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ORTHMAN MFE．INC．
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## Farm Safety

Contrary to the popular image of fresh air and peaceful surroundings, a farm is not a hazard-free work setting. Every year, thousands of farm workers are injured and hundreds more die in farming accidents. According to the National Safety Council, agriculture is the most hazardous industry in the nation.

## How You Can Improve Farm Safety

You can start by increasing your awareness of farming hazards and making a conscious effort to prepare for emergency situations including fires, vehicle accidents, electrical shocks from equipment and wires, and chemical exposures. Be especially alert to hazards that may affect children and the elderly. Minimize hazards by carefully selecting the products you buy to ensure that you provide good tools and equipment. Always use seat belts when operating tractors, and establish and maintain good housekeeping practices. Here are some other steps you can take to reduce illnesses and injuries on the farm:

- Read and follow instructions in equipment operator's manuals and on product labels.
- Inspect equipment routinely for problems that may cause accidents.
- Discuss safety hazards and emergency procedures with your workers.
- Install approved rollover protective structures, protective enclosures, or protective frames on tractors.
- Make sure that guards on farm equipment are replaced after maintenance.
- Review and follow instructions in material safety data sheets (MSDSs) and on labels that come with chemical products and communicate information on these hazards to your workers.


## Health and Safety Hazards on Farms

Farm workers including farm families and migrant workers are exposed to hazards such as the following:

| Danger | Potential Effect or Injury | Prevention |
| :---: | :---: | :---: |
| Chemicals/Pesticides | Skin and respiratory injury or death | MSDS and proper Personal Protective Equipment. Review Manufacturers data sheets |
| Cold | Illness, Frostbite or death | Dress properly for the day. |
| Dust | Respiratory injury or explosive combinations | Be aware of your surroundings and activity |
| Electricity | Shock, burns, fire, death | Use a qualified professional for wiring dangerous electrical devices. Never overload a circuit. Replace damaged electrical devices or cords. Electrical tape will not insulate you from injury. |
| Grain bins, Silos | Entrapment, Suffocation, Explosion from formation of dangerous gases and poisoning. | Make sure the bin is properly ventilated and maintained. Never walk the grain. |
| Hand tools | Injury including cuts abrasions, electrocution, strains, sprains and death | Make sure you hand tools are in good condition. Never leave a damaged tooling accessible for someone else to use. |
| Highway traffic | Collisions resulting in injury or death | Follow regulations, stay alert. Avoid alcohol and use of communication devices while driving |
| Lifting and lifting devices | Back injury, sprains, strains. Falling material resulting in being struck or crushed by heavy material | Use proper lifting technique. Get help when the load is too heavy. Inspect chains, straps or cables routinely to make sure they are in good condition. |
| Livestock handling | Serious injury or death resulting from being pinned struck or trampled. | Always make sure you have adequate room and an escape route |
| Machinery/Equipment | Cuts, abrasions, amputations, death. | Thoroughly read and understand your Owners Equipment Manual. Never operate the equipment without guards in place. Make sure the equipment can not be energized or otherwise put into operation while you are working on it. |
| Manure pits | Explosion from formation of dangerous gases. Suffocation. Poisoning | Proper maintenance. |
| Mud | Sprains, strains, entrapment and suffocation. Eye injury and skin irritation. | Proper Personal Protective Equipment. In some conditions a "Spotter" may be needed. |
| Noise | Hearing damage | Personal Protective Equipment. |
| Ponds | Drowning | Wear a life preserver and make sure help is readily available. |
| Slips/Trips/Falls | Sprains, strains, back and neck injury, bone breaks or death | Keep work area free from clutter and organized. If working on anything elevated make sure you have appropriate guarding and/or fall protection such as a harness and lanyard. |
| Sun/Heat | Sun burn, Heat Stroke, shock, death | Use common sense on excessively hot days, use sun screen, wear a hat and stay hydrated. |
| Toxic gases | Skin and respiratory injury or death. Explosion. | MSDS and proper Personal Protective Equipment. Review Manufacturers data sheets |
| Tractors | Cuts, abrasions, amputations, death. | Thoroughly read and understand your Owners Equipment Manual. Never operate the equipment without guards in place. Anti-roll over devices. |
| Wells | Electrocution, amputation, death | Avoid contact with water while working on an electrical device. Always be sure the equipment can/will not be energized during repair or maintenance. Make sure all guarding is in place. |
| Severe Weather | Electrocution, "struck by" injuries, death | Move to a safe place. Lightening, hail and tornadoes are unpredictable. |

Orthman Manufacturing, Inc. does not limit the potential effects or injuries nor prevention measures to those listed above. They are provided solely as a guideline to making your farm life safer. Always consult your Owner/Operators Manual for specific tool and equipment safety requirements.

## High Risk Factors on Farms

The following factors may increase risk of injury or illness for farm workers:

- Age - Injury rates are highest among children age 15 and under and adults over 65.
- Equipment and Machinery - Most farm accidents and fatalities involve machinery. Proper machine guarding and doing equipment maintenance according to manufacturers' recommendations can help prevent accidents.
- Protective Equipment - Using protective equipment, such as seat belts on tractors, and personal protective equipment (such as safety gloves, coveralls, boots, hats, aprons, goggles, face shields) could significantly reduce farming injuries.
- Take precautions to prevent entrapment and suffocation caused by unstable surfaces of grain storage bins, silos, or hoppers. Never "walk the grain."
- Be aware that methane gas, carbon dioxide, ammonia, and hydrogen sulfide can form in unventilated grain silos and manure pits and can suffocate or poison workers or explode.
- Take advantage of safety equipment, such as bypass starter covers, power take-off master shields, and slow-moving vehicle emblems.
- Medical Care - Hospitals and emergency medical care are typically not readily accessible in rural areas near farms.


## The Benefits of Improved Safety and Health Practices

Orthman Manufacturing Provides this document in the hope that everyone that has a job to do, does it SAFELY. Our goal and yours should be to end each day in the best possible health. Better safety and health practices reduce fatalities, injuries, and illnesses as well as associated costs such as workers' compensation insurance premiums, lost production, and medical expenses. A safer and more healthful workplace improves morale and productivity.

## WARRANTY

Orthman Mfg., Inc. warrants the whole goods products it manufactures to be free from defects in material or workmanship for a period of one (1) year from the date of sale of the product(s) to the original user. Products not manufactured, but supplied by Orthman Mfg., Inc. on Orthman products, are subject to, conform with, and are limited to the warranty of our suppliers.

Orthman Mfg., Inc. warrants the parts it manufactures to be free from defects in material or workmanship for a period of ninety (90) days from the date of delivery of the product(s) to the original user. Products not manufactured, but supplied by Orthman Mfg., Inc. on Orthman products, are subject to, conform with, and are limited to the warranty of our suppliers.

Warranty of Orthman whole goods and/or parts applies only to material and workmanship. Misuse, misapplication, neglect, alteration, accident, normal wear, or acts of God affecting Orthman products are not eligible for warranty.

Warranty of serial numbered goods will only be considered if the product has a completed Warranty Registration on file at Orthman. This Warranty Registration must be completed and returned to Orthman within thirty (30) days of the sale of the product(s) to the original user. No serial numbered goods or related parts and/or labor will be warranted without a Warranty Registration on file. Warranty issues falling within the first thirty days of a product's use will be handled at the discretion of Orthman. Warranty of parts will not require a Warranty Registration, but proof of date of delivery of the product to the original customer must be provided.

WARRANTY CLAIMS: A warranty claim and request to return defective product(s) must be presented to the Orthman Service Department by the selling dealer describing the defect in material or workmanship of an Orthman product(s) within ten (10) days of its discovery. This claim may be made via phone, e-mail, fax, or written request. Claims for warranty of serial numbered goods must include the Orthman product serial number and model number. Claims for warranty of parts will not require a product serial number or model number, but must be identified by an Orthman part number. Claims for warranty of whole goods or parts must also include proof of date of sale of the product to the original customer by an Orthman dealer.

The Orthman Service Department will proceed in making a preliminary decision as to the eligibility of the claim for warranty consideration. After the Orthman Service Department deems it necessary to proceed with warranty consideration, a Return Goods Authorization (RGA) will be completed by the Orthman Service Department in conjunction with the selling dealer. Upon completion of the RGA, the defective product(s) must be returned to Orthman to ensure warranty consideration. Defective product(s) must be returned to Orthman by either the selling dealer or the customer. Customer delivery of defective product(s) must be approved by Orthman and the selling dealer prior to delivery. The defective product(s) in question must be sent, freight prepaid, within sixty (60) days of the discovery of the product(s) failure and initial warranty claim. Replacement product(s) may be sent to the selling dealer, directly to the customer, or picked up at the Orthman facility. Replacement product(s), sent directly to the customer or picked up must be approved by Orthman and the selling dealer. At the discretion of the Orthman Service Department, replacement product(s) may be sent prior to, or after, the Orthman Service Department receives the defective product(s).
Any variation in the above procedure is at the sole discretion of the Orthman Service Department.
No products will be accepted at Orthman without all proper paperwork completed including Warranty Registration and RGA(s). Parts returned to Orthman without proper authorization will be returned to the sender at the sender's expense.

Orthman agrees to handle all warranty claims in a timely manner and will inform dealers of any revisions or modifications to the Orthman Warranty Policy. Eligible warranty claims will be processed by Orthman within sixty (60) days of receiving failed product(s) or a valid service or repair labor claim. Eligible warranty claims regarding returned product(s) or service and/or repair labor will be paid through a credit memo issued to the appropriate dealer's account as determined by the Orthman Service Department.

If a warranty claim is found to be ineligible for warranty coverage, the Orthman Service Department will be responsible to inform the dealer in order to determine the course of action to be taken. Orthman reserves the right to make changes in specification and design without notice and without incurring any obligations to owners of products previously sold.

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Lexington, Nebraska
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Orthman provides this manual without warranty of any kind, expressed or implied. This manual reflects the product at the time of publication. All information within is based upon current information on the publication date. Orthman assumes no responsibility for damages incurred due to the use of the illustrations, information, and specifications within this publication.

## TuxEyTi*

311007 Bearing These bearings have been greased at the factory. They do not need to be greased until sufficient usage. Overgreasing will cause triple lip seal failure.


## TERRA-FIRM'R

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STAY CLEAR OF OVERHEAD POWERLINES (300158)


STAY CLEAR OF WING FRAMES (300095)


HYDRAULIC FLUID UNDER PRESSURE (300096)

## TERRA-FIRM'R

## MOST ACCIDENTS CAN BE AVOIDED WHEN SAFETY RULES ARE FOLLOWED

THE FOLLOWING RULES WILL KEEP MACHINE-RELATED ACCIDENTS TO A MINIMUM:
READ THE INSTRUCTION AND PARTS MANUAL CAREFULLY BEFORE USING THE MACHINE.

- NEVER WALK UNDER AN UNPINNED WING.
- ALWAYS REQUIRE BYSTANDERS TO STAND CLEAR OF THE MACHINE WHILE FOLDING AND UNFOLDING WINGS OR WHILE RAISING OR LOWERING THE MACHINE.
- NEVER ALLOW FEET TO BE UNDER THE BASKETS.
- DO NOT WALK ON THE FRAMES.
- DO NOT ADJUST, LUBRICATE OR CLEAN THE MACHINE WITH THE TRACTOR RUNNING.
- ALWAYS USE LOCK-UP PINS WHEN WINGS ARE IN THE FOLDED POSITION, ON THE 5SECTION MACHINES
- ALWAYS USE ROAD LOCKOUT BRACKETS WHEN ROADING.
- COMPLY WITH ALL STATE AND LOCAL TRANSPORTATION LAWS.
- CHECK WHEEL BOLTS EVERY 100 HOURS.
- DO NOT TRANSPORT THE MACHINE OVER 15 MILES PER HOUR. NEVER ALLOW RIDERS ON THE IMPLEMENT.
- DO NOT STAND OVER THE TONGUE WHEN HITCHING OR UNHITCHING.
- NEVER REMOVE ANY LOCK PINS UNLESS HYDRAULIC CYLINDERS AND LINES ARE FREE OF AIR AND FULL OF HYDRAULIC OIL.
- CHECK THE TIRE PRESSURE AND INSPECT THE TIRES FOR CUTS OR WEAR DAILY. (USE RECOMMENDED PRESSURES ON THE TIRES.)
- DO NOT REMOVE OR TAMPER WITH SAFETY DEVICES, SUCH AS: HYDRAULIC RESTRICTORS, LOCKOUT ARMS, OR LOCKOUT BRACKETS.
- WATCH OUT AND AVOID PROTRUDING OBJECTS, SUCH AS: BASKET RODS, SCRAPERS ETC.
- STAY CLEAR OF CRUSH POINTS, SUCH AS: HITCH POINT, PIVOT POINTS ETC.
- FOLD AND UNFOLD THE WINGS ON LEVEL GROUND.
- INSPECT PINS FOR WEAR, REPLACE WORN PARTS.
- INSPECT THE HYDRAULIC SYSTEM FOR FRAYED HOSES AND LEAKY FITTINGS

OPERATION OF MACHINE

2. CHECK ALL HARDWARE FOR TIGHTNESS DURING BREAK-IN USE OF A NEW MACHINE.
3. VISUALLY CHECK TIRE INFLATION EACH DAY.
4. CHECK STRUT PLATE MOUNTING BOLTS FOR TIGHTNESS EACH DAY.

## LUBRICATION

1. SPECIAL N
IMPLEMENT.
2. SPECIAL NOTE: IF TIGHT TURNS ARE NECESSARY, PAY CLOSE ATTENTION TO LOCATION OF THE TERRA-FIRM'R IN CONJUNCTION WITH THE PULLING IMPLEMENT.
WINTERIZING MACHINE
WHEN FINISHED USING MACHINE FOR THE SEASON OR STORING MACHINE FOR AN EXTENDED PERIOD OF TIME, THESE MEASURES WILL HELP ENSURE THAT YOUR MACHINE WILL BE IN GOOD OPERATING CONDITION FOR THE NEXT SEASON.
3. LUBRICATE ALL GREASE POINTS
4. UNFOLD MACHINE AND REST MACHINE ON BASKETS TO RELIEVE HYDRAULIC PRESSURE. (AS THE SUN WARMS THE MACHINE, THE HYDRAULIC OIL IN THE SYSTEM EXPANDS 100 PSI FOR EVERY DEGREE OF INCREASE IN TEMPERATURE. UNDER CERTAIN CONDITIONS, THE OIL MAY EXPAND ENOUGH TO BL OW OUT THE ROD SEALS.)
5. PUT A LIGHT COATING OF GREASE ON THE EXPOSED CYLINDER RODS. THIS WILL PREVENT EXPOSURE TO THE ELEMENTS FROM CORRODING THE ROD.

## 6/1/01 <br> TERRA-FIRM'R




## ITEM NO. QTY. PART NO. DESCRIPTION

| 1 | 1 | 705610 | 14 FOOT RIGID FRAME |
| :---: | :---: | :---: | :---: |
| 2 | 2 | 705023 | STRUT SUPPORT DOUBLE |
| 3 | 1 | 705032 | BASKET 37" |
| 4 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 5 | 6 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 6 | 1 | 508109 | SCRAPER $353 / 4^{\prime \prime}$ |
| 7 | 4 | 150443 | $3 / 8 \times 21 / 2$ ROLL PIN |
| 8 | 2 | 705613 | BASKET 63" |
| 9 | 2 | 509240 | SCRAPER $663 / 8{ }^{\prime \prime}$ |
| 10 | 8 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 11 | 8 | 150283 | 5/8 SAE FLATWASHER |
| 12 | 8 | 150040 | 5/8 LOCKWASHER |
| 13 | 8 | 150041 | 5/8 HEX NUT |
| 14 | 24 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 15 | 24 | 150112 | 1/2 CENTERLOCK HEX NUT |
| 16 | 8 | 150042 | 3/8 CENTERLOCK HEX NUT |
| 17 | 8 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 18 |  | 150269 | $3 / 8$ USS FLAT WASHER |




| TEM NO. | QTY. | PART NO | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 705538 | WHEEL TOWER SUPPORT |
| 2 | 8 | 150742 | 1"× 10 HHCS GR5 ZC |
| 3 | 8 | 150033 | 1" SPLIT LOCKWASHER |
| 4 | 2 | 508123 | MOUNT PLATE |
| 5 | 2 | 703533 | ROAD LOCK-OUT - W.A. (WHITE) |
| 6 | 8 | 150034 | 1" HEX FINISH NUT |
| 7 |  | 150031 | 1/2 HEX FINISH NUT |
| 8 |  | 800410 | 6-BOLT HUB \& SPINDLE ASSY. |
| 9 | 2 | 802107 | 11L X 15-8PLY TIRE ASSEMBLY |
| 10 |  | 705535 | ROCKSHAFT-DUALS |
| 11 |  | 150183 | $1 / 2 \times 31 / 2$ HHCS GR 5 ZC |
| 12 |  | 150030 | 1/2 SPLIT LOCKWASHER |
| 13 |  | 150632 | $1 \times 41 / 2$ CLEVIS PIN |
| 14 | 6 | 360587 | UHMW BUSHING |
| 15 |  | 150826 | 2" TYPE B NARROW FLAT WASHER |
| 16 |  | 150047 | .177 HAIRPIN COTTER |
| 17 | 2 | 350530 | $3 / 8 \times 43 / 8 \mathrm{HITCH}$ PIN |
| 18 |  | 150239 | $1 / 4 \times 3$ COTTER PIN |
| 19 |  | 705534 | SHAFT |
| 20 |  | 2330936 | 2-1/2 $\times 10$ STANDARD CYLINDER |




TERRA-FIRM'R 1-19 6/1/01

310505 - WHEEL ASSEMBLY




TERRA-FIRM'R 3-22 AND 5-42
01206-4 1/2' RIGHT WING


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 1 | 705038 | BASKET 53" |
| 3 | 2 | 311007 | SEALED BEARING 1 1/4 SQ HOLE |
| 4 | 1 | 705002 | $41 / 2$ FOOT (LT) WING |
| 5 | 1 | 508051 | SCRAPER 54 3/16" |
| 6 | 4 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 7 | 4 | 150283 | $5 / 8$ SAE FLATWASHER |
| 8 | 4 | 150040 | $5 / 8$ LOCKWASHER |
| 9 | 4 | 150041 | $5 / 8$ HEX NUT |
| 10 | 8 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 11 | 8 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |
| 12 | 3 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 13 | 3 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 14 | 3 | 150269 | $3 / 8$ USS FLAT WASHER |








101204 -13' CENTER

| IITEM NO. | KQTY. | IPART NO. | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| 1. | 1. | 705037 | 13 FOOT CENTER FRAME |
| 2 | 2 | 705023 | STRUT SUPPORT DOUBLE |
| 3 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 7 | 6 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 5 | 17 | 705032 | BASKET 37" |
| 6 | 2 | 705038 | IBASKET 53" |
| 7 | 2 | 508108 | (SCRAPER. 56 3/8" |
| 8 |  | 508109 | (SCRAPER. $353 / 4^{\prime \prime}$ |
| 9 | 4 | 150443 | $3 / 8 \times 21 / 2$ ROLL PIN |
| 10 | 8 | 150058 | $15 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 11 | 8 | 150283 | 5/8 SAE FLATWASHER |
| 12 | 8 | 150040 | 55/8 LOCKWASHER |
| 13 | 8 | 150041 | $5 / 8 \mathrm{HEX} \mathrm{NUT}$ |
| 14 | 24 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 15 | . 24 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |
| 16 | . 5 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 17 | 5 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 18 | . 5 | 150269 | 3/8 USS FLAT WASHER |


01211 - 8' RIGHT WING

## 301219-8' LEFT WING

TEM NO. QTY. PART NO. DESCRIPTION

| 1 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| ---: | ---: | :--- | :--- |
| 2 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 3 | 4 | 311007 | SEALED BEARING 1 1/4 SQ HOLE |
| 4 | 1 | 705032 | BASKET 37" |
| 5 | 1 | 705040 | BASKET 56" |
| 6 | 1 | 705004 | 8 FOOT WING (LT) |
| 7 | 1 | 508103 | SCRAPER 40 7/116" |
| 8 | 1 | 508104 | SCRAPER 56" |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | 5/8 SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |

## TERRA-FIRM'R 3-29 8/15/01




TERRA-FIRM'R 3-29 7/18/01


| ITEM NO. | QTY. | PART NO | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| 1 |  | 705037 | 13 FOOT CENTER FRAME |
| 2 | 2 | 705023 | STRUT SUPPORT DOUBLE |
| 3 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 4 |  | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 5 | 1 | 705032 | BASKET 37" |
| 6 | 2 | 705038 | BASKET 53" |
| 7 | 2 | 508108 | SCRAPER 56 3/8" |
| 8 |  | 508109 | SCRAPER 35 3/4" |
| 9 | 4 | 150443 | $3 / 8 \times 21 / 2$ ROLL PIN |
| 10 |  | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 11 |  | 150283 | 5/8 SAE FLATWASHER |
| 12 |  | 150040 | 5/8 LOCKWASHER |
| 13 |  | 150041 | $5 / 8$ HEXNUT |
| 14 | 24 | 150185 | 1/2X1 CGE SCREW GR 5 ZC |
| 15 |  | 150112 | 1/2 CENTERLOCK HEX NUT |
| 16 |  | 150042 | 3/8 CENTERLOCK HEX NUT |
| 17 |  | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 $2 C$ |
| 18 |  | 150269 | $3 / 8$ USS FLAT WASHER |


TERRA-FIRM'R 3-34

ning Rest Assembly

| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- | :--- |
| 1 | 1 | 901204 | 13 FOOT CENTER |
| 2 | 1 | 901209 | $101 / 2$ FOOT (RT) WING |
| 3 | 1 | 901220 | $101 / 2$ FOOT (LT) WING |
| 4 | 1 | 705108 | CYLINDERWWING REST (34) |
| 5 | 2 | 330540 | $4 \times 24$ WINGFOLD CYLINDER |
| 6 | 2 | 508007 | HINGE BUSHING (TF) |
| 7 | 4 | 150144 | $11 / 4$ HEX FINISH NUT |
| 8 | 2 | 150739 | $11 / 4 \times 10$ HHCS GR 8 ZC |
| 9 | 4 | 150166 | $3 / 16 \times 2$ ROLL PIN |
| 10 | 4 | 150157 | $11 / 4$ SPLIT LOCKWASHER |
| 11 | 4 | 150049 | $1 / 8$ NPT STRAIGHT ZERK |
| 12 | 4 | 506727 | ROLLER |
| 13 | 4 | 150172 | $11 / 4$ SAE FLAT WASHER |
| 14 | 2 | 705068 | LINK 45 (22, 29, 34, 36) |
| 15 | 2 | 350861 | $1-1 / 4 \times 6$ CLEVIS PIN ZC |
| 16 | 2 | 150578 | $11 / 4 \times 4$ HHCS GR 5 ZC |



HYDRAULIC SCHEMATICS

901208-15' CENTER


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TERRA-FIRM'R 3-36 8/16/01




$01218-4$ 1/2' LEFT WING




TERRA-FIRM'R 5-42 6/12/01


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| $\mathbf{1}$ | 1 | 901204 | 13 FOOT CENTER |
| 2 | 1 | 901205 | 10 FOOT (RT) INSERT |
| 3 | 1 | 901212 | $61 / 2$ FOOT (RT) WING |
| 4 | 1 | 901217 | 10 FOOT (LT) INSERT |
| 5 | 1 | 901221 | $61 / 2$ FOOT (LT) WING |
| 6 | 1 | 901231 | TONGUE/20' EXTENSION ASSEMBLY |
| 7 | 1 | 705050 | CENTER TRUSS (34, 42, \& 46) |
| 8 | 1 | 705063 | INSERT TRUSS (RT) |
| 9 | 1 | 705064 | INSERT TRUSS (LT) |
| 10 | 2 | 705005 | $15^{\circ}$ WING REST |
| 11 | 2 | 330727 | $5 \times 24$ WINGFOLD CYLINDER |
| 12 | 2 | 330540 | $4 \times 24$ WINGFOLD CYLINDER |
| 13 | 2 | 705069 | LINK 15 ${ }^{\circ}(42,46,52)$ |
| 14 | 2 | 705065 | WING LOCK-UP (82 $)$ |
| 15 | 1 | 508120 | CYLINDER BAR (42 \& 46) |


(๑)
101204-13' CENTER

| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 1 | 705037 | 13 FOOT CENTER FRAME |
| 2 | 2 | 705023 | STRUT SUPPORT DOUBLE |
| 3 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 4 | 6 | 311007 | SEALED BEARING 1 1/4 SQ HOLE |
| 5 | 1 | 705032 | BASKET 37" |
| 6 | 2 | 705038 | BASKET 53" |
| 7 | 2 | 508108 | SCRAPER 56 3/8" |
| 8 | 1 | 508109 | SCRAPER 35 3/4" |
| 9 | 4 | 150443 | $3 / 8 \times 21 / 2$ ROLL PIN |
| 10 | 8 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 11 | 8 | 150283 | $5 / 8$ SAE FLATWASHER |
| 12 | 8 | 150040 | $5 / 8$ LOCKWASHER |
| 13 | 8 | 150041 | $5 / 8$ HEX NUT |
| 14 | 24 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 15 | 24 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |
| 16 | 5 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 17 | 5 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 18 | 5 | 150269 | $3 / 8$ USS FLAT WASHER |



## 01217-10' LEFT INSERT



| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 4 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 3 | 2 | 705040 | BASKET 56" |
| 4 | 1 | 705010 | 10 FOOT (LT) INSERT |
| 5 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| 6 | 1 | 508040 | SCRAPER 59 3/8" |
| 7 | 1 | 508104 | SCRAPER 56" |
| 8 | 2 | 150443 | $3 / 8 \times 21 / 2$ ROLL PIN |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | $5 / 8$ SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |
| 12 | 6 | 150041 | $5 / 8$ HEX NUT |
| 13 | 6 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 14 | 6 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 15 | 6 | 150269 | $3 / 8$ USS FLAT WASHER |
| 16 | 16 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 17 | 16 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 4 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 3 | 2 | 705040 | BASKET 56" |
| 4 | 1 | 705010 | 10 FOOT (LT) INSERT |
| 5 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| 6 | 1 | 508040 | SCRAPER 59 3/8" |
| 7 | 1 | 508104 | SCRAPER 56" |
| 8 | 2 | 150443 | $3 / 8 \times 2$ 1/2 ROLL PIN |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | $5 / 8$ SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |
| 12 | 6 | 150041 | $5 / 8$ HEX NUT |
| 13 | 6 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 14 | 6 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 15 | 6 | 150269 | $3 / 8$ USS FLAT WASHER |
| 16 | 16 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 17 | 16 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 4 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 3 | 2 | 705040 | BASKET 56" |
| 4 | 1 | 705010 | 10 FOOT (LT) INSERT |
| 5 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| 6 | 1 | 508040 | SCRAPER 59 3/8" |
| 7 | 1 | 508104 | SCRAPER 56" |
| 8 | 2 | 150443 | $3 / 8 \times 2$ 1/2 ROLL PIN |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | $5 / 8$ SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |
| 12 | 6 | 150041 | $5 / 8$ HEX NUT |
| 13 | 6 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 14 | 6 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 15 | 6 | 150269 | $3 / 8$ USS FLAT WASHER |
| 16 | 16 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 17 | 16 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 4 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 3 | 2 | 705040 | BASKET 56" |
| 4 | 1 | 705010 | 10 FOOT (LT) INSERT |
| 5 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| 6 | 1 | 508040 | SCRAPER 59 3/8" |
| 7 | 1 | 508104 | SCRAPER 56" |
| 8 | 2 | 150443 | $3 / 8 \times 2$ 1/2 ROLL PIN |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | $5 / 8$ SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |
| 12 | 6 | 150041 | $5 / 8$ HEX NUT |
| 13 | 6 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 14 | 6 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 15 | 6 | 150269 | $3 / 8$ USS FLAT WASHER |
| 16 | 16 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 17 | 16 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 4 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 3 | 2 | 705040 | BASKET 56" |
| 4 | 1 | 705010 | 10 FOOT (LT) INSERT |
| 5 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| 6 | 1 | 508040 | SCRAPER 59 3/8" |
| 7 | 1 | 508104 | SCRAPER 56" |
| 8 | 2 | 150443 | $3 / 8 \times 2$ 1/2 ROLL PIN |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | $5 / 8$ SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |
| 12 | 6 | 150041 | $5 / 8$ HEX NUT |
| 13 | 6 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 14 | 6 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 15 | 6 | 150269 | $3 / 8$ USS FLAT WASHER |
| 16 | 16 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 17 | 16 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |


| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | ---: | :--- | :--- |
| 1 | 2 | 705022 | STRUT SUPPORT SINGLE |
| 2 | 4 | 311007 | SEALED BEARING $11 / 4$ SQ HOLE |
| 3 | 2 | 705040 | BASKET 56" |
| 4 | 1 | 705010 | 10 FOOT (LT) INSERT |
| 5 | 1 | 705023 | STRUT SUPPORT DOUBLE |
| 6 | 1 | 508040 | SCRAPER 59 3/8" |
| 7 | 1 | 508104 | SCRAPER 56" |
| 8 | 2 | 150443 | $3 / 8 \times 2$ 1/2 ROLL PIN |
| 9 | 6 | 150058 | $5 / 8 \times 21 / 2$ HHCS GR 2 ZC |
| 10 | 6 | 150283 | $5 / 8$ SAE FLATWASHER |
| 11 | 6 | 150040 | $5 / 8$ LOCKWASHER |
| 12 | 6 | 150041 | $5 / 8$ HEX NUT |
| 13 | 6 | 150042 | $3 / 8$ CENTERLOCK HEX NUT |
| 14 | 6 | 150333 | $3 / 8 \times 11 / 2$ HHCS GR2 ZC |
| 15 | 6 | 150269 | $3 / 8$ USS FLAT WASHER |
| 16 | 16 | 150185 | $1 / 2 \times 1$ CGE SCREW GR 5 ZC |
| 17 | 16 | 150112 | $1 / 2$ CENTERLOCK HEX NUT |











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TERRA-FIRM'R 5-52 6/27/01







| ITEM NO. | QTY. | PART NO. | DESCRIPTION |
| ---: | :---: | :---: | :--- |
| 1 | 2 | 330938 | $3-1 / 2 \times 10$ STANDARD CYLINDER |


| 2 | 2 | 150031 | $1 / 2$ HEX FINISH NUT |
| ---: | ---: | ---: | :--- |
| 3 | 2 | 150030 | $1 / 2$ SPIT LOCKWASIER |

$4 \quad 2150183$ 1/2 X $31 / 2$ HHCS GR 5 ZC

| 5 | 8 | 150033 | $1 "$ SPLIT LOCKWASHER |
| ---: | ---: | :--- | :--- |
| 6 | 8 | 150034 | $1^{\prime \prime}$ HEX FINLH NUT |


| 7 | 8 | 150742 | 1" X 10 HHCS GR5 ZC |
| :--- | ---: | :--- | :--- |


| 8 | 2508123 | MOUNT PLATE |
| :--- | :--- | :--- |
| 9 | 2150047 | 177 HAIRPIN COTTER |



| 11 | 2350530 | $3 / 8 \times 43 / 8$ HITCH PIN |
| ---: | :--- | :--- |
| 12 | 2703535 | ROAD LOCK-OUT - W.A. (WHITE) |




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TERRA-FIRRM'R 5-52 8/15/01








[^0]TERRA-FIRM'R 6/15/01

## 12498 - HITCH PLATE <br> \& 6 SECTION FALLOW MASTER










[^0]:    NOTE: CURRENT VIEW IS FOR FM (SERIES 3)

