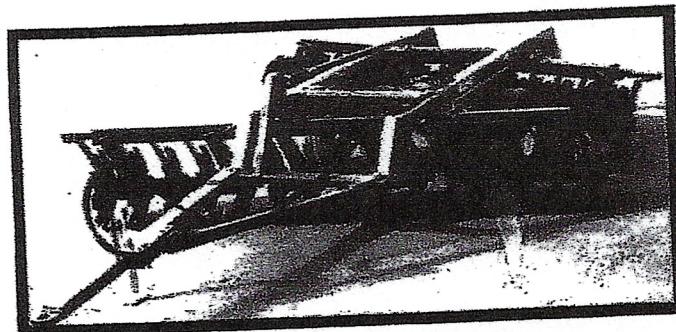


Model 210/225 Single Offset Disc

Owner's Manual

**210 Models - 1926B / 2326B
2726B / 3126B**

**225 Models - 1926B / 2326B
2726B / 3126B**



KELLO-BILT INC

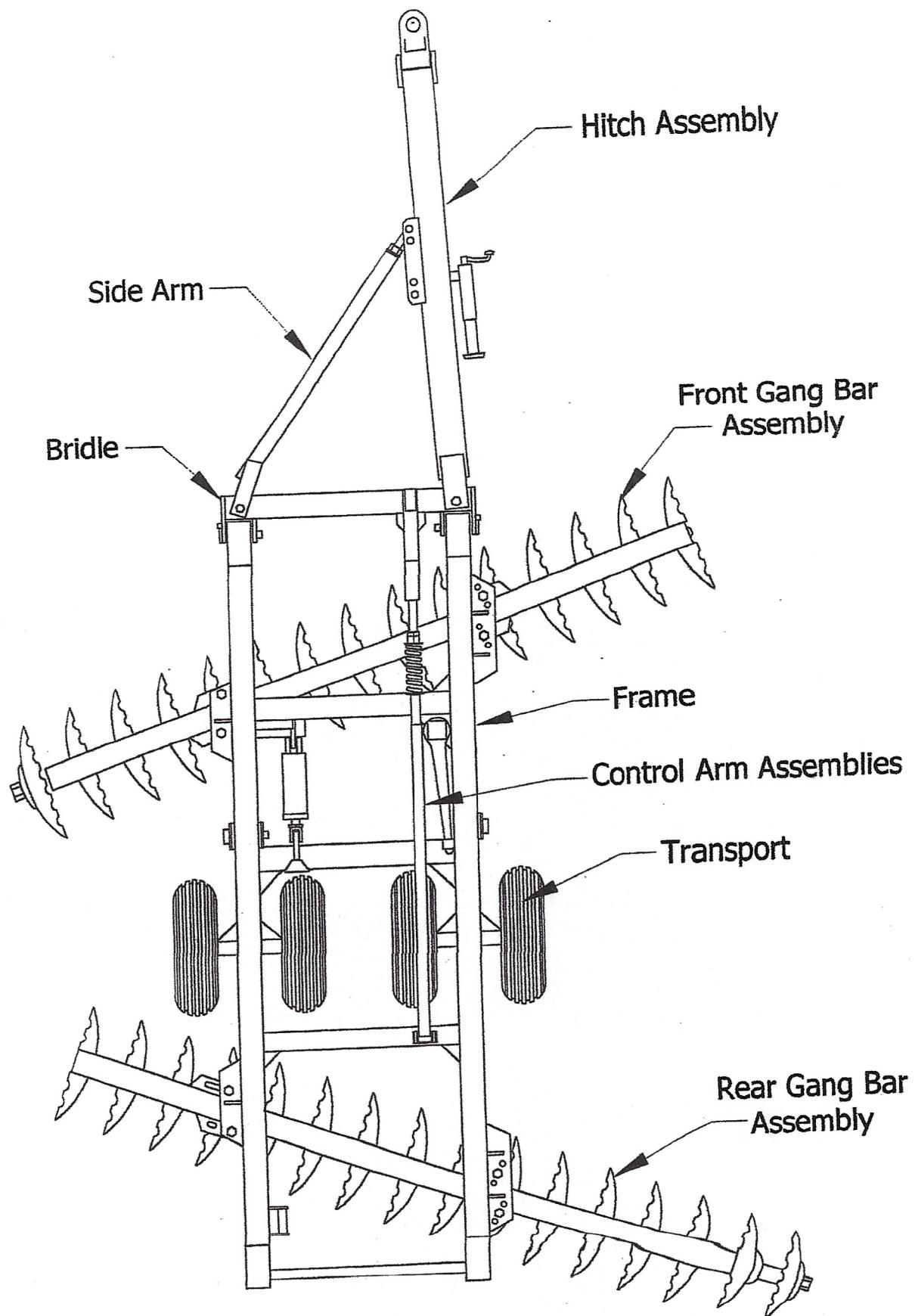
*Kellough Enterprises Inc.
#3, 7491 - 49 Avenue
Red Deer, AB
T4P 1N1*

TABLE OF CONTENTS

<i>Disc Layout</i>	1
<i>Hitch Assembly</i>	2
<i>Main Frame Assembly</i>	4
<i>Control Arm Assemblies</i>	6
<i>Scraper Assemblies</i>	7
<i>Disc Gang Assemblies</i>	8
<i>Greasable Bearing Assembly</i>	10
<i>Oil Bath Bearing Assembly</i>	11
<i>6-Bolt Hub Assembly</i>	12
<i>Hydraulic Cylinder Assemblies</i>	13
<i>Depth Control Segments</i>	14
<i>Hydraulic Group Layout</i>	15
<i>Transport Safety</i>	16
<i>Operation Safety</i>	17
<i>Maintenance Safety</i>	18
<i>Adjustments and Operation</i>	19
<i>Maintenance and Lubrication Schedule</i>	22
<i>Grease Daily</i>	23
<i>Maintenance Instructions</i>	24

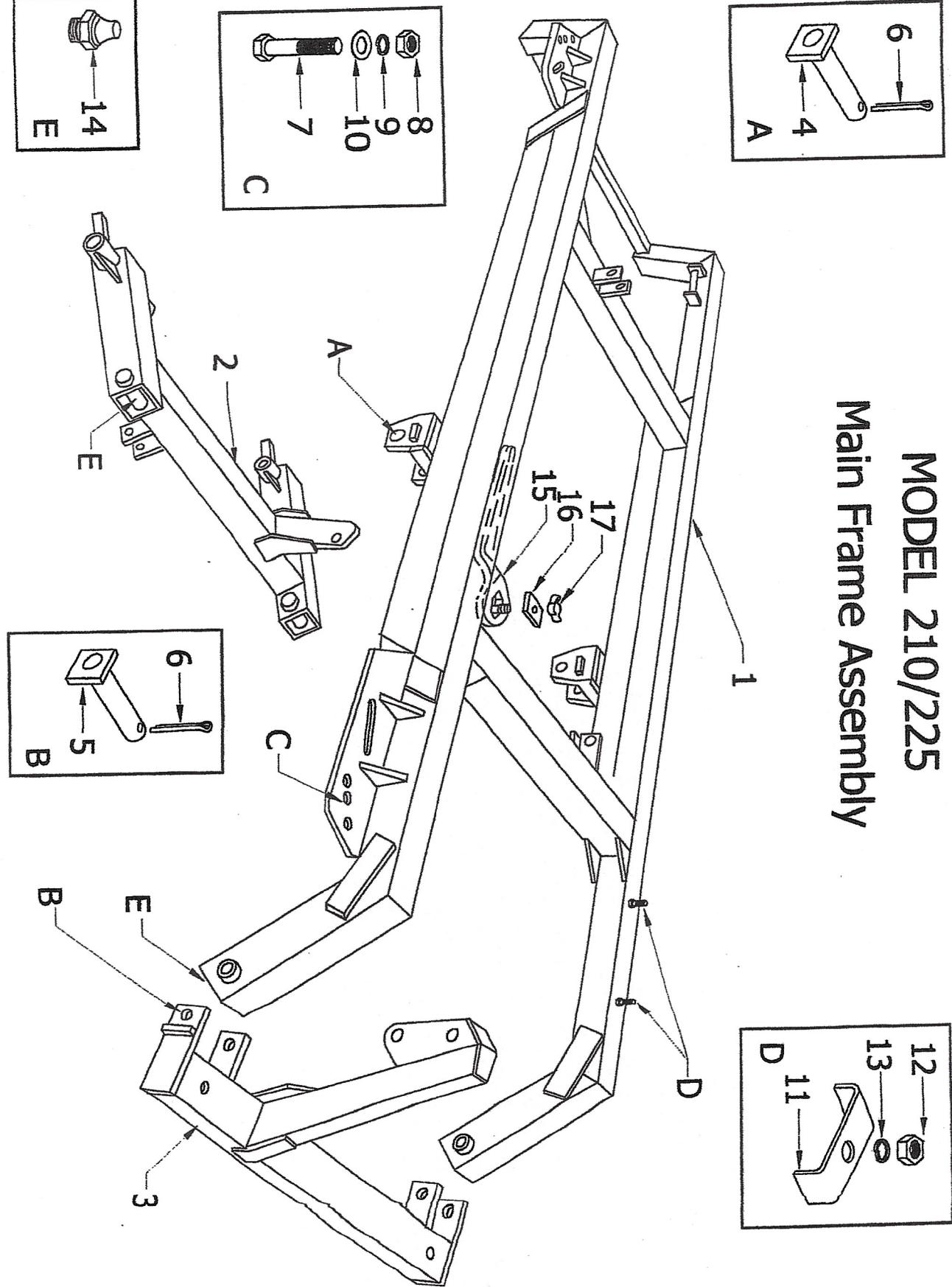
Model 210/225 Single Offset Disc Layout

(Right Hand Model Illustrated)



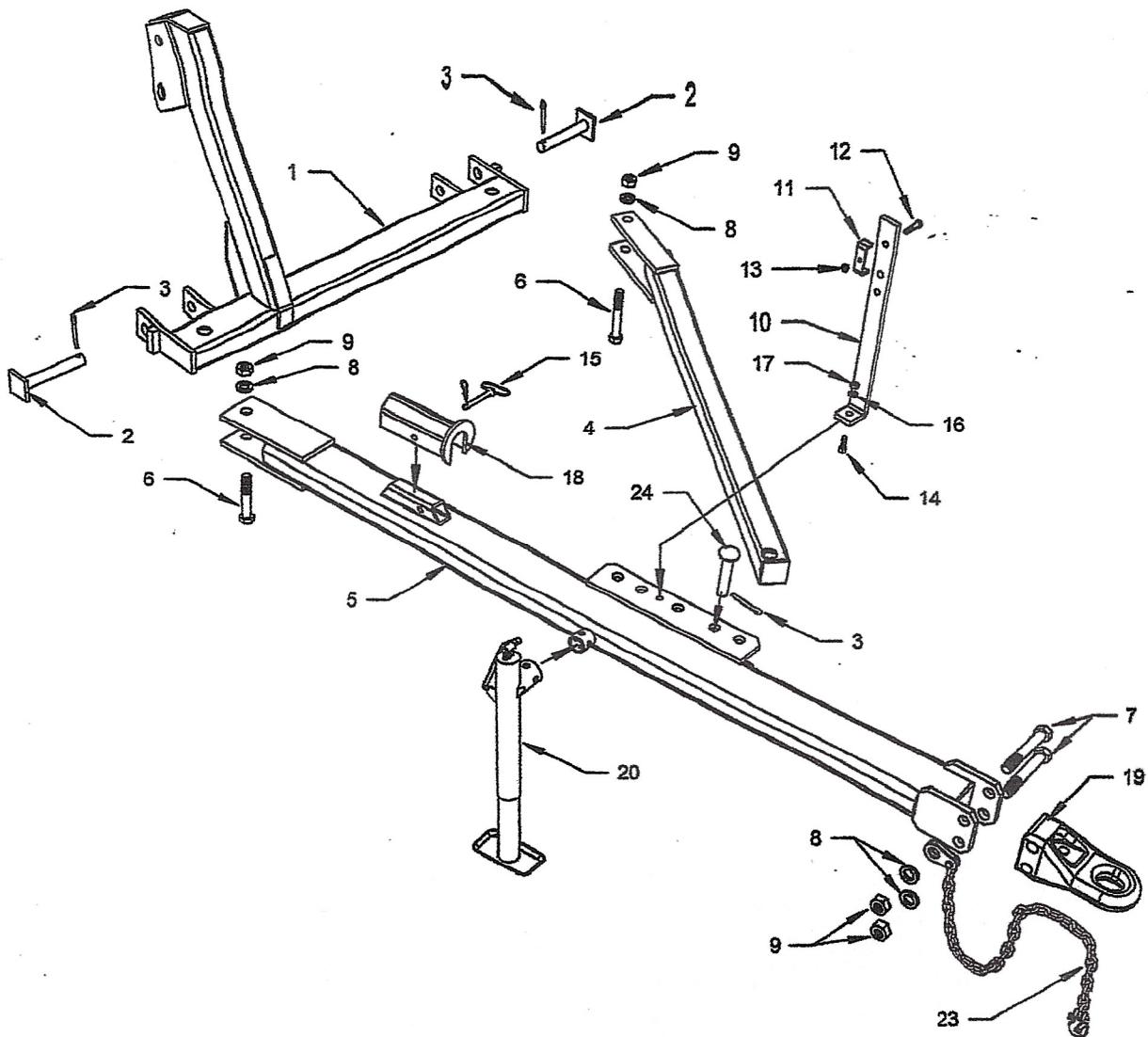
MODEL 210/225

Main Frame Assembly



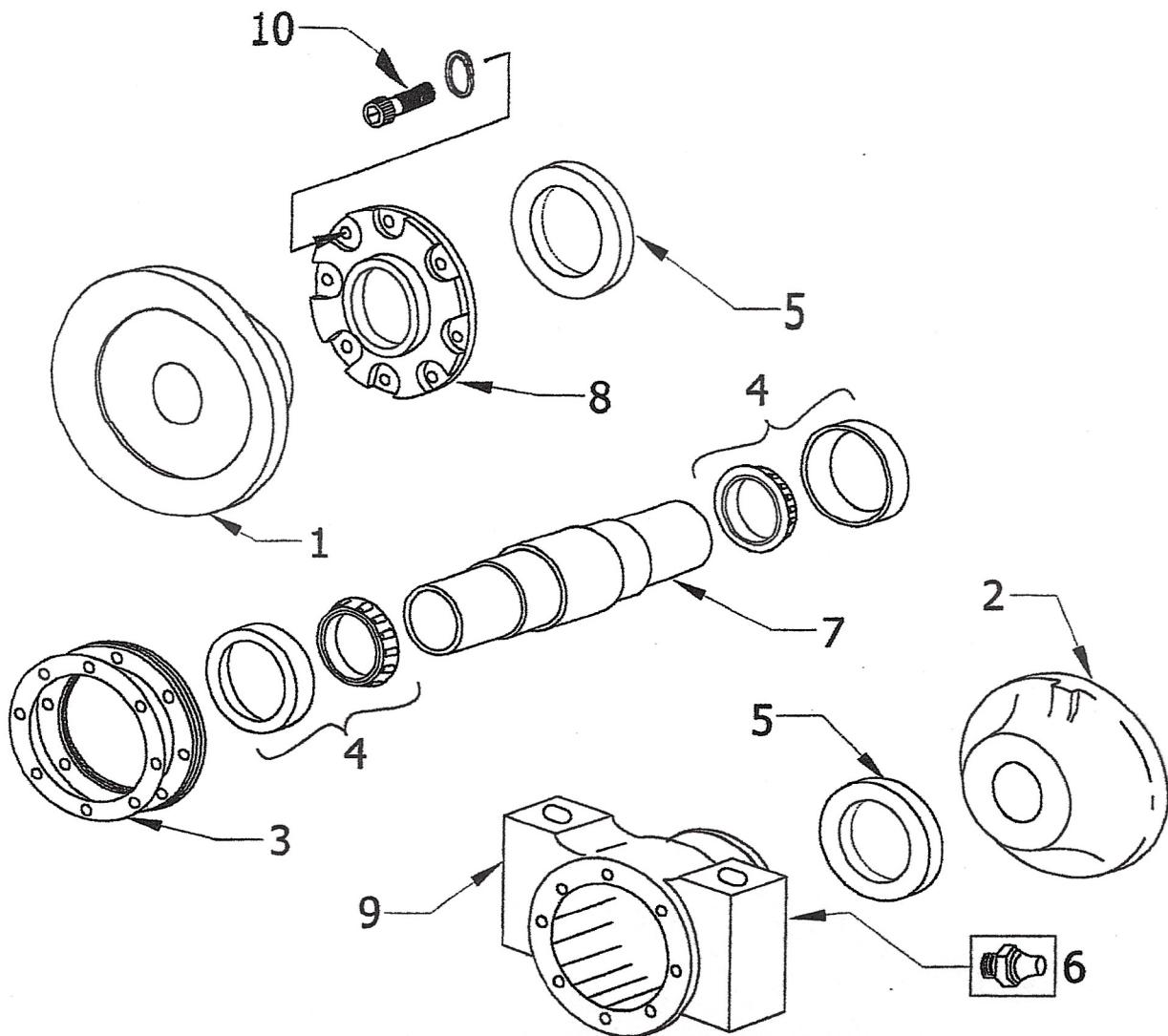
MODEL 210/225 Main Frame Assembly

REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
1	K12050	Main Frame, Right	1
1	K12010	Main Frame, Left (DoubleWides only)	1
2	K13010R	Transport, Right	1
2	K13010L	Transport, Left (DoubleWides only)	1
3	K10270	Bridle, Right	1
3	K10230	Bridle, Left (DoubleWides only)	1
4	3027270	Pin, Transport	2
5	3027222	Pin, Bridle	2
6	375300CP	Cotter Key	4
7	088350B8	Bolt	8
8	NC-088-8	Hex Nut	8
9	LW-088	Lock Washer	8
10	FW-088	Flat Washer	8
11	TBX-50	Hose Clamp	2
12	NC-038	Hex Nut	2
13	LW-038	Lock Washer	2
14	AL-012ZK	Grease Zerk	4
15	2R-81	Gang Wrench	2
16	3043010	Gang Wrench Hold Down Plate	1
17	NC-050-W	Wing Nut	1



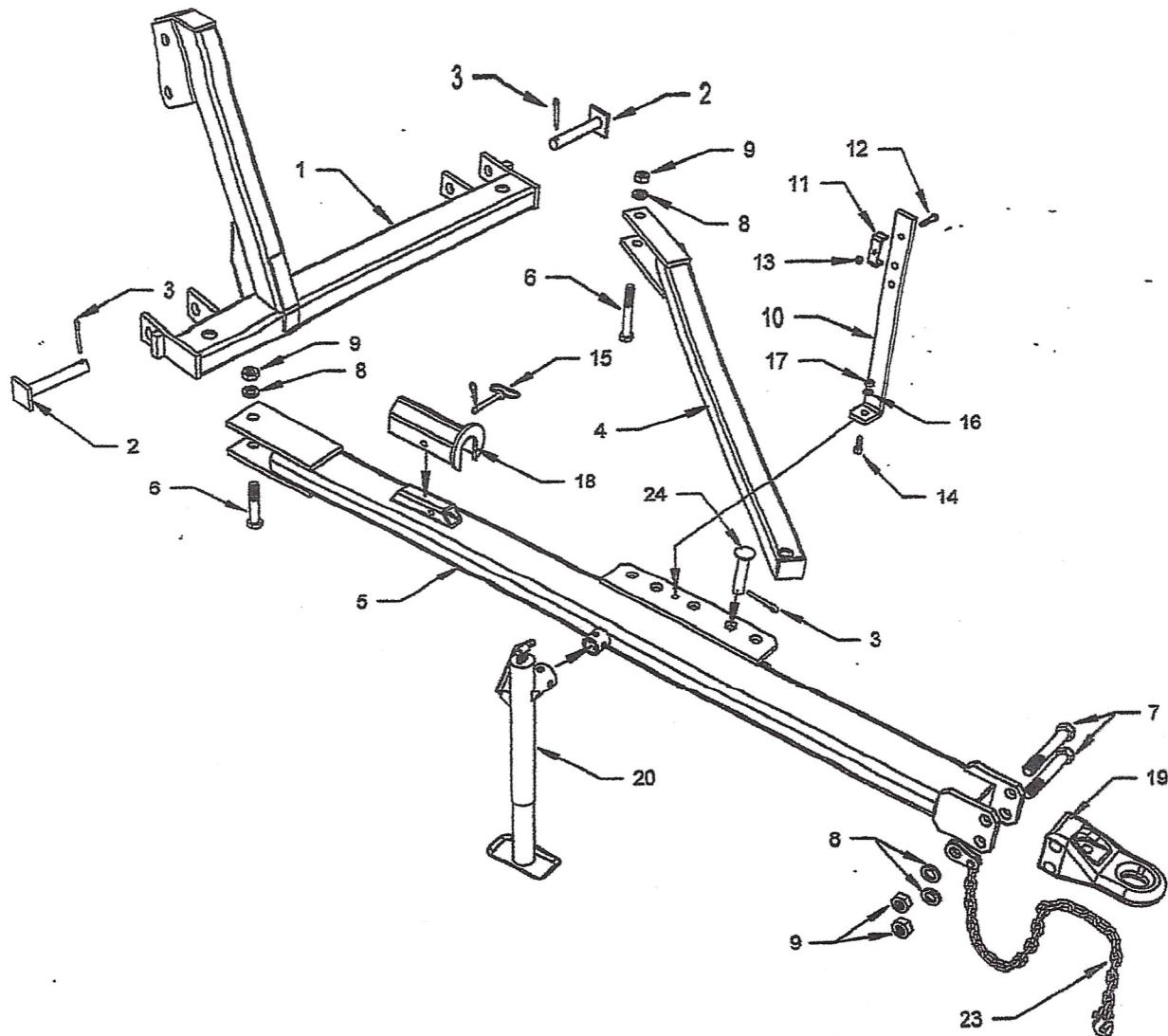
**Hitch and Bridle Assembly - Models -1926B / -1928B
-2326B / -2328B / -2726B / -2728B**

REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	K10270	Bridle	1
2	3027222	Bridle Pin	2
3	375300CP	Cotter Pin	3
4	K10210	Side Arm	1
5	K10120	Drawbar	1
6	100600B8	1" X 6" UNC Hex Bolt	2
7	100800B8	1" X 8" UNC Hex Bolt	2
8	LW100	1" Lock Washer	4
9	NC100	1" Hex Nut	4
10	501064054	Hose Holder	1
11	TBX50	Hose Clamp	1
12	038200B5	3/8" X 2" UNC Bolt	1
13	NC038L	3/8" Lock Nut	1
14	050150B5	1/2" X 1-1/2" UNC Hex Bolt	1
15	442160	Pin c/w Hair Pin	1
16	LW050	1/2" Lock Washer	1
17	NC050	1/2" Hex Nut	1
18	CTS080	Transport Stay	1
19	PPI301VH	Removable Hitch Tongue	1
20	TBX8	Hitch Jack	1
23	PPISC11A	Safety Chain (Cat I)	1
24	3027199	Side Arm Pin	1



10 1/2" GREASABLE BEARING - Part No 501044193

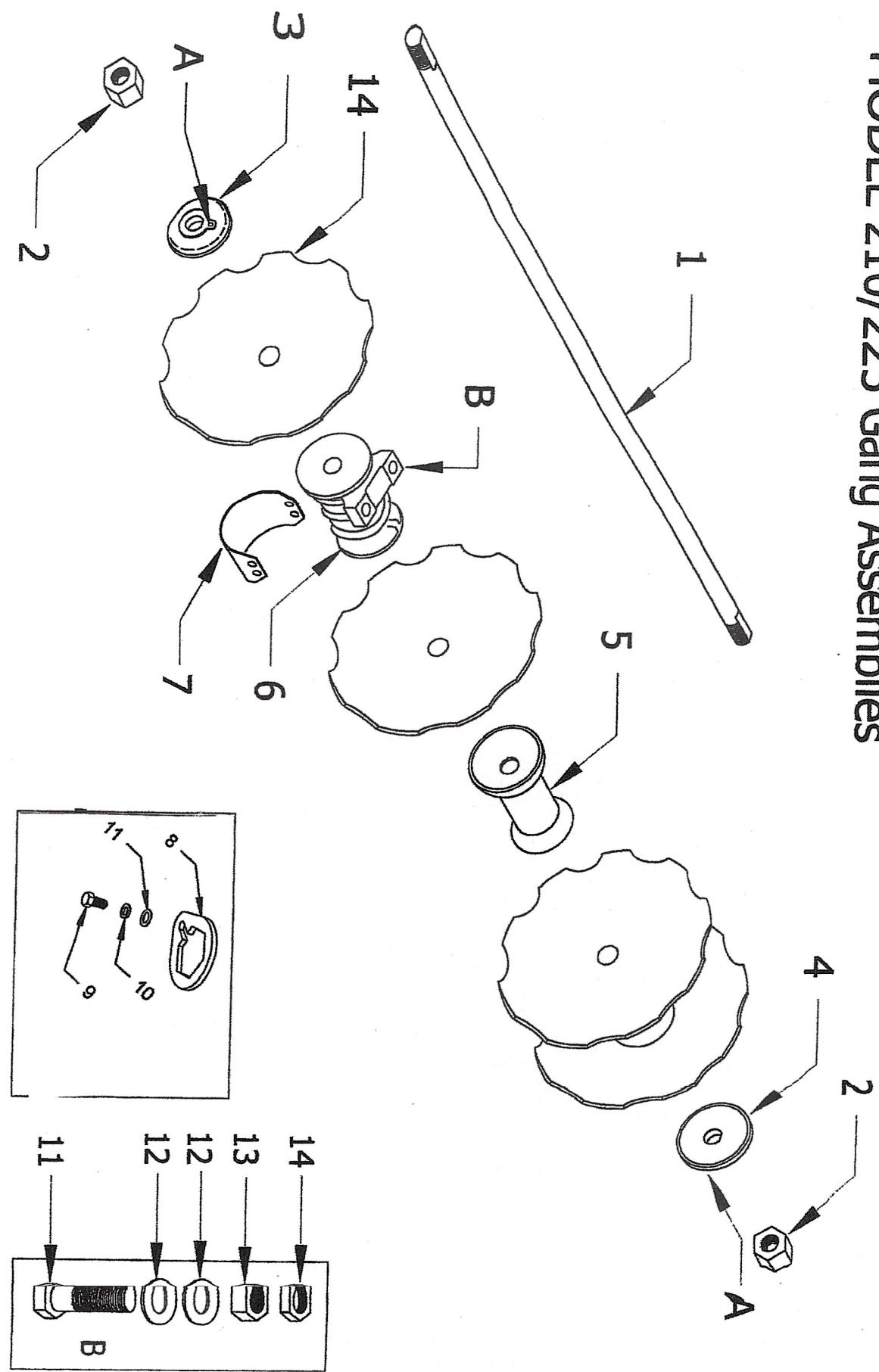
REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	502040195	Inner Flange - Concave	1
2	502040196	Outer Flange - Convex	1
3	503030300	Gasket (Shim)	
4	503010107	Bearing, Cup & Cone	2
5	503011143	Grease Seal	2
6	AL-025ZK	Grease Fitting	1
7	502040197	Bearing Axial	1
8	502010947	End Cap	1
9	502010946	Bearing Housing	1
10	036125B5	End Cap Bolt	10

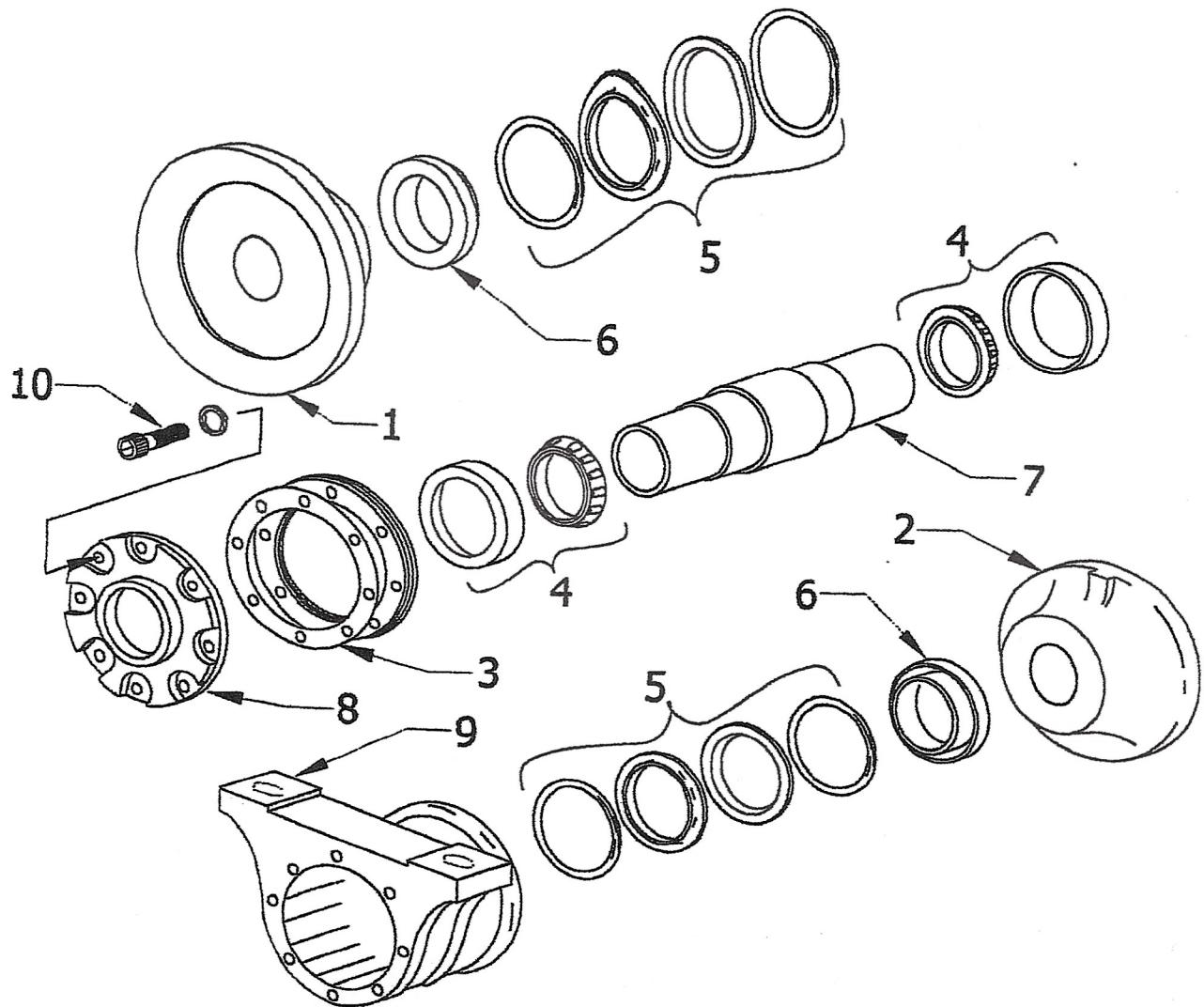


**Hitch and Bridle Assembly - Models -1926B / -1928B
-2326B / -2328B / -2726B / -2728B**

REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	K10270	Bridle	1
2	3027222	Bridle Pin	2
3	375300CP	Cotter Pin	3
4	K10210	Side Arm	1
5	K10120	Drawbar	1
6	100600B8	1" X 6" UNC Hex Bolt	2
7	100800B8	1" X 8" UNC Hex Bolt	2
8	LW100	1" Lock Washer	4
9	NC100	1" Hex Nut	4
10	501064054	Hose Holder	1
11	TBX50	Hose Clamp	1
12	038200B5	3/8" X 2" UNC Bolt	1
13	NC038L	3/8" Lock Nut	1
14	050150B5	1/2" X 1-1/2" UNC Hex Bolt	1
15	442160	Pin c/w Hair Pin	1
16	LW050	1/2" Lock Washer	1
17	NC050	1/2" Hex Nut	1
18	CTS080	Transport Stay	1
19	PPI301VH	Removable Hitch Tongue	1
20	TBX8	Hitch Jack	1
23	PPISC11A	Safety Chain (Cat I)	1
24	3027199	Side Arm Pin	1

MODEL 210/225 Gang Assemblies



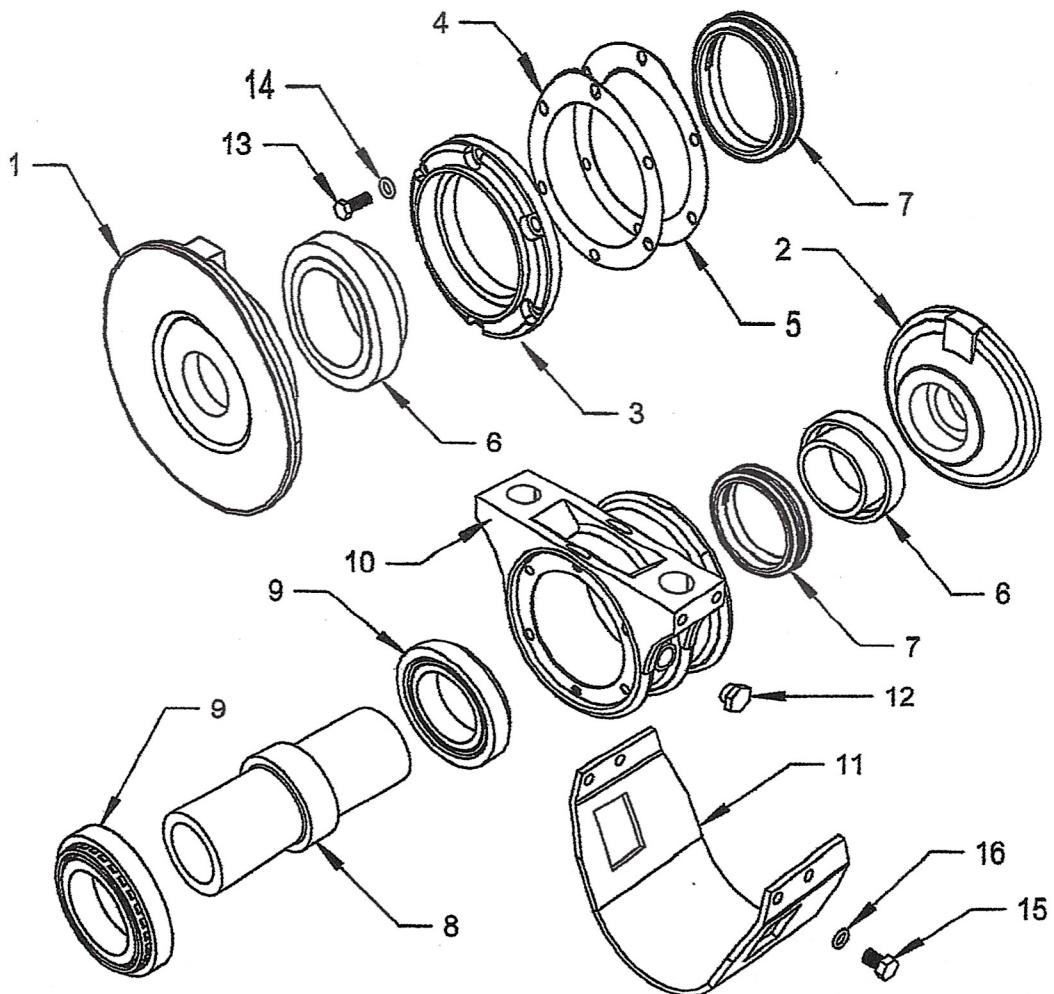


10 1/2" OIL-BATH BEARING - Part No 501040387

REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	502040195	Inner Flange - Concave	1
2	502040196	Outer Flange - Convex	1
3	503030300	Gasket (Shim)	
4	503010107	Bearing, Cup & Cone	2
5	503030028	Duo-Cone Seal	2
6	502040198	Seal Retainer	2
7	502040197	Bearing Axial	1
8	502010294	End Cap	1
9	502010293	Bearing Housing	1
10	050150B5	End Cap Bolt	10

**MODEL 210/225 Gang
Assemblies**

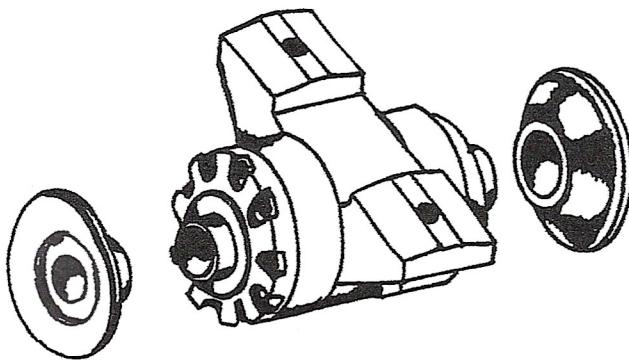
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1						
1						
1						
1						
1						
1						
1						
1						
1						
1						
2	2	2	2	2	2	2
3	1	1	1	1	1	1
4	1	1	1	1	1	1
5	1	2	3	4	5	6
6	2	2	2	2	2	2
6	2	2	2	2	2	2
7	2	2	2	2	2	2
7	2	2	2	2	2	2
8	2	2	2	2	2	2
9	2	2	2	2	2	2
10	2	2	2	2	2	2
11	4	4	4	4	4	4
11	4	4	4	4	4	4
12	8	8	8	8	8	8
13	4	4	4	4	4	4
14	4	4	4	4	4	4
15	4	5	6	7	8	9
15	4	5	6	7	8	9
15	1	1	1	1	1	1
15	1	1	1	1	1	1
15	1	1	1	1	1	1



Oil-Bath Bearing Assembly - 511048212 (2-1/8" Axle)

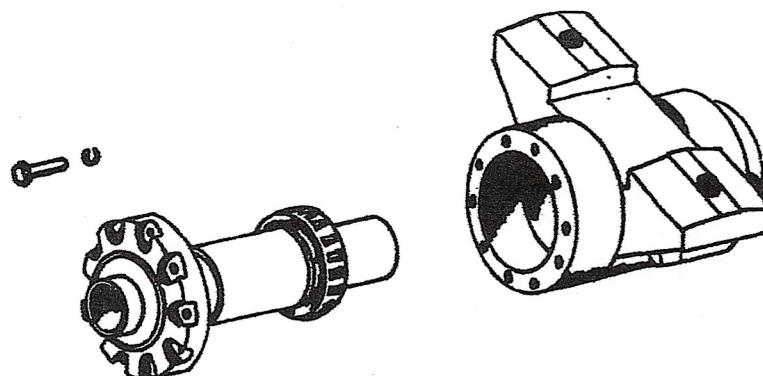
REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	502040195	Inner Flange - Concave	1
2	502040196	Outer Flange - Convex	1
3	502010645	End Cap	1
4	503030536	Gasket - 0.4mm (Preload Shim)	
5	503030686	Gasket - 0.1mm (Preload Gasket)	
6	561014959	Seal Retainer	2
7	503030028	Duo-Cone Seal	2
8	561014958	Bearing Axial	1
9	503010117	Bearing Cup and Cone	2
10	502012618	Bearing Housing	1
11	511016371	Wear Plate	1
12	503010856	Check Plug	2
13	038125B5	3/8" X 1-1/4" UNC Hex Bolt	6
14	LW038	3/8" Lock Washer	6
15	050075B8	1/2" X 3/4" UNC Hex Bolt	4
16	LW050	1/2" Lock Washer	4

Bearing Replacement Procedure



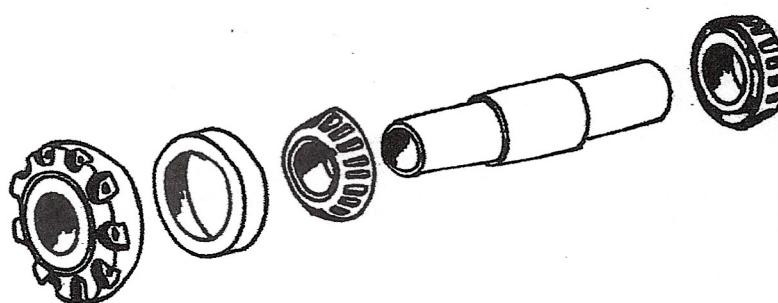
Remove Half Spools

Drain oil from unit. Half spools are pressed onto ends of interior housing. Apply pressure evenly when removing to avoid damage.



Extract Interior Housing

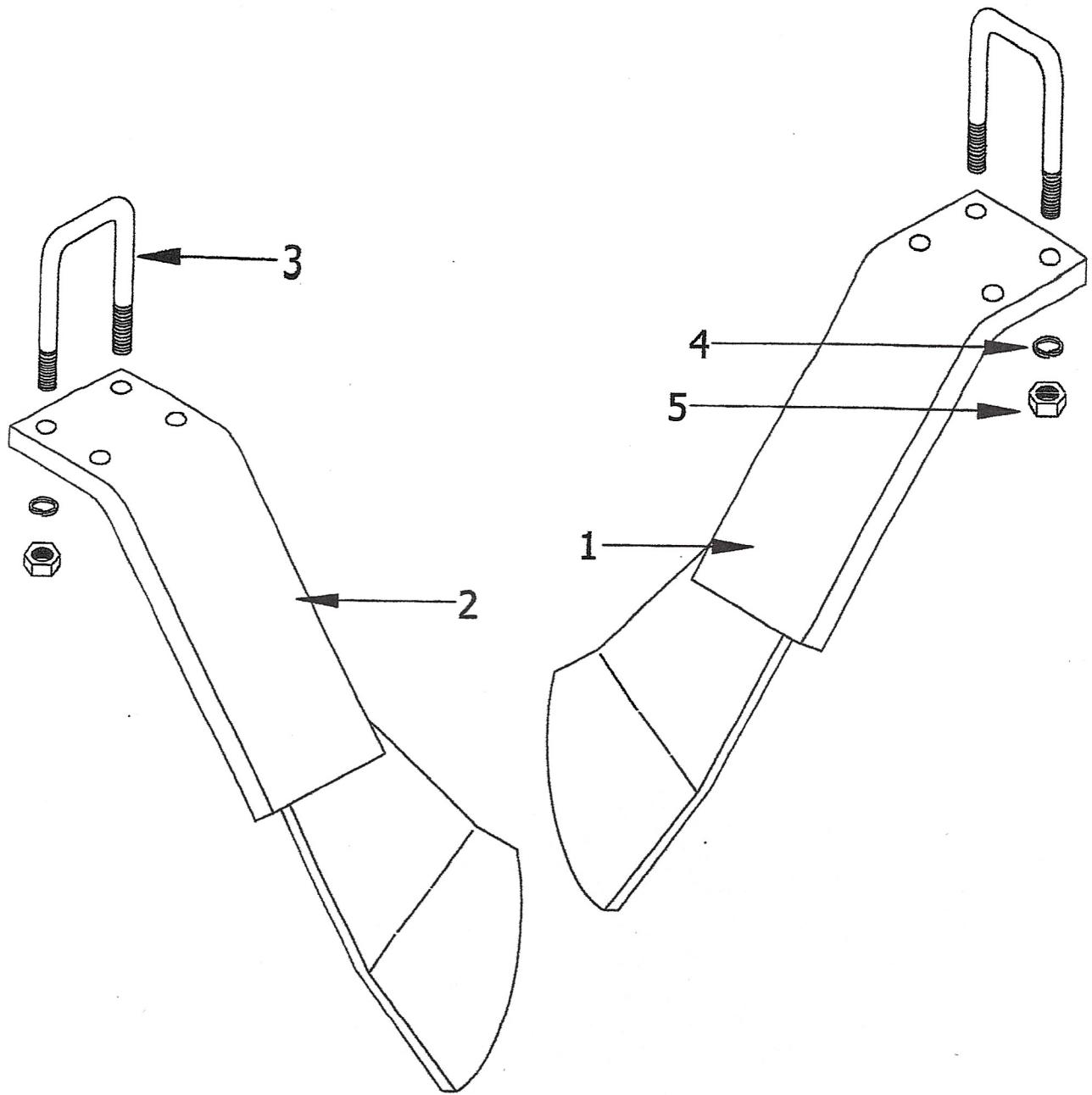
Remove bolts from End Cap. Press out interior housing.



Remove End Cap

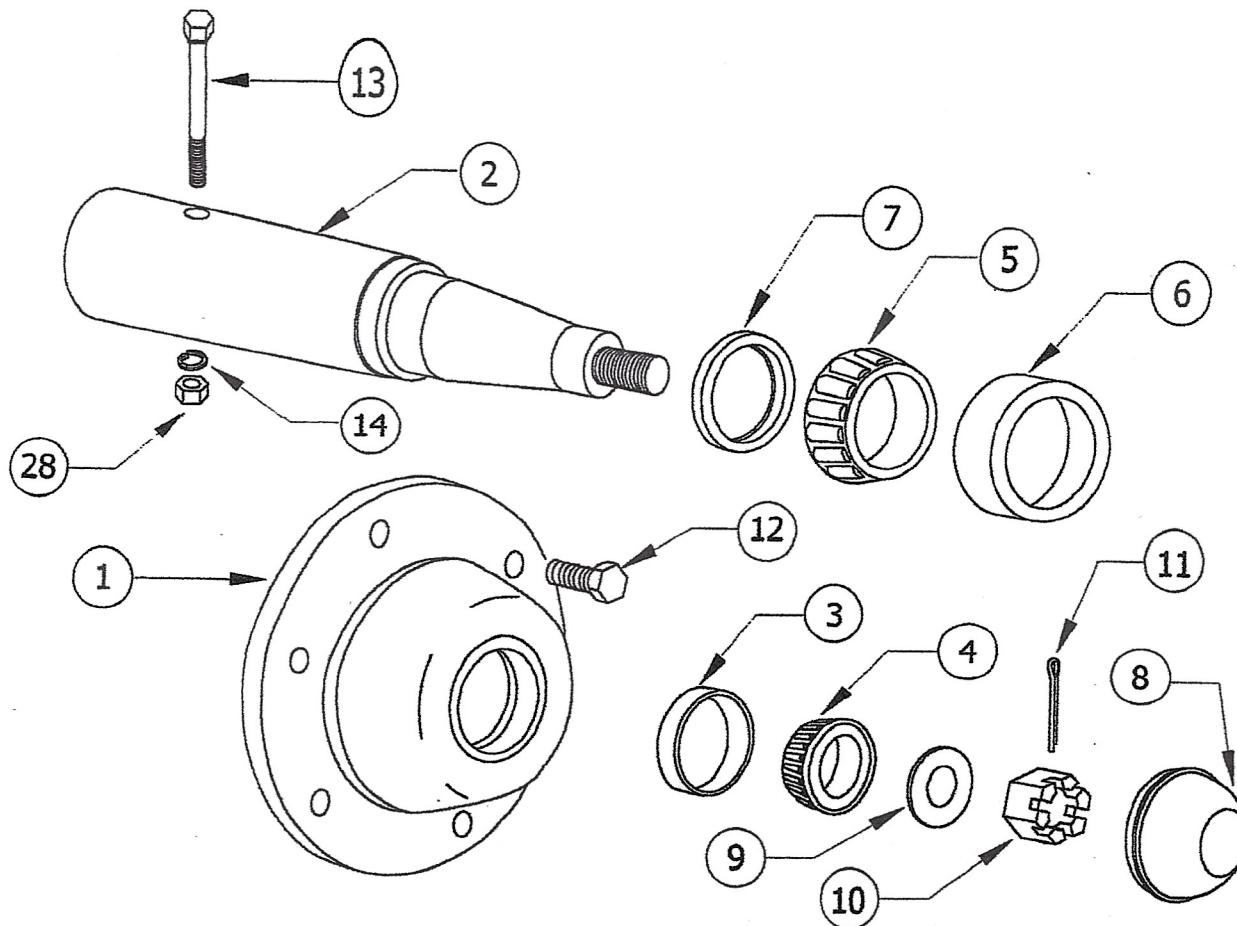
Remove cones from interior housing. Replace and reassemble. Refill unit with specified new oil.

NOTE: It is recommended that new O-Rings, Gaskets and Seals be installed when replacing bearings. See Parts Diagram.



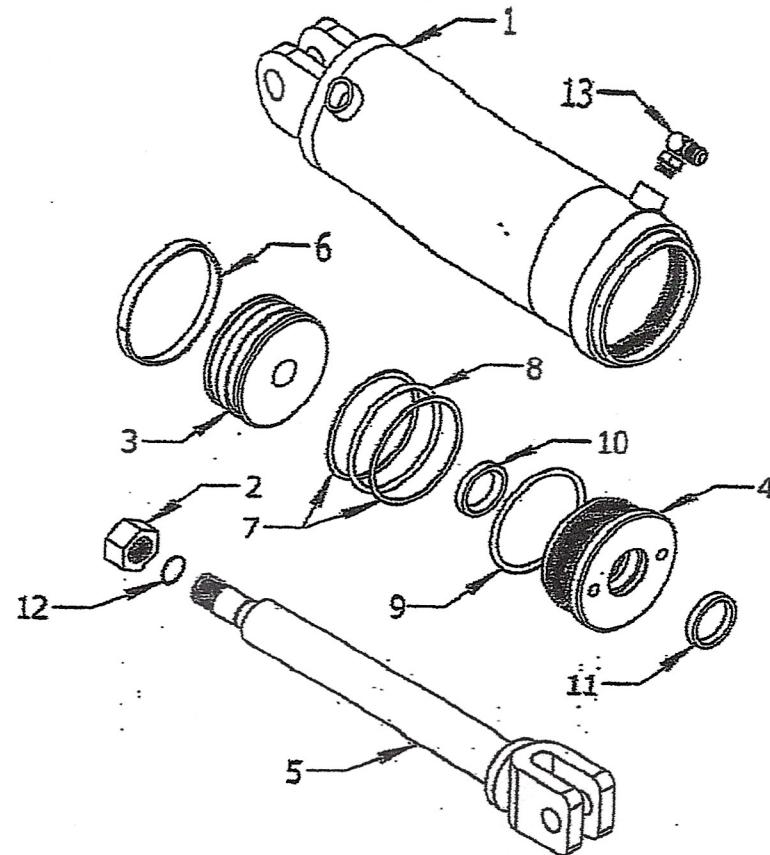
MODEL 210/225 Scraper Assemblies

Ref No	Part No	Description	No Req'd
1	3043097	Left Hand Scraper	
2	3043116	Right Hand Scraper	
3	3027043	1/2" U-Bolt	2 per Scraper
4	LW-050	1/2" Lock Washer	4 per Scraper
5	NC-50	1/2" Hex Nut	4 per Scraper



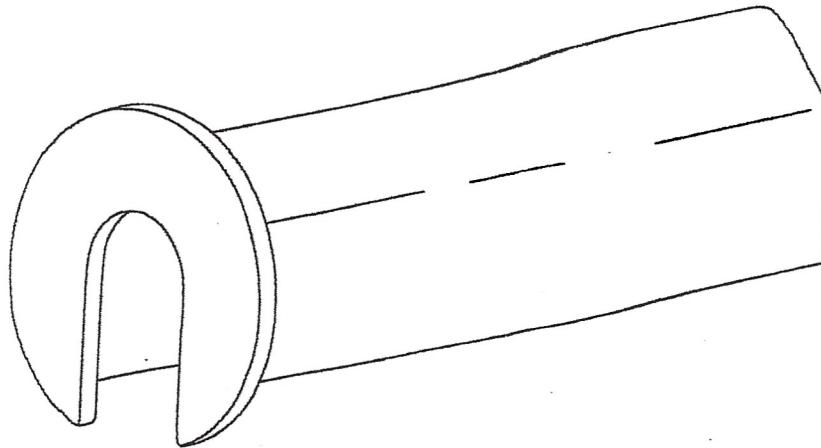
6 - Bolt Hub Assembly

REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	H614	Hub	1
2	3043128	Spindle	1
3	LM48510	Outer Cup	1
4	LM48548	Outer Cone	1
5	LM603049	Inner Cone	1
6	LM603011	Inner Cup	1
7	5004991	Seal	1
8	DC-15	Dust Cap	1
9	FW-100H	Flatwasher, 1" Hardened	1
10	NF-100S	Slotted Hex Nut, 1"	1
11	CK-019150	Cotter Key	1
12	WB-12	Wheel Bolt	6
13	050400B5	Bolt	1
14	LW-050	Lock Washer	1
15	NC-050-5H	Hex Nut	1



5004971 - 8" HYDRAULIC CYLINDER

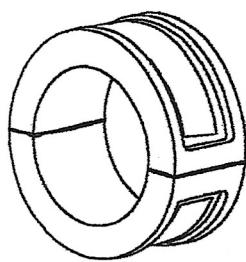
Item	Part Number	Description	QTY
1	5005018	Barrel	1
2	5005014	Locknut	1
3	5005032	Piston	1
4	5005022	Gland	1
5	5005015	Rod	1
6	5005011	Wear Ring	1
7	5005010	Back-Up Ring	2
8	5005009	O-Ring	1
9	5005005	O-Ring	1
10	5005023	Rod Seal	1
11	5005030	Rod Wiper	1
12	5005013	O-Ring	1
13	5000611	90 deg Elbow	2
	SKC50-86A	Seal Kit (Nos 6,7,8,9,10,11,12)	



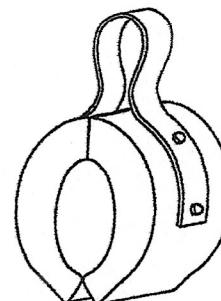
Cylinder Transport Stay

PART NUMBER	DESCRIPTION
CTS080	Cylinder Transport Stay for 8" Stroke Cylinder
CTS120	Cylinder Transport Stay for 12" Stroke Cylinder
CTS160	Cylinder Transport Stay for 16" Stroke Cylinder

Style A



Style B



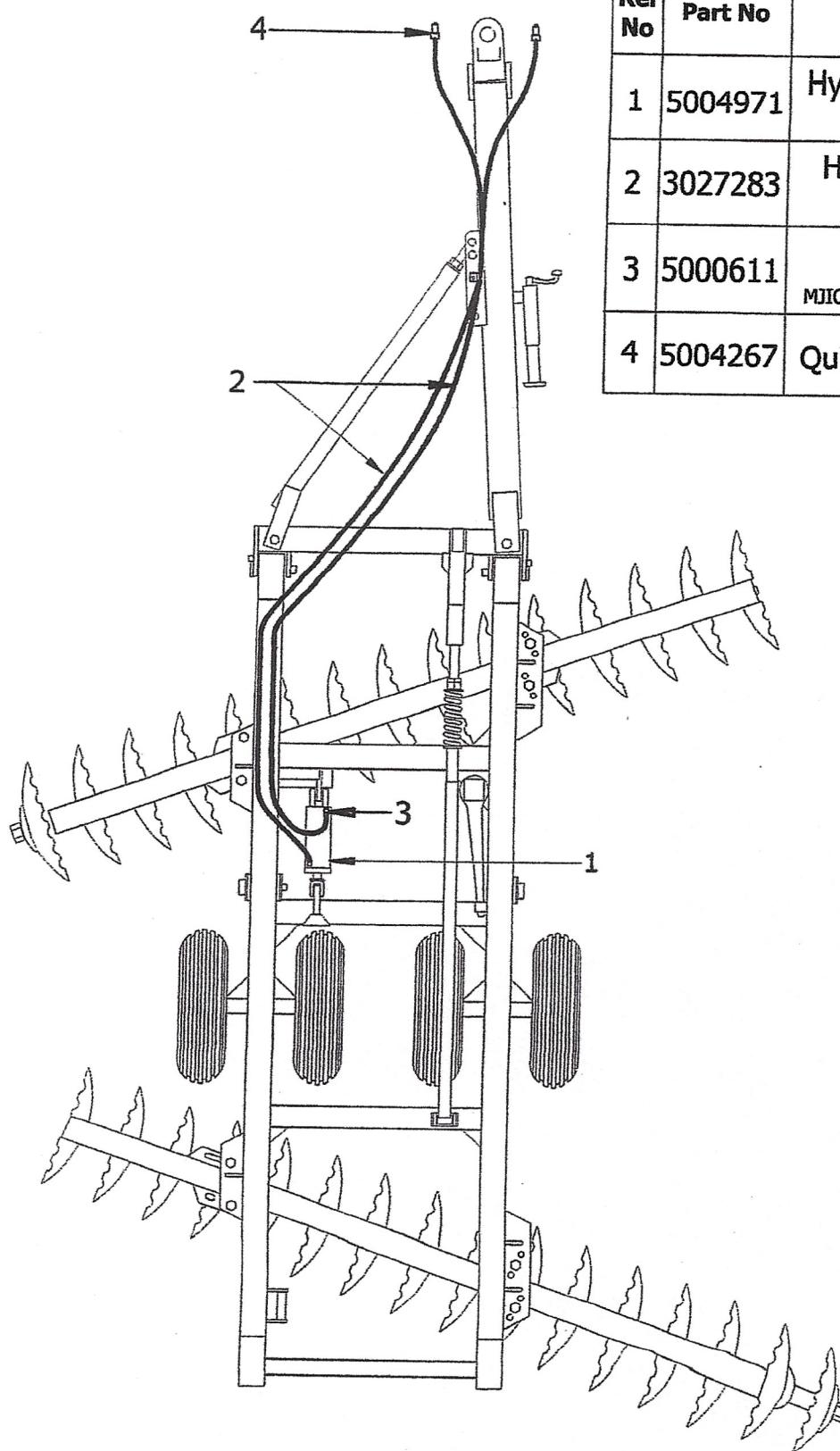
Depth Control Segments

PART NUMBER		DESCRIPTION
STYLE A	STYLE B	
501043620A	501043620B	1" Rod Stop
501043688A	501043688B	1 1/2" Rod Stop
501045100A	501045100B	2" Rod Stop

NOTE: Quantity varies with model and width.

Model 210/225 Hydraulic Group Layout

(Right Hand Model Illustrated)



Ref No	Part No	Description	No Req'd
1	5004971	Hydraulic Cylinder 5" X 8"	1
2	3027283	Hose Assembly 1/2" X 204"	2
3	5000611	90° Elbow MJIC 3/4"-16 to 3/4"-16 ORB	2
4	5004267	Quick Disconnect	2



OPERATION SAFETY



- 1. BECOME FAMILIAR WITH THE DISC AND ITS OPERATION BEFORE USING THE UNIT.**
Read the Operator's Manual carefully and contact your dealer if you have any questions.
- 2. NEVER ALLOW RIDERS ON THE TRACTOR OR DISC.**
Serious injury could result from falling in the path of the disc while in operation or transport.
- 3. BE SURE BYSTANDERS ARE CLEAR OF THE DISC BEFORE RAISING OR LOWERING THE DISC AND/OR FOLDING OR UNFOLDING THE WINGS.**
Accidental movement of the controls or hydraulic failure could cause the disc and/or the wings to suddenly fall.
- 4. BE SURE BYSTANDERS ARE CLEAR BEFORE OPERATING THE DISC.**
Before entering the tractor, walk around the disc making sure no one is on, inside or in front of the disc. Moving the disc while someone is between or in front of the gang assemblies could result in serious injury.
- 5. NEVER WORK UNDER A RAISED DISC.**
Always lower the disc to the ground before inspecting or servicing. Never rely on the hydraulic system to hold the disc up.
- 6. USE EXTREME CAUTION WHEN WORKING AROUND DISC BLADES.**
The blades are sharp and could cut hands, legs, etc. Wear gloves to handle disc blades or gang assemblies.
- 7. BEFORE DISMOUNTING THE TRACTOR TO SERVICE OR MAKE ADJUSTMENTS ALWAYS:**
 1. LOWER THE DISC TO THE GROUND.
 2. SHUT THE TRACTOR OFF.
 3. ENGAGE THE TRACTOR'S PARKING BRAKE.
 4. RELIEVE THE HYDRAULICS BY MOVING THE CONTROL BACK AND FORTH.
 5. REMOVE THE KEY.

Inadvertent or unintentional movement of the disc while working around the disc gangs could result in serious personal injury.
- 8. NEVER OPERATE A WING DISC WITH THE WINGS FOLDED.**
A wing disc being operated with the wings folded may become unstable and effect the stability of the tractor.



TRANSPORT SAFETY

- 1. USE CARE WHEN HITCHING THE DISC TO THE TRACTOR.**
Hands or fingers can be injured when caught between the hitch and the tractor.
- 2. NEVER ALLOW RIDERS ON THE TRACTOR OR DISC.**
Serious personal injury can result from falling in the path of the disc while in operation or transport.
- 3. OBSERVE LAWS AND REGULATIONS WHILE TRANSPORTING DISC.**
Never transport disc at speeds greater than 25 MPH. Reduce speed and exercise caution on turns, bridges, rough roads, steep grades and other adverse conditions.
- 4. INSTALL ALL LOCKING DEVICES BEFORE TRANSPORTING DISC.**
When transporting, raise disc to full height and place transport lock(s) over hydraulic cylinder shaft(s) and put wing locks in place (if applicable). Without these devices installed, the disc could fall during transport and cause injury to the operator or bystanders and/or damage to the disc and tractor.
- 5. IF THE TRACTOR IS EQUIPPED WITH A SWINGING DRAWBAR, LOCK THE DRAWBAR IN THE FIXED POSITION.**
- 6. USE SAFETY CHAINS TO SECURE DISC TO TRACTOR DURING TRANSPORT.**
- 7. BE SURE WARNING DEVICES ARE IN PLACE, CLEAN AND VISIBLE.**
Be sure an SMV emblem is attached to the rear of the disc as well as any other devices, such as accessory lights, required by local regulations.
- 8. USE THE PROPER SIZE AND GRADE OF PIN TO ATTACH DISC TO TRACTOR.**
- 9. CHECK WHEEL BOLTS FOR TIGHTNESS AND ENSURE TIRES ARE PROPERLY INFLATED AND FREE OF CUTS AND ABRASIONS.**
The failure of either of these components could cause the disc to swing uncontrollably and make it difficult to steer the tractor.
- 10. REMOVE DEBRIS OR LOOSE SOIL FROM DISC BEFORE TRAVELING ON PUBLIC ROADS.**
Falling debris and soil can be a hazard to following and approaching traffic.
- 11. DO NOT TOW ANOTHER IMPLEMENT BEHIND DISC UNLESS PROPER MODIFICATIONS HAVE BEEN MADE AND IT IS PERMITTED BY LOCAL ORDINANCE.**
- 12. WHEN TRANSPORTING A WING DISC, BE CAREFUL OF OVERHEAD POWER LINES AND UNDERPASSES.**



MAINTENANCE SAFETY



- 1. BEFORE SERVICING THE DISC, ALWAYS:**
 1. LOWER THE DISC TO THE GROUND.
 2. SHUT THE TRACTOR ENGINE OFF.
 3. ENGAGE THE TRACTOR'S PARKING BRAKE.
 4. RELIEVE THE HYDRAULICS BY MOVING THE CONTROL BACK AND FORTH.
 5. REMOVE THE IGNITION KEY.
- 2. NEVER WORK UNDER A RAISED DISC.**
- 3. PERIODICALLY, VISUALLY INSPECT THE DISC.**

Look for hydraulic leaks and broken, missing or malfunctioning parts the may fail and cause personal injury. Make the necessary repairs.
- 4. USE CAUTION WHEN INFLATING TIRES.**

Stand to one side away from the tire when inflating to avoid the possibility of personal injury due to blowoffs, etc. Never exceed the manufacture's maximum PSI displayed on the sidewall of the tire.
- 5. BEFORE DISCONNECTING ANY HYDRAULIC LINE, RELIEVE THE HYDRAULIC PRESSURE.**

Hydraulic fluid escaping under pressure can have sufficient force to penetrate the skin causing serious personal injury. If injured by escaping fluid, obtain medical treatment immediately.
- 6. HANDLE GANG ASSEMBLIES AND DISC BLADES WITH CARE.**

The disc blades are sharp and could cut hands, feet, etc. Wear gloves when handling the blades or gang assemblies. If the gang assemblies are removed from the disc for repair, use chock blocks to prevent the assembly from rolling.
- 7. PURGE AIR FROM THE HYDRAULIC SYSTEM BEFORE OPERATION.**

Always be sure the hydraulic lines and cylinders are free of air and do not leak. After connecting new parts, replacing old parts, or servicing the hydraulic components, carefully cycle the hydraulic cylinders several times to purge entrapped air from the system and check all components for leaks.

ADJUSTMENTS AND OPERATION

HITCH THE TRACTOR TO THE DISC

- Use the proper size and quality drawbar pin.



Be careful of injuries to hands and fingers when hitching disc to tractor.

- Connect the hydraulic hoses to the tractor. Make sure the fittings are clean and free of dirt and grit. Dirty fittings may allow contaminants to enter the hydraulic system and damage hydraulic components. Check that the hoses have enough slack to allow for turning.
- Lower the jackstands, unpin, swivel into storage position and pin in place. To avoid any possible damage to the jackstand, remove completely during operation.

REMOVE ALL TRANSPORT AND WING LOCK DEVICES

- On level ground:

Transport Locks - Lift the frame(s) slightly with the tractor hydraulics to relieve pressure on the lock device placed over the hydraulic cylinder shaft. Remove and store the lock device on the hose holder with the bolt provided.

Wing Locks - Before unfolding wings remove locking pins or arms. Be sure the disc is on level ground before folding or unfolding the wings. Do not fold or unfold the wings while in motion.



Never operate a wing disc with the wings in the folded position.



Before folding or unfolding wings, make sure hydraulic fold cylinders are charged with hydraulic oil. Failure to charge these cylinders may cause the wings to suddenly fall and cause serious damage or injury

MAKE SURE ALL ROUTINE MAINTENANCE HAS BEEN COMPLETED

- Grease all fittings.
- Check wheel bolts are present and tight.
- Check all gang nuts are present and tight.
- Check all nuts and bolts are present and tight.
- Visually check bearings for signs of oil seepage.
- Check hydraulic fittings are tight and free of leaks.
- Check all pins and their respective cotter keys are in place.
- Check tires are inflated properly and free of cuts or abrasions.

MAINTENANCE AND LUBRICATION SCHEDULE

AFTER FIRST 8 HOURS OR 100 ACRES OF OPERATION

- Grease all zerks.
- Check bearings for signs of oil seepage.
- Retighten bearing to bearing hanger bolts.
- Retighten wheel bolts and check tire inflation.
- Check all hydraulic fittings are tight and free of leaks.
- Check all pins and their respective cotter keys are in place.
- Remove nut locks, retighten gang nuts and reinstall nut locks.
- Retighten all frame to gang bar bolts and hitch to bridle bolts.

DAILY OR EVERY 10 HOURS OF OPERATION

- Grease all zerks with the exception of the wheel hubs.
 Use a pressure lubrication gun and apply a sufficient amount of No. 2 multi-purpose lithium grease or equivalent to flush out the old grease wipe grease fitting clean before greasing.
- Visually check for oil seepage from bearings and hydraulics, missing bolts or pins and loose or damaged running gear.

EVERY SEASON OR EVERY 6 MONTHS

- OIL BATH BEARINGS - Remove fill plug on the side of the bearing. The oil level should reach the bottom of the fill plug hole when the unit is level. If it does not, fill with a good quality SAE 90W gear oil until it runs out of the fill plug hole. Clean and replace the fill plug.

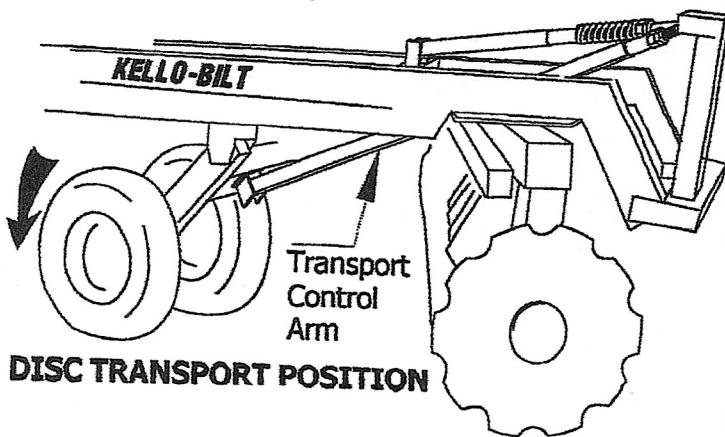
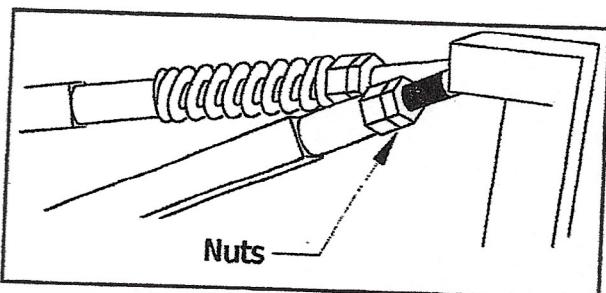
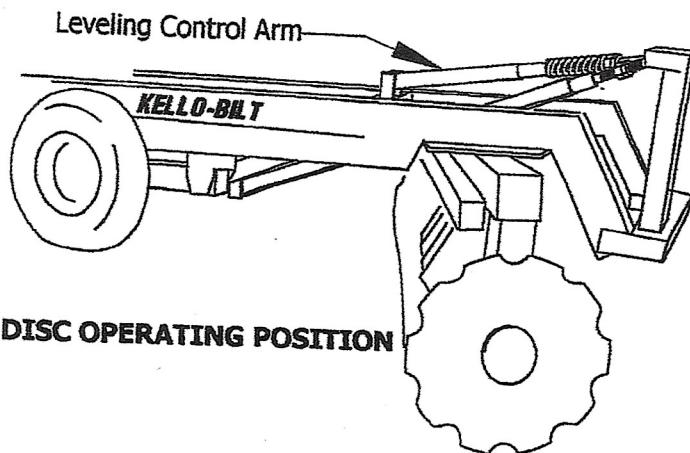
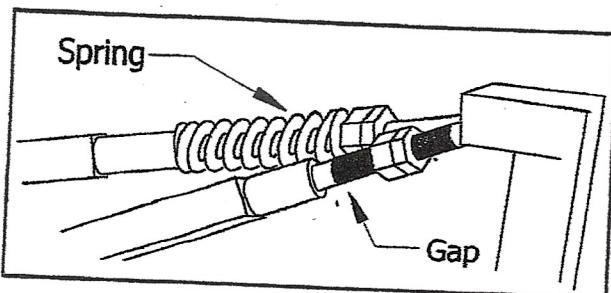


NOTE: After a prolonged period of storage and the expansion and contraction of the seals due to extreme temperature fluctuations, oil may be seen to seep from the seal area of the bearing. This is normal and the seals should reseat themselves when they are returned to service. Please check to ensure the seepage ceases and top up the oil if necessary.

- WHEEL HUBS - Remove the wheel hubs, repack and preload the bearings.
- HYDRAULIC SYSTEM - Carefully inspect all hydraulic hoses for leaks, abrasions and cracks. Replace hoses if necessary. Tighten all fittings.

ADJUSTING LEVELING CONTROL AND TRANSPORT CONTROL

These adjustments are best made in the field. Adjustments suitable for one tractor or field condition may not be correct if field conditions change or the disc is attached to a different tractor. Check these settings and readjust if necessary.



Fore/Aft Leveling Control Arm

The leveling arm is used to transfer pressure to the rear of the disc in order to increase the penetration of the rear gang. Pressure is increased by tightening the nut against the spring. This adjustment is best made when the disc is in the raised position. When the disc is lowered to the operating position, the spring should be snug but never fully compressed. Once the desired setting is made, lock the first nut with the jam nut. The leveling control should be checked and readjusted whenever there is a change made in discing depth. If the disc is used with the wheels fully raised, little or no pressure should be placed on the spring. If discing through a sharp depression, ditch or valley, raise the disc with the wheels to prevent undue pressure being applied to the spring and leveling system.

Transport Control Arm

The transport arm is used to level the disc when it is in the transport position - out of the ground and fully raised. This adjustment is best made with the disc lowered in the operating position. In this position there is a gap between the nut and the sleeve. If the nut is turned clockwise, the front of the disc will be raised. If the nut is turned counter-clockwise, the front of the disc will be lowered. After adjusting the nut, lift the disc to the transport position. If the frame is not level, lower the disc and adjust the nut accordingly. Repeat if necessary, until the disc is level in the transport position. Once the desired setting is made, lock the first nut with the jam nut.



When backing-up with the disc, it is advisable not to lift the disc to the full transport position. Carry the disc as low as possible to prevent it from overbalancing to the rear which may damage the control arms.

CHECK TIRE PRESSURE REGULARLY

- Recommended MAXIMUM tire pressure is:
11L X 15 Highway Service Implement Tire - 45 PSI

CHECK WHEEL BEARINGS FOR SIDE PLAY

- Grease hubs weekly or every 60 hours.
- If side play is evident, remove dust cap and cotter key. Tighten slotted nut until there is a noticeable drag while turning the wheel. DO NOT BACK OFF THE NUT. Reinstall new cotter key and replace dust cap.
- In severe service or high usage conditions, clean and repack the hubs once each year. Replace bearings and seals if they are not in satisfactory condition. Clean all components with kerosene or other suitable solvent. Repack bearings with No. 2 multi-purpose lithium grease or equivalent. When placing the hub on the spindle, care must be exercised to avoid damaging the seal. To adjust bearing load, adjust the slotted nut until there is a noticeable drag while turning the wheel. Do not back the nut off. Secure the nut with a new cotter key. Reinstall dust cap making sure it is seated properly. Check for side play after first day or 10 hours of operation.

STORAGE

- If the disc is to be parked for an extended period of time:
 1. Wash disc paying particular attention to bearing seal, hub seal and hydraulic cylinder seal areas.
 2. Unfold wings. In hot weather the hydraulic oil in the wing fold cylinders may expand sufficiently to cause the wing to unfold without warning.
 3. Lower disc to the ground to take pressure off tires and hydraulics. Put hitch jack in place and unpin from tractor.
 4. Apply a light coat of grease to any exposed hydraulic cylinder shafts to prevent rusting or pitting.