

TITAN IMPLEMENT



6000 Series Moldboard Plows

OPERATION AND PARTS MANUAL

Read and understand the manual. This manual provides information and procedures to safely operate and maintain the Moldboard Plow.



January 2016

Pre-Delivery Checklist

The Dealer should inform the Purchaser of this product of the Warranty terms, provisions, and procedures that are applicable. The Dealer and Purchaser should review the contents of the Operation and Parts Manual including safety equipment, safe operation and maintenance, review the Safety Signs on the implement (and tractor, if necessary), and the Purchaser's responsibility to train their operators in correct operating procedures.

- MOUNTED IMPLEMENTS: I have explained that Deflectors, Guards, or Shields must be installed and maintained in good repair, and that the operator is responsible for watching out for persons in the work area.

PRE-DELIVERY SERVICE CHECK AND ADJUST AS REQUIRED

See Operation and Parts Manual for Details

Inspection Performed - Warranty and Safety Procedures Explained - Installation Complete

IMPLEMENT TO TRACTOR CONNECTIONS

IMPLEMENT

- Review Procedure to Adjust Plow
- Make Sure All Hardware is Properly Tightened

ATTACHMENTS & INSTALLATION

- Make Sure All Bolts, Pins, and Nuts are Properly Installed and Tightened

- Make Sure A-Frame Pivot and Links are Properly Installed

- Make Sure Lift Arms are Adjusted Equally

- Complete All Pre-Operation Checks

SAFETY ITEMS

- Make Sure Protective Shields are Properly Installed

- Review Operation and Parts Manual (Supplied)

- Make Sure Tractor PTO Shield is Installed

- Make Sure S.M.V. Sign is Installed, if Needed (Customer Supplied)

I have thoroughly instructed the purchaser on the above-described equipment. This review included the Operation and Parts Manual contents, equipment care, adjustments, safe operation, and applicable warranty policy.

Date _____

Dealer Rep. Signature _____

The above equipment and Operation and Parts Manual have been received by me, and I have been thoroughly instructed as to equipment care, adjustments, safe operation, and applicable warranty policy.

Date _____

Purchaser's Signature _____

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2. INTRODUCTION

2.1 Welcome



6200 Series Moldboard Plow

Congratulations on your choice of a Titan Implement moldboard plow. This equipment has been designed and manufactured to meet the needs of discerning users.

The Titan Implement moldboard plow is designed to turn over soil for primary tillage.

Many features incorporated into this moldboard plow are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the moldboard plow safely and how to adjust it to provide maximum plowing efficiency.

By following the operating instructions in conjunction with a good maintenance program, your Titan Implement moldboard plow will provide many years of trouble-free service.

This manual covers Titan Implement moldboard plow models:	
Model	Description
6112M	Mini-plow
6112	1-bottom, 12"
6114	1-bottom, 14"
6116	1-bottom, 16"
6212	2-bottom, 12"
6214	2-bottom, 14"
6216	2-bottom, 16"

2.2 Safe Operation

Safe, efficient, and trouble-free operation of your moldboard plow requires that you, and anyone else who will be using or maintaining the unit, read and understand the information contained within this Manual.

Use this manual for reference and for new operators or owners.

⚠ WARNING



Read And Understand Manual

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! The moldboard plow, if not used and maintained properly, can be dangerous to users unfamiliar with its operation. Do not allow operating, maintaining, adjusting, or cleaning of this moldboard plow until the user has read this manual and has developed a thorough understanding of the safety precautions and functions of the unit.

This moldboard plow is designed for the specific purpose of plowing soil. DO NOT modify or use this moldboard plow for any application other than that for which it was designed.

Moldboard plows maintained or operated improperly or by untrained personnel can be dangerous; exposing the user and/or bystanders to possible serious injury or death.

2.3 Specifications

One Bottom

Model	6112M	6112	6114	6116
Horsepower Required	18	18	22	25
Hitch	CAT I			
Plowshare Width	12"	14"	16"	

Two Bottom

Model	6212	6214	6216
Horsepower Required	36	44	50
Hitch	CAT I		
Plowshare Width	12"	14"	16"

Specifications subject to change without notice.

2.4 Intended Usage

Do not use this moldboard plow for any other purpose than its intended use of plowing soil.

2.5 Operator Orientation

The directions left, right, front, and rear, as mentioned throughout this manual, are as seen from the tractor operator's seat and facing in the direction of travel.

2.6 Serial Number Location (Typical)

The serial number decal is located on the front of the frame.



Model Number _____

Serial Number _____

2.7 Product Improvements

Because Titan Implement, LLC maintains an ongoing program of product improvement, we reserve the right to make improvements in design or changes in specifications without incurring any obligation to install them on units previously sold.

2.8 Disposal of Equipment at End of Useful Life

The Titan Implement, LLC moldboard plow has been designed for the specific purpose of plowing soil. When this unit is no longer capable of doing its designed purpose, it should be dismantled and scrapped. Do not use any materials or components from this unit for any other purpose.

2.9 Unanswered Questions

If you have any questions not answered in this manual, require additional copies, or the manual is damaged, please contact your dealer or:

Titan Implement, LLC
P.O. Box 649
232 Industrial Lane
Decatur, TN 37322

Phone: (423) 334-0012
Fax: (423) 334-0023

The manual is also available for download at:
www.titanimplement.com

1. Select "Products".
2. Select "Moldboard Plows".
3. Click the "Specs., Manuals, Warranty" tab.
4. Click "Download Manual".

3. Safety

3.1 General

Safety of the operator and bystanders is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling the equipment.

Most work-related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you assemble, operate, or maintain the moldboard plow (unit), you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly or maintenance procedures.

Improper operation and maintenance of this unit could result in a dangerous situation that could cause injury or death.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or:

Titan Implement, LLC
P.O. Box 649
232 Industrial Lane
Decatur, TN 37322
Phone: (423) 334-0012
Fax: (423) 334-0023

WARNING



Do not assemble, operate, or maintain the unit until you read and understand the information contained in this manual.



Safety precautions and warnings are provided in this manual. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

Titan Implement, LLC cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual are, therefore, not all-inclusive. If a method of assembly, operation, or maintenance not specifically recommended by us is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and can change at any time without notice.

3.2 Safety Alert Symbols



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers' attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS


Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: Contains additional information important to a procedure.

3.3 Safety Icon Nomenclature

Pictorial icons signal a type of hazard and warn of personal protection issues, prohibited actions, and hazard avoidance.

3.3.1 Personal Protection/ Important Information







-  Read the manual
-  Maintenance procedure
-  Damaged hazard label
-  Eye protection
-  Fire extinguisher
-  First aid kit
-  Hand protection
-  Head protection
-  Hearing protection
-  Inspect equipment
-  OEM parts only
-  Protective shoes
-  Remove key
-  Set parking brake
-  Stop engine
-  Think safety
-  Transmission in park
-  Use proper support
-  Use proper tools

-  Use two people when lifting heavy objects
-  Visibility
-  Rollover protection
-  Wear seat belt
-  Weight rating

3.3.2 Prohibited Actions

-  Do not alter or modify
-  Use proper tools
-  Do not weld
-  No alcohol
-  No drugs
-  No smoking
-  No young children
-  No riders

3.3.3 Hazard Avoidance

-    Crush hazard
-  Crush hazard (chock wheels)
-  Crush hazard (foot)
-  Defective or broken part

-  Fall hazard
-  Fire hazard
-  Plow share contact hazard (hand)
-  Plow share contact hazard (foot)
-  Lifting hazard
-  Cutting hazard
-  Pinch point hazard
-  Rollover protection
-  Safety alert symbol
-  Sharp object hazard
-  Slipping injury
-  Tripping injury

3.4 General Safety Instruction

The owner/operator is responsible for the SAFE use and maintenance of the moldboard plow. Make sure anyone who is operating, maintaining, or working around the moldboard plow is familiar with the operating and maintenance procedures and related SAFETY information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be used while using the moldboard plow.

In addition to the design features of the moldboard plow, including safety signs, accident prevention is dependent upon the awareness, concern, prudence, and proper training of the people involved in the operation, maintenance, and storage of the moldboard plow.

In addition to this safety section, refer also to safety messages and instructions in each of the appropriate sections of this manual.

These general safety instructions apply to the overall use and maintenance of the moldboard plow.

More specific instructions on safety are found in the operation, maintenance, and storage sections of this manual. Refer to these sections before performing any of these tasks.

WARNING

Failure to comply with the following safety instructions could result in serious injury and possibly even death.



Provide User with Literature
Titan Implement, LLC moldboard plow owners must provide operator instructions to anyone using the moldboard plow before use, and at least annually thereafter. Refer to “3.6 OSHA Training Requirements” on page 12.



Stay Clear
Clear the area of people, especially small children, before using the moldboard plow. Under no circumstances should young children be allowed to work with or around the moldboard plow.



Impaired User Hazard
Do not attempt to assemble, operate, or maintain this moldboard plow under the influence of drugs or alcohol. Consult your doctor before using this moldboard plow while taking prescription medications.

WARNING



Crush Hazard

Do not allow anyone to ride on the tractor or the moldboard plow. Falling or crushing hazards can result in severe injuries or death.



Damaged Parts Hazard

Do not use the moldboard plow if any parts are damaged. If the moldboard plow has a defect, immediately stop using it and remedy the problem before continuing.

CAUTION

The following safety instructions are provided to help prevent potential injury. Not following these instructions could result in minor to moderate injury.

Personal Protection Equipment

When using this moldboard plow, wear appropriate personal protective equipment. This list may include, but is not limited to:



- Protective shoes with slip resistant soles
- Protective goggles, glasses, or face shield
- Protective clothing and gloves
- Safety vest (when operating near roads)
- Hearing protection



Hearing Loss

Prolonged Exposure To Loud Noise May Cause Permanent Hearing Loss!

Working environments with noise-producing equipment can cause partial to permanent hearing loss. We recommend using hearing protection any time noise levels exceed 80 decibels (dB). Noise levels over 85 dB, on a long-term basis, can cause severe hearing loss. Noise levels over 90 dB over a period of time can cause permanent and even total hearing loss.

Hearing loss from loud noise is cumulative over a lifetime without hope of natural recovery.



Crush Hazard

The tractor should be equipped with a Roll Over Protective Structure (ROPS) and a seat belt. A crushing hazard can occur if the driver is ejected from the seat while the tractor is in motion. Fasten the seat belt whenever the tractor is moving.

SAFETY INSTRUCTIONS

The following safety instructions are provided to help prevent injury or limit equipment damage.



First Aid Kit

Have a first aid kit available for use should the need arise and know how to use it.



Fire Extinguisher

Have a fire extinguisher available for use should the need arise and know how to use it.



Think SAFETY!

Work SAFELY!

3.5 Training

Anyone who will be using and/or maintaining the moldboard plow must read, clearly understand, and follow ALL safety, operation, and maintenance information presented in this manual and other related OEM manuals.

If you do not understand any information in this manual, see your dealer or contact Titan Implement before proceeding.

Do not use or allow anyone else to use this moldboard plow until all information has been reviewed. Annually review this manual before the season start-up.

Make periodic reviews of SAFETY and OPERATION of the moldboard plow a standard practice. An untrained operator is not qualified to use this moldboard plow.

3.6 OSHA Training Requirements

The following training requirements have been taken from Title 29, Code of Federal Regulations Part 1928.57 (a) (6). www.osha.gov.

Operator instructions. At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee who operates an agricultural tractor and implements in the safe operating practices and servicing of equipment with which they are or will be involved, and of any other practices dictated by the work environment.

3.7 Federal Laws and Regulations

IMPORTANT FEDERAL LAWS AND REGULATIONS CONCERNING EMPLOYERS, EMPLOYEES AND OPERATORS

This section is intended to explain in broad terms the concept and effect of the following federal laws and regulations. It is not intended as a legal interpretation of the laws and should not be considered as such.

U.S. PUBLIC LAW 91-596 (The Williams-Steiger Occupational Safety and Health Act of 1970) OSHA

This Act Seeks:

“ ... to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources ... ”

DUTIES

Sec. 5(a) Each Employer -

- (1) shall furnish to each of its employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to its employees.
- (2) shall comply with occupational safety and health standards promulgated under this Act.
 - (b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his or her own actions and conduct.

OSHA Regulations

Current OSHA regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved.” These will include (but are not limited to) instructions to:

Keep all guards in place when the machine is in operation;

Permit no riders on equipment;

Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning, or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain equipment.

Make sure no one is within 300 feet of machinery before starting the engine, engaging power, or operating the machine.

EMPLOYEE TRACTOR OPERATING INSTRUCTIONS:

1. Securely fasten your seat belt if the tractor has a ROPS.
2. Where possible, avoid operating the tractor near ditches, embankments, and holes.
3. Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
4. Stay off slopes too steep for safe operation.
5. Watch where you are going, especially at row ends, on roads, and around trees.
6. Do not permit others to ride.
7. Operate the tractor smoothly - no jerky turns, starts, or stops.
8. Hitch only to the drawbar and hitch points recommended by tractor manufacturers.
9. When tractor is stopped, set brakes securely and use park lock if available.

Child Labor Under 16 Years Old

Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin #102).

3.8 Sign-Off Form

Titan Implement, LLC follows the general Safety Standards specified by the Farm Equipment Manufacturers Association (FEMA), and the American National Standards Institute (ANSI). Anyone who will be using and/or maintaining the moldboard plow must read and clearly understand ALL safety, operation and maintenance information presented in this manual.

Do not use or allow anyone else to use this moldboard plow until all information has been reviewed. Annually review this manual before the season start-up. Make periodic reviews of SAFETY and OPERATION of the moldboard plow a standard practice. An untrained operator is not qualified to use this moldboard plow.

This sign-off sheet is provided for your records to show that all personnel who will be working with the equipment have read and understand the information in this Operation and arts Manual and have been instructed in the operation of the equipment.

Sign-Off Form		
Date	User's Signature	Owner's Signature

3.9 Operation Safety

Refer to “5.1 User Safety Training” on page 17 for safety recommendations related to using the moldboard plow. All applicable safety recommendations in other sections should also be followed.

3.10 Transporting Safety

Refer to “6.1 Transporting Safety (Road)” on page 24 for safety recommendations related to transporting the moldboard plow. All applicable safety recommendations in other sections should also be followed.

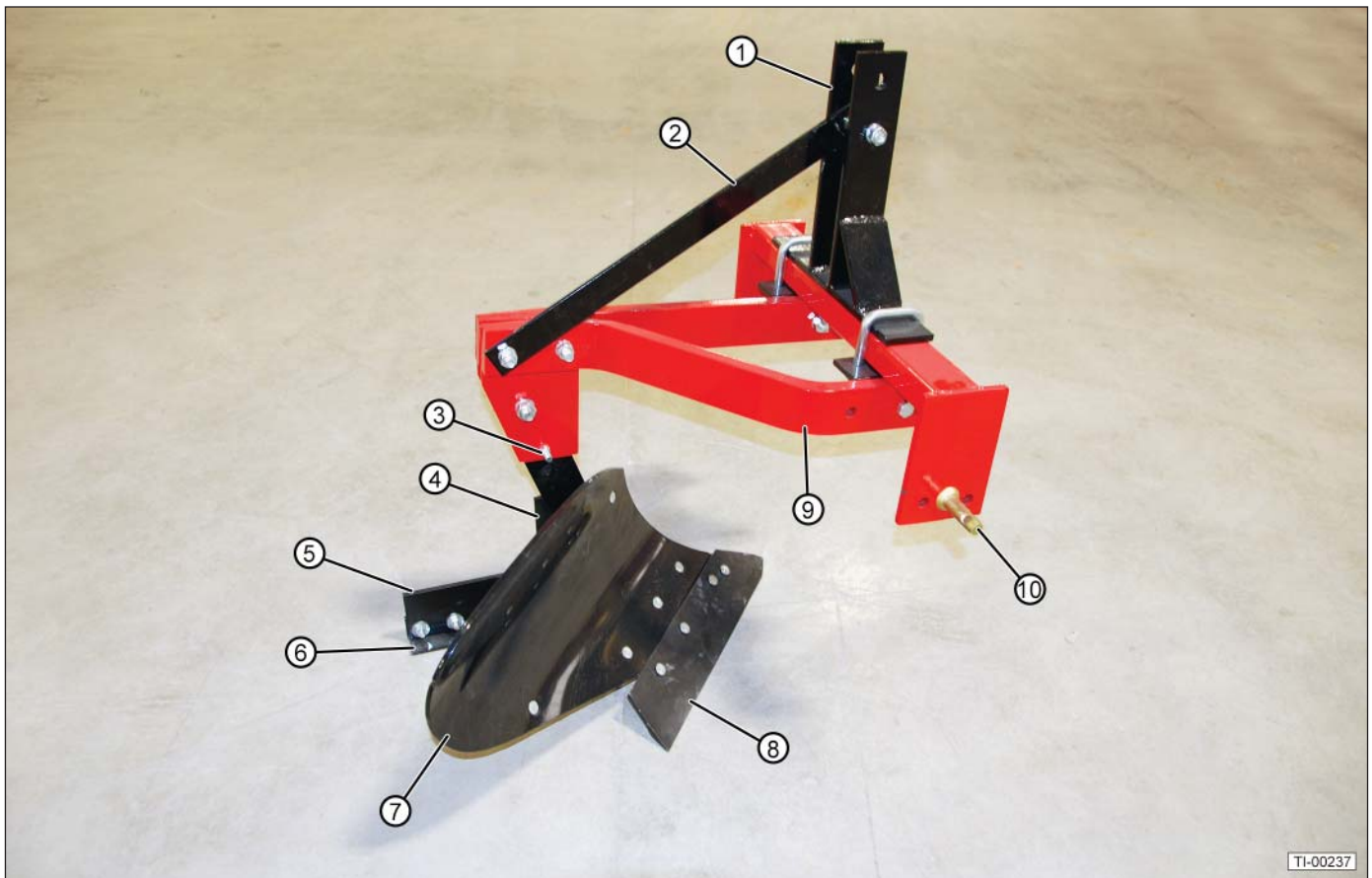
3.11 Storage Safety

Refer to “7.1 Storage Safety” on page 25 for safety recommendations related to storing the moldboard plow. All applicable safety recommendations in other sections should also be followed.

3.12 Maintenance Safety

Refer to “8.1 Maintenance Safety” on page 26 for safety recommendations related to maintaining the moldboard plow. All applicable safety recommendations in other sections should also be followed.

4. Nomenclature



Item	Description
1	A-Frame
2	Back Brace
3	Shear Bolt
4	Frog
5	Landside
6	Skid Shoe
7	Moldboard
8	Plow share
9	Frame
10	CAT I 3-Point Hitch Pin

5. Operation

5.1 User Safety Training

Refer to “3.4 General Safety Instruction” on page 11 for general user safety training requirements.

WARNING



Roll Away Hazard

Before leaving the tractor seat, make sure the engine is stopped, the transmission is placed in park, the key is removed, and the parking brake is set.



The weight of the tractor, plus the implement, if it rolls onto a person, can cause serious crushing injury or death.



Crush Hazard

The tractor should be equipped with a Roll Over Protective Structure (ROPS) and a seat belt. A crushing hazard can occur if the driver is ejected from the seat while the tractor is in motion. Fasten the seat belt whenever the tractor is moving.



Call 811

To avoid serious injury or death from contacting underground utilities, call local utilities to mark the location of all underground cables, pipelines, and other hazards in the area.



Stay Clear

Clear the work area of all unnecessary people and obstructions to prevent personal injury.



Moldboard Plow Contact Hazard (hand)

To avoid serious injury or death, keep away from ground-engaging components. Do not put hands under moldboard plow.



Moldboard Plow Contact Hazard (foot)

To avoid serious injury or death, keep away from ground engaging components. Do not put feet under moldboard plow.

SAFETY INSTRUCTIONS

The following safety instructions are provided to help prevent injury or limit equipment damage.



Train Unfamiliar Users

It is the moldboard plow owner's responsibility to make sure any person using the moldboard plow, especially if it is loaned or rented, has been thoroughly trained on its proper and safe use.

Be certain only physically-able persons will use the moldboard plow.

Untrained users expose themselves and bystanders to possible serious injury or death.

If the elderly are assisting with the work, their physical limitations need to be recognized and accommodated.

Never allow children to operate equipment.

5.2 Tractor Requirements



⚠ WARNING



Tractor Owner/Operator Manual
Always refer to the tractor Operator's Manual to ensure compatibility and maximum safety.

The tractor used to operate the moldboard plow must have the power to lift and pull the moldboard plow at a ground speed between 2 and 5 MPH.

Use the chart to select the tractor horsepower appropriate for your plow. Do not use a tractor of more than the recommended HP to prevent overloading frame components. Increase the power requirement by 25% when operating in hilly, soft or wet conditions.

Model	Recommended HP
6112M	18
6112, 6114, 6116	18, 22, 25
6212, 6214, 6216	36, 44, 50

The tractor must be matched to the weight of the moldboard plow. A minimum of 20% of the combined tractor and equipment weight should be on the front wheels. This will ensure adequate stability during transport and operation.

Always review the “controls” section of the tractor Operator's Manual to be familiar with the location, settings, and function of the tractor controls. Be familiar with all controls before using this equipment.

5.2.1 Tractor Safety Devices

If transporting or operating the tractor and implement near a public roadway, the tractor must be equipped with proper warning lighting and a Slow Moving Vehicle (SMV) emblem, which are clearly visible from the rear of the unit. Lights and a SMV emblem must be attached directly on the implement if the visibility of the tractor warning signals is obscured.

Never operate the tractor PTO with the PTO master shield missing or in the raised position.

5.2.2 ROPS and Seat Belt

⚠ WARNING



Rollover Hazard

To avoid serious injury or death from falling off tractor, equipment rollover, rollover, or crushing:

- 1) Use ROPS equipped tractor.
- 2) Keep ROPS locked in the UP position.
- 3) Only operate the equipment when seated in the tractor seat.
- 4) Always fasten seat belt when operating the tractor and moldboard plow.

The tractor must be equipped with a Roll Over Protective Structure (ROPS) (tractor cab or roll-bar) and seat belt to protect the operator from falling off the tractor, especially during a roll-over where the driver could be crushed and killed. Only operate the tractor with the ROPS in the raised position and seat belt fastened.

5.2.3 Wheel Configuration

Set the tractor wheels so that the right hand tire runs in the plow furrow.

5.2.4 3-Point Hitch

These moldboard plows are designed to be mounted on a tractor CAT I 3-Point or Quick Hitch.

Refer to the tractor operator's manual for the category of the tractor being used. If the hitch does not conform to ASABE CAT I dimensions, the plow may not fit or raise properly. Consult an authorized dealer for possible modification procedures to mount non-conforming hitches. Depending on the hitch category, certain size pins are used to attach the implement to the tractor. CAT I hitches require 7/8" lower and 3/4" upper diameter hitch pins.

Always set the 3-point hitch in the "float" mode to allow the plow to follow the contour of the ground.

Many newer tractors are equipped with "load Sensing" hydraulics. It is the responsibility of the operator to set the tractor hydraulic system to provide "float" on the 3-point hitch. Refer to the tractor Operator's Manual for details.

Install the lift arm stabilizer or shorten the stop chains to place the arms into the non-sway configuration. Refer to the tractor manual for details.

Always install weights on the front of the tractor to provide extra stability and traction. This is particularly important if your tractor is equipped with a front wheel assist option.

5.3 Attaching to Tractor

Use caution when connecting the moldboard plow to the tractor. The moldboard plow should be securely resting on the ground or setting on blocks. Keep hands and feet from under the plow and clear of pinch points between the tractor hitch arms and moldboard plow hitch pins.

WARNING



Crush Hazard

Do not allow anyone to stand between the hitch and implement during hook-up operations. Never operate the hydraulic 3-point lift controls while someone is directly behind the tractor.

1. Shorten or remove the tractor drawbar to avoid interference when raising and lowering the moldboard plow.
 2. Board the tractor and start the engine. Position the tractor with the 3-point lift arms positioned at the same height and to the outside of the moldboard plow hitch pins.
- Note:** Set the 3-point lift control to "Position Control" so that the lift arms maintain a constant height when attaching the moldboard plow. See the tractor Operator's Manual for correct settings when attaching 3-point equipment.
3. Turn off the tractor engine and dismount.
 4. One lift arm at a time, insert hitch pin through the lift arm holes and install retaining pin.
 5. Walk around to the opposite side and repeat the procedure for the remaining lift arm and hitch pin.
 6. Extend or retract 3-point top link to align its end hole with the hole of the moldboard plow's top link. Insert the top link hitch pin and insert the retaining pin into the hitch pin.
 7. Adjust any lower link check chains, guide blocks, or sway blocks to prevent the moldboard plow from swaying side-to-side and possible contact with the tractor rear tires.

5.4 Setting the Moldboard Plow

Properly setting the plow is essential for efficient and safe operation. A properly adjusted moldboard plow will make a more uniform furrow, turn over the soil more evenly, require minimal tractor work, and follow the contour of uneven terrain.

5.4.1 Leveling the Frame

1. Use the screw jack on the right lift arm to level the frame from side-to-side. The cross frame should be level when the plow is in working position with the right tractor tire in the furrow.
2. Use the turnbuckle on the top link to level the frame from front to back. The frame should be parallel to the ground when the plow is at working depth.
3. Place the 3 point hitch in "float" operating mode to allow the machine and the hitch to move up and down as required to follow ground contours.

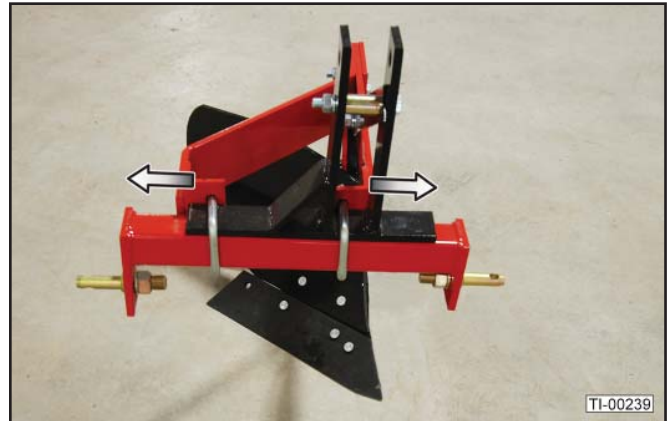
5.4.2 Setting the Depth

The plow point pitch is controlled by the 3-point hitch top turnbuckle link. Shortening the upper link will increase the depth. Lengthening the upper link will decrease the depth.

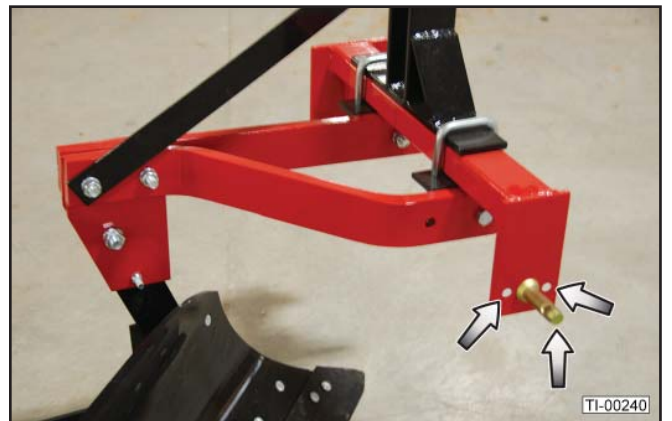
5.4.3 Setting the Width

The plow share on the right hand bottom must be aligned next to the furrow in order to do a clean, even job. The following adjustments can be made to set the trailing position:

1. Cross frame position:
Loosen the "U" bolts holding the frame to the A-frame and slide the plow to one side or the other. Tighten "U" bolts to the proper torque.



2. 3-point hitch:
All 3-point hitches have swaybars, chains or stabilizer bars that can be used to set the angle of the lower lift arms. Refer to your tractor manual for details.
3. Hitch pin position:
The right hand mounting pin can be located in three positions; use in conjunction with the other two methods when setting the width.



5.5 Optional Coulters Kit

Install the optional coulters in heavy trash or ground cover conditions. This will cut through the surface material and make a clear path for the moldboard.

1. Stand the plow upright and block the frame securely to support the plow and keep it from moving.
2. Install the U-bolt through the bracket and plow beam. Slide the coulters stem up from the bottom through the U-bolt.



3. Install the lock nuts. Snug the nuts enough to keep the coulters stem from dropping.
4. Move the coulters to the desired position and tighten the nuts.



5. Remove the blocks or safety stands.

5.5.1 Coulters Adjustment

Adjust the coulters laterally by loosening the U-bolt and twisting the coulters shaft. For average conditions, set the coulters blade between 1/2" and 5/8" to the left of the landside. Adjust the height of the coulters by raising or lowering the coulters shaft. The coulters should be set deep enough to cut trash and leave a clean furrow wall. If set too deep, it will push trash instead of cutting it. In hard soils, raise the coulters to reduce the tendency to lift the plow out of the ground. In softer soils, especially when there is heavy trash, move the coulters down. Be sure to tighten the U-bolt nuts after adjusting the coulters.

5.6 Optional Gauge Wheel Kit

1. Stand the plow upright and block the frame securely to support the plow and keep it from moving.
2. Loosely bolt the gauge wheel adjuster bracket to the beam ahead of the plow share and coulters, if equipped.
3. Slide the depth gauge bar up from the bottom through the adjuster bracket and tighten the nuts.
4. Remove the blocks or safety stands.





5.6.1 Gauge Wheel Adjustment

Adjust the gauge wheel by loosening the nuts and sliding the depth gauge bar through the adjuster bracket. Always re-adjust the gauge wheel after changing the plowing depth. The wheel should not carry too much of the weight.

5.7 Initial Setup Checklist

Efficient and safe operation of the moldboard plow requires that every user read and understand the operational instructions and all related safety instructions outlined in this manual.

This Initial Setup Checklist is provided for the user/owner. It is important for both personal safety and to maintain the mechanical condition of the moldboard plow that this checklist is followed.

Initial Setup Checklist (prior to using for the first time)		
✓	Location	Task
		Make sure the moldboard plow is properly mounted to the 3-point hitch. Refer to "5.3 Attaching to Tractor" on page 19.
		Make sure all hardware is properly installed and tightened. Refer to "8.6 Bolt Torque Requirements" on page 29.
		Check the condition of the ground engaging components. Refer to "8.3 Ground Engaging Components" on page 27.
		Check the plow setup. Adjust if needed. Refer to "5.4 Setting the Moldboard Plow" on page 20.

5.8 Implement Break-In

Although there are no operational restrictions on the moldboard plow when used for the first time, it is recommended that the following mechanical items be checked:

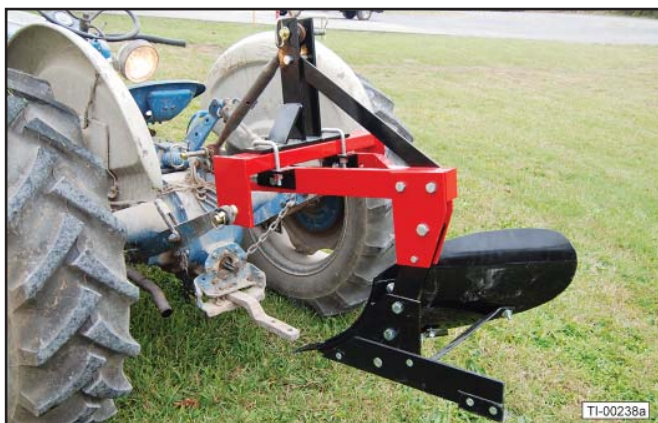
1. After 1/2 hour of operation:
 - a. Check all fasteners and tighten if necessary.
 - b. Make sure that the ground contacting components are in good condition.
 - c. Check that the coulter wheel turns freely (If equipped).
 - d. Lubricate the coulter wheel bearing.
2. After 10 hours of operation:
 - a. Go to the normal servicing and maintenance schedule, as defined in the Maintenance Section.

5.9 General Operating Instructions

Although the moldboard plow is easy to use, each operator should review this section to familiarize themselves with the detailed safety and operating procedures. When using this machine, follow this procedure:

1. Use only an appropriately sized tractor to pull the moldboard plow. Refer to "5.2 Tractor Requirements" on page 18.
2. Inspect the overall moldboard plow for potential problems or damage. Do not use the moldboard plow if it needs repairs of any type.
3. Clear the area of bystanders, especially small children.
4. Clear the area to be worked of stones, branches, debris, and any hard objects that may be struck. Never allow the plow to contact solid objects while operating.
5. Mark the location of objects that cannot be removed.
6. Stay alert and watch for trees, low hanging limbs, power lines, and other overhead obstacles. Use care to avoid hitting these items.

7. Operate the moldboard plow only in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never operate the moldboard plow in darkness or foggy conditions where you cannot clearly see at least 300 feet in front and to the sides of the tractor and moldboard plow. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris, and foreign objects. If you are unable to clearly see these types of items, discontinue operating the moldboard plow.
8. Do not operate the moldboard plow, or drive the tractor into material that is burning, or areas that recently burnt and may contain hot spots. Tire damage can occur when driving over hot material. Oil and grease on the tractor and moldboard plow could ignite, resulting in equipment destruction.
9. Begin plowing at a slow speed, then increase to a speed that gives a clean furrow without lugging the engine. Do not operate above 5 MPH.
10. When you get to the end of a pass, raise the moldboard plow before turning. Do not make turns while the plow is in the ground.



5.10 Detaching From Tractor

1. Move the moldboard plow to a level storage location and lower it to the ground or onto blocks. Park the tractor, place the transmission in park or neutral, and apply the parking brake. Shut down the engine, and remove the key before exiting the tractor.
2. Make sure the moldboard plow is resting securely on the ground or blocks before attempting to disconnect it from the tractor.

WARNING



Crush Hazard

Keep feet and hands from under the moldboard plow and clear of any pinch points caused by the tractor hitch arms and moldboard plow hitch pins. Never operate the hydraulic 3-point lift controls while someone is directly behind the tractor.


3. Extend the tractor 3-point hitch top link to remove tension on the top link hitch pin. When the pin is loose and easy to rotate, remove the pin from the moldboard plow. Disconnect the lift arms.


6. Transporting


6.1 Transporting Safety (Road)


WARNING



The following safety instructions are provided to help prevent serious injury and possibly even death.


 **Tractor Owner/Operator Manual**
Always refer to the tractor owner's manual to determine its compatibility and maximum safety.



 **Operating the Tractor**
Before attaching the moldboard plow to the tractor, be familiar with its controls and how to stop it quickly in the event of an emergency. Read and understand this manual and the one provided with your tractor before transporting the moldboard plow.

 **Fall and Crush Hazard**
Do not allow riders on the moldboard plow or tractor.

 **Maximum Transporting Speed**
Do not exceed 20 MPH when transporting the moldboard plow. Slow down for corners and rough terrain.

  **Visibility**
Clean reflectors, SMV or SIS sign, and lights before transporting. Make sure all the lights and reflectors required by highway and transport authorities are in place and can be seen clearly by all overtaking and oncoming traffic.


 **Regulations**
Make sure all local, state, and federal regulations, regarding the transport of equipment on public roads and highways, are met. Check with the local authorities regarding transporting the moldboard plow on public roads. Obey all applicable laws and regulations.


  **Rollover Protection**
The tractor should be equipped with a Roll Over Protective Structure (ROPS) and a seat belt.


SAFETY INSTRUCTIONS


The following safety instructions are provided to help prevent injury or limit equipment damage.


 **Drive Safely**
Be a safe and courteous driver. Anticipate what other drivers will do and drive accordingly.

 **Allow Extra Distance**
Apply brakes early. Leave extra distance between your vehicle and the one(s) ahead to provide adequate stopping space. Extra distance will be required to stop the vehicle.


 **Clear Vision**
Remove all objects from the area that would prevent clear vision of the complete work area or would present an obstacle when moving the moldboard plow.

 **Hitch Attachment**
Be sure the moldboard plow is securely attached to the tractor and in good operating condition before using.

 **Working Taillights**
Make sure lights on the tractor are working properly.

 **Additional Lighting**
For moldboard plows without lights, install additional lights on the rear of the tractor to safeguard against rear-end collisions. Daybreak and dusk are particularly dangerous and rear pilot vehicles are recommended. Moldboard plows without lights should be transported on public roads only during daylight hours.

 **Hazard Flashers**
Use hazard flashers on the tractor when transporting unless prohibited by law.

 **Right-of-Way**
When travelling below the posted speed limit, keep to the right and yield the right-of-way to allow faster traffic to pass.

7. Storage

7.1 Storage Safety

At the end of the season, the moldboard plow should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent any unnecessary downtime at the beginning of the next season.

CAUTION



Personal Injury Hazard

Store the moldboard plow in an area away from human activity. To prevent the possibility of serious injury, do not permit children to play on or around the stored moldboard plow.



Crush Hazard

Always set the moldboard plow on safety stands or on blocks for storage.

NOTICE

To prevent damage to the moldboard plow, store it in a dry, level area.

7.2 Placing in Storage

1. Remove all entangled vegetation.
2. Thoroughly wash the moldboard plow with a pressure washer or water hose to remove all dirt, mud, or debris.
3. Select an area that is dry, level, and free of debris (inside a building is ideal). Move the moldboard plow to its storage area.
4. Raise the moldboard plow with the 3-point hitch and place on blocks.
5. Disconnect the moldboard plow from the 3-point hitch and drive the tractor away from the moldboard plow. Refer to “5.10 Detaching From Tractor” on page 23. Do not leave the tractor attached to the moldboard plow.
6. Lubricate all grease points. Make sure all grease cavities have been filled with grease to remove any water residue from washing.
7. Liberally coat all ground engaging components with grease to prevent rusting.
8. Touch up all paint nicks and scratches to prevent rusting.

7.3 Removing From Storage

When removing the moldboard plow from storage, follow this procedure:

1. Before placing the moldboard plow back into service, replace any worn or defective parts and perform the Pre-Operation Checklist.
2. Attach the moldboard plow to the tractor 3-point hitch. Refer to “5.3 Attaching to Tractor” on page 19.
3. Raise the moldboard plow up off the blocks.

8. Service and Maintenance

8.1 Maintenance Safety

WARNING

The following safety instructions are provided to help prevent serious injury and possibly even death.



Personal Protection Equipment

Wear close fitting and belted clothing to avoid getting caught in moving parts. Wear personal protection equipment (PPE), which may include hard hat, safety glasses, safety shoes, gloves, etc. appropriate for the work site and working conditions.



Damaged Parts Hazard

Do not use the moldboard plow if any parts are damaged. If the moldboard plow is believed to have a defect which could cause it to work improperly, immediately stop using it and remedy the problem before continuing.



No Unauthorized Modifications

Do not modify the moldboard plow or safety devices. Do not weld on the unit. Unauthorized modifications may impair its function and safety and will void the warranty.

If the moldboard plow has been altered in any way from the original design, the manufacturer does not accept any liability for injury or warranty.



Crush Hazard

Always set the moldboard plow on safety stands or on the ground when performing maintenance.



Good Working Condition

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts.



Replacement Parts

If replacement parts are necessary, genuine factory replacement parts must be used to restore the unit to its original specifications. Titan Implement will not accept responsibility for damages as a result of the use of unapproved parts.

SAFETY INSTRUCTIONS

The following safety instructions are provided to help prevent injury or limit equipment damage.



Clean Work Area

Do not leave tools lying around the work area. Follow good shop practices. Keep service area clean and dry. Be sure electrical outlets and tools are properly grounded. Use adequate light.



Use the Right Tools

Use the correct tools, jacks, hoists, or other tools that have the capacity for the job.



Proper Support

Use certified safety stands rated to support the load when working beneath the moldboard plow, or performing repairs, service, or maintenance.

Before working underneath the moldboard plow place it on blocks or jack stands.

Make sure the jack stands are stable and the moldboard plow is approximately level. Test the stability of the moldboard plow before working underneath.

If the moldboard plow is attached to the tractor, set the brakes, remove the key, chock the tractor wheels, and block the moldboard plow before working underneath.

Tighten the lower 3-point arm anti-sway mechanism to prevent side-to-side movement.

8.2 Greasing

Coat all ground engaging components with rust preventative after each use.

Grease the zerk on the coulter wheel hub (if equipped) every fifty hours of operation. Use an SAE multipurpose lithium base grease.

1. Always use a handheld grease gun for all greasing.
2. Wipe grease zerks with a clean cloth before greasing to avoid injecting dirt and grit.
3. Apply grease until new grease can be seen coming out of the joint.
4. Do not let excess grease collect on or around parts, particularly when operating in sandy areas.
5. Replace any broken grease zerk immediately.
6. If any grease zerk will not take grease, remove and clean it thoroughly. Also clean the lubricant passageway. Replace the zerk if necessary.

8.3 Ground Engaging Components

Ground engaging components are subject to abrasion and wear. Worn components will require replacement. Always use new plow bolts when replacing any ground engaging component.

8.3.1 Plow Share Replacement

1. Remove the four 7/16 x 1-1/2" plow bolts (three for the 6112M).



2. Install the replacement plow share using new plow bolts.

8.3.2 Moldboard Replacement

1. Remove the five 7/16 x 1-1/2" plow bolts (four for the 6112M).



2. Install the replacement moldboard using new plow bolts. Be sure to attach the cross brace with the rear plow bolt.



8.3.3 Skid Shoe Replacement

1. Remove the two 7/16 x 1-1/2" plow bolts holding the skid shoe to the landside.



2. Install the replacement skid shoe using new plow bolts.

8.4 Shear Bolt Replacement

NOTICE

Always use an approved Grade 2 shear bolt as a replacement part. Using a hardened bolt or shear pin may result in damage to the unit.

The plows use a 7/16 x 3" Grade 2 shear bolt.



1. Remove the damaged shear bolt.
2. Align the holes in the bar plate and frog.
3. Install the shear bolt and secure with the lock nut.

8.5 Welding Repairs



Before performing any type of welding repair to the moldboard plow, contact Titan Implement for approval. Repair welding must be done with care and with procedures that may be beyond the capabilities of the ordinary welder.

WARNING



Personal Injury Hazard
Repairs or modifications to the moldboard plow can result in serious injury or death should these repairs fail.

NOTICE

Anyone performing a welding repair should be certified in accordance to the American Welding Society (AWS) standards.

8.6 Bolt Torque Requirements

It is extremely important to apply and maintain proper torque on all bolts. Use a torque wrench to assure the proper amount of torque is being applied to the fastener.

Start all bolts or nuts by hand to prevent cross threading.

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

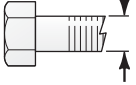
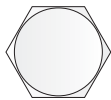


The chart below gives correct torque values for various bolts and cap screws. Tighten all bolts to the torque specified in the charts unless otherwise noted. Check tightness of bolts periodically, using the bolt torque chart as a guide. Always replace hardware with the same Grade bolt.

⚠ WARNING



EQUIPMENT FAILURE

The torque value for bolts and capscrews are identified by their head markings. Replacing higher "Grade" bolts (Grade 5) with lower Grade bolts will lead to equipment failure and can result in injury or death. Always use replacement bolts with the same Grade markings as the removed bolt.

Bolt Diameter 	English Bolt Torque Specifications					
	Grade 2 		Grade 5 		Grade 8 	
	N·m	ft.lbs.	N·m	ft.lbs.	N·m	ft.lbs.
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	158	305	220
3/4"	225	165	390	290	540	398
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970

8.7 Service Record

The period recommended is based on normal operating conditions. Severe or unusual conditions may require more frequent service.

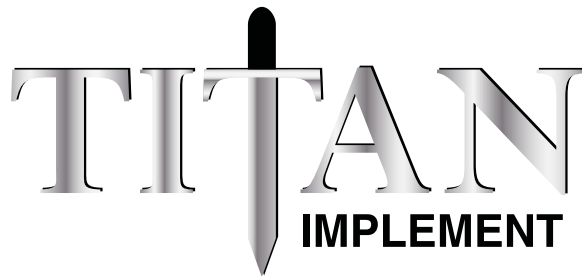
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Hours and Serviced By																			
Maintenance																			
Before Each Use																			
Make sure all retainer clips and cotter pins are in place.																			
Inspect the ground engaging components for wear and damage.																			
After Each Use																			
Coat all groundengaging components with rust preventative.																			
Inspect the ground engaging components for wear and damage.																			
Every 50 Hours																			
Grease coulter wheel hub (if equipped).																			
Annually																			
Grease coulter wheel hub (if equipped).																			
Make sure all fasteners are properly tightened.																			
Inspect the ground engaging components for wear and damage.																			
Make sure the 3-point hitch pins and retainer clips are in good condition. Do not use homemade or shop-made pins.																			
Inspect the hitch A-frame and braces for wear and damage.																			
Wash the moldboard plow.																			

9. Troubleshooting

PROBLEM	CAUSE	SOLUTION
Plow will not enter the ground.	Wrong hitch setting.	Set the 3-point hitch to 'Float'.
	Hard ground.	Add weight to plow frame and/or tractor.
	Ground engaging components worn.	Replace worn components.
Plow goes too deep.	Too much weight.	Remove weight from plow frame.
Plow cutting too wide.	Width adjustment incorrect.	Adjust width. Refer to "5.4.3 Setting the Width" on page 20.
Plow plugs with vegetation.	Vegetation hanging up on plow share.	Install coulter wheel.
Plow pulls hard.	Rust on ground engaging components.	Clean rust from moldboard.
Moldboard will not polish.	New or rusty moldboard.	Clean moldboard frequently until it becomes polished.
Shear bolt breaks.	Plow is striking obstructions in ground.	Clear area to be plowed of obstructions.

10. Warranty



TITAN IMPLEMENT LIMITED WARRANTY

TITAN IMPLEMENT, LLC. (the "Manufacturer") warrants, only to the original Purchaser, this equipment will be free from defects in material and workmanship, under normal use and service, for one (1) year from the date of purchase providing this equipment is purchased for individual use only. **Commercial use of this equipment is not covered under any warranty.** This warranty does not apply to any equipment which has been damaged or which has been subjected to change, misuse, negligence, abnormal wear and tear, alterations, tampering, or failure to follow operating instructions. This warranty does not cover any product or parts not manufactured by Titan Implement, LLC.

Shearbolts must be approved Grade 2 shearbolts.

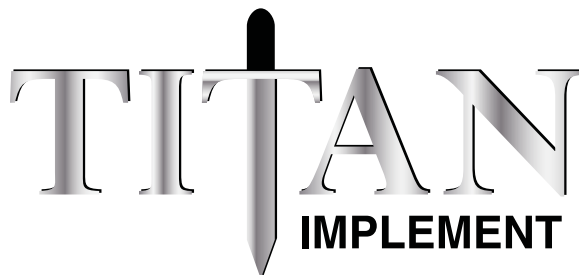
Under this warranty, the Manufacturer will repair or replace any part which the Manufacturer determines has failed during the period of the warranty due to defects in material or workmanship. After written approval by the manufacturer, the equipment or defective part must be returned to Titan Implement, LLC.

Warranty coverage and performance is expressly conditioned upon the return of the completed registration form to Titan Implement, LLC, PO Box 649, Decatur, Tennessee 37322.

Titan Implement, LLC reserves the right to make improvements and changes in specifications without notice or obligation to modify previously sold units. The Owner's Manual describes the proper assembly procedures for your implement and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.

PURCHASER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Purchaser and Titan Implement, LLC hereby (a) submit to the non-exclusive jurisdiction of the courts of competent jurisdiction in Meigs County, Tennessee, and the United State District Court for the Eastern District of Tennessee for resolution of any dispute concerning this Limited Warranty or the rights or obligations of Purchaser and/or Titan Implement, LLC; (b) agree that any litigation commenced in Tennessee in connection with this Limited Warranty shall be venued in either the Meigs County, Tennessee District Court, or the United States District Court, Eastern District of Tennessee, Southern Division, and (c) waive any objection it may have as to any such action or proceeding brought in such court that such court is an inconvenient forum. Nothing herein shall limit the right of Purchaser or Titan Implement, LLC (or the right of any permitted successor or assign of either) to bring proceedings against the other in the courts of any other jurisdiction wherein any assets of such other party may be located.



WARRANTY REGISTRATION FORM

Moldboard Plow

THIS REGISTRATION FORM MUST BE ON FILE WITH TITAN IMPLEMENT, LLC.
WITHIN **30 DAYS** OF DELIVERY TO PURCHASER, OR WARRANTY CLAIM WILL NOT BE HONORED.

PLEASE RETURN COMPLETED FORM BY E-MAIL, FAX, OR MAIL:

E-MAIL: info@titanimplement.com

FAX: (423) 334-0023

MAIL: PO BOX 649, DECATUR, TN 37322

MODEL: _____ SERIAL #: _____ DELIVERY DATE: _____

TRACTOR MAKE & MODEL BEING USED WITH ABOVE UNIT: _____

PURCHASER'S NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

SELLING DEALER'S NAME: _____

CITY: _____ STATE: _____ ZIP: _____

I have read all warranties and agree with these conditions. I agree to read and follow all safety instructions outlined in this manual before operating this moldboard plow.

Purchaser's signature: _____

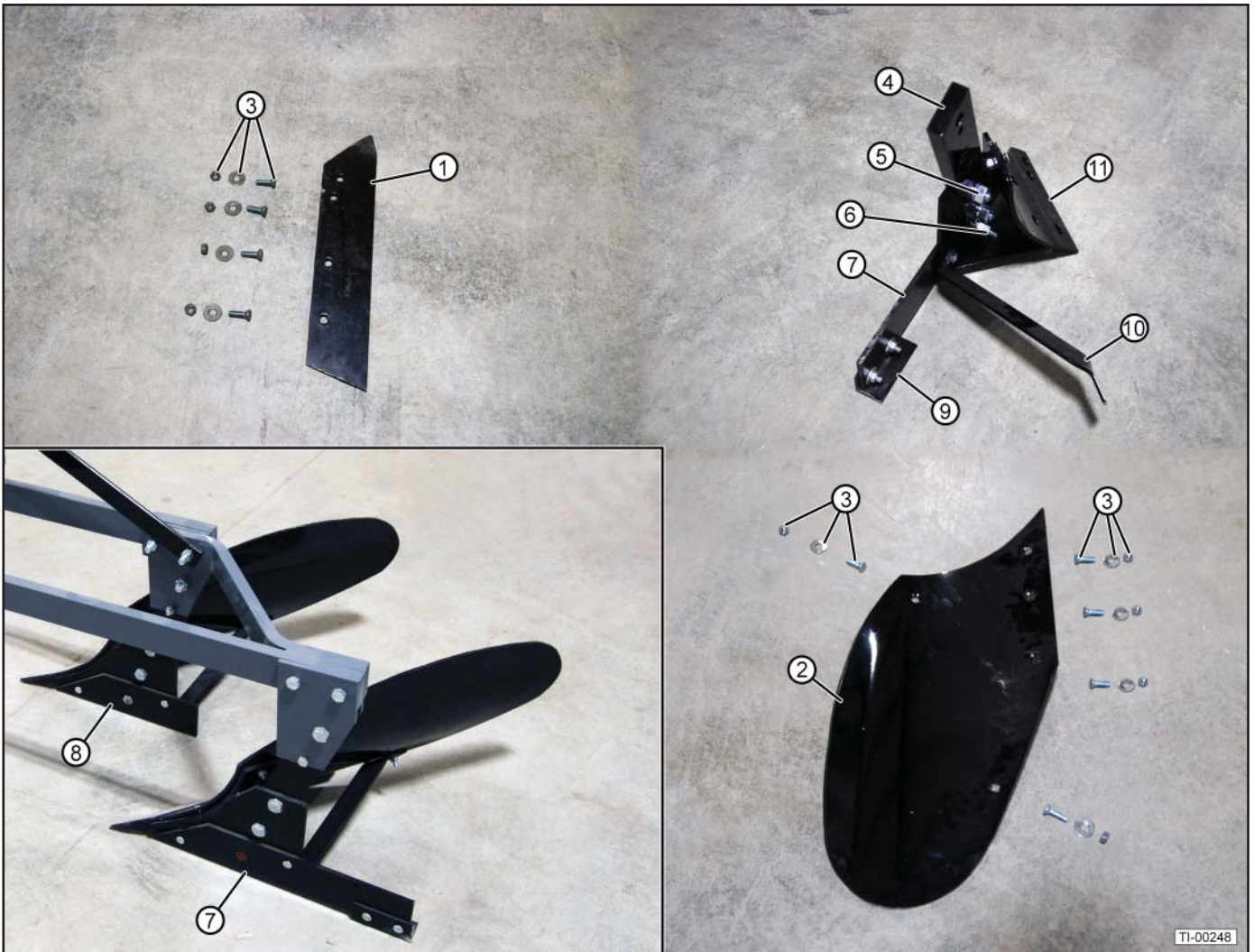
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11. Parts

Replacement parts are available from your authorized Dealer Parts Department or from Titan Implement.

The following pages contain a list of serviceable parts for the Titan Implement moldboard plow.

11.1 Ground Engaging Components



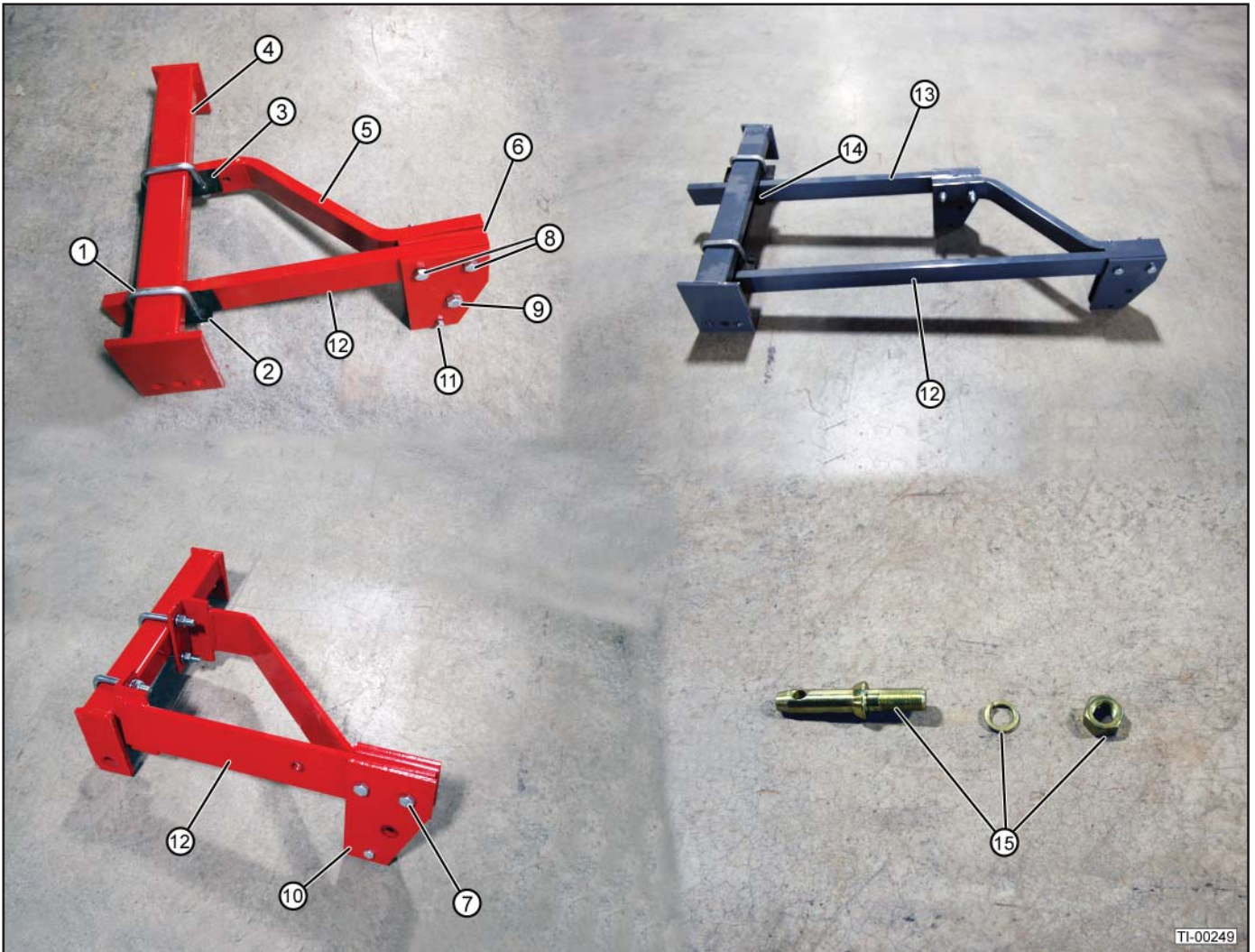
Item	Part Number	Description	Qty.
1	610020	Plow Share, 12"	1*
	610021	Plow Share, 14"	
	610022	Plow Share, 16"	
2	610016	Moldboard, 12"	1*
	610017	Moldboard, 14"	
	610018	Moldboard, 16"	
3	610019	Moldboard & Plow Share Bolt, Washer & Nut Kit, 7/16 x 1-1/2" (5 Pack)	1
4	61006M	Vertical Beam, 1 x 3 x 16" (6112M)	1*
	610014	Vertical Beam, 1" x 3" x 19-1/2"	
5	610030	Vertical Beam Bottom Bolt, Lockwasher & Nut Kit, 3/4 x 2-1/2"	2**
6	610015	Vertical Beam Bottom Plow Bolt, Flat Washer & Nut Kit, 5/8 x 3"	6
7	610012	Long Landside	1

Item	Part Number	Description	Qty.
8	610032	Landside (2 bottom only)	1
9	610013	Skid Shoe, (1/4" x 2" x 2" x 5")	1
10	610011	Moldboard Brace	1*
11	610010	Frog Weldment	1*

* 2 required on two bottom plow.

**4 required on two bottom plow.

11.2 Plow Frame



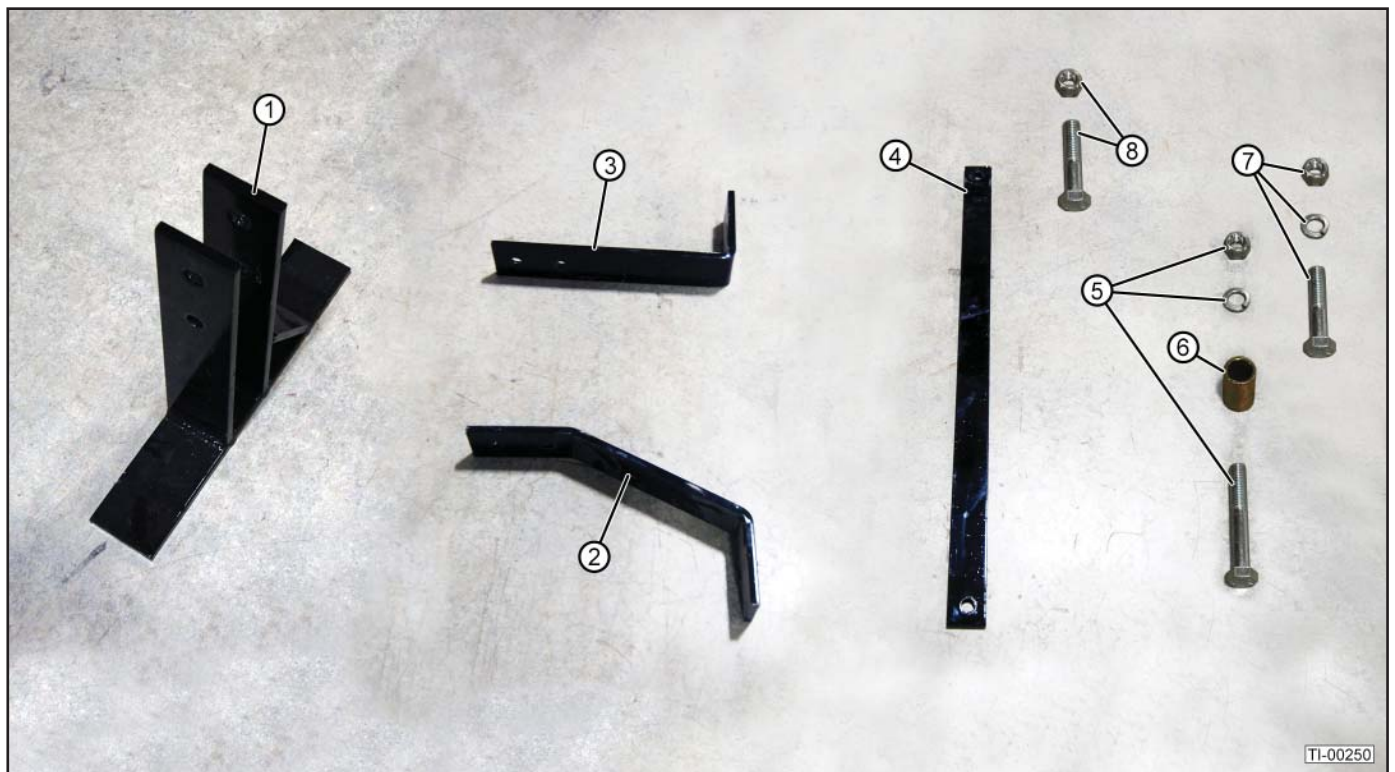
Item	Part Number	Description	Qty.
1	730009	A-Frame U-Bolt	2
2	610003	A-Frame Bottom Bracket	2
3	610004	A-Frame Bottom Bracket Bolt & Nut Kit, 5/8 x 2-1/2"	4
4	61001M 610005	A-Frame Tube (6112M) A-Frame Tube (All Other Models)	1
5	61004M 610007	Z-Bar, 1/2 x 4 x 28" (6112M) Z-Bar, 1 x 3 x 28-1/2" (All Other Models)	1
6	610008	Bar Plate	2*
7	610015	Vertical Beam Bottom Bolt, Lockwasher & Nut Kit, 5/8 x 3" (6112M)	2
8	170008	Bar Plate Top Bolt, Lockwasher & Nut Kit, 5/8 x 4"	2*
9	110068	Bar Plate Middle Bolt, Lockwasher & Nut Kit, 3/4 x 3" (4 Pack)	1**
10	61005M	Bar Plate (6112M)	1

Item	Part Number	Description	Qty.
11	610009	Bar Plate Shear Bolt, Lockwasher & Nut Kit, 7/16 x 2-1/2" (5 Pack)	1**
12	61003M 610006 610090	Left Side Bar (6112M) Left Side Bar (One Bottom) Left Side Bar (Two Bottom)	1
13	610006	Right Side Bar (Two Bottom)	1
14	610028	A-Frame Right Bottom Bracket (Two Bottom)	1
15	110032	Lift Pin Kit, CAT I	2

*4 required on two bottom plow.

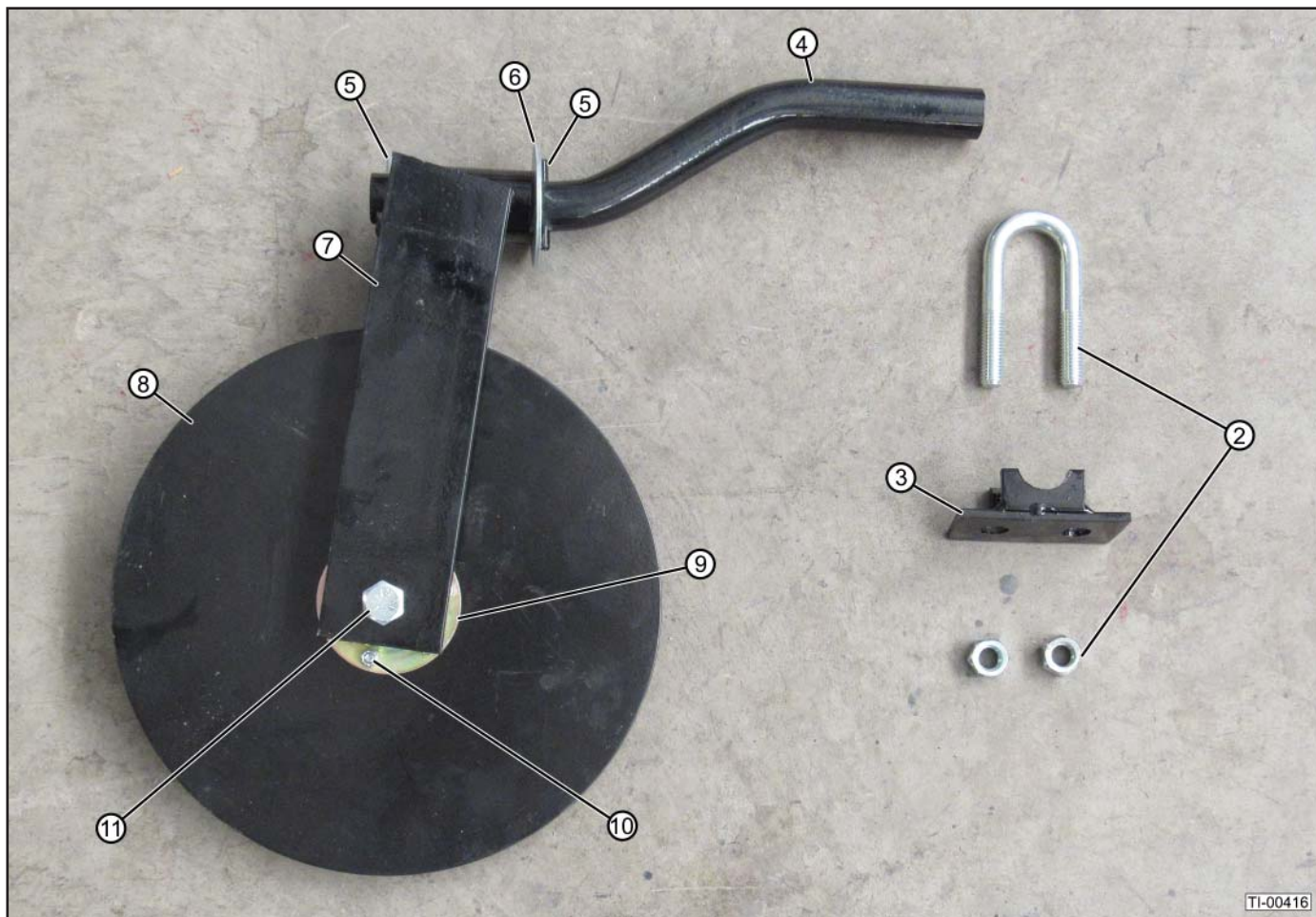
**2 required on two bottom plow.

11.3 A-Frame



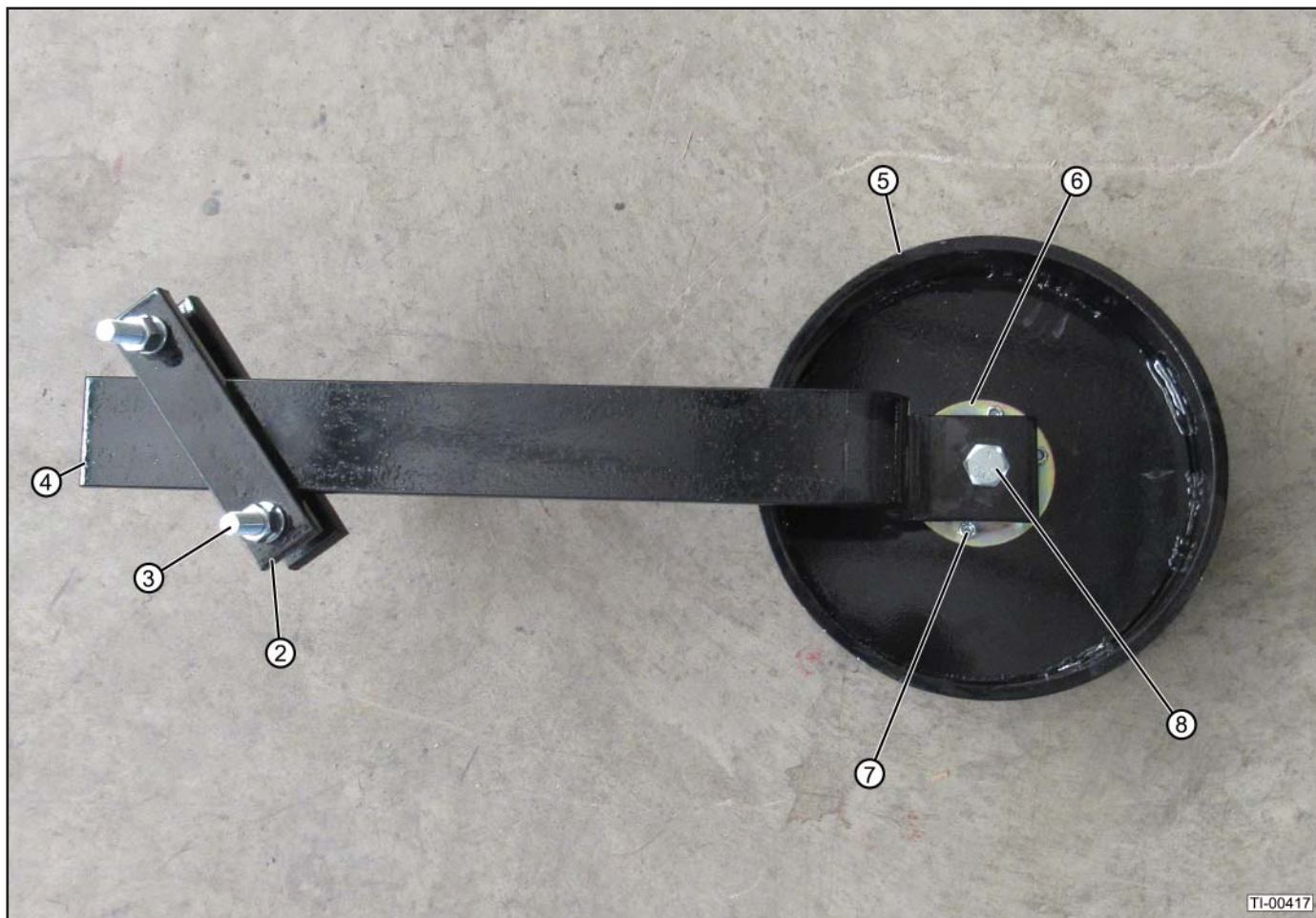
Item	Part Number	Description	Qty.
1	61000M 610001	A-Frame (6112M) A-Frame (One Bottom)	1
2	610025	A-Frame, Left (Two Bottom)	1
3	610026	A-Frame, Right (Two Bottom)	1
4	61002M 170000 610029	Back Brace (6112M) Back Brace (One Bottom) Back Brace (Two Bottom)	1
5	170008	A-Frame / Back Brace Bolt, Lockwasher & Nut Kit, 5/8 x 4"	1
6	110030	A-Frame Spacer, 2"	1
7	110015	Back Brace Bolt, Lockwasher & Nut Kit, 5/8 x 2" (6112M) (4 Pack)	1
8	170008	Bar Plate Top Bolt & Lock Nut Kit, 5/8 x 4" (6112M)	1

11.4 Optional Coulters Kit



Item	Part Number	Description	Qty.
1	610040	Coulter Kit, Complete (Includes Items 2 Through 11)	1
2	610041	U-Bolt Kit w/ Lock Washer & Nuts	1
3	610042	U-Bolt Bracket	1
4	610043	Adjustment Rod	1
5	610044	Spring Pin, 1/4" x 2-1/2"	2
6	440004	Washer, 1-1/4"	1
7	610045	Coulter Disc Arm	1
8	610046	Coulter Disc	1
9	610047	Disc Hub w/ Bearing (Pressed In)	1
10	610048	Disc Hub Bolt & Lock Nut Kit (1/4- 20 x 3/4") (10 Pack)	1
11	610049	Hub Bolt & Lock Washer Kit (5/8 x 3")	1

11.5 Optional Gauge Wheel Kit



TI-00417

Item	Part Number	Description	Qty.
1	610050	Gauge Wheel Kit, Complete (Includes Items 2 Through 8)	1
2	610051	Adjuster Bracket	2
3	610052	Adjuster Bracket Bolt, Lock Washer, & Nut Kit (1/2 x 3-1/2") (2 Pack)	1
4	610053	Depth Gauge Bar	1
5	610054	Depth Gauge Wheel	1
6	610047	Disc Hub w/ Bearing (Pressed In)	1
7	610048	Disc Hub Bolt & Lock Nut Kit (1/4- 20 x 3/4") (10 Pack)	1
8	610049	Hub Bolt & Lock Washer Kit (5/8 x 3")	1

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TITAN IMPLEMENT, LLC.
P.O. BOX 649
232 INDUSTRIAL LN.
DECATUR, TENNESSEE 37322
PHONE: (423) 334-0012 • FAX: (423) 334-0023
WEB: www.titanimplement.com

Member of



Titan Implement Website