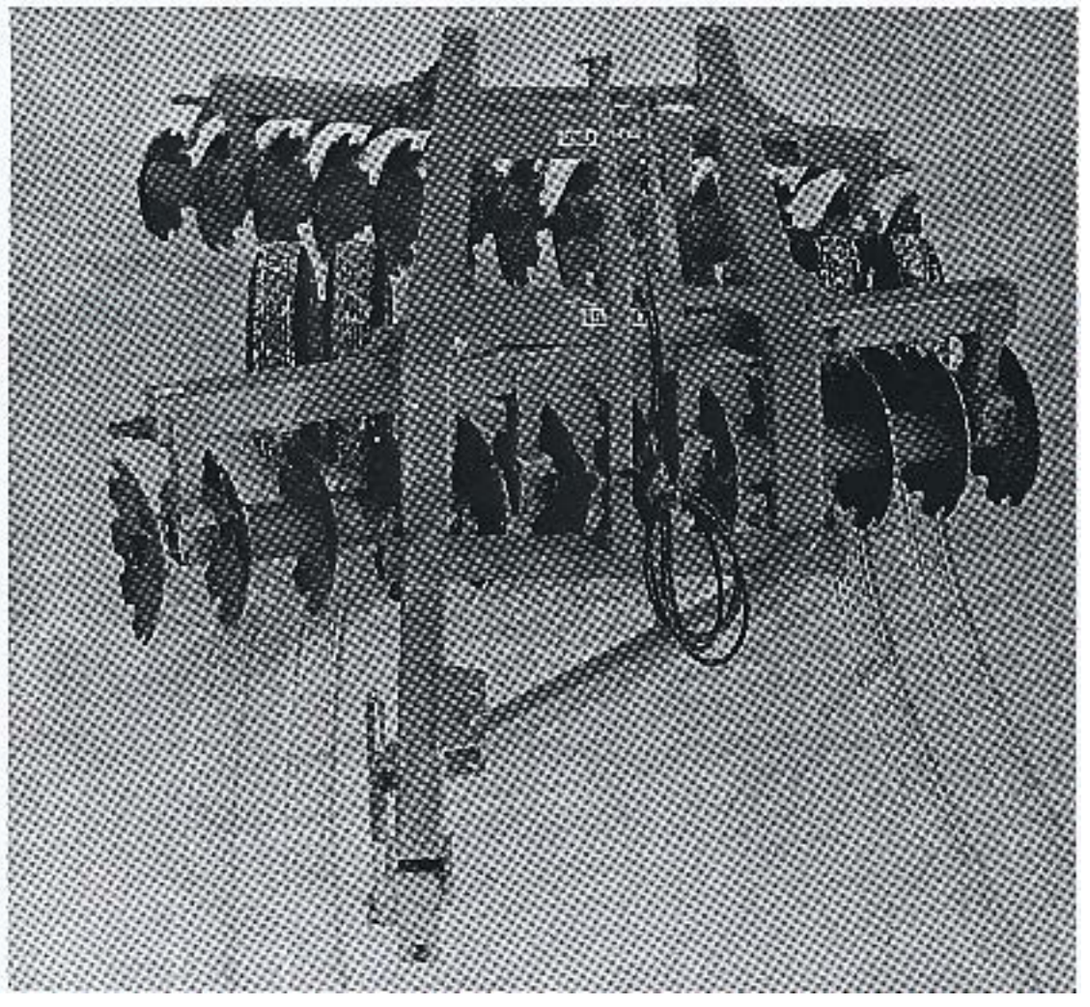
KELLO-BILT SERIES '450' OFFSET BREAKING DISC



ENGINEERED AND DESIGNED FOR

MORE PRODUCTION AND LONGER LIFE

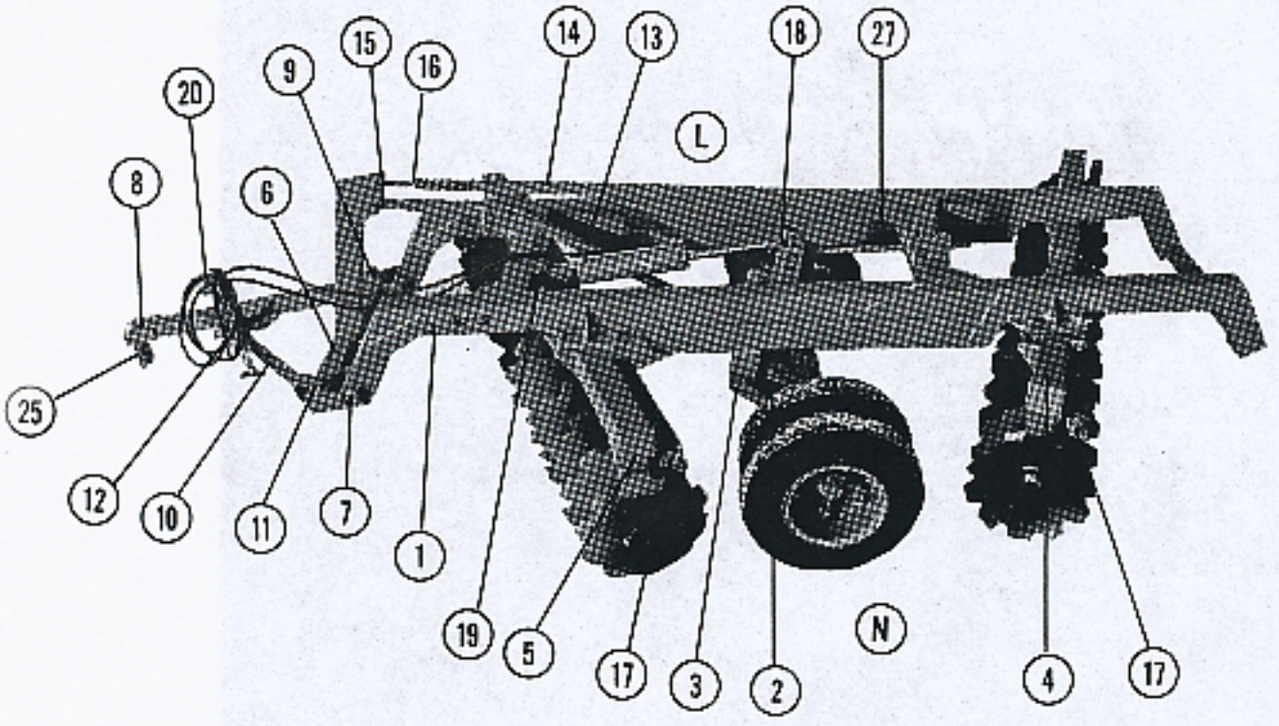


Figure 1

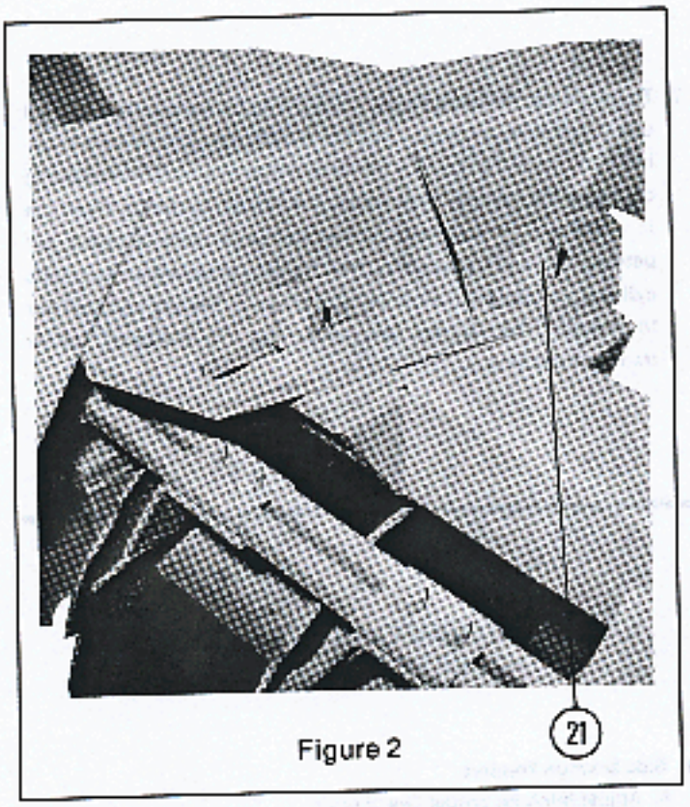


Figure 2

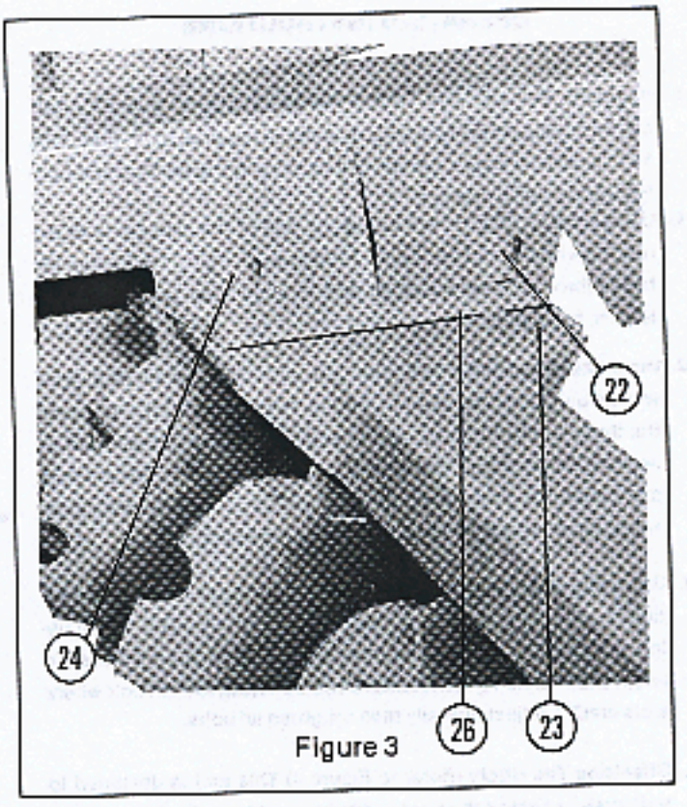


Figure 3

SET-UP INSTRUCTIONS

1. **To Install Wheel Carriage and Wheels:** (Refer to Figure 1) Place wheel carriage(2) under the main frame(1) and attach frame with pins(3). Install 5/16 x 2 lock bolts in pins and tighten lock nuts securely. Install wheels on to hubs with wheel bolts provided and tighten securely.

2. **To Attach Gang Bars to Frame:** (Refer to Figure 1) Bolt rear gang bar(4) to main frame(1) in center set of offsetting holes and in next-to-maximum angle with 1¼"x4½" bolts. Install leveling washers on top of angling plates on long side of disc(L). Install levelling washers betweeen gang bar and angling plates on narrow side of disc(N). Bolt front gang bar(5) to main frame in next to maximum angle with 1¼"x4½" bolts. Install leveling washers same as rear gang.

3. **To Attach Hitch Bridle to Frame:** (Refer to Figure 1) Place bridle(6) at front of frame(1) and attach with pins(7). Install lock bolts and tighten nuts securely.

4. **To Attach Hitch Pole to Bridle:** (Refer to Figure 1) Attach main hitch pole(8) to bridle(6) at lead corner(9) with 2"x10" bolt. Attach hitch side arm(10) to opposite side of bridle(11) with 1¼"x7" bolt. Join hitch pole and side arm with 1¼"x7" bolt. Tighten all bolts securely.

5. **To Attach Fore-Aft Leveling Assembly:** (Refer to Figure 1) Install short tube(13) to wheel carriage with 1" pin. Install long tube(14) with 1" pin. Slide short fore-aft eye bolt(15) into bottom tube(13) (pinned to wheel carriage) and pin to bottom hole of bridle mast(8). Slide long fore-aft eye bolt c/w spring and washers into top tube(14) (attached to main frame) and pin to top hole of bridle mast(8).

6. **To Attach Scrapers:** (Refer to Figure 1) Attach scraper bars(17) to gang bars (4 & 5) with bolts provided. Attach scrapers to scraper bar with clamps and bolts provided use care to adjust scrapers close to discs but not rubbing.

MAINTENANCE

Before operating the disc be certain that:

1. All bolts are tight.
2. The disc axles are tight
   NOTE - Disc gangs must be kept tight at all times!
3. Wheel bearings are adjusted properly and lubricated with bearing grease.
4. Grease fore-aft lubes each day.

After First Day of Operation — Tighten all bolts and disc axles, check wheel bearings for adjustment, oil threads on eye bolts and transport rod.

Every Day — Inspect and repair or replace broken or worn parts, check and/or tighten bolts and disc axles.

Lubrication — Lubricate disc gang bearings every shift with #2 Lithium-based bearing grease.

Every 100 Hours — Grease wheel bearings until grease shows outside wheel seals.

Caution — Wipe grease fitting clean before attaching pressure gun. Use clean lithium-base bearing grease and keep it clean. Keep tires properly inflated for long life but do not exceed 80 pounds pressure for proper flotation and protection of associated parts.

OPERATING INSTRUCTIONS

1. **Hydraulic Cylinder and Hoses:** (Refer to Figure 1) A 5" x 20" stroke double acting hydraulic cylinder is required to lift disc. Two 19 ft. hydraulic hoses are needed to allow full offsetting and turning without hose damage.

CAUTION: Be certain the rod or moving end of the cylinder is to the rear(16) with the butt end to the front at main frame(19). Fasten the hoses through hose stand(20) with enough slack to allow tractor to turn, but without enough to let hose drag.

2. **Angle Changing:** (Refer to Figure 1) To change angle. Raise disc on wheels until discs are clear of ground. Remove bolt(21) and loosen the three remaining bolts. Slide gang bar forward or backward as desired. Replace bolt and tighten all bolts securely. For ordinary conditions set both front and rear gangs in next to maximum angle. Increase angles as required to suit conditions.

3. **Offsetting Rear Gang Bar:** (Refer to Figure 3) for ordinary conditions bolt(22) should be in the centre of lateral plate(23). When using disc as a double wide unit the rear gang bar is adjusted to maximum width to fill furrow. Remove two bolts(22), loosen bolt where slots are(24), adjust laterally then retighten all bolts.

4. **Offsetting The Hitch:** (Refer to Figure 1) This unit is designed to trail straight behind the tractor. Minimum side draft will be obtained when the hitch is in line with outside beam of main frame. If more adjustment is required adjust side arm to required hole position.

CAUTION: Tighten the hitch bolts to about 450 ft./lbs. torque (three foot wrench for average man). Loose hitch bolts will result in extensive damage to the hitch pole and hitch bridle.

5. **Hitch Height:** (Refer to Figure 1) The hitch pole should always be as near level as possible when discing.

6. **Leveling:**

A. **Front to Rear:** (Refer to Figure 1) With disc raised and hitch to tractor, adjust bottom fore-aft eye bolt(15) until main frame is level. Adjust fore-aft spring lock(16) until spring is snug. The top spring should be under some compression when discing, but should never be compressed solidly. NOTE: In general use as little pressure as possible when discing.

B. **Side to Side Leveling:** (Refer to Figue 3) In general, adequate levelling from side to side may be obtained by placing levelling washers(28) between angling plate on frame and gang bar. levelling washers are always used on narrow side(N) of disc only.

C. **Penetration:** It is better to reduce the angle of the gangs to decrease penetration rather than to gauge the penetration by use of the wheels. By use of this method, width of cut is increased and draft and fuel consumption in extremely soft or sandy soils, decreased. It may be necessary to use the wheels for additional leveling and gauging.

7. **Transporting:** (Refer to Figure 1) Disc may be transported without using hydraulic cylinder. Place the rod(27) through the hole in anchor on frame(1) and place clevis over transport block. Raise the disc until the cylinder has reached the end of its stroke. Insert pin in clevis and adjust transport rod nut until there is about ½" between nut and transport anchor. Release pressure on hydraulic cylinder and remove. CAUTION: Extreme care should be taken not to collapse the cylinder too much with the transport rod in transport position.

POINTS TO CHECK IN OBTAINING THE BEST PERFORMANCE

1. **Side Draft on Tractor:**
   - A. Adjust hitch for proper line of draft.
   - B. Reduce angle of front gang bar.
   - C. Increase angle of rear gang bar.
   - D. Increase spring pressure slightly.
   - E. Put front wheel weights on tractor.
   - F. Lower tractor drawbar and/or raise hitch flapper on disc.

2. **Furrow Not Filled:**
   - A. Increase angle of rear gang bar.
   - B. Offset rear gang bar to outside.
   - C. Increase spring pressure slightly.
   - D. Put leveling spacer between main frame and gang bar on narrow side of disc.
   - E. Position hitch pole on bridle to move disc in opposite direction.

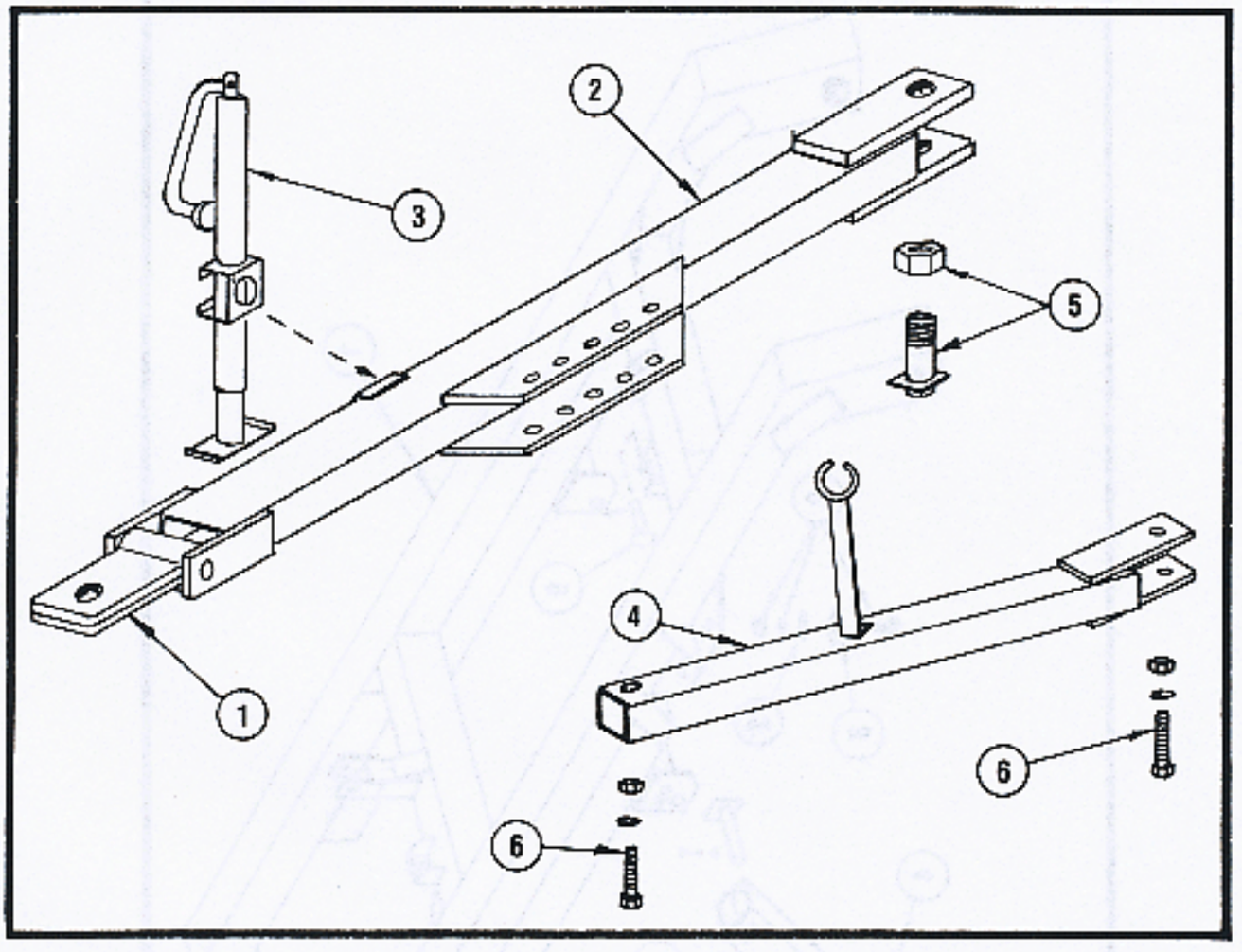
3. **Furow Overfilled:**
   - A. Adjust opposite to No. 2 above.

4. **Ridging on Rear:**
   - A. Reduce angle of rear drawbar.
   - B. Decrease spring pressure.

5. **Disc Unstable Laterally:** (Plowing crooked furrow)
   - A. Decrease spring pressure.
   - B. Correct drawbar and/or hitch flapper height.
   - C. Reduce angle of front gang bar.

6. **Clogging Between Discs:**
   - A. Adjust scrapers properly.
   - B. Decrease angle front and/or rear.
   - C. Decrease depth of plowing.

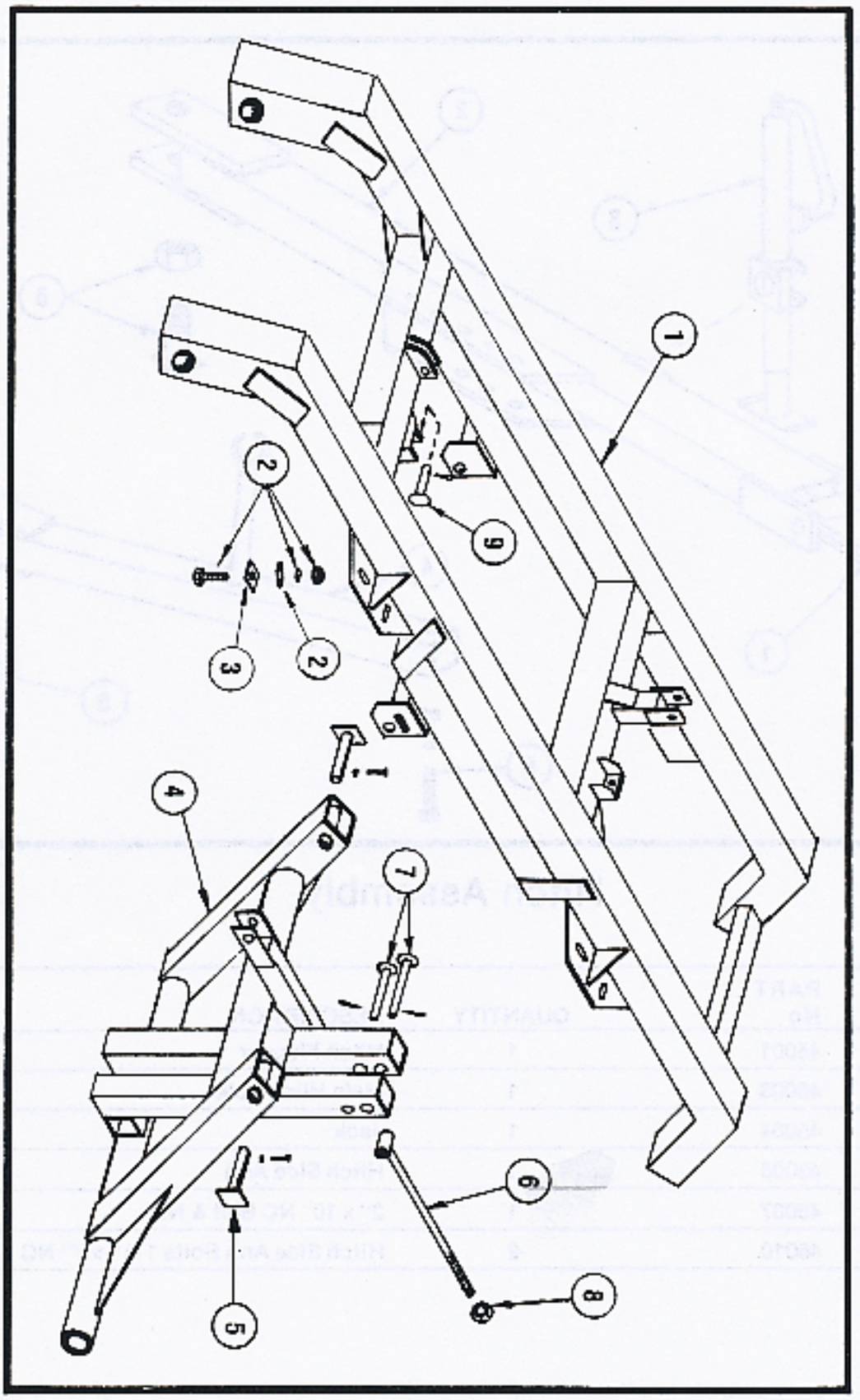
Kello-Bilt Series 450 Offset Disc



Hitch Assembly

ITEM No.	PART No	QUANTITY	DESCRIPTION
1	45001	1	Hitch Flapper
2	45003	1	Main Hitch Pole
3	45004	1	Jack
4	45006	1	Hitch Side Arm
5	45007	1	2" x 10" NC Bolt & Nut
6	45010	2	Hitch Side Arm Bolts 1¼" x 7" NC

Frame and Wheel Carriage

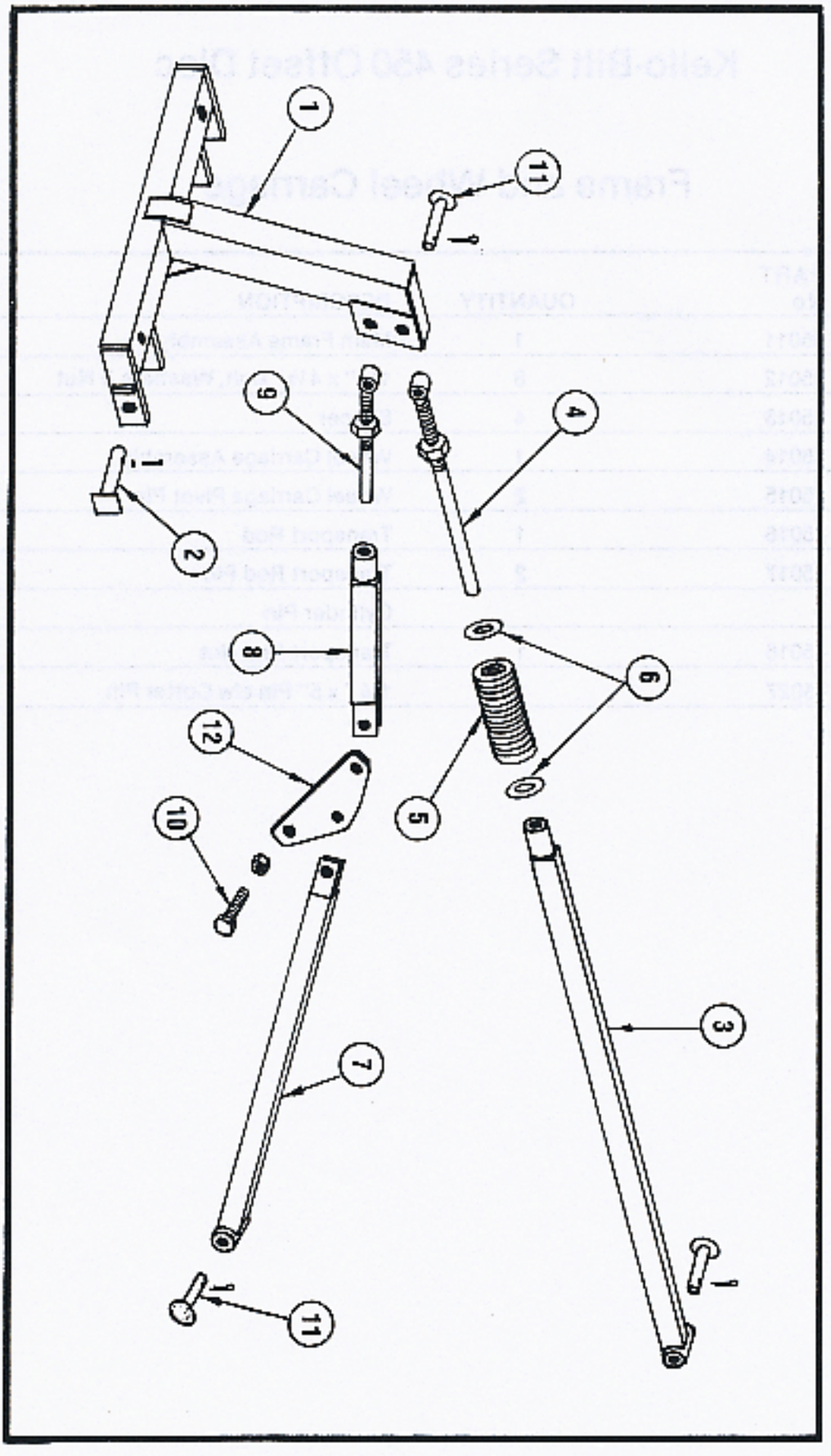


Kello-Bilt Series 450 Offset Disc

Frame and Wheel Carriage

ITEM No.	PART No	QUANTITY	DESCRIPTION
1	45011	1	Main Frame Assembly
2	45012	8	1¼" x 4½" Bolt, Washers & Nut
3	45013	4	Spacer
4	45014	1	Wheel Carriage Assembly
5	45015	2	Wheel Carriage Pivot Pin
6	45016	1	Transport Rod
7	45017	2	Transport Rod Pin
			Cylinder Pin
8	45018	1	Transport Rod Nut
9	45027	1	1¼" x 5" Pin c/w Cotter Pin

Bridle Assembly & Fore Aft Control Assembly

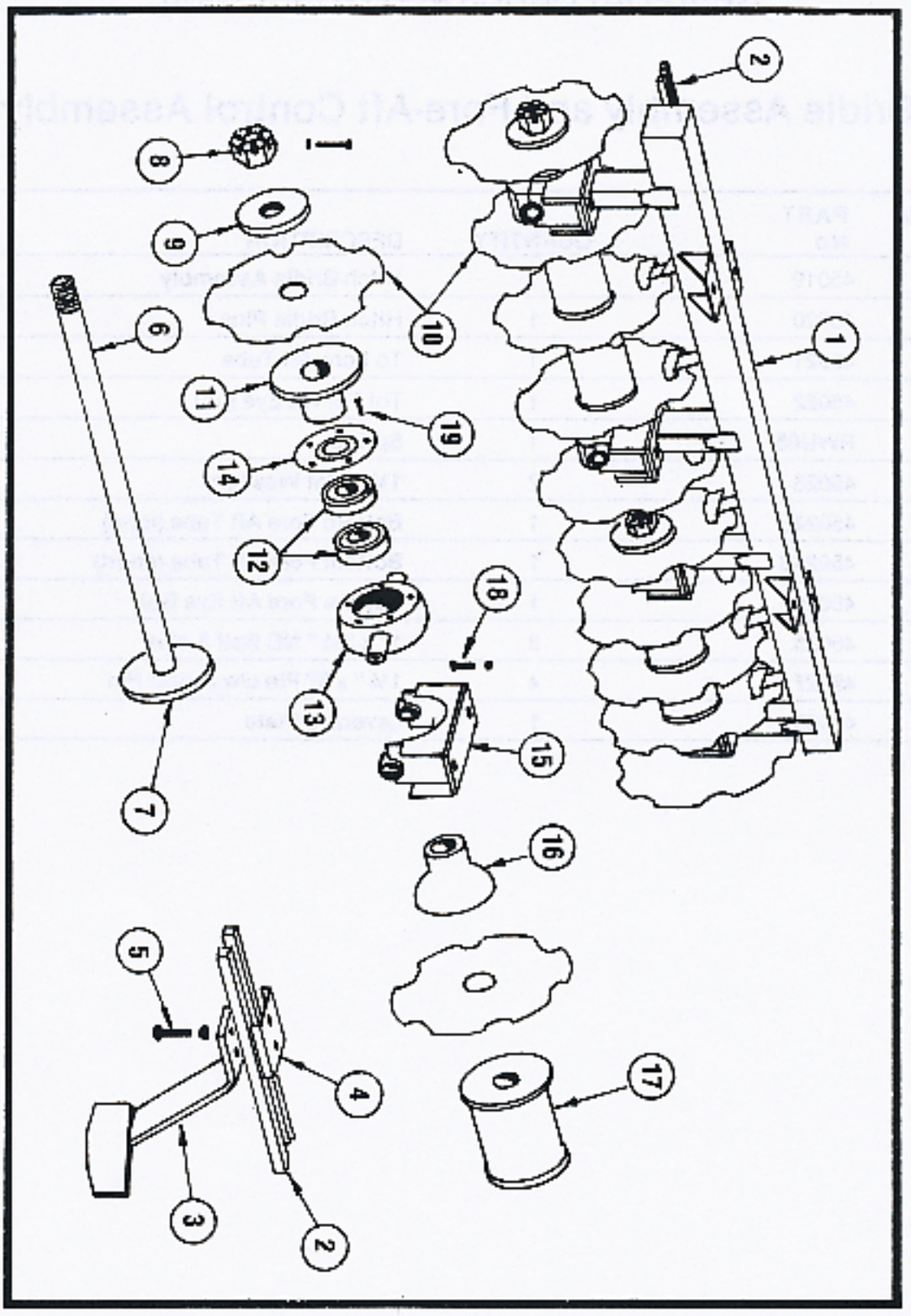


Kello-Bilt Series 450 Offset Disc

Bridle Assembly and Fore-Aft Control Assembly

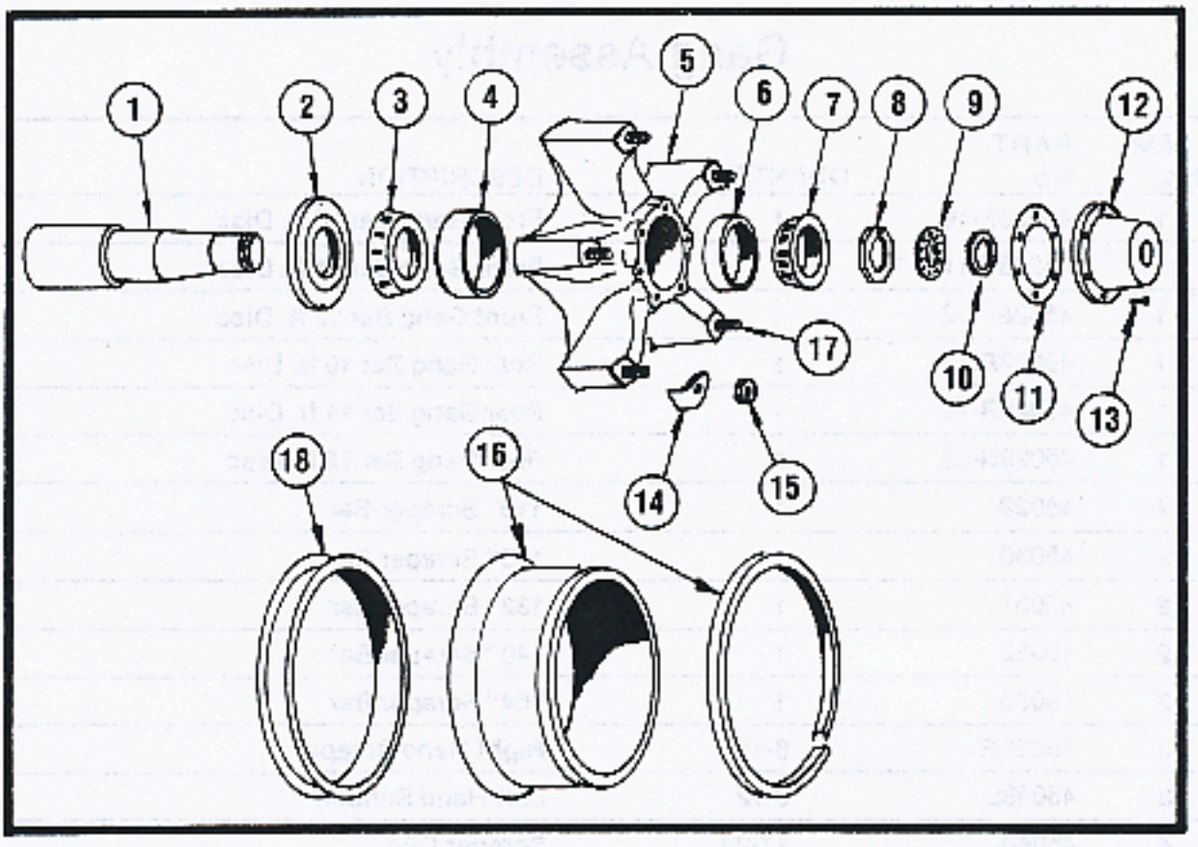
ITEM No.	PART No	QUANTITY	DESCRIPTION
1	45019	1	Hitch Bridle Assembly
2	45020	1	Hitch Bridle Pins
3	45021	1	To Fore Aft Tube
4	45022	1	Tof For Aft Eye Bolt
5	RWU65	1	Spring
6	45023	2	1½" Flat Washers
7	45024L	1	Bottom Fore Aft Tube (long)
8	45024S	1	Bottom Fore Aft Tube (short)
9	45025	1	Bottom Fore Aft Eye Bolt
10	45026	3	1" x 3½" NC Bolt & Nut
11	45027	4	1¼" x 5" Pin c/w Cotter Pin
12	45056	1	Leverage Plate

Gang Assembly



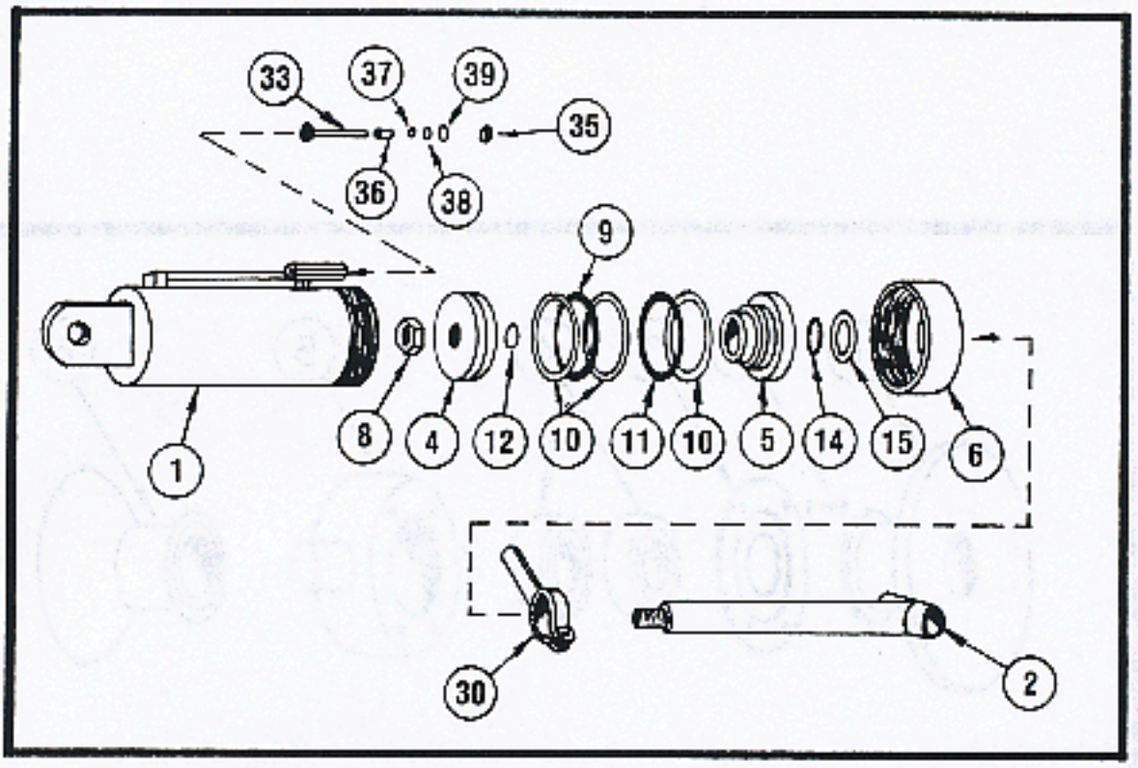
Gang Assembly

ITEM No.	PART No	QUANTITY	DESCRIPTION
1	45028F-10	1	Front Gang Bar 10 ft. Disc
1	45028F-11	1	Front Gang Bar 11 ft. Disc
1	45028F-12	1	Front Gang Bar 12 ft. Disc
1	45028R-10	1	Rear Gang Bar 10 ft. Disc
1	45028R-11	1	Rear Gang Bar 11 ft. Disc
1	45028R-12	1	Rear Gang Bar 12 ft. Disc
2	45029	1	115" Scraper Bar
2	45030	1	126" Scraper Bar
2	45031	1	132" Scraper Bar
2	45032	1	140" Scraper Bar
2	45033	1	154" Scraper Bar
3	45039R	8-11	Right Hand Scraper
3	45039L	9-12	Left Hand Scraper
4	45040	17-23	Scraper Clip
5	45041	2 per scraper	¾" x 3" NC Bolt, Washer & Nut
6	45042	1-4	Gang Shaft 51" x 2¾" Rd
6	45043	1-4	Gang Shaft 65" x 2¾" Rd
6	45044	1-4	Gang Shaft 79" x 2¾" Rd
6	45045	1-4	Gang Shaft 91" x 2¾" Rd
7	45047	4	Weld On Butt Plate
8	45048	4	2¾" Hex Nut c/w Lock Bolt
9	45050	4	1" x 7" End Washer Spacer
10	20-8037	9-23	½" x 30" Notched Blade
10	20-8017	8-11	⅜" x 30" Notched Blade
10	20-7012	1	⅜" x 28" Notched Blade
10	20-6040	1	5/16" x 26" Notched Blade
11	KB17275S	8	Concave Half Spool
12	W315P-2DB	8	Fafnir Sealed Bearing
13	KB17277	8	Bearing Housing
14	45061	8	Bearing Housing Plate
15	45058	8	Bearing Housing Shroud
16	KB17278S	8	Convex Half Spool
17	KB16766S	7-11	Full Spool
18	45026	16	1" x 3½" NC Bolt, Washer & Nut
19	45060	5 per housing	5/16" x 1" NC Bolt



Hub Assembly

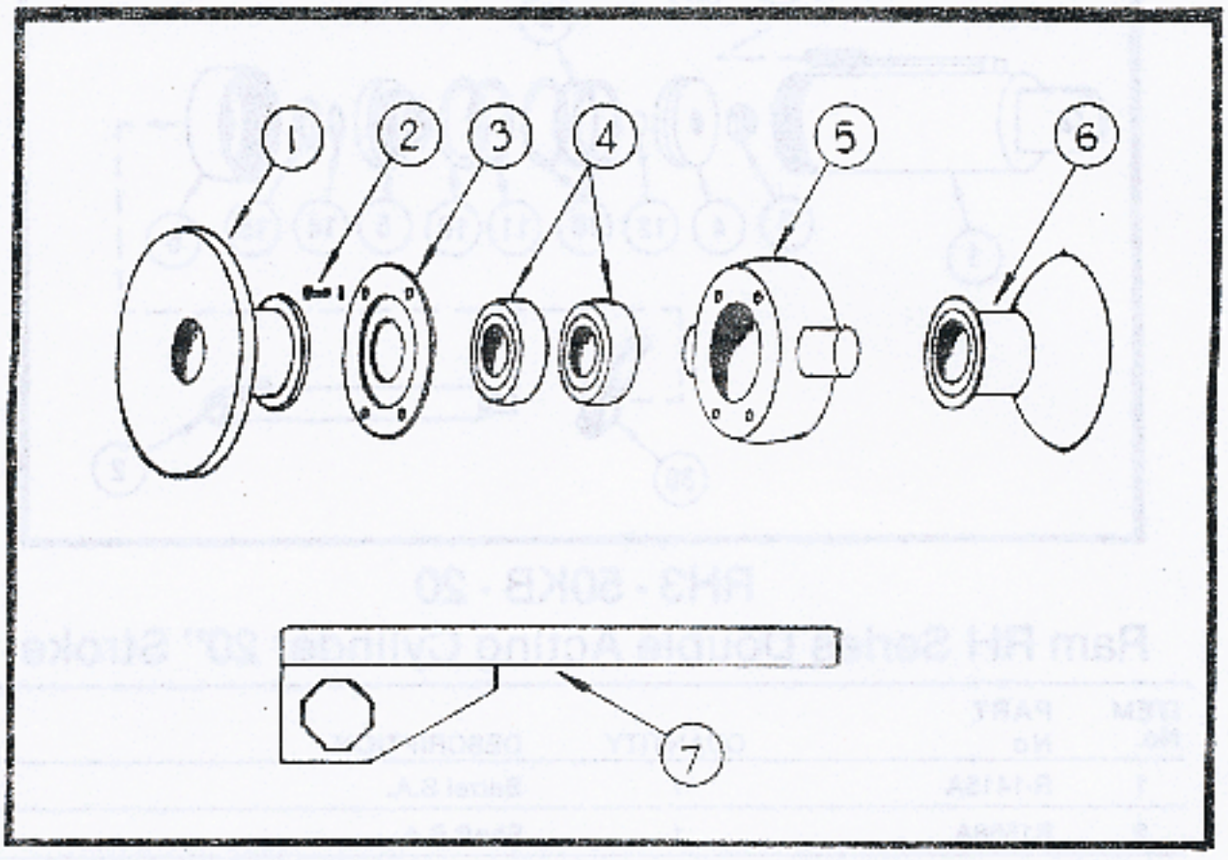
ITEM No.	PART No	QUANTITY	DESCRIPTION
1	45059	1	Spindle
2	M670A	1	Seal
3	663	1	Bearing Cone
4	653	1	Bearing Cup
5	TA745K	1	Hub
6	HM212011	1	Bearing Cup
7	HM212049	1	Bearing Cone
8	M682	1	Setting Nut
9	M683	1	Locking Washer
10	M684	1	Jamb Nut
11	330-3067	1	Gasket
12	343-4009	1	Dust Cap
13	45060	1	5/16" x 1" NC Bolt
14	M-3	5	Wheel Lug
15	M-45	5	¾" NC Nut
16	262FL2	2	20" Rim c/w Rim Lock Ring
17	M-39	5	¾" NC Stud
18	SB14F97	1	20" x 4"Spacer



RH3 - 50KB - 20

Ram RH Series Double Acting Cylinder 20'' Stroke

ITEM No.	PART No	QUANTITY	DESCRIPTION
1	R-1415A	1	Barrel S.A.
2	R1568A	1	Shaft S.A.
4	R-3517	1	Piston
5	R-2016	1	Gland
6	R-3009	1	Retaining Nut
8		1	1⅛''UNF Lock Nut
9		1	O Ring No. 425 4½'' x 5'' Duro 70
10		3	Back Up Washer No. 425
11		1	O Ring No. 425 4½'' x 5'' Duro 90
12		1	O Ring No. 216 Duro 70
14		1	Polypak 2'' x 2⅜'' x 5/16''
15		1	Wiper 2'' x 2⅜'' x 3/16'' Cased
30	R-6040A	1	Shaft Clamp 2'' Rd
33	R-6008	1	Valve Stem and Poppet
35	R-6006	1	Valve Head
36	R-6007	1	Valve Sleeve
37		1	O Ring No. 009 Duro 70
38		1	Back Up Washer No. 009
39		1	O Ring No. 114 Duro 70
40	HDLSK	1	Repair Kit Consists of 37, 38, 39
41	R3-50-2	1	Repair Kit consists of 9, 10, 11, 12, 14, 15



1982 REDESIGNED HALF SPOOL & BEARING ARRANGEMENT

ITEM NO.	PART NO.	QUANTITY	DESCRIPTION
1	KB172755-DS	8	CONCAVE HALF SPOOL c/w DIRT SLINGER
2	45060	5 per hsg	5/16" x 1" NC BOLT
3	45061-DS	8	BEARING HOUSING PLATE
4	W315P-2DB	8	FAFNIR BALL BEARING
5	KB17277-DS	8	BEARING HOUSING
6	KB172785-DS	8	CONVEX HALF SPOOL c/w DIRT SLINGER
7	45063	1	GANG SHAFT WRENCH

Kello-Bilt Warranty Information

To The Purchaser

Kello-Bilt Industries Ltd. warrants its products to the original owner for a period of one year from date of purchase. All matters related with the warranty of our products must be handled through the authorized selling dealer. Warranty does not cover normal wear of the disc components or damages caused by lack of maintenance or misuse, and is subject to the following provisions:

SUBJECT TO THE LIMITATIONS HEREINAFTER CONTAINED, every new Farm Implement (as defined in The Farm Implement Act, Chapter 20 S.A. 1957 and amendments thereto) if described in this parts manual and if purchased by a farmer for his own use, is covered by the warranties hereinafter made, and referred to in the said ACT AND NO OTHER.

LIMITATIONS OF WARRANTY

1. **Original Purchaser Only:** This said warranty is to the original purchaser only and to no other person.
2. **Duration:** The duration of time limit of the said warranty (hereinafter called the warranty period) shall be one (1) year from the date that the new farm implement is first used within the first normal season of use for its intended purpose.
3. **Replacement or Repair Only:** The sole liability for breach of the said warranty shall be to replace or repair free of charge including installation, at the Seller's place of business, any parts which prove to be defective within the warranty period, under reasonable operating conditions and proper use, care and maintenance; the said defective part or parts are to be returned to the Seller within 30 days of being found defective; IN NO EVENT shall there be any liability for any consequential damages such as damages for loss of use or loss of profit or expenses, out of pocket or otherwise.
4. **Replacement Parts:** Will be warranteed for a period of 90 days.
5. **Labor:** Any labour subject to warranty must be authorized by a Kello-Bilt Industries Ltd. representative before work is started. Warranty labour allowance & rates will be handled according to established Service Warranty Policy.
6. **Warranty Parts:** Defective parts are to be stored at the dealership & warranty will be subject to inspection by a Kello-Bilt Industries Ltd. representative or shipped prepaid to Stettler, Alberta, Canada.
7. **Warranty on Machines Used For Custom Work, Rental or Industrial/Construction Use:** Warranty on discs used for custom work, rental or industrial/construction use shall be stated below, with the exception that it shall be for a period of 90 days only.
8. **Government Legislation:** Warranty terms & conditions are subject to provincial or state legislation.
9. **Warranty Will be Void:** If any disc component is altered or modified, unless written authorization is granted by Kello-Bilt Industries Ltd.
10. **Notice of Claim:** The Purchaser shall forthwith after any alleged breach of warranty within the warranty period, notify in writing the particulars of the Purchaser's claim by registered mail addressed to the Seller and the Manufacturer at their respective addresses, giving a description of the new Farm Implement and the return address of the Purchaser.
11. **No Other Warranties, Conditions or Representations:** Purchaser acknowledges that this agreement constitutes the entire contract and there are no other representations, warranties or conditions, expressed or implied, statutory or otherwise, other than as contained herein or delivered in writing herewith. Without limiting the generality of the foregoing, Purchaser agrees that there is no warranty as to the year and model, even if stated herein.
12. **Time:** Time shall strictly be of the essence.
13. **No Warranty on Tires - Tubes - Accessories:** No warranty whatsoever is given as to tires and tubes or as to accessories unless such accessories are new and are manufactured by the manufacturer named on the reverse side hereof and such accessories are sold as part of the said new Farm Implement.
14. **Disc Blade Warranty:** (1) Full warranty will be given for one year from date of purchase for a straight directional break or split disc caused by faulty or defective material.

    (2) 50 per cent warranty will be given for one year from date of purchase for the following:

    (a) Irregular breaks, tear type fractures, chipped or dented edges resulting from use in severe areas such as rocks or stumps, (b) Centre broken out - caused by rock or stump conditions, excessive flexing of discs or loose gang bolts.

    (3) Warranty limited to disc replacement upon return of damaged disc, prepaid to Stettler, Alberta, Canada.
15. **Warranty - Property Other than New Farm Implements**

(Set forth above, warranty, if any, on property other than New Farm Implements, such warranty to be honoured only at Stettler's place of business).

I hereby acknowledge receipt of a true copy of this Agreement and that I am the Purchaser named therein.

Because we are constantly striving to improve our products, we reserve the right to incorporate any changes related to design, materials and specifications at any time, without notice or obligation.