Kello-Bilt Series '250' Offset Breaking Disc

Owner's Manual

KELLO-BILT

Manufactured by Kellough Bros. Ltd.

SOLD AND SERVICED BY

KELLOUGH ENTERPRISES INC.

#3, 7491 - 49 Avenue
Red Deer, Alberta T4P 1N1
email: kello@telusplanet.net
web site: www.theworldco.com/kellough

Phone: (403) 347-2646
Fax: (403) 347-2656
Toll Free: 1-888-500-2646

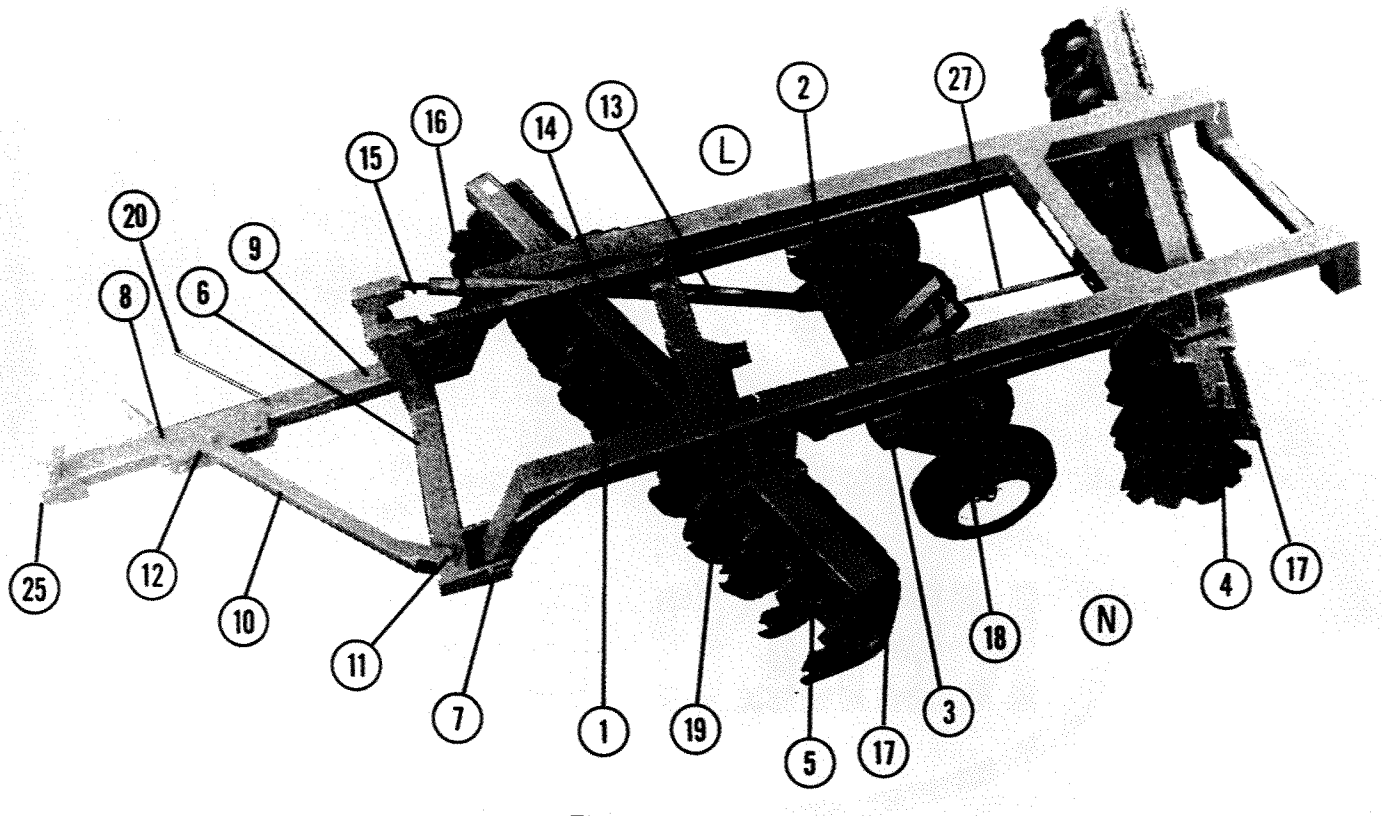


Figure 1

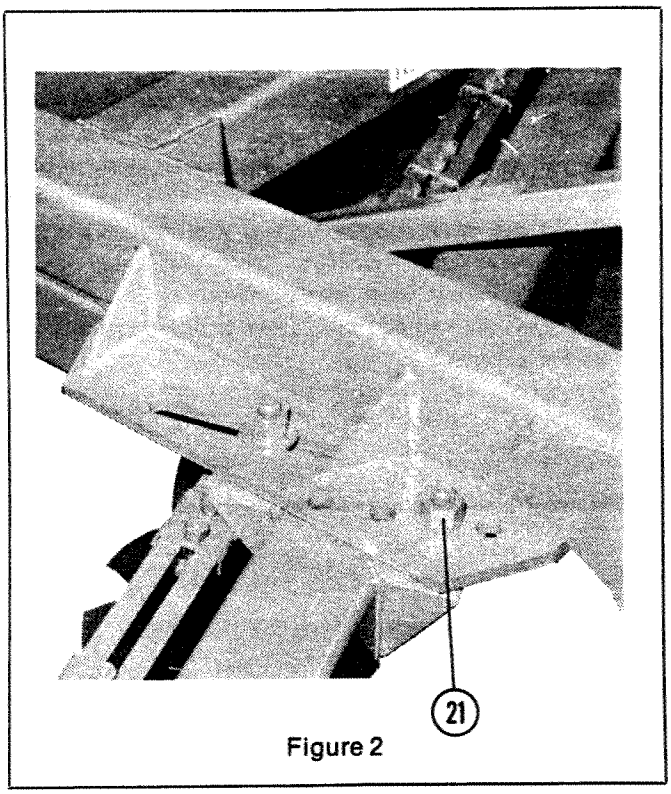


Figure 2

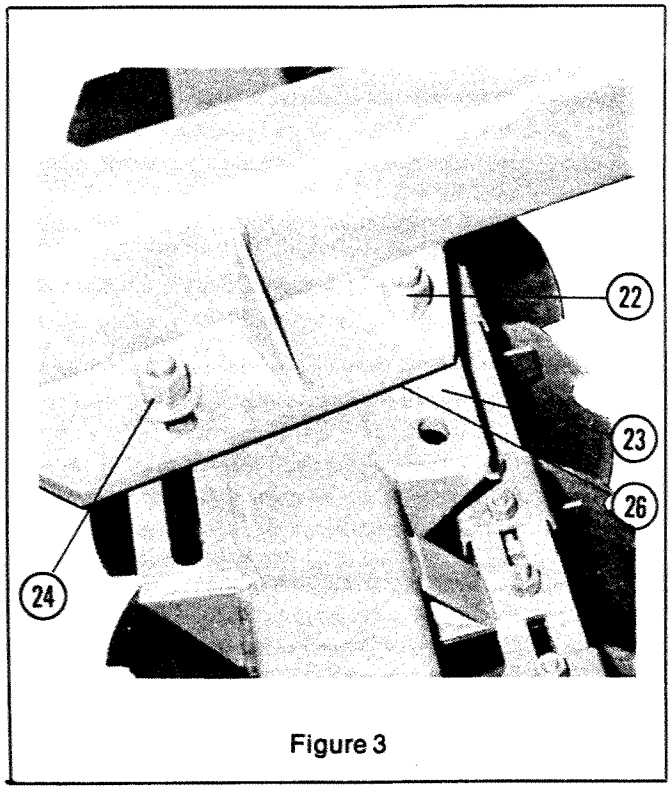


Figure 3

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 ⅞ x 3½ bolts. Install leveling washers on top of angling plates on long side of disc(L). Install leveling 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 ⅞ x 3½ 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 1 x 6 bolt. Attach hitch side arm(10) to opposite side of bridle(11) with 1 x 6 bolt. Join hitch pole and side arm with 1" pin at adjustable eye bolt(12). 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(6). 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(6).

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

7. **To Double Wide Right and Left Hand Offsets:** (Refer to Double Wide drawing). Set together following regular instructions except item No. 4 - to attach hitch pole to bridle - the hitch pole is attached to the opposite side from the lead corner and the side arm is attached to the lead corner with 1 x 6 bolt. Set left hand disc(1) stationary and pull right hand disc(1) along side leaving front gang of right hand disc behind front gang of left hand disc. Attach rear spreader bar(5) with pins. Attach front spreader bar(6) with pins. Join right hand main hitch pole to left hand main hitch pole(3) with 1¼" pin(7). Adjust swivel flapper with 1 x 6 bolt for proper direction(8).

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 tubes 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.

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 50 pounds pressure for proper flotation and protection of associated parts.

OPERATING INSTRUCTIONS

1. **Hydraulic Cylinder and Hoses:** (Refer to Figure 1) A standard 8" stroke double acting hydraulic cylinder is required to lift disc. Two 18 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(18) 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 screw hitch side arm eye bolt(12) to desired position, then retighten jamb nut to reduce pressure on eye bolt thread.

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. Flapper hitch(25) can be raised or lowered to proper tongue level of tractor. (Not adjustable on Series 250)

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 leveling washers(26) between angling plate on frame and gang bar. leveling 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 ⅛" 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.

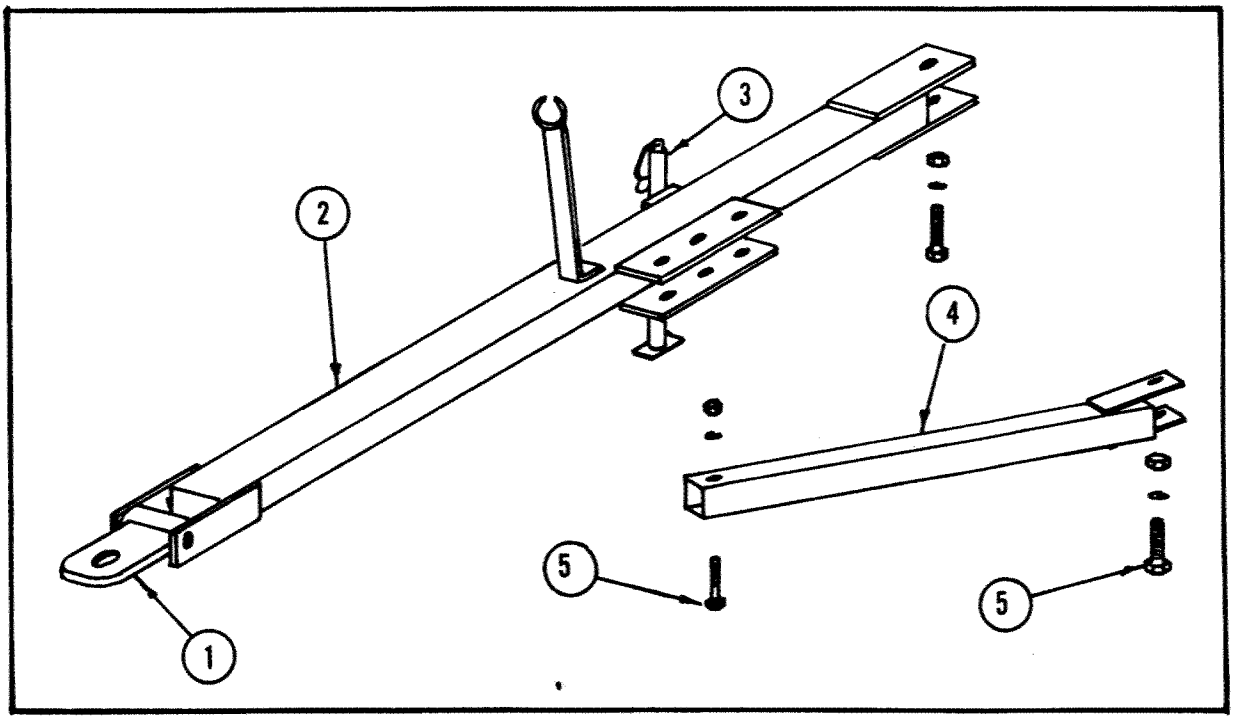
3. **Furow Overfilled:**
   - A. Adjust opposite to No. 2 above.

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.

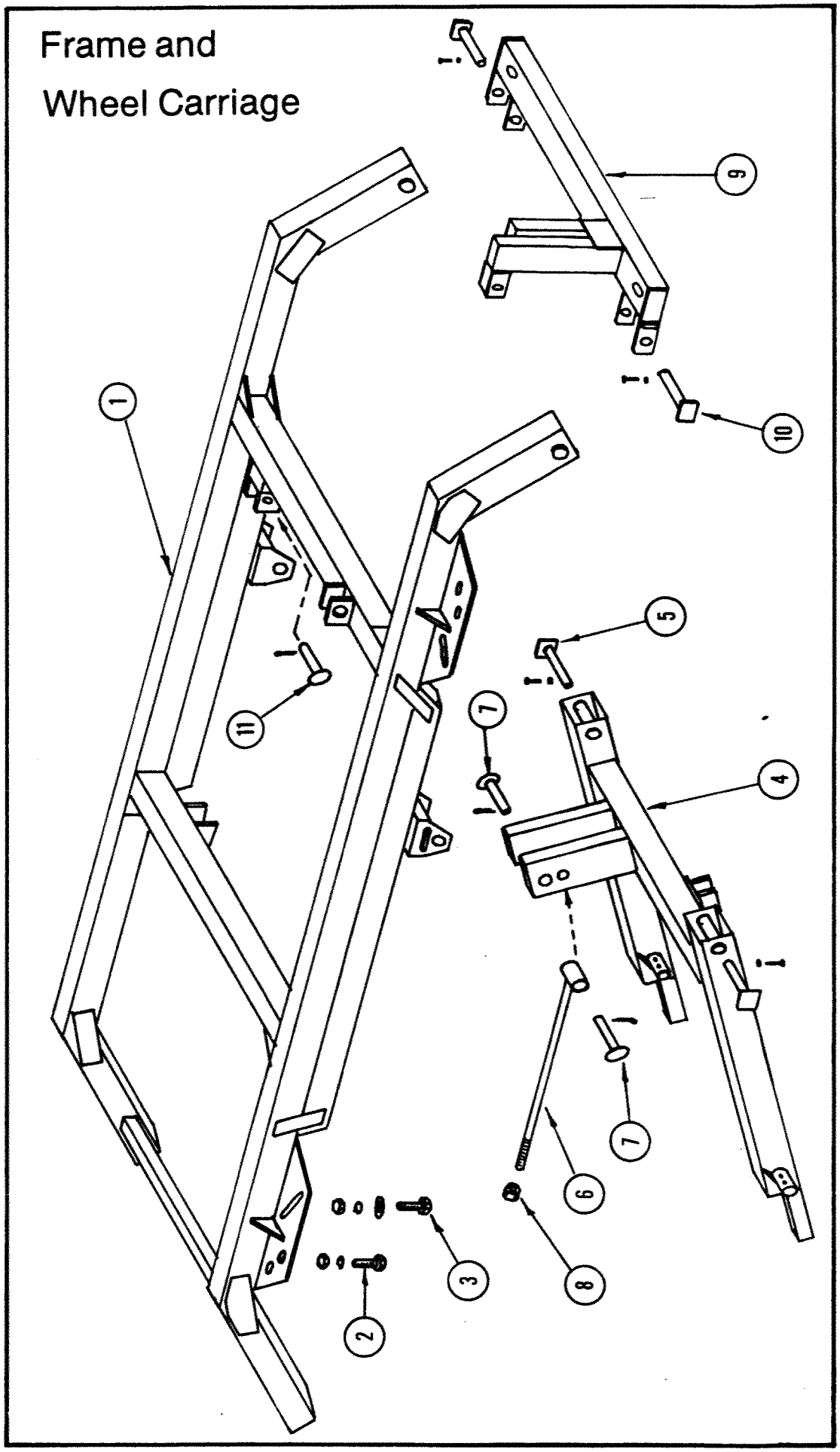
Kello-Bilt Series 250 Offset Disc



HITCH ASSEMBLY

Item No.	Part No.	Quantity	Description
1	25001	1	Hitch Flapper
2	25003	1	Main Hitch Pole
3	25004	1	Jack
4	25006	1	Hitch Side Arm
5	25007	3	1¼" x 7" NC Bolt Lockwasher & Nut

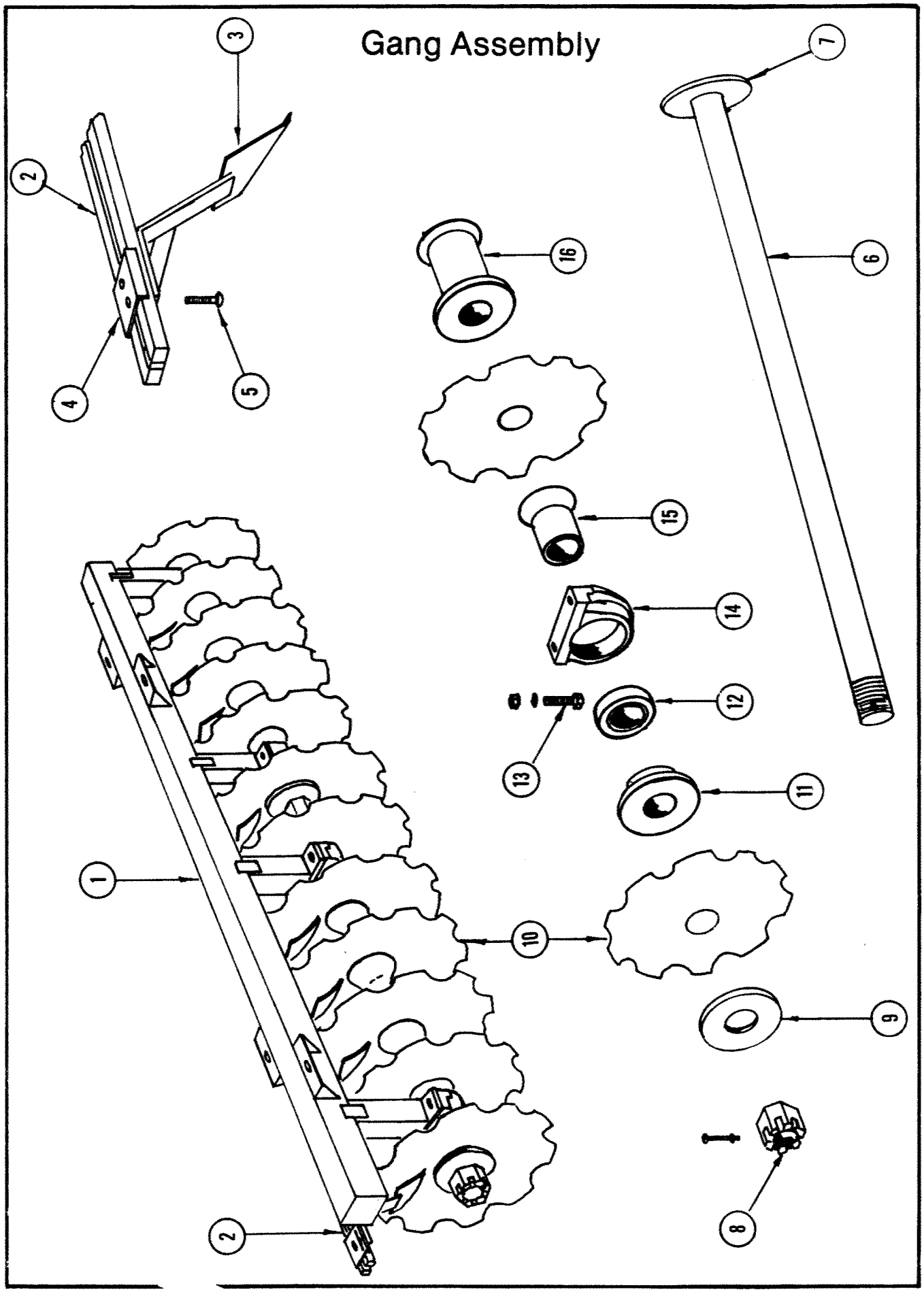
Frame and Wheel Carriage



Frame and Wheel Carriage

ITEM No.	PART No.	QUANTITY	DESCRIPTION
1	25011	1	Main Frame Assembly
2	25012	4	1" x 3½" Bolt, Washer & Nut
3	25013	4	1" x 3½" Bolt, Washer, Nut, & Spacer
4	25014	1	Wheel Carriage Assembly
5	25015	2	Wheel Carriage Pivot Pin
6	25016	1	Transport Rod
7	25017	1	Transport Rod Pin
		1	Cylinder Pin
8	25018	1	Transport Rod Nut
9	25019	1	Hitch Bridle Assembly
10	25020	2	Hitch Bridle Pins
11	25027	1	1¼" x 5" Pin c/w Cotter Pin

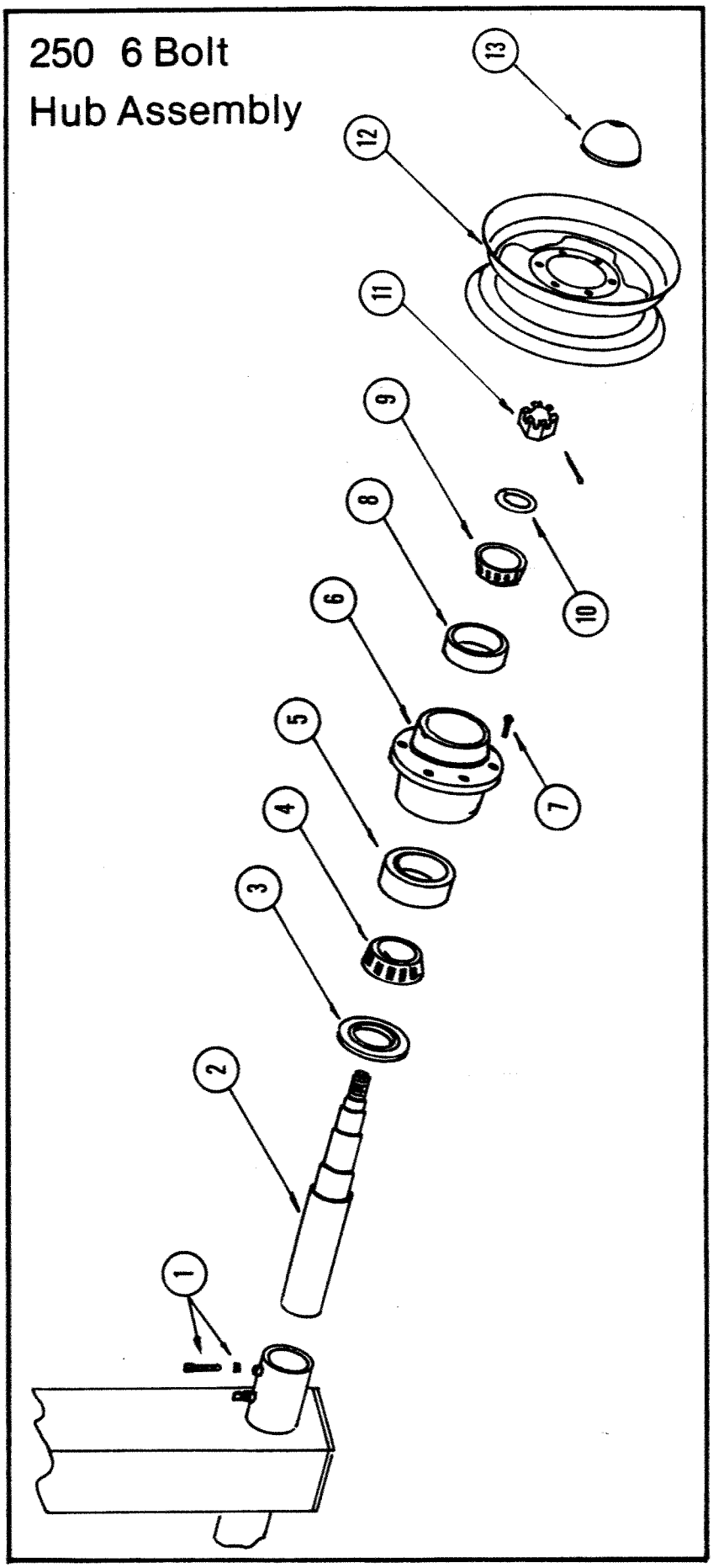
Gang Assembly



Gang Assembly

ITEM No.	PART No.	QUANTITY	DESCRIPTION
1	25028F-8	1	Front Gang Bar 8 ft. Disc
1	25028F-10	1	Front Gang Bar 10 ft. Disc
1	25028F-12	1	Front Gang Bar 12ft. Disc
1	25028F-14	1	Front Gang Bar 14 ft. Disc
1	25028R-8	1	Rear Gang Bar 8 ft. Disc
1	25028R-10	1	Rear Gang Bar 10 ft. Disc
1	25028R-12	1	Rear Gang Bar 12 ft. Disc
1	25028R-14	1	Rear Gang Bar 14 ft. Disc
2	25029	1	85" Scraper Bar
2	25030	1	95" Scraper Bar
2	25031	1	105" Scraper Bar
2	25032	1	115" Scraper Bar
2	25033	1	130" Scraper Bar
2	25034	1	140" Scraper Bar
2	25035	1	154" Scraper Bar
2	25036	1	164" Scraper Bar
3	25039R	7-14	Right Hand Scraper
3	25039L	7-14	Left Hand Scraper
4	25040	14-30	Scraper Clip
5	25041	2 per Scraper	¾" x 3" Bolt, Washer, & Nut
6	25042 A	1-4	Gang Shaft 43" Long x 2¾" Rd.
6	25043 A	1-4	Gang Shaft 55" Long x 2¾" Rd.
6	25044 A	1-4	Gang Shaft 67" Long x 2¾" Rd.
6	25045 A	1-4	Gang Shaft 79" Long x 2¾" Rd.
6	25046 A	1-4	Gang Shaft 91" Long x 2¾" Rd.
7	25047	4	Weld-on Butt Plate
8	25048	4	2¾" Hex Nut c/w Lock Nut
9	25050	4	1" x 7" End Washer Spacer
10	20-6040	15-27	5/16" x 26" Notched Blade
10	20-7012	15-27	⅜" x 28" Notched Blade
10	20-5309	1	5/16" x 24" Notched Blade
10	20-4382	1	¼" x 22" Notched Blade
11	KB201-250	8	Concave Half Spool
12	W214PPB-9	8	Fafnir Sealed Bearing
13	25057	16	⅞" x 4 Bolt, Washer, & Nut
14	KB16757	8	Bearing Housing
15	KB202-250	8	Convex Half Spool
16	KB167645	5-15	12" Steel Full Spool

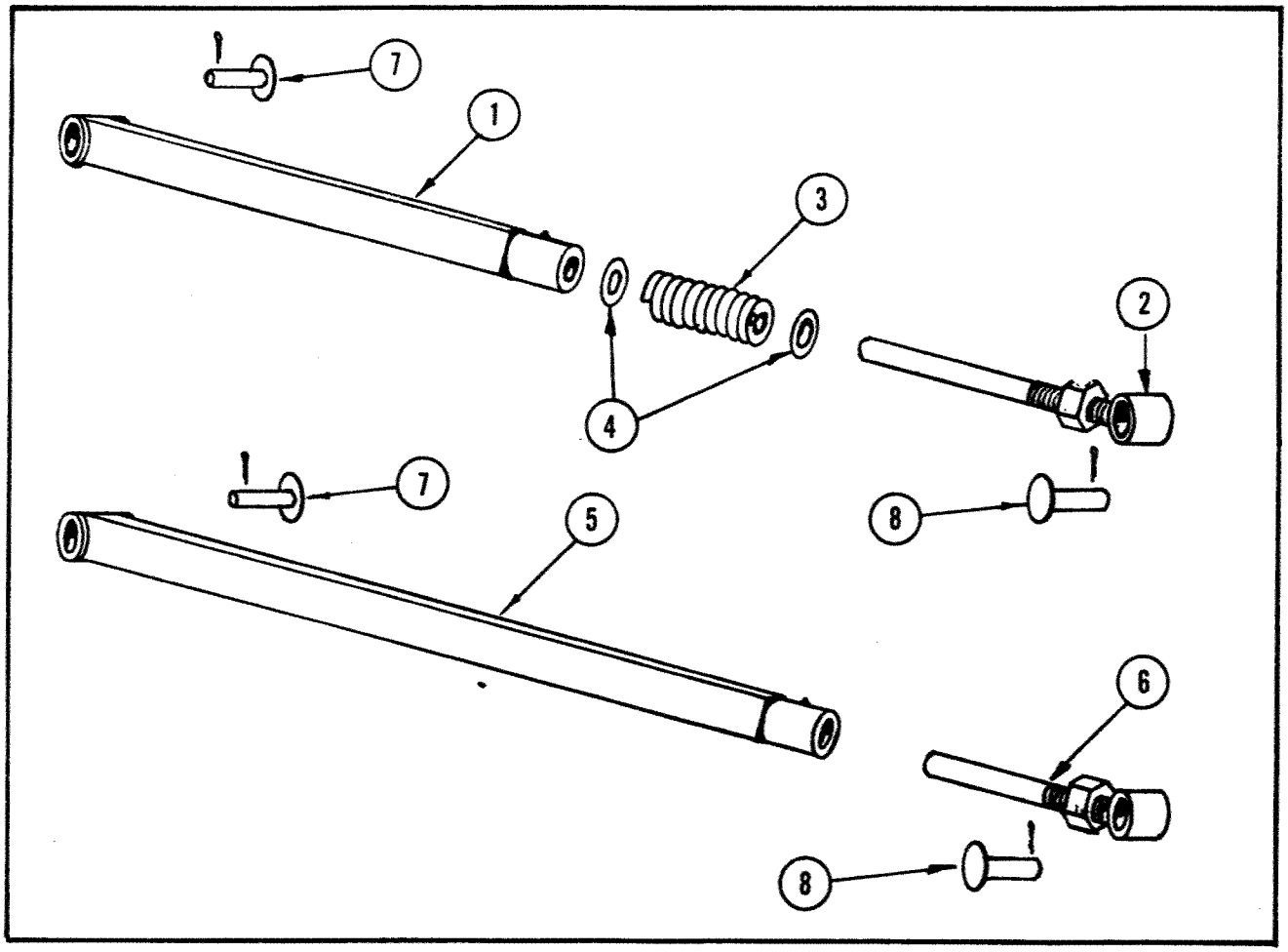
250 6 Bolt
Hub Assembly



250 6 Bolt Implement Hub Assembly
Capacity 5000 lbs.

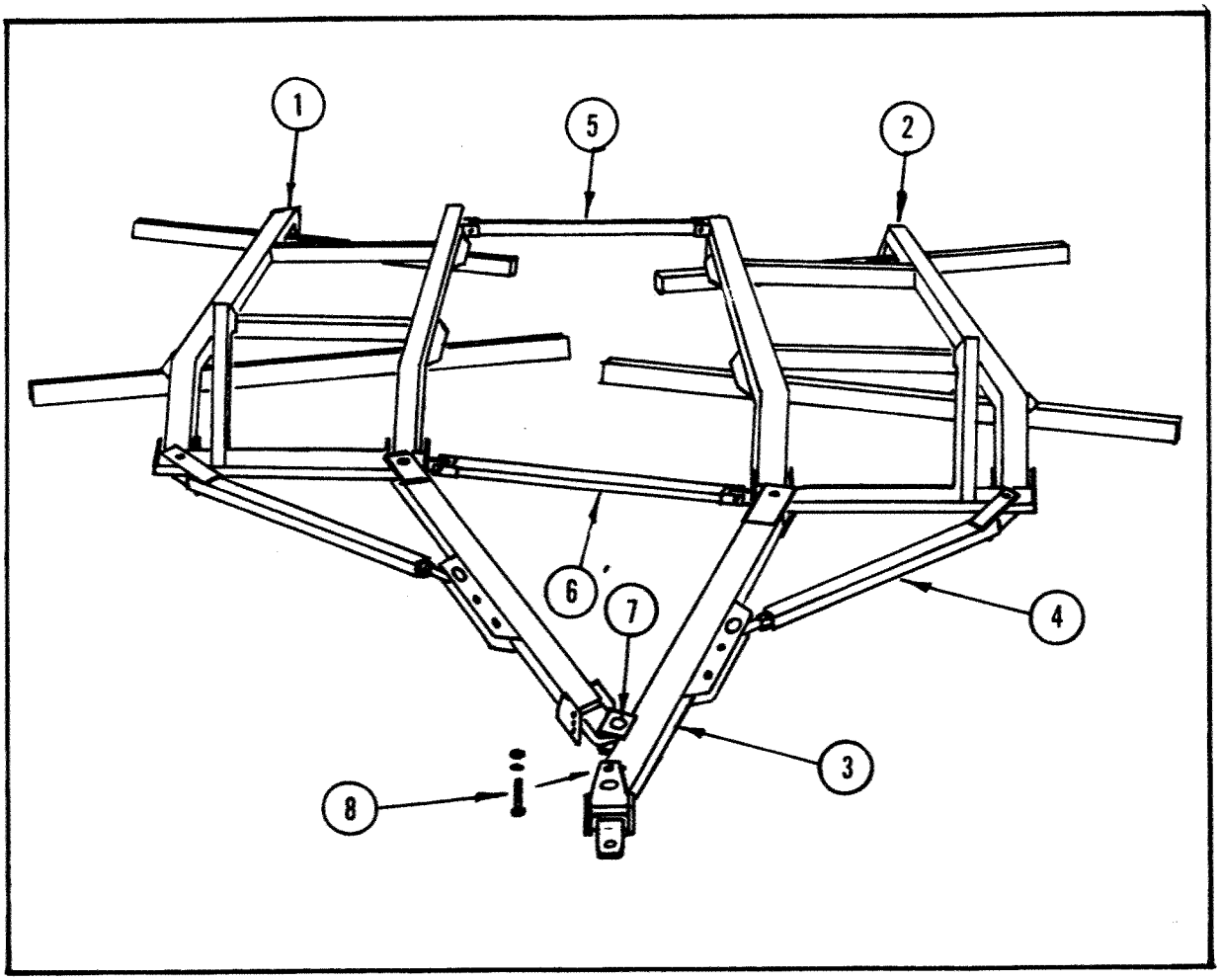
Maximum Speed 20 m.p.h.

ITEM No.	PART No.	QUANTITY	DESCRIPTION
1	25051	2	½" x 2" NC Sq. Head Set Screws c/w Half Nut
2	S614-A15	1	2" x 12" Spindle
3	SE16	1	Seal
4	LM603049	1	Bearing Cone
5	LM603011	1	Bearing Cup
6	H614	1	Hub
7	WB12	6	9/16"-18 x 1¼"NF Wheel Bolt
8	LM48510	1	Bearing Cup
9	LM48548	1	Bearing Cone
10	WA-13	1	1" SAE Plain Washer
11	WB-33	1	1" NF Castellated Hex Nut & 3/16" x 1½" Cotter Pin
12	1581-624-1	1	15" x 8" x 6 Bolt Imp. Rim (White)
13	DC-15	1	Dust Cap



Fore Aft Control Assembly

Item No.	Part No.	Quantity	Description
1	25021	1	Top Fore Aft Tube
2	25022	1	Top Fore Aft Eye Bolt
3	RWU65	1	Spring
4	25023	2	1½" Flat Washer
5	25024	1	Bottom Fore Aft Tube
6	25025	1	Bottom Fore Aft Eye Bolt
7	25026	2	1¼" x 5" Pin c/w Cotter Pin
8	25027	2	1¼" x 5" Pin c/w Cotter Pin



Double Wide Disc Assembly

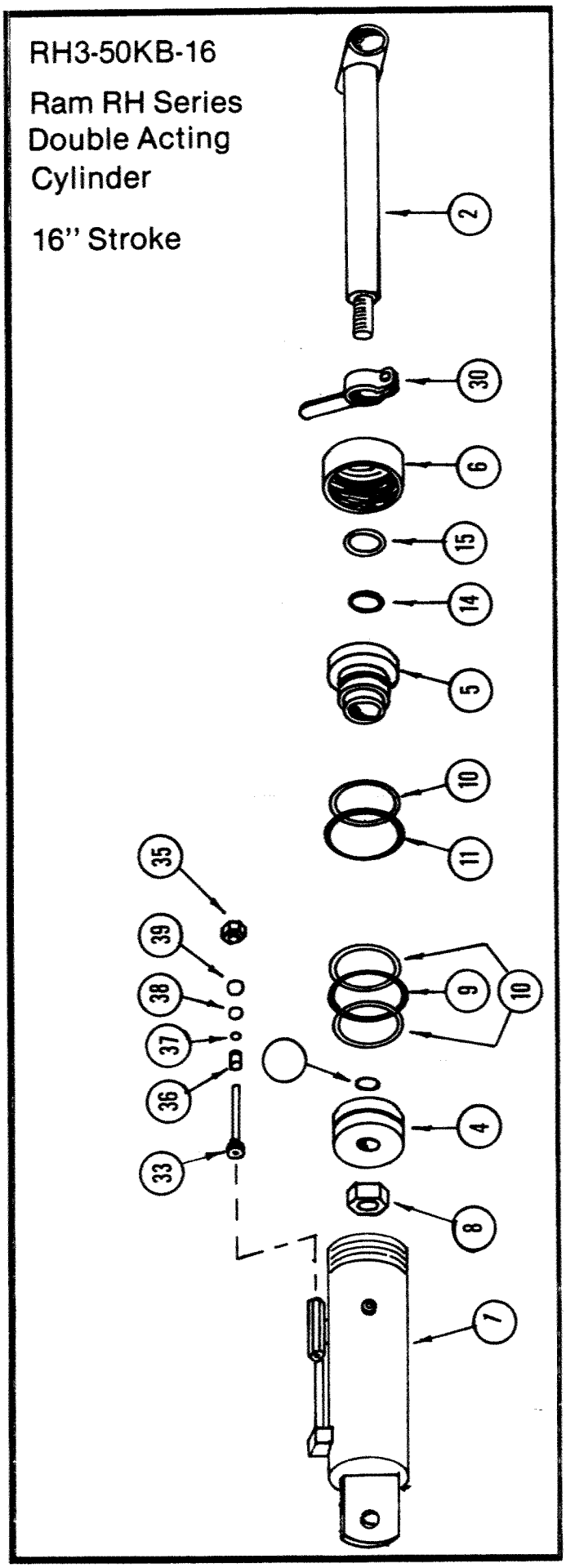
Item No.	Part No.	Quantity	Description
1	25011	1	Right Hand Main Frame Assembly
2	25011	1	Left Hand Main Frame Assembly
3	25003 DW	1	Main Hitch Pole for Double Wide Offset
4	25006	2	Hitch Side Arm
5	25052	1	Rear Spreader Bar c/w Pins
6	25053	1	Front Spreader Bar c/w Pins
7	25054	1	Flapper Pin
8	25055	1	1" x 6", Lock Washer & Nut

BOLT

RH3-50KB-16

Ram RH Series
Double Acting
Cylinder

16" Stroke



Ram RH3-50 KB-16 Cylinder 5" x 16" c/w Hydraulic Depth Control

Item No.	Part No.	Quantity	Description
1	R-1414A	1	Barrel S.A.
2	R-1567A	1	Shaft S.A.
4	R-3517	1	Piston
5	R-2016	1	Gland
6	R-3009	1	Retaining Nut
8		1	1⅛" UNF Locknut
9		1	O Ring No. 425 4½" x 5" Duro 90
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" Cased
15		1	Wiper 2" x 2⅜" x 3/16" Cased
30	R-6040A	1	Shaft Clamp 2" Rd
33	R-6008	1	Valve Stem & 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