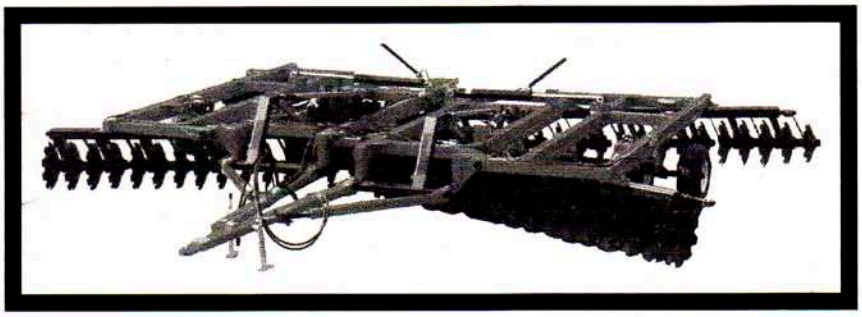
Model 225DOW
Four-Section Flexible Double Wing Disc

Owner's Manual

Models - 5826B / 6226B
6626B / 7026B
7428B / 7828B
8228B / 8628B

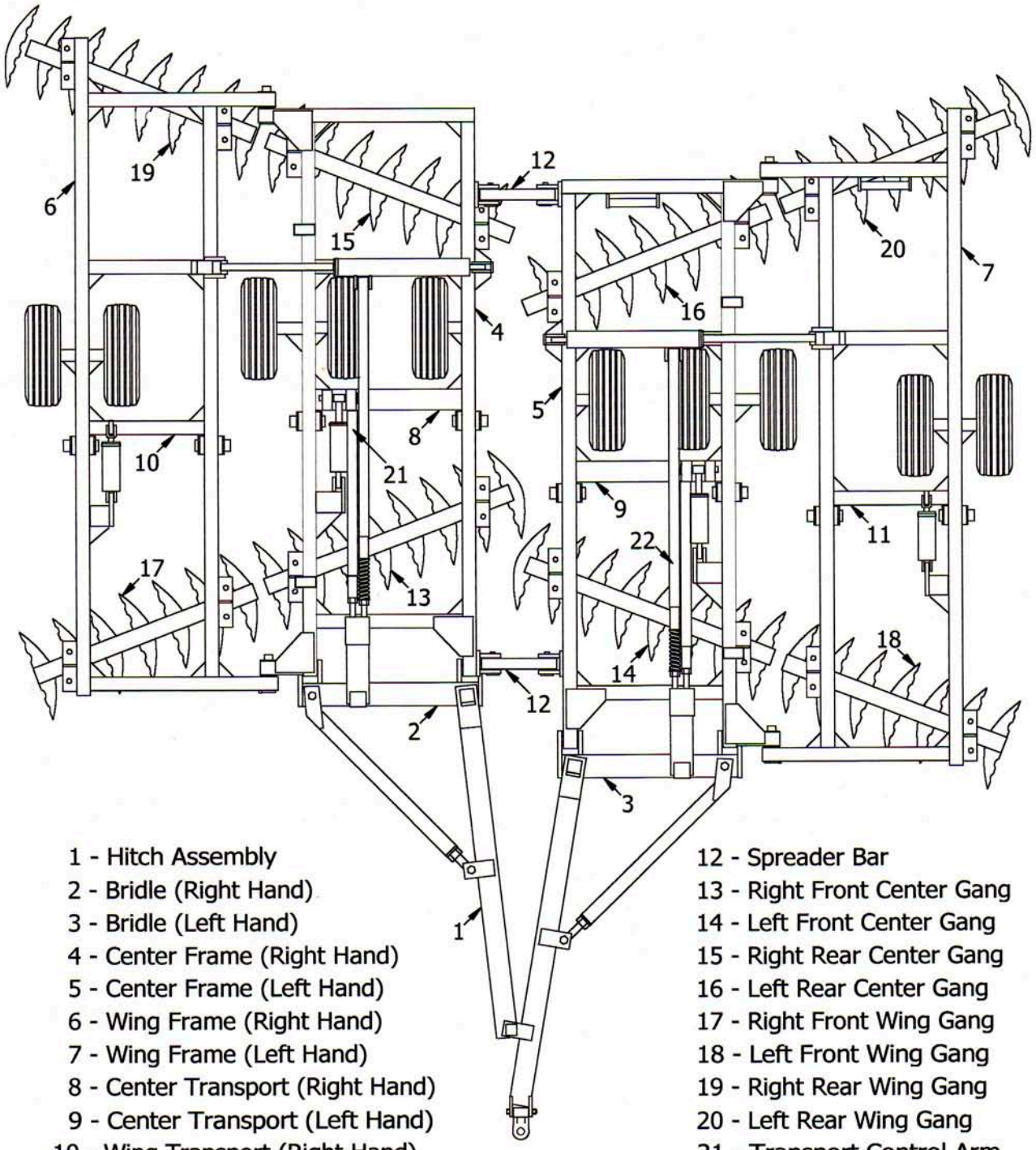


KELLO-BILT INC

#207-37565 Hwy 2
Red Deer County, Alberta
CANADA T0C 2J0
Phone (403) 347-9500
Toll Free: 1-877-613-9500

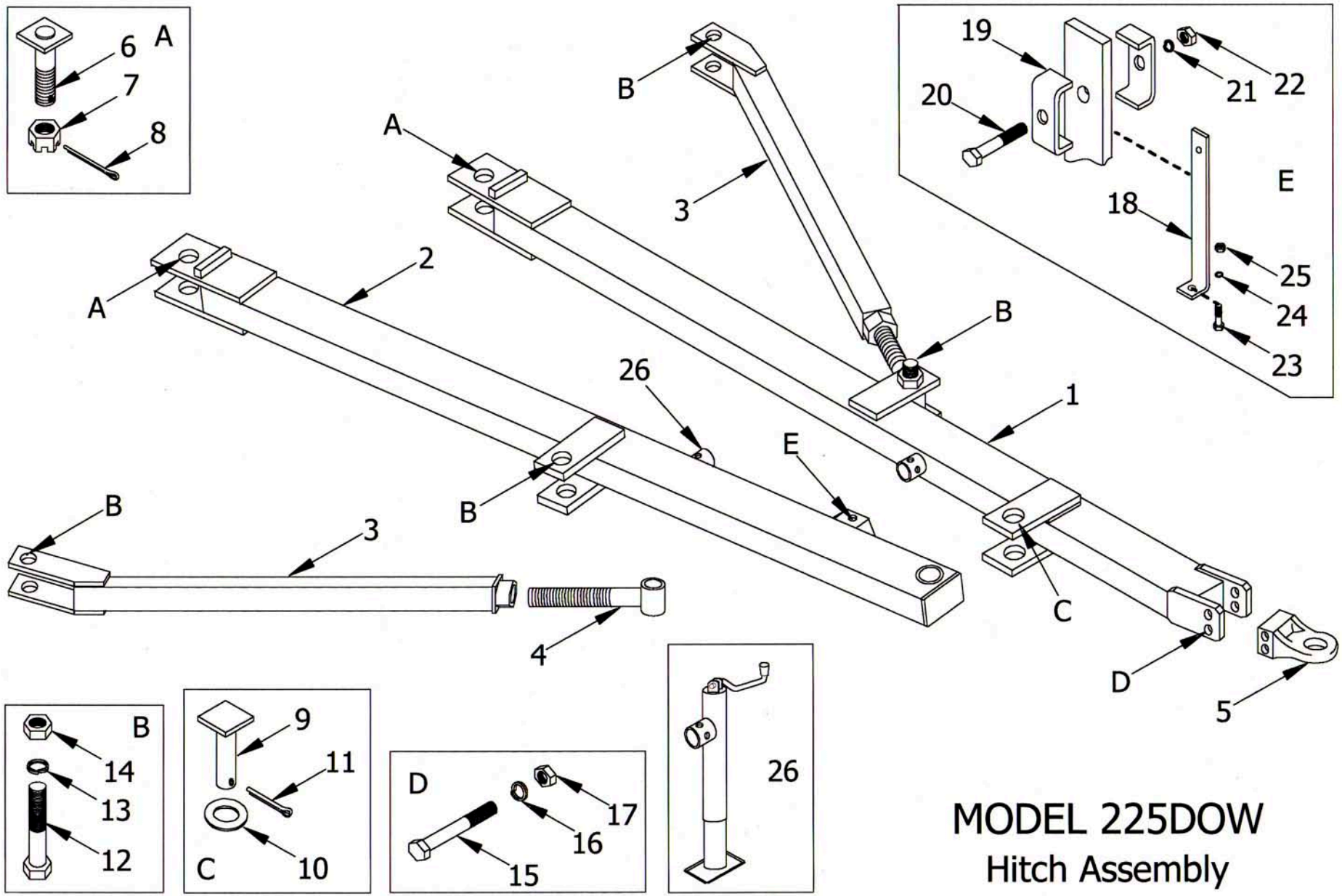
TABLE OF CONTENTS

RIGHT HAND LEFT HAND



1 - Hitch Assembly
2 - Bridle (Right Hand)
3 - Bridle (Left Hand)
4 - Center Frame (Right Hand)
5 - Center Frame (Left Hand)
6 - Wing Frame (Right Hand)
7 - Wing Frame (Left Hand)
8 - Center Transport (Right Hand)
9 - Center Transport (Left Hand)
10 - Wing Transport (Right Hand)
11 - Wing Transport (Left Hand)
12 - Spreader Bar
13 - Right Front Center Gang
14 - Left Front Center Gang
15 - Right Rear Center Gang
16 - Left Rear Center Gang
17 - Right Front Wing Gang
18 - Left Front Wing Gang
19 - Right Rear Wing Gang
20 - Left Rear Wing Gang
21 - Transport Control Arm
22 - Leveling Control Arm

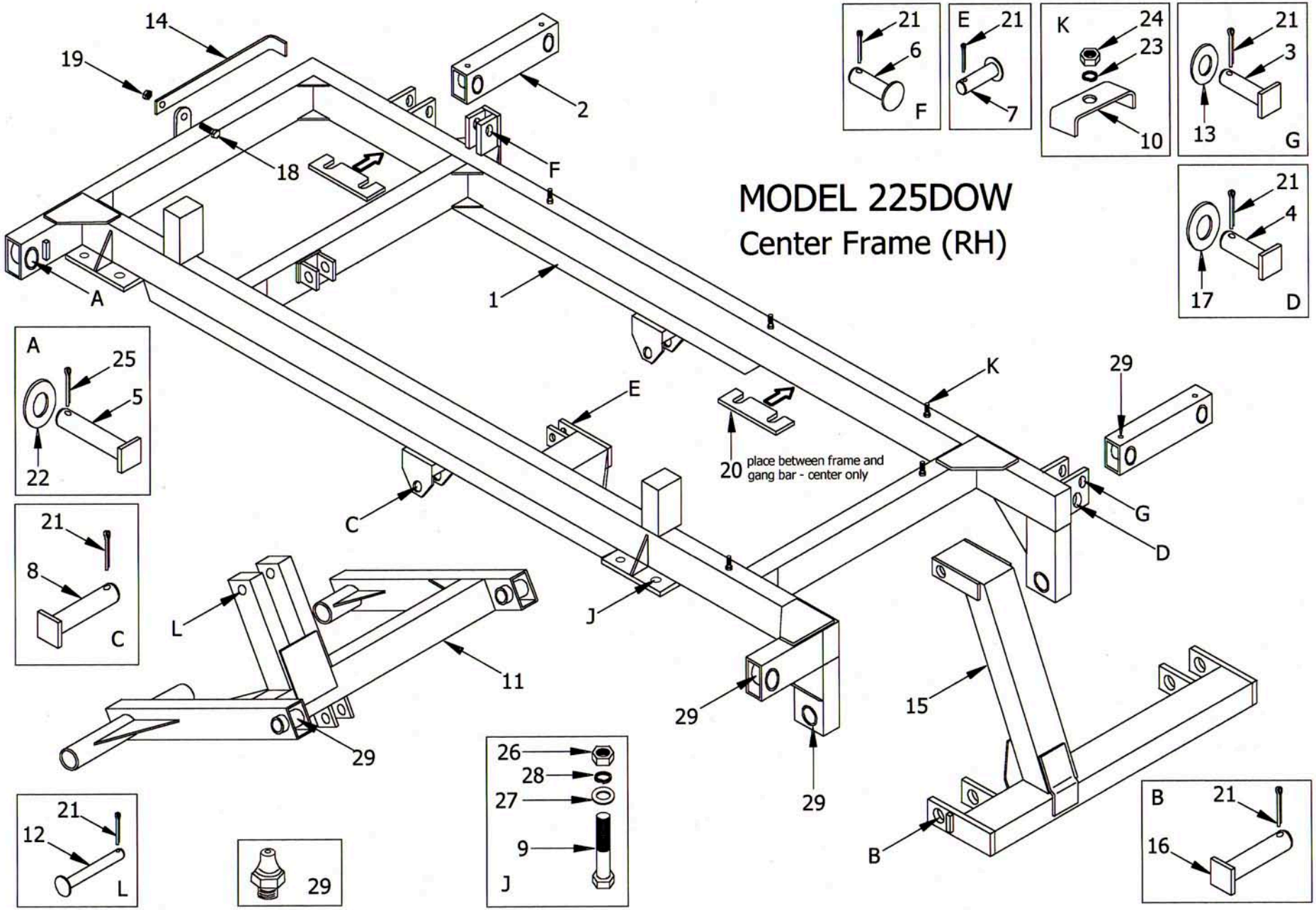
MODEL 225DOW Disc Layout



MODEL 225DOW
Hitch Assembly

Model 225DOW Hitch Assembly

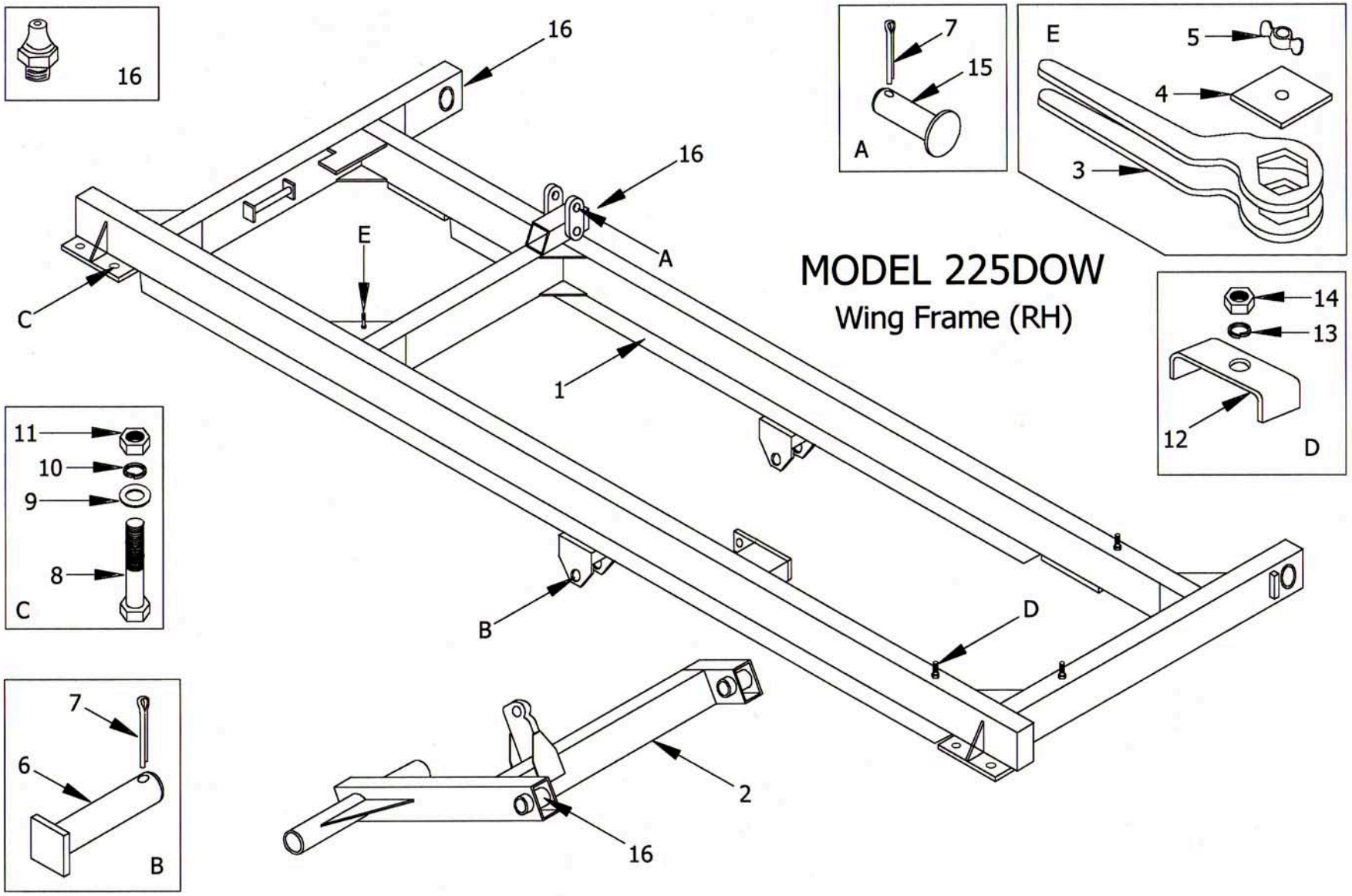
REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
1	K10380	Primary Hitch Pole	1
2	K10390	Secondary Hitch Pole	1
3	K10400	Side Arm	2
4	K10410	Eye Bolt	2
5	PPI-401VH	Removable Hitch Tongue	1
6	K50420	2" UNC Fabricated Bolt	2
7	NC-200AS	Slotted Hex Nut	2
8		Cotter Key	2
9	K50580	Pin	1
10	FW-150	1½" Flat Washer	1
11	375300CP	Cotter Key	1
12	125650B8	Bolt	4
13	LW-125	Lock Washer	4
14	NC-125	Hex Nut	4
15	100700B8	Bolt	2
16	LW-100	Lock Washer	2
17	NC-100-8	Hex Nut	2
18	501064054	Hose Holder	2
19	TBX-50	Hose Clamp	2
20	038300B5	Bolt	1
21	LW-038	Lock Washer	1
22	NC-038-5	Hex Nut	1
23	050150B5	Bolt	1
24	LW-050	Lock Washer	1
25	NC-050-5	Hex Nut	1
26	TBX-8	Hitch Jack	2


MODEL 225DOW
Center Frame (RH)
place between frame and gang bar - center only

MODEL 225DOW Main Frame Assembly

REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
1	K225107R	Narrow Main Frame - RH (Shown)	1
1	K225107L	Narrow Main Frame - LH	1
1	K225207R	Wide Main Frame - RH	1
1	K225207L	Wide Main Frame - LH	1
2	K12330	Spreader Bar	2
3	K50590	Pin - Spreader Bar Limiter	4
4	K50600	Pin - Spreader Bar	4
5	K50530	Pin - Hinge	4
6	0501018045	Pin - Fold Cylinder	2
7	K50500	Pin - Transport Cylinder	2
8	K50470	Pin - Transport	4
9	100350B8	Bolt	16
10	TBX-50	Hose Clamp	10
11	K225113R	Narrow Frame Transport - RH	1
11	K225113L	Narrow Frame Transport - LH	1
11	K225213R	Wide Frame Transport - RH	1
11	K225213L	Wide Frame Transport - LH	1
12	K50480	Pin - Transport Cylinder	2
13	FW-150	Flat Washer	4

REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
14	3043041	Wing Lock Bar	2
15	K225116R	Narrow Frame Bridle - RH (Shown)	1
15	K225116L	Narrow Frame Bridle - LH	1
15	K225216R	Wide Frame Bridle - RH	1
15	K225216L	Wide Frame Bridle - LH	1
16	K50620	Pin - Bridle	4
17	FW-200	Flat Washer	4
18	062200B5	Bolt	2
19	NC-062SL	Lock Nut	2
20	3043230	Spacer Plate	4
21	375300CP	Cotter Key	22
22	FW-225	Flat Washer	12
23	LW-038	Lock Washer	10
24	NC-038	Hex Nut	10
25	038400CP	Cotter Key	4
26	NC-100	Hex Nut	16
27	FW-100	Flat Washer	16
28	LW-100	Lock Washer	16
29	11100	Grease Zerk	14



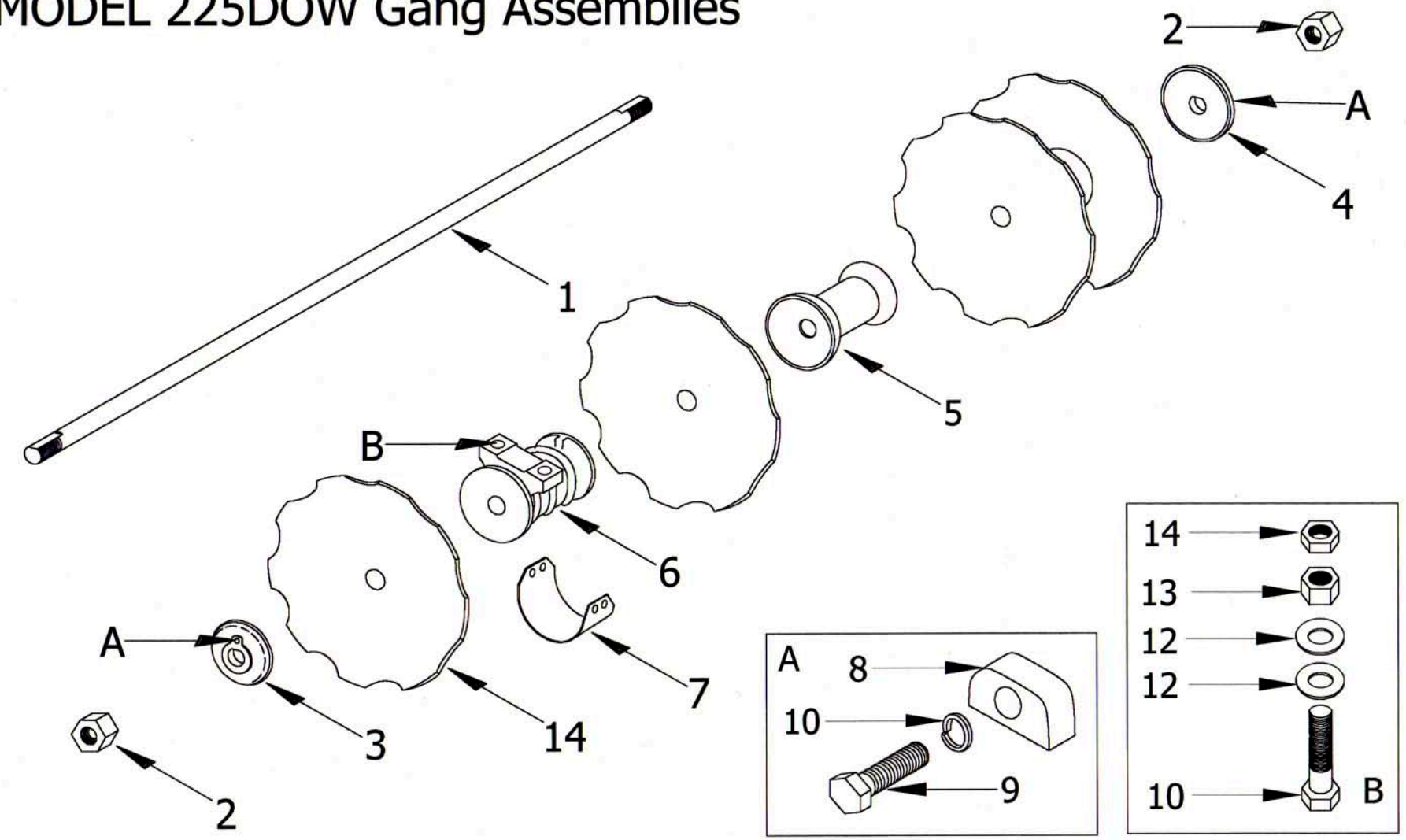
MODEL 225DOW

Wing Frame (RH)

MODEL 225DOW Wing Frame Assembly

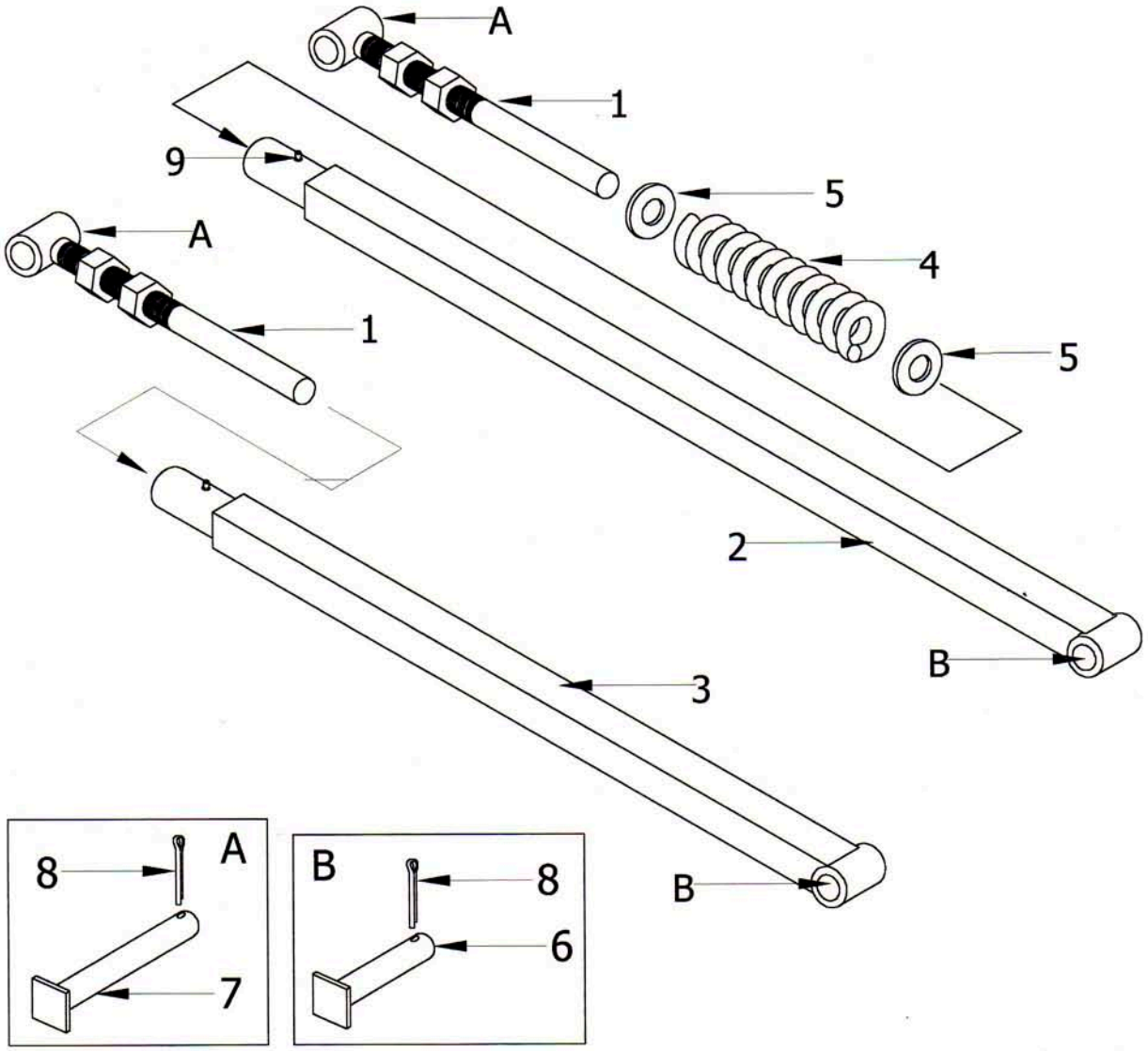
REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
1	K225118R	Narrow Wing Frame - RH (Shown)	1
1	K225118L	Narrow Wing Frame - LH	1
1	K225218R	Wide Wing Frame - RH	1
1	K225218L	Wide Wing Frame - LH	1
2	K225121R	Narrow Wing Transport - RH (Shown)	1
2	K225121L	Narrow Wing Transport - LH	1
2	K225221R	Wide Wing Transport - RH	1
2	K225221L	Wide Wing Transport - LH	1
3	2R-81	Gang Wrench	2
4	3043010	Gang Wrench Hold Down Plate	1
5	NC-050-W	Wing Nut	1
6	K50470	Pin	4
7	375300CP	Cotter Key	6
8	100350B8	Bolt	16
9	FW-100-8	Flat Washer	16
10	LW-100	Lock Washer	16
11	NC-100-8	Hex Nut	16
12	TBX-50	Hose Clamp	6
13	LW-038	Lock Washer	6
14	NC-038-5L	Hex Nut	6
15	K50520	Pin	2
16	11100	Grease Zerk	8

MODEL 225DOW Gang Assemblies



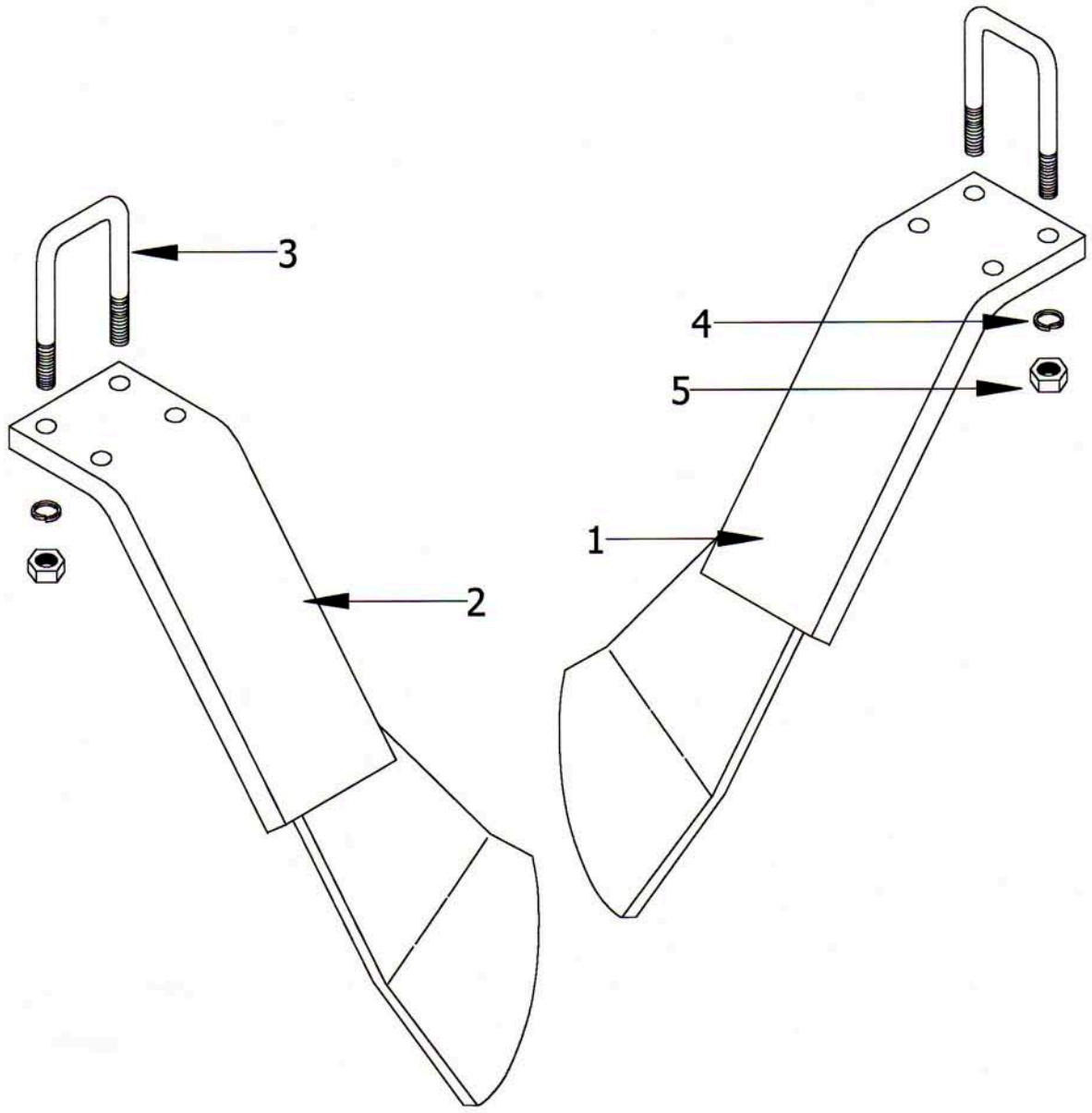
MODEL 225DOW
Gang Assemblies

NO	PART NO	DESCRIPTION	NO REQ'D					
			4 DISCS	5 DISCS	6 DISCS	7 DISCS	8 DISCS	9 DISCS
1	KAH-1AX	Axle 2-18" dia X 39.5"	1					
1	KAH-2AX	Axle 2-1/8" dia X 50"		1				
1	KAH-3AX	Axle 2-1/8" dia X 60.5"			1			
1	KAH-4AX	Axle 2-1/8" dia X 71"				1		
1	KAH-5AX	Axle 2-1/8" dia X 81.5"					1	
1	KAH-6AX	Axle 2-1/8" dia X 92"						1
2	4N-200	Axle Nut	2	2	2	2	2	2
3	4A-64B	Concave Axle Washer	1	1	1	1	1	1
4	4A-60C	Convex Axle Washer	1	1	1	1	1	1
5	K27880	Spacer Spool	1	2	3	4	5	6
6	501040387	Oil-Bath Bearing	2	2	2	2	2	2
7	511016371	Bearing Wear Plate	2	2	2	2	2	2
8	NL-225	Axle Nut Lock	2	2	2	2	2	2
9	075150B5	3/4" X 1-1/2" Hex Bolt	2	2	2	2	2	2
10	LW-075	3/4" Lock Washer	2	2	2	2	2	2
11	088450B8	7/8" X 4-1/2" Gr 8 Hex Bolt	4	4	4	4	4	4
12	FW-088H	Hardened 7/8" Flat Washer	8	8	8	8	8	8
13	NC-088	7/8" Hex Nut	4	4	4	4	4	4
14	NC-088J	7/8" Jam Nut	4	4	4	4	4	4
15	602037153	5/16" X 28" Notched Blade	4	5	6	7	8	9
15	3043184	5/16" X 26" Notched Blade	4	5	6	7	8	9
15	3043184	5/16" X 26" Taper Blade		1	1	1	1	1
15	3043185	5/16" X 24" Taper Blade		1	1	1	1	1
15	3043186	1/4" X 22" Taper Blade		1	1	1	1	1



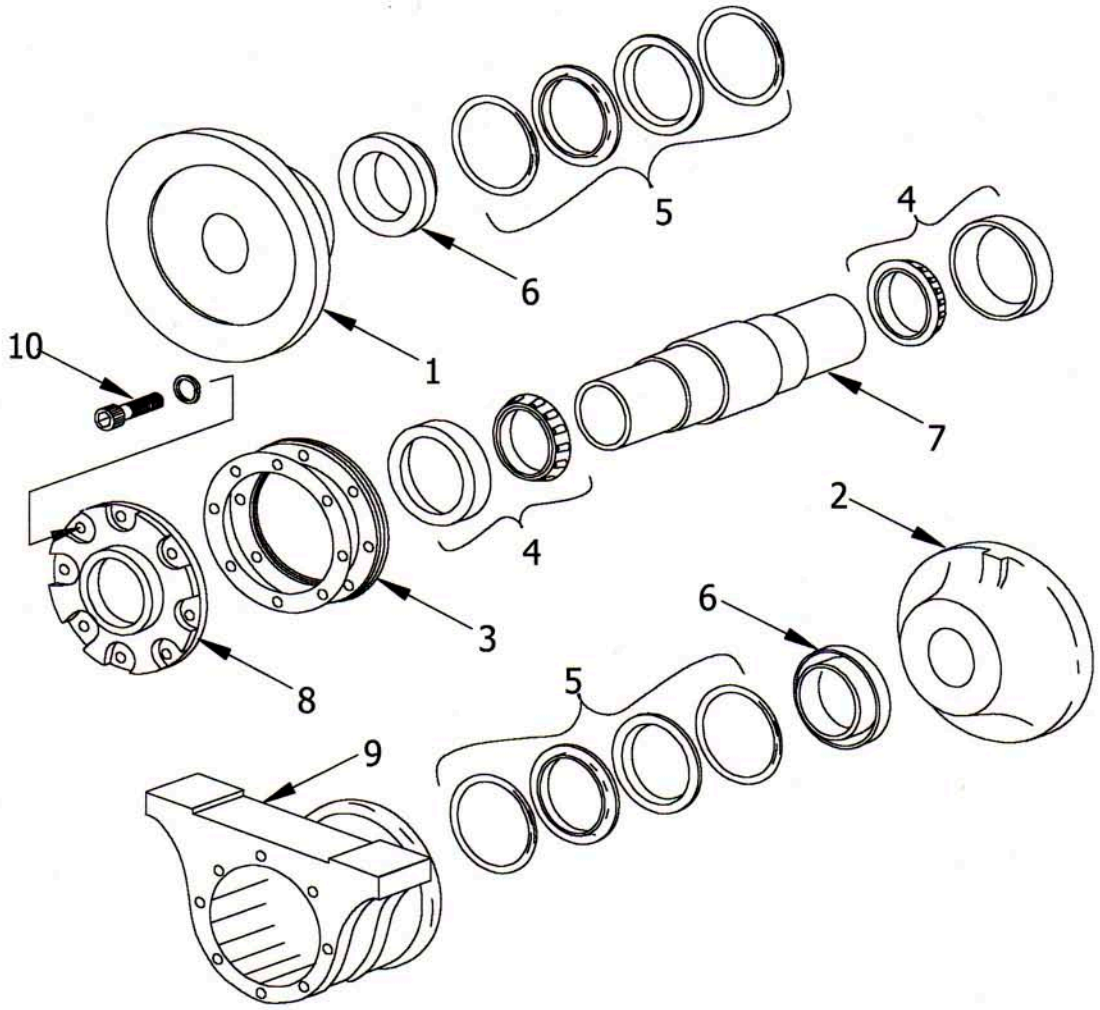
MODEL 225DOW Control Arm Assemblies

REF NO	Part Number	Description	No Req'd
1	K13320	Eye-Bolt	4
2	K13390	Leveling Control Arm	2
3	K13400	Transport Control Arm	2
4	5004979	Compression Spring	2
5	FW-150	Flat Washer	4
6	K50490	Pin	4
7	K50550	Pin	2
8	375300CP	Cotter Key	4
9	11100	Grease Zerk	4



MODEL 225DOW Scraper Assemblies

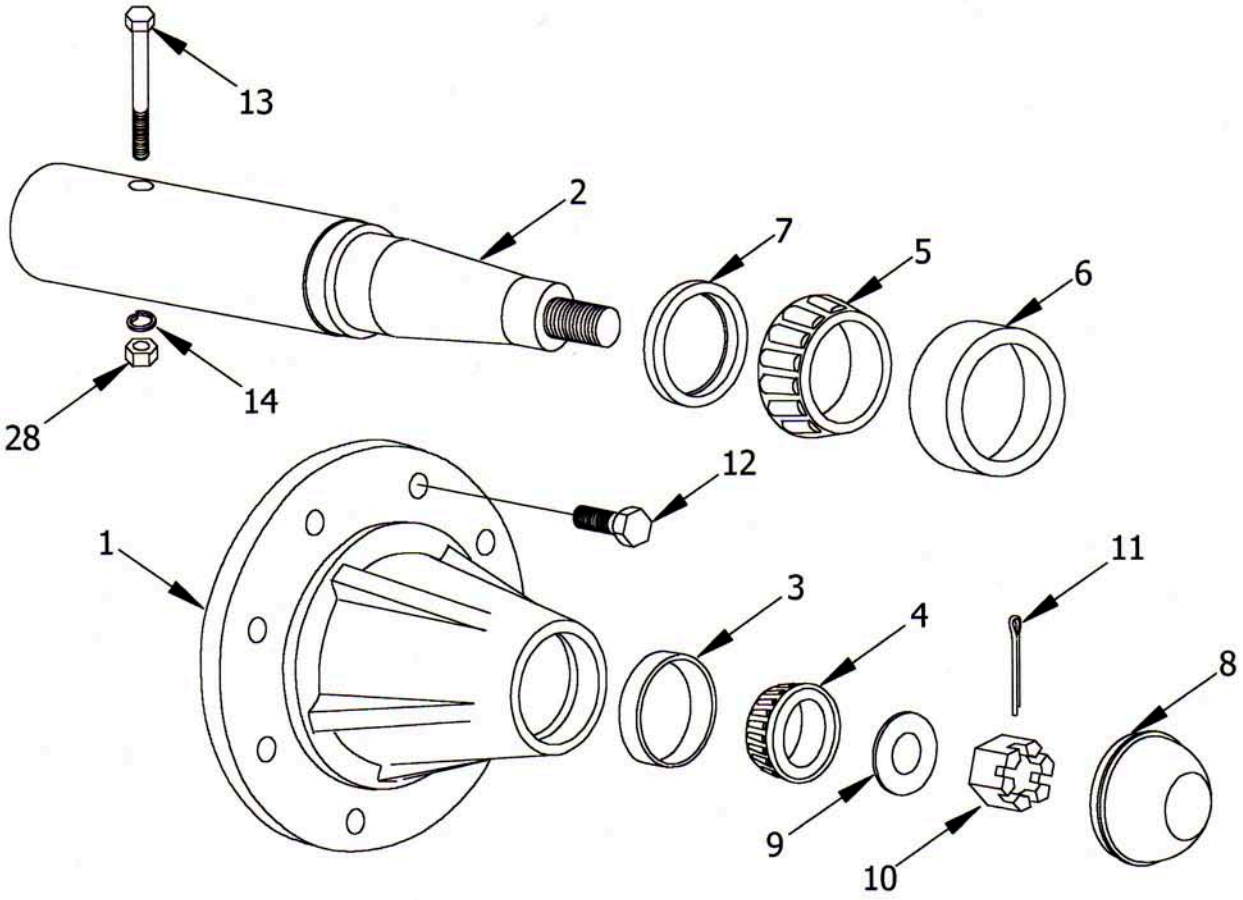
Ref No	Part No	Description	No Req'd
1	3043097	Left Hand Scraper	
2	3043116	Right Hand Scraper	
3	3027043	1/2" U-Bolt	2 per Scraper
4	LW-050	1/2" Lock Washer	4 per Scraper
5	NC-50	1/2" Hex Nut	4 per Scraper



10 1/2" OIL-BATH BEARING

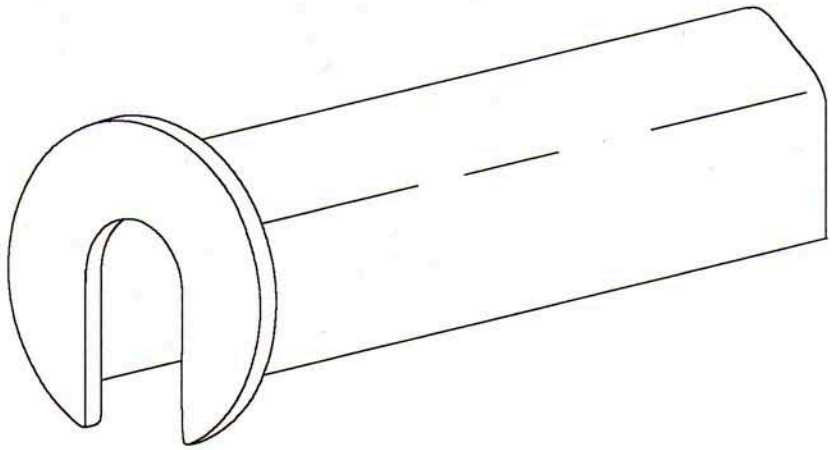
(Part No 501040387)

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



8 - Bolt Hub Assembly

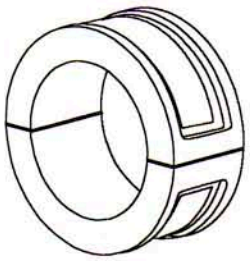
REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	5004997	Hub	1
2	3027006	Spindle	1
3	5004998	Outer Cup	1
4	5004999	Outer Cone	1
5	5005002	Inner Cone	1
6	5005003	Inner Cup	1
7	5005001	Seal	1
8	5005000	Dust Cap	1
9	FW-100H	Flatwasher, 1" Hardened	1
10	NF-100S	Slotted Hex Nut, 1"	1
11	CK-19150	Cotter Key	1
12	3005217	Wheel Bolt	8
13	050400B5	Bolt	1
14	LW-050	Lock Washer	1
15	NC-050-5H	Hex Nut	1



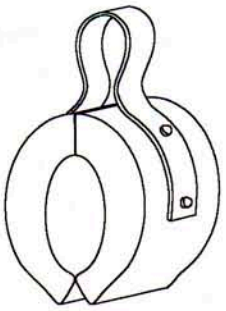
Cylinder Transport Stay

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



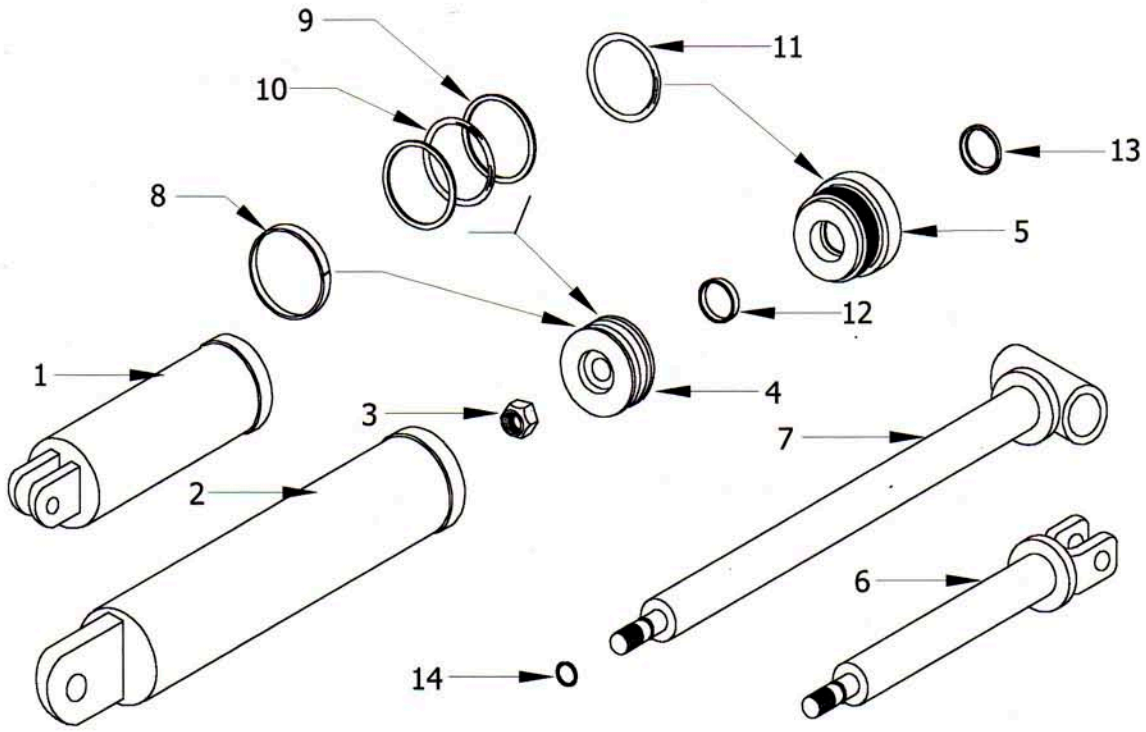
Style B



Depth Control Segments

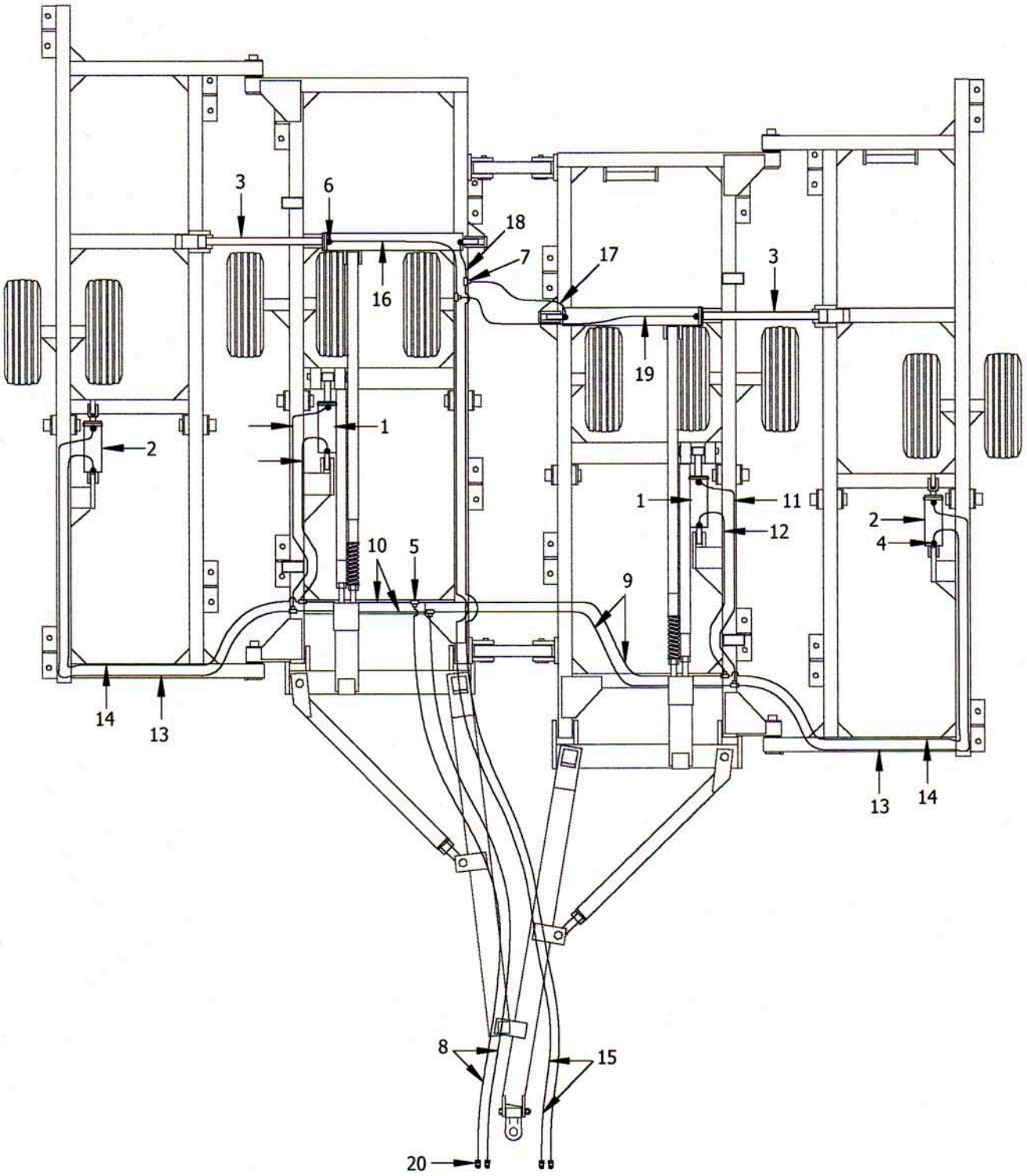
PART NUMBER		DESCRIPTION
STYLE A	STYLE B	
501043620A	501043620B	1" Rod Stop
501043688A	501043688B	1 1/2" Rod Stop
501045100A	501045100B	2" Rod Stop

NOTE: Quantity varies with model and width.



Hydraulic Cylinders

REF NO	PART NUMBER	DESCRIPTION	NO REQ'D
1	5005018	Barrel - 8 " Stroke	1
2	5005028	Barrel - 12" Stroke	1
		Barrel - 16" Stroke	1
		Barrel - 20" Stroke	1
2	5005037	Barrel - 34" Stroke (Narrow Frame)	1
2	5005041	Barrel - 42" Stroke (Wide Frame)	1
		Barrel - 56" Stroke	1
3	5005014	Lock Nut	1
4	5005032	Piston	1
5	5005022	Gland	1
6	5005015	Rod - 8" Stroke	1
7	5005025	Rod - 12" Stroke	1
		Rod - 16" Stroke	1
		Rod - 20" Stroke	1
7	5005036	Rod - 34" Stroke (Narrow Frame)	1
7	5005040	Rod - 42" Stroke (Wide Frame)	1
		Rod - 56" Stroke	1
8	5005011	Wear Ring	1
9	5005010	Back-Up Ring	2
10	5005009	O-Ring	1
11	5005005	O-Ring	1
12	5005023	Rod Seal	1
13	5005030	Rod Wiper	1
14	5005013	O-Ring	1
	SKC50-86A	Seal Kit - contains Ref No's 8, 9, 10, 11, 12, 13 and 14.	



MODEL 225DOW Hydraulic Group Layout

MODEL 225DOW Hydraulic Group

MODELS: 5826B (24') / 6226B (25'6") 6626B (27') / 7026B (29')

REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
1	5004972	Hydraulic Cylinder - 5" X 12"	2
2	5004971	Hydraulic Cylinder - 5" X 8"	2
3	5004973	Hydraulic Cylinder - 5" X 34"	2
4	5000611	90° Elbow - MJIC 3/4"-16 to 3/4"-16	8
5	5000554	Union Tee - MJIC 3/4"-16	6
6	5000610	90° Elbow - MJIC 3/4"-16 to 9/16"-16	4
7	15T55-06-06	Union Tee - MJIC 9/16"-16	2
8	3043011	Hose Assembly - 1/2" X 216"	2
9	3043012	Hose Assembly - 1/2" X 78"	2
10	3043013	Hose Assembly - 1/2" X 36"	2
11	3043014	Hose Assembly - 1/2" X 60"	2
12	3043015	Hose Assembly - 1/2" X 54"	2
13	3043016	Hose Assembly - 1/2" X 180"	2
14	3043017	Hose Assembly - 1/2" X 168"	2
15	3044277	Hose Assembly - 3/8" X 312"	2
16	3044278	Hose Assembly - 3/8" X 40"	1
17	3044278	Hose Assembly - 3/8" X 40"	1
18	3044279	Hose Assembly - 3/8" X 24"	2
19	3044280	Hose Assembly - 3/8" X 70"	1
20	5004267	Quick Disconnect - 1/2"	4
	3044281H	Complete Hose Package	

MODELS: 7426B (31') / 7826B (32'6") 8226B (34'6") / 8626B (36')

REF NO	PART NUMBER	DESCRIPTION	NO RQ'D
1	5004972	Hydraulic Cylinder - 5" X 12"	2
2	5004971	Hydraulic Cylinder - 5" X 8"	2
3	5004980	Hydraulic Cylinder - 5" X 42"	2
4	5000611	90° Elbow - MJIC 3/4"-16 to 3/4"-16	8
5	5000554	Union Tee - MJIC 3/4"-16	6
6	5000610	90° Elbow - MJIC 3/4"-16 to 9/16"-16	4
7	15T55-06-06	Union Tee - MJIC 9/16"-16	2
8	3043011	Hose Assembly - 1/2" X 216"	2
9	3043339	Hose Assembly - 1/2" X 99"	2
10	3043340	Hose Assembly - 1/2" X 57"	2
11	3043014	Hose Assembly - 1/2" X 60"	2
12	3043015	Hose Assembly - 1/2" X 54"	2
13	3043016	Hose Assembly - 1/2" X 180"	2
14	3043017	Hose Assembly - 1/2" X 168"	2
15	3044277	Hose Assembly - 3/8" X 312"	2
16	3027782	Hose Assembly - 3/8" X 61"	1
17	3044278	Hose Assembly - 3/8" X 40"	1
18	3044279	Hose Assembly - 3/8" X 24"	2
19	3044286	Hose Assembly - 3/8" X 91"	1
20	5004267	Quick Disconnect - 1/2"	4
	3044282H	Complete Hose Package	

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.**

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.

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.

ADJUSTING DISC WORKING DEPTH

- Depth adjustment is best done in the field. Depth control is accomplished by using the tires to carry the disc. Depth control segments provided with the disc are placed over the hydraulic cylinder rod(s) to limit the upward movement of the tires. Use the combination of segments required to assure the desired disc penetration.
- SINGLE OFFSET DISCS - Begin discing and, using the hydraulics, raise or lower the disc until it is working at the depth that gives the desired result. Stop the tractor. Insert enough depth control segments to cover the exposed portion of the hydraulic cylinder rod. Raise the disc and begin discing again. Now when the disc is lowered by retracting the cylinder, the segments will limit the rod travel and the wheels will raise only to the predetermined height . . . . assuring the desired penetration.
- WING DISCS - With the wing(s) unfolded, use the same method as above to set the depth of the main or center frame(s). Resume discing and use the same method to adjust the working depth of the wing(s). In most instances the combination of segments required will differ between the main or center frame(s) and the wing frame(s). In the case of the Model 210W, Model 225W, Model 225TSW and Model 225DOW, adjusting the operating depth may involve experimenting with a number of different combinations of segments.
  - In some instances raising the center section(s) will increase the penetration of the wings.
  - When attempting maximum penetration it may still be necessary to place some segments on the center section cylinder(s).

  After adjusting the depth to your satisfaction, it is a good idea to record the number, length and position of the segments used for future reference.

ADJUSTING FORE/AFT LEVELING AND TRANSPORT CONTROLS

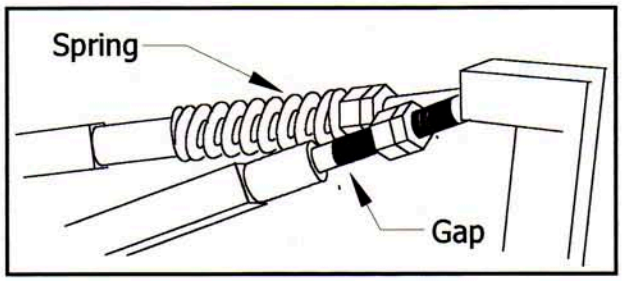
- see next page

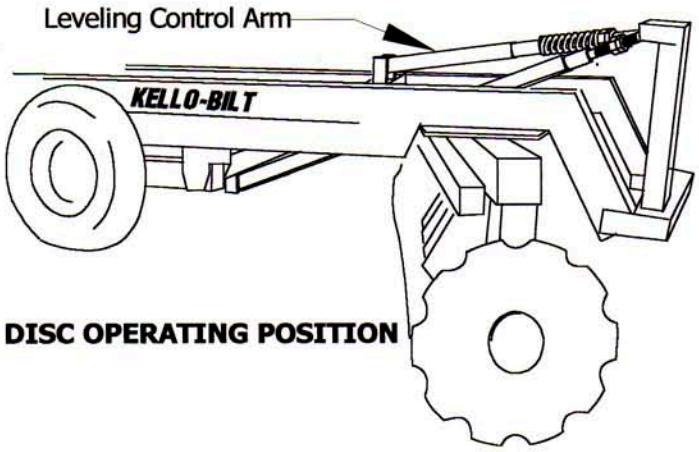
GENERAL OPERATION

- Always raise the disc out of the ground before turning. When turning raise the disc just clear of the ground if pulling a harrow, roller or other attachment behind the disc.
- In the field do not back-up with the disc in the fully raised position. This will prevent the disc from overbalancing to the rear which may damage the control arms.
- Speed, depth and soil type all contribute to the levelness of the discing operation. To minimize ridging or gouging, limit discing speed to 4-6 mph. Properly adjust the fore/aft leveling control to be sure the disc is running level - front to rear.
- In some instances levelness can be improved by replacing the lead corner blade(s) with a smaller (taper) disc blade. Ridging in the center of a tandem disc can be reduced or eliminated by slowing down and/or using smaller (taper) disc blades on the inside rear gang assemblies.
- On tractors equipped with a swinging drawbar, allow the drawbar to swing when working level or gently rolling fields or in severely rocky conditions. In all other conditions, lock the drawbar in the center position.
- Always lock a swinging drawbar in the center position before transporting the disc.

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.

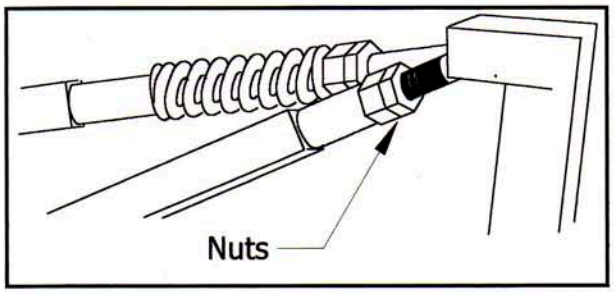


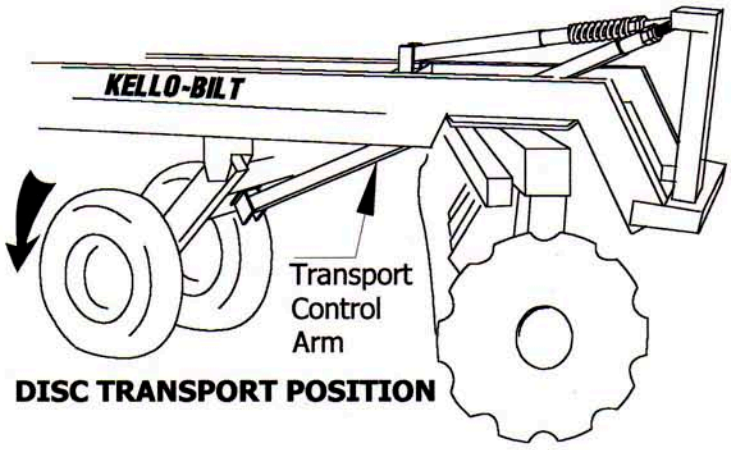


DISC OPERATING POSITION

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.





DISC TRANSPORT POSITION

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.

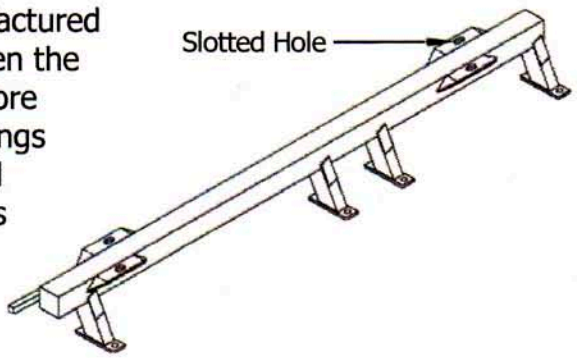
ALIGNING CENTER SECTIONS (see diagram)

Proper set-up and adjustment of the two center sections is necessary for the proper operation of the entire disc. Proper adjustment will also maximize the life of the spreader bars and pins that join the two sections. Perform the following steps for best results. A hand operated cable or chain puller or similar device will simplify the procedure.

- With the side arms unpinned from the hitches, the hitches connected at point A, the spreader bars installed and the disc in the raised position - adjust the frames front to back so the spreader bars are at right angles to the frames and the clevises into which the spreader bars fit are precisely opposite each other. This adjustment is best accomplished using a puller devise attached to the frames diagonally between either set of points X and Y.
- Without disturbing the alignment of the frames, adjust the eyebolts in the sidearms and attach to the respective hitches. The side arms will hold the center frames in place relative to each other.

MOUNTING GANG BARS

The gang bar mounting plates are manufactured with slotted holes to ease assembly. When the gangs are mounted to the frame and before the bolts are tightened, slide the front gangs out from the center of the disc to the end of the slots and the rear gangs in towards the center of the disc before tightening the bolts. Tighten bolts to the recommended toque of 788 ft/lbs.

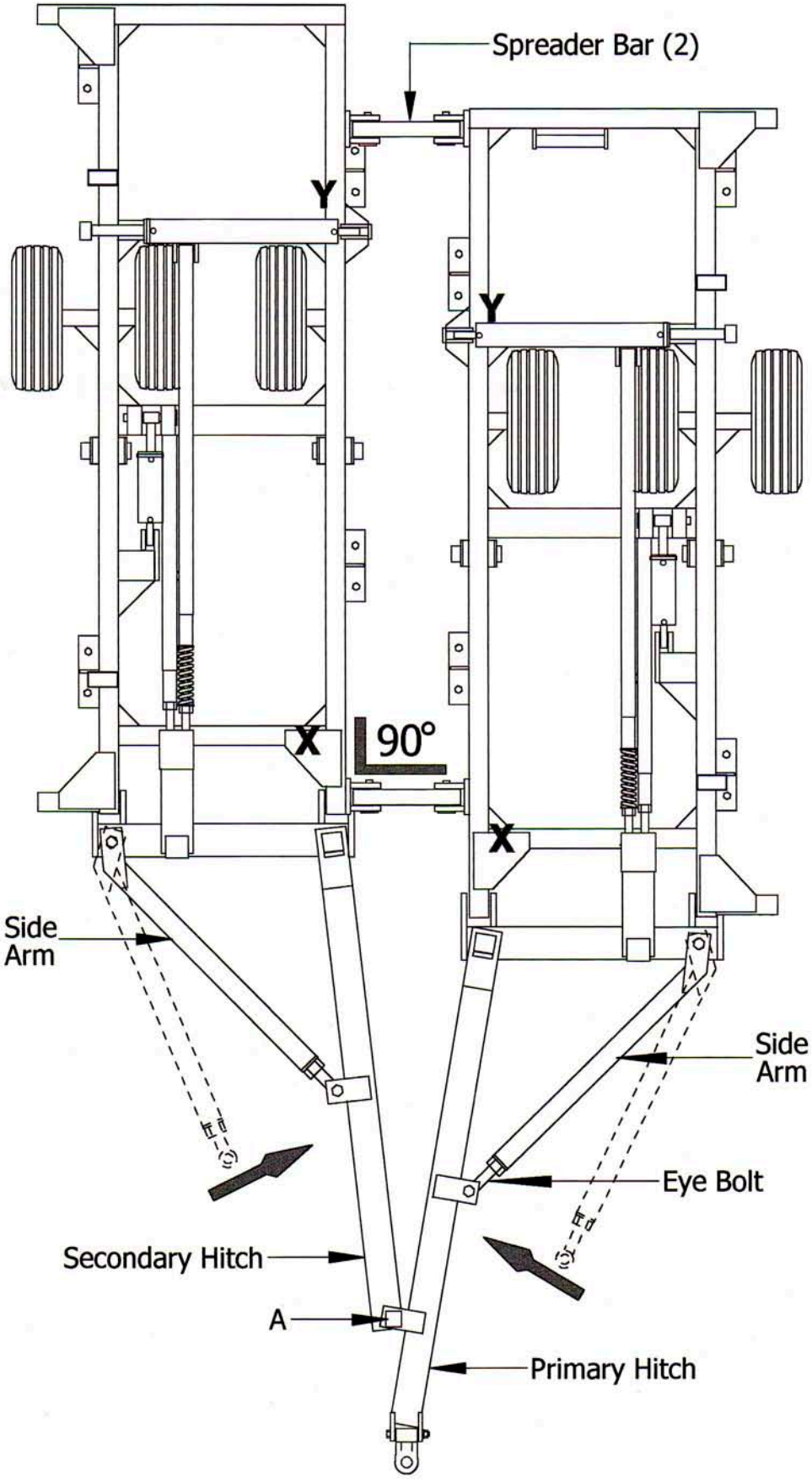


INSTALLING PINS

The following pins should be installed with their heads to the front of the unit:
Hinge Pins (#K50530)
Spreader Bar Limiter Pins (#K50590)
Spreader Bar Pins (#K50600).
This may not be possible for the rear right hand spreader bar pin.

When installing the Hinge Pins (#K50530), a large washer (#FW-225) should be placed between the frame members at the front positions and, if possible, at the rear positions.

Aligning Center Sections



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.

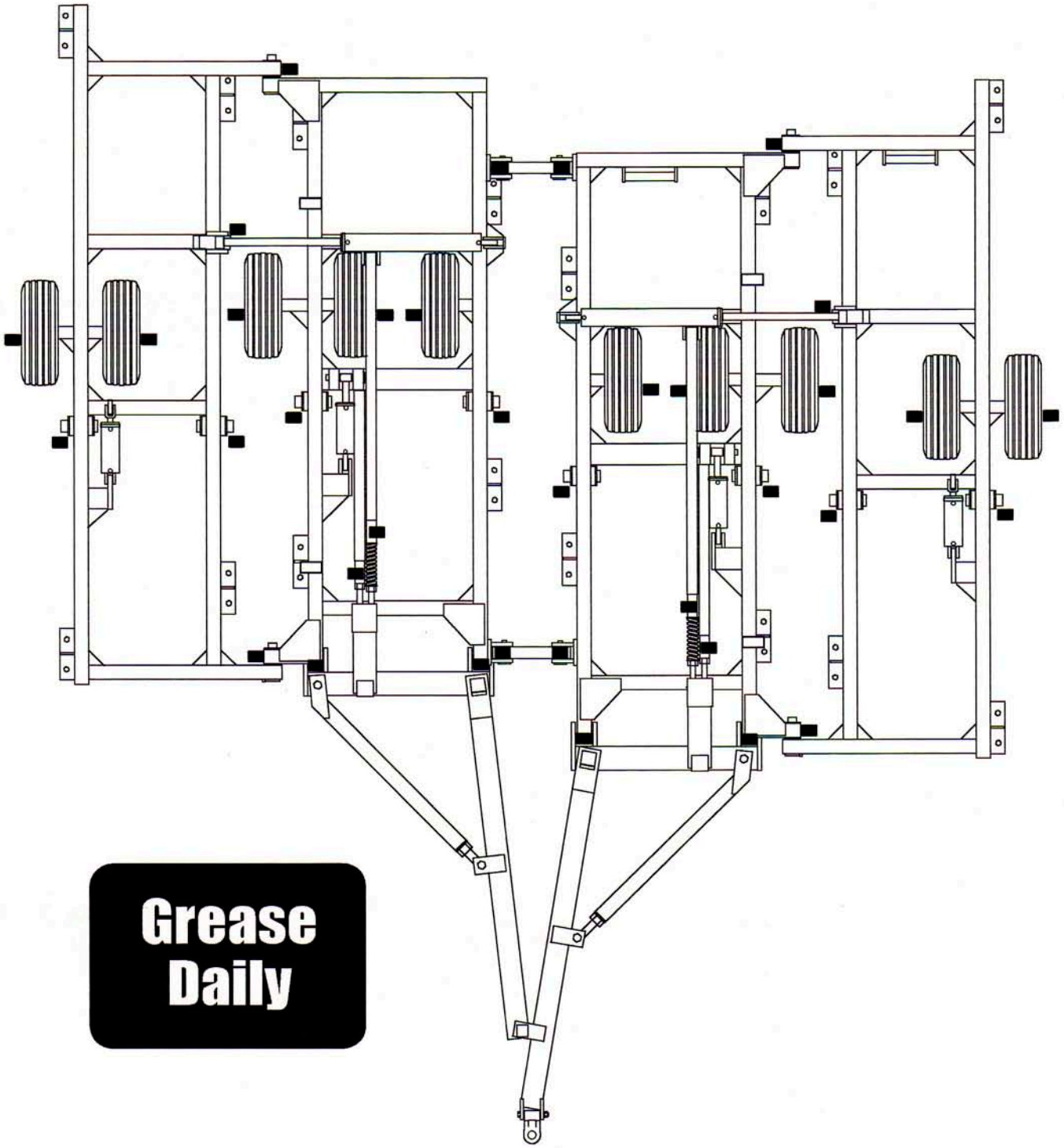
EVERY SEASON OR EVERY 6 MONTHS

- 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.



Grease Daily

MAINTENANCE INSTRUCTIONS

OIL-BATH BEARINGS

- Remove plug on side of bearing. Check that oil level is to bottom of plug hole. If necessary, top-up with a good quality 90W gear oil.
- Rebuilding the oil bath bearing should be done by a qualified technician. Check with your dealer or Kello-Bilt Inc. for details.

KEEP GANG ASSEMBLIES TIGHT

- Loose axles may bend or break or result in damage to other components of the gang assembly.
- Tighten the axle nuts every day during the first several days of operation when the disc is new or after replacing an axle or disc blade.
- To tighten axle:

1. Remove nut locks from axle washers on each end of axle.
2. If the gang assembly is excessively loose, clean the mating surfaces between spools, bearings, end washers and disc blades.
3. Loosen the bolts holding bearings to bearing standards.
4. Place one wrench on gang nut to prevent shaft from turning.
5. Use the other wrench and an extention (ie. pipe) or a sledge hammer to tighten the gang nut on the opposite end of the axle. Tighten until disc blades will not stop turning while operating. Recommended torque is 900-1100 ft/lbs with anti-seize compound applied to threads.
6. Retighten bearing bolts and install nut locks.

It is recommended to use an anti-seize compound on the gang axle threads and the nut lock bolts.

PERIODICALLY CHECK THE TIGHTNESS OF ALL FASTENERS

- Tighten all fasteners after the first day of operation. Inspect at regular intervals thereafter.
- Torque Chart for unlubricated plated UNC bolts:

Bolt Diameter	Torque (ft-lbs)	
	Grade 5	Grade 8
3/8"	27	38
1/2"	68	94
5/8"	132	180
3/4"	233	323
7/8"	375	525
1"	555	788
1 1/4"	1080	1500
1 1/2"	1913	2625

Grade 5

Grade 8

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.

WARRANTY

KELLO-BILT INCORPORATED warrants its products to be free of defects in material and workmanship for a period of twelve (12) months from the date of first use by the original purchaser at retail, under normal use and service. Defective parts must be returned to **KELLO-BILT INCORPORATED** at owner's expense for inspection. The obligation of **KELLO-BILT INCORPORATED** under this warranty shall be limited to shipment, to the original purchaser at retail, of the parts of the equipment intended to replace the part or parts acknowledged by **KELLO-BILT INCORPORATED** to be defective in material or workmanship and does not include any installation or transportation costs. No warranty is made with respect to items made by others, since such items are warranted by their respective makers. No liability is assumed for expenses or damages resulting from the malfunction or interruption in operation of equipment. This warranty shall not apply to any equipment, or any part thereof, which has been damaged in any accident, or by fire, flood, or Acts of God, or abused or misused, or which has been altered elsewhere than at the place of manufacture, or in which the original purchaser thereof, at retail, has used or allowed to be used, parts not made or supplied by **KELLO-BILT INCORPORATED. KELLO-BILT INCORPORATED** reserves the right at any time to make changes in the design, material, or specifications of machinery, equipment or parts without thereby becoming liable th make similar changes in machinery, equipment or parts previously manufactured.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, WHETHER EXPRESSED OR IMPLIED.

DISCLAIMER OF WARRANTY AND LIMITATIONS OF LIABILITY

- Except for the expressed warranty stated above, **KELLO-BILT INC** grants no warranties, either expressed or implied regarding products furnished hereunder, including all implied warranties.
- The sole liability of **KELLO-BILT INC** with respect to any contract or sale or anything done in connection therewith is to repair or replace the defective parts or machines it has provided. The liability of **KELLO-BILT INC** for any claim of any kind shall not exceed the purchase price of the machine or part sold which gives rise to the claim. Except for repair or replacement of the defective part or machine, **KELLO-BILT INC** shall have no liability for damages resulting from breach of contract, breach of expressed or implied warranty, negligence or result from the design, manufacture sale delivery, resale, inspection or repair of any machine or part.
- **KELLO-BILT INC** shall not be liable in any event for special, indirect, incidental or consequential damages resulting from any breach of contract, breach of expressed or implied warranty, negligence or strict liability in tort, including, by way of example but not limitation, loss of profits or revenue, loss of use of the machine or parts or associated equipment, expediting expenses, or cost of substitute equipment.

KELLO-BILT

TILLAGE EQUIPMENT

#207-37565 Highway 2
Red Deer County, Alberta
CANADA T0C 2L0
Phone: (403) 347-9500
Fax: (403) 347-3724
email: kello@reddeer.net

WARRANTY REGISTRATION

TO ENSURE PROPER WARRANTY SERVICE FOR YOUR NEW KELLO-BILT PRODUCT, PLEASE MAIL OR FAX THIS COMPLETED FORM TO:

KELLO-BILT INC
#207-37565 Highway 2, Red Deer County, Alberta, CANADA T4E 1B4
Fax: (403) 347-3724

PURCHASER:

Name:_____ Address:_____

Company:_____ _____

City:_____

Prov/State:_____

Phone: (_____) _____-_____ Postal Code/Zip:_____

DEALERSHIP:

Company:_____ Address:_____

_____ _____

City:_____

Prov/State:_____

Phone: (_____) _____-_____ Postal Code/Zip:_____

DATE PURCHASED: _____

MODEL PURCHASED:

☐210-_____	☐225W-_____	☐325-_____
☐DW210-_____-R	☐225TSW-_____	☐DW325-_____-R
210-_____-L	☐225DOW-_____	325-_____-L
☐225-_____	☐255-_____	☐500-_____
☐DW225-_____-R	☐275-_____	☐600-_____
225-_____-L	☐DW275-_____-R	☐800-_____
☐210W-_____	275-_____-L	Other_____

SERIAL NUMBER: _____

This disc will be used for the following activities or production of the following crops:

☐Grain	☐Hay	☐Row Crops	☐Fibre Farming	☐Reclamation
☐Corn	☐Pasture	☐Grass Seed	☐Incorporation	☐Reforestation
☐Rice	☐Potatoes	☐Sugar Beets	☐Road Building	☐Site Prep.
☐Cotton	☐Pulse	☐Specialty Seeds	☐Land Clearing	