OPERATOR’S MANUAL

This Operator's Manual is an integral part of the safe operation of this machine and must be maintained with the unit at all times. READ, UNDERSTAND, and FOLLOW the Safety and Operation Instructions contained in this manual before operating the equipment. C01-Cover
To the Owner/Operator/Dealer

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

BEFORE YOU START!! Read the safety messages on the implement and shown in your manual. Observe the rules of safety and common sense!

WARRANTY INFORMATION:

Read and understand the complete Warranty Statement found in this Manual. Fill out the Warranty Registration Form in full and return it to within 30 Days. Make certain the Serial Number of the Machine is recorded on the Warranty Card and on the Warranty Form that you retain.
# TABLE OF CONTENTS

## SAFETY SECTION .................................................................................................................................1-1

Safety Instructions and Practices ........................................................................................................... 1-2
Decal Location ..........................................................................................................................................1-9
Decal Description ....................................................................................................................................1-11
Federal Laws and Regulations ................................................................................................................1-18

## INTRODUCTION SECTION .....................................................................................................................2-1

## ASSEMBLY SECTION ...............................................................................................................................3-1

CRUMBLER ROLLER OPTION ................................................................................................................3-3
SAFETY LIGHTING FOR MODELS DD4000, DD5000 & DD6000 ..........................................................3-4

## OPERATION SECTION ............................................................................................................................4-1

Standard Equipment and Specifications ................................................................................................. 4-3
OPERATOR REQUIREMENTS .................................................................................................................. 4-4
TRACTOR REQUIREMENTS ..................................................................................................................... 4-5
ROPS and Seat Belt ................................................................................................................................. 4-5
Tractor Safety Devices ............................................................................................................................ 4-5
Tractor Horsepower ................................................................................................................................. 4-6
3-Point Hitch ........................................................................................................................................... 4-6
Front End Weight .................................................................................................................................... 4-6
GETTING ON AND OFF THE TRACTOR ................................................................................................. 4-6
Boarding the Tractor ................................................................................................................................. 4-7
Dismounting the Tractor ............................................................................................................................ 4-7
STARTING THE TRACTOR ......................................................................................................................... 4-8
CONNECTING THE IMPLEMENT TO THE TRACTOR ................................................................................ 4-8
Connecting the Implement ....................................................................................................................... 4-9
PRE-OPERATION INSPECTION AND SERVICE .................................................................................... 4-10
Tractor Pre-Operation Inspection/Service .............................................................................................. 4-11
Implement Pre-Operation Inspection/Service .......................................................................................... 4-11
OPERATING THE TRACTOR AND IMPLEMENT ....................................................................................... 4-13
Foreign Debris Hazards ............................................................................................................................ 4-13
Bystanders/Passersby Precautions .......................................................................................................... 4-14
Operating the Implement ........................................................................................................................ 4-14
Tines ......................................................................................................................................................... 4-15
Flap ......................................................................................................................................................... 4-16
Crumbler Option .................................................................................................................................... 4-16
Shutting Down the Implement ................................................................................................................ 4-17
DISCONNECTING THE IMPLEMENT FROM THE TRACTOR ............................................................... 4-17
IMPLEMENT STORAGE .............................................................................................................................. 4-18
TRANSPORTING THE TRACTOR AND IMPLEMENT .............................................................................. 4-18
DRIVING THE TRACTOR AND IMPLEMENT ......................................................................................... 4-19
Brake and Differential Lock Setting ....................................................................................................... 4-20
Transporting on Public Roadways .......................................................................................................... 4-20
Hauling the Tractor and Implement ....................................................................................................... 4-22

## MAINTENANCE SECTION .......................................................................................................................5-1
SAFETY SECTION
Safety Instructions and Practices

A careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this Implement. This equipment should only be operated by those persons who have read the manual, who are responsible and trained, and who know how to do so responsibly.

The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual and on decals which are attached to the equipment. The Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment.

Practice all usual and customary safe working precautions and above all—remember safety is up to YOU. Only YOU can prevent serious injury or death from unsafe practices.

**DANGER** Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.

**WARNING** Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.

**CAUTION** Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.

**Important** Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

**NOTE:** Identifies points of particular interest for more efficient and convenient operation or repair. (SG-1)

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2)

**WARNING** Always maintain the safety signs in good readable condition. If the safety signs are missing, damaged, or unreadable, obtain and install replacement safety signs immediately. (SG-5)
SAFETY

Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator’s Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel to operate the Tractor or Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation. (SG-4)

Make certain the “Slow Moving Vehicle” (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights. Before transporting the equipment on public roads make sure the Implement warning lights are connected, visible and working. Always follow all local traffic regulations. (SG-6a)

Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor—particularly during a turnover when the operator could be pinned under the ROPS. (SG-7)

BEFORE leaving the tractor seat lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)

Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)
SAFETY

**DANGER** Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator’s Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11)

**WARNING** Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)

**DANGER** Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)

**DANGER** Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause serious injury or even death. (SG-14)

**WARNING** The operator and all support personnel should wear hard hats, safety shoes, safety glasses, and proper hearing protection at all times for protection from injury including injury from items that may be thrown by the equipment. (SG-16)

**WARNING** Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use Cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)
PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS! Tractors with or without an Implement attached can often be noisy enough to cause permanent hearing loss. We recommend that you always wear hearing protection if the noise in the Operator’s position exceeds 80db. Noise over 85db over an extended period of time will cause severe hearing loss. Noise over 90db adjacent to the Operator over an extended period of time will cause permanent or total hearing loss. **NOTE:** Hearing loss from loud noise [from tractors, chain saws, radios, and other such sources close to the ear] is cumulative over a lifetime without hope of natural recovery. (SG-17)

Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.

Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.

Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor’s flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)

Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. (SG-20)
Always read carefully and comply fully with the manufacturer's instructions when handling oil, solvents, cleansers, and any other chemical agent. (SG-22)

Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)

Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

KEEP AWAY FROM ROTATING ELEMENTS to prevent entanglement and possible serious injury or death. (SG-24)

Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be injured or killed. Inadvertent contact with controls can cause the Implement to shift or fall crushing themselves or others. (SG-25)

DO NOT use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27)
Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause serious injury or death. (SG-29)

Never leave the Tractor and Implement unattended while the Implement is in the lifted position. Accidental operation of lifting lever or a hydraulic failure may cause sudden drop of unit with injury or death by crushing. To properly park the implement when disconnecting it from the tractor, lower the stand and put the retaining pin securely in place, or put a secure support under the A-Frame. Lower the implement carefully to the ground. Do not put hands or feet under lifted components. (S3PT-1)

Be particularly careful when transporting the Implement with the Tractor. Turn curves or go up hills only at a low speed and using a gradual steering angle. Rear mounted implements move the center of gravity to the rear and remove weight from the front wheels. Make certain, by adding front ballast, that at least 20% of the tractor’s weight is on the front wheels to prevent rearing up, loss of steering control or Tractor tip-over. Slow down on rough or uneven surfaces to prevent loss of steering control which could result in property damage or possible injury. Do not transport unless 3-Point lift lever is fully raised and in the latched transport position. Dropping implement in transport can cause serious damage to the tractor and/or Implement and possibly cause the operator or others to be injured or killed. (S3PT-02)

Do not back up with this implement. Backing could damage the machine or its components. (S3PT-4)

There are obvious and hidden potential hazards in the operation of this Implement as in all power-driven or pulled equipment. REMEMBER! This machine is often operated in rough terrain conditions that include tall grass, weeds, gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area. (S3PT-07)

This Implement may be wider than the Tractor. Be careful when operating or transporting this equipment to prevent the Implement from running into or striking sign posts, guard rails, concrete abutments or other solid objects. Such an impact could cause the Implement and Tractor to pivot violently resulting in loss of steering control, serious injury, or even death. Never allow the Implement to contact obstacles. (S3PT-12)

Be sure you have adequate knowledge of the property you will be working on. Take time to make yourself aware of any area underwater or underground lines or cables. Contact with buried lines or cable could result in serious injury or death. (STL-1)
SAFETY

WARNING

Many varied objects, such as wire, cable, rope, or chains, can become entangled in the rotating parts of the Implement. These objects could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the area for such objects before working in the area. Remove any such objects from the site. Never allow the implement to contact such objects. (STL-8)

WARNING

In wet conditions where there is a likelihood of material collecting on the Implement, make certain that this material is removed before traveling on public roadways. (STL-7)

WARNING

Do not work under hinged flap until you have fastened the safety latch in place to hold the flap in its raised position. Make sure the tractor engine is off and all rotating motion has stopped before approaching the Implement. (STL-8)

WARNING

Do not put hands or feet under Tiller deck. Blade Contact can result in serious injury or even death. Stay away until all motion has stopped and the decks are securely blocked up. (STL-3)

DANGER

There are obvious and hidden potential hazards in the operation of this Implement as in all power-driven or pulled equipment. REMEMBER! This machine is often operated in rough terrain conditions that include grass, weeds, gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area. Stop operating if anyone comes within 25 feet of the equipment. (STL-4)

DANGER

Extreme care should be taken when operating near loose objects such as gravel, rocks, wire, and other debris. Inspect the area before tilling. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop operating immediately if blades strike a foreign object. Repair all damage and make certain rotor and blades are in good condition before resuming operation. (STL-5)

WARNING

PARTS INFORMATION

EarthMaster implements use matched system components for blades, hangers, rollers, and bearings. These parts are made and tested to EarthMaster specifications. Non-genuine "will fit" parts do not consistently meet these specifications. The use of "will fit" parts may reduce the implements performance, void warranties, and present a safety hazard. Use genuine EarthMaster parts for economy and safety. (SPEM-1)

SEE YOUR EARTHMASTER DEALER

DYNA-DRIVE  03/12   Safety Section 1-8

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Decal Location

Note: EarthMaster supplies safety decals on this product to promote safe operation. Damage to the decals may occur while in shipping, use, or reconditioning. EarthMaster cares about the safety of its customers, operators and bystanders, and will replace the safety decals on this product in the field, free of charge (Some shipping and handling charges may apply). Contact your EarthMaster dealer to order replacement decals.
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* Provided by Tractor Manufacturer
{#} For Units over 104" (2.6 m) in Transport Width
Decal Description

WARNING! Failure to use and maintain shields and deflectors in good condition may lead to injury or death from entanglement with rotating parts, being hit by objects thrown with great force by blades, or by blade contact.

P/N 00725739

Peligro Translation, If you do not know how to read English, please find someone who knows how to read English.

P/N 00725746

WARNING! Tractor rearing

P/N 999001

WARNING!- Multiple Hazard and General Safety

P/N 999200
Slow Moving Vehicle Decal. Keep SMV reflector clean and visible. DO NOT transport or operate without the SMV.

P/N 03200347

Red Reflector. Keep reflectors clean and visible.

P/N 1458392

Amber Reflector. Keep reflectors clean and visible.

P/N 1458393

Operator's Manual (with repair parts) and warranty were attached to this implement during final inspection.

P/N 00763977

NOTICE TO OWNER

An OPERATOR'S MANUAL (with Repair Parts Listing) and a WARRANTY REGISTRATION CARD were attached to this implement during final inspection at the factory. If they were not attached at the time of purchase, please contact your selling dealer at once.

1. Read and understand the Operator’s Manual before operating the implement.
2. Complete, sign, and mail the Warranty Registration Card today.
Instructions for operating the Dyna-Drive

DYNA-DRIVE OPERATING INSTRUCTIONS
1. Adjust lift arms so that the unit is level side-to-side.
2. Adjust top link until the Rear Rotor rolls along the ground with no more than occasional slippage to provide ideal tillage by Front Rotor & reduced wear on Rear Rotor Tines. Excessive slippage will reduce cultivation by Front Rotor Tines, increase wear on Rear Rotor Tines, and provide less-than-the-best overall cultivation.
3. Fine adjustment of the top link will be required in hard ground conditions to obtain maximum depth of cultivation with the least slippage of the rear rotor.
4. In hard ground, attaching the lift arms to the upper holes may increase penetration due to downward pull.
5. Several diagonal passes may be required to achieve the depth of cultivation desired under difficult conditions.

IMPORTANT - Use Genuine EarthMaster Replacement Parts.

INFORMATION - Oil every 10 Hours

CAUTION! Lifting Hook - 4000 lbs.

P/N 3838310
CAUTION! Lifting Hook - 5000 lbs.  
P/N 3838311

CAUTION! Lifting Hook - 6000 lbs.  
P/N 3838312

INSTRUCT - Oil Level.  
P/N 275195

INFORMATION - Setting Depth  
00771057
INFORMATION - Crumbler Adjustment - LH

00771058

INFORMATION - Crumbler Adjustment - RH

00771059

INSTRUCT - Lubrication Chart.

P/N 3838313

INSTRUCT - Lubrication Chart (DD6000 Only).

P/N 3838316

DYNA-DRIVE  03/12     Safety Section 1-15

© 2012 Alamo Group Inc.
NAME - Earthmaster

NAME - DYNA-DRIVE.

P/N 3838303
MODEL NAME - 4000.

P/N 3838307
MODEL NAME - 5000.

P/N 3838308
MODEL NAME - 6000.

P/N 3838314

INSTRUCT - Center Arm Depth Adjustment.

P/N 3838321

Read Operator’s Manual! The operator’s manual is located inside this canister. If the manual is missing order one from your dealer.

P/N 00776031
Federal Laws and Regulations
This section is intended to explain in broad terms the concept and effect of federal laws and regulations concerning employer and employee equipment operators. This section is not intended as a legal interpretation of the law and should not be considered as such.

Employer-Employee Operator Regulations
U.S. Public Law 91-596 (The Williams-Steiger Occupational 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 his 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 his 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 own actions and conduct.

OSHA Training Requirements


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.

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 the equipment.

Make sure everyone is clear of machinery before starting the engine, engaging power, or operating the machine.

Employer Responsibilities:
To ensure employee safety during Tractor and Implement operation, it is the employer’s responsibility to:

1. Train the employee in the proper and safe operation of the Tractor and Implement.
2. Require that the employee read and fully understand the Tractor and Implement Operator’s manual.
3. Permit only qualified and properly trained employees to operate the Tractor and Implement.
4. Maintain the Tractor and Implement in a safe operational condition and maintain all shields and guards on the equipment.
5. Ensure the Tractor is equipped with a functional ROPS and seat belt and require that the employee operator securely fasten the safety belt and operate with the ROPS in the raised position at all times.
6. Forbid the employee operator to carry additional riders on the Tractor or Implement.
7. Provide the required tools to maintain the Tractor and Implement in a good safe working condition and provide the necessary support devices to secure the equipment safely while performing repairs and service.
8. Require that the employee operator stop operation if bystanders or passersby come within 300 feet.

Child Labor Under 16 Years of Age
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.)
INTRODUCTION SECTION
INTRODUCTION

The Dyna-Drive is a ground-driven dual rotor cultivator. The front row of tines drives a rear row of tines much faster, providing ideal cultivation.

This Dyna-Drive is designed with care and built with quality materials by skilled workers. Proper assembly, maintenance and operating practices, as described in this manual, will help the owner/operator get years of satisfactory service from the machine.

The purpose of this manual is to familiarize, instruct, and train. The Assembly Section instructs the owner/operator in the correct assembly of the Implement using standard and optional equipment. The Parts Listing section is designed to familiarize the owner/operator with replaceable parts on the Implement. This section provides exploded assembly drawings of each mower component illustrating each piece and the corresponding part number.

Careful use and timely service save extensive repairs and costly downtime losses. The Operation and Maintenance Sections of the manual train the owner/operator how to work the Implement correctly and attend to appropriate maintenance. The Trouble Shooting Guide helps diagnose difficulties with implement and offers solution to the problems.

Safety is of primary importance to the owner/operator and to the manufacturer. The first section of this manual includes a list of Safety Messages, that, if followed, will help protect the operator and bystanders from injury or death. Many of the Safety Messages will be repeated throughout the manual. The owner/operator/dealer should know these Safety Messages before assembly and be aware of the hazards of operating this implement during assembly, use, and maintenance. The Safety Alert Symbol combined with a Signal Word, as seen below, is intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this machine.

**DANGER** Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.

**WARNING** Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.

**CAUTION** Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.

**Important** Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.
The EarthMaster Dyna-Drive is a unique ground-driven surface cultivator capable of creating an ideal seedbed in a single pass. The hardened tines on the front rotor penetrate and fracture the soil to a maximum depth of 6". Driven by the front rotor, the rear rotor turns nearly three times faster. The result is a thorough mixing of the top soil and the creation of an ideal seeded. With operational speeds up to 10 MPH, the Dyna-Drive can cover ground fast, lowering cost and reducing time spent in the field.

**WARNING**

At least 20% of the tractor’s total weight must be on the front tires with the implement lifted to provide adequate traction at safe steering under good conditions. Slow down on hills, rough terrain and curves.

Front and rear, and left and right are determined by the normal direction of travel (the same as on your automobile).
Attention Owner/Operator

BEFORE OPERATING THIS MACHINE:

1. Carefully read the Operator’s Manual, completely understand the Safety Messages and instructions, and know how to operate correctly both the tractor and implement.

2. Fill out the Warranty Card in full. Be sure to answer all questions, including the Serial Number of the Implement. Mail within 30 days of delivery date of this implement.

NOTE: Warranties are honored only if completed “Owner Registration and Warranty” forms are received by Alamo Group within thirty days of delivery of the implement.

3. Record the Implement Model and Serial Numbers on the Warranty page at the front of the Operator’s Manual. Keep this as part of the permanent maintenance file for the Implement.

IMPORTANT

Non-genuine parts can fail catastrophically.

TO AVOID SERIOUS INJURY OR DEATH:

- ONLY use genuine Earthmaster replacement parts.

- Non-genuine parts can fail creating hazardous conditions for operator and bystanders.

Contact local dealer or Earthmaster about repair parts at:

1020 S. Sangamon Ave., Gibson City, IL 60936
Customer Service: 800-446-5158.
ASSEMBLY SECTION
Your cultivator has been shipped fully assembled and ready to attached to the tractor. However, any options that may have been ordered may not be attached to the cultivator. Read the Assembly Section and become completely familiar with the machine and its options before attempting to attach these options. Check to make sure that you have received all parts listed on your packing list and/or machine order. Make claims of any shortages immediately.

RIGHT or LEFT and FRONT or REAR of the Cultivator is determined by standing behind the Cultivator looking toward the tractor PTO.

Assemble the cultivator and options on a solid, flat and level surface to insure safety and to aid in aligning parts during assembly.

**WARNING** Always use safety stands or blocking in conjunction with hydraulic jacks or joists. Do not rely on the jack or hoists. Do not rely on the jack or hoist to carry the load. They could fail. Note the lifting capacity decals. Use an adequate lifting device.
CRUMBLER ROLLER OPTION

1. Place the crumbler behind the Dyna-Drive with the cross bars raked forward at the top of the roller, as shown in Image Asm-T-0004.

   **CAUTION** Install the Crumbler correctly, an incorrectly installed crumbler may result in crumble bar failure.

2. Remove the bearings caps (A) from the bearings and attach the trailing arms (B) to each end of the crumbler by sliding the shafts through the bearings and through the crumbler tubes, from the outside. Distinguish left and right hand trailing arms by ensuring that the support pad for the depth adjustment plate (C) is facing upwards.

3. Secure bearings and shafts to the crumbler roller with the M20 castle nut, plain washer and split cotter 6.3 diameter, 63 mm long. Replace bearing caps.

4. Ensure hinged flap (D) remains above crumbler, slide trailing arms into brackets (E) and located with hand pins. Secure pins with the M10 x 20mm setscrews and spring washers.

5. Locate depth adjustment plates onto the mounting brackets. Be sure to locate left hand plate on left hand (drive end) of Dyna Drive. Both plates must be set to the same number.

6. For depth setting number required, see **OPERATION INSTRUCTIONS** inset in the Operation Section.

7. Connect hinged flap as shown, using flap links (F).

8. A rubber belting strip is attached to the rear door on 3000, 4000, 5000 and 6000 models to prevent material buildup on the rear door.

9. Check correct lubrication level in each chain case. Lubricate all grease points.
ASAEMNY

SAFETY LIGHTING FOR MODELS DD4000, DD5000 & DD6000

1. Install the light brackets (#2) on the 3/8” weld studs on the top deck using washers and locknuts (#10 & 3). Install the light brackets (#1) in the brackets (#2) using bolts, washers and locknuts (#4, 10 & 3).

2. Install the amber lamp (#12) in the outermost brackets using the hardware provided. Make sure the bracket is captured between the two nuts provided. Install the red lamp (#11) in a similar fashion to the inner brackets.

3. Install the center wishbon (#15) on the mainframe of the unit attaching the light module to the bracket on the rear of the three-point mast using the screws and nuts (#17 & 18). Use the provided Ty-wraps (#21) to route and secure the left and right harnesses to the appropriate lights. Install the 5’ amber light extension (#16) between the amber lights and the center wishbone.

4. Install the reflector decals as indicated with the fluorescent orange decal (#8) on top and the red reflector (#9) on the bottom of each light bracket.

5. Install the plug holder (#14) on the rear of the three-point mast using screws and nuts (#19 & 18).

6. Install the SMV into the mount bracket.

7. Install the wire cover to the light brackets using 3/8” top lock nuts.
OPERATION SECTION
This Dyna-Drive Ground Driven Cultivator is designed with care and build with quality materials by skilled workers. Proper assembly, maintenance and operating practices, as described in this manual, will help the owner/operator get years of satisfactory service from the machine.

It is the operator’s responsibility to be knowledgeable of all potential operating hazards and to take every reasonable precaution to ensure oneself, others, animals, and property are not injured or damaged by the implement, tractor, or a thrown object. Do not operate the implement if passersby, pets, livestock, or property are directly in front or to the rear of the unit.

This section of the Operator’s Manual is designed to familiarize, instruct, and educate safe and proper implement use to the operator. Pictures contained in this section are intended to be used as a visual aid to assist in explaining the operation of a rotary tiller. Some pictures may show shields removed for purposes of clarity. NEVER OPERATE this implement without all shields in place and in good operational condition. The operator must be familiar with the implement and tractor operation and all associated safety practices before operating the implement and tractor. Proper operation of implement, as detailed in this manual, will help ensure years of safe and satisfactory use of the implement.

IMPORTANT: To avoid implement damage, retorque all bolts after the first 10 hours of operation. Refer to the Torque Chart at the end of the Maintenance Section to ensure bolts are properly tightened.

READ AND UNDERSTAND THE ENTIRE OPERATING INSTRUCTIONS AND SAFETY SECTION OF THIS MANUAL AND THE TRACTOR MANUAL BEFORE ATTEMPTING TO USE THE TRACTOR AND IMPLEMENT. If you do not understand any of the instructions, contact your nearest authorized dealer for a full explanation. Pay close attention to all safety signs and safety messages contained in this manual and those affixed to the implement and tractor. OPS-U-0001

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2)
## 1. Standard Equipment and Specifications

<table>
<thead>
<tr>
<th></th>
<th>2600</th>
<th>3000</th>
<th>4000</th>
<th>5000</th>
<th>6000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Width</td>
<td>8'7&quot;</td>
<td>9'11&quot;</td>
<td>13'1&quot;</td>
<td>16'1&quot;</td>
<td>19'6&quot;</td>
</tr>
<tr>
<td>Overall Width</td>
<td>9'10&quot;</td>
<td>11'2&quot;</td>
<td>14'5&quot;</td>
<td>17'5&quot;</td>
<td>20'5&quot;</td>
</tr>
<tr>
<td>Hitch</td>
<td>CAT II</td>
<td>CAT II</td>
<td>CAT II-III</td>
<td>CAT II-III</td>
<td>CAT II-III</td>
</tr>
<tr>
<td>Drive System</td>
<td>Single</td>
<td>Single</td>
<td>Dual</td>
<td>Dual</td>
<td>Dual</td>
</tr>
<tr>
<td>Number of Tines</td>
<td>160</td>
<td>184</td>
<td>244</td>
<td>304</td>
<td>352</td>
</tr>
<tr>
<td>Tine Length</td>
<td>10.5&quot;</td>
<td>10.5&quot;</td>
<td>10.5&quot;</td>
<td>10.5&quot;</td>
<td>10.5&quot;</td>
</tr>
<tr>
<td>Horsepower Req.</td>
<td>90</td>
<td>100</td>
<td>130</td>
<td>160</td>
<td>200</td>
</tr>
<tr>
<td>Weight (Approx.)</td>
<td>3,263 lbs.</td>
<td>3,880 lbs.</td>
<td>5,000 lbs.</td>
<td>5,860 lbs.</td>
<td>7,200 lbs.</td>
</tr>
<tr>
<td>Drive Chain Size</td>
<td>Double 100 (Triple 100 on 6000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Ratings based on actual field performance.

---

**DANGER** Operating this implement in an application for which it is not designed and/or operating the implement with the wrong size Tractor can cause implement component damage and equipment failure resulting in possible serious injury or death.
2. OPERATOR REQUIREMENTS

Safe operation of the unit is the responsibility of a qualified operator. A qualified operator has read and understands the implement and tractor Operator's Manuals and is experienced in implement and tractor operation and all associated safety practices. In addition to the safety messages contained in this manual, safety signs are affixed to the implement and tractor. If any part of the operation and safe use of this equipment is not completely understood, consult an authorized dealer for a complete explanation.

If the operator cannot read the manuals for themselves or does not completely understand the operation of the equipment, it is the responsibility of the supervisor to read and explain the manuals, safety practices, and operating instructions to the operator.

Safe operation of equipment requires that the operator wear approved Personal Protective Equipment (PPE) for the job conditions when attaching, operating, servicing, and repairing the equipment. PPE is designed to provide operator protection and includes the following safety wear:

PERSONAL PROTECTIVE EQUIPMENT (PPE)
- Always Wear Safety Glasses
- Hard Hat
- Steel Toe Safety Footwear
- Gloves
- Hearing Protection
- Close Fitting Clothing
- Respirator or Filter Mask (depends on operating conditions) \textit{OPS-U-0002}

\textbf{DANGER}

DO NOT use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27)
3. TRACTOR REQUIREMENTS

The tractor used to operate the implement must have the power capacity to lift, pull, and operate the Power Take Off (PTO) at the implement’s rated speed while traveling at a ground speed between 2 and 5 MPH. Operating the implement with a tractor that does not meet the following requirements may cause tractor or implement damage and be a potential danger to the operator and passersby.

Tractor Requirements and Capabilities

- ASABE approved Roll-Over Protective Structure (ROPS) or ROPS cab and seat belt.
- Slow Moving Vehicle (SMV) emblem, lighting, PTO master shield
- Tractor Horsepower:
  - 2600......................... 90 HP
  - 3000......................... 100 HP
  - 4000......................... 130 HP
  - 5000......................... 160 HP
  - 6000......................... 200 HP
- Hitch- Lifting Capacity ................................... 3263 - 7200 lbs.
- 3-Point Hitch............................................... CAT II - CAT III
- Front End Weight ......................................... As needed to maintain 20% weight on front axle

3.1 ROPS and Seat Belt

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. Tractor models not equipped with a ROPS and seat belt should have these life saving features installed by an authorized dealer.

**WARNING**

Operate this Equipment only with a Tractor equipped with an approved roll-over-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor—particularly during a turnover when the operator could be pinned under the ROPS. *(SG-7)*

3.2 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 equipped directly on implements if the visibility of the tractor warning signals are obscured.

Maintain all manufacturer equipped safety shields and guards. Always replace shields and guards that were removed for access to connect, service, or repair the tractor or implement. *OPS-T-0023*
3.3 Tractor Horsepower
The power required to operate an implement is determined by the tractor horsepower. For most operating
conditions, implement requires a tractor with at least 90 HP for 2600, 100 HP for 3000, 130 HP for 4000, 160
HP for 5000 and 200 HP for 6000. Operating the implement with a tractor that does not have adequate power
may damage the tractor engine. Exceeding required HP may cause implement damage by overpowering the
unit in heavy cutting conditions.

3.4 3-Point Hitch
The tractor 3-point hitch must be rated to lift at least 3263 lbs.

Implements are designed to be mounted on a tractor with a CAT II and CAT III 3-point 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 II and III dimensions, the implement 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, and CAT II hitches require 1-1/8” lower
and 1” upper diameter hitch pins.

CAT I Implement / Hitch Specification
Width from outside to outside A-frame ..................... 32-3/8”
Quick hitch width inside lug to lug ..................... 33-5/8”
Height from bottom hitch pin to top pin ................. 19”
Lower pin diameter ............................................. 1-1/8”
Upper pin diameter ............................................. 1”
Linch pin diameter ............................................. 15/32”

CAT II Implement / Hitch Specification
Width from outside to outside A-frame ..................... 38”
Quick hitch width inside lug to lug ..................... 39-1/4”
Height from bottom hitch pin to top pin ................. 22”
Lower pin diameter .......................................... 1-7/16”
Upper pin diameter ......................................... 1-1/4”
Linch pin diameter ............................................. 15/32”

3.5 Front End Weight
A minimum of 20% total tractor weight must be maintained on the tractor front end at all times. Front end
weight is critical to maintain steering control and to prevent the tractor from rearing up while driving. If the
front end is too light, add weight until a minimum of 20% total weight is reached on the front tires. Front
weights and weight carriers can be purchased through an authorized tractor dealership. OPS-U- 0005

4. GETTING ON AND OFF THE TRACTOR
Before getting onto the tractor, the operator must read and completely understand the implement and tractor
operator manuals. If any part of either manual is not completely understood, consult an authorized dealer for
a complete explanation. OPS-U- 0007
Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)

4.1 Boarding the Tractor
Use both hands and equipped handrails and steps for support when boarding the tractor. Never use control levers for support when mounting the tractor. Seat yourself in the operator’s seat and secure the seat belt around you.

Never allow passengers to ride on the tractor or attached equipment. Riders can easily fall off and be seriously injured or killed from falling off and being ran over. It is the operator’s responsibility to forbid all extra riders at all times. OPS-U- 0008

Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator’s Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11)

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)

4.2 Dismounting the Tractor
Before dismounting, park the tractor and implement on a reasonably level surface, apply the parking brake, idle the engine down, disengage the PTO, and lower the implement to the ground. Shut down the tractor engine according to the operator’s manual, remove the key, and wait for all motion to completely stop. Never leave the seat until the tractor, its engine and all moving parts have come to a complete stop.

Use hand rails and steps when exiting the tractor. Be careful of your step and use extra caution when mud, ice, snow or other matter has accumulated on the steps or hand rails. Use all handrails and steps for support and never rush or jump off the tractor. OPS-U- 0009

BEFORE leaving the tractor seat lower the implement, set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)
5. STARTING THE TRACTOR

The operator must have a complete understanding of the placement, function, and operational use of all tractor controls before starting the tractor. Review the tractor operator’s manual and consult an authorized dealer for tractor operation instructions if needed.

Essential Tractor Controls:

- Locate the light control lever.
- Locate the engine shut off control.
- Locate the brake pedals and the clutch.
- Locate the 3-point hitch control lever.
- Locate the hydraulic remote control levers.

Before starting the tractor ensure the following:

- Conduct all pre-start operation inspection and service according to the tractor operator’s manual.
- Make sure all guards, shields, and other safety devices are securely in place.
- The parking brake is on.
- The 3-point hitch control lever is in the lowered position.
- The hydraulic remote control levers are in the neutral position.
- The tractor transmission levers are in park or neutral.

Refer to the tractor owner’s manual for tractor starting procedures. Only start the tractor while seated and belted in the tractor operator’s seat. Never bypass the ignition switch by short circuiting the starter solenoid.

After the tractor engine is running, avoid accidental contact with the tractor transmission to prevent sudden and unexpected tractor movement. **OPS-T-0022**

**DANGER** Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

**DANGER** Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)

6. CONNECTING THE IMPLEMENT TO THE TRACTOR

Use extreme caution when connecting the Implement to the tractor. The implement should be securely resting at ground level or setting on blocks. Keep hands and feet from under the implement deck and clear of pinch points between the tractor hitch arms and implement pins. **OPS-T-0001**
Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. (S3PT-15)

### 6.1 Connecting the Implement

Attach the machine to the tractor by carefully reversing the tractor up to the Dyna-Drive “A” frame. Fit the lower left lift arm first with the pins provided, then the lower right lift arm and finally the top link.

When initially setting up the machine, the first setup is to adjust the tractor lift arms so that the unit is level across the tractor.

---

**Top Link Adjustment**

In all conditions the rear rotor should roll along the ground. If it slips, lengthen the top link until this is minimized. Occasional slip in hard or stony conditions is permissible. This is generally obtained by shortening the top link from the level position 2-3 turns.

Excessive slippage will normally reduce the cultivation by the rear rotor and cause rapid wear to the rear rotor tines. See Image **Ops-730**.
Fine adjustment of the top link will be required in hard conditions to give the maximum depth of cultivation with the least amount of slippage to the rear rotor. Never adjust the top link by more than 2 turns without trying the Dyna-Drive and evaluating the effect the adjustment has had. It may help penetration if the tractor lower lift arms are attached to the upper holes on the machine. This will also give some downward force to the machine as the tractor moves forward. See Image Ops-731.

In sandy or extremely soft conditions, it may be necessary to attach the lower lift arms in the lower holes on the machine to prevent the soil from being pushed in these soft conditions.

7. PRE-OPERATION INSPECTION AND SERVICE

Before each use, a pre-operation inspection and service of the implement and tractor must be performed. This includes routine maintenance and scheduled lubrication, inspecting that all safety devices are equipped and functional, and performing needed repairs. DO NOT operate the unit if the pre-operation inspection reveals any condition affecting safe operation. Perform repairs and replacement of damaged and missing parts as soon as noticed. By performing a thorough pre-operation inspection and service, valuable down time and repair cost can be avoided. OPS-U-0029

**WARNING**

Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have cotter pins and washers. Serious injury may occur from not maintaining this machine in good working order. (SG-21)
7.1 Tractor Pre-Operation Inspection/Service
Refer to the tractor operator’s manual to ensure a complete pre-operation inspection and scheduled service is performed according to the manufacturers recommendations. The following are some of the items that require daily service and inspection:

- Tire condition/air pressure
- Wheel lug bolts
- Steering linkage
- PTO shield
- SMV sign is clean and visible
- Tractor’s lights are clean and functional
- Tractor Seat belt is in good condition
- Tractor ROPS is in good condition
- ROPS is in the raised position
- No tractor oil leaks
- Radiator free of debris
- Engine oil level and condition
- Engine coolant level and condition
- Power brake fluid level
- Power steering fluid level
- Fuel condition and level
- Sufficient lubrication at all lube points
- Air filter condition  OPS-U-0030

7.2 Implement Pre-Operation Inspection/Service
Before each implement use, a complete inspection and service is required to ensure the implement is in a good and safe working condition. Damaged and/or broken parts should be repaired and/or replaced immediately. To ensure the implement is ready for operation, conduct the following.  OPS-T-0002

The operator’s manual and safety signs affixed on the unit contain important instructions on the safe and proper use of the equipment. Maintain these important safety features on the implement in good condition to ensure the information is available to the operator at all times.

- Ensure the manual canister is secured to the equipment with the operator’s manual inside.
- Ensure all safety signs are in place and legible. Replace missing, damaged, and illegible decals.  OPS-U-0011
### Tractor PRE-OPERATION Inspection

**Mower ID#____________________Make________________________**  
**Date:_________________________Shift_________________________**

Before conducting the inspection, make sure the tractor engine is off, all rotation has stopped and the tractor is in park with the parking brake engaged. Make sure the mower is resting on the ground or securely blocked up and all hydraulic pressure has been relieved.

<table>
<thead>
<tr>
<th>Item</th>
<th>Condition at Start of Shift</th>
<th>Specific Comments if not O.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The flashing lights function properly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMV Sign is clean and visible</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The tires are in good condition with proper pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The wheel lug bolts are tight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The tractor brakes are in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The steering linkage is in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>There are no visible oil leaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The hydraulic controls function properly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ROPS or ROBS Cab is in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The seatbelt is in place and in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The 3-point hitch is in good condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The drawbar pins are securely in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The PTO master shield is in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The engine oil level is full</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The brake fluid level is full</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The power steering fluid level is full</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fuel level is adequate</td>
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<td></td>
</tr>
<tr>
<td>The engine coolant fluid level is full</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The radiator is free of debris</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The air filter is in good condition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Operator’s Signature: ____________________________________________

**DO NOT OPERATE an UNSAFE TRACTOR or IMPLEMENT**
8. OPERATING THE TRACTOR AND IMPLEMENT

THE OPERATOR MUST COMPLETELY UNDERSTAND HOW TO OPERATE THE TRACTOR AND IMPLEMENT AND ALL CONTROLS BEFORE ATTEMPTING TO OPERATE. The operator must read and understand the Safety and Operation Sections of the implement and tractor operator’s manuals. These manuals must be read and explained to any operator who cannot read. Never allow someone to operate the implement and tractor without complete operating instructions.

Before starting any operation, the operator must become familiar with the area to be worked in and any obstacles and hazards contained within to ensure safety to the operator, bystanders, and equipment. Special attention should be paid to foreign debris, rough terrain, steep slopes, and passersby and animals in the area.

OPS-U-0015

Many varied objects, such as wire, cable, rope, or chains, can become entangled in the rotating parts of the implement. These objects could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the area for such objects before working in the area. Remove any such objects from the site. Never allow the implement to contact such objects. (STL-6)

8.1 Foreign Debris Hazards

Before operating, inspect the area to make sure there are no foreign objects that the implement blades could hit or become entangled with. Remove all foreign objects and debris. If objects are too big to remove, mark them clearly and be sure to prevent the implement blades from contacting them.

If you hit a solid object or foreign debris, stop the implement and tractor at once. Immediately idle the engine speed, wait for all implement rotating motion to stop, then raise the implement and move the tractor and implement off the object. Inspect the area and remove, or mark the location of the debris. Inspect the condition of the implement and make any needed repairs immediately. Make sure the blades are not damaged and the carrier is balanced before resuming operation.

Always wear your seat belt securely fastened and only operate the tractor and implement with the ROPS in the raised position. If the tractor or implement hits a tree stump, rock, or bump, a sudden movement could throw you off of the seat and under the tractor and/or implement. The seat belt is your best protection from falling off the tractor and the ROPS provides protection from being crushed during a tractor roll-over. 

 dyna-drive 03/12  
Operation Section 4-13

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Extreme care should be taken when operating near loose objects such as gravel, rocks, wire, and other debris. Inspect the area before tilling. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop operating immediately if blades strike a foreign object. Repair all damage and make certain rotor and blades are in good condition before resuming operation. (STL-5)

8.2 Bystanders/Passersby Precautions
If a bystander comes within 300 feet of the tractor while the implement is being operated, stop the tractor at once, idle the engine and stop the implement. Do not engage the implement again until all bystanders are well past the 300 foot distance. OPS-T-0004_A

Do not put hands or feet under Tiller deck. Blade Contact can result in serious injury or even death. Stay away until all motion has stopped and the decks are securely blocked up. (STL-3)

8.3 Operating the Implement
Only operate the implement from the tractor operator’s seat with the seatbelt securely fastened. The tractor must be equipped with a ROPS in the raised position or a ROPS cab.

The implement is designed for horticultural, agricultural, or commercial applications cultivation. Maintained blades will produce a better cultivation and require less power. Travel at a speed that allows the implement sufficient time to cultivate the ground and maintain the operating speed to prevent overloading the implement and tractor. Choose a driving pattern that provides the maximum pass length and minimizes turning.

Avoid operating in the reverse direction when possible. In situations where the implement must be backed to access areas, make sure there are no persons or other foreign debris behind the implement before operating in reverse. When operating in reverse, operate the tractor and implement at a reduced ground speed to ensure tractor and implement control is maintained. OPS-T-0005_A
8.4 Tines

The tines can be identified as being clockwise (CW) and counter-clockwise (CCW). A (CCW) tine twists counter-clockwise and a (CW) tine twists clockwise as it goes away from you.

Tines are made from hardened and tempered spring steel and with its rotating slow-speed action will give a long service life.

In normal conditions the front rotor has 8 tines per spider. Note how the tines alternate CW and CCW in Image Mnt-T-0008.

The rear rotor, in normal conditions, has 4 tines per spider. In Image Ops-734, the tines on the spiders alternate left and right, and the next spider is offset from the first. If the ground is a harder type such as a clay or has a hardened cap, you may install more tines on the spiders. If you are tilling in very wet conditions, it may be necessary to install the longer clearing tines to clear the build up. Remember to remove the clearing tines if you start tilling in hard conditions, as they will impede penetration and may become damaged.
8.5 Flap
The flap should normally be in one of the lower positions to help clod shatter.
In wet conditions, the flap should be raised to reduce the risk of blockage and prevent material building up on its underside.
If working under the machine, make sure it is adequately supported on blocks. Do not rely on tractor hydraulics. Hold the flap in the raised position using the link and forward most pins on the endplates.

8.6 Crumbler Option

Depth Adjustment
The Crumbler may be used to control the depth of the Dyna-Drive. In this way, weight is transferred from the Dyna-Drive to the Crumbler for extra breaking down of the soil surface. The depth is set by the depth adjustment plates.
The faces are numbered 1-6, giving a range of adjustment from the shallowest cultivation at No. 1 (1") the deepest cultivation at No. 6 (6"). The plate should be bearing on the trailing arm when at work (Item C in Image Asm-T-0004). Ensure that both adjustment plates are set to the same position.

Hinged Flap Adjustment
When working with the crumbler in stony conditions, it may be necessary to adjust the hinged flap upward to prevent stones wedging between the flap and crumbler bars (Item F in Image Asm-T-0004).

Operating without Crumbler
If desired the Dyna-Drive may be used without the crumbler. To remove the crumbler lower machine to the ground, remove retaining bolts on Pin E, rotate pin and remove. Crumbler can be rolled rearward. When reinstalling, use Cam end of Crumbler Arm Pins to align Arm to mount. Simply insert small diameter and rotate 180 degrees to align them. Push pin inward and lock with retaining bolt. However, while in this state care must be taken of material ejected from the rear rotor.
8.7 Shutting Down the Implement

To shut down the implement, first bring the tractor to a complete stop. Then slow down the implement by reducing the engine speed. Wait for all motion to stop before proceeding to drive or shut down the tractor.

Park the tractor on a level surface, place the transmission in park or neutral and apply the parking brake, lower the attached implement to the ground, shut down the engine, remove the key, and wait for all motion to come to a complete stop before exiting the tractor. *OPS-T-0007_A*

9. DISCONNECTING THE IMPLEMENT FROM THE TRACTOR

Before disconnecting the implement, idle the implement and note that the blade rotation is at a complete stop. Move the implement to a level storage location and lower it to the ground. If the implement is not resting securely on the ground, block the implement up securely before attempting to disconnect it from the tractor.

Use extreme care to keep feet and hands from under the implement and clear of any pinch points caused by the tractor hitch arms and implement pins. *OPS-T-0008_A*

**DANGER**

Never stand or allow another person to stand between a running Tractor and the Implement when disconnecting the Implement from the Tractor 3-point hitch.

**DANGER**

Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. *(33PT-15)*

To disconnect the implement, first 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 implement. Next remove both lower hitch pins.
10. IMPLEMENT STORAGE

Properly preparing and storing the implement at the end of the season is critical to maintaining its appearance and to help ensure years of dependable service. The following are suggested storage procedures:

- Thoroughly clean all debris off the implement to prevent damage from rotting grass and standing water.
- Lubricate all implement grease points and fill gearbox oil levels as detailed in the maintenance section.
- Tighten all bolts and pins to the recommended torque.
- Check the implement for worn and damaged parts. Perform repairs and make replacements immediately so that the implement will be ready for use at the start of the next season.
- Store the implement in a clean, dry place with the implement housing resting securely on blocks or at ground level.
- Keep the driveline yoke from sitting in water, dirt and other contaminants.
- Use spray touch-up enamel where necessary to prevent rust and maintain the appearance of the implement.

It is critical that driveline clutches slip when an obstacle or heavy load is encountered to avoid implement and/or tractor damage. If the implement sits outside for an extended period of time or is exposed to rain and/or humid air, the clutch lining plates must be inspected to ensure they are not frozen together from rust or corrosion. If the implement has been exposed to such conditions, at the start of each operating season, and any time it is suspected that the slip clutch plates may be frozen together, readjust the slip clutch as detailed in Seasonal Clutch Maintenance of the maintenance section in this manual. \textit{OPS-T-0010}

\textbf{DANGER}

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)

11. TRANSPORTING THE TRACTOR AND IMPLEMENT

Inherent hazards of operating the tractor and implement and the possibility of accidents are not left behind when you finish working in an area. Therefore, the operator must employ good judgement and safe operation practices when transporting the tractor and implement between locations. By using good judgement and following safe transport procedures, the possibility of accidents while moving between locations can be substantially minimized. \textit{OPS-U-0017}
12. DRIVING THE TRACTOR AND IMPLEMENT

Safe tractor transport requires the operator possess a thorough knowledge of the model being operated and precautions to take while driving with an attached implement. Ensure the tractor has the capacity to handle the weight of the implement and the tractor operating controls are set for safe transport. To ensure safety while driving the tractor with an attached implement, review the following. **OPS-U-0012**

**DANGER**

Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

**WARNING**

Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.

Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.

Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor’s flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)
12.1 Brake and Differential Lock Setting

Make sure the tractor brakes are in good operating condition. Tractor brakes can be set to operate independently allowing single rear wheel braking action or locked together to provide simultaneous rear wheel braking. FOR MOST DRIVING AND OPERATING CONDITIONS, THE BRAKE PEDALS SHOULD BE LOCKED TOGETHER TO PROVIDE THE MOST EFFECTIVE BRAKING ACTION.

Always disengage the tractor differential lock when turning. When engaged the differential lock will prevent or limit the tractor from turning. During normal cutting conditions, locking the differential provides no benefit and should not be used. OPS-U-0013

⚠️ WARNING ⚠️

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases; use extreme care and reduce your speed in these conditions. When operating in traffic, always use the Tractor’s flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy.

12.2 Transporting on Public Roadways

Extreme caution should be used when transporting the tractor and implement on public roadways. The tractor must be equipped with all required safety warning features including a SMV emblem and flashing warning lights to alert drivers of the tractor’s presence. Remember that roadways are primarily designed for automotive drivers and most drivers will not be looking out for you, therefore, you must look out for them. Check your side view mirrors frequently and remember that vehicles will approach quickly because of the tractor’s slower speed. Be extremely cautious when the piece of equipment that you are towing is wider than the tractor tire width and/or extends beyond your lane of the road.

Make sure that a proper size safety tow chain is secured between the tractor and implement before entering a public road. OPS-U-0019

⚠️ WARNING ⚠️

Make certain that the “Slow Moving Vehicle” (SMV) sign is installed in such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)
The SMV (Slow-Moving Vehicle) emblem is universal symbol used to alert drivers of the presence of equipment traveling on roadways at a slow speed. SMV signs are a triangular bright orange with reflective red trim for both easy day and night visibility. Make sure the SMV sign is clean and visible from the rear of the unit before transporting the tractor and implement on a public roadway. Replace the SMV emblem if faded, damaged, or no longer reflective. *OPS-U-0020*

Make sure that all tractor flashing warning lights, headlights, and brake/tail lights are functioning properly before proceeding onto public roads. While newer model tractors have plenty of lighting to provide warning signals and operating lighting, most older models are only equipped with operating lights. Consult an authorized tractor dealer for lighting kits and modifications available to upgrade the lighting on older tractor models. *OPS-U-0021*

When operating on public roads, have consideration for other road users. Pull to the side of the road occasionally to allow all following traffic to pass. Do not exceed the legal speed limit set in your country for agricultural tractors. Always stay alert when transporting the tractor and implement on public roads. Use caution and reduce speed if other vehicles or pedestrians are in the area. *OPS-T-0013*

Reduce speed before turning or applying the brakes. Ensure that both brake pedals are locked together when operating on public roads. *OPS-U-0023*
12.3 Hauling the Tractor and Implement

Before transporting a loaded tractor and implement, measure the height and width dimensions and gross weight of the complete loaded unit. Ensure that the load will be in compliance with the legal limits set for the areas that will be traveled through. *OPS-U-0024*

Use adequately sized and rated trailers and equipment to transport the tractor and implement. Consult an authorized dealer to determine the proper equipment required. Using adequately sized chains, heavy duty straps, cables and/or binders, securely tie down both the front and rear of the tractor utilizing the proper tie down locations as specified by the tractor manufacturer. *OPS-U-0025*
Arrange the chains so that when tightened, the chains are pulling downward and against themselves. Carefully tighten the securing chains or other fasteners using boomers or binders to apply maximum tension. Use extreme care when attaching and removing the securing devices as the extreme tension involved when released has the potential to inflict serious injury.

While hauling the tractor and implement, make occasional stops to check that the tractor and implement have not moved or shifted and that the securing chains have maintained tension. If during transport a hard braking, sharp turning, or swerving action was performed, stop at the next safe location to inspect the security of the load. *OPS-U-0026*
MAINTENANCE SECTION
Although very little can go wrong with the machine in normal working conditions, a regular inspection of moving parts is advisable to obtain a full working life.

LUBRICATION

Cultivator

Image Mnt-T-0005 below indicates the position of the bearings and grease fittings. Greasing of these bearings should be done with a hand grease gun. One or two gentle pumps each day before work are sufficient. Violent pumping of grease can damage the seals in some cases causing displacement of the bearing cage and subsequent failure.

The transmission is lubricated by the chain case oil. The case contains approximately (5-1/4 pints) of SAE30 oil and the level should be checked weekly or more frequently if leaks are evident or suspected. The oil level plug is at position 1 in Image Mnt-T-0005, located on the first bolt on the rise from horizontal on the inside of either end plate towards the front.

<table>
<thead>
<tr>
<th>Item</th>
<th>Grease Fitting</th>
<th>Lube Type</th>
<th>Toy.</th>
<th>Frequency</th>
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<tbody>
<tr>
<td>A</td>
<td>End Bearings</td>
<td>Grease</td>
<td>4</td>
<td>Daily (8 Hours)</td>
</tr>
<tr>
<td>B</td>
<td>Center Bearings (4000 &amp; 5000 Only)</td>
<td>Grease</td>
<td>4</td>
<td>Daily (8 Hours)</td>
</tr>
<tr>
<td>C</td>
<td>Chain Chase (4000 &amp; 5000)</td>
<td>Oil</td>
<td>1</td>
<td>Weekly (40 Hours)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oil</td>
<td>2</td>
<td>Weekly (40 Hours)</td>
</tr>
</tbody>
</table>
Crumbler

If you have the Crumbler attached to the Cultivator, the additional grease fittings on the Crumbler Rollers (A) and on the Crumbler Trailing Arms (B), as shown in Image Mnt-T-0006, need to be greased as the Cultivator grease fittings, every 8 hours of operation.
The tines can be identified as being CW and CCW. A CCW tine (A) shown in Image Mnt-T-0007 twists counter-clockwise and a right CW (B) twist clockwise as it goes away from you. Tines are made from hardened and tempered spring steel and with its rotating slow-speed action will give a long service life.

In normal conditions, the front rotor has 8 tines per spider. Note how the tines alternate left and right in Image Mnt-T-0008.

The rear rotor, in normal conditions, has 4 tines per spider. In Image Mnt-T-0009, the tines on the spiders alternate left and right, and the next spider is offset from the first. If the ground is a harder type such as a clay or has a hardened cap you may install more tines on the spiders. If you are tilling in very wet conditions, it may be necessary to install the longer clearing tines to clear the build up. Remember to remove the clearing tines if you start tilling in hard conditions, as they will impede penetration and may become damaged.
CHAIN DRIVE

A 1-1/2” Duplex chain drive interconnects the front and rear rotors at a ratio of 1:3. The chain tensioning mechanism is spring loaded and requires no adjustment.

At the end of the season, drain the oil and remove the chain case. Check the chain and sprockets for wear and replace if necessary.

When dismantling the system, be sure to undo the compression spring by loosening the top nut (A), see Image Mnt-T-0010. This will release the spring load gradually and more safely. On reassembly, the correct spring compression will be obtained by screwing the special nut down to the shoulder on the guide rod.

The reversible bottom guard plate is fitted to protect the chain case from impact damage and wear through intermittent contact with the soil. To check for wear, remove one of the attachment bolts at the front edge and if the thickness is less than 3 mm (1/8”), replace the plate. In normal conditions, the steel guard plate should last several seasons.

Thoroughly clean the case and sprockets and replace using a 5 mm bead of silicone rubber gasket compound to seal the case (Image Mnt-T-0011). On reassembly, make sure that the short capscrews (M12 x 20mm) are used in the threaded holes (shown with *). Tighten setscrews in sequence, 1 to 16, as shown in Mnt-T-0011.

More effective sealing of the chain case can be achieved if the compound is allowed to partially harden for a few hours before refitting the chain case.

The chain case should be refilled with approximately 2-1/2 liters (5.25 pints) of SAE 30 oil. (A) in Mnt-T-0011 shows the oil level plug that should be used when the machine is standing on a level surface.
SHAFT BEARINGS

The only maintenance required on the bearings is to occasionally check the tightness of the setscrews. These can be found on the non-drive end bearings of single transmission machines and on the center bearings of twin transmission machines.

Checking the non-drive end is straightforward as the setscrews are clearly visible after removing the bearing cover.

Checking the center bearings require some care, as it is necessary to remove the blanking plugs (A), Mnt-T-0012, adjacent to the grease nipple (B), (4 in all) and locate the Allen screws through these holes.

STORAGE

Your rotary tiller represents an investment from which you should get the greatest possible benefit. Therefore, when the season is over, the tiller should be thoroughly checked and prepared for storage so that a minimum amount of work will be required to put it back into operation for the next season. The following are suggested storage procedures:

1. Thoroughly clean the implement.
2. Lubricate the implement as covered in Maintenance Section.
3. Tighten all bolts and pins to the recommended torque.
4. Check the tiller for worn or damaged parts. Make replacements immediately.
5. Store the implement in a clean, dry place.
6. Use spray touch-up enamel where necessary to prevent rust and maintain the appearance of the implement.

PROPER TORQUE FOR FASTENERS

The chart lists the correct tightening torque for fasteners. When bolts are to be tightened or replaced, refer to this chart to determine the grade of bolts and the proper torque except when specific torque values are assigned in manual text.

RECOMMENDED TORQUE IN FOOT POUNDS UNLESS OTHERWISE STATED IN THE MANUAL*

*NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphited or molydisulphide greases or other extreme pressure lubricants are used. This applies to both UNF fine and UNC coarse threads.
### TORQUE SPECIFICATIONS

**Proper torque for American fasteners.**

**Recommended Torque in Foot Pounds (Newton Meters).**

<table>
<thead>
<tr>
<th>WRENCH SIZE (IN) &quot;A&quot;</th>
<th>BOLT DIAMETER IN &quot;B&quot; AND THREAD SIZE</th>
<th>SAE GRADE 2</th>
<th>SAE GRADE 5</th>
<th>SAE GRADE 8</th>
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<td>7/16</td>
<td>1/4 - 2O UNC</td>
<td>6 (7)</td>
<td>8 (11)</td>
<td>12 (16)</td>
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<td>7/16</td>
<td>1/4 - 28 UNF</td>
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<td>1/2</td>
<td>5/16 - 18 UNC</td>
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<td>1672 (2296)</td>
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<td>2194 (2973)</td>
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</table>

**METRIC**

**Proper torque for Metric fasteners.**

**Recommended torque in Foot Pounds (Newton Meters).**

<table>
<thead>
<tr>
<th>WRENCH SIZE (mm) &quot;A&quot;</th>
<th>BOLT DIAM. (mm) &quot;B&quot;</th>
<th>ASTM 4.6</th>
<th>ASTM 8.8</th>
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*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.*
1. LIMITED WARRANTIES

1.01. EarthMaster warrants for one year from the purchase date to the original non-commercial, governmental, or municipal purchaser ("Purchaser") and warrants for six months to the original commercial or industrial purchaser ("Purchaser") that the goods purchased are free from defects in material or workmanship.

1.02. Manufacturer will replace for the Purchaser any part or parts found, upon examination at one of its factories, to be defective under normal use and service due to defects in material or workmanship.

1.03. This limited warranty does not apply to any part of the goods which has been subjected to improper or abnormal use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong fuel, oil, or lubricants, or which has served its normal life. This limited warranty does not apply to any part of any internal combustion engine, or expendable items such as blades, shields, guards, or pneumatic tires except as specifically found in your Operator’s Manual.

1.04. Except as provided herein, no employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Manufacturer.

2. REMEDIES AND PROCEDURES.

2.01. This limited warranty is not effective unless the Purchaser returns the Registration and Warranty Form to Manufacturer within 30 days of purchase.

2.02. Purchaser claims must be made in writing to the Authorized Dealer ("Dealer") from whom Purchaser purchased the goods or an approved Authorized Dealer ("Dealer") within 30 days after Purchaser learns of the facts on which the claim is based.

2.03. Purchaser is responsible for returning the goods in question to the Dealer.

2.04. If after examining the goods and/or parts in question, Manufacturer finds them to be defective under normal use and service due to defects in material or workmanship, Manufacturer will:
   (a) Repair or replace the defective goods or part(s) or
   (b) Reimburse Purchaser for the cost of the part(s) and reasonable labor charges (as determined by Manufacturer) if Purchaser paid for the repair and/or replacement prior to the final determination of applicability of the warranty by Manufacturer.

The choice of remedy shall belong to Manufacturer.

2.05. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Manufacturer and for returning the goods to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the goods or part(s) from the Dealer to the designated factory.

3. LIMITATION OF LIABILITY.

3.01. MANUFACTURER DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

3.02. MANUFACTURER MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.

3.03. EXCEPT AS PROVIDED HEREIN, MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO PURCHASER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOT WITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.

3.04. NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN TWO (2) YEARS AFTER THE CAUSE OF ACTION HAS OCCURRED.

4. MISCELLANEOUS.

4.01. Proper Venue for any lawsuits arising from or related to this limited warranty shall be only in Guadalupe County, Texas.

4.02. Manufacturer may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.

4.03. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.

4.04. Applicable law may provide rights and benefits to purchaser in addition to those provided herein.

KEEP FOR YOUR RECORDS
ATTENTION: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

EarthMaster Implement Model ___________________________ Serial Number ________________________
Date Purchased ______________________________________ Dealer ______________________________

ATTENTION:
READ YOUR OPERATOR'S MANUAL
TO THE OWNER/OPERATOR/DEALER

To keep your implement running efficiently and safely, read your manual thoroughly and follow these directions and the Safety Messages in this Manual. The Table of Contents clearly identifies each section where you can easily find the information you need.

The OCCUPATIONAL SAFETY AND HEALTH ACT (1928.51 Subpart C) makes these minimum safety requirements of tractor operators:

REQUIRED OF THE OWNER:
1. Provide a Roll-Over-Protective Structure that meets the requirements of this Standard; and
2. Provide Seat belts that meet the requirements of this paragraph of this Standard and SAE J4C; and
3. Ensure that each employee uses such Seat belt while the tractor is moving; and
4. Ensure that each employee tightens the Seat belt sufficiently to confine the employee to the protected area provided by the ROPS
5. Keep Children away from danger all day, everyday.

REQUIRED OF THE OPERATOR:
1. Securely fasten 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 the tractor manufacturer.
9. When the tractor is stopped, set brakes securely and use park lock, if available.