is authorized to change this warranty in any way or grant any other warranty. Spartan Equipment shall not be liable for any consequential, incidental, or punitive damages, losses, or expenses, including those resulting from or caused by any defects.

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