

**KELLO-BILT DEEP TILLAGE**  
**Series "5000" - Model "330" Subsoiler**  
**- Model "530" Subsoiler**  
**- Model "730" Subsoiler**

**Owner's Manual**

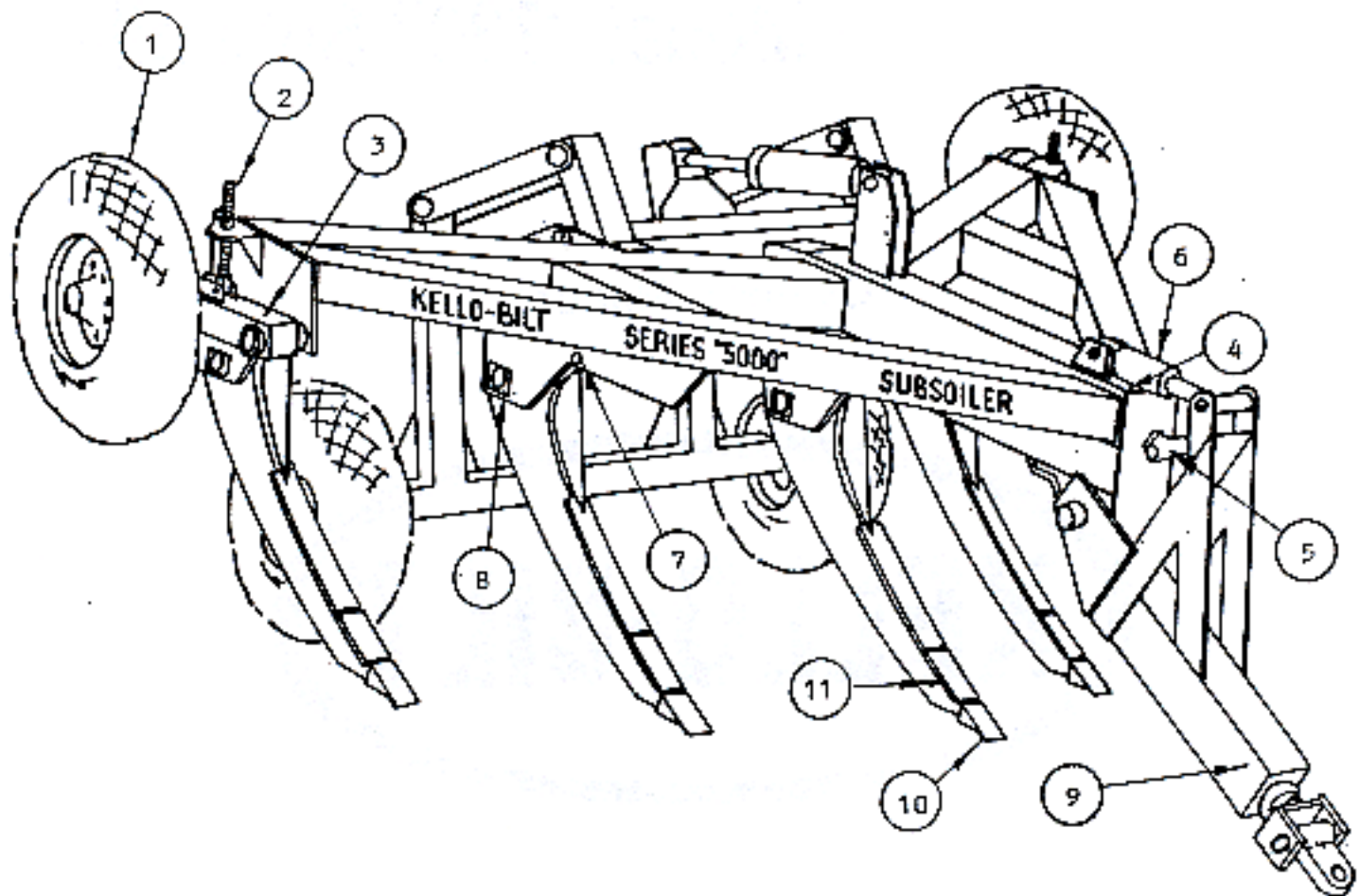


**Manufactured by Kellough Bros. Ltd.**

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## KELLO-BILT SERIES "5000" SUBSOILER

The Kello-Bilt Series "5000" Subsoiler is designed to achieve maximum penetration while keeping horsepower requirements to a minimum. This is accomplished by using long parabolic curved shanks arranged in a V-type configuration. To take full advantage of these features, certain operating procedures must be followed.

**WORKING DEPTH** - Soil penetration is determined by the use of the depth control wheel assembly (1). Adjusting the eyebolts (2) on the outriggers will either raise the wheels, and thereby increase the working depth, or lower the wheels and decrease the working depth. For maximum penetration the nut on the underside of the bracket should be removed from the eyebolt and the top nut tightened up completely. The eyebolts must be locked securely with the nuts to avoid damage to the threads. On a 3 shank subsoiler the transport wheels are used to control ripping depth. The transport wheels of a 5 or 7 shank subsoiler should never be used for depth control as this will cause severe damage to the self-levelling assembly.

**WEIGHT TRANSFER** - The depth control wheel assembly can also be moved in order to vary the weight transferred to the tractor hitch and therefore, the rear wheel traction. On a 5 shank subsoiler the amount of weight on the hitch can be increased by positioning the depth control wheel assembly as far back on the frame as possible. To do so the assembly should be mounted using the forward most hole in the depth control arm (3). To decrease weight transfer, the rear hole is used. In the case of a 7 shank subsoiler the directions are reversed. This adjustment does not apply to the 3 shank subsoiler as the transport wheels are used to control depth.

**LEVELLING** - To minimize draft, and thereby horsepower requirements and fuel consumption, the tip of the parabolic shank should lead the rest of the shank by as much as possible, while still penetrating, as it moves through the soil. The subsoiler will pull with the least draft if the frame at the hitch hinge point (4) is approximately 1" higher than the rear of the frame while at operating depth. This adjustment is made by turning the large screw crossbar (5) at the top of the hinge point and locking it securely with the mounted locknut.

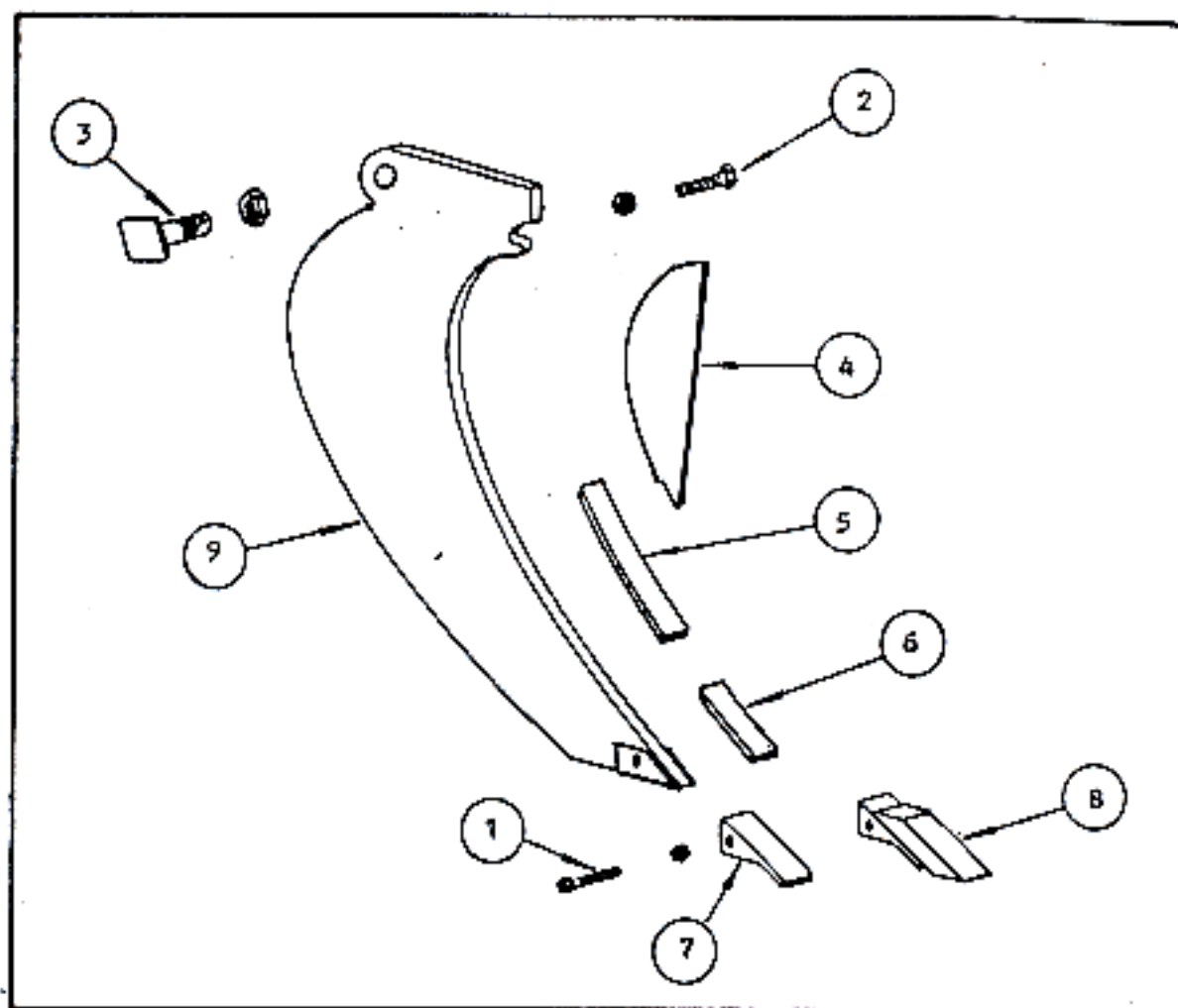
**SELF-LEVELLING ASSEMBLY** - This device (6) ensures sufficient ground clearance during transport. It is important to remember that the machine should only be raised out of the ground while moving forward or, alternately, while slowly backing up. Do not raise the machine out of the ground while the tractor is stationary as this may severely damage the self-levelling assembly.

**SHEAR BOLTS** - Each shank of the subsoiler is protected against rock damage by the use of a 1" X 5" grade 2 shear bolt (7). In the event that a shear bolt breaks, the machine should be lifted out of the ground while slowly backing up. This will swing the shank back under the frame and facilitate the installation of a new shear bolt. Care should be taken not to over tighten the shank pivot bolts (8), as this may cause the shank to bind between the retaining plates and restrict the effectiveness of the shear bolt. The spring loaded hitch (9) is designed to absorb rock impact and should be kept well greased.

**POINTS AND SHANKS** - A drive-on or optional reinforced drive-on point (10) is used at the tip of each shank. Levelling the machine properly will minimize wear on the points. The point should not be allowed to wear out completely as the shank 'frog' will be damaged in the process and require extensive and expensive repairs. The shank wears fastest just above the points. Therefore, a short piece of the wear strip (11) above the points is replaceable. This should be cut off and replaced when worn thin and before it is worn away completely. As it is necessary to raise the machine when turning, get in the habit of glancing over the points while it is out of the ground.

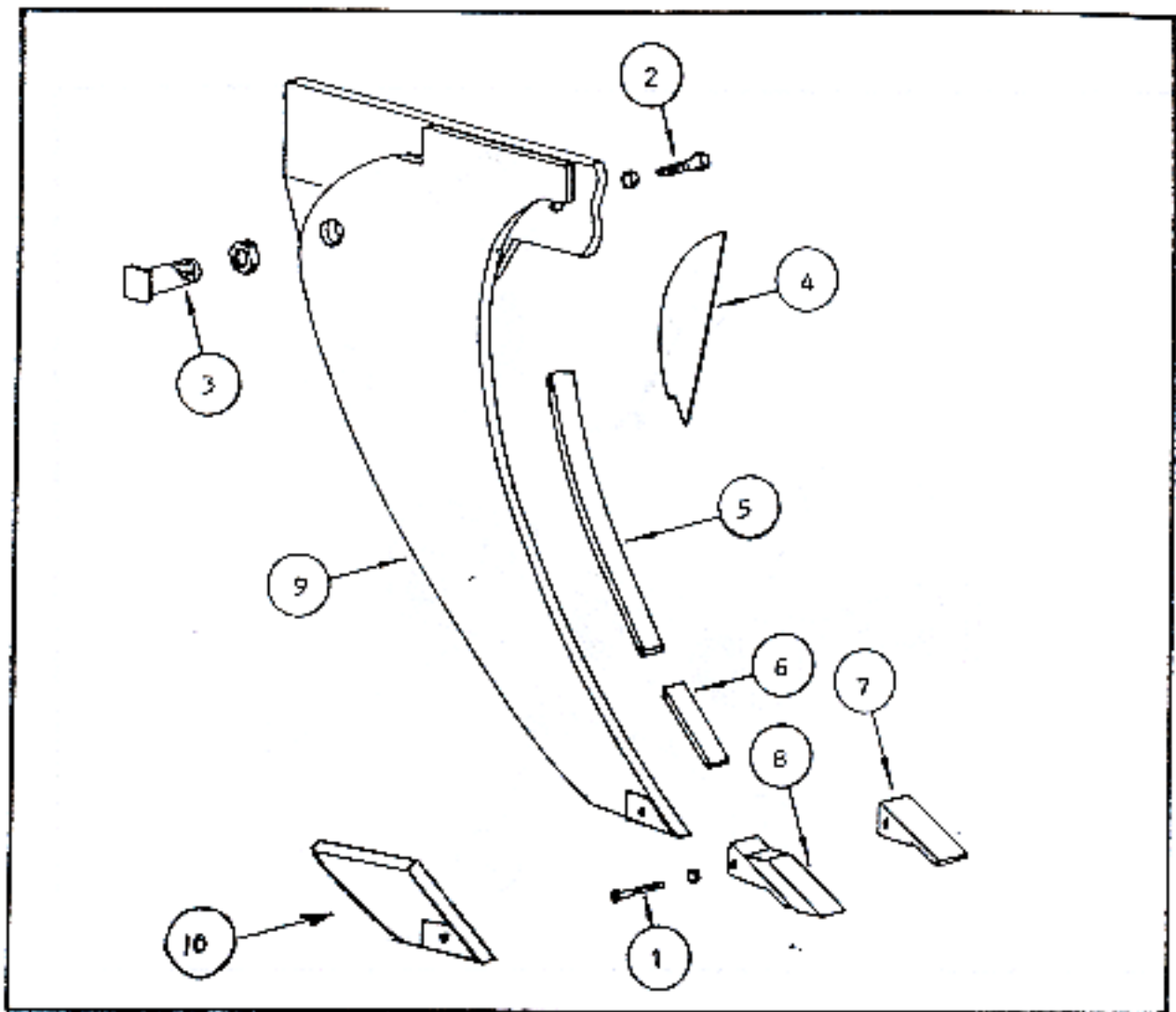
**WHEELS AND TIRES** - During the first period of operation, check the wheel bolts each  $\frac{1}{2}$  hour until they are securely locked. If the wheels are run loose, they will be damaged beyond repair. Check wheel bearings once a shift for tightness and grease sparingly. Tires should be inflated to 55 p.s.i.

**HOOK-UP** - Clean tips and connect hoses to tractor hydraulics.  
Completely extend cylinder on subsoiler.  
Remove holdup from cylinder shaft.  
Retract cylinder.  
This will raise the hitch for pinning to drawbar.



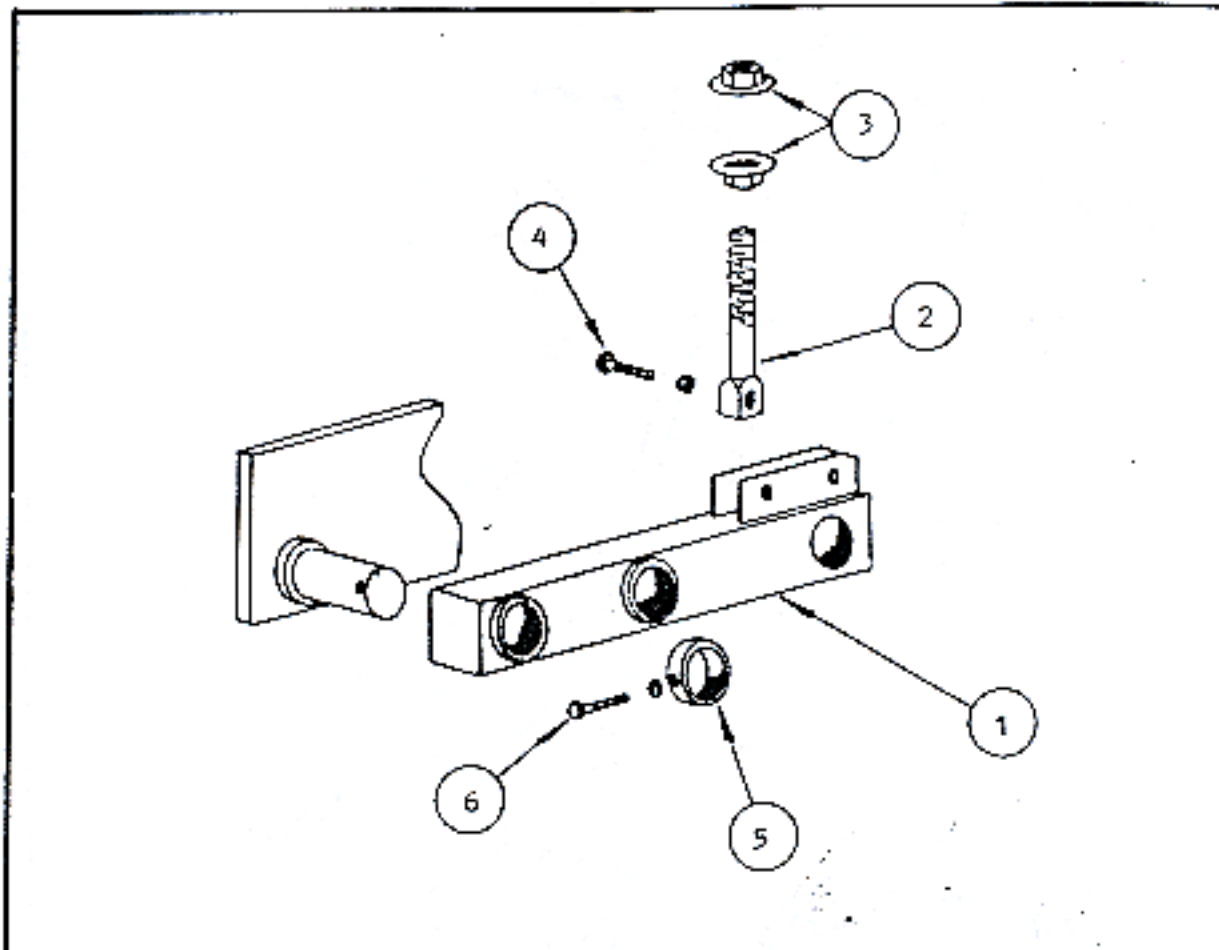
SUBSOILER SHANK ASSEMBLY

| ITEM NO | PART NO | DESCRIPTION                      |
|---------|---------|----------------------------------|
| 1       | 33001   | 1/2" X 3" NC #5 bolt c/w nut     |
| 2       | 33002   | 1" X 5" NC #2 shear bolt c/w nut |
| 3       | 33003   | Shank pivot pin                  |
| 4       | 33004   | Splitter                         |
| 5       | 33005   | Long wear strip                  |
| 6       | 33006   | Short wear strip                 |
| 7       | #24     | Point                            |
| 8       | 91100P  | Reinforced point                 |
| 9       | 33009   | Shank                            |



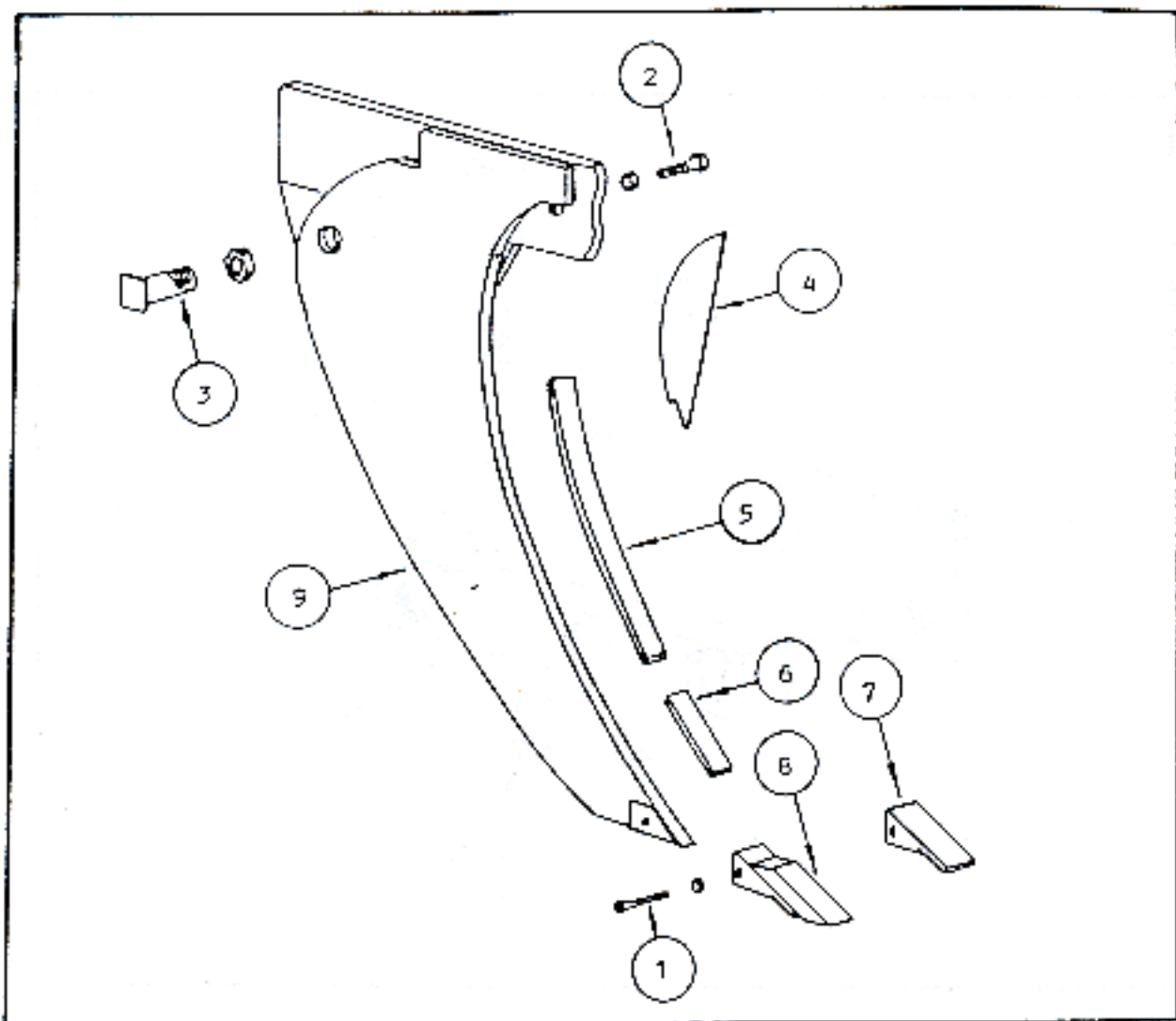
SUBSOILER SHANK ASSEMBLY

| ITEM NO | PART NO | DESCRIPTION   |
|---------|---------|---|
| 1       | 53001   | $\frac{1}{2}$ " X $3\frac{1}{4}$ " NC #5 bolt c/w nut |
| 2       | 53002   | 1" X 5" NC #2 shear bolt c/w nut                      |
| 3       | 53003   | Shank pivot pin                                       |
| 4       | 53004   | Splitter  |
| 5       | 53005   | Long wear strip                                       |
| 6       | 53006   | Short wear strip                                      |
| 7       | 53025   | Point   |
| 8       | 53025R  | Reinforced point                                      |
| 9       | 53009   | Shank   |
| 10      | 53009A  | Frog  |



DEPTH CONTROL ASSEMBLY

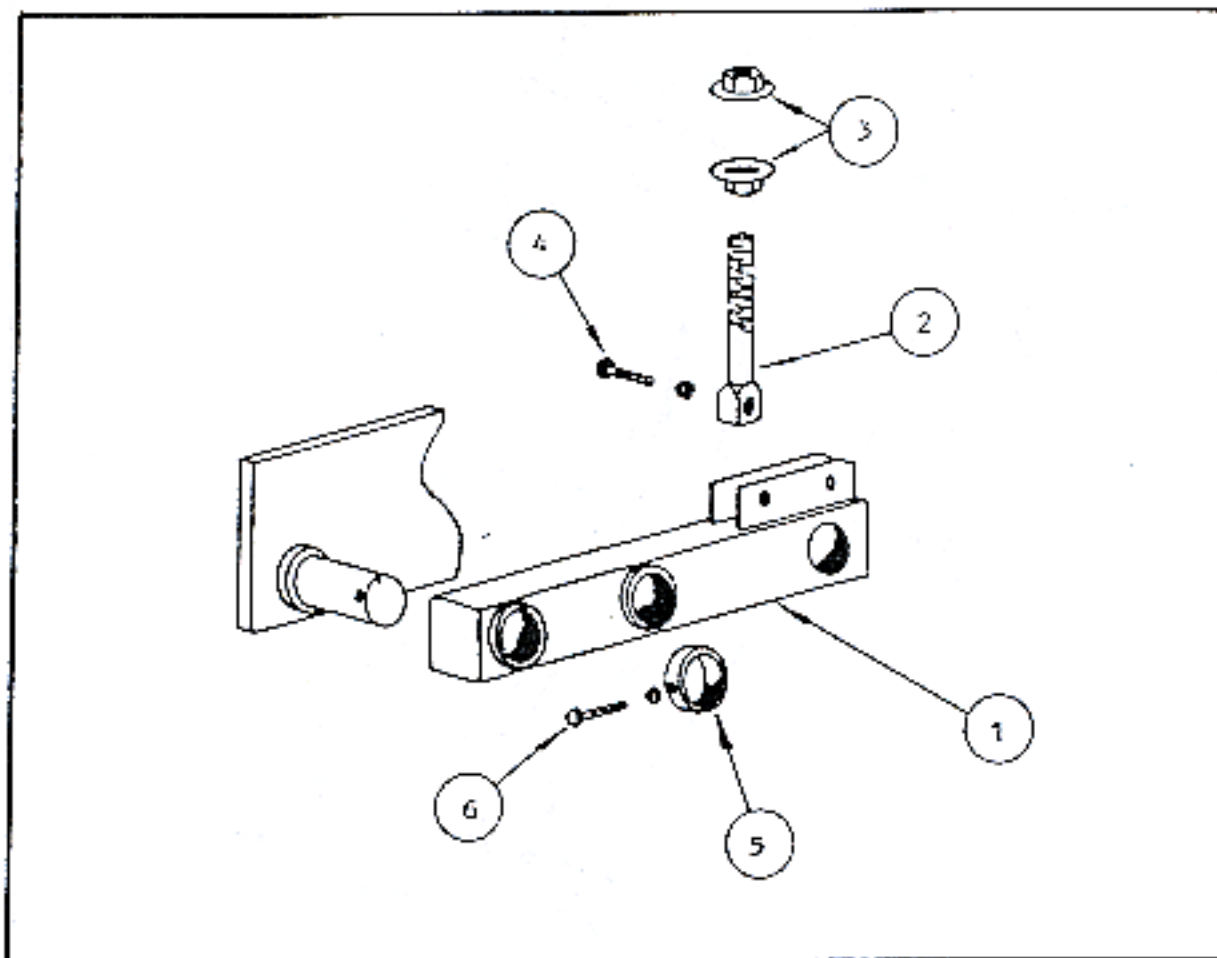
| ITEM NO | PART NO | DESCRIPTION                   |
|---------|---------|-------------------------------|
| 1       | 53010   | Depth control arm             |
| 2       | 53011   | Eye bolt                      |
| 3       | 53012   | Eye bolt nuts                 |
| 4       | 53013   | 1/2" X 3" NC bolt c/w nut     |
| 5       | 53014   | Retaining collar              |
| 6       | 53015   | 3/8" X 4 1/2" NC bolt c/w nut |



SUBSOILER SHANK ASSEMBLY

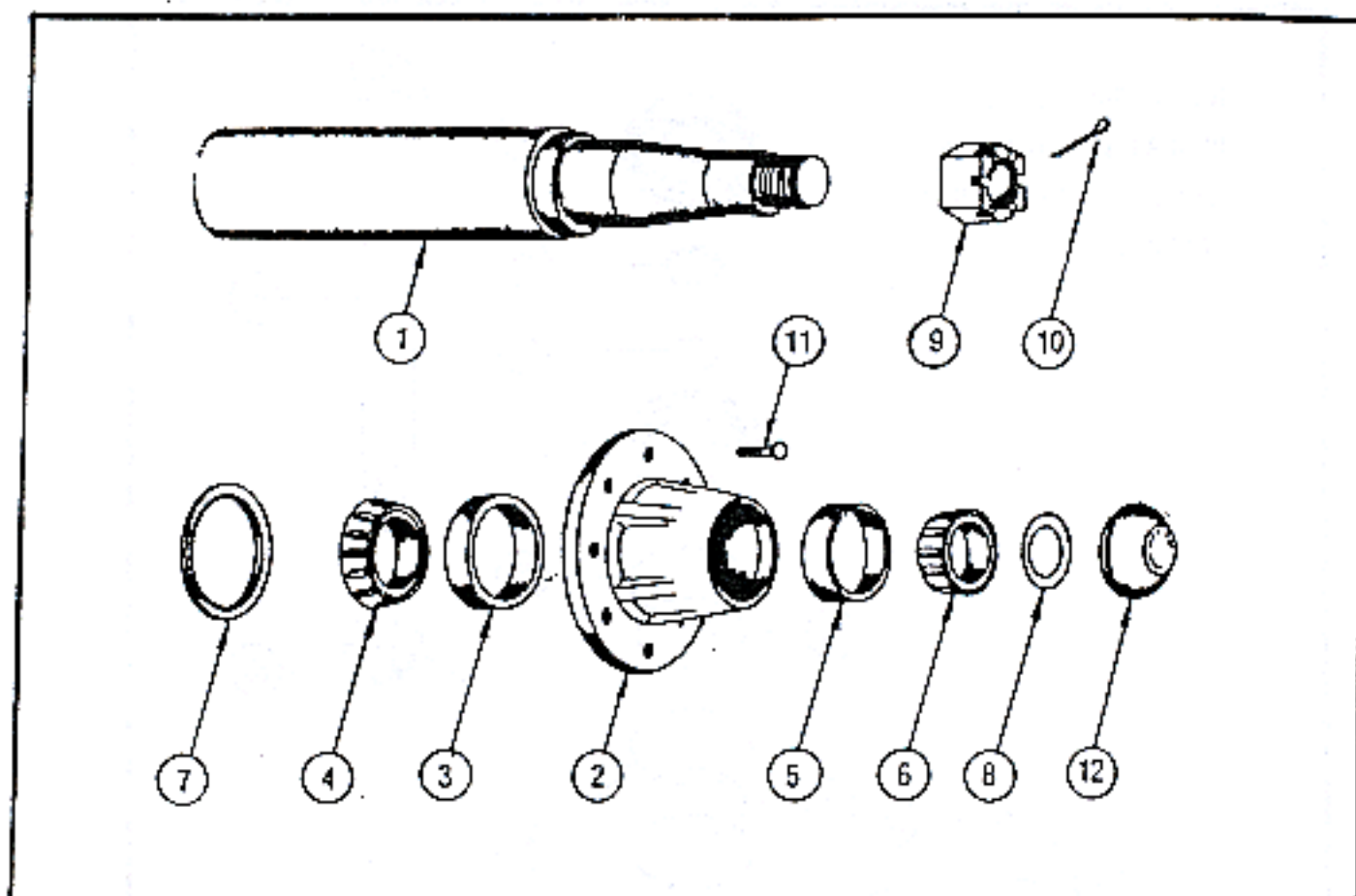
| ITEM NO. | PART NO. | DESCRIPTION                              |
|----------|----------|--|
| 1        | 73001    | $\frac{3}{8}$ " X 30" RC #5 Bolt c/w Nut |
| 2        | 73002    | 1" X 5" RC #2 Shear Bolt c/w Nut         |
| 3        | 73003    | Shank Pivot Pin                          |
| 4        | 73004    | Splitter                                 |
| 5        | 73005    | Long Wear Strip                          |
| 6        | 73006    | Short Wear Strip                         |
| 7        | 73025    | Point                                    |
| 8        | 73025R   | Reinforced Point                         |
| 9        | 73009    | Shank                                    |





DEPTH CONTROL ASSEMBLY

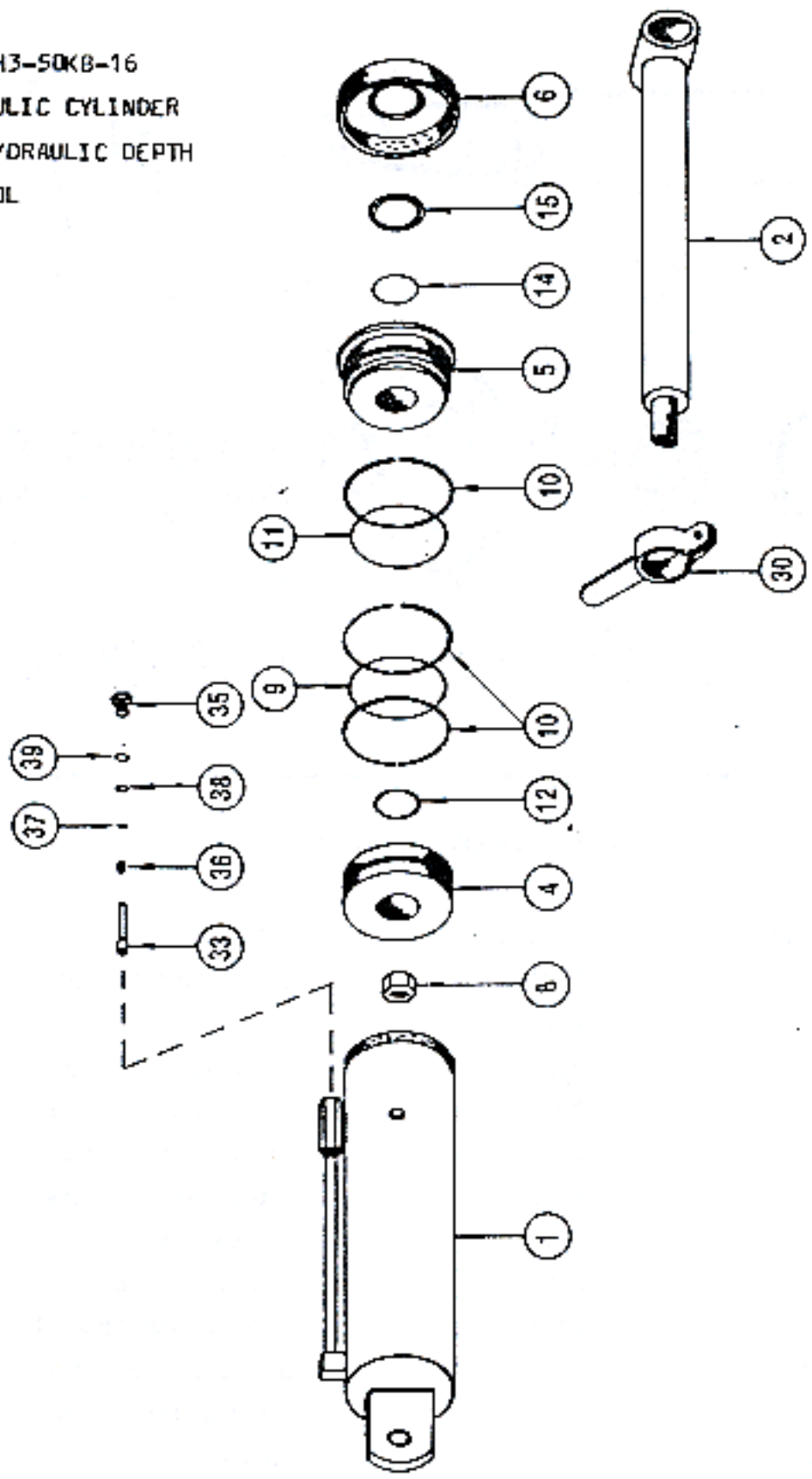
| ITEM NO. | PART NO. | DESCRIPTION  |
|----------|----------|--|
| 1        | 73010    | Depth Control Arm                                  |
| 2        | 73011    | Eye Bolt   |
| 3        | 73012    | Eye Bolt Nuts                                      |
| 4        | 73013    | $\frac{1}{2}$ " X 3" NC Bolt c/w Nut               |
| 5        | 73014    | Retaining Collar                                   |
| 6        | 73015    | $\frac{3}{8}$ " X $4\frac{1}{2}$ " NC Bolt c/w Nut |



8-BOLT IMPLEMENT HUB ASSEMBLY

| ITEM NO | PART NO    | DESCRIPTION                                    |
|---------|------------|--|
| 1       | 32490      | 2 $\frac{3}{4}$ " X 14 $\frac{3}{4}$ " Spindle |
| 2       | HDB12      | Hub  |
| 3       | 3720       | Inner bearing cup                              |
| 4       | 3780       | Inner bearing cone                             |
| 5       | 2720       | Outer bearing cup                              |
| 6       | 2790       | Outer bearing cone                             |
| 7       | SE17       | Groove seal                                    |
| 8       | WA17       | Spindle washer                                 |
| 9       | WB33       | 1" NF Castellated hex nut                      |
| 10      |            | Cotter pin 3/16" X 1 $\frac{1}{2}$ "           |
| 11      | WB12       | 9/16" X 1 $\frac{1}{2}$ " NF Wheel bolt        |
| 12      | DC17       | Dust cap                                       |
| NS      | 1681-813-1 | 16 X 8 X 8-Bolt wheel                          |
| NS      | 12.4-16    | 8-Ply Diamond Tire                             |
| NS      | FL-16      | Tractor Tube                                   |

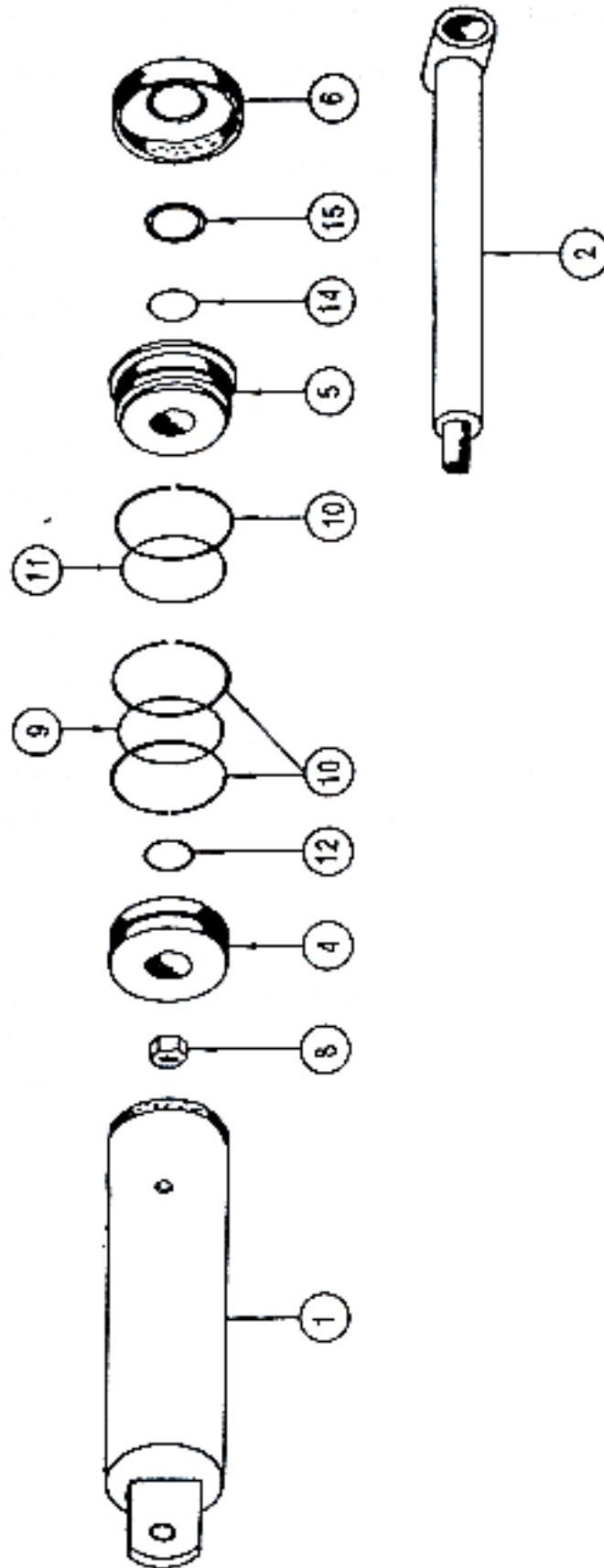
RAM RH3-50KB-16  
HYDRAULIC CYLINDER  
C/W HYDRAULIC DEPTH  
CONTROL



RAM RH3-50 KB-16 CYLINDER 5" X 16" c/w HYDRAULIC DEPTH CONTROL

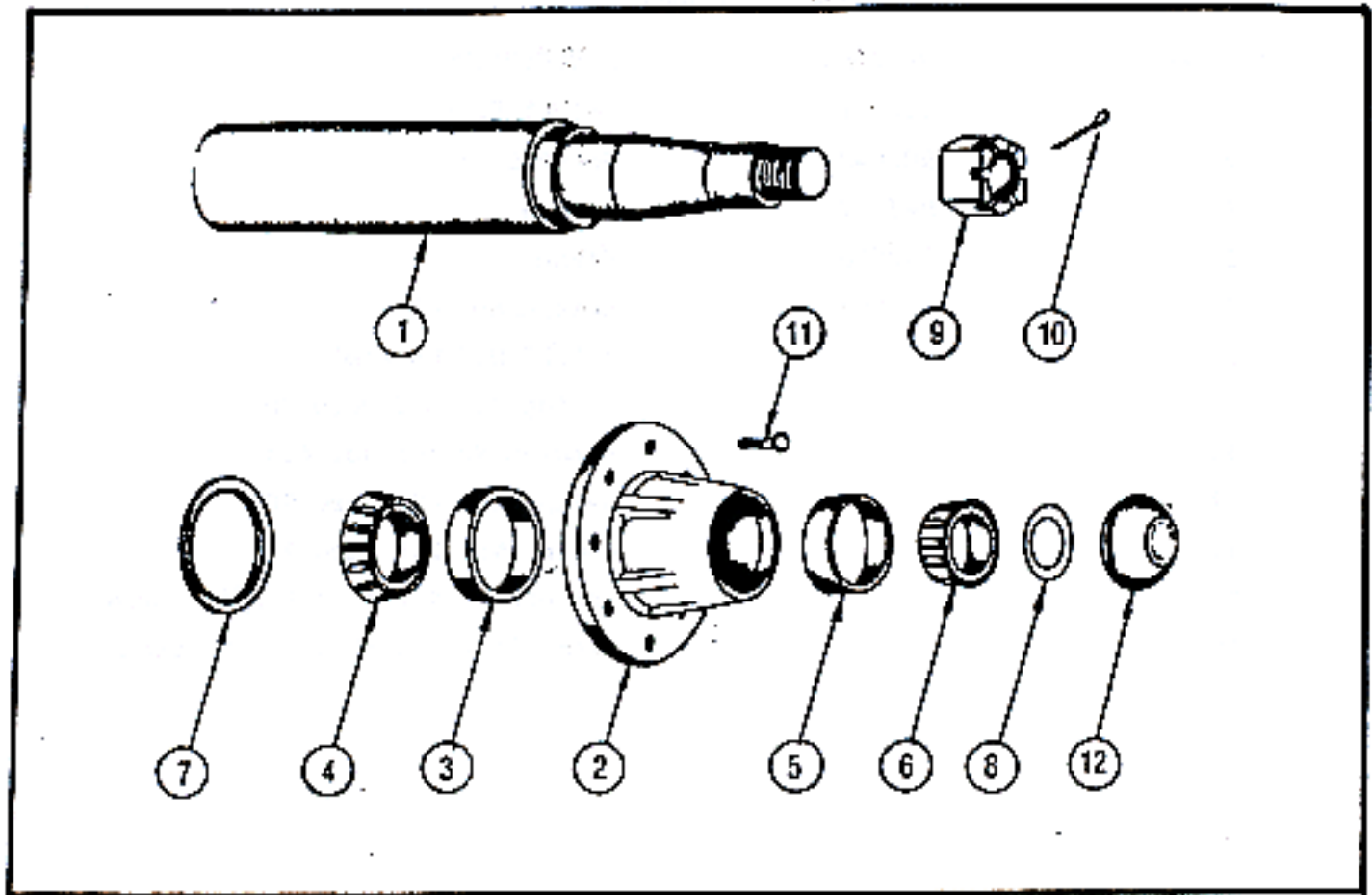
| ITEM NO | PART NO   | DESCRIPTION                                      |
|---------|-----------|--|
| 1       | R-1414A   | Barrel S.A.                                      |
| 2       | R-1567A   | Shaft S.A.                                       |
| 4       | R-3517    | Piston   |
| 5       | R-2016    | Gland  |
| 6       | R-3009    | Retaining nut                                    |
| 8       |           | 1 1/8" UNF Locknut                               |
| 9       |           | O-ring No. 425 Duro 90                           |
| 10      |           | Back-up washer No. 425                           |
| 11      |           | O-ring No. 425 Duro 90                           |
| 12      |           | O-ring No. 216 Duro 70                           |
| 14      |           | Polypak 2"X2-3/8"X5/16" Cased                    |
| 15      |           | Wiper 2"X2-3/8"X3/16" Cased                      |
| 30      | R-6040A   | Shaft clamp 2" Rd                                |
| 33      | R-6008    | Valve stem and poppet                            |
| 35      | R-6006    | Valve head                                       |
| 36      | R-6007    | Valve sleeve                                     |
| 37      |           | O-ring No. 009 Duro 70                           |
| 38      |           | Back-up washer No. 009                           |
| 39      |           | O-ring No. 114 Duro 70                           |
| 40      | R-3K-50-2 | Cylinder repair kit<br>(Nos. 9,10,11,12,14,15)   |
| 41      | R-6005A   | O.C. Replacement kit<br>(Nos. 33,35,36,37,38,39) |

RAM RH3-50KB-8  
HYDRAULIC CYLINDER



RAM RH3-50KB-8 HYDRAULIC CYLINDER

| ITEM NO | PART NO | DESCRIPTION                       |
|---------|---------|-----------------------------------|
| 1       | 5000-1  | Barrel S. A.                      |
| 2       | 5000-2  | Shaft S. A.                       |
| 4       | R-3517  | Piston                            |
| 5       | R-2016  | Glend                             |
| 6       | R-3009  | Retaining Nut                     |
| 8       |         | 1 1/8" UNF Locknut                |
| 9       |         | O-Ring No. 425 Duro 90            |
| 10      |         | Back-Up Washer No. 425            |
| 11      |         | O-Ring No. 425 Duro 90            |
| 12      |         | O-Ring No. 216 Duro 70            |
| 14      |         | Polypek 2" X 2 3/8" X 5/16" Cased |
| 15      |         | Wiper 2" X 2 3/8" X 3/16" Cased   |



8-BOLT IMPLEMENT HUB ASSEMBLY

| ITEM NO | PART NO    | DESCRIPTION                  |
|---------|------------|------------------------------|
| 1       | 32500      | SPINDLE 2 3/4" x 18"         |
| 2       | HDB12      | Hub                          |
| 3       | 3720       | Inner bearing cup            |
| 4       | 3780       | Inner bearing cone           |
| 5       | 2720       | Outer bearing cup            |
| 6       | 2790       | Outer bearing cone           |
| 7       | SE17       | Grease seal                  |
| 8       | WA17       | Spindle washer               |
| 9       | WB33       | 1" NF Castellated hex nut    |
| 10      |            | Cotter pin 3/16" X 1 1/2"    |
| 11      | WB12       | 9/16" X 1 1/2" NF Wheel bolt |
| 12      | DC17       | Dust cap                     |
| NS      | 1681-813-1 | 16 X 8 X 8-Bolt wheel        |
| NS      | 12.4-16    | 8-Ply Diamond Tire           |
| NS      | FL-16      | Tractor Tube                 |

## 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 subsoiler 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. 1967 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 warranted for a period of 90 days.
5. Labour: Any labour subject to warranty must be authorized by a Kello-Bilt Industries Ltd. representative before work is started. Warranty labour allowance and 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 subsoilers 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 subsoiler 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. 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.