

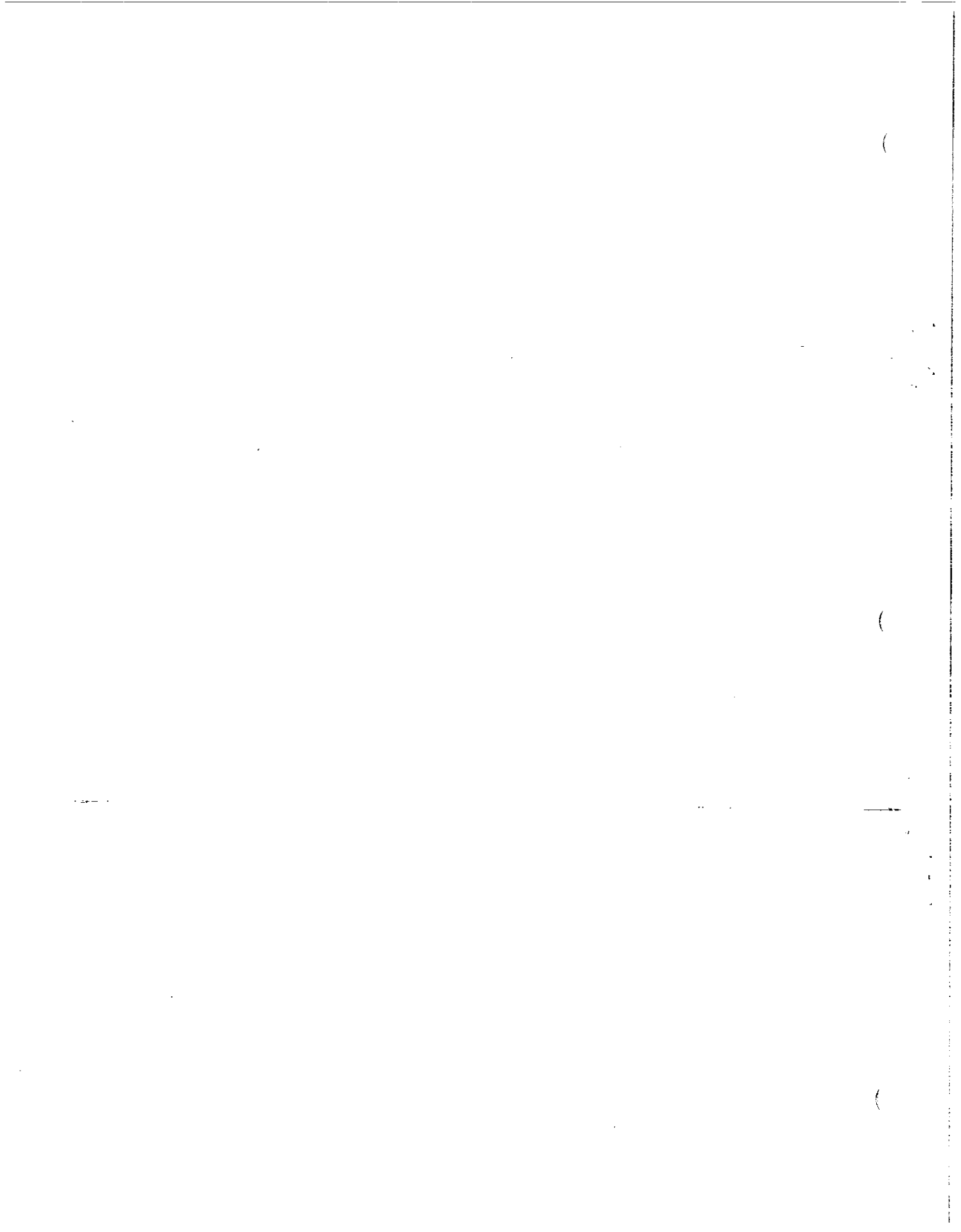


**Beet Harvester  
Model 690B  
2000 with Folding Elevator**

***Illustrated Parts List***

502700 (A)  
0802

**Art's-Way Manufacturing Co., Inc.**



# **TO THE OWNER**

Congratulations on the purchase of your new Art's-Way Sugar Beet Harvester. You have selected a top quality machine that is designed and built with pride to ensure you have many years of efficient, reliable service.

Many people have worked on the design, production, and delivery of this harvester. The information in this Manual is based on the knowledge, study and experience of these people through years of manufacturing specialized farming machinery. This Manual is designed to provide you with important information regarding safety, maintenance and machine operation so you can get the best possible performance from your harvester.

Even if you are an experienced operator of this or similar equipment, we ask you to *read this Manual before running this harvester*. The way you operate, adjust, and maintain this unit will have much to do with its successful performance. Any further questions you may have about this piece of Art's-Way equipment should be directed to your local Art's-Way dealer or to Art's-Way Manufacturing Co., Inc., Armstrong, Iowa, 50514, (712) 864-3131.

## **Specifications And Design Are Subject To Change Without Notice**

Art's-Way Manufacturing Co., Inc. is continually making product improvements. In doing so, we reserve the right to make changes or add improvements to our products without obligation for the equipment previously sold.

Because modifications to this harvester may effect the performance, function and safety of its operation, no modifications are to be made without the written permission of Art's-Way Manufacturing Co., Inc. Any modifications made without the written permission of Art's-Way Mfg. Co. shall void the warranty of this product.

In the interest of continued safe operation of this harvester, pay particular attention to the safety alert symbol throughout this Manual.

## **Art's-Way Manufacturing Co., Inc. Statement Of Product Liability**

Art's-Way Manufacturing Co., Inc. recognizes its responsibility to provide its customers with a safe and efficient product. Art's-Way attempts to design and manufacture its products in accordance with all accepted engineering practices in effect at the date of design. This statement should not be interpreted to mean that our products will protect against the user's own carelessness or failure to follow common safety practices, as set forth in this Manual, nor will Art's-Way be liable for any such act. In addition, Art's Way assumes no liability for product altered or modified in any way by users or anyone other than an authorized dealer.

## **Important Warranty Information**

The warranty for this harvester appears on page 7 of this Manual. In order to establish proper warranty registration, the Warranty Registration and Dealer Pre-Delivery Checklist must be completed and returned to the factory. Failure to comply with this requirement may result in reduced warranty allowances.

## **Limitations of this Manual**

This Manual contains operating instructions for your Sugar Beet Harvester only. It does not replace the Manual(s) for any machine that it may be attached to or used with.

# PARTS & SERVICE

As the new purchaser of your Beet Harvester, it is very important to consider the following factors:

- A. Original Quality
- B. Availability of Service Parts
- C. Availability of Adequate Service Facilities

Art's-Way Manufacturing Co., Inc. has an excellent dealership network ready to answer any questions you may have about your grinder harvester. Parts for your machine may be ordered through our dealers. When placing a parts order, please have the *model* and *serial number* ready. This will allow the dealer to fill your order as quickly as possible.

For your convenience, we have provided this space for you to record your model number, serial number and the date of purchase, as well as your dealer's name and address.

Owner's Name: \_\_\_\_\_

Owner's Address: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Dealership Name: \_\_\_\_\_

Dealership Address: \_\_\_\_\_

Dealership Phone No.: \_\_\_\_\_

Building on a  
*Art's-Way*  
Tradition of Quality

SERIAL NO.

MODEL NO.

Manufactured By  
Art's-Way Manufacturing Co., Inc.  
Armstrong, IA

## Machine Serial Number Location

(The Serial Number is located on the left front corner of the main frame.)

Enter the serial number and model number of your harvester in the space provided above.

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# LIMITED WARRANTY

**Art's-Way Manufacturing Co., Inc.** warrants the products it sells to be free from defects in material and workmanship for a period of one (1) year after the date of delivery to the first purchaser, subject to the following conditions:

- **Art's-Way Manufacturing Co., Inc.** obligation and liability under this warranty is to repair or replace (at the company's option) any parts which upon manufacture were defective in material or workmanship.
- All parts and repairs under this warranty shall be supplied at an authorized **Art's-Way Manufacturing Co., Inc.** dealer or at the factory, at the option of **Art's-Way Manufacturing Co., Inc.**
- **Art's-Way Manufacturing Co., Inc.** warranty does not extend to parts and elements not manufactured by **Art's-Way Manufacturing Co., Inc.** and which carry the warranty of the other manufacturer.
- Transportation or shipping to an authorized dealer for necessary repairs is at the expense of the purchaser.
- **Art's-Way Manufacturing Co., Inc.** makes no other warranty expressed or implied and makes no warranty of merchantability or fitness for any particular purpose beyond that expressly stated in this warranty. **Art's-Way Manufacturing Co., Inc.** liability is limited to the terms set forth in this warranty and does not include any liability for direct, indirect, incidental or consequential damages or expenses of delay and the Company's liability is limited to repair or replacement of defective parts as set forth herein.
- Any improper use, and maintenance, including operation after discovery of defective or worn parts, operation beyond the rated capacity, substitution of parts not approved by **Art's-Way Manufacturing Co., Inc.** or any alteration or repair by other than authorized **Art's-Way Manufacturing Co., Inc.** dealer which affects the product materially and adversely, shall void this warranty.
- No dealer, employee or representative is authorized to change this warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of **Art's-Way Manufacturing Co., Inc.** at its home office.
- Some states do not allow limitations on how long an implied warranty lasts or exclusions of, or limitations on relief such as incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you the specific legal rights and you may have other rights which vary from state to state.

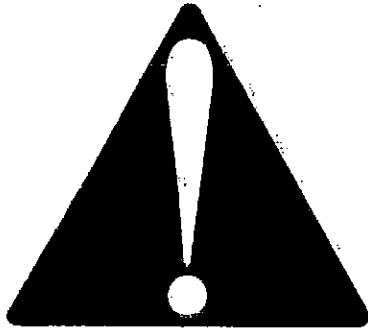
# **SAFETY FIRST**

*“A careful operator is the best insurance against an accident.”*

(National Safety Council)

Most accidents can be prevented if the operator:

- fully understands how the machine functions
- can anticipate situations which may produce problems
- can make necessary corrections before problems develop.



**THIS SYMBOL MEANS ATTENTION!**

**BECOME ALERT!**

**YOUR SAFETY IS INVOLVED!**

Figure 1: The Universal Safety Alert Symbol

The American Society of Agricultural Engineers has adopted the *UNIVERSAL SAFETY ALERT SYMBOL* (Figure 1) as a way to identify areas of potential danger if the equipment is not operated correctly. *Please be alert whenever you see this symbol in the Manuals or on your harvester.*

Art's-Way Manufacturing Co., Inc. strives to make our equipment as safe as it can possibly be. This Art's-Way Sugar Beet Harvester conforms to applicable safety standards at the time of manufacturing. A safety conscious equipment operator makes an effective accident-prevention program complete.

Safety features and instructions for the Art's-Way Sugar Beet Harvester are detailed elsewhere in the Operator's Manual. It is the responsibility of the harvester owner to ensure that *all* operators read and understand the Manual before they are allowed to operate the machine. (*Occupational Safety and Health Administration (OSHA) regulation 1928.57.*)

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## **Notices of Danger, Warning and Caution**

*Signal Words:* Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** on the Harvester and in this Manual. The appropriate signal word for each has been selected using the following guidelines:



**DANGER:** Indicates an imminently hazardous situation that, if not avoided, *will* result in death or serious injury. This signal word is limited to the most extreme situations for machine components which for functional purposes cannot be guarded.



**WARNING:** Indicates a potentially hazardous situation that, if not avoided, *could* result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



**CAUTION:** Indicates a potentially hazardous situation that, if not avoided, *may* result in minor or moderate injury. It may also be used to alert against unsafe practices.



# SAFETY GUIDELINES



*Remember:*  
**The Best Operator is a Safe Operator.**



**CAUTION: READ and UNDERSTAND the Operator's Manual and all the safety decals before operating the harvester. Review all safety instructions with all operators annually.**

## Before Operating

- *Do not* wear loose fitting clothing as it may catch in moving parts.
- Make sure to install and/or secure all guards and shields, including the tractor power take-off master shield, before starting or operating the harvester.
- Be sure that the correct implement driveline parts are used and that they are properly secured.
- Lower the lifter wheels when the harvester is not in use.
- Install the safety chain when attaching the harvester to the tractor.
- Clear the area of bystanders, especially children, when making repairs, adjustments or performing maintenance on the harvester.
- *Do not* allow riders.
- Put all tractor and machine controls in "neutral" and disengage the PTO before starting. Follow the starting instructions according to your tractor manual.
- Operate the harvester only while seated on the tractor seat.
- Make sure the unit is adequately supported with safety blocks or safety stands when changing tires or working on it.



**CAUTION: Keep well clear of moving parts. Be sure to shut off the tractor, set the parking brake, put the machine in neutral, and remove the tractor key while making adjustments. Wait for all movement to stop before approaching the machine.**

## During Operation

- Keep hands, feet, hair and clothing away from moving parts.
- Keep all shields and guards in place and in good repair.

- Keep all children and bystanders away from the harvester while in operation.
- *Do not* allow riders while the harvester is in operation.
- *Do not* attempt to unclog, clean or adjust the harvester while it is running
- Stay away from overhead power lines. Electrocution can occur even without direct contact.
- Keep all hydraulic lines, fittings, and couplers tight and free of leaks. (See the **Hydraulic Safety** section, below.)
- Be careful when ascending or descending on the harvester, wet shoes or boots are slippery.

## Maintenance Safety

- Follow all operating, maintenance and safety instructions found in this Manual and Operator's Manual.
- Before servicing, adjusting, repairing or unplugging the machine, always ensure that the tractor engine is stopped, the machine is lowered to the ground, all controls are placed in neutral, the parking brake is set and all the moving parts have stopped.
- Use only the tools, jacks and hoists that are of sufficient capacity for the job.
- Use support blocks or safety stands when changing tires or working under the machine.
- Follow the good shop practices of keeping the service area clean and dry and use adequate light for the job at hand.
- Before applying pressure to the hydraulic system, make sure all lines, fittings and couplers are tight and in good condition (see hydraulic safety section below).
- Make sure all shields/guards are in place and properly secured when maintenance work is complete.

## Hydraulic Safety

- Make sure components in the hydraulic system are kept clean and in good condition.
- Relieve pressure from the hydraulic circuit before servicing or disconnecting from the tractor.
- Keep all hydraulic lines, fittings and couplers tight and free of leaks.
- Replace any worn, cut, abraded, flattened or crimped hoses.



# SAFETY GUIDELINES

- *Do not* make any temporary repairs to the hydraulic lines, fittings or hoses by using tape, clamps or cement. The hydraulic system operates under extremely high pressure and temporary repairs may fail suddenly and create a hazardous situation.
- Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to identify and isolate a leak. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop if hydraulic fluid penetrates the surface of the skin.
- Before applying pressure to the system, make sure all components are tight and that the lines, hoses and couplings are not damaged.

## Transportation Safety

- Be sure to comply with all local regulations regarding transporting equipment on public roads and highways.
- Make sure the Slow Moving Vehicle (SMV) emblem and all lights and reflectors required by local highway and transportation authorities are in place, clean and clearly visible to all oncoming or following traffic.
- *Do not* allow riders while transporting.
- Make sure the harvester is securely attached to the tractor and install a safety chain to the harvester.
- *Do not* fail to latch the tractor brake pedals together.
- *Do not* exceed 20 mph (32 km/h) when transporting the harvester. Always reduce speed on rough roads and surfaces, or when going down inclines.
- Drive slowly when turning and always use turn signals on the tractor to indicate your turning intentions to the other traffic.
- The weight of the trailed machine should *NEVER* exceed the weight of the towing vehicle.
- Check clearances carefully whenever the machine is towed.
- Lower the elevator into the transport position before transporting the harvester on the highway.
- Stay away from overhead or side obstructions and power lines during transport. Electrocutation can occur even without direct contact.

## Storage Safety

- Store the harvester in an area away from human activity.
- *Do not* permit children to play on or around the stored machine.
- Ensure that the harvester is stored in an area with a firm and level base to prevent the machine from tipping or sinking into the ground.
- Block the wheels to prevent the machine from rolling.

## Tire Safety

- Have a qualified tire dealer or repair service perform tire repairs.
- *Do not* attempt to install a tire on a wheel or rim unless you have the proper equipment and experience to do the job.
- Follow proper procedures when installing a tire on a wheel or rim to prevent an explosion which could result in serious injury or death.
- *Do not* substitute tires of lesser road rating and capacity for the original equipment tires.



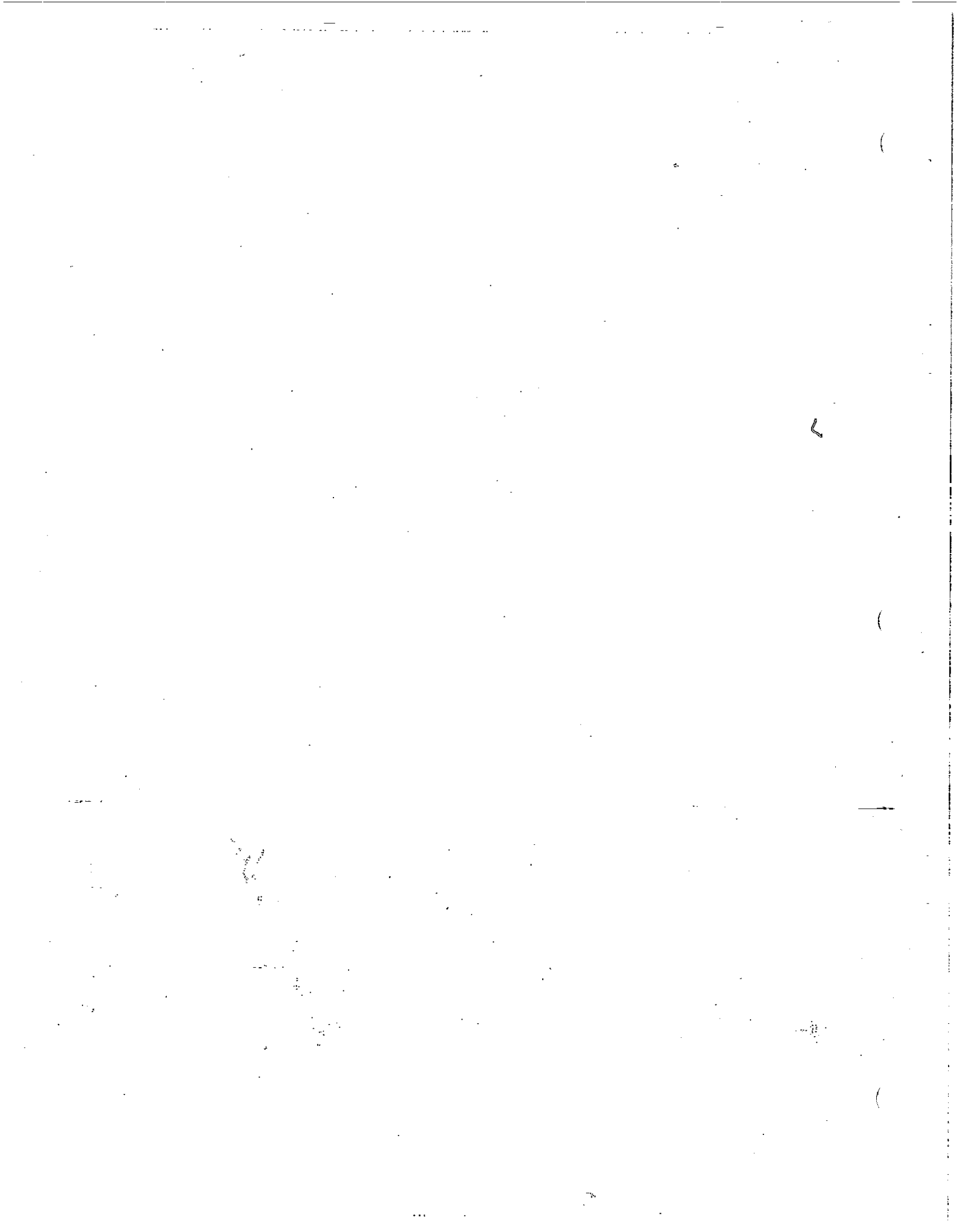
**CAUTION:** Failure to follow proper procedures when installing a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to install a tire unless you have the proper equipment and experience to perform the job. Have it done by your dealer or a qualified tire repair service.

## Assembly Safety

- Use adequate manpower to perform assembly procedures safely.
- Assemble the harvester in an area with sufficient space to maneuver the largest components and allow easy access to all sides of the machine.
- Use only forklifts, lift cranes, jacks and tools with sufficient capacity for the loads.
- *Do not* allow spectators in the working area.

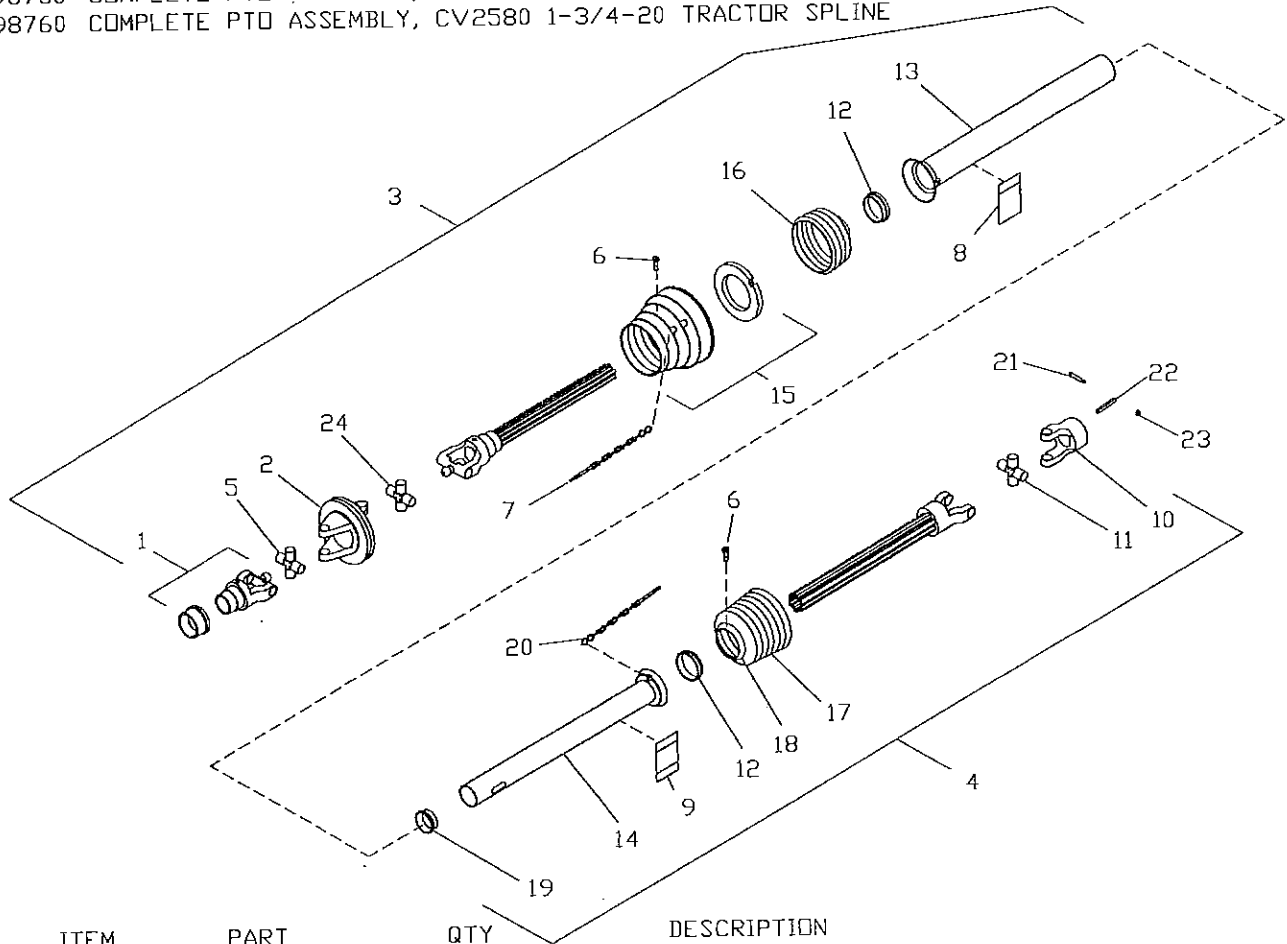
*Remember:*

*The Best Operator is a Safe Operator.*



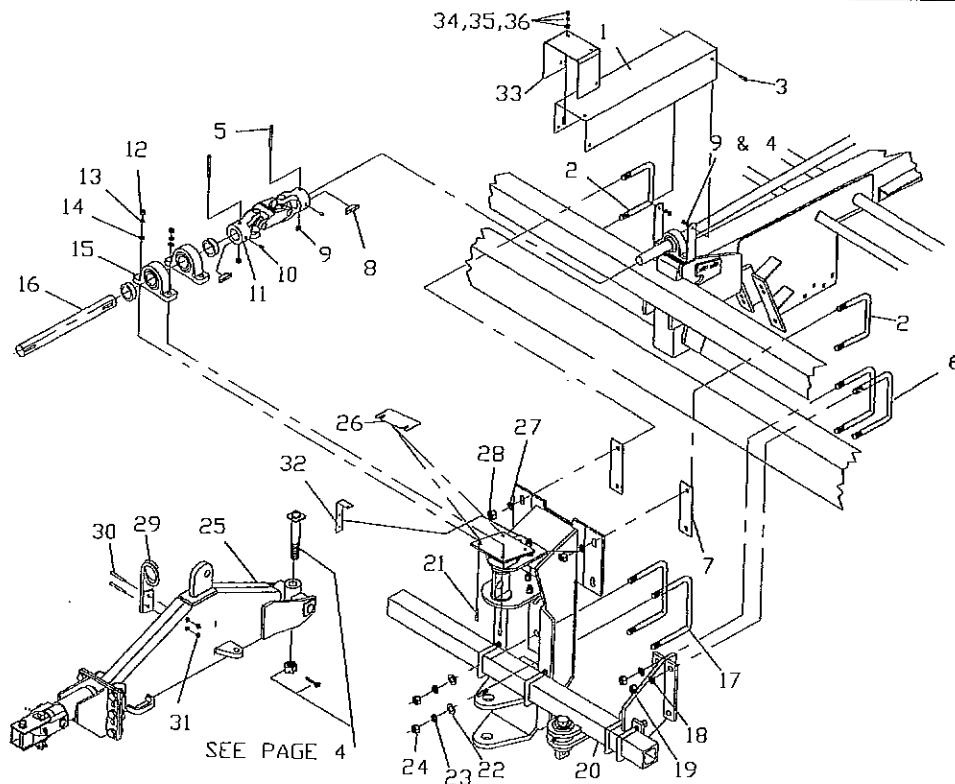
PTO ASSEMBLY, CONTANT VELOCITY- WALTERSCHEID (M498750)

498750 COMPLETE PTO ASSEMBLY, CV2580 1-3/8-21 TRACTOR SPLINE  
 498760 COMPLETE PTO ASSEMBLY, CV2580 1-3/4-20 TRACTOR SPLINE



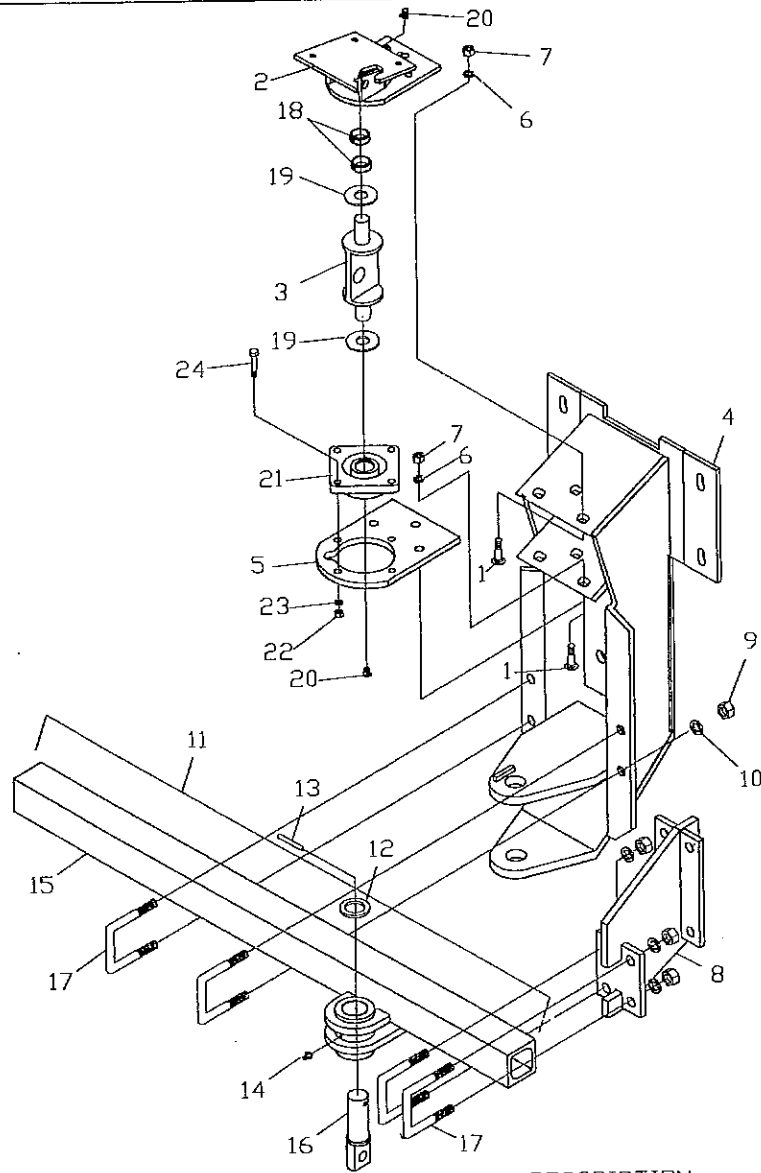
ITEM	PART NUMBER	QTY	DESCRIPTION
1	345830	1	YOKE, 1-3/8-21 SPLINE
	340210	1	COLLAR KIT, 1-3/8-21 (IN ITEM #1)
1	354840	1	YOKE 1-3/4-20 SPLINE
	340200	1	COLLAR KIT 1-3/4-20 (IN ITEM 1)
2	345850	1	DOUBLE YOKE
3	498800	1	TRACTOR HALF, PTO 1-3/8-21 YOKE
3	472160	1	TRACTOR HALF, PTO 1-3/4-20 YOKE
4	357850	1	IMPLEMENT HALF, PTO FOR 1-3/8-21
4	287450	1	IMPLEMENT HALF, PTO FOR 1-3/4-20
5	345870	2	KIT, CROSS AND BEARING CV
6	345980	8	SCREW, SHIELD (IN ITEMS 15,16,17)
7	354190	1	CHAIN, SAFETY 600mm
8	268860	1	DECAL, DANGER ROTATING DRIVE LINE (ON ITEM 13)
9	340180	1	DECAL, DANGER SHIELD MISSING (ON ITEM 14)
10	345910	1	YOKE, 1-3/4 RB 3/8 KEYWAY
11	182230	1	KIT, CROSS AND BEARING
12	182900	2	BEARING, RING SC 25
13	357880	1	TUBE, OUTER SHIELD OVAL-1-3/8
13	287490	1	TUBE, OUTER SHIELD OVAL-1-3/4
14	357890	1	TUBE, INNER SHIELD ROUND-1-3/8
14	287500	1	TUBE, INNER SHIELD ROUND-1-3/4
15	345950	1	ASSEMBLY, CV CONE AND BEARING
16	345960	1	SHIELD, CONE 3 RIB
17	340140	1	SHIELD, CONE 7 RIB
18	349250	1	COLLAR, REINFORCED (359474)
19	340190	1	BEARING, SUPPORT
20	182890	1	CHAIN, SAFETY
21	990870	1	BOLT, HHCS 3/8-16 x 2"
22	021530	1	KEY, SQUARE 3/8 x 2"
23	E552044	1	NUT, LOCK 3/8-16 HEX TOP GRADE A
24	498820	1	CROSS AND BEARING KIT

692B & 9420B HITCH (m692-hitch-parts)



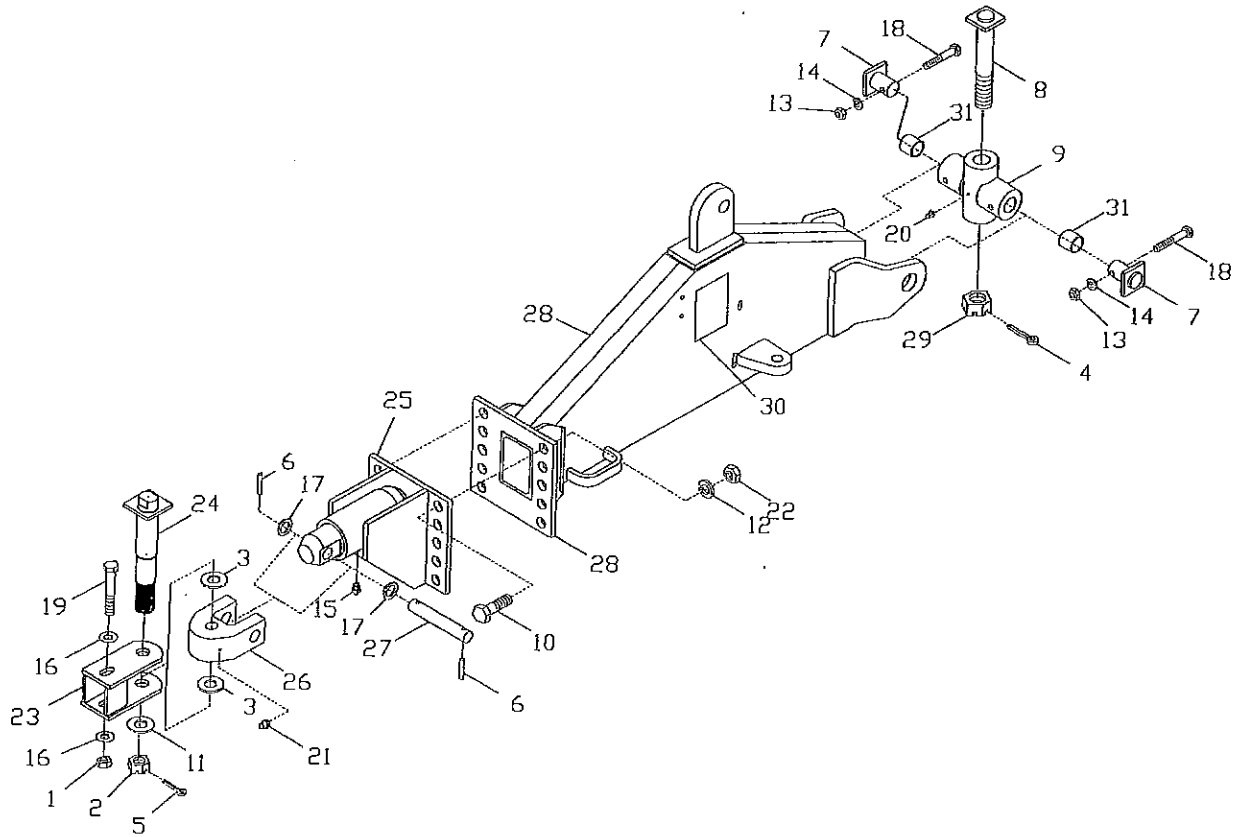
ITEM	PART NUMBER	QTY	DESCRIPTION
1	477460	1	SHIELD, JACKSHAFT FRONT
2	442820	2	BOLT, U 5/8 x 4.06 x 5.5
3	012260	2	BOLT, HHCS 3/8-16 x 1"
4	021190	4	WASHER, FLAT 3/8
5	1189304	3	BOLT, HHCS 3/8 X 3-1/4
6	375070	2	BOLT, U 3/4-10 x 6-3/4 x 7-1/16
7	490630	2	STRAP, SHIM
8	231950	3	KEY, WOODRUFF 3/8 x 2-3/4
9	E552044	3	NUT, LOCK 3/8-16 GrA ZN HEX TOP
10	120970	2	SET SCREW, 3/8 NYLOCK
11	496490	1	U-JOINT, DOUBLE YOKE 1.75 DIA
12	005360	4	NUT, HEX 1/2-13 Gr5 ZN
13	005370	4	WASHER, LOCK 1/2 ZN
14	120601R1	4	WASHER, FLAT 17/32 x 1-1/4
15	238420	2	BEARING, PB 1-3/4
16	477470	1	SHAFT, 1-3/4 x 14.13
17	460510	2	BOLT, U 1-8 ROLLED THREAD
18	036800	4	WASHER, LOCK 3/4
19	J14H794	4	NUT, 3/4-10
20	478690	1	HITCH ASSY, SUPPORT BOLT-ON (SEE PAGE 3)
21	023950	4	BOLT, HHCS 1/2-13 x 2 Gr5 ZN
22	1107389	4	WASHER, FLAT 1" SAE
23	003350	4	WASHER, LOCK 1"
24	J14H805	4	NUT, HEX 1-8 Gr5 ZN
25	432800	1	TONGUE ASSY (SEE PAGE 4)
26	I48339R2	3	SHIM, BEARING
27	020430	4	WASHER, FLAT, 5/8"
28	038850	4	NUT, LOCK, 5/8"-16
29	E150004	2	HOSE CARRIER
30	031020	2	BOLT, HHCS 3/8-16 x 5-1/2
31	E552044	2	NUT, LOCK 3/8-16 HEX
32	490620	1	BRACKET, VALVE MOUNT
33	496630	2	FLAP, PTO
34	005900	4	HHCS 5/16-18 x 1
35	023630	4	NUT, HEX 5/16-18
36	023620	4	WASHER, LOCK 5/16
36	022920	8	WASHER, FLAT 5/16

# HITCH SUPPORT (M478690)



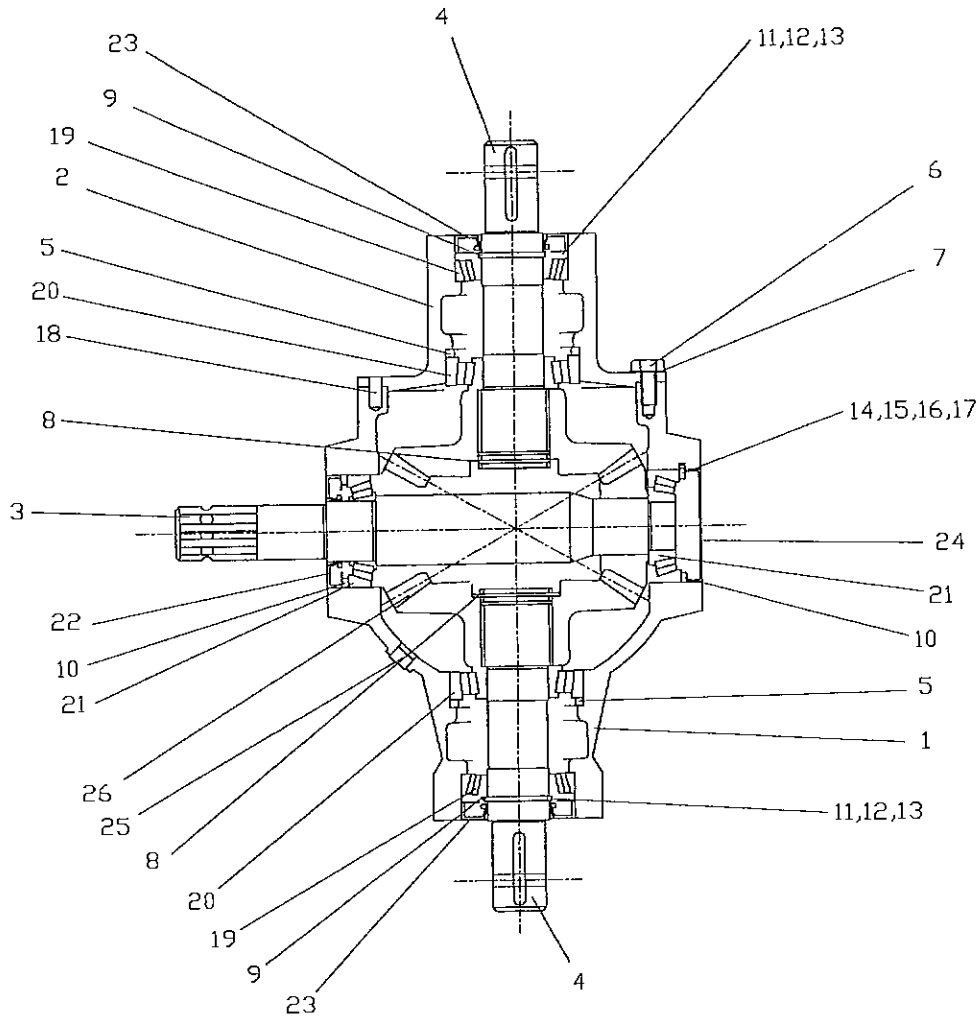
ITEM	PART NUMBER	QTY	DESCRIPTION
1	1441452R1	6	BOLT, SNCB 5/8 X 2
2	496180	1	PLATE WLDT, UPPER 690B
3	286310	1	PIN, CYLINDER DOUBLE
4	474980	1	HITCH WLDT, BOLT-ON
5	510020	1	PLATE, BEARING MOUNT, LOWER
6	020440	6	WASHER, LK-5/8
7	1124589	6	NUT, HEX 5/8-11 GR5
8	432920	1	BRACE WLDT, OUTER
9	J14H794	8	NUT, HEX 3/4-10 GR5 ZN
10	036800	8	WASHER, LK-3/4 SAE, MED ZN
11	439080	1	TUBE ASSY, ROWFINDER
12	E126034	1	BUSHING, 1.88 X 2.8 X .134
13	E580057	1	PIN, ROLL 3/8 X 2.5
14	115590	1	ZERK, 1/4-28 TAPPER, SELF TAP
15	431980	1	TUBE WLDT, ROW FINDER
16	268240	1	PIN, ROW FINDER CYLINDER
17	246120	4	BOLT, U 3/4-10X3x4.5, GR5 ZN
18	490390	2	SLEEVE, 1.88 OD x 1.4 ID x .75
19	V063596	3	WASHER
20	1100756	2	ZERK, 90°
21	510040	1	BEARING, FLANGED, 1.5" BORE
22	005360	4	NUT, 1/2-13 HEX
23	005370	4	WASHER, 1/2" LOCK
24	023950	4	BOLT, 1/2-13 x 2 GR5

TONGUE ASSEMBLY (M432800)



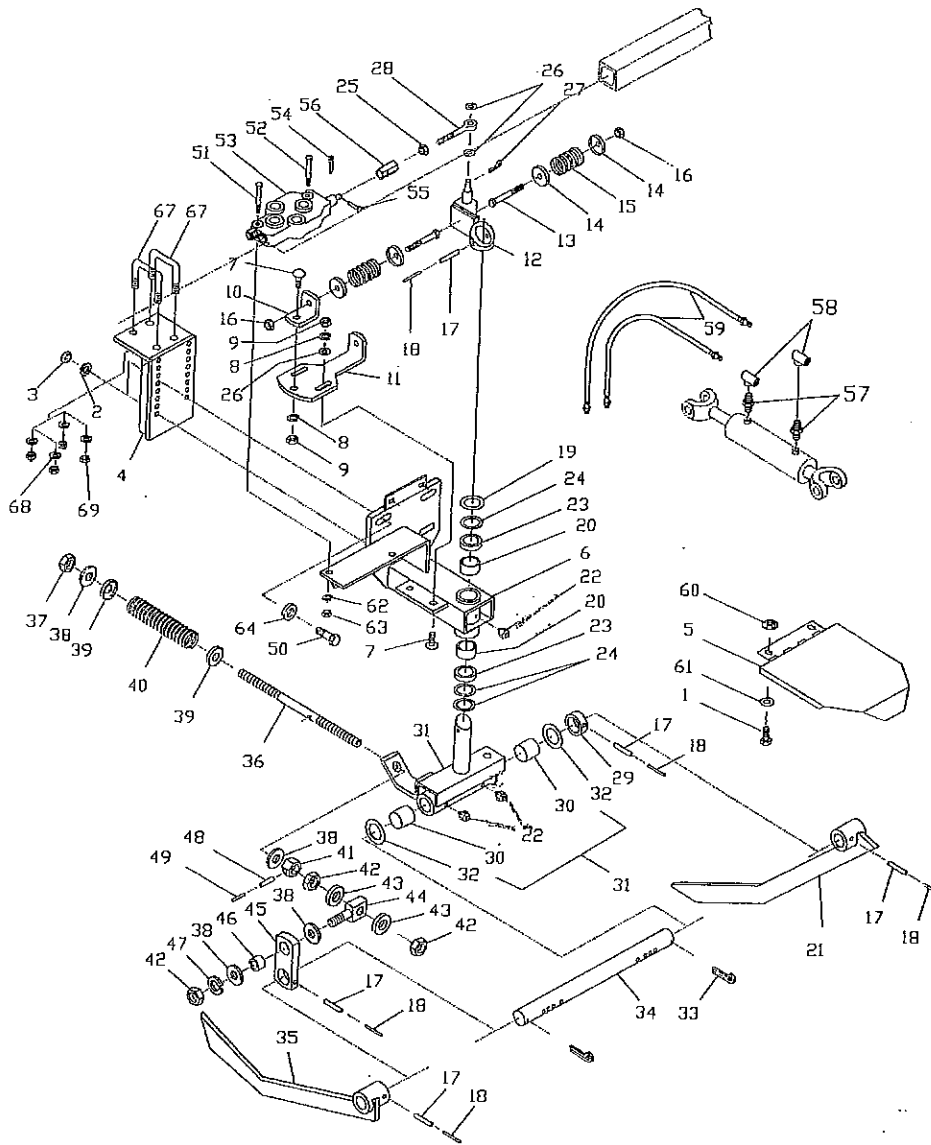
ITEM	PART NUMBER	QTY	DESCRIPTION
1	991040	1	NUT, 3/4-10 HEX LK
2	E552072	1	NUT, 1-3/8-6 SLOT HEX GR8
3	425550	2	WASHER, HARDENED 1.56
4	E580042	1	PIN, 3/16x3 COTTER
5	V063768	1	PIN, 1/4x3 COTTER
6	E580053	2	PIN, 5/16x1-3/4 ROLL
7	474530	2	PIN, WELDMENT - SIDE
8	E580109	1	PIN, WELD
9	E586014	1	PIVOT WELD
10	E672103	6	BOLT, 1-8x2-1/2 HEX
11	V063596	4	WASHER, 1-5/8x3x.165
12	003350	6	WASHER, 1" LOCK
13	005360	2	NUT, 1/2-13 HEX
14	005370	2	WASHER, 1/2 LOCK
15	013170	1	ZERK, 1/8-27 NPT
16	020720	2	WASHER, .812x1.72x.179
17	020650	2	WASHER, 1.14 IDx1.63 OD
18	038560	2	BOLT, 1/2-13x4.0 HHCS
19	991050	1	BOLT, 3/4-10x8.5 HHCS
20	1100756	1	ZERK, 1/4-28 90 LINCOLN #5410
21	115590	1	ZERK, 1/4-28 TAPER
22	J14H805	6	NUT, 1-8 HEX
23	425500	1	CLEVIS WLDT, DRAWBAR
24	439070	1	PIN WLDT, HITCH-1-3/8x6x9
25	290120	1	HITCH WELDMENT, FRONT
26	425490	1	CLEVIS, HITCH 1.5" BOLT
27	252820	1	PIN, HITCH
28	431970	1	TONGUE WELDMENT
29	E552084	1	NUT, SLOTTED 1-1/2-6
30	268860	2	DECAL, DANGER RTATNG DRV
31	490390	2	BUSHING, SPLIT, 1.50x1.88x.75

GEARBOX, MAIN 1.93:1, 2150 (M286580)



ITEM	PART NUMBER	QTY	DESCRIPTION
1	-	1	HOUSING, 2150
2	364490	1	END CAP HOUSING, S2150
3	377890	1	SHAFT, S2150"-21
4	377900	2	SHAFT, S2150 1.75" DIA.
5	377910	2	SPACER, 96x110x4.75
6	-	8	BOLT, HHCS 3/8-16 UNC
7	-	8	WASHER, LOCK 3/8
8	377920	2	SNAP RING, EXT. E60 DIN471
9	364510	2	SNAP RING, EXT. E50 DIN471
10	364520	2	SNAP RING, INT. I90 DIN472
11		1	SPACER, 50.2x59.8x0.3
12		1	SPACER, 50.2x59.8x0.5
13		1	SPACER, 50.2x59.8x0.2
14	365410	1	SPACER, 80.2x89.8x0.2
15		1	SPACER, 80.2x89.8x0.3
16		1	SPACER, 80.2x89.8x0.4
17		1	SPACER, 80.2x89.8x0.5
18	-	2	DPWEL PIN
19	364530	2	T.R.BEARING30210,50x90x21.75
20	364550	2	TRBEARING30310,50x110x29.25
21	377940	2	TRBEARING30308,40x90x25.25
22	364560	2	DBL LIP OIL SEAL, 50x90x10
23	377950	1	DBL LIP OIL SEAL, 40x90x10
24	377960	1	OIL SEAL CAP, 90x10
25	365490	3	PLUG, 3/8" BST(GAS) DIN906
26	377970	1	GEAR SET, R=0.52

# HYDRAULIC ROWFINDER - 448040



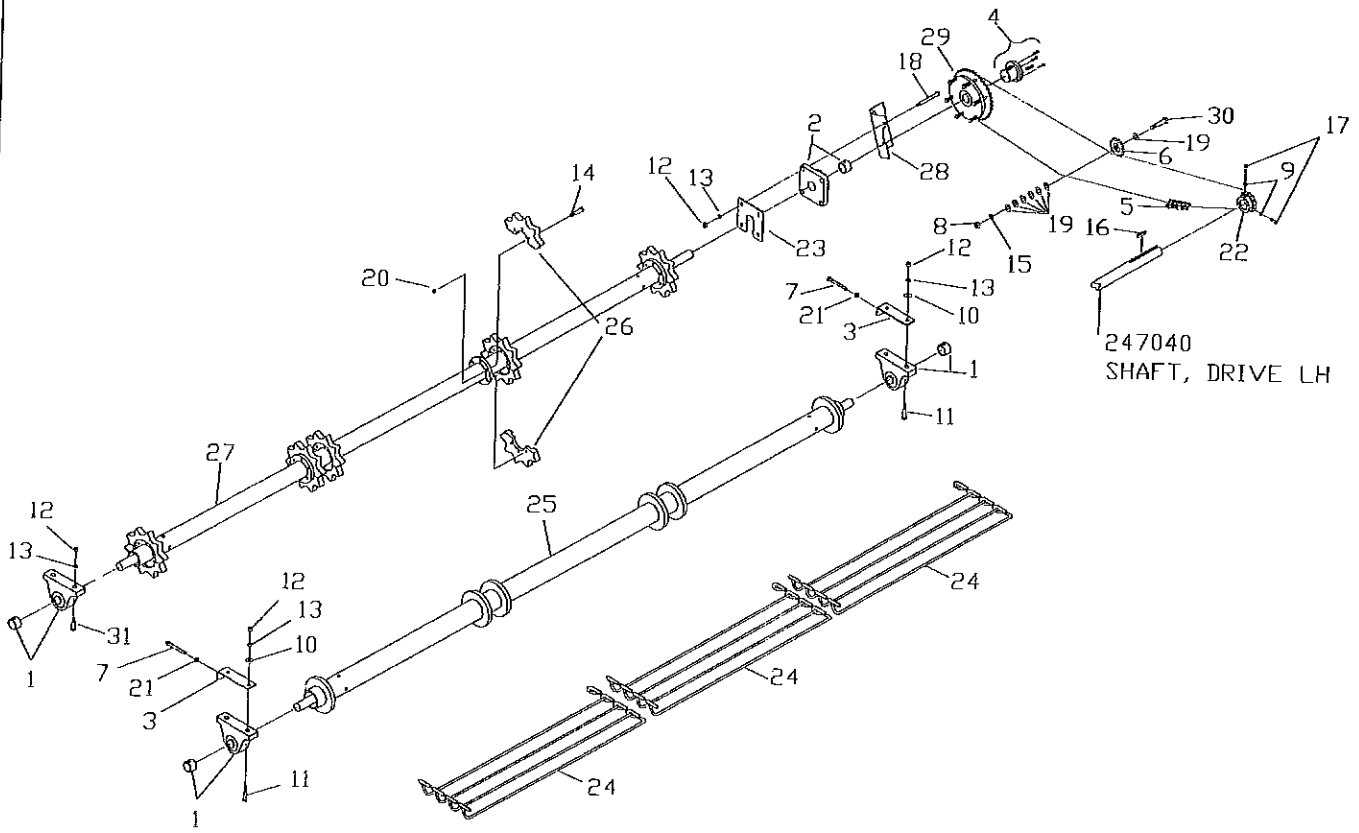
Item	Part Number	Qty.	Description
1	022420	-	Bolt, HHCS 3/8"-16 x 3/4"
2	005370	-	Washer, Lock 1/2"
3	005360	-	Nut, Hex 1/2"-13
4	447160	1	Weldment, Mounting Bracket
5	259620	1	Weldment, Rowfinder Shield
6	259510	1	Weldment, Frame Bracket
7	035180	-	Bolt, Carriage 3/8"-16 x 1-1/4"
8	021180	-	Washer, Lock 3/8" x 11/16" x 3/32"
9	027260	-	Nut, Hex 3/8"-16
10	JN145971	1	Bracket, Angle
11	JN145982	1	Bracket, Adjustment
12	259560	1	Weldment, Centering Arm
13	990820	-	Bolt, HHCS 3/8"-16 x 3"
14	JN73401	-	Washer, Cupped 13/32" x 1-9/16" x 1/4"
15	JCJ21FN	2	Spring, Compression 63/64" x 1-3/8 x 2"
16	073630	-	Nut, Lock 3/8"-16 Hex Nylon
17	E580053	-	Pin, Roll 5/16" x 1-3/4"
18	J34H288	-	Pin, Roll 3/16" x 1-3/4"



# HYDRAULIC ROWFINDER - 448040

Item	Part Number	Qty.	Description
19	I22266R1		Washer, Flat 1-1/8" x 1-3/4" x 1/32"
20	JJD8813	2	Bearing, Needle 1-1/8" x 3/4" x 1-3/8"
21	JAN142149	1	Assembly, Sensor Left Hand
22	049180	-	Zerk, 1/4"-28 Tapered Thread Lube
23	JAT30144	2	Seal
24	I23041R1	-	Washer, Flat 1-5/32" x 1-1/2" x 16 Gauge
25	I124829	-	Nut, Hex 3/8"-16 Jam
26	I120394	-	Washer, Flat 13/32" x 13/16" x 3/64"
27	023090	-	Pin, Cotter 3/32" x 3/4"
28	JAN71924	1	Bolt, Eye 3/8" x 2" x 51/64" (413450)
29	JN145972	1	Bushing, 1-1/4" ID
30	JL1713C	2	Bushing, Shaft 1-1/4" x 1-3/8" Bronze
31	259590	1	Assembly, "T" Shaft
32	I608700R1	-	Washer, Flat 1 9/32 x 2 x 3/64
33	003950	-	Pin, Cotter 3/16" x 2"
34	JN145977	1	Shaft, Cross
35	JAN142148	1	Assembly, Sensor Right Hand
36	JN147175	1	Stud, Adjusting
37	JK40015	-	Nut, Lock 5/8"-11 Grade 8
38	J24H1373	-	Washer, Flat 21/32" x 1-9/16" x 3/16" NT
39	JN147036	-	Washer, Cupped 21/32" x 1-9/16" x 1/4"
40	J23096	1	Spring, Compression 1" x 1-3/8" x 6"
41	JN147174	1	Stop, Spring Compression
42	I124589	-	Nut, Hex 5/8"-11
43	J24H1367	-	Washer, Flat 21/32" x 1-1/4" x 1/4"
44	JN145970	-	Bolt, Eye 5/8"-11 x 2-19/32"
45	JN145981	1	Bracket, Spring
46	JN145980	-	Spacer
47	020440	-	Washer, Lock 5/8" Regular x 1-5/64" x 5/32"
48	1030808	-	Pin, Roll 5/16" x 1-1/4"
49	991100	-	Pin, Expansion 3/16" x 1-1/4"
50	1770500	-	Bolt, HHCS 1/2"-13 x 1-3/4"
51	009800	-	Bolt, HHCS 5/16"-18 x 2-1/2"
52	022910	-	Bolt, HHCS 5/16"-18 x 2-1/4"
53	343250	1	Assembly, Control Valve Open Center
53	JAN71922	-	Plug, Open Center (Not Shown)
53	JAN140006	-	Plug, Closed Center (Not Shown)
53	JAN103932	1	Kit, Row Finder Valve Seal (140409)
54	J11H230	-	Pin, Cotter 1/16" x 3/8"
55	JN73390	-	Pin, Valve
56	JN73405	1	Clevis, Valve
57	166250	2	Fitting, Hydraulic Nipple 1/2" NPT Hex Steel
58	166290	2	Adapter, Tee
59	259600	2	Hose, Hydraulic 3/8" x 79"
60	020180	-	Nut, Lock 3/8"-16 Hex Flange
61	021190	-	Washer, Flat 7/16" x 1" x 5/64"
62	023620	-	Washer, Lock 5/16"
63	023630	-	Nut, Hex 5/16"-18
64	005200	-	Washer, Flat 9/16" x 1-3/8" x 7/64"
65	403450	2	Hose, Hydraulic 3/8" x 54" 1/2"-14 NPTF Male
66	403470	4	Hose, Hydraulic 3/8" x 54" 3/4"-16 ORB Male
67	246120	2	Bolt, U 3/4"-10 x 1-1/2" x 4-1/2" Threaded
68	036800	4	Washer, Lock 3/4"
69	J14H794	4	Nut, Hex 3/4"-10

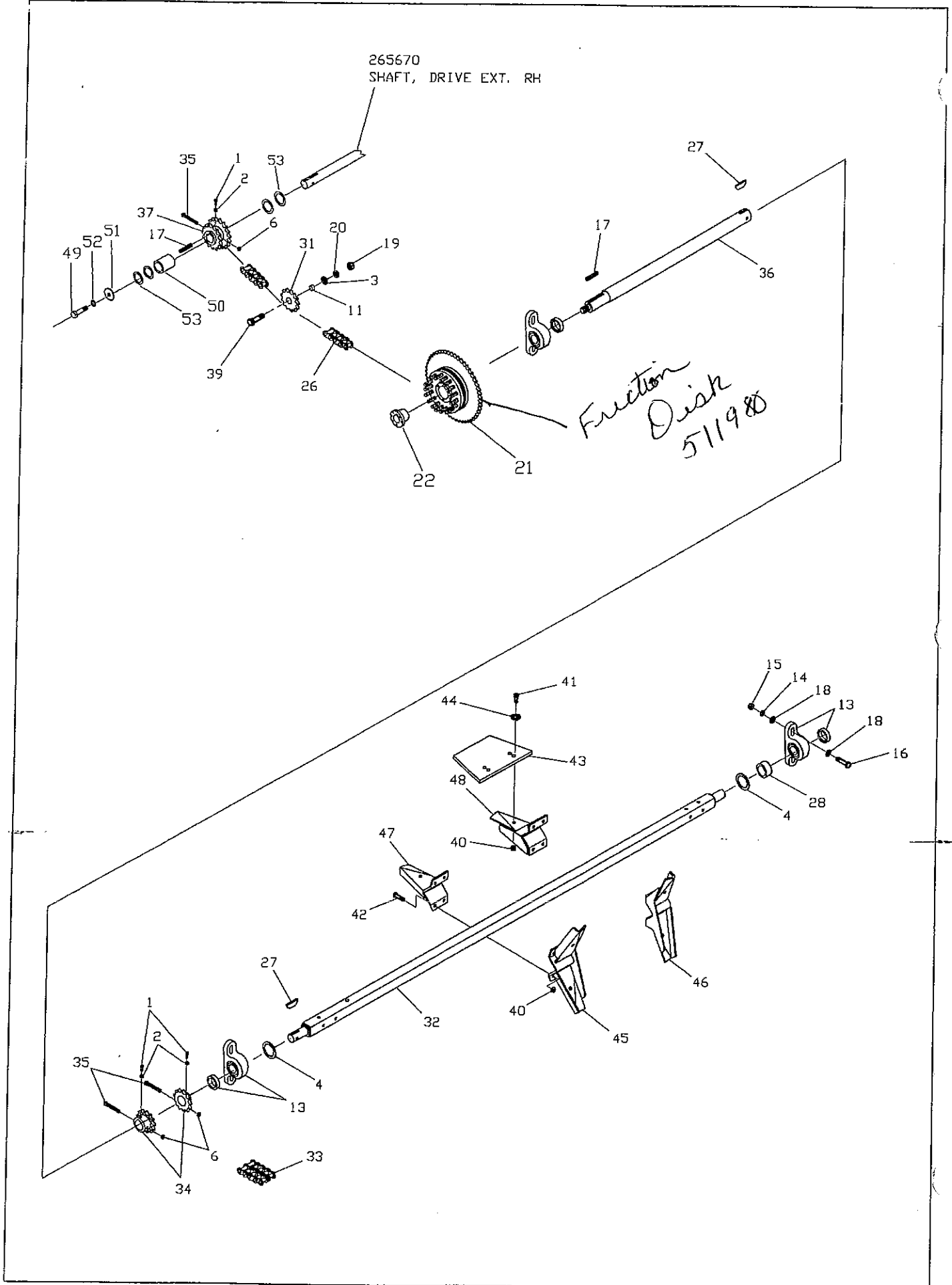
DRIVE ASSEMBLY, CHAIN BED - (M352980)



DRIVE ASSEMBLY, CHAIN BED - (M352980)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072001	3	BEARING ASSY, 1-7/16 PB
2	E072102	1	BEARING ASSY, 1-5/8 FLG
3	E104319	2	BRACKET, TENSION
4	E126073	1	BUSHING, 1-5/8 SPT TPR
5	E164080	1	CHAIN ASSY, RC60HX106P
6	E366013	1	SPROCKET, 60B13 IDLER
7	E672369	2	SCREW, 1/2x4 SHSS PL
8	I124589	1	NUT, 5/8 HEX
9	I124829	2	NUT, 3/8 HEX JAM
10	005200	4	WASHER, FLAT .562x1.38x.109
11	005210	4	BOLT, 1/2x2-1/4 CRG
12	005360	10	NUT, 1/2 HEX
13	005370	10	WASHER, 1/2 LOCK
14	018150	36	BOLT, HHCS 3/8-16 x 1-3/4
15	020440	1	WASHER, 5/8 LOCK
16	021530	1	KEY, PAR, 3/8 SQ.x2
17	022520	2	SCREW, 3/8x1" SHSS
18	023950	4	BOLT, 1/2x2 HHCS
19	035210	10	WASHER, FLAT .656x1.31x.095
20	073630	36	NUT, 3/8 HEX NYL LOCK
21	114380	2	NUT, 1/2 HEX JAM
22	367100	1	SPROCKET, 60B14-1.75 ID
23	265480	1	PLATE, BEARING
24	352820	78	CHAIN, DRAPER .52x42x2.38P
25	352830	1	SHAFT WLDT., IDLER BED
26	352850	6	SPROCKET, 10T 2.38P CHN BD
27	352900	1	SHAFT WLDT, CHAIN BD DRV
28	352960	1	SHIELD, DRIVE
29	353100	1	SLIP CLUTCH ASSY, 60A46
-	990820	6	BOLT, 3/8-16 x 3 HHCS
-	021190	6	WASHER, .438 x 1.00 x .083 FLAT
-	342890	6	SPRING, COMP 1.12 x 1.75 x .225
-	259980	2	DISC, FRICTION
-	352970	1	HUB, CLUTCH
-	259960	1	PLATE, CLUTCH
-	352990	1	SPROCKET, 60A46
30	990650	1	BOLT, 5/8x3 HHCS
31	991200	2	BOLT, 1/2x2 CRG
32	-	-	-

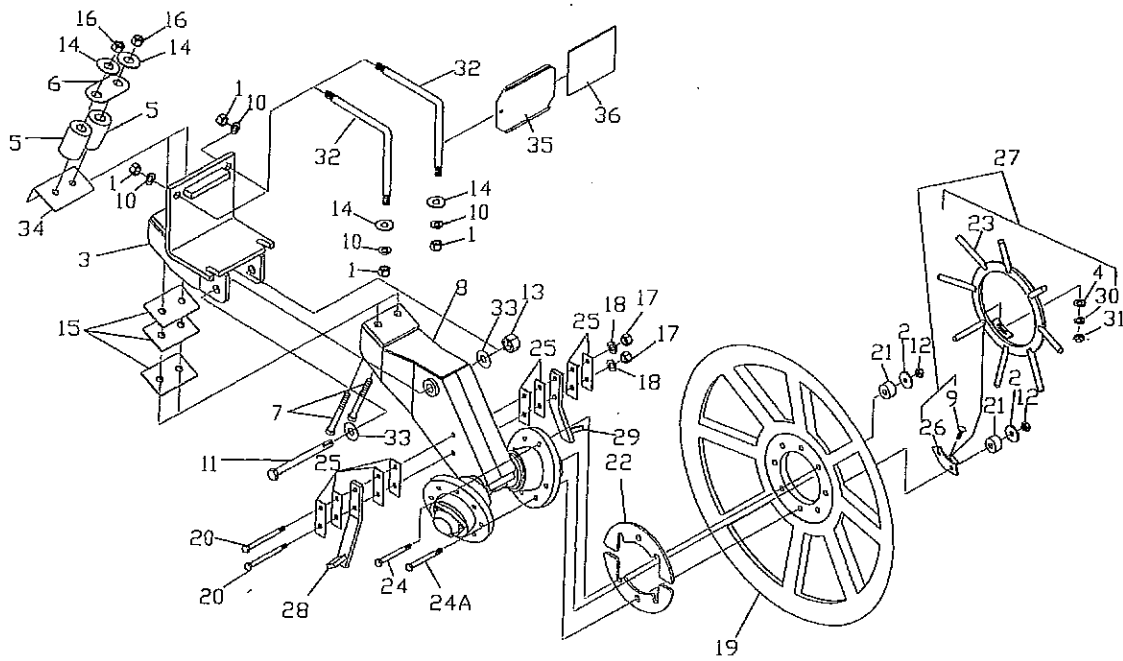
DRIVE ASSEMBLY, PADDLE SHAFT - (M265560)



DRIVE ASSEMBLY, PADDLE SHAFT - (M265560)

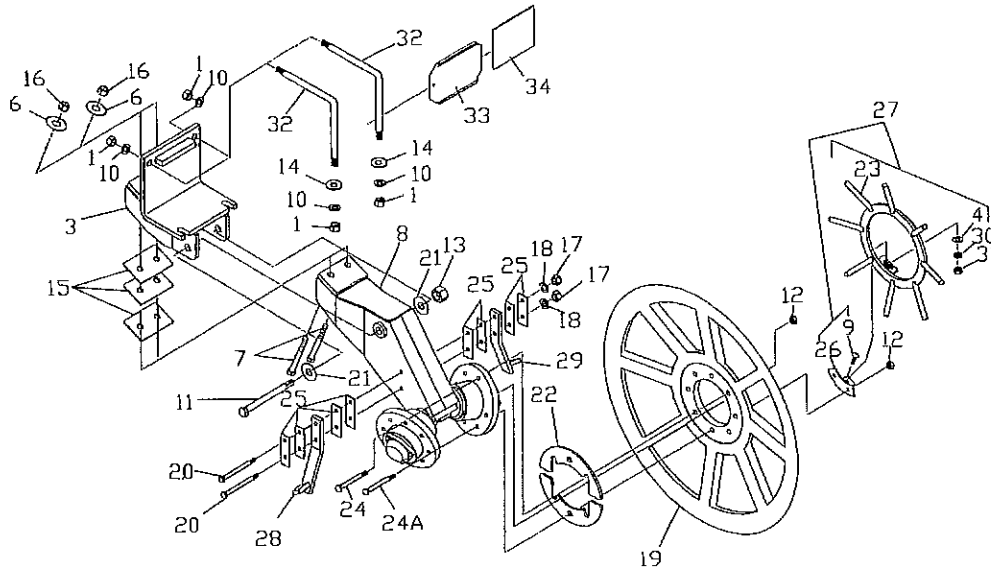
ITEM	PART NUMBER	4 ROW QTY	6 ROW QTY	DESCRIPTION
1	R61566	3	3	SCREW, SHSS 3/8-16x3/4 PL
2	I124829	3	3	NUT, HEX JAM 3/8-16 GR. 5 ZN
3	I131017	AR	AR	WASHER, FLAT .812x1.46x.108 ZN
4	396120	AR	AR	BUSHING, MACH 2-1/32x3x10 GA. ZN
5	-	-	-	-
6	I359783C1	3	3	NUT, 3/8-16 LOCK GR. 8
7	-	-	-	-
8	-	-	-	-
9	-	-	-	-
10	-	-	-	-
11	E724122	1	1	SPACER, BUSHG .824x1.050x.500
12	-	-	-	-
13	E072358	3	3	BRG., 2.0 PB. CI. HSG W/LC
14	020440	6	6	WASHER, 5/8 REG. LOCK ZN
15	I124589	6	6	NUT, HEX 5/8-11 GR. 5 ZN
16	023110	6	6	BOLT, HHCS 5/8-11x2-1/2 GR. 5 ZN
17	030380	2	2	KEY, PAR. 3/8 SQ. x3
18	035210	12	12	WASHER, FLAT .656x1.312x.095 ZN
19	J14H794	1	1	NUT, HEX 3/4-10 GR. 5 ZN
20	036800	1	1	WASHER, 3/4 LOCK
21	479300	1	1	CLUTCH, FRICTION, TEROG
22	288070	1	1	BUSHING, SPLIT TAPER, Q1, 1-3/4
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-
26	225110	1	1	CHAIN, ROLLER RS80Hx88P
27	231950	2	2	KEY, WOODRUFF 3/8x2.75
28	-	-	-	-
29	-	-	-	-
30	-	-	-	-
31	240550	1	1	SPROCKET, IDLER 80-12T W/WASHER
32	261560	1	1	SHAFT WELD, PADDLE
33	265590	1	1	CHAIN, RC80-2 13P COUPLER
34	340350	2	2	SPROCKET, RC80 13T
35	340360	3	3	BOLT, HHCS 3/8-16x3-1/2 GR. 8
36	340380	1	1	SHAFT, PADDLE EXTENSION
37	340560	1	1	SPROCKET ASSY, DBL RC60-RC80
38	-	-	-	-
39	990860	1	1	BOLT, HHCS 3/4x2-3/4 GR. 5
40	I9413967	56	84	NUT, HEX 1/2-13 LOCK GR. 5
41	014770	24	36	BOLT, HHCS 1/2x1-1/2
42	023950	32	48	BOLT, HHCS 1/2x2
43	511970	12	18	PADDLE, UHMW
44	005200	24	36	WASHER, FLAT, 1/2 REGULAR
45	354220	4	6	PADDLE WELD, RH DOUBLE
46	354230	4	6	PADDLE WELD, LH DOUBLE
47	354240	4	6	PADDLE WELD, RH SINGLE
48	354250	4	6	PADDLE WELD, LH SINGLE

LIFTER STRUT, FLEX (M433100)



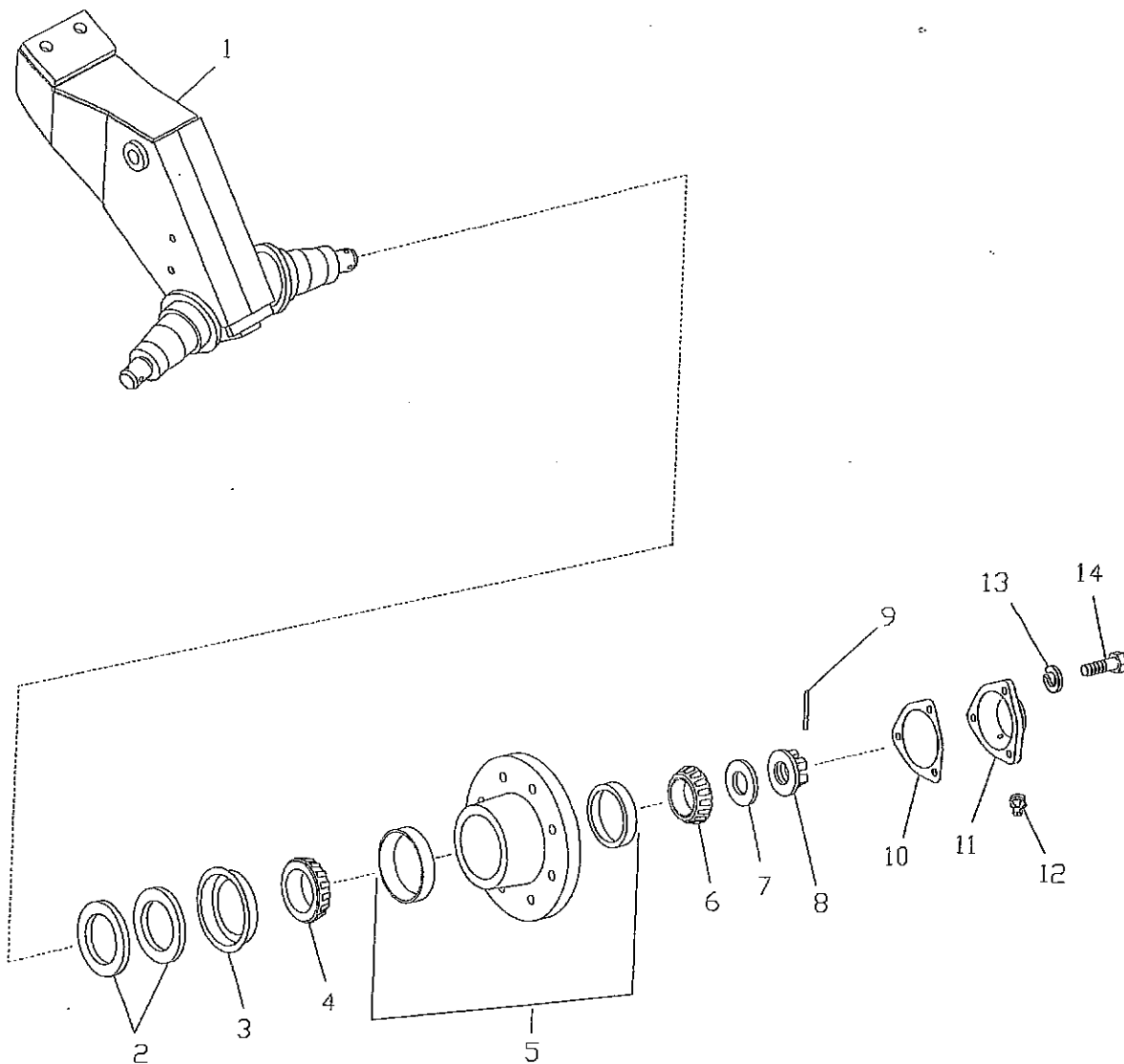
ITEM	PART NUMBER	QTY	DESCRIPTION
1	J14H794	4	NUT, HEX 3/4"
2	I48680IR1	16	WASHER, .531x2.00x.25 FLAT ZN
3	431590	1	UPPER WLD'T, PIVOT FLEX STRUT
4	021190	4	WASHER, FLAT .438x1.00x.083
5	433140	2	PAD, FLEX
6	433150	1	WASHER, DOUBLE FLAT .8X2.5X5.5X3/8 ZN
7	990990	2	BOLT, HHCS 3/4-10 X 7 GR.5 ZN
8	433110	1	STRUT ASSY, FLEXIBLE PIVOT (SEE PAGE 14)
9	035180	4	BOLT, 3/8x1-1/4 CRG.
10	036800	4	WASHER, LOCK 3/4
11	458530	1	BOLT, HHCS 1-8 X 7-1/2 GR.5 ZN
12	127890	16	NUT, 1/2-13 HEX. LCK GR.5
13	1110440	1	NUT, HEX 1-8 LOCK W/NYLON INSERT
14	J24H1401	4	WASHER, FLAT .781x1.75x.194 ZN
15	436800	3	SHIM, PIVOT FLEX STRUT
16	1100238	2	NUT, LOCK 3/4-10 NYLON HEX
17	005360	2	NUT, HEX 1/2-13 GR.5 ZN
18	005370	2	WASHER, LOCK 1/2 ZN
19	491750	2	WHEEL, LIFTER MACHINING 2000
20	E672313	2	BOLT, HHCS 1/2-13 X 6-1/2 GR.5 ZN
21	267710	16	PAD, FLEX 1.00"
22	268570	8	SPACER, BEET WHEEL
23	463350	2	CLOSEUP, LIFTER WHEEL
24	340300	8	BOLT, 1/2-13x4.25 HHCS GR.5 ZN
24A	030420	8	BOLT, 1/2-13x4.0 HHCS GR.5 ZN
25	437300	8	SHIM, SPACER 1.5 X 4.5 (AS REQUIRED)
26	463370	4	BRACKET, MOUNTING CLOSE-UP FLEX
27	463340	1	KIT, CLOSE-UP FLEX STRUT
28	437280	1	SCRAPER WELDMENT, L.H.
29	437290	1	SCRAPER WELDMENT, R.H.
30	021180	4	WASHER, 3/8 LOCK
31	027260	4	NUT, 3/8 HEX
32	403860	2	BOLT, "L" 3/4" X 6-7/8 X 8-3/4
33	990720	2	WASHER, FLAT 1" STD
34	458950	1	SHIELD, PIVOT STRUT
35	497580	1	HOLDER, UHMV
36	497280	1	SHEET, UHMV 6.06 x 7.19

LIFTER STRUT, FIXED (M438720)



ITEM	PART NUMBER	QTY	DESCRIPTION
1	J14H794	4	NUT, HEX 3/4"
2	-	-	-
3	431590	1	UPPER WLD'T, PIVOT FLEX STRUT
4	021190	4	WASHER, FLAT .438x1.00x.083
5	-	-	-
6	1131017	2	WASHER, FLAT .812 SAE ZN
7	990570	2	BOLT, HHCS 3/4-10 X 3 GR.5 ZN
8	433110	1	STRUT ASSY, FLEXIBLE PIVOT (SEE PAGE 14)
9	035180	4	BOLT, 3/8x1-1/4 CRG.
10	036800	4	WASHER, LOCK 3/4
11	458530	1	BOLT, HHCS 1-8 X 7-1/2 GR.5 ZN
12	127890	16	NUT, 1/2-13 HEX. LCK GR.5
13	1110440	1	NUT, HEX 1-8 LCK W/NYLON INSERT
14	J24H1401	2	WASHER, FLAT .781x1.75x.194 ZN
15	436800	3	SHIM, PIVOT FLEX STRUT
16	1100238	2	NUT, LOCK 3/4-10 NYLON HEX
17	005360	2	NUT, HEX 1/2-13 GR.5 ZN
18	005370	2	WASHER, LOCK 1/2 ZN
19	491750	2	WHEEL, LIFTER MACHINING 2000
20	E672313	2	BOLT, HHCS 1/2-13 X 7-1/2 GR.5 ZN
21	990720	2	WASHER, FLAT 1 STD
* AS REQD	22	6*	SPACER, BEET WHEEL
	23	2	CLOSEUP, LIFTER WHEEL
	24	8	BOLT, 1/2-13x2-3/4 HHCS GR.5 ZN
	24A	8	BOLT, 1/2-13x3 HHCS GR.5 ZN
	25	8	SHIM, SPACER 1.5 X 4.5 (AS REQUIRED)
	26	4	BRACKET, MOUNTING CLOSE-UP FLEX
	27	1	KIT, CLOSE-UP FLEX STRUT
	28	1	SCRAPER WELDMENT, L.H.
	29	1	SCRAPER WELDMENT, R.H.
	30	4	WASHER, 3/8 LOCK
	31	4	NUT, 3/8 HEX
	32	2	BOLT, "L" 3/4" X 6-7/8 X 8-3/4
	33	1	HOLDER, UHMV
	34	1	SHEET, UHMV 6.06 x 7.19

# STRUT ASSEMBLY, PIVOT FLEX - 433110

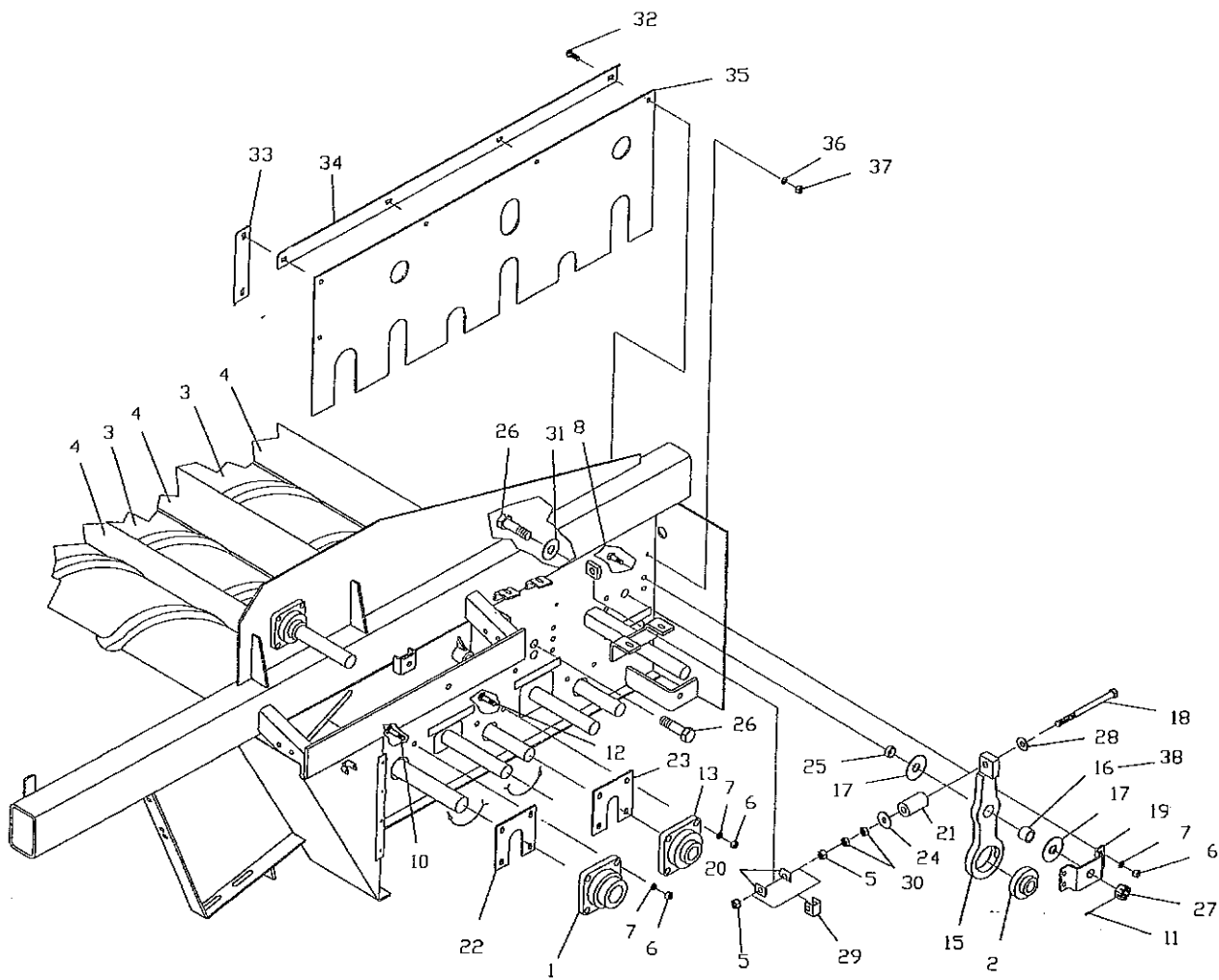


Item	Part Number	Qty.	Description
1	458860	1	Weldment, Pivot Flex Strut
2	263170	4	Washer, Felt 2-3/4" x 3-15/16" x 3/8"
3	263160	2	Retainer, Felt
4	261640	2	Bearing, Cone TM#28985 2-3/8" ID
5	267430	2	Assembly, Strut Hub with Caps
6	184960	2	Bearing, Cone TM#368 2" ID
7	E829036	2	Washer, 1-5/16" x 2-1/2" x 5/32"
8	340320	2	Nut, Hex 1-1/4"-12 Slotted Flange Grade 8
9	013600	2	Pin, Roll 1/4" x 2"
10	JN70509	2	Gasket, Hub
11	JN72550	2	Cap, Lifter Wheel Hub
12	JJD7798	2	Fitting, Special Taper Dr. 1/8"-27 Threaded
13	021180	6	Washer, Lock 3/8" x 11/16" x 3/32"
14	012260	6	Bolt, HHCS 3/8"-16 x 1"
15	962350	1.4	Grease, Special - lbs (Mobel)



NOTES

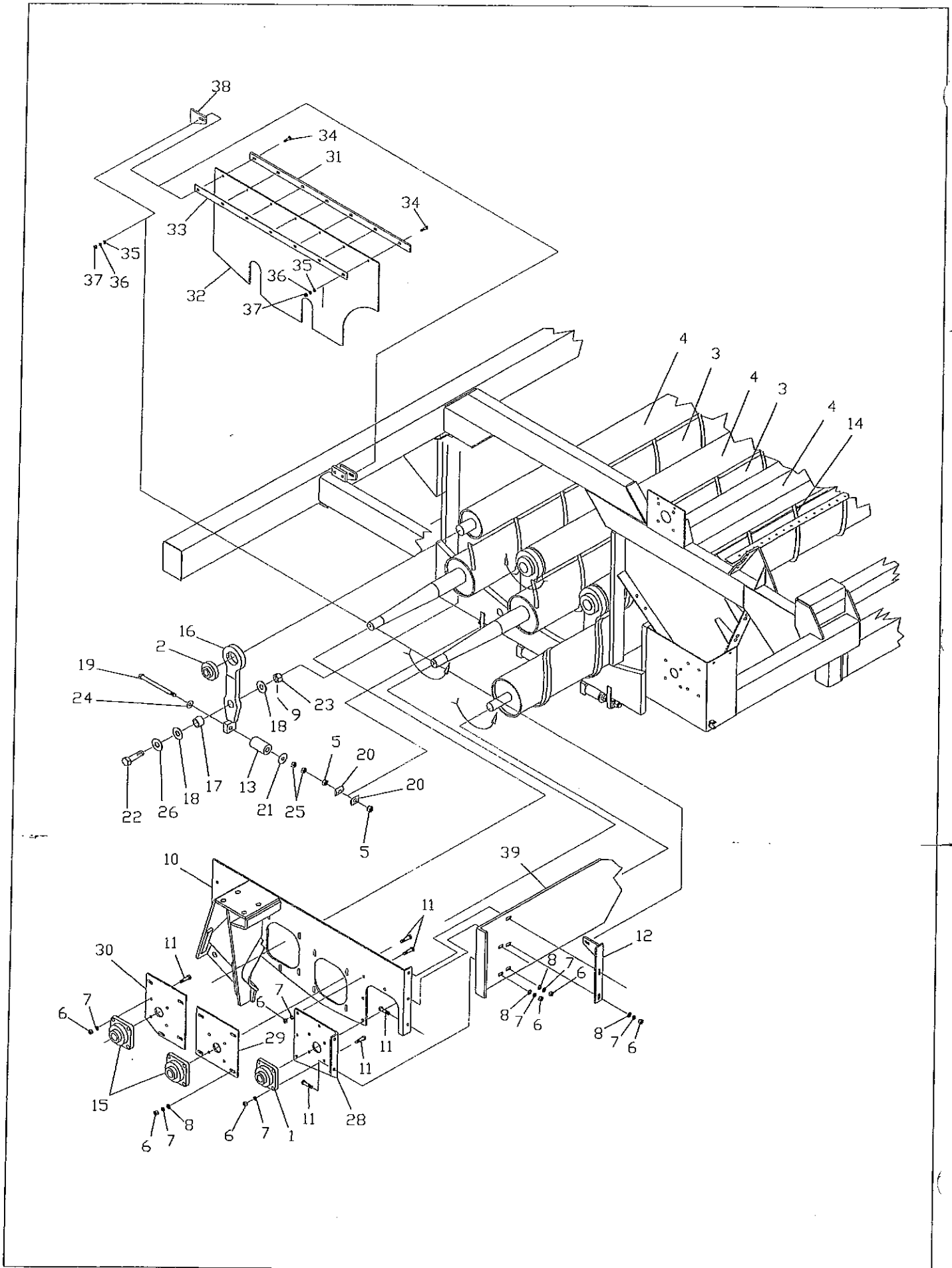
GRAB ROLL DRIVE - (M265420-3)



## GRAB ROLL DRIVE - (M265420-3)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072102	2	BEARING, 1-5/8 BORE FLANGED
2	E072375	3	BEARING W/COLLAR, 1-5/8
3	E650089	2	ROLL WELDED, SPIRALED #3&#5
3	396770	2	GRAB ROLL, PLASTIC SPIRAL
4	E650140	3	ROLL WELDMENT, SMOOTH GRAB
4	396750	3	GRAB ROLL, PLASTIC SMOOTH
5	I124589	6	NUT, 5/8-11 GR.5 ZN
6	005360	24	NUT, HEX 1/2-13 GR.5 ZN
7	005370	24	WASHER, 1/2 LOCK ZN
8	014770	12	BOLT, HHCS 1/2-13x1-1/2 GR.5 ZN
9	-	-	-
10	023950	4	BOLT, HHCS 1/2-13x2 GR.5 ZN
11	003950	3	PIN, COTTER 3/16x2.0 ZN
12	1770500	8	BOLT, HHCS 1/2-13x1-3/4 GR.5 ZN
13	240900	1	BEARING, 1-15/16 FLANGED WIDE
14	260670	1	GRAB ROLL, #1 SPIRALED
14	255350	1	GRAB ROLL, #1 REVERSE SPIRALED
14	391620	1	GRAB ROLL, #1 DBL REV SPIRAL
14	396760	1	GRAB ROLL, #1 PLASTIC SPIRAL
15	264710	3	ARM ASSY, GRAB ROLL DRIVE
16	264730	3	BUSHING, GRAB ROLL DRIVE
17	264740	6	WASHER, HARDENED 1.06x3.00x11 GA.
18	264760	3	BOLT, HHCS 5/8-11x8-1/2 GR.8 ZN
19	264770	3	BRACKET, GRAB ROLL ARM
20	264780	6	WASHER, DVAL .312x1.25x1.50
21	264800	3	PAD, FLEX 1.75 ODx.75 IDx3.0
22	265470	1	PLATE, SEAL BEARING
23	265480	2	PLATE, SEAL BEARING
24	340310	3	WASHER, .656 IDx2.00 OD
25	344250	3	BUSHING, STEEL 1.00x1.25x.50
26	344270	3	BOLT, HHCS 1-14x3-1/2 GR.8 ZN
27	344280	3	NUT, HEX 1-14 SLOTTED GR.8 ZN
28	035210	3	WASHER .656 X 1.31 X .095 FLAT
29	344310	3	CLIP, RETAINER DRIVE
30	344630	6	NUT, HEX 5/8-11 JAM GR.8 ZN
31	990720	3	WASHER, FLAT 1.06x2.50x.164
32	170530	5	BOLT, CRG. 3/8-16 X 1.0 G5 ZN
33	343430	1	STRAP, FRONT
34	343420	1	STRAP, TOP
35	343410	1	FLAP, RUBBER GRAB ROLL
36	021180	5	WASHER, LOCK 3/8
37	027260	5	NUT, HEX 3/8-16 G5 ZN
38	962090	.05	LOCTITE, ANTI-SEIZE LUB #76759

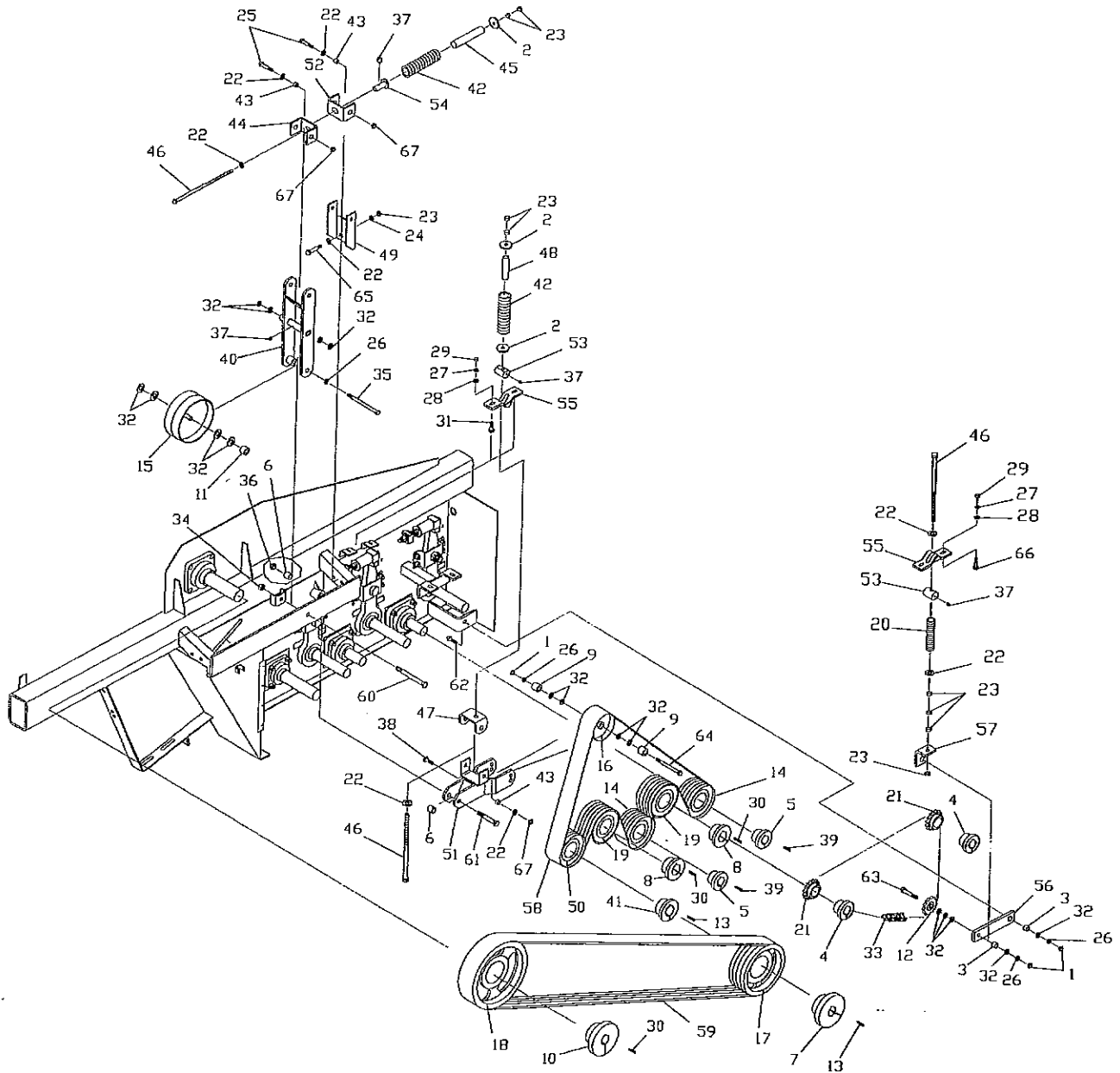
EXTENDED GRAB ROLL, 690B DISCHARGE - (M440130)



EXTENDED GRAB ROLL, 690B DISCHARGE - (M440130)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072102	1	BEARING, 1-5/8 BORE FLNG.
2	E072470	3	BEARING, 1-7/16 W/LOCK C.
3	439930	2	ROLL WLD, SPIRL. #3-#5
3	440010	2	GRB. ROLL POLY. #3-#5 SPI.
4	E650140	3	ROLL WLD. , SMOOTH GRAB
4	411680	3	GRB. ROLL, POLY. SMOOTH
5	I124589	6	NUT, 5/8-11 GR. 5 HEX
6	005360	29	NUT, 1/2-13 GR. 5 HEX
7	005370	29	WASHER, 1/2" LOCK ZN.
8	005200	21	WASHER, 1/2" FLAT ZN.
9	003950	3	PIN, COTTER 3/16 X 2.0 ZN.
10	425640	1	SUPT. WLD'T, REAR ROLLER
11	1770500	29	BOLT, HHCS 1/2-13X1-3/4
12	439700	1	BRKT. WLD'T, FLAP
13	248300	3	PAD, FLEX 1.75 ODX.75IDX3
14	255350	1	G.ROLL, #1 REVERSE SPIR
14	260670	1	G.ROLL, #1 SPIRALED
14	391620	1	G.ROLL, #1 DBL REV SPIR
14	411630	1	G.ROLL, #1 POLLY SPIR
14	411640	1	G.ROLL, #1 POLLY REV SPIR
14	411650	1	G.ROLL, #1 POLY DBL. REV.
15	E072489	2	BEARING, 1.75 4-BOLT FLG.
16	264690	3	ARM ASSY, GRAB ROLL DIS.
17	264730	3	BUSHING, GRAB ROLL DRIVE
18	264740	6	WASHER, HARDENED 1.06X3
19	264760	3	BOLT, HHCS 5/8 X 8-1/2
20	264780	6	WASHER, OVAL .312X1.25X1.5
21	340310	3	WASHER, .656 ID X 2 OD
22	344270	3	BOLT, HHCS 1X3.5 GR.8
23	344280	3	NUT, HEX SLOTTED 1-14 GR.8
24	035210	3	WASHER, .656X1.31X.095 FLAT
25	344630	6	NUT, 5/8-11 HEX JAM GR.8
26	990720	3	WASHER, FLAT 1.06X2.5X.164
27	962090	.05	LOCTITE ANTI-SIEZE LUB
28	263880	1	PLATE, BRG. SUPT. #1 ROLL
29	425700	1	PLATE, BRG. SUPT. #3 ROLL
30	425710	1	PLATE, BRG. SUPT. #5 ROLL
31	430550	1	BAR, FLAP GRABROLLS
32	430540	1	FLAP, RUBBER, GRABROLLS
33	426010	1	STRIP, RUBBER BACKING
34	J03H1558	7	BOLT, CRG. 3/8-16 X 1-1/2
35	021190	7	WASHER, 3/8" FLAT
36	021180	7	WASHER, 3/8" LOCK
37	027260	7	NUT, 3/8" HEX
38	439720	1	TAB, 690 FLAP(WELD TO F)
39	-	-	PLATE, FRONT (REF. ONLY)

GRAB ROLL DRIVE - (M265420-1)

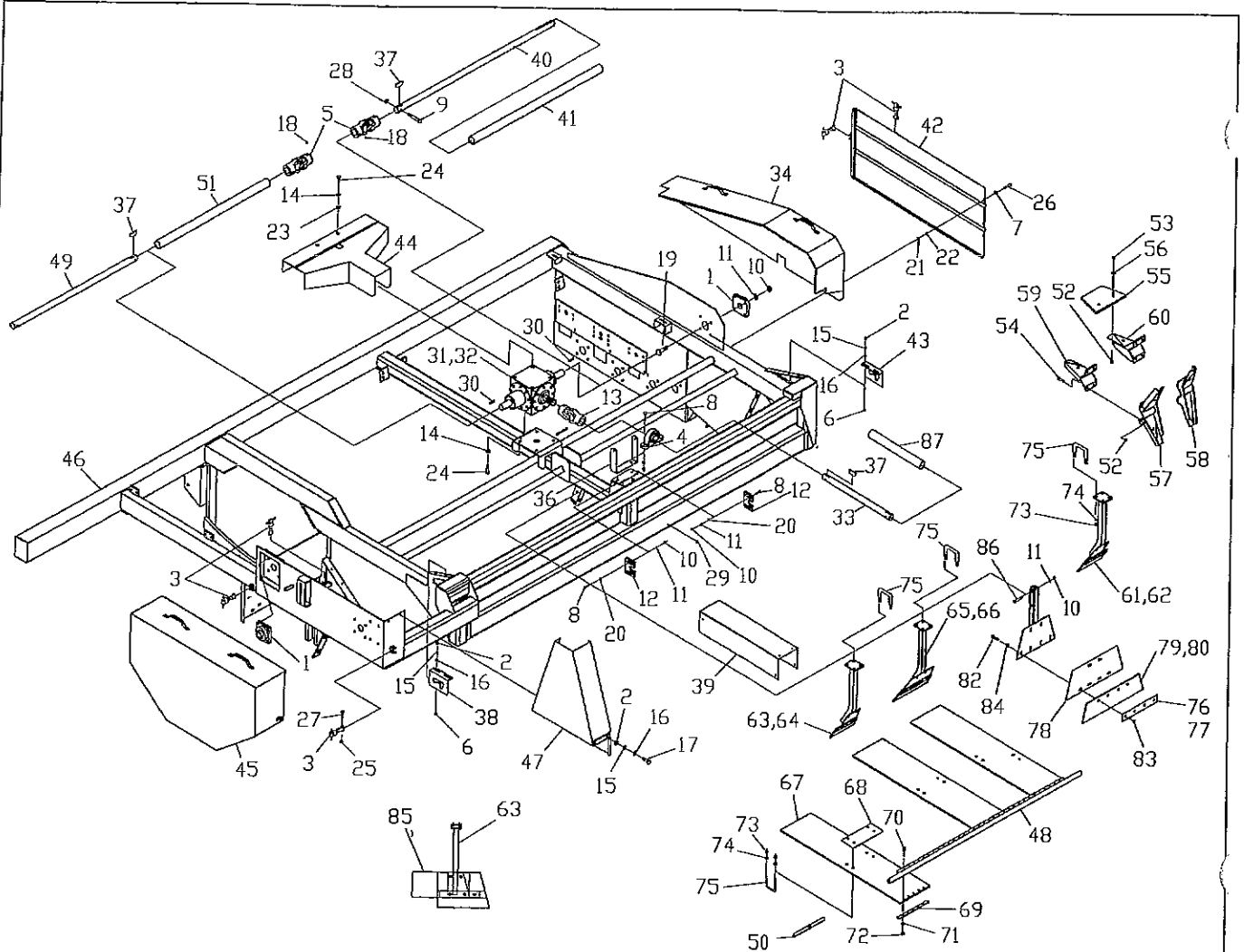


ITEM	PART NUMBER	QTY	DESCRIPTION
1	I124589	3	NUT, 5/8-11 GR.5 ZN
2	I486801R1	3	WASHER, .531x2.0x.25 GR.1 ZN
3	E126020	2	BUSHING, STEEL
4	E126073	2	BUSHING, SPL TPR 1.62x.38x.18
5	E126112	2	BUSHING, SPL TPR 1.62x.38x.18
6	E126151	2	BUSHING, SPACER .753x1.003x1.0
7	E126177	1	BUSHING, SPL TPR 1.94x.25x.50
8	E126179	2	BUSHING, 1-5/8
9	E126195	2	BUSHING, .688 IDx1.25 ODx1.12
10	E126196	1	BUSHING, SPLIT TAP 1.75 ID
11	E126197	1	BUSHING, .688 IDx1.25 ODx.94
12	E366013	1	SPROCKET, 60B13 IDLER

## GRAB ROLL DRIVE - (M265420-1)

ITEM	PART NUMBER	QTY	DESCRIPTION
13	E388049	2	KEY, .5 SQ.x3.0
14	E706093	2	SHEAVE, B4 5.60 SD
15	E706098	1	SHEAVE, IDLER FLAT 8 DDx.62 ID
16	E706099	1	SHEAVE, IDLER FLAT 5' DDx.62 ID
17	E706100	1	SHEAVE, C3 9.00
18	E706102	1	SHEAVE, C3 12.00
19	E706108	2	SHEAVE, 6.25 DD FLAT
20	E738050	1	SPRING, COMP. .105x26x6.0
21	E740215	2	SPROCKET, 60P 15T
22	005200	12	WASHER, .562x1.38x.109 FLAT ZN
23	005360	10	NUT, HEX 1/2-13 GR.5 ZN
24	005370	2	WASHER, 1/2 LOCK ZN
25	014770	4	BOLT, HHCS 1/2-13x1-1/2 GR.5 ZN
26	020440	4	WASHER, 5/8 REG LOCK ZN
27	021180	4	WASHER, 3/8 LOCK
28	021190	4	WASHER, .438x1.00x.083
29	027260	4	NUT, HEX 3/8 GR.5 ZN
30	030380	3	KEY, PAR 3/8 SQ.x3
31	035180	2	BOLT, CRG 3/8-16x1-1/4 GR.5
32	035210	30	WASHER, .656x1.31x.095 FLAT ZN
33	038040	1	ROLLER CHAIN ASSY, #60x54P
34	038400	1	NUT, 5/8-11 NYLON INSERT
35	056720	1	BOLT, HHCS 5/8-11x4 GR.5 ZN
36	1100238	1	NUT, HEX 3/4-10 LT REG NYLON
37	115590	4	ZERK, 1/4-28 TAPER SELF TAP
38	156850	2	BOLT, CRG 1/2-13x1-1/2 GR.5 ZN
39	167920	2	KEY, 3/8 SQ.x2-1/2
40	230960	1	ARM WELD, PIMARY DRIVE IDLER
41	230980	1	BUSHING, SK 1-15/16
42	231000	2	SPRING COMPRESSION 1.62x7.25
43	231030	6	SPACER, 3/4 DDx3/8
44	231040	1	BRACKET, SPRING PIVOT
45	231050	1	SPACER, SPRING LENGTH
46	231070	3	ROD WELD, TAKE-UP 15'
47	239030	1	BRACKET, SPRING PIVOT
48	239040	1	SPACER, SPRING LENGTH
49	240890	1	BRACKET, IDLER TAKE-UP
50	240910	1	SHEAVE, 4B 5.95 DD REWORK
51	246900	1	ARM WELDMENT, IDLER FINAL
52	251010	1	BRACKET, SPRING PIVOT
53	251020	2	GUIDE
54	251030	1	GUIDE
55	251830	2	WELDMENT, BRACKET TAKE-UP
56	264810	1	ARM, IDLER .5x2.0x9.0
57	264820	1	BRACKET, ROD SUPPORT
58	264850	1	V-BELT, 4BX POWERBAND 101.0HI
58	264860	1	V-BELT, 4BX POWERBAND 98.0LOW
59	264870	1	V-BELT, 3CX POWERBAND 106.9
60	344290	1	BOLT, HHCS 5/8-11x7-1/4 GR.5 ZN
61	990590	1	BOLT, HHCS 3/4-10x4 GR.5 ZN
62	013430	1	BOLT, HHCS 5/8-11x2.25 GR.5 ZN
63	990650	1	BOLT, HHCS 5/8-11x3 GR.5 ZN
64	990680	1	BOLT, HHCS 5/8-11x5-1/2 GR.5 ZN
65	990840	2	BOLT, HHCS 1/2-13x3 GR.5 ZN
66	J03H1558	2	BOLT, CRG. 3/8-16X1-1/2 G5 ZN
67	037540	6	NUT, LOCK 1/2-13 GR.5 ZN

FRAME ASSEMBLY, 690B FRONT - (M477810-1)



ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072489	2	BEARING, 1-3/4 4 HOLE FLANGE
2	027260	8	NUT, HEX 3/8-16 Gr5 ZN
3	E504003	6	LATCH, RUBBER
4	238420	1	BEARING, PB 1.75
5	E823023	2	JOINT, UNIVERSAL .35N 1.75x1.75
6	035180	4	BOLT, CRG 3/8-16 x 1-1/4
7	I120392	4	WASHER, FLAT 1/4 SAE
8	991200	6	BOLT, CRG. 1/2x2.0 GR5,ZN
9	991150	5	BOLT, HHCS 3/8-16x4 GR5
10	005360	14	NUT, 1/2-13 HEX GR5,ZN
11	005370	14	WASHER, 1/2 LOCK ZN
12	477510	2	BRACKET, CENTER FLAP
13	286270	1	U-JOINT, 1.75x1.38 21 SPLINE
14	020440	6	WASHER, 5/8 REG. LOCK ZN
15	021180	6	WASHER, 3/8" LOCK
16	021190	6	WASHER, FLAT .438x1.0x.083
17	012260	2	BOLT, HHCS 3/8-16x1.0 GR5,ZN
18	218660	2	SCREW, SHSS 3/8-16x.38 NY-LK
19	1770500	8	BOLT, HHCS 1/2-13x1.75 GR5,ZN
20	005200	4	WASHER, FLAT 1/2 STD
21	027660	4	NUT, 1/4-20 HEX GR5,ZN
22	029440	4	WASHER, 1/4" LOCK
23	035210	2	WASHER, FLAT .656x1.31x.095 ZN
24	990600	6	BOLT, HHCS 5/8-11x1.25 GR5,ZN
25	037550	6	NUT, 1/4-20 HEX,NYL,LK,LT-REG
26	042960	4	BOLT, HHCS 1/4-20x1.0 GR5,ZN
27	223540	6	BOLT, HHCS 1/4-20x1.75 GR5,ZN

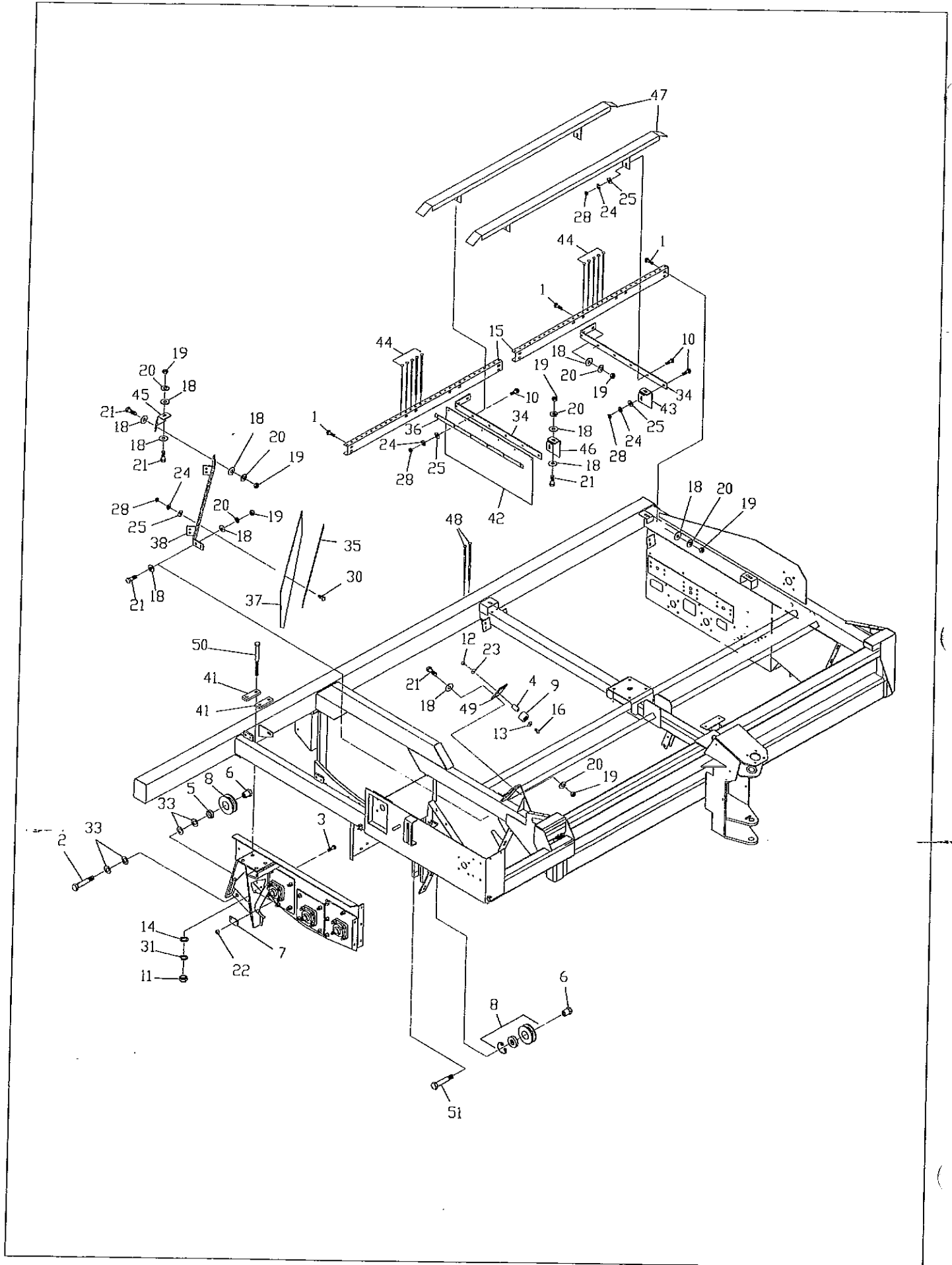


FRAME ASSEMBLY, 690B FRONT - (M477810-1)

ITEM	PART NUMBER	QTY	DESCRIPTION
28	073630	5	NUT, 3/8-16 HEX NYL, LK, LT-REG
29	1100756	2	ZERK, 1/4-28 90 LINCOLN #5410
30	021530	2	KEY, 3/8 SQ.x2.0
31	963130	1.25	90W GEAR OIL SAE
32	286580	1	GEARBOX, BONDIOI 1.93:1
33	477480	1	SHAFT, 1.75 DIA.x27.63 FRT
34	231670	1	SHIELD WELDMENT, UPPER
35	035170	1	ZERK, 1/8-27 65° SHORT
36	477570	1	BRACKET, SHIELD
37	231950	3	KEY, #1222-1 .38x2.75 WOODRFF.
38	477500	1	BRACKET, RH COVER HOLDER
39	477460	1	SHIELD, JACKSHAFT FRONT
40	290270	1	SHAFT, L.H. DRIVE 1.75 DIAx58.0
41	290290	1	SHIELD, L.H. SPIN 2.4 O.D.x47.0
42	262330	1	SHIELD WELD, LOWER GRABROLL
43	477490	1	BRACKET, LH COVER HOLDER
44	384710	1	SHIELD WELDMNT, MAIN GEARBOX
45	262460	1	SHIELD WELDMENT, DRIVE R.H.
46	475000	1	FRAME, 690B MAIN WELDMENT
47	263670	1	SHIELD ASS'Y, WHEEL CHAIN
48	475240	2	BAR WELDMENT, COVER 690B
49	290280	1	SHAFT, R.H. DR. 1.75 DIA.x91.62
50	475250	2	HANDLE WLDT, 690B
51	290300	1	SHIELD, R.H. SPIN 2.4 O.D.x80.50
86	990840	2	BOLT, HHCS 1/2 x 3
87	513690	1	SHIELD CNTR SPIN 2.4 O.D.x17.25

		4 ROW	6 ROW	
52	19413967	72	108	NUT, LOCK 1/2-13 TOP LOCK
53	014770	24	36	BOLT, HHCS 1/2-13 x 1-1/2
54	023950	32	48	BOLT, HHCS 1/2 x 2 Gr5
55	511970	12	18	PADDLE, UHMW
56	005200	24	36	WASHER, FLAT, 1/2 STD
57	354220	4	6	PADDLE WLDT, RH DOUBLE
58	354230	4	6	PADDLE WLDT, LH DOUBLE
59	354240	4	6	PADDLE WLDT, RH SINGLE
60	354250	4	6	PADDLE WLDT, LH SINGLE
61	446300	1	-	BARRIER ASSY, LH 4 ROW
62	446280	-	1	BARRIER ASSY, LH 6 ROW
63	446290	1	-	BARRIER ASSY, RH 4 ROW
64	446360	-	1	BARRIER ASSY, RH 6 ROW
65	446330	2	-	BARRIER ASSY, 4 ROW
66	446320	-	4	BARRIER ASSY, CNTR 6 ROW
67	477530	4	6	COVER, RUBBER
68	481620	4	6	BRACKET, COVER
69	264980	4	6	STRAP, COVER
70	030030	20	30	BOLT, HHCS 5/16-18x1-1/4
71	023620	20	30	WASHER, LOCK 5/16
72	023630	20	30	NUT, HEX 5/16-18x1-1/4
73	005360	16	24	NUT, HEX 1/2-13 Gr5
74	005370	16	24	WASHER, 1/2 LOCK
75	290890	16	24	BOLT, U 1/2-13x2-1/16
76	244730	1	-	STRAP, BARRIER CNTR 4 RW
77	244670	-	1	STRAP, BARRIER CNTR 6 RW
78	242380	1	-	PLATE, CNTR BARRIER 4 RW
79	244650	-	1	FLAP, BARRIER CNTR, 6 ROW
80	252120	1	-	FLAP, CNTR BARRIER WDE
81	011370	4	4	BOLT, HHCS 3/8-16x1-1/2
82	006690	3	-	BOLT, HHCS 3/8-16x1-1/4
83	073630	7	4	NUT, LOCK 3/8-16 NYL HEX
84	1120394	14	8	WASHER, FLAT 3/8 SAE
85	242340	-	1	FILLER, RIGHT (28" ONLY)

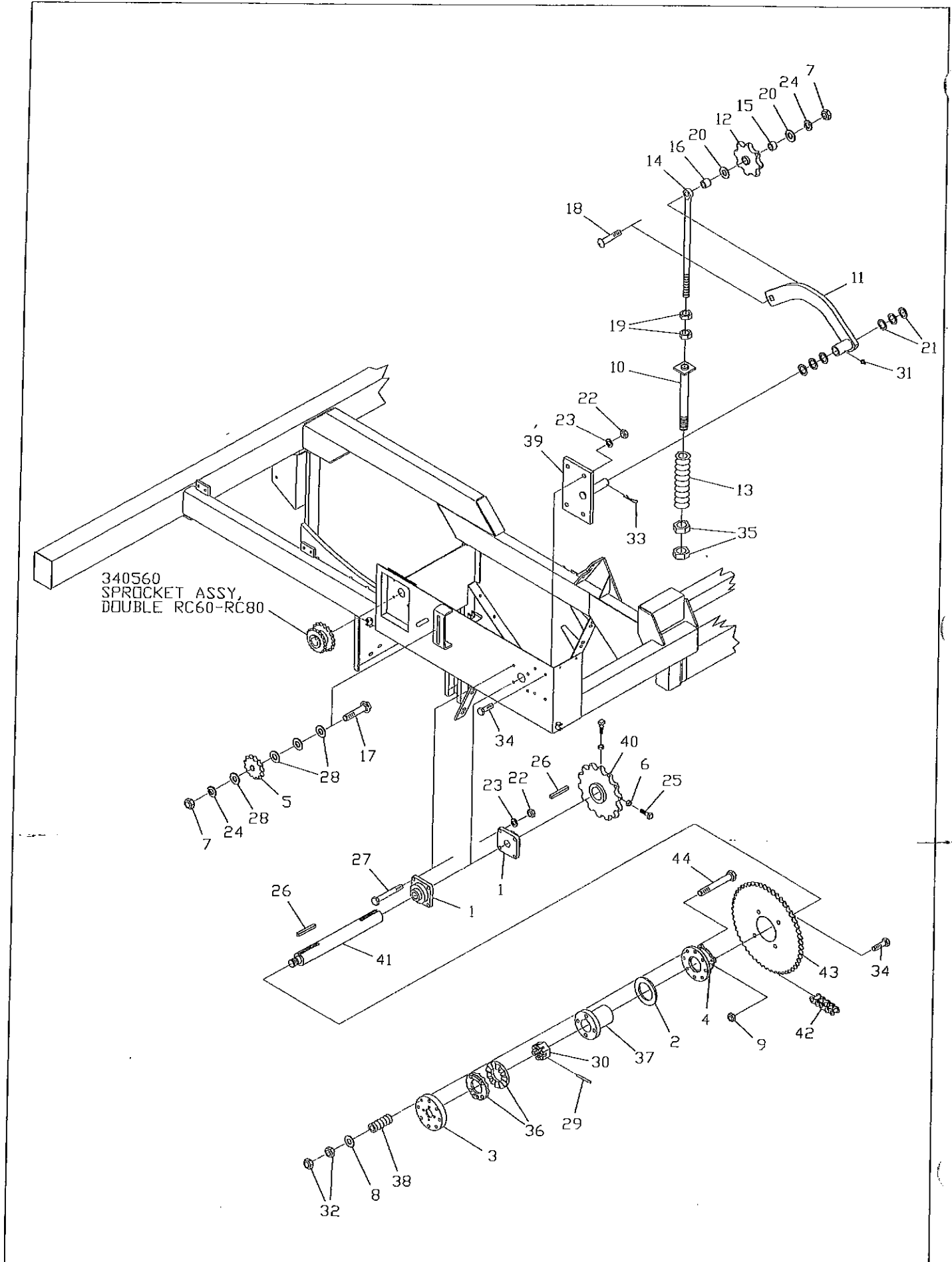
FRAME ASSEMBLY, 690B REAR - (M290240)



FRAME ASSEMBLY, 690B REAR - (M290240)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	E096046	12	BOLT, CRG 1/2x1-1/2
2	R66338	2	BOLT, HHCS 1-8x3.0 GR5,ZN
3	JN10214	2	SCREW, 3/8-16x1.0 HXFLGLK GR5
4	413980	1	SPACER, 1.25 ODx.687 ID
5	JN144623	2	SPACER
6	JN144757	3	NUT, 1-8UNC GUIDE WHEEL
7	JN144839	1	STRAP
8	385500	3	WHEEL GUIDE ASSEMBLY
9	413970	1	ROLLER ASSY, WHEEL RETAINER
10	J03HI558	10	BOLT, CRG 3/8x1-1/2 GR5,ZN
11	J14H794	4	NUT, 3/4-10 HEX. GR5,ZN
12	1124589	1	NUT, 5/8 HEX
13	035210	1	WASHER, 5/8 FLAT SAE
14	1131017	4	WASHER, FLAT .812x1.47x.134 ZN
15	289200	2	CHANNEL, GATE
16	028330	1	BOLT, HHCS 5/8-11x4-1/2 GR5,ZN
17	-	-	-
18	005200	31	WASHER, FLAT .562x1.38x.109 ZN
19	005360	29	NUT, HEX 1/2-13 GR5,ZN
20	005370	29	WASHER, LOCK 1/2" ZN
21	014770	17	BOLT, HHCS 1/2-13x1-1/2 GR5,ZN
22	020180	2	NUT, 3/8-16 HXFLGLK GR5
23	020440	1	WASHER, 5/8 REG. LOCK ZN
24	021180	16	WASHER, 3/8 LOCK
25	021190	16	WASHER, FLAT .438x1.0x.083
26	-	-	-
27	-	-	-
28	027260	16	NUT, 3/8 HEX GR5,ZN
29	-	-	-
30	035180	6	BOLT, CRG 3/8-16x1-1/4 GR5
31	036800	4	WASHER, 3/4" LOCK
32	-	-	-
33	1107389	8	WASHER, FLAT 1.06x2.0x.134 ZN
34	347740	2	BAR, FLAP GRAB ROLL'S
35	238720	1	STRIP, RUBBER BACKING CHAIN
36	238750	1	STRIP, RUBBER BACKING GRAB
37	246730	1	FLAP, RUBBER CHAIN BED
38	246870	1	WELDMENT BAR, BED CHAIN
39	-	-	-
40	-	-	-
41	263890	2	STRAP, ROLLER MNT. .62x2.0x5.81
42	264160	1	FLAP, REV. GRAB ROLL RUBBER
43	290190	1	BRACKET, FLAP SUPPORT L.H.
44	347540	64	ROD, GRATE
45	264200	1	BRACKET, DIAGONAL FLAP SUPT.
46	264210	1	BRACKET, FLAP SUPPORT
47	290200	2	CHANNEL, SLIDE SUPPORT WLDT.
48	264190	2	ROD, GRATE
49	344530	1	BRACKET, ADJ GUIDE ROLLER
50	991050	4	BOLT, HHCS 3/4-10x8.5 GR5,ZN
51	V055646	1	BOLT, HHCS 1-8x5.5 GR5,ZN
52	342830	1	BAG, REV. GRAB DEFL. FRONT

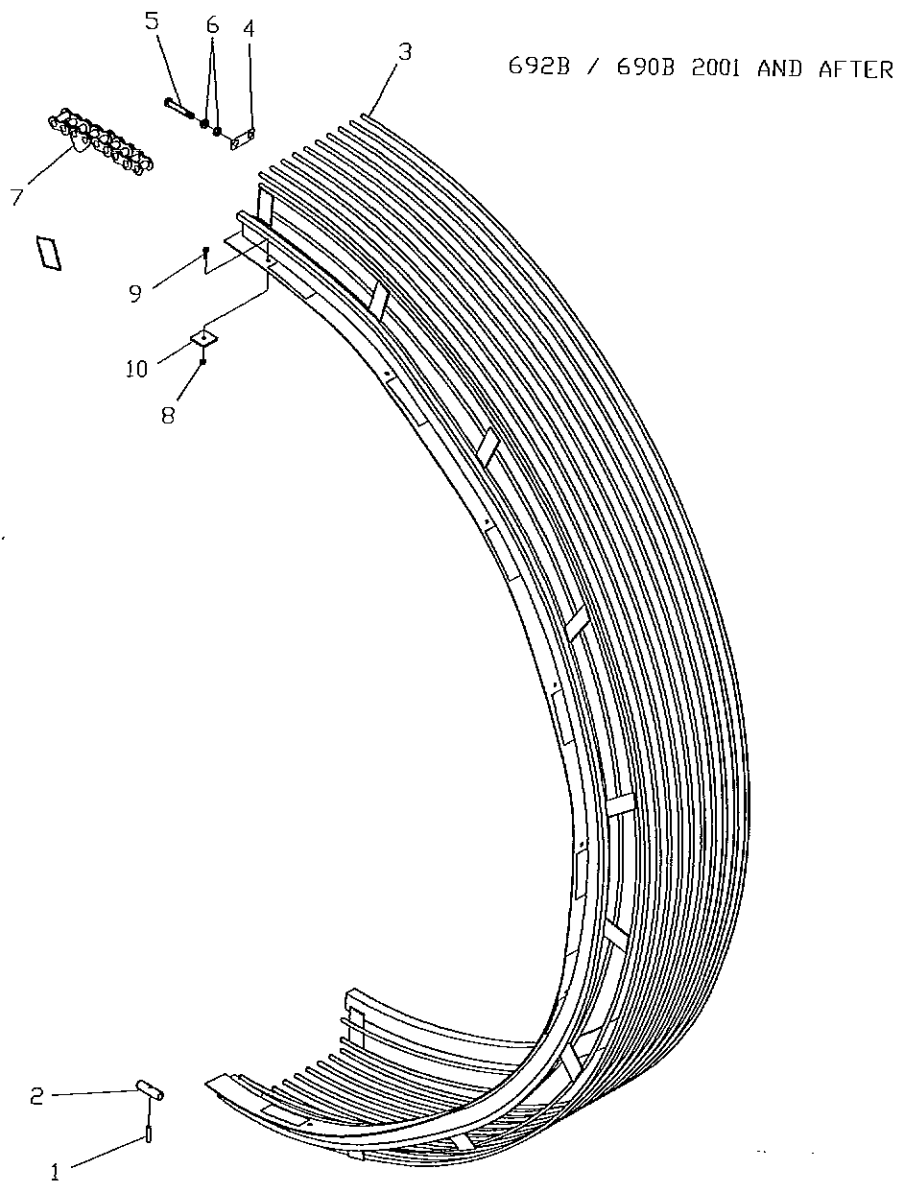
WHEEL AND DRIVE ASSEMBLY - (M265740)



WHEEL AND DRIVE ASSEMBLY - (M265740)

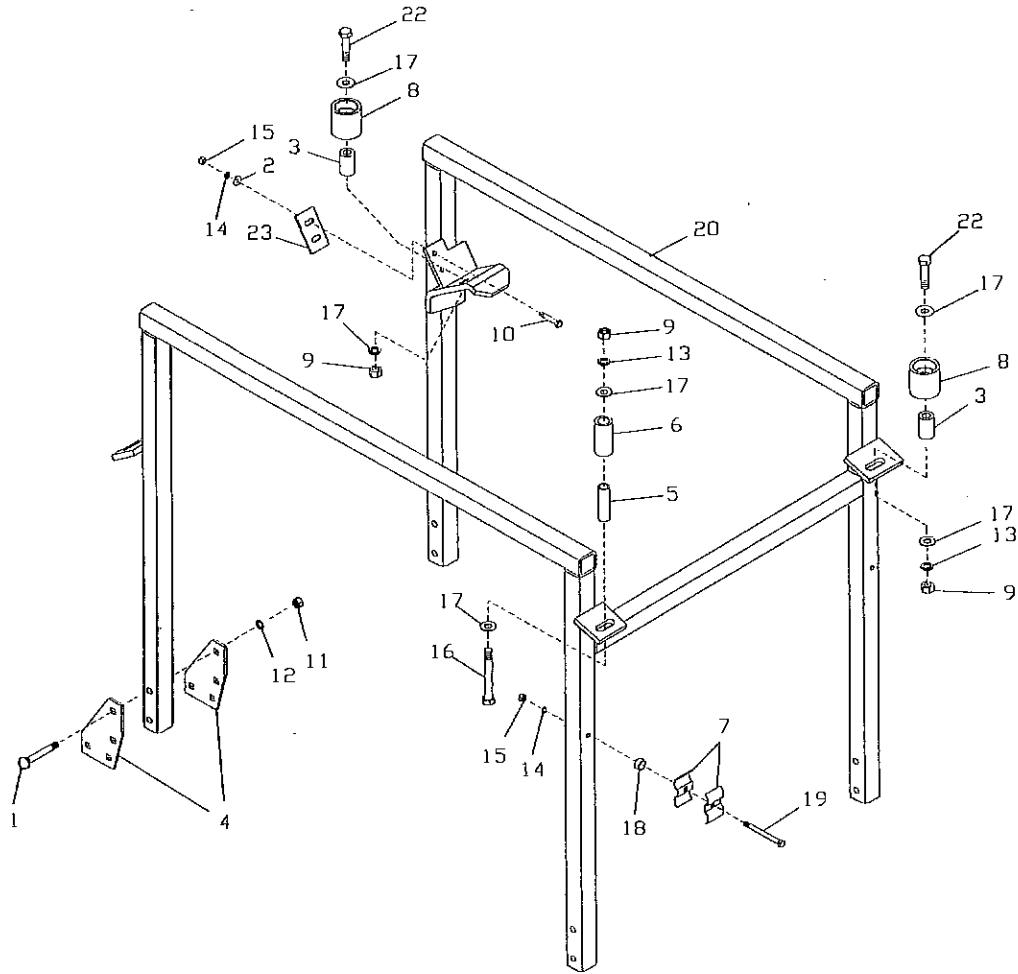
ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072489	2	BEARING, FLG. 1.75 4-BOLT
2	E126201	1	BUSHING, MACH. 2.5x3.88x.134
3	411260	1	FLANGE WELDMENT, SPRING
4	411410	1	HOUSING ASSEMBLY, CLUTCH
5	E366013	1	SPROCKET, IDLER 60B13
6	1124829	2	NUT, HEX JAM 3/8 G5 ZN
7	1124589	2	NUT, HEX 5/8 G5 ZN
8	125547R1	4	WASHER, FLAT .66x1.31x.188
9	19413967	4	NUT, HEX-LK 1/2 G5 ZN
10	JAN142300	1	TUBE ASSY, SPRING ADJ.
11	JAN142313	1	ARM WELDMENT, PIVOT
12	JAN142341	1	SPROCKET ASSEMBLY, 8T
13	JN109877	1	SPRING, COMP. 1.12x1.84x7.8
14	JN146355	1	EYEBLOT, 3/4x14.5 ZN
15	JN147291	1	BUSHING, .88x.656x.62
16	JN7205DN	1	SPACER, .875x.656x.88
17	J03H1857	1	BOLT, CRG. 5/8x2.75 G5 ZN
18	J03H1858	1	BOLT, CRG. 5/8x3.50 G5 ZN
19	J14H794	2	NUT, HEX 3/8 G5 ZN
20	J24H1373	2	WASHER, FLAT .66x1.56x.180
21	003370	6	WASHER, FLAT 1.03x1.50x.048
22	005360	8	NUT, HEX 1/2 G5 ZN
23	005370	8	WASHER, LOCK 1/2 ZN
24	020440	2	WASHER, LOCK 5/8 ZN
25	022520	2	SCREW, SHSS 3/8x1.0 PL
26	030380	2	KEY, SQ. .38x3.0
27	030420	4	BOLT, HHCS 1/2x4.50 G5 ZN
28	020430	4	WASHER, FLAT .69x1.75x.134
29	040900	1	PIN, ROLL 3/16x1.62 ZN
30	042110	1	NUT, SLOTTED HEX 1.25 G5
31	049180	1	ZERK, 1/4-28 TAPER THD
32	1121555	8	NUT, HEX JAM 5/8 G5 ZN
33	124340	1	PIN, COTTER 3/16x1.50 ZN
34	1770500	8	BOLT, HHCS 1/2x1.75 G5 ZN
35	1774107	2	NUT, HEX 1.0 G5 ZN
36	225040	2	JAW, HARD. SLIP CLUTCH
37	238430	1	HUB WELD, SLIP CLUTCH
38	239080	4	SPRING, SLIP CLUTCH COMP.
39	265750	1	PIVOT WELDMENT, IDLER
40	265780	1	SPROCKET WLDT, CA550 14T
41	265810	1	SHAFT, DR. WHEEL 1.75x15.38
42	265820	1	CHAIN, ROLLER RC60Hx134P
43	265830	1	SPROCKET, PLATE RC60 52T
44	201660	4	BOLT, HHCS 5/8x6.0 G5 ZN
45	264890	2	WHEEL WELDMENT, HALF

FERRIS WHEEL ASSEMBLY - 509770 (Mwhl692B-2001)



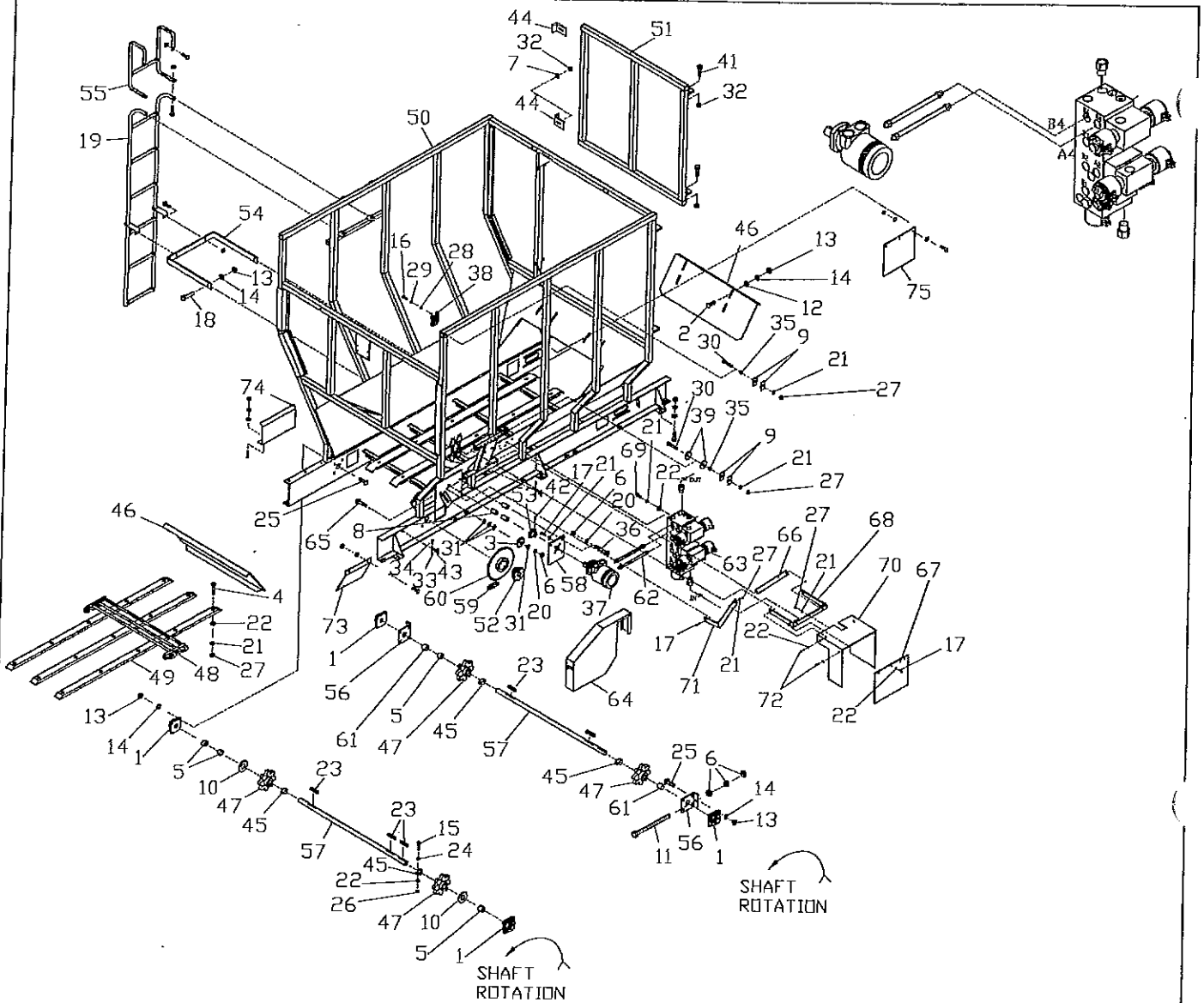
ITEM	QTY	PART NUMBER	DESCRIPTION
1	26	012560	PIN, ROLL 3/16" X 1" ZN
2	26	431860	CONNECTOR, WHEEL ROD
3	2	509770	WHEEL WELDMENT, HALF-9/16" RODS
4	12	JN145108	STRAP, ROCKER
5	12	J19H2969	BOLT, HHCS 5/8-11 HEX ZN
6	24	112155	NUT, JAM 5/8-11 HEX ZN
7	1	433700	CHAIN ASSY, WHEEL DRIVE
8	18	020190	NUT, LOCK 5/16-18 HEX GR5
9	18	254060	BOLT, CARR 5/16-18X 7/8GR5
10	18	JN144807	BLOCK, REPLACEMENT
	1	427700	KIT, WHEEL CLEANER FLAP

TOWER ASSEMBLY - (M498370)



ITEM	PART NUMBER	QTY	DESCRIPTION
1	J03H1598	16	BOLT, CRG. 1/2-13 X 3.25 G5 ZN
2	021190	2	WASHER, FLAT 3/8
3	413980	2	SPACER, 1.25 D. D. x. 687 ID
4	498210	8	BRACKET, TOWER SUPPORT
5	JN144798	2	TRUNION WHEEL RETAINER
6	JN144799	2	ROLLER WHEEL RETAINER
7	413050	4	CLAMP, HOSE-SHORT
8	413970	2	ROLLER ASSY, WHEEL RETAINER
9	1124589	4	NUT, 5/8-11 HEX GR. 5 ZN
10	011370	2	HHCS 3/8 x 1-1/2
11	005360	16	NUT, 1/2-13 HEX GR. 5 ZN
12	005370	16	WASHER, 1/2 LOCK ZN
13	020440	4	WASHER, 5/8 LOCK ZN
14	021180	4	WASHER, LOCK 3/8 ZN
15	027260	4	NUT, HEX 3/8-16 G5 ZN
16	031490	2	BOLT, 5/8-11x5 HHCS GR. 5 ZN
17	035210	7	WASHER, .656x1.312x.095 FLAT ZN
18	P98458	2	SPACER, SPLIT PIPE
19	991150	2	BOLT, HHCS 3/8-16 X 4.0 G5 ZN
20	498360	1	TOWER WELDMENT, WHEEL RETAINER
21			
22	028330	2	BOLT, HHCS 5/8-11 X 4-1/2 G5 ZN
23	498310	1	PLATE, SCRAPER

# TANK DRIVE ASSEMBLY (M498690)



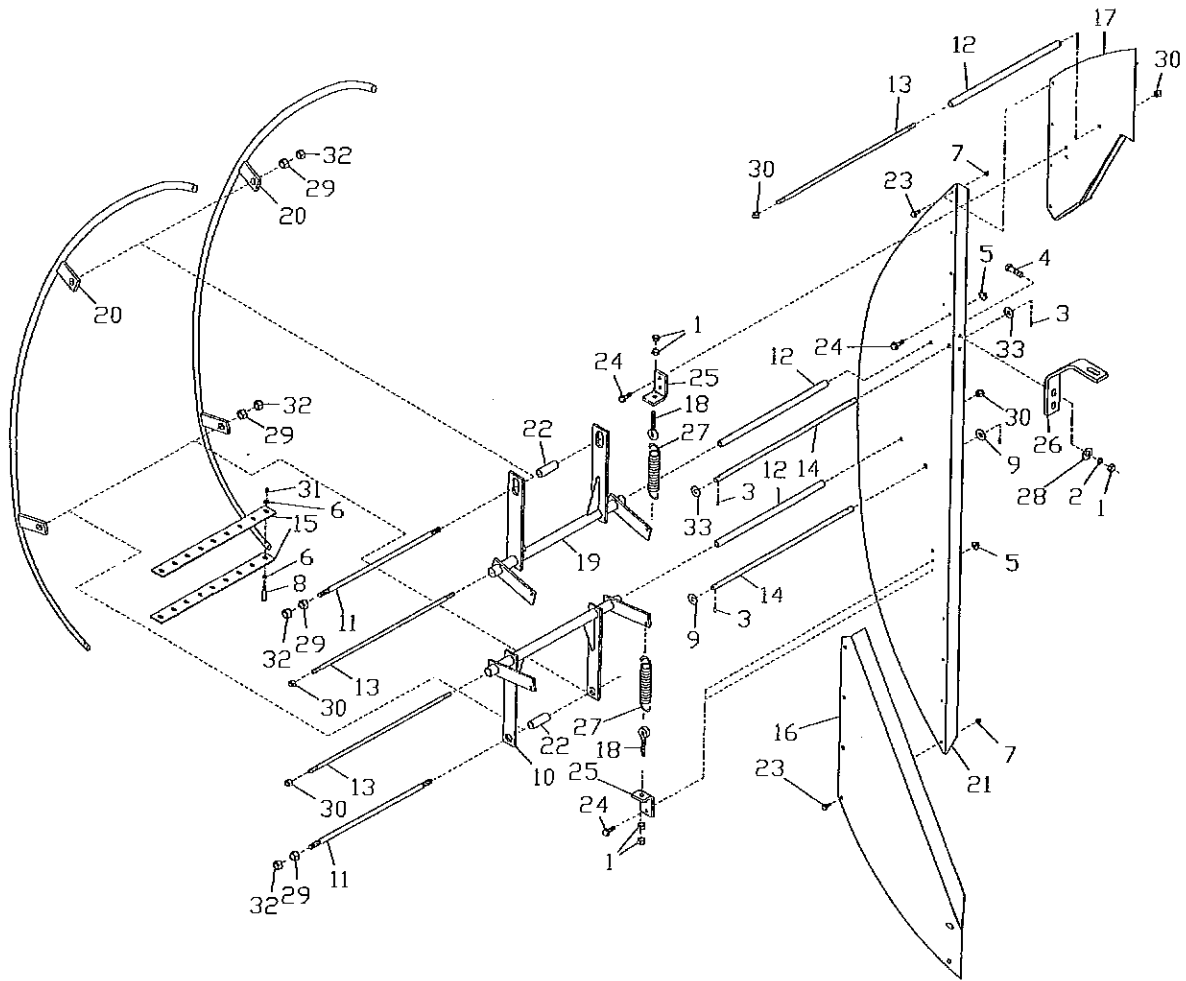
ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072103	4	BEARING, FLG. 1-7/16 BORE
2	E096046	4	BOLT, CRG. 1/2x1.50 G5 ZN
3	E366013	1	SPROCKET, IDLER 60B13
4	395840	15	SCREW, CSK-SLHD 3/8x1.25
5	E724073	4	SPACER, BU. 1.44x1.75x1.125
6	I124589	10	NUT, HEX 5/8-11 G5 ZN
7	I486801R1	2	WASHER, NT .53x2.25x.25 ZN
8	JN147304	3	SPACER
9	413050	4	CLAMP, HOSE-SHORT
10	R61502	2	WASHER, FLAT 1.50x3.25x.179
11	R66168	2	BOLT, ADJ. 5/8x6.50
12	005200	4	WASHER, FLAT .56x1.38x.109
13	005360	16	NUT, HEX 1/2-13 G5 ZN
14	005370	16	WASHER, LOCK 1/2 ZN
15	005900	4	BOLT, HHCS 5/16x1.0 G5 ZN
16	011990	2	SCREW, RDHD 1/4x.75 G2 ZN
17	012260	9	BOLT, HHCS 3/8x1.0 G5 ZN
18	014770	2	BOLT, HHCS 1/2x1.50 G5 ZN
19	019090	1	LADDER ASSEMBLY
20	020440	4	WASHER, LOCK 5/8 ZN
21	021180	30	WASHER, LOCK 3/8



## TANK DRIVE ASSEMBLY (M498690)

ITEM	PART NUMBER	QTY	DESCRIPTION
22	021190	22	WASHER, FLAT .44x1.0x.083
23	021530	5	KEY, SQ. .38x2.0
24	022920	8	WASHER, FLAT .38x.88x.083
25	025390	16	BOLT, CRG. 1/2x1.75 G5 ZN
26	025670	4	NUT, HEX-LK 5/6-18 G5 ZN
27	027260	22	NUT, HEX 3/8-16 G5 ZN
28	027660	2	NUT, HEX 1/4-20 G5 ZN
29	029440	2	WASHER, LOCK 1/4
30	029930	2	BOLT, HHCS 3/8x2.25 G5 ZN
31	035210	11	WASHER, FLAT .66x1.31x.095
32	037540	4	NUT, HEX-LK 1/2-13 G5 ZN
33	037550	2	NUT, NYLON-LK HEX 1/4-20
34	047000	2	BOLT, HHCS 1/4x1.50 G5 ZN
35	P98458	2	SPACER, SPLIT PIPE
36	056720	3	BOLT, HHCS 5/8x4.0 G5 ZN
37	343990	1	MOTOR, HYD. 24 CU. IN.
38	167330	1	BRACKET, SMV EMBLEM MTG.
39	169280	2	WASHER, FLAT .406x1.50x.12
40	344210	1	ADAPTER, 90°ST.L 3/4 O MF
41	1770500	2	BOLT, HHCS 1/2x1.75 G5 ZN
42	188650	2	SCREW, NY-LK AHSS 5/16x.31
43	205650	2	HOOK, RUBBER
44	229720	2	BRACKET, DOOR LOCK
45	234380	4	CLAMP, 1.44 SPROCKET HOLD
46	239580	2	CHANNEL, TANK GATE
47	240490	4	SPROCKET&HUB ASSY, 1.44B8T
48	260470	81	CHAIN, DRAPER .62x2.38Px40
49	265550	3	STRIP, WEAR
50	265860	1	TANK WELDMENT, 690
51	268320	1	DOOR WELDMENT, L.H.
52	268590	1	BUSHING, SF 1-7/16 RND
53	268610	1	SPROCKET, RC60 12T
54	268620	1	BRACKET, LADDER
55	268750	1	LADDER ASSY, EXTENSION
56	269320	2	BRACKET, BEARING ADJ.
57	269990	2	SHAFT, DRIVE 1-7/16
58	270000	1	PLATE, MOTOR MOUNT
59	277730	1	CHAIN ASSY, RC60Hx66P
60	342840	1	SPROCKET, 60SF42 W/QD BU.
61	343350	2	SPACER, 1.44x1.75x1.62
62	393900	2	HOSE ASSY, HYD. .62x26.0
63	509330	1	VALVE MNFLD MN 2000/692
64	382850	1	SHIELD WELD, TANK DRIVE
65	990660	1	BOLT, CRG. 5/8x3.25 G5 ZN
66	442870	1	SUPPORT, VALVE FLAP
67	442880	1	FLAP, VALVE
68	442890	1	BRACKET, FORMED FLAP
69	006690	4	BOLT, HHCS 3/8x1.25 G5 ZN
70	442900	1	FLAP, VALVE SIDES
71	442930	1	WELDMENT, FLAP BRACKET
72	011370	4	BOLT, HHCS 3/8-16 x 1-1/2
73	278430	1	PLATE, FRONT DEFLECTOR
74	278420	2	PLATE, REAR DEFLECTOR
75	277900	1	FLAP, RUBBER, TANK

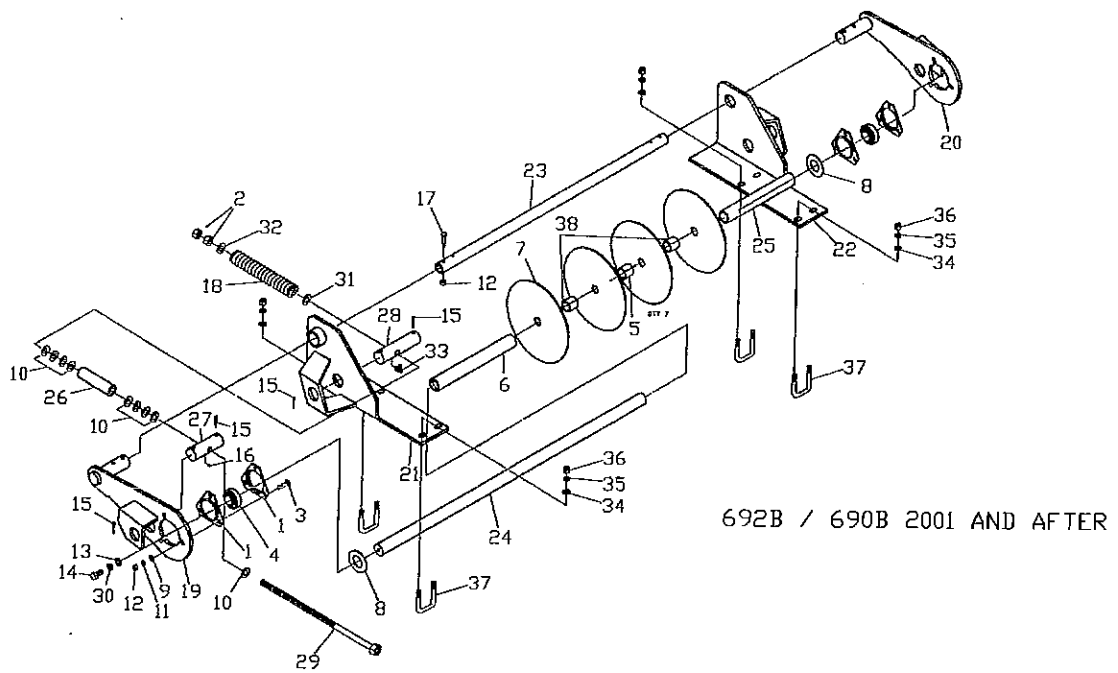
RETAINER ASSEMBLY 690 & 692 - (M290900)



RETAINER ASSEMBLY 690 & 692 - (M290900)

ITEM	PART NUMBER	ITEM	DESCRIPTION
1	005360	16	NUT HEX 1/2 G5 ZN
2	005370	8	WASHER, LOCK 1/2 ZN
3	012550	4	PIN, EXPANSION 1/4x1.25
4	014770	8	BOLT, HHCS 1/2x1.50 G5 ZN
5	020180	10	NUT, HEX FLG LK 3/8 G5
6	021190	18	WASHER, FLAT .44x1.00x.083
7	025670	14	NUT, HEX LK 5/16 G5
8	029930	9	BOLT, HHCS 3/8x2.25 G5 ZN
9	035210	2	WASHER, FLAT .66x1.31x.095
10	263920	1	PIVOT ASSEMBLY, RETAINER
11	263940	2	ROD, RET. SUPT. 5/8x21.0
12	263950	3	SPACER, .88x.56x23.0
13	263960	3	ROD, RET. PIVOT .50x25.0
14	263970	2	ROD, RET. STOP .88x25.0
15	264010	2	STRAP, RETAINER
16	286180	1	SIDE WELD, L.H. LOW HOP
16	286190	1	SIDE WELD, R.H. LOW HOP
17	290910	1	SIDE WELD, L.H. UPPER RET.
17	290920	1	SIDE WELD, R.H. UPPER RET.
18	290930	4	BOLT, EYE 1/2x3.50
19	290940	1	PIVOT WELD, UPPER RET.
20	290960	9	ROD WELDMENT, RETAINER
21	342600	1	SIDE WELD, L.H. RETAINER
21	342610	1	SIDE WELD, R.H. RETAINER
22	J28H2612	16	SPACER BLK. PIPE 3/4x2.00
23	JN10212	15	SCREW, HX FLG 5/16x.75 G5
24	JN10214	10	SCREW, HXFLGLK 3/8x1.0 G5
25	JN144004	4	BRACKET, SPRING
26	JN144650	2	BRACKET, RETAINER
27	394890	4	SPRING, EXTENSION
28	1120396	8	WASHER, FLAT .53x1.06x.074
29	1124589	4	NUT, HEX 5/8 G5 ZN
30	19413967	6	NUT HEX LOCK 1/2 G5 ZN
31	19411655	9	NUT, HEX LOCK 3/8 G5 ZN
32	038850	4	NUT, HEX LOCK 5/8 G5 ZN
33	121471R1	2	WASHER, FLAT 21/32x1x1/8

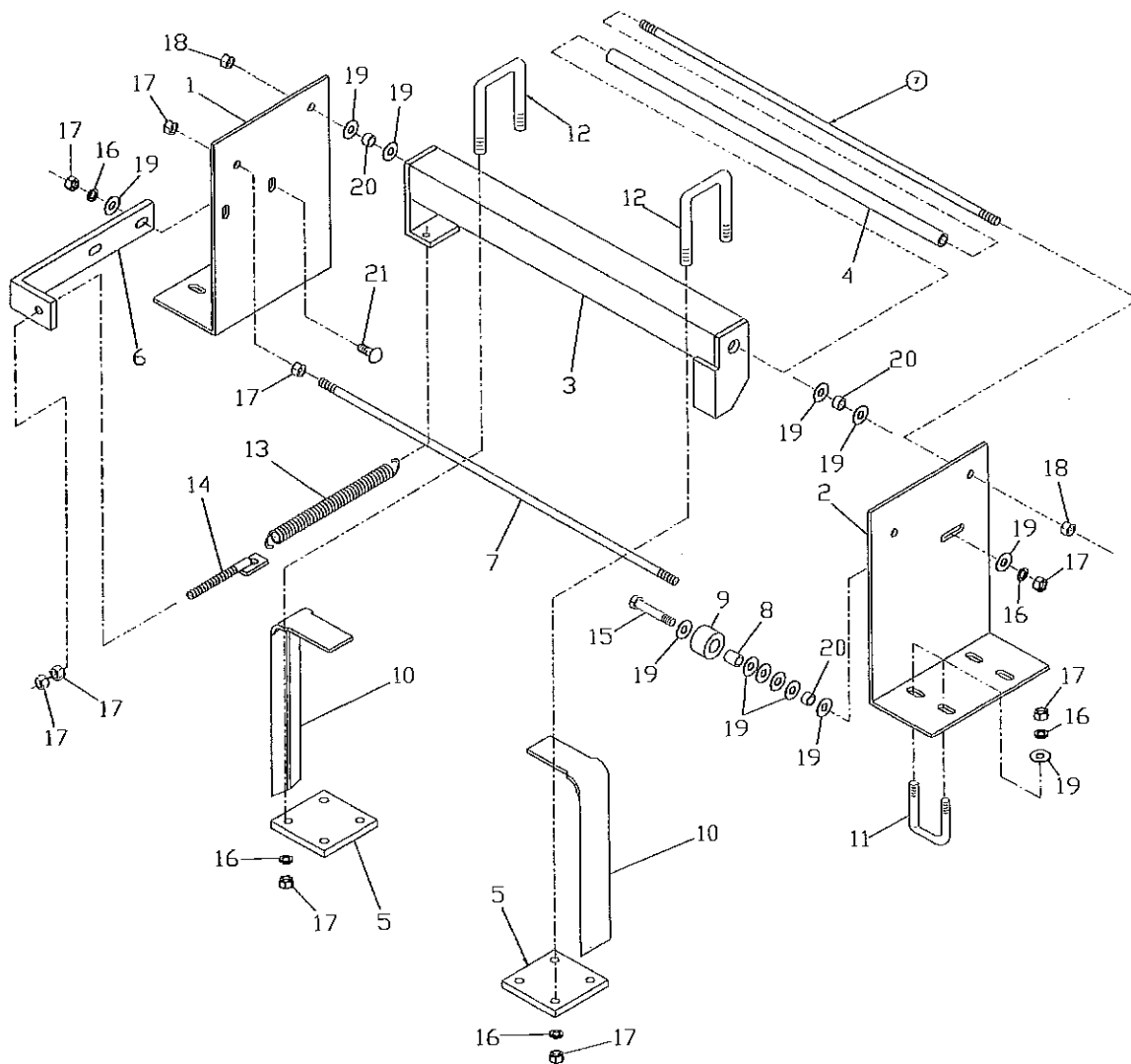
STRIPPER, 690/692 (M510010)



692B / 690B 2001 AND AFTER

ITEM	PART NUMBER	QTY	DESCRIPTION
1	E281004	4	FLANGETTE, BRG. 3 HOLE
2	I124589	4	NUT, HEX 5/8-11 GR5 ZN
3	J03H1558	6	BOLT, CRG. 3/8-16x1-1/2 GR5
4	JJD9275	2	BEARING, WIDE INNER RING
5	432590	7	SPACER, ROTARY STRIPPER, 1.94
6	509990	1	SPACER, 1.90 ODx1.52 IDx10.0
7	JN144896	10	DISK, ROTARY STRIPPER
8	R61502	3	WASHER, FLAT 1-3/8 STD.
9	I120394	6	WASHER, FLAT 3/8 SAE
10	020430	12	WASHER, FLAT 5/8 STD.
11	021180	6	WASHER, LOCK 3/8 ZN
12	023060	10	NUT, LOCK 3/8-16 GR5 ZN
13	I486801R1	2	WASHER, FLAT 17/32x2x1/4
14	010730	2	BOLT, HHCS 1/2-13x1.25
15	114370	8	PIN, COTTER 1/4x2 ZN
16	115590	2	ZERK, 1/4-28 TAPER DRIVE
17	037630	4	BOLT, HHCS 3/8-16x2.5 GR5
18	258560	2	SPRING, COMPR. 1.31x1.88
19	415140	1	ARM WLDT., RH STRIPPER
20	415150	1	ARM WLDT., LH STRIPPER
21	415160	1	MOUNT WLDT., RH STRIPPER
22	415170	1	MOUNT WLDT., LH STRIPPER
23	416670	1	TUBE, TORQUE STRIPPER 690
24	416680	1	AXLE, DISK MOUNT STRIPPER
25	510000	1	SPACER, 1.90 ODx1.52 IDx8.69
26	462130	2	STOP, STRIPPER TUBE
27	415220	2	PIVOT, CENTER ARM STRIP
28	415230	2	PIVOT, CENTER MOUNT STRIP
29	415240	2	BOLT WLDT., 5/8x23x12 THD
30	005370	2	WASHER, LOCK 1/2 ZN
31	I21905R1	2	WASHER, 21/32x1-3/4x1/4
32	340310	2	WASHER, 21/32x2x1/4
33	1100756	2	ZERK, 1/4-28x90°
34	005200	8	WASHER, FLAT 1/2 STD
35	005360	8	NUT, HEX 1/2-13 Gr5 ZN
36	005370	8	WASHER, LOCK 1/2 ZN
37	290890	4	BOLT, U 1/2-13 x 2-1/16 x 3
38	JN144893	2	SPACER, ROTARY STRIPPER

KIT, CLEANER-KNIFE FERRIS WHEEL - (M429610)



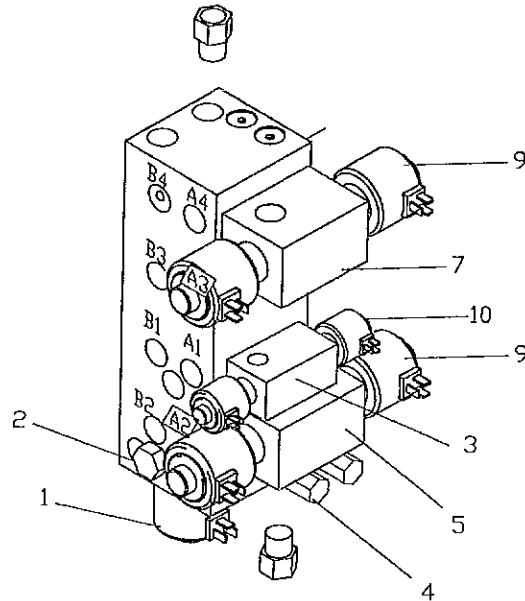
ITEM	PART NUMBER	QTY	DESCRIPTION
1	429720	1	ANGLE, SUP'T SPRING
2	429730	1	ANGLE, SUP'T CUSHION
3	429740	1	TUBE WELDMENT
4	429780	1	TUBE, PIVOT .88X.56X27.06
5	429790	2	PLATE, CLAMP
6	429800	1	BAR, SPRING SUP'T
7	395060	2	ROD, THRD.
8	429810	1	SPACER, CUSHION
9	248290	1	PAD, FLEX
10	E392001	2	KNIFE, SCALPER
11	290890	4	U-BOLT, 1/2x2x3
12	429820	4	U-BOLT, 1/2x2-1/2x3-3/4
13	E738016	1	SPRING
14	376540	1	BOLT, WLD'T , 1/2-13
15	990840	1	BOLT, HHCS 1/2 X 3
16	005370	19	WASH., LK. 1/2
17	005360	23	NUT, HEX 1/2
18	I9413967	2	NUT, HEX LK 1/2
19	005200	23	WASHER, 1/2 FLT.
20	231030	3	SPACER, .75 X .51 X .38
21	E096046	2	BDLT, SNCB 1/2 X 1-1/2

WIRING, MAIN VALVE AND CONTROL (M509330)

SEAL KITS

ITEM	PART NUMBER	DESCRIPTION
1	243040	SEAL KIT FOR 343990 HYDRAULIC MOTOR
2	355350	SEAL KIT FOR E222002, CROSS 3X4 HYD CYL
3	409230	SEAL KIT FOR 480480 HYDRAULIC MOTOR
4	472630	SEAL KIT FOR 433810, CROSS 4X8 HYD CYL

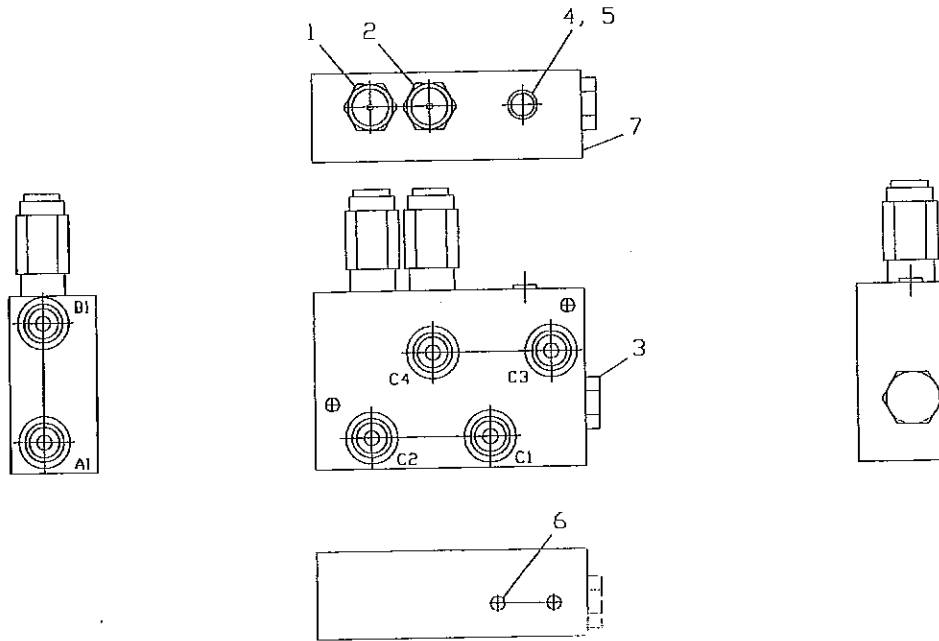
MAIN VALVE-509330



△ - ITEMS NOT SHOWN

ITEM	PART NUMBER	QTY	DESCRIPTION
1	457730P	1	N.O. SOL VALVE-OPEN CENTER
1	457720P	OPTION	CAVITY PLUG FOR CLOSED CENTER
2	457690P	1	FLOW REGULATOR
3	457710P	1	D03 4-WAY SOL VALVE
4	509350P	2	RELIEF VALVE
5	460350P	1	D05 4-WAY SOL. VALVE, P-T BLOCKED
6	-	-	-
7	501290P	1	D05 4-WAY SOL VALVE
8	-	-	-
9	397030P	4	COIL, D05 VALVE
10	488960P	2	COIL, D03 VALVE
△ 11	488980P	-	-014 BUNA N 90 DURO O-RING

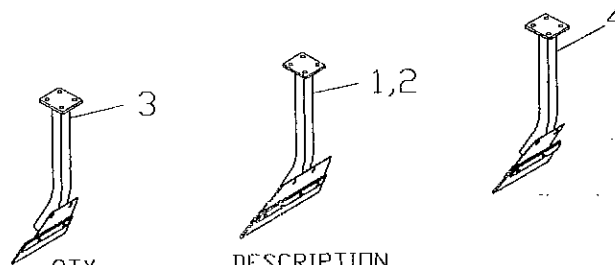
CONTROL VALVE ASSEMBLY & SEAL KITS (M395820-1-690)



DIVIDER RELIEF-443690

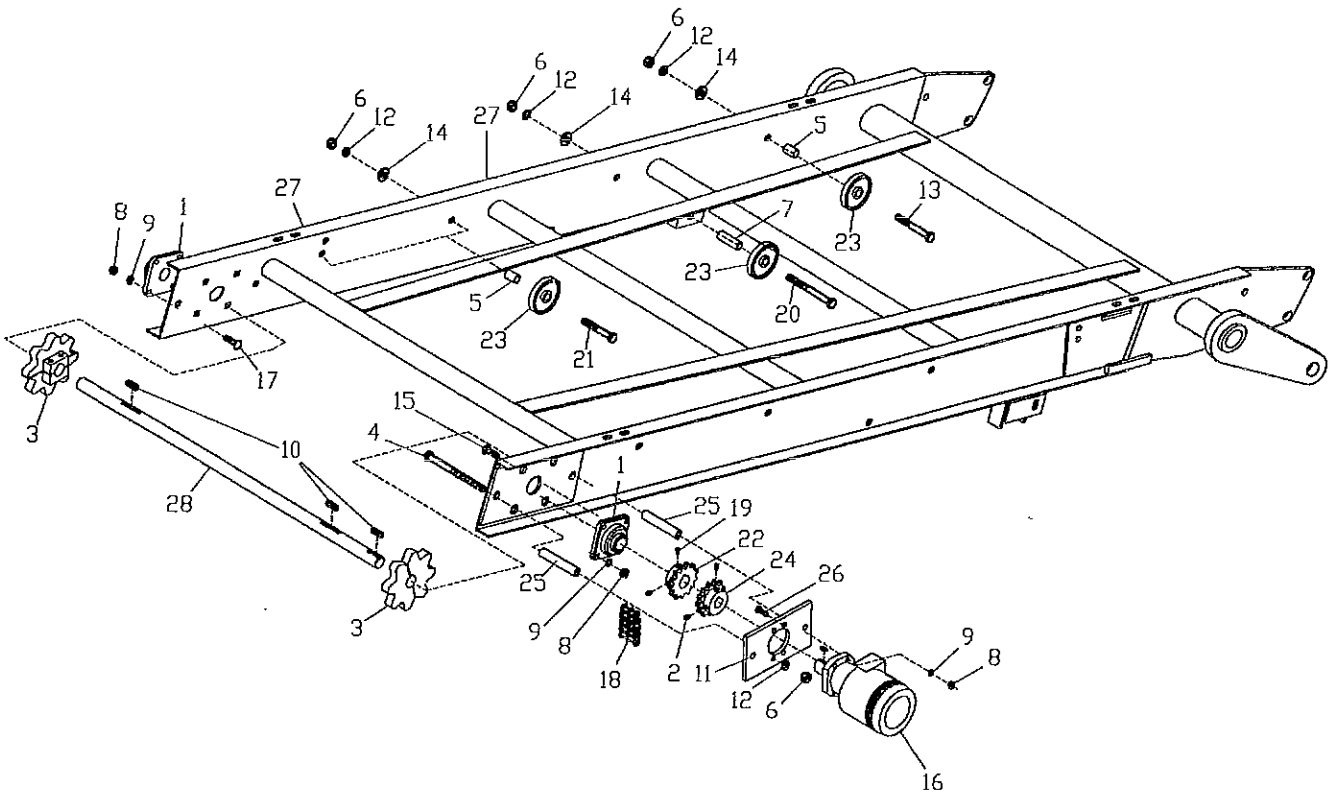
ITEM	PART NUMBER	QTY	DESCRIPTION
1	457660P	1	RELIEF VALVE
2	457650P	1	RELIEF VALVE
3	457630P	1	FLOW DIVIDER
4	488990P	1	1/16" NPT PLG w/.045" DRIFICE
5	-	1	-4 SAE O-RING FLSH HD PLG
6	488980P	2	7MM PERMANENT PLUG
7	457640P	1	VALVE BODY

BARRIERS



ITEM	PART NUMBER	QTY		DESCRIPTION
		6 ROW	4 ROW	
1	446320	4	-	BARRIER ASSY, 6 ROW
2	446330	-	2	BARRIER ASSY, 4 ROW
*	446310	4	2	BARRIER WELDMENT, CENTER
*	242350	-	2	PLATE, 28-30, CENTER
*	244720	-	3	FLAP, RUBBER 28-30
*	244730	-	3	STRAP, 28-30
*	244650	4	-	FLAP, RUBBER, 22
*	244670	4	-	STRAP, 22
3	446290	-	1	BARRIER ASSY RH, 28-30
4	446300	-	1	BARRIER ASSY LH, 28-30
*	446340	1	1	BARRIER WELDMENT, RH
*	446350	1	1	BARRIER WELDMENT, LH
*	447120	-	2	FLAP, RUBBER, SIDE 28-30
*	447110	-	2	STRAP, SIDE 28-30
*	242370	-	2	PLATE, 28-30
3	446360	1	-	BARRIER ASSY RH, 22
4	446280	1	-	BARRIER ASSY LH, 22
*	447090	2	-	FLAP, RUBBER, SIDE 22
*	447100	2	-	STRAP, SIDE 22

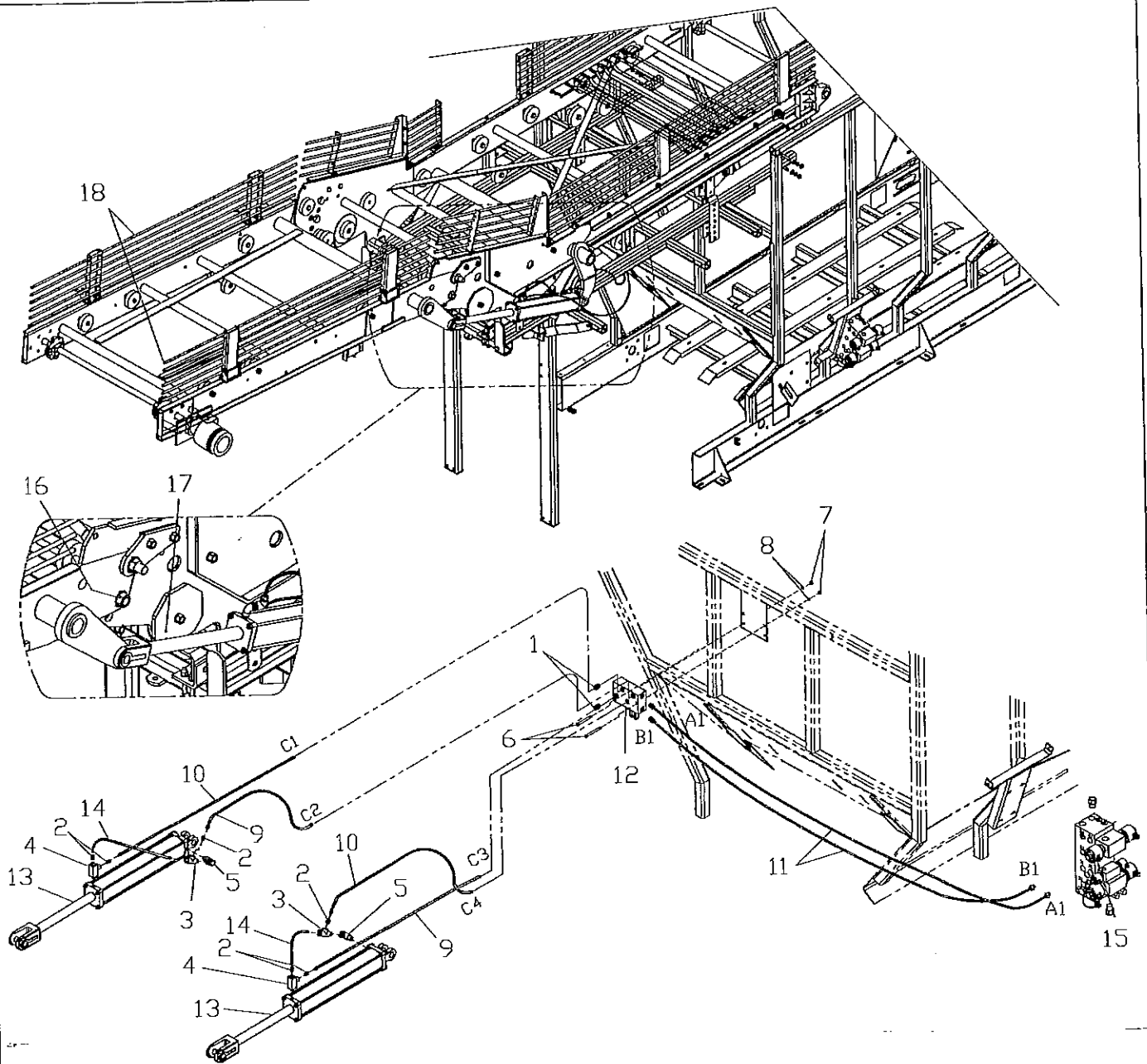
ELEVATOR ASSY, BOOM TRUCK (M495720)



ITEM	PART NUMBER	QTY	DESCRIPTION
1	E072103	2	BEARING, FLG 1-7/16 BORE
2	E672139	2	SCREW, HSSS 5/16-18x5/16
3	433770	2	SPRCKT-8T DRV,56P,144B-1-7/16
4	242600	2	BOLT, HHCS 5/8-11x7.5GR5 ZN
5	E724252	8	SPACER, 1.0 O.D.x5/32Wx1-1/2 L
6	I124589	14	NUT, HEX 5/8-11 GR5 ZN
7	JN144798	4	TRUNION,WHEEL RETAINER-3 1/4
8	005360	12	NUT, HEX 1/2-13 GR5 ZN
9	005370	12	WASHER, LOCK 1/2" ZN
10	006670	3	KEY, SQUARE 3/8"x1.50
11	480810	1	PLATE, MOTOR MOUNTING
12	020440	14	WASHER, LOCK 5/8" REG
13	056720	2	BOLT, HHCS 5/8-11x4
14	035210	18	WASHER, FLAT .656x1.312x.09 ZN
15	025390	4	BOLT, SNCB 1/2 x 1.75
16	480480	1	MOTOR, HYD-TD-22.2 CU IN (SEE PAGE 42)
17	156850	4	BOLT, CRG 1/2-13x1.50 SSN GR5
18	163770	1	CHAIN ASSY, 60-2 14 PITCHES
19	188650	2	SCREW, HSSS 3/8-16x5/16
20	990680	4	BOLT, HHCS 5/8-11x5.5 GR5 ZN
21	I271729	6	BOLT, HHCS 5/8-11x3.50 GR5 ZN
22	271170	1	SPRKT, 60B14 COUPLING 1.44 I.D.
23	343280	12	ROLLER, RUBBER 4.0 DIA.
24	343960	1	SPRKT, 60B14 COUPLING 1.0 I.D.
25	343980	2	SPACER, .64 I.D.x1.0 O.D.x5.62
26	023950	4	BOLT, HHCS 1/2 x 2
27	495900	1	ELEV WLDT, BOOM 690/692B
28	404420	1	SHAFT, DRIVE 1-7/16

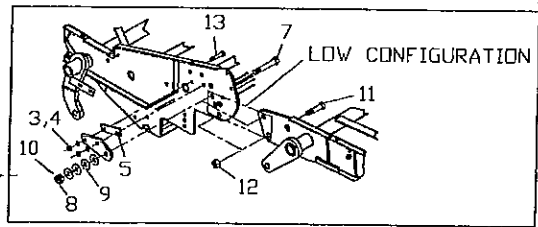
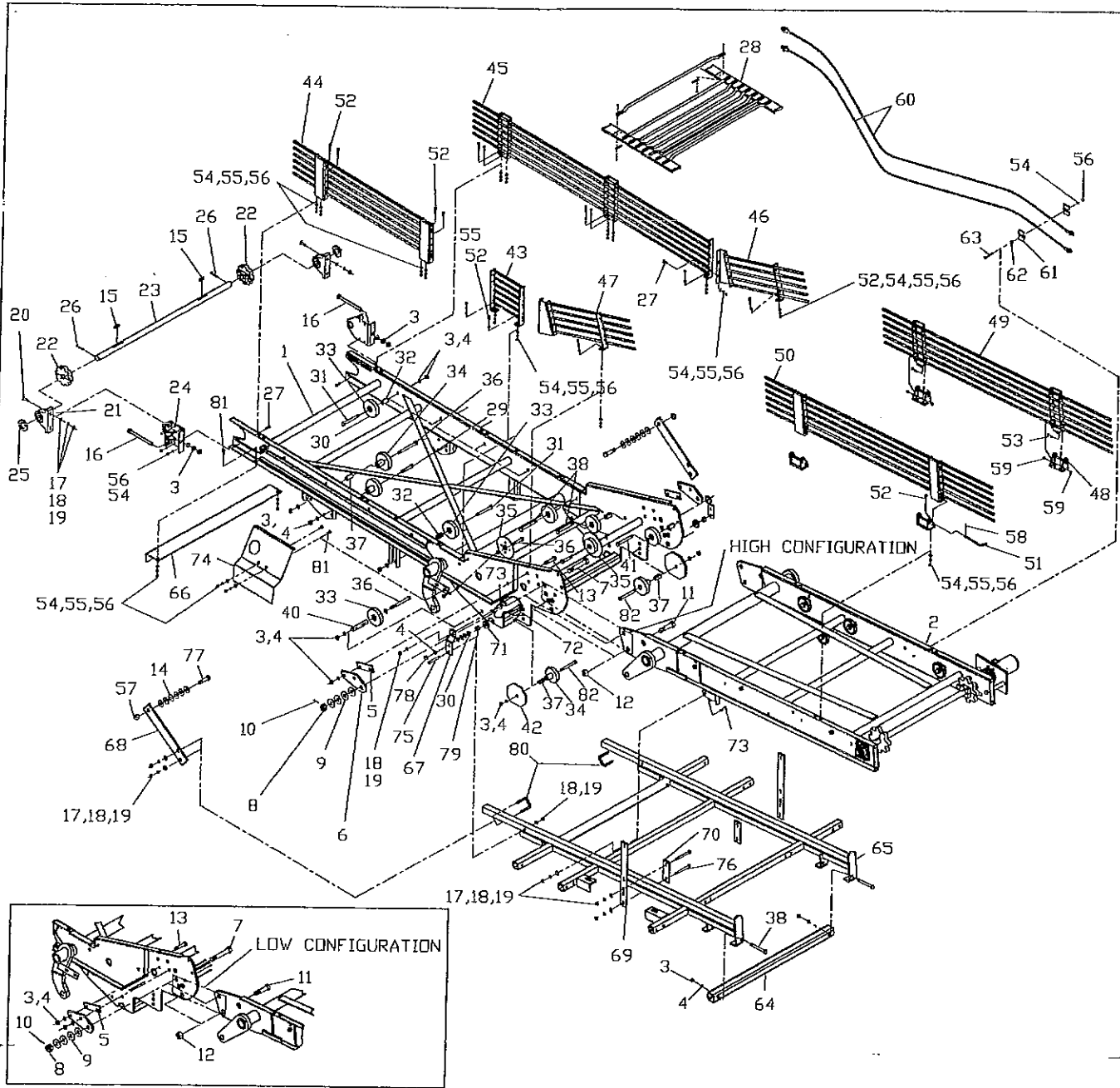


HYDRAULIC ASSEMBLY (M502380-2)



ITEM	PART NUMBER	QTY	DESCRIPTION
1	277350	4	ADAPTOR, STRAIGHT 3/4 DRB x 1/4 NPTF
2	277780	4	BUSHING, HYD REDUCER 1/2 x 1/4 NPT
3	407500	2	VALVE, PILOT CHECK
4	274410	4	FITTING, 1/2-14 NPTF STREET TEE
5	166230	2	ELBOW, HYD STL 1/2 NPTF x 90 STREET
6	009800	2	BOLT, HHCS 5/16-18 x 2-1/2 Gr5 ZN
7	023630	2	NUT, HEX 5/16-18 Gr5 ZN
8	023620	2	WASHER, LOCK 5/16 x 37/64 x 5/64
9	009800	2	HOSE, HYD 1/4 x 102" 100R1
10	401250	2	HOSE, HYD 1/4 x 120 100R2
11	443710	2	HOSE ASSY, HYD .38 x 90, 3/4 DR
12	443690	1	VALVE, RELIEF 698
13	498330	2	CYLINDER ASSY, HYD 3 x 16
14	498670	2	HOSE ASSY, HYD 24.0 x 1/4 NPT 100R1
15	498680	1	VALVE MANIFOLD, MAIN 2000/692
16	E672354	2	BOLT, HHCS 1-8 x 2 Gr5 ZN
17	495860	2	STOP, ELEVATOR
18	496020/496030	1	GRATE WLDT, FRONT / REAR BOOM TRUCK

ELEVATOR ASSY, HIGH/LOW FOLD 690/692B (M497350)



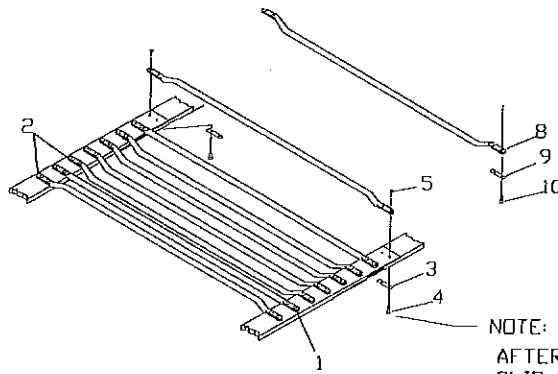
ITEM	PART NUMBER	QTY	DESCRIPTION
1	495670	1	ELEV WLDT, MAIN FLDG
2	495720	1	ELEV ASSY, BOOM TRUCK
3	1124589	34	NUT, HEX 5/8-11 Gr5 ZN
4	020440	30	WASHER, LOCK 5/8 REG
5	433440	4	PLATE, HINGE SPACER
6	433450	2	LUG, OUTER HINGE
7	344270	2	BOLT, HHCS 1-14x3-1/2 Gr8
8	344280	2	NUT, SLOTTED 1-14 Gr8 HEX
9	1107389	8	WASHER, FLAT 1-1/16 SAE
10	003950	2	PIN, COTTER 3/16x2 CHSL
11	E672354	2	BOLT, HHCS 1-8x2 Gr5 ZN
12	J14H805	2	NUT, HEX 1-8 Gr5 ZN
13	023110	4	BOLT, HHCS 5/8-11x2-1/2
14	1131017	12	WASHER, 3/4 SAE
15	006670	2	KEY, SQ 3/8 x 1-1/2
16	355180	2	ROD WLDT, TAKE UP 5/8x8
17	005200	14	WASHER, FLAT 1/2 STD
18	005360	18	NUT, HEX 1/2-13

ELEVATOR ASSY, HIGH/LOW FOLD 690/692B (M497350)

ITEM	PART NUMBER	QTY	DESCRIPTION
19	005370	18	WASHER, LOCK 1/2 ZN
20	991200	4	BOLT, CRG 1/2-13x2 Gr5 ZN
21	E072001	2	BEARING, PB 1-7/16
22	433770	2	SPRCKT, 8T DRV 56P 1.44B
23	495730	1	SHAFT, IDLER 1-7/16
24	344020	2	BRCKT WLDT, BEARING 4DJ
25	020560	2	WASHER, FLT 1-17/32x2-1/4
26	003950	2	PIN, COTTER 3/16x2 CP ZN
27	170530	12	BOLT, CRG 3/8-16 x 1
28	355140	1	BELTED CHAIN ASSY, 56mm P
29	028330	2	BOLT, HHCS 5/8-11x4-1/2
30	035210	16	WASHER, FLAT 5/8
31	I271729	10	BOLT, HHCS 5/8-11x3-1/2
32	E724252	16	SPACER, 1" x 1-1/2 LNG
33	343280	18	ROLLER, RUBBER 4" DIA
34	240480	6	ROLLER ASSY, 4.75 DIA
35	423070	2	ROLLER, FLANGE STEEL 4"
36	990680	6	BOLT, HHCS 5/8-11 x 5-1/2
37	459310	4	SPACER, 1.0 O.D. x 1.25
38	056720	6	BOLT, HHCS 5/8-11 x 4.0
40	JN144798	2	TRUNION, WHEEL RETAINER
41	990650	2	BOLT, 5/8-11 x 3.0
42	495860	2	STOP, ELEVATOR
43	494790	1	GRATE WLDT, 11" HIGH
44	494810	1	SIDE WLDT, ELEV RR TANK
45	495490	1	SIDE WLDT, TANK ELEV FRT
46	495530	1	GRATE WLDT, FRONT CENTER
47	495540	1	GRATE WLDT, REAR CENTER
48	495740	4	BRACKET WLDT, GRATE HNGE
49	496020	1	GRATE WLDT, BOOM FRT TRK
50	496030	1	GRATE WLDT, BOOM RR TRK
51	497390	4	PIN, BENT ARM 3/8x5.0
52	006690	21	BOLT, HHCS 3/8-16 x 1-1/4
53	012260	8	BOLT, HHCS 3/8-16 x 1
54	021180	31	WASHER, LOCK 3/8
55	021190	42	WASHER, FLAT 3/8 STD
56	027260	31	NUT, HEX 3/8-16 Gr5 ZN
57	991040	2	NUT, 3/4 LOCK
58	045310	4	PIN, COTTER 3/32 x 1-1/2
59	023060	8	NUT, LOCK 3/8-16
60	344000	2	HOSE, HYD 5/8 x 325
61	413050	4	CLAMP, HOSE
62	P98458	2	SPACER, .530 x 1/2
63	037630	2	BOLT, HHCS 3/8-16 x 2-1/2
64	495310	1	TUBE, OUTER SUPPORT
65	495480	1	TRACK WLDT, FLDG 690/692
66	494840	1	ANGLE, ELEVATOR SHIPPING
67	495640	2	BRACKET, ROLLER STOP
68	495780	2	BAR, HOLDER SHIPPING
69	495830	2	BAR, TRACK SHIPPING
70	495840	2	BAR, CLAMP TRACK SHIPPING
71	JJD8646	2	BEARING, BALL .628x2x.59
72	275710	2	BOLT, CRG 5/8-11x3 Gr5 ZN
73	E096046	4	BOLT, CRG 1/2-13x1-1/2
74	498230	1	SHIELD, BOOM CYLINDER
75	990840	2	BOLT, HHCS 1/2-13x3
76	J03H1852	4	BOLT, SNCB 1/2-13x4 Gr5
77	990540	2	BOLT, HHCS 3/4-10x2 Gr5
78	V062140	2	NUT, JAM 5/8-11 Gr2
79	J28H2515	2	SPACER, 3/4x.75 SCH80 BKP
80	290890	2	BOLT, U 1/2-13x2-1/16x3
81	035180	2	BOLT, CRG 3/8-16x1-1/4
82	201660	2	BOLT, HHCS 5/8-11x6 GR5

# BELTED DRAPER CHAIN ASSEMBLY - (MDRAP690)

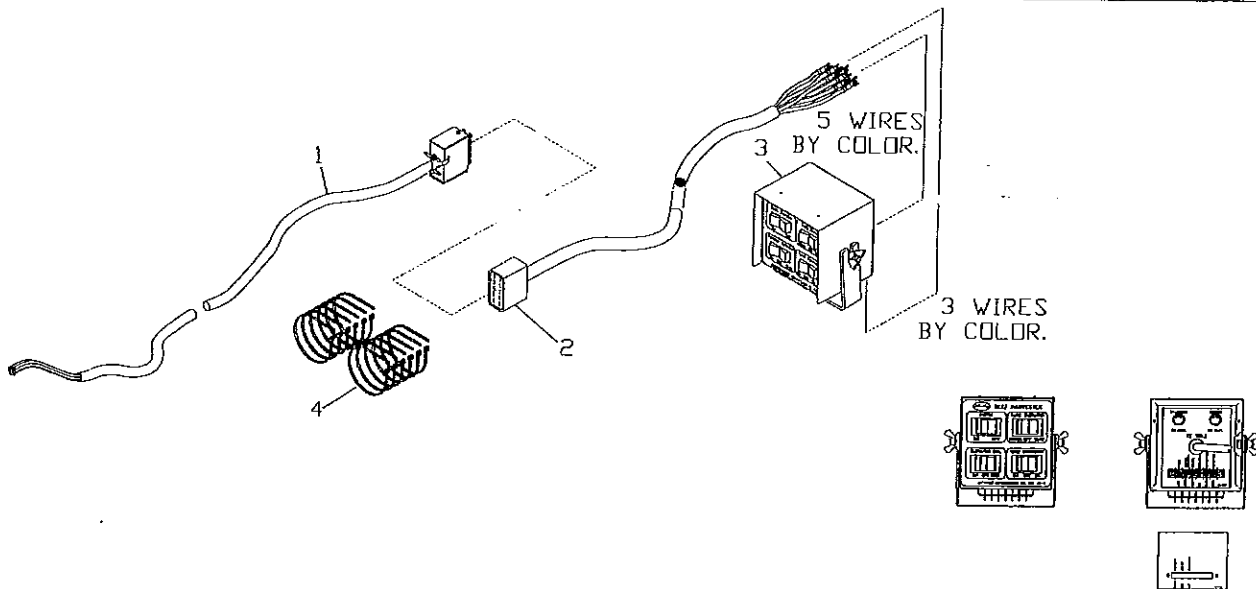
355140 BELTED DRAPER CHAIN  
56mm P x 196 PITCHES



1996 & AFTER-3 ROD SPLICE

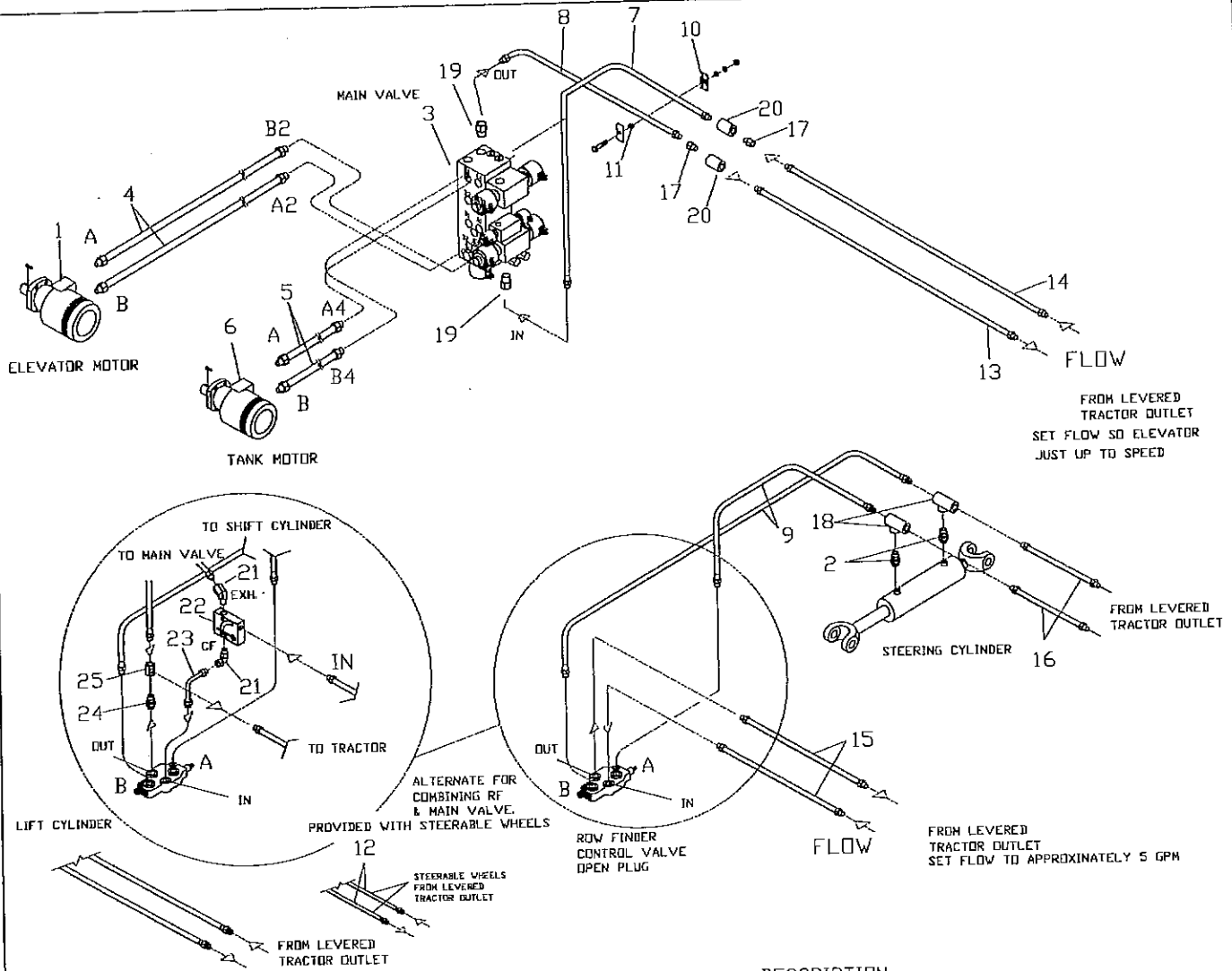
NOTE:  
AFTER INSTALLING SPLICE BOLTS,  
CLIP EXCESS BOLT LENGTH  
AND PEAN ENDS.

ITEM	PART NUMBER	QTY	DESCRIPTION
ROD KITS, WITH BOLTS AND BACKER PLATES			
1	268630	-	KIT, STRAIGHT ROD
2	268640	-	KIT, OFFSET ROD
GENERAL PARTS			
3	268670	-	PLATE, BACKING
4	463180	-	SCREW, SFHCS, 12-28 X 1-1/4
5	463190	-	NUT, LOCK 12-28
FOR 1995 & PRIOR WITH SKIVED JOINT USE ABOVE PARTS FOR REPAIR			
6	343300	-	BELT SPLICE KIT BELT REPAIR KIT-FOR ONE BELT (INCLUDES 6 BACKER PLATES, 12 BOLTS, & 12 NUTS)
FOR 1996 & AFTER (SKIVED JOINT) USE BOLTS & RODS ABOVE FOR 1996 & AFTER WITH 3 ROD LAPPED JOINT, SEE BELOW			
8	430600	-	ROD, DODGED DOWN-1/4-20 THREADED
9	455490	-	BACKER PLATE FOR 1/4
10	455500	-	BOLT, 1/4-20 X1 CTR SK HEX SOCKET



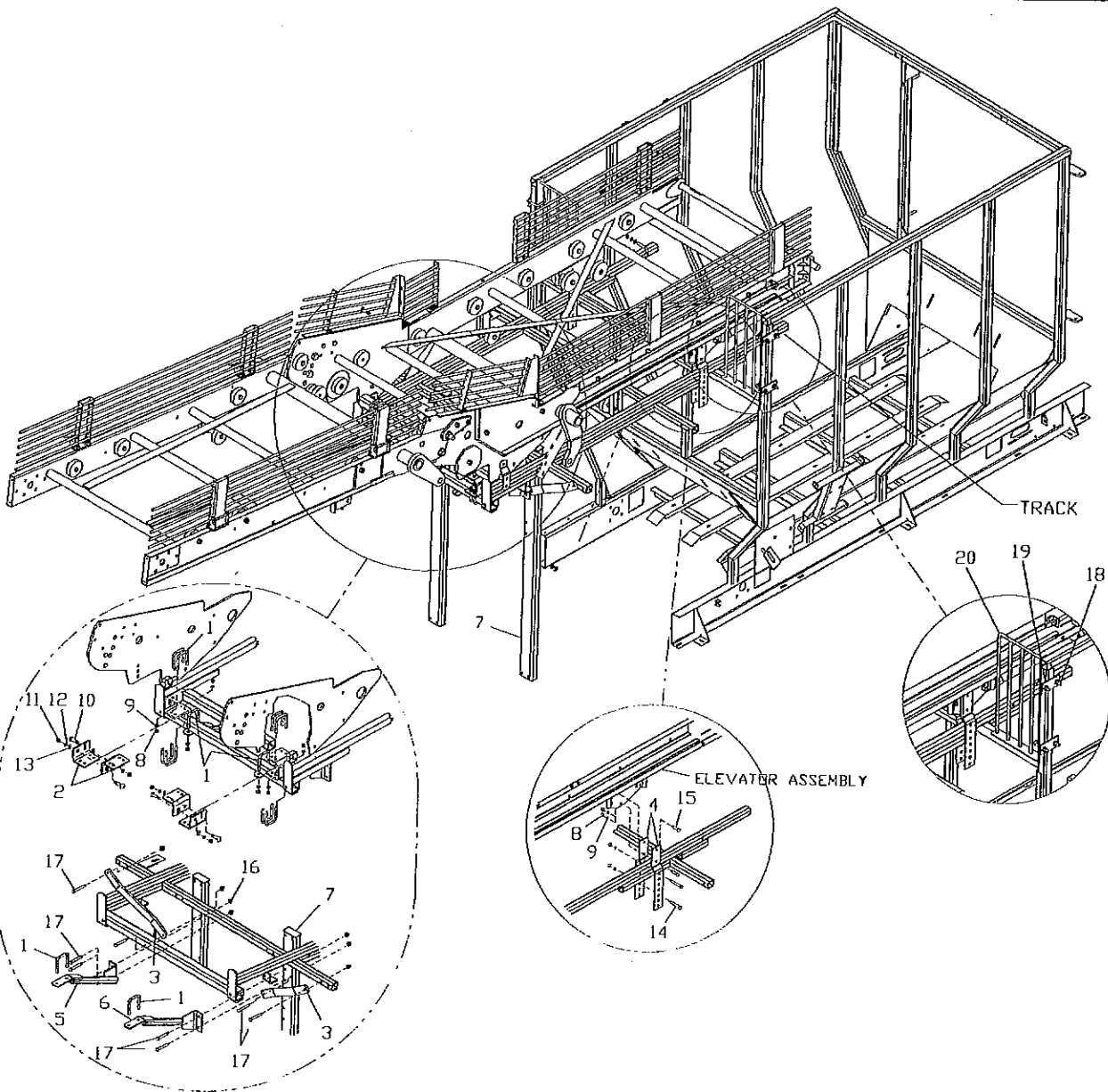
ITEM	PART NUMBER	QTY	DESCRIPTION
1	434140	1	HARNESS, MAIN VALVE
2	498740	1	CORD, CONTROL REMOTE BOX
3	434120	1	CONTROL BOX ASSY
4	149670	12	TIE, 3/16 x 11 CABLE

# HYDRAULIC CIRCUIT, CLOSED CENTER (MHYD690B-2001)



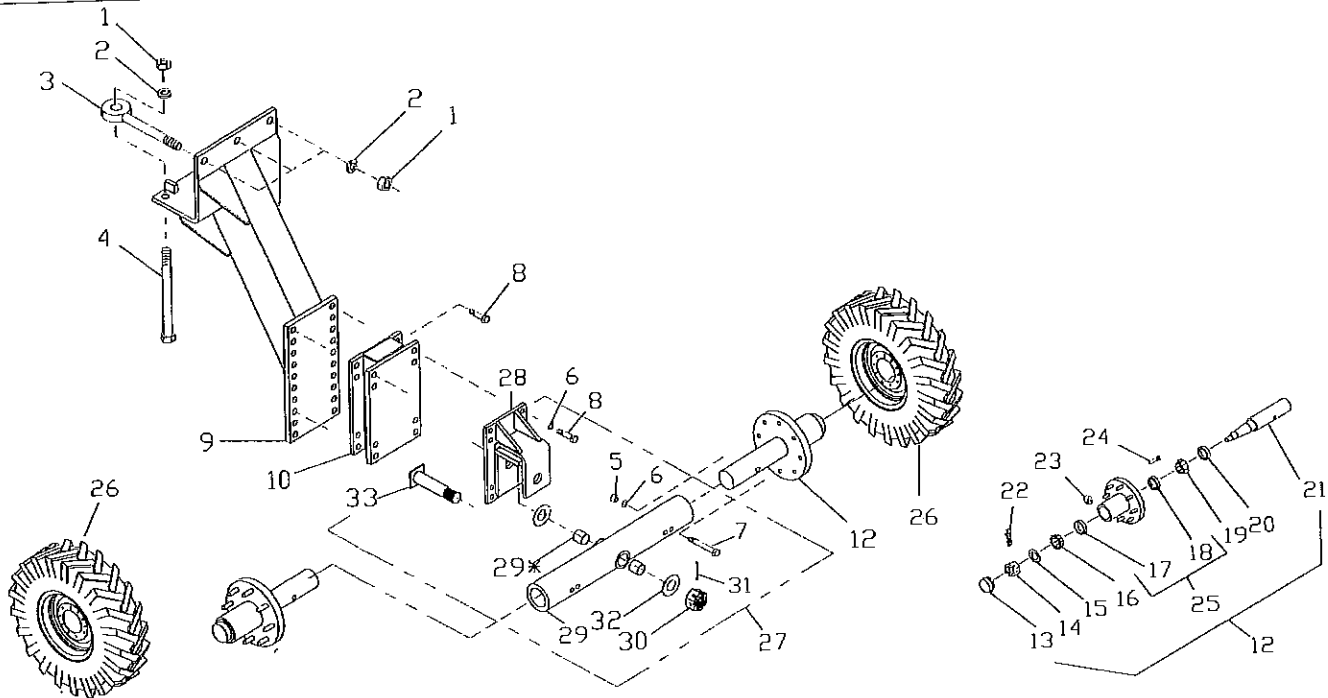
ITEM	PART NUMBER	QTY	DESCRIPTION
1	480480	1	MOTOR, HYDRAULIC MF24
2	166250	2	ADAPTER, 1/2 NPT M STRAIGHT
3	509330	1	VALVE MANIFOLD, MAIN 2000/692
4	344000	2	HOSE, HYD 5/8 X 325, 7/8 OR-3/4 OR
5	393900	2	HOSE, HYD 5/8 X 26, 7/8 OR-3/4 OR
6	343990	1	MOTOR, HYD MF 24 CU IN DISPL
7	288640	1	HOSE, HYD 5/8 X 132, 1/2 NPT M-3/4 OR M
8	288650	1	HOSE, HYD 5/8 X 156, 3/4 OR M
9	259600	2	HOSE, HYD 3/8 X 79, 3/4 OR-1/2 NPT
10	413050	2	HOSE CLAMP
11	P98458	1	SPACER, .5
12	E356113	2	HOSE ASSEMBLY, HYD .5 X 300
13	344380	1	HOSE, HYD 5/8 X 120, 1/2 NPT M
14	344400	1	HOSE, HYD 5/8 X 146, 1/2 NPT M-3/4 OR M
15	259610	2	HOSE, HYD 3/8 X 144, 1/2 NPT M-3/4 OR M
16	164560	2	HOSE, HYD, 1/2 X 120, 1/2 NPT STR M
17	423800	2	ADAPTER, HYD 3/4 OR F-1/2 NPT M
18	166280	2	ADAPTER, HYD TEE, 1/2 NPT F
19	407700	2	ADAPTER, HYD 7/8 M TO 3/4 F OR
20	007470	2	COUPLER, PIPE 1/2 NPT F
21	166230	2	ELBOW, 90° 1/2 NPT STREET
22	006300	1	VALVE, FLOW CONTROL
23	288630	1	HOSE ASSEMBLY, HYD .5 X 36
24	JAN131153	1	ADAPTER, HYD FITTING
25	JN132040	1	ADAPTER, HYD TEE, 3/4 O-RING

ELEVATOR SUPPORT ASSEMBLY (M502380-1)



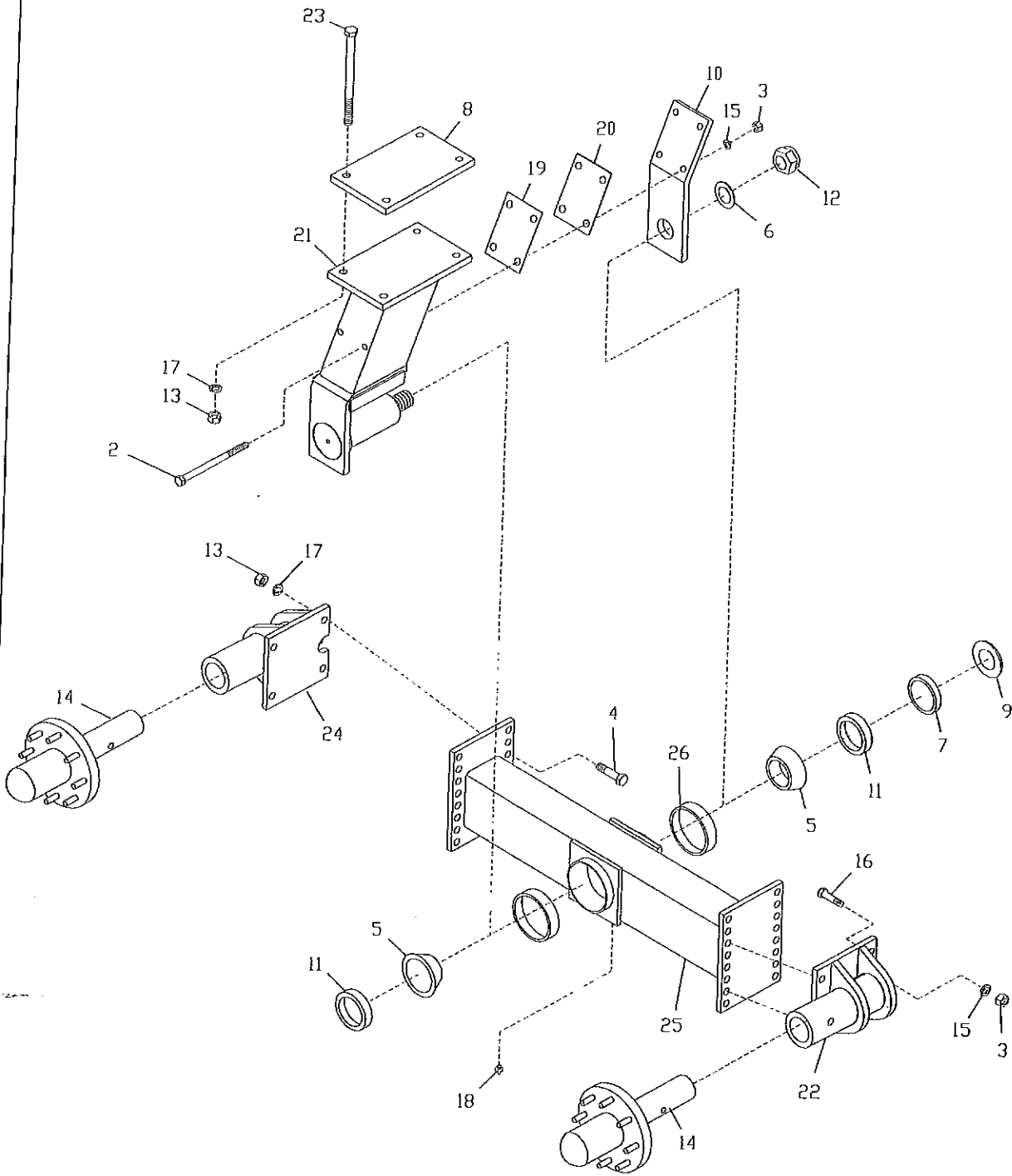
ITEM	PART NUMBER	QTY	DESCRIPTION
1	429820	10	BOLT, U 1/2x2-1/2x3-3/4
2	495300	4	ANGLE, OUTER SUPPORT
3	495630	2	BAR, BRACE
4	495320	4	BAR, INNER ELEV TIE
5	496040	1	BRACE WLDT, REAR
6	496050	1	BRACE WLDT, FRONT
7	354810	2	TUBE WLDT, TRACK SUPPORT
8	005360	28	NUT, HEX 1/2-13 Gr5 ZN
9	005370	28	WASHER, LOCK 1/2 ZN
10	I441452R1	4	BOLT, CRG 5/8-11x2 Gr5 ZN
11	I124589	4	NUT, HEX 5/8-11 Gr5 ZN
12	020440	4	WASHER, LOCK 5/8 REG
13	020430	4	WASHER, FLAT 5/8 STD
14	1770608	4	BOLT, HHCS 1/2-13x3-1/2
15	1770500	4	BOLT, HHCS 1/2-13x1-3/4
16	127890	8	NUT, LOCK 1/2-13 GrA
17	990840	8	BOLT, HHCS 1/2-13x3 Gr5
18	290890	4	BOLT, U 1/2-13x2-1/16x3
19	499300	4	BRACKET, 2.0 x 4.06
20	499260	2	GRATE WLDT, TANK FILLER

OSCILLATING CARRIER STRUT - (M252010A), 268840



ITEM	PART NUMBER	QTY	DESCRIPTION
1	J14H794	-	NUT, HEX 3/4-10 G5 ZN
2	036800	-	WASHER, LOCK 3/4 ZN
3	E096162	3	BOLT, EYE 3/4x7.0 ZN
4	E672449	3	BOLT, HHCS 3/4x9.5 ZN
5	I124589	-	NUT, HEX 5/8-11 G5 ZN
6	020440	-	WASHER, LOCK 5/8 ZN
7	031490	2	BOLT, HHCS 5/8x5.0 G5 ZN
8	990620	16	BOLT, HHCS 5/8x2.0 G5 ZN
9	E506084	1	LEG WELD,CARRIER WHEEL
10	345440	1	PLATE WLDT, AXLE MTG EXT
11	228760	1	BRACKET, WELD, AXLE
12	TG0496	2	HUB & SPINDLE ASSEMBLY
13	TG0769	1	CAP, HUB
14	129830	1	NUT, HEX-SL. 7/8-14 G5 ZN
15	E829019	1	WASHER, FLAT 5/16 ZN
16	E072319	1	CONE, BEARING 1-5/16
17	I13324D	1	CUP, BEARING
18	E072317	1	CUP, BEARING
19	E072316	1	CONE, BEARING 2.0
20	TG0770	1	SEAL
21	TG0761	1	SPINDLE
22	026630	1	PIN, COTTER 5/32x1.50
23	046710	-	NUT, WHEEL 9/16
24	046700	-	BOLT, STUD 9/16x2.125
25	TG0763	1	HUB ASSY, W/CUPS & STUDS
26	355400	1	WHEEL & TIRE ASSY, LHTRAC.
26	355410	1	WHEEL & TIRE ASSY, RHTRAC
26	355440	1	WHEEL ASSY, 11.0 x 16 IMP
27	251980	1	OSCILLATING ASSEMBLY-44"
27	268830	1	OSCILLATING ASSEMBLY, 28-30"
28	251960	1	MOUNT WLDT, AXLE
29	268810	1	BEAM WLDT, AXLE 44"
29	268820	1	BEAM WLDT, AXLE 28-30"
*	044550	2	BUSHING, OILITE
30	E552084	1	NUT, SLOTTED 1-1/2-6 Gr5 ZN HEX
31	E580042	1	PIN, COTTER 3/16 x 3 CHISEL POINT
32	JN2018M	2	WASHER, THRUST 1-17/32 x 2-5/8 x 1/16
33	251860	1	PIN WELDMET, PIVOT
34	228760	1	BRACKET, AXLE WLDT

WALKING BEAM ASSY - (M411590)

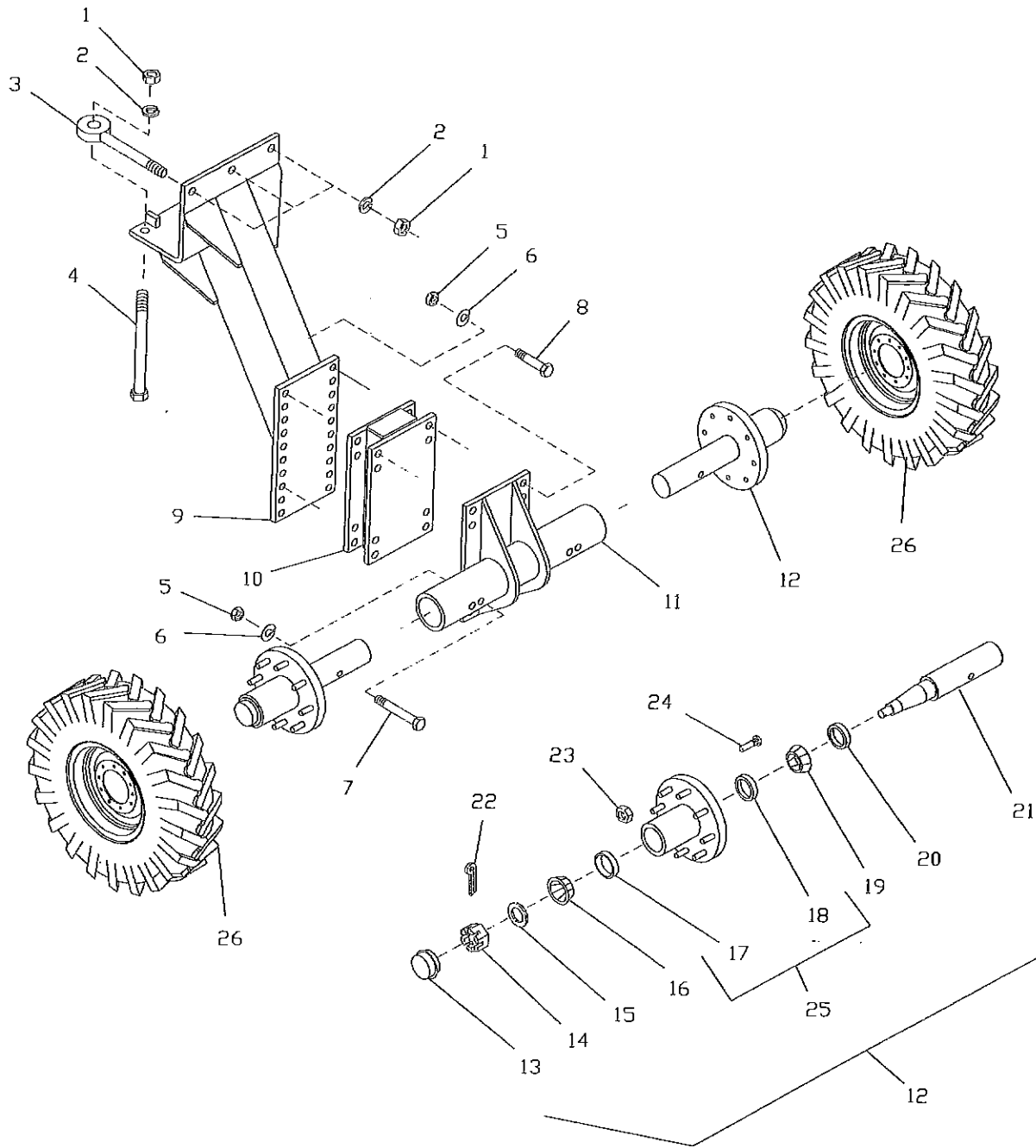




## WALKING BEAM ASSY - (M411590)

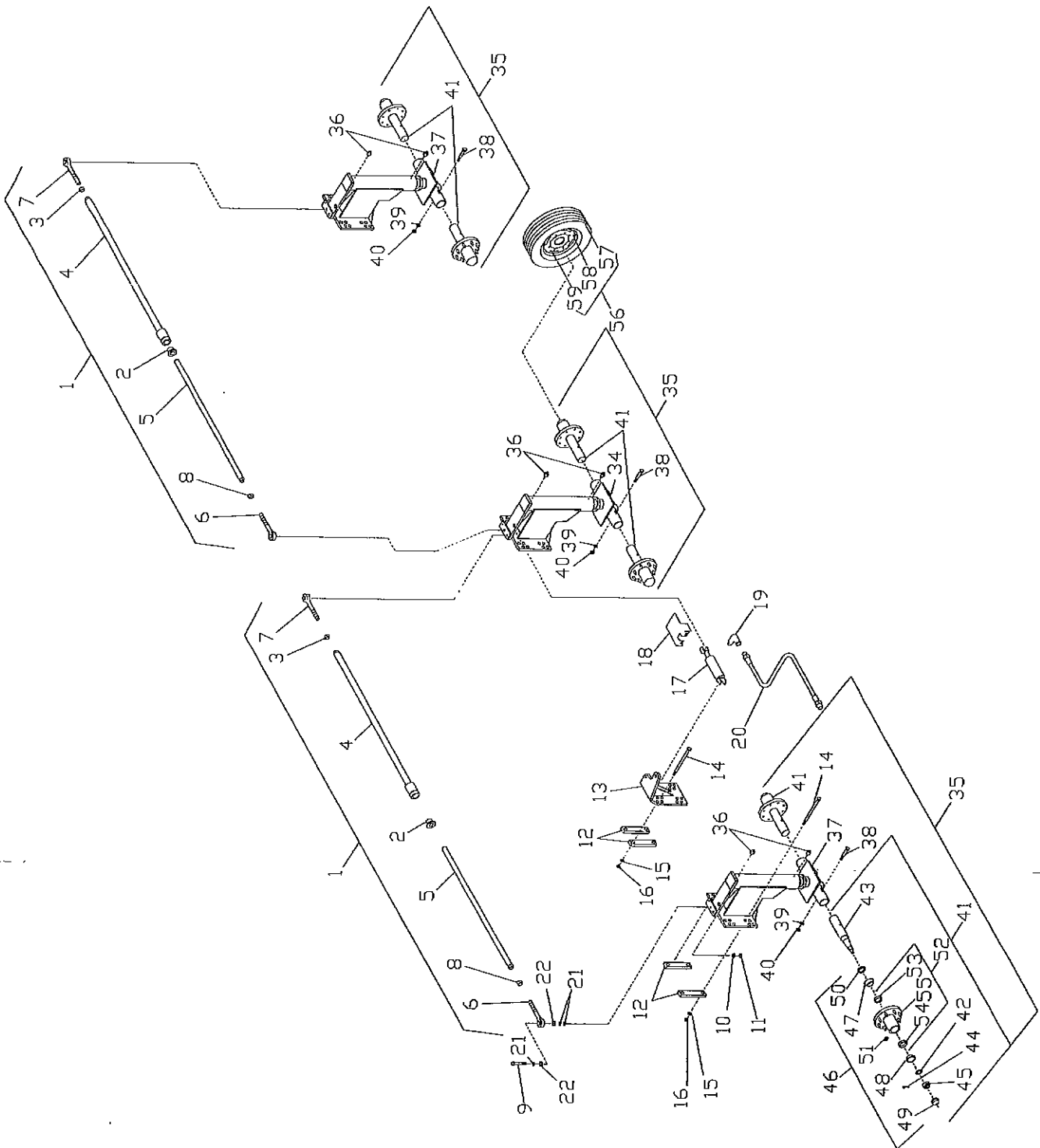
ITEM	PART NUMBER	QTY	DESCRIPTION
1	-	-	-
2	E672362	4	BOLT, HHCS 5/8-11x9.0 GR5,ZN
3	I124589	6	NUT, 5/8-11 GR5,ZN
4	990550	8	BOLT, HHCS 3/4x2-1/4 GR5 ZN
5	JJD8191	2	CONE, BRG. TMKNH 497 3.38 ID
6	JM16680	1	WASHER, FLAT 1.78x2.88x.134
7	JN144534	1	SPACER
8	JN144536	1	PLATE, WHEEL MOUNTING
9	JN146633	2	SHIM, 2.25x4.06x.048
10	JN146720	1	PLATE, MOUNTING
11	JR33026	2	SEAL, OIL C/R40510 4x5.4x.38
12	JU44586	1	NUT, 1-3/4-12
13	J14H794	16	NUT, 3/4-10 HEX GR5,ZN
14	TG0496	2	HUB & SPINDLE ASSEMBLY-SEE PG. 50
15	020440	6	WASHER, 5/8 REG. LOCK ZN
16	031490	2	BOLT, HHCS 5/8-11x5.0 GR5,ZN
17	036800	12	WASHER, 3/4" LOCK
18	049180	1	ZERK, 1/4-28 LUBE TAPER THD
19	254450	1	SHIM, .060 TANDEM WHEEL
20	254460	1	SHIM, .179 TANDEM WHEEL
21	265500	1	SPINDLE ASSY, WALKING BEAM
22	411510	1	EXTENSION WLDT., FRONT
23	E672449	4	BOLT, HHCS 3/4-10x9.5 GR5,ZN
24	411520	1	EXTENSION WLDT., REAR
25	411540	1	BEAM WLDT., WALKING
26	JJD8214	2	CUP, BEARING

FIXED CARRIER STRUT - (M237530)



FIXED CARRIER STRUT - (M237530)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	J14H794	-	NUT, HEX 3/4-10 G5 ZN
2	036800	-	WASHER, LOCK 3/4 ZN
3	E096162	3	BOLT, EYE 3/4 x 7.0 ZN
4	E672449	3	BOLT, HHCS 3/4 x 9.5 ZN
5	I124589	-	NUT, HEX 5/8-11 G5 ZN
6	020440	-	WASHER, LOCK 5/8 ZN
7	028330	2	BOLT, HHCS 5/8x4.5 G5 ZN
8	990620	16	BOLT, HHCS 5/8x2.0 G5 ZN
9	E506084	1	LEG WELD,CARRIER WHEEL
10	345440	1	BRMCKET, EXTENSION
11	228760	1	BRACKET, WELD, AXLE
12	TG0496	2	HUB & SPINDLE ASSEMBLY
13	TG0769	1	CAP, HUB
14	129830	1	NUT, HEX-SL. 7/8-14 G5 ZN
15	E829019	1	WASHER, FLAT 5/16 ZN
16	E072319	1	CONE, BEARING 1-5/16
17	I13324D	1	CUP, BEARING
18	E072317	1	CUP, BEARING
19	E072316	1	CONE, BEARING 2.0
20	TG0770	1	SEAL
21	TG0761	1	SPINDLE
22	026630	1	PIN, COTTER 5/32x1.50
23	046710	-	NUT, WHEEL 9/16
24	046700	-	BOLT, STUD 9/16x2.125
25	TG0763	1	HUB ASSY, W/CUPS & STUDS
26	355400	1	WHEEL & TIRE ASSY, LHTRAC
26	355410	1	WHEEL & TIRE ASSY, RHTRAC
*	042264	-	WHEEL, 11x16.1 8-BOLT GOLD
*	164420	-	VALVE STEM, W/CORE & CAP
*	278460	1	TIRE, TUBLESS 13.5x16.1 6P

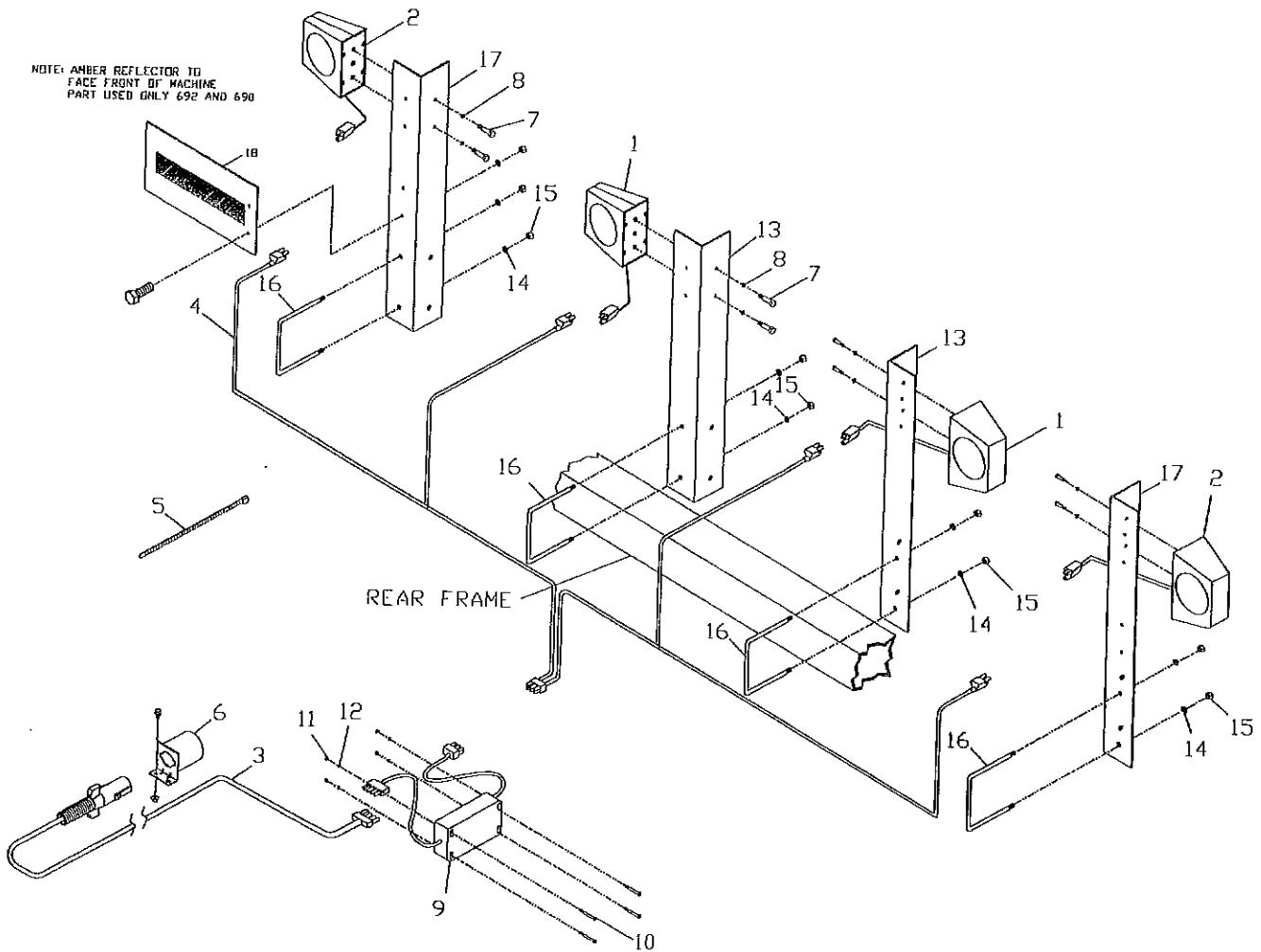


## OPT, 3 SET H.D. STEERABLE WHEEL - (M383710)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	279780	2	ROD ASSY, TIE
2	E126108	2	BUSHING, 1.510" P1 SPLIT TAPER
3	E552087	2	NUT, 1" LH THD HEX ZN
4	279790	2	ROD WELDMENT, R. H. TIE
5	247440	2	ROD WELDMENT, L. H. TIE
6	414480	2	BALL JOINT, TIE ROD RH
7	414470	2	BALL JOINT, TIE ROD LH
8	147310	2	NUT, 1" RH THD HEX GR 2 ZN
9	990960	4	BOLT, 3/4 X 4-1/2 HHCS GR5
10	036800	4	WASHER, 3/4 LOCK
11	J14H794	4	NUT, 3/4" HEX GR 5 ZN
12	E174044	8	CLAMP, PLATE
13	236640	1	BRACKET, CYLINDER
14	252020	16	BOLT, 1 X 8 HHCS GR8 ZN
15	003350	16	WASHER, 1" LOCK
16	J14H805	16	NUT, 1" HEX GR 5 ZN
17	E222002	1	CYLINDER, 3 X 4, SEE PG 47
18	E694360	1	SHIELD, CYLINDER
19	006240	2	ELBOW, 1/2 X 90° ST
20	E356113	2	HOSE, 1/2" X 300" HYDRAULIC
21	990710	12	WASHER, FLAT 3/4"
22	414460	8	SEAL, SWIVEL
23	-	-	-
24	-	-	-
25	-	-	-
26	-	-	-
27	-	-	-
28	-	-	-
29	-	-	-
30	-	-	-
31	-	-	-
32	-	-	-
33	-	-	-
34	355370	1	STRUT WELD, HD STEERABLE
35	252060	3	STRUT & HUB ASSY, HD STEERABLE
36	E334006	2	ZERK, 5/16 PRESS LINCHON #5031
37	252050	1	STRUT ASSY, HD STEERABLE
38	028330	2	BOLT, 5/8 X 4-1/2 HHCS GR 5 ZN
39	020440	2	WASHER, 5/8 LOCK
40	1124598	2	NUT, 5/8" HEX GR 5 ZN
41	TG0496	2	HUB & SPINDLE ASSY
42	E829019	1	WASHER, .938 X 2.25 X .164 ZN
43	TG0761	1	SPINDLE
44	026630	1	PIN, 5/32 X 1-1/2 CUTTER ZN
45	129830	1	NUT, 7/8" HEX SL GR 5 ZN
46	TG0760	1	HUB ASSY, COMPLETE 8-BOLT
47	E072316	1	CONE, TKM # 3780 BEARING
48	E072319	1	CONE, TKM #2790 BEARING
49	TG0769	1	CAP, HUB
50	TG0770	1	SEAL, C/R 25091 2.50 X 3.75 X .43
51	046710	8	NUT, 9/16-18 WHEEL
52	TG0763	1	HUB ASSY W/ CAPS & STUDS
53	E072317	1	CUP, TKM #3720 BEARING
54	113324D	1	CUP, TKM #2720 BEARING
55	046700	8	BOLT, STUD 9/16-18 UNF X 2-1/8
56	355440	6	TIRE ASSY, 11.00 X 16 IMPL.
57	TG0740	1	TIRE, 11.00 X 16 X 12 PLY TUBELESS
58	355430	1	WHEEL, W10L-16, 8 HOLE
59	164420	1	VALVE STEM W/ CORE & CAP
60	-	-	-

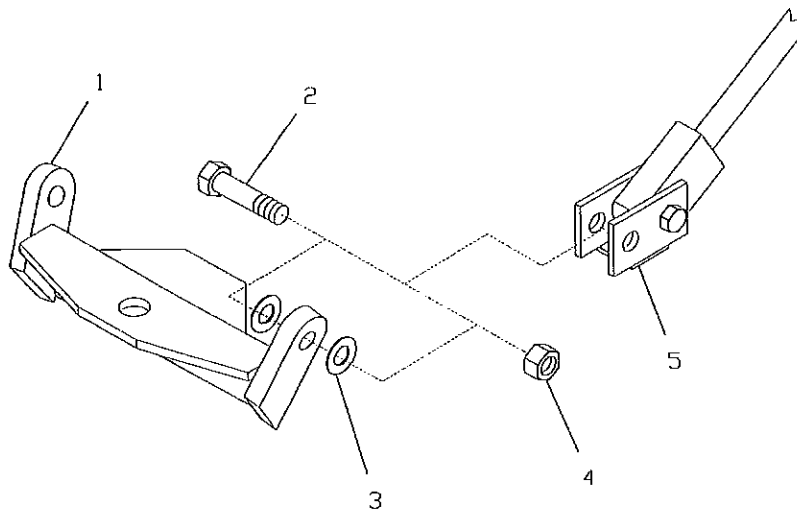
Seal Kit  
355350

# ROAD HAZARD LIGHTS ASSEMBLY - (M477991-690-2)

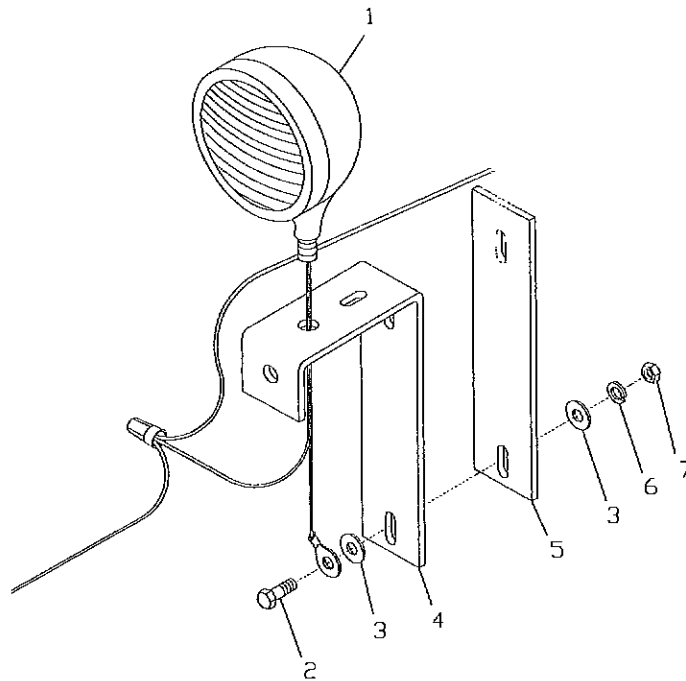


ITEM	PART NUMBER	QTY	DESCRIPTION
1	476520	2	LAMP ASSEMBLY, RED TAIL LIGHT
2	476510	2	LAMP ASSEMBLY, AMBER HAZARD LIGHT
3	476570	1	HARNES, PRIMARY SAFETY LIGHTS, 30'
4	476560	1	HARNES, WISHBONE
5	149670	6	TIE, CABLE
6	JPT1296	1	BRACKET, STORAGE
7	012051	8	BOLT, HHCS 1/4-20 x 3/4"
8	023620	8	WASHER, LOCK 5/16
9	476540	1	CONVERTER, AG SAFETY LIGHT
10	476640	4	BOLT, HEX SLOT MACHINE #10-24 x 1-1/2"
11	120590	4	NUT, HEX #10
12	120600	4	WASHER, LOCK #10
13	477910	2	ANGLE, SAFETY LIGHT MOUNTING
14	021180	8	WASHER, LOCK 3/8"
15	027260	8	NUT, HEX 3/8-16
16	477920	4	BOLT, U 3/8-16 x 7-1/16 x 6
17	477890	2	ANGLE, SAFETY LIGHT MOUNTING
18	477970	1	PLATE WITH DECALS

DRAWBAR KIT, 3 POINT-LIGHT PACKAGE - (M427490-270310)

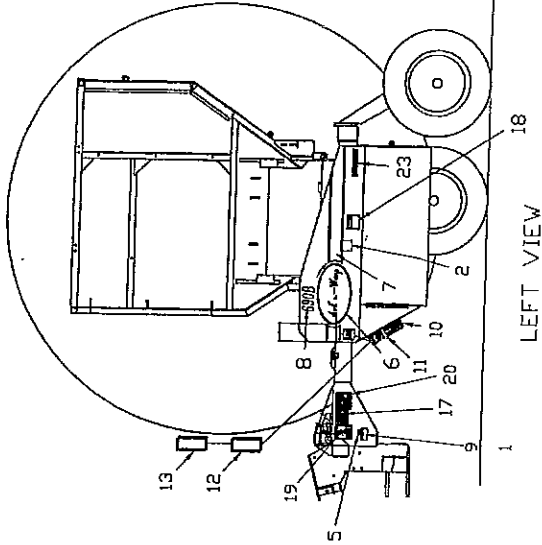


ITEM	PART NUMBER	QTY	DESCRIPTION
1	424300	1	SUPPORT, DRAWBAR
2	991060	4	BOLT, HEX 1-8 x 5"
3	1107389	26	WASHER, FLAT 1"
4	990510	4	NUT, LOCK 1"
5	424320	2	BRACKET WLDT, DRAWBAR SUPPORT

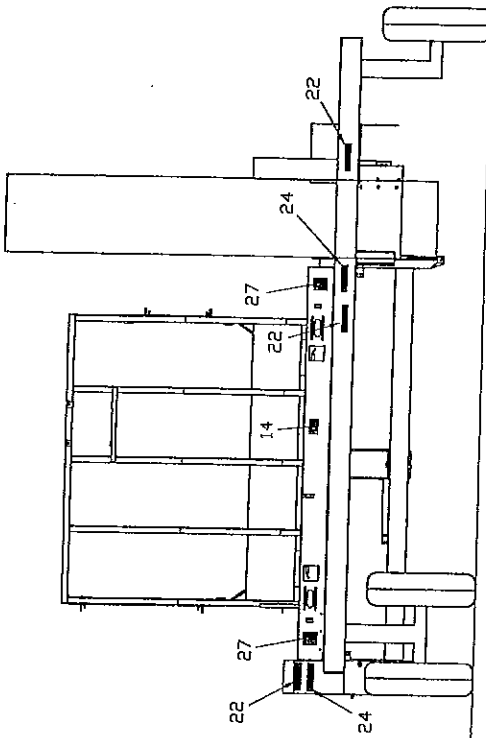


ITEM	PART NUMBER	QTY	DESCRIPTION
1	242110	3	LAMP, 12V HORIZ. MOUNT HALOGEN
2	011370	-	BOLT, HHCS 3/8"x1-1/2"
3	021190	-	WASHER, FLAT 3/8"
4	236250	3	BRACKET, LIGHT MOUNTING
5	236260	2	BAR, LIGHT BRACKET BACK UP
6	021180	-	WASHER, LOCK 3/8"
7	027260	-	NUT, HEX 3/8"

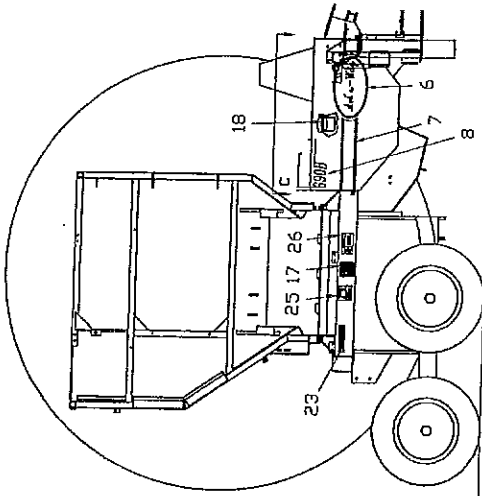
690B DECAL LOCATIONS



LEFT VIEW

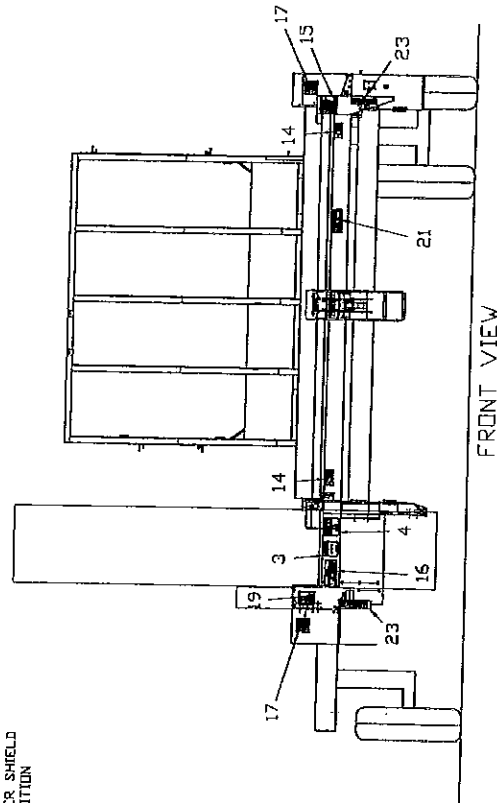


REAR VIEW



RIGHT VIEW

NOTE: ITEM 13-UNDER SHIELD  
VISIBLE POSITION



FRONT VIEW

NOTE: POSITION ITEMS 18 UNDER  
SHIELDS IN CLEAR SIGHT



## 690B DECAL LOCATIONS - (M502610)

ITEM	PART NUMBER	QTY	DESCRIPTION
1	204510	4	NAIL, 1/4" GRIP
2	235420	1	DECAL, IMPORTANT IDLER SPRG
3	345410	1	DECAL, IMPORTANT LEVEL HARV.
4	345420	1	DECAL, ROWFINDER INSTRUCT.
5	345430	1	DECAL, PATENT
6	355450	2	DECAL, ART'S-WAY LOGO 20"
7	355460	7	DECAL, STRIPE GOLD METALLIC
8	477640	2	DECAL, 690B MODEL
9	355500	1	TAG, SERIAL NUMBER FINISHED
10	449190	1	TUBE, MANUAL HOLDER
11	455160	1	CLAMP, HOSE
12	502060	1	MANUAL, BE WHOLEGOODS 690B
13	460010	1	MANUAL, PTO SAFETY
14	467420	3	DECAL, RIDERS FALL HAZARD
15	368040	1	DECAL, CAUTION-9 INSTRUCTNS
16	467440	1	DECAL, DANGER CHK ELEC CLR
17	467450	4	DECAL, WARNING MOVING PARTS
18	467430	2	DECAL, DANGER SHIELD MISSING
19	467400	2	DECAL, WARNING THROWN OB.
20	346310	1	DECAL, WARNING HIGH PRESS.
21	467460	1	DECAL, CAUTION HITCHING INST.
22	476450	3	TAPE, RED RETROREFLECTIVE
23	476460	4	TAPE, YELLOW RETROREFL.
24	476470	2	TAPE, RED-ORANGE FL.
25	510730	1	DECAL, FALL CRUSH
26	467470	1	DECAL, OVERHEAD ELEV
27	467410	2	DECAL, ROTATING ROLLS

# SPECIFICATIONS

## 690 BEET HARVESTER GENERAL DESCRIPTION

### MODEL

4 or 6 Row Tank Type Harvester

### OVERALL DIMENSIONS

Transport 14'H x 21'6"W x 18'L  
 Operating 15'3"H x 27"W x 18'L  
 Machine Weight 15,000 lbs

### TIRES

Tread Width Adjustable to row spacing  
 Tires Implement 11.00-16 12 Ply  
 Traction 13.50 x 16.1 6 Ply  
 Operating pressure 45 psi (Implement)  
 25 psi (Traction)

### TANK

Construction Welded Steel  
 Capacity 9,000 pounds  
 Unloading Chain type conveyor, actuated by electro-hydraulic valve and hydraulic motor

### ROW SPACING

4 rows 28" to 30"  
 6 rows 22" to 24"  
 Operating Speed 4.5  
 Lift and depth control\* hydraulic  
 Steering hitch control\*\* hydraulic

\*Requires 5" x 8" remote cylinder (not furnished)

\*\*Requires 4" x 8" remote hydraulic cylinder (not furnished)

### LIFTER WHEELS

(2 per row) 28" solid rim heavy duty cast steel

### LIFTER STRUTS

Heavy duty tapered bearings

### LIFTER WHEEL SCRAPERS

To prevent mud buildup on lifter wheels

### PADDLE SHAFT AND DRIVE

Type Three steel per row  
 Drive Heavy #80 roller chain with heavy duty slip clutch

### CENTER GEARBOX

Heavy, 1-3/4" Diameter Shafts  
 Capacity - 5 Qts. 90W Gear Oil

### BED CHAIN AND DRIVE

Size 25 sq. ft.  
 Type Three 42-inch wide draper chain  
 Drive #60H roller chain with friction clutch protection

### GRAB ROLLS AND DRIVE

Size 35 sq. ft.  
 Type Three 6-5/8-inch grab rolls with 3/4" spiral rods and three 5-inch smooth grab rolls adjustable spring loading and spacing  
 Drive Belt drives with spring loaded idlers

### TRUCK TO TANK LOADING ELEVATOR

Size Width, 40-inch 56mm pitch belted chain  
 Type Electro-hydraulic valve and hydraulic motor driven belted chain, reversible for tank or truck loading, retractable for transport.

### TIGHTENING TORQUE GUIDE SAE GRADE 5 - COARSE THREAD

SIZE	CLAMP LOAD	PLAIN	PLATED
1/4 - 20(.250)	2,025	8 ft. lbs.	76 in. lbs.
5/16 - 18(.3125)	3,338	17 ft. lbs.	13 ft. lbs.
3/8 - 16(.375)	4,950	31 ft. lbs.	23 ft. lbs.
7/16 - 14(.4375)	6,788	50 ft. lbs.	37 ft. lbs.
1/2 - 13(.500)	9,075	76 ft. lbs.	57 ft. lbs.
9/16 - 12(.5625)	11,625	109 ft. lbs.	82 ft. lbs.
5/8 - 11(.625)	14,400	150 ft. lbs.	112 ft. lbs.
3/4 - 10(.750)	21,300	266 ft. lbs.	200 ft. lbs.
7/8 - 9(.875)	29,475	430 ft. lbs.	322 ft. lbs.
1 - 8(1.00)	38,625	644 ft. lbs.	483 ft. lbs.
1-1/8 - 7(1.125)	42,375	794 ft. lbs.	596 ft. lbs.

### IDENTIFICATION OF SAE BOLT GRADES; HEAD MAKINGS

Grades 0, 1, and 2 no markings



Grade 5: 3 radial dashes 120° apart



Grade 8: 6 radial dashes 60° apart



# **SPECIFICATIONS**

## **TRACTOR REQUIREMENTS**

### **RECOMMENDED HORSEPOWER RATING**

4, 6 row 150 PTO HP (minimum)

### **REMOTE CYLINDERS: (NOT FURNISHED)**

(1) 4" x 8" and (1) 5" x 8"

### **HYDRAULICS REQUIREMENTS**

Tractor must be equipped with three remote hydraulic outlets, four remotes if equipped with steerable wheels. The tractor must be capable of supplying 22 gpm flow. If using the "Power Beyond" connect to the row finder, tank and elevator drives.

### **PTO SHAFT**

Tractors must have 1-3/8" or 1-3/4" diameter 1000 rpm PTO shaft. (Do Not use and adapter shaft.)

### **FRONT BALLAST**

Maximum tractor front ballast is required.

### **DRAWBAR SUPPORT (RECOMMENDED)**

### **ELECTRICAL SYSTEM**

12-Volt

## **ATTACHMENTS**

### **ROW FINDER**

To keep the harvester on the row.

### **LIFTER WHEEL CLOSE-UPS**

To prevent loss of small beets through lifter wheels

### **LIFTER WHEEL SPACERS**

To increase lifter wheel opening by 1/4" increments

### **LIFTER WHEEL CUSHIONS**

To protect lifter wheels in rocky soil conditions (standard on flex struts).

### **CONSTANT VELOCITY PTO**

Allows turning without disengaging PTO

### **FLASHING WARNING LIGHT KIT**

Recommended where regulations allow when towing harvester. Order JTY15263

### **LIGHT PACKAGE**

To light machine for night use (3 sealed beam halogen lights)

### **FIXED OR STEERABLE WHEELS**

### **EXTRA FIXED OR STEERABLE CARRIER STRUT**

Helps flotation in very wet conditions.



# Quality Manufacturers of:

- **SupRaMix®** - forage vertical tub mixer  
425, 500 or 710 cu. ft. tub capacity
- **Portable grinder mixer**  
105 bu. with 20" HammerMill or 150 bu. with 26" HammerMill.
- **GRIXXER** - grinder mixer  
Economical portable 105 bu. Grinder Mixer with a 20" HammerMill — other options available.
- **CATTLEMAXX** - Cattle Processing  
105 bu. or 150 bu. with 20" RollerMill for cattle applications.
- **HammerMills**  
26" electrically or PTO driven mill.
- **RollerMills**  
10", 20", 30" or 36" PTO or electrically driven mills.
- **SCALE SYSTEMS**  
Electronic weighing equipment — from basic weighing to a computerized system.  
Platform Scales  
Universal Scales  
Small Animal Scales  
Mounting Scales  
Scale Accessories  
Indicators, single ingredient & batching.
- **UFT Grain Drills**  
10', 12', 15', 20' seeding width
- **Speedy Edible Bean Equipment**
- **Finishing Mowers**  
60" or 72" Mid-Mount Mowers.  
72" Rear Mount Mowers
- **Eversman PreSeeder**  
15' to 30' tillage tool that prepares the ideal seed bed, incorporates chemicals and plants in one pass.
- **Eversman Ditchers**  
43" to 84" ditch width.  
20" to 33" ditch depth.
- **Eversman Land Planes**  
16', 20' & 24' blade widths.
- **Sugar Beet Defoliators**  
4 to 12 row defoliators with different row spacings. Optional hydraulic or mechanical scalpers.
- **Sugar Beet Harvesters**  
4 to 8 row harvesters with different row spacings.
- **MEGA cater**  
4-row potato harvester.
- **LOGAN** - Potato Equipment  
Potato Harvesters, Potato Planters, Windrowers and Bulk Boxes.
- **Art's-Way/UFT Flail Shredders**  
Various size cutting widths.
- **Grain Wagons**  
350 bu. or 475 bu. center dump.  
280 bu., 320 bu., 390 bu., 470 bu. side dump.

**Art's-Way Manufacturing Co., Inc.**

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