



# PT419H

## HAY TEDDER

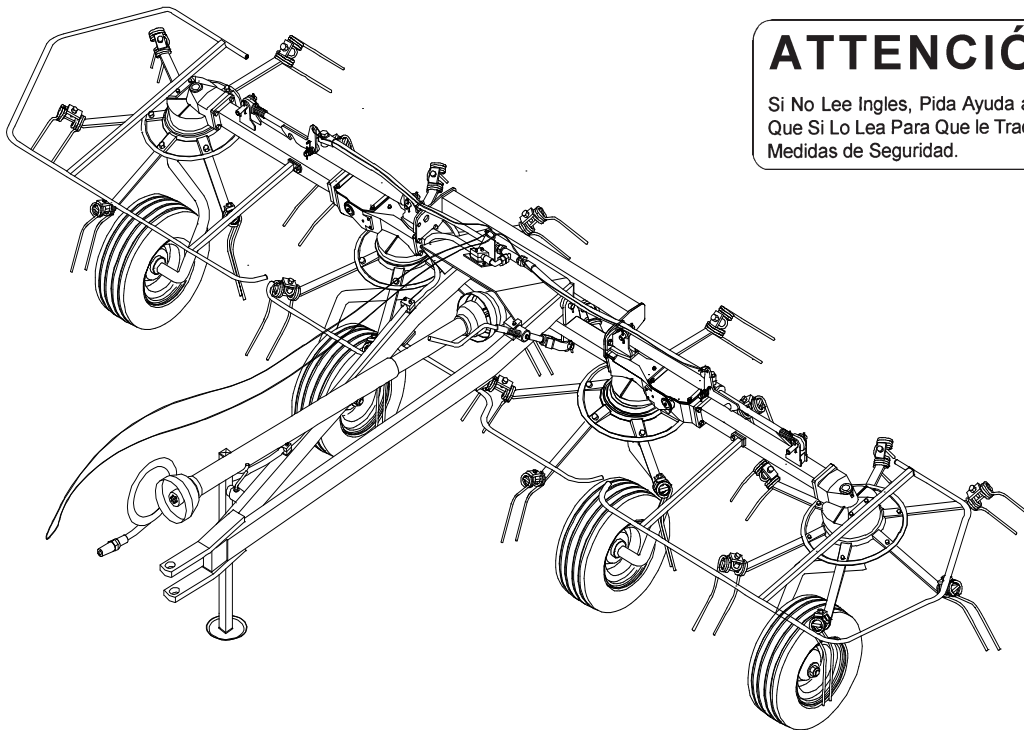
Pub 06/15

Part No. 5120WP

# PART'S MANUAL



An Operator's Manual was shipped with the equipment in the Manual Canister. 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. If the Operator's Manual is not with the equipment, contact your dealer or M&W (800-446-5158) to obtain a Free copy before operating the equipment.



### ATENCIÓN!

LEA EL INSTRUCTIVO

Si No Lee Ingles, Pida Ayuda a Alguien  
Que Si Lo Lea Para Que le Traduzca las  
Medidas de Seguridad.



RHINO®

1020 South Sangamon Ave.  
Gibson City, Illinois 60936  
217-784-4261



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# 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!



# DANGER

FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA.

<p>1.</p>	<p>2. NO RIDERS, NO CHILDREN OPERATORS</p>	<p>3. USE SAFETY SHOES, HARD HAT, SAFETY GLASSES, SEATBELTS, &amp; ROPS</p>	<p>4. BLOCK UP SECURELY BEFORE WORKING UNDER.</p>
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- Study and understand Operator's Manuals, Safety Signs, and Instructional Decals for tractor & flail mower to prevent misuse, abuse, & accidents. Practice before operating mower in a confined area or near passersby.
  - Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children.
- Allow no children on or near implement or tractor. Allow no riders on tractor or implement. Falling off can cause serious injury or death from being runover by tractor or mower or contact with Flail Mower Blades.
- Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seatbelt fastened securely and snugly to prevent injury and possible death from falling off or tractor overturn. Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, and Ear Plugs are recommended.
- Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain that area is clear before lowering or folding.
- Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding implements. Slow down when turning and on hillsides.
  - Install \*\*Restrictor in folding circuit to slow down lowering and unfolding if action is faster than is desirable.
- Make certain that SMV sign, Warning Lights, and Reflectors are clearly visible. Follow local traffic codes.
- Never operate with Flail Mower or Folding Section raised if passersby, bystanders or traffic are in the area to reduce possibility of injury or death from objects thrown by Blades under Shields or implement structure.
- Before dismounting, secure flail mower in transport position or lower to ground.
  - Put tractor in park or set brake, disengage PTO, stop engine, remove key, and wait until noise of rotation has ceased to prevent entanglement in rotating parts which may cause injury or death.
  - Never mount or dismount a moving vehicle. Crushing from runover may cause injury or death.

<p>5. TRANSPORT SAFELY, LOCK UP.</p>	<p>6. USE SMV, LIGHTS, &amp; REFLECTORS.</p>	<p>7. DO NOT OPERATE WITH MOWER OR WING RAISED.</p>	<p>8. DO NOT MOUNT OR DISMOUNT WHILE MOVING.</p>
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Read and understand the complete Warranty Statement found in this Manual. Fill out the Warranty Registration Form in full and return it 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. The use of "will-fit" parts will void your warranty and can cause catastrophic failure with possible injury or death.

WARRANTY INFORMATION

002369

# **PARTS SECTION**

## PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this section.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.
2. The Purchase Order must include the name and address of the person or organization ordering the parts, who should be charged, and if possible, the serial number of the machine for which the parts are ordered.
3. The Purchase Order must clearly list the quantity of each part, the complete and correct part number, and the basic name of the part.
4. The Manufacturer reserves the right to substitute parts where applicable.
5. Some parts are unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending a Purchase Order.
6. The Manufacturer reserves the right to change prices without prior notice.

**NOTE:** Please refer to The Safety Section in the front of this Manual for the proper Part Number when ordering Replacement Safety Decals.



For maximum safety and to guarantee optimum product reliability, always use genuine Alamo Group Parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death. Direct any questions regarding parts to:

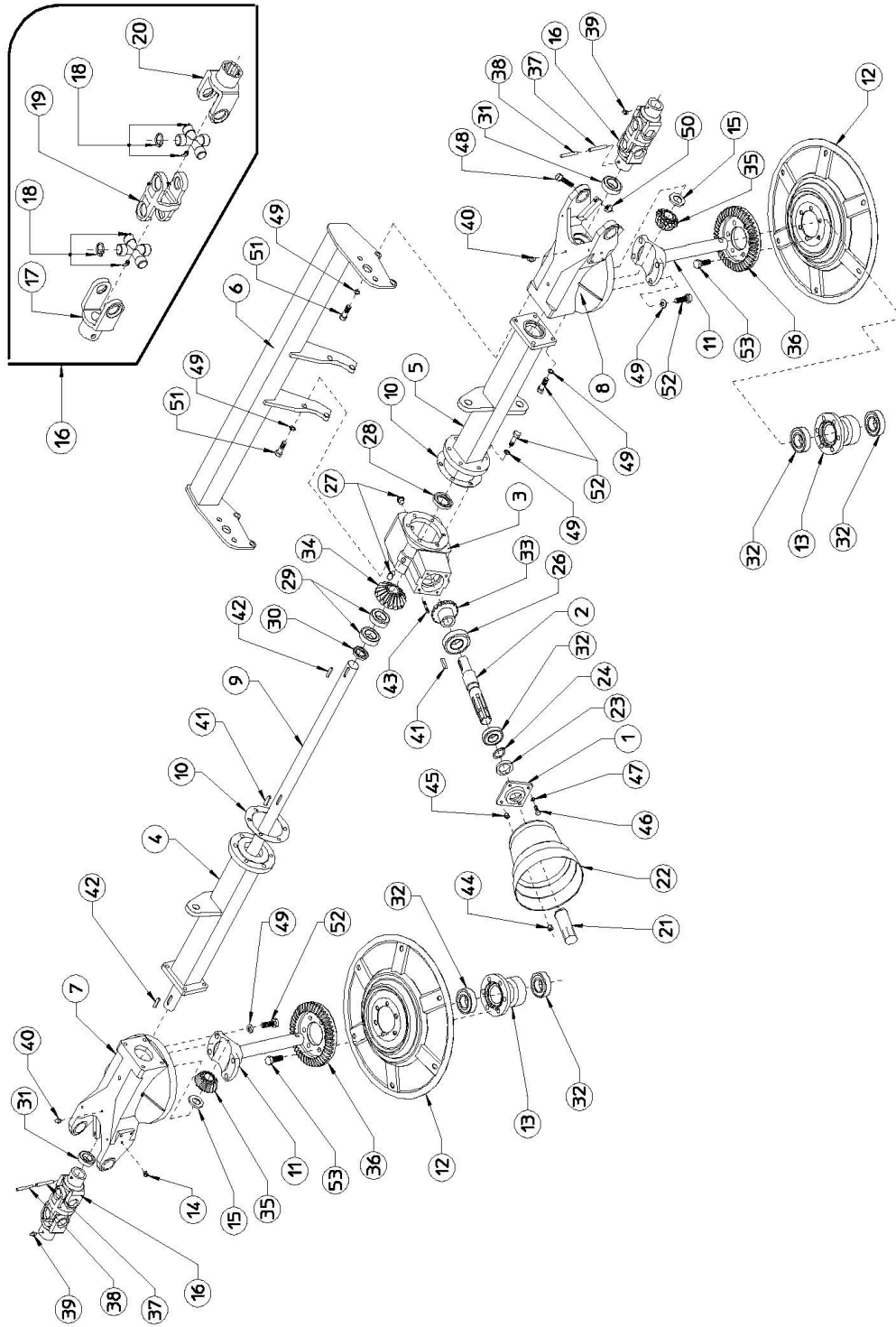


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**1020 South Sangamon Ave.**  
**Gibson City, Illinois 60936**  
**217-784-4561**

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# AXLE ASSEMBLY 1



## AXLE ASSEMBLY 1

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	3676403	1	GEARBOX CAP
2	3676404	1	SHAFT
3	3676400	1	GEARBOX
4	3670293	1	RH CENTER AXLE
5	3670294	1	LH CENTER AXLE
6	3670295	1	REINFORCEMENT
7	3676451	1	RH FORK SUPPORT
8	3676452	1	LH FORK SUPPORT
9	3676464	1	DRIVE SHAFT
10	3676900	2	GASCKET
11	3676421	2	PIN
12	3676459	2	TINE DISC
13	3676455	2	HUB
14	3676779	6	PLUG
15	3676904	2	SHIM
16	3676417	2	JOINT, COMPLETE
17	3676424	2	FORK
18	3676425	4	CROSS, COMPLETE
19	3676426	2	CENTER JOINT
20	3676427	2	SPLINED FORK
21	3676777	1	SHAFT GUARD
22	3676778	1	HOOD
23	3676800	1	OIL RETAINER (ø35/52X10)
24	00766021	1	SNAP RING (E35-7435)
26	00764417	1	BEARING (6209 2RS)
27	3676407	2	PLUG (3/8")
28	3676802	1	OIL RETAINER (ø30/62X10)
29	3236004	2	BEARING (6206)
30	3676801	1	OIL RETAINER (ø30/56X10)
31	3636003	2	BEARING (6206 2RS)
32	00754459	5	BEARING (6207 2RS)
33	3676405	1	PINION
34	3676408	1	CROWN
35	3676409	2	PINION
36	3676460	2	CROWN
37	703616W	2	SPRING PIN (ø10X55-6873)
38	703417W	2	SPRING PIN (ø6X55-6873)
39	001465	2	GREASE NIPPLE (M6)
40	00766457	2	GREASE NIPPLE (M10)
41	710640	2	FLAT KEY (B8X7X40-6604)
42	71630	2	FLAT KEY (B8X7X30-6604)

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## AXLE ASSEMBLY 1

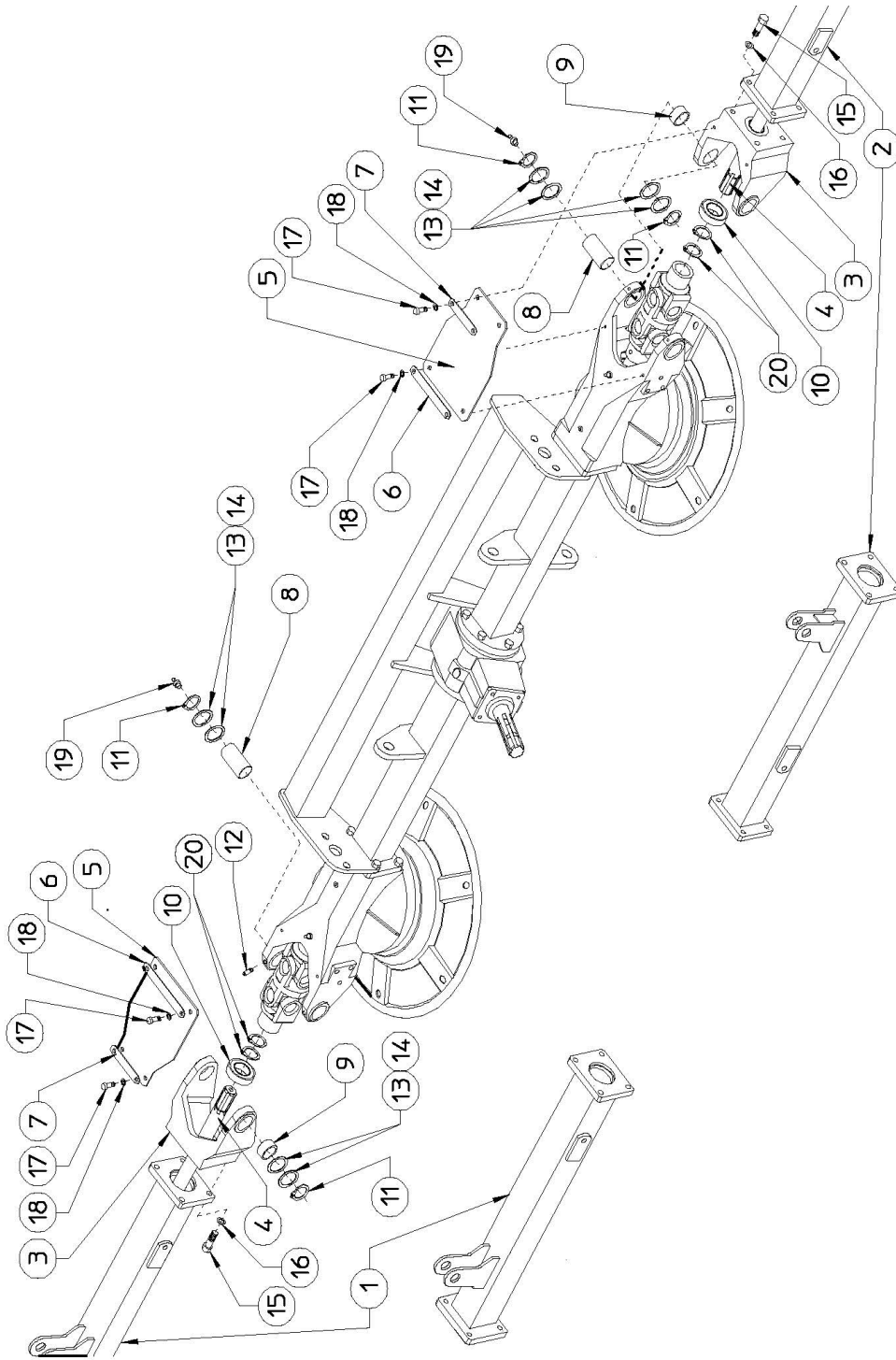
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ITEM	PART NO.	QTY.	DESCRIPTION
43	3678401	2	BOLT (M8X30-5911)
44	00755934	2	NUT (M8-5588)
45	70093C	2	NUT (M8-5587)
46	02958784	2	SCREW (M8X20-5739)
47	701611C	2	SPRING WASHER (ø8,4)
48	00756027	4	SCREW (M12X45-5739)
49	701613C	28	SPRING WASHER (ø13)
50	00772648	4	NUT (M12 DIN 980)
51	00766177	8	SCREW (M12X45-5737)
52	00754565	20	SCREW (M12X35-5739)
53	61377C8	12	SCREW (M12X30-5739)



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# AXLE ASSEMBLY 2

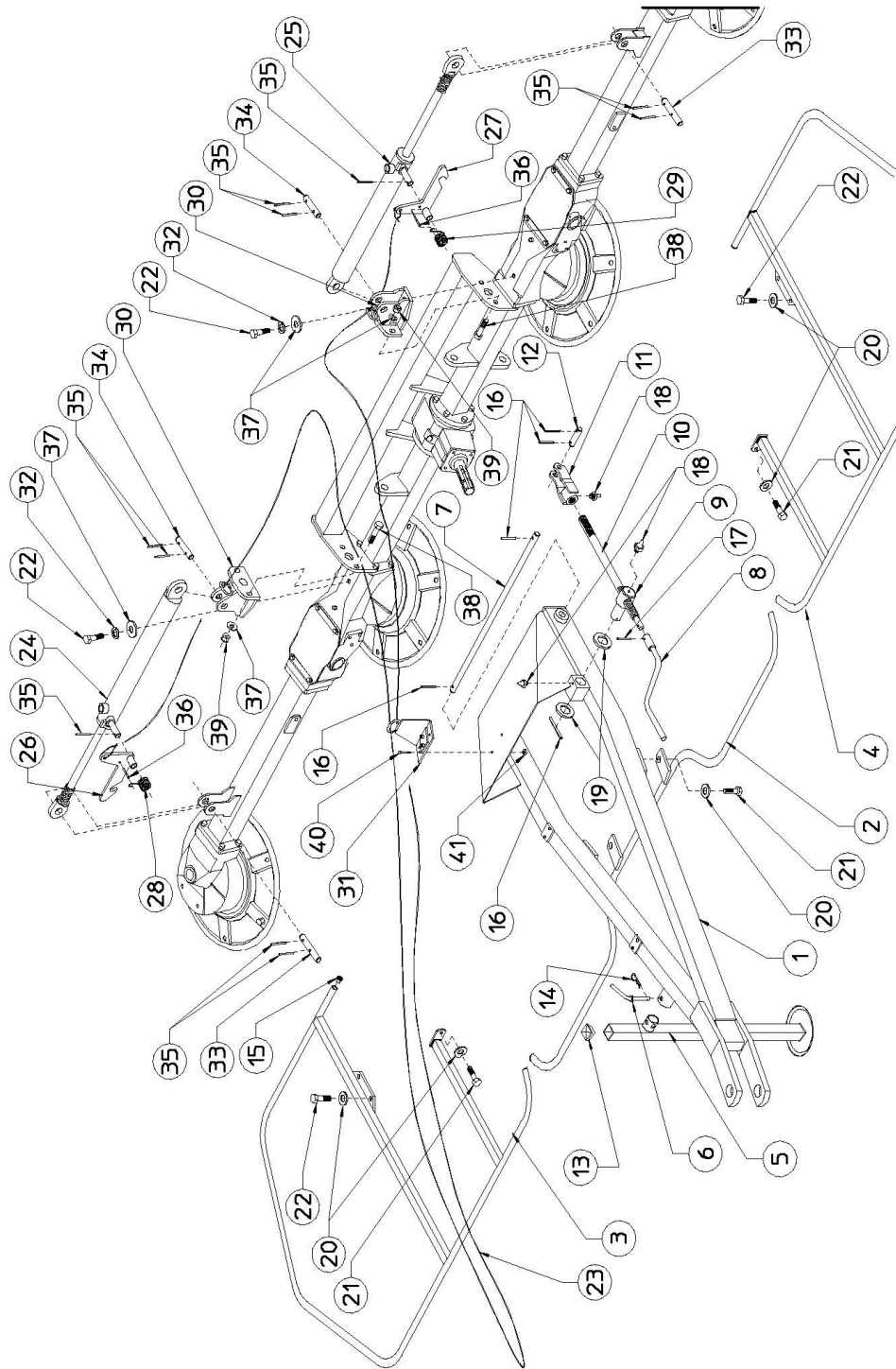


## AXLE ASSEMBLY 2

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	3670296	1	RH LATERAL AXLE
2	3670297	1	LH LATERAL AXLE
3	3676457	2	FORK
4	3676465	2	LATERAL SHAFT
5	3678702	2	GUARD
6	3677553	2	PLATE
7	3677554	2	PLATE
8	3677518	4	PIN
9	3677515	4	BUSH (ø30/34X20)
10	3636003	2	BEARING (6206 2RS)
11	3678200	8	SNAP RING (E30-7435)
12	3678402	4	BOLT (M8X12-5927)
13	3676906	4	SHIM (ø30,3/39,8X0,5)
14	3676907	4	SHIM (ø30,3/39,8X1)
15	00754565	8	SCREW (M12X35-5739)
16	701613C	8	SPRING WASHER (ø13)
17	61354C8	8	SCREW (M8X16-5739 ZN)
18	701511C	8	WASHER (ø8,4 ZN)
19	001465	4	GREASE NIPPLE (M6)
20	3678205	4	SNAP RING (E29-7435)

# DRAWBAR AND PARKING STAND



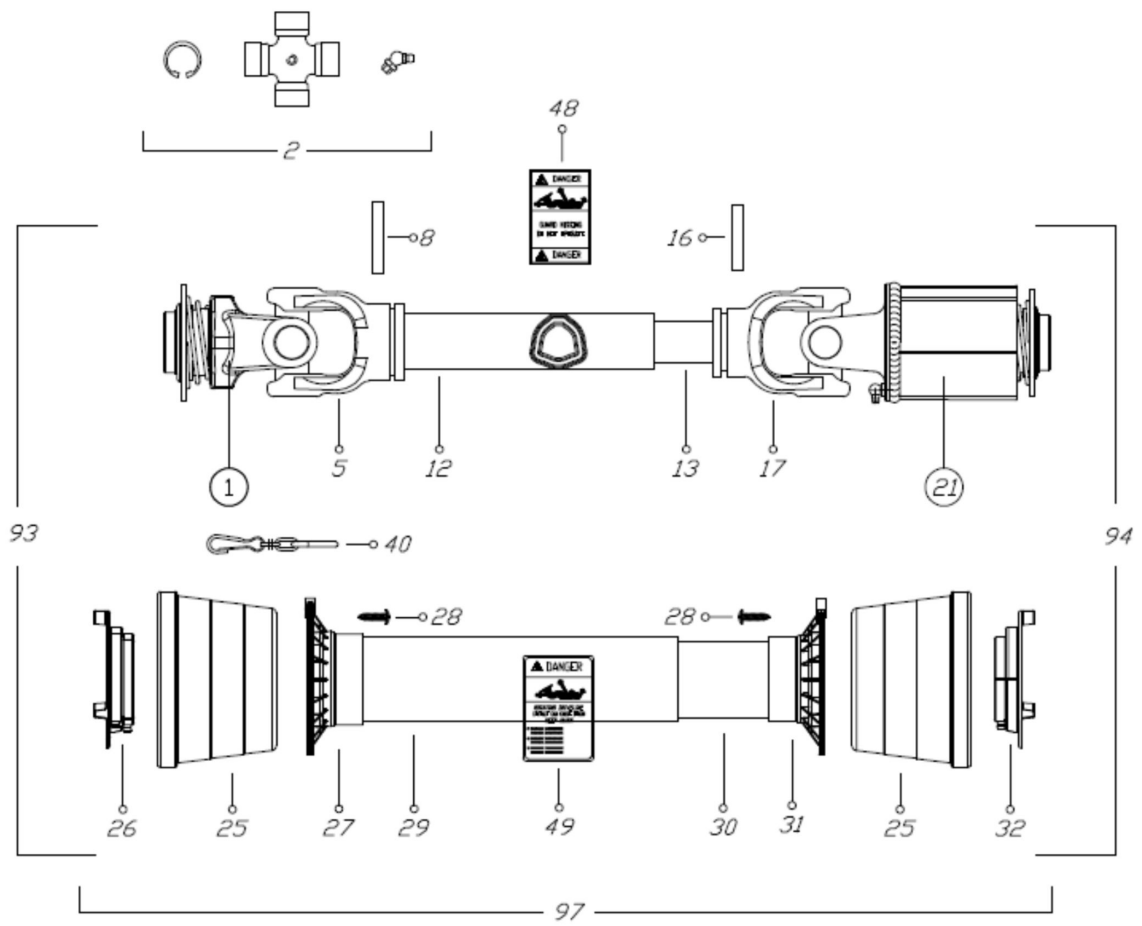
## DRAWBAR AND PARKING STAND

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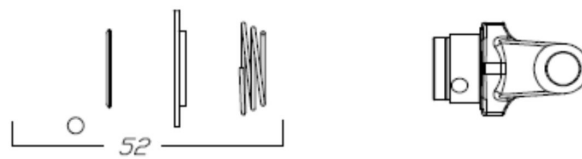
ITEM	PART NO.	QTY.	DESCRIPTION
1	3670289	1	DRAWBAR
2	3670290	1	CENTER GUARD
3	3670291	1	RH LATERAL GUARD
4	3670292	1	LH LATERAL GUARD
5	3670207	1	STAND
6	3670211	1	PIN
7	3677566	1	PIN
8	3670204	1	HANDLE
9	3677549	1	PIN
10	3677507	1	TIE ROD
11	3670271	1	FORK
12	3677550	1	PIN
13	3676776	1	PLUG
14	3638400	1	PIN
15	3676775	6	PLUG
16	703315W	5	SPRING PIN (ø5X40)
17	70349	1	SPRING PIN (ø6X26)
18	001465	3	GREASE NIPPLE (M6)
19	3676907	2	SHIM (ø30,3/39,8X1)
20	70209C	8	SPRING WASHER (ø13-ZN)
21	00762395	4	SCREW (M12X20 5739-ZN)
22	00762462	6	SCREW (M12X25 5739-ZN)
23	3678600	1	ROPE
24	3677125	1	RH CYLINDER
25	3677126	1	LH CYLINDER
26	3670215	1	RH COUPLER
27	3670216	1	LH COUPLER
28	3677420	1	RH SPRING
29	3677421	1	LH SPRING
30	3670273	2	HITCH
31	3670274	1	SUPPORT
32	701613C	2	SPRING WASHER (ø13-ZN)
33	3677511	2	PIN
34	3677551	2	PIN
35	703413W	10	SPRING PIN (ø6X35)
36	703411	2	SPRING PIN (ø6X30)
37	701513C	6	WASHER (ø13-ZN)
38	02979380	4	SCREW (M12X35 5739-ZN)
39	00772648	4	NUT (M12 DIN 980)
40	00762399	2	SCREW (M6X16 5739-ZN)
41	70092C	2	NUT (M6 DIN 980)

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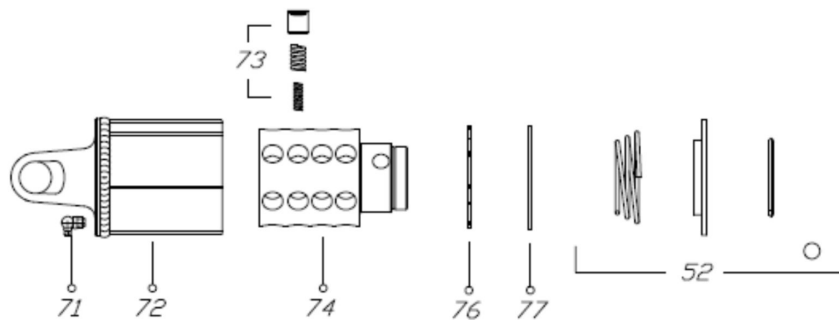
# DRIVELINE ASSEMBLY



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②1

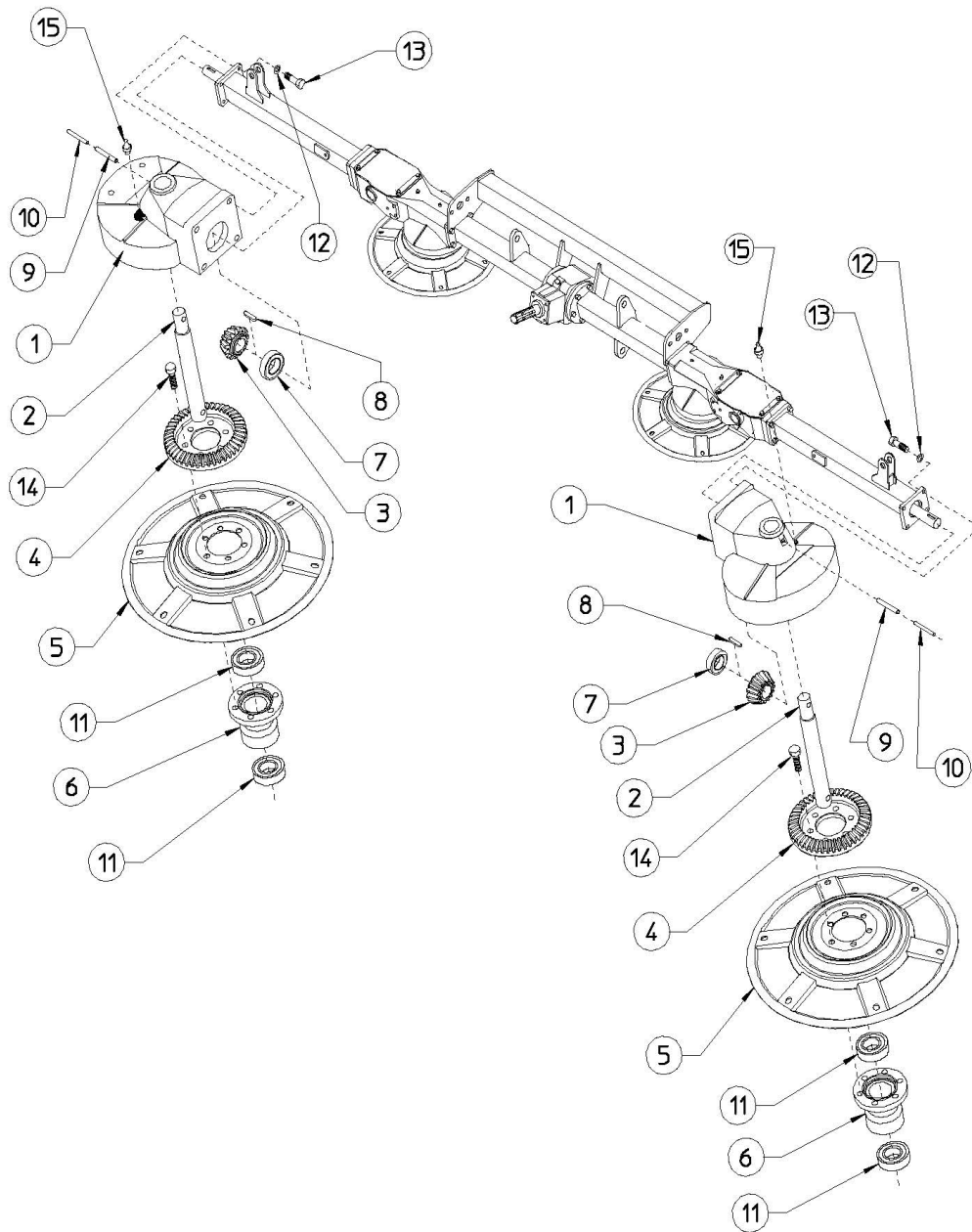


## DRIVELINE ASSEMBLY

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ITEM	PART NO.	QTY.	DESCRIPTION
1	3616514	1	YOKE
2	3616429	2	CROSS JOURNAL ASS.
5	3616430	1	OUTER TUBE YOKE
8	703518W	1	FLEXIBLE PIN
12	3616415	1	CM. 100 CARDAN TUBE
13	3616400	1	CM. 100 CARDAN TUBE
16	703517W	1	FLEXIBLE PIN
17	3616432	1	INNER TUBE YOKE
21	3616521	1	TORQUE LW4 X S60
49	00756004	1	LABEL
52	3616512	2	BALL COLLAR KIT
71	1416449	2	GREASE NIPPLE
72	3616519	1	OUTER CASING WITH YOKE
73	2516548	32	RATCHET TOOTH
74	3616520	1	HUB
76	2516550	1	REATING WASHER
77	2516551	1	CIRCLIP
97	3616518	1	SAFETY GUARD

# GEARBOX ASSEMBLY



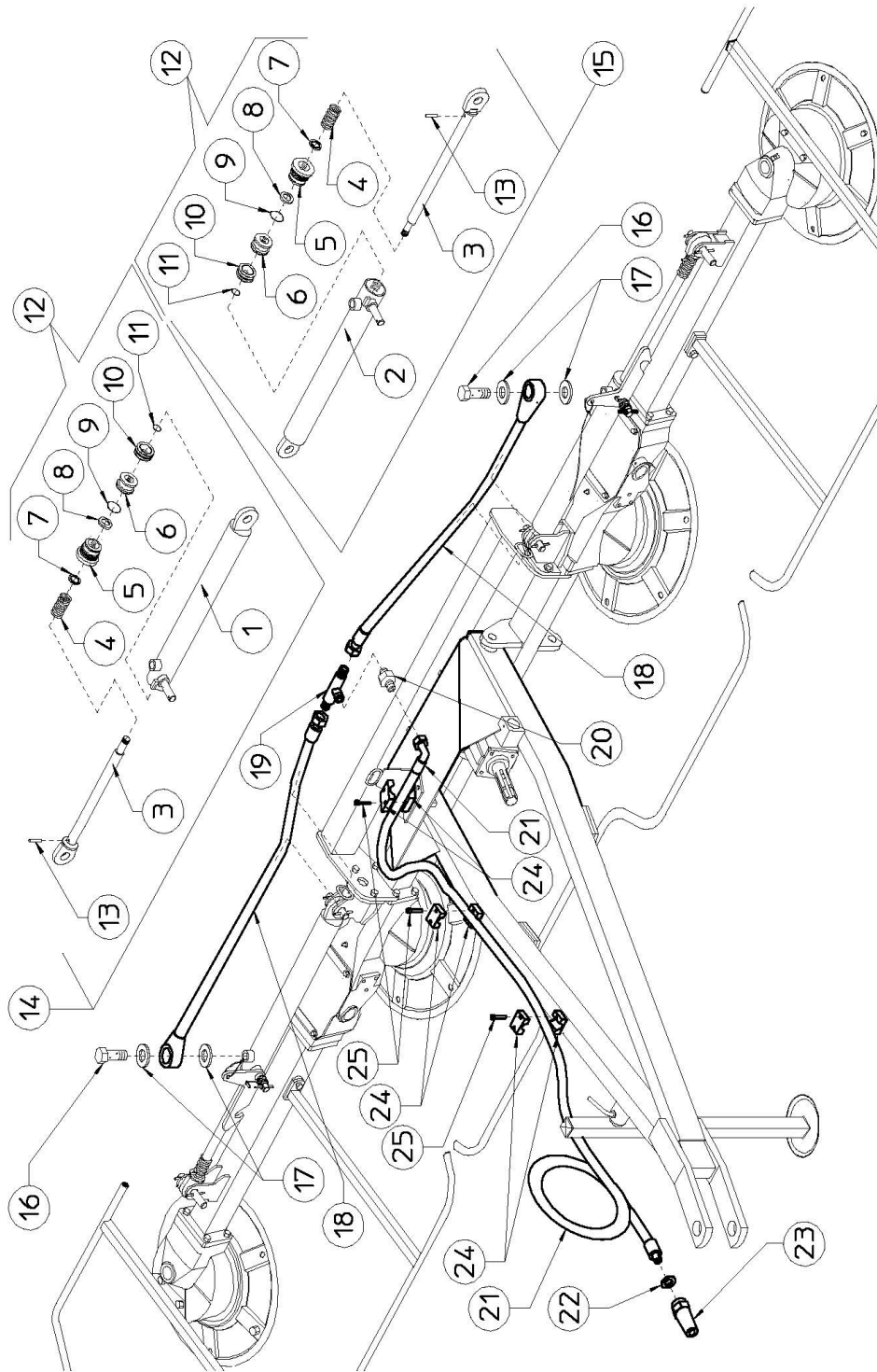


## GEARBOX ASSEMBLY

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	3676458	2	GEAR BOX
2	3676411	2	PIN
3	3676409	2	PINION
4	3676460	2	CROWN
5	3676459	2	TINE DISC
6	3676455	2	HUB
7	3636003	2	BEARING (6206 2RS)
8	710630	2	FLAT KEY (B8X7X30-6604)
9	703616W	2	SPRING PIN ( $\phi$ 10X55-6873)
10	703417W	2	SPRING PIN ( $\phi$ 6X55-6873)
11	00754459	4	BEARING (6207 2RS)
12	701613C	8	SPRING WASHER ( $\phi$ 13)
13	00754565	8	SCREW (M12X35-5739)
14	61377C8	12	SCREW (M12X30-5739)
15	00766457	2	GREASE NIPPLES (M10)

# HYDRAULIC CYLINDER AND HOSE ASSEMBLY

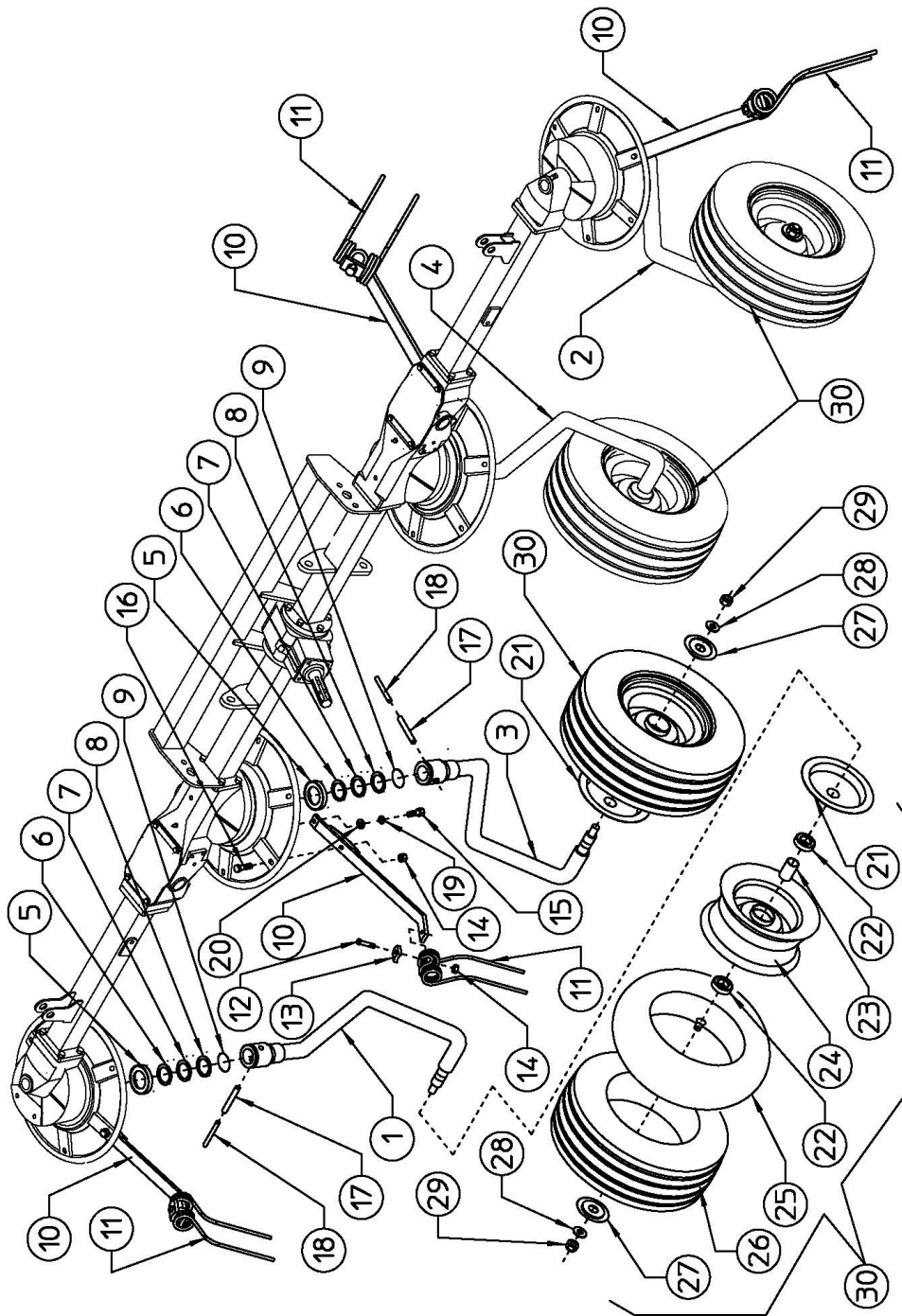


## HYDRAULIC CYLINDER AND HOSE ASSEMBLY

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	3677127	1	CYLINDER BARREL, RH
2	3677128	1	CYLINDER BARREL, LH
3	3677129	2	ROD
4	3677430	2	SPRING
5	3687104	2	CYLINDER HEAD
6	3677130	2	PISTON
7	-----	2	GASKET
8	-----	2	GASKET
9	-----	2	GASKET
10	-----	2	GASKET
11	-----	2	GASKET
12	3677105	2	SET OF GASKET
13	70308	2	SPRING PIN (ø3,5X18)
14	3677125	1	RH CYLINDER, COMPLETE
15	3677126	1	LH CYLINDER, COMPLETE
16	3677102	2	FITTING (3/8")
17	3678400	4	COPPER WASHER (ø1/4")
18	3677209	2	HOSE (1/4")
19	3677103	1	"T" ADAPTOR (1/4")
20	3677104	1	NIPPLE (1/4"-3/8")
21	3677207	1	HOSE (3/8")
22	3638408	1	COPPER WASHER (ø1/2")
23	3637102	1	QUICK COUPLER (1/2")
24	3668424	6	HALF HOSE COLLAR
25	70788C8	6	SCREW (M6X25 5931-ZN)

# TIRE ASSEMBLY



## TIRE ASSEMBLY

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	3670231	1	RH LATERAL SUPPORT
2	3670230	1	LH LATERAL SUPPORT
3	3670226	1	RH CENTER SUPPORT
4	3670225	1	LH CENTER SUPPORT
5	3676910	4	SPACER
6	3676908	4	SHIM (ø35,2/51,8X1)
7	3676909	4	SHIM (ø35,2/48X0,5)
8	3676905	4	SHIM (ø35,2/51,8X0,3)
9	3676903	4	GASKET (OR 47,63X3,53)
10	3677564	24	ARM
11	3677422	24	TINE
12	00766177	24	SCREW (M12X45-5737 ZN)
13	3677512	24	PLATE
14	00772648	48	NUT (M12-DIN 980)
15	00754529	24	SCREW (M12X30-5739 ZN)
16	02979280	24	SCREW (M12X35-5739 ZN)
17	703616W	4	SPRING PIN (ø10X55-6873)
18	703417W	4	SPRING PIN (ø6X55-6873)
19	701613C	24	SPRING WASHER (ø13 ZN)
20	3678414	24	WASHER (ø12,3/28,5X3)
21	3676700	4	DUST COVER, INNER
22	3676002	8	BEARING (6205 2RS)
23	3677514	4	SPACER
24	3677600	4	RIM
25	3677800	4	TUBE
26	3677801	4	TIRE
27	3676701	4	DUST COVER, OUTER
28	701515C	4	WASHER (ø17 ZN)
29	3038445	4	NUT (M16-DIN 980)
30	3670100	4	TIRE ASSY (16X6,50-8 6PLY)



**RHINO<sup>®</sup>**  
**LIMITED WARRANTY**

**1. LIMITED WARRANTIES**

- 1.01. M&W 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. NOTWITHSTANDING 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.

M&W Implement Model \_\_\_\_\_ Serial Number \_\_\_\_\_

Date Purchased \_\_\_\_\_ Dealer \_\_\_\_\_

ATTENTION:  
READ YOUR OPERATOR'S MANUAL

**RHINO<sup>®</sup>**

An Alamo Group Company  
1020 South Sangamon Ave.  
Gibson City, Illinois 60936  
217-784-426





## 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 Seatbelts that meet the requirements of this paragraph of this Standard and SAE J4C; and
3. Ensure that each employee uses such Seatbelt while the tractor is moving; and
4. Ensure that each employee tightens the Seatbelt sufficiently to confine the employee to the protected area provided by the ROPS.

### REQUIRED OF THE OPERATOR

1. Securely fasten seatbelt 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.



**Keep children away from danger all day, every day...**



**Equip tractors with rollover protection (ROPS) and keep all machinery guards in place...**



**Please work, drive, play and live each day with care and concern for your safety and that of your family and fellow citizens.**



