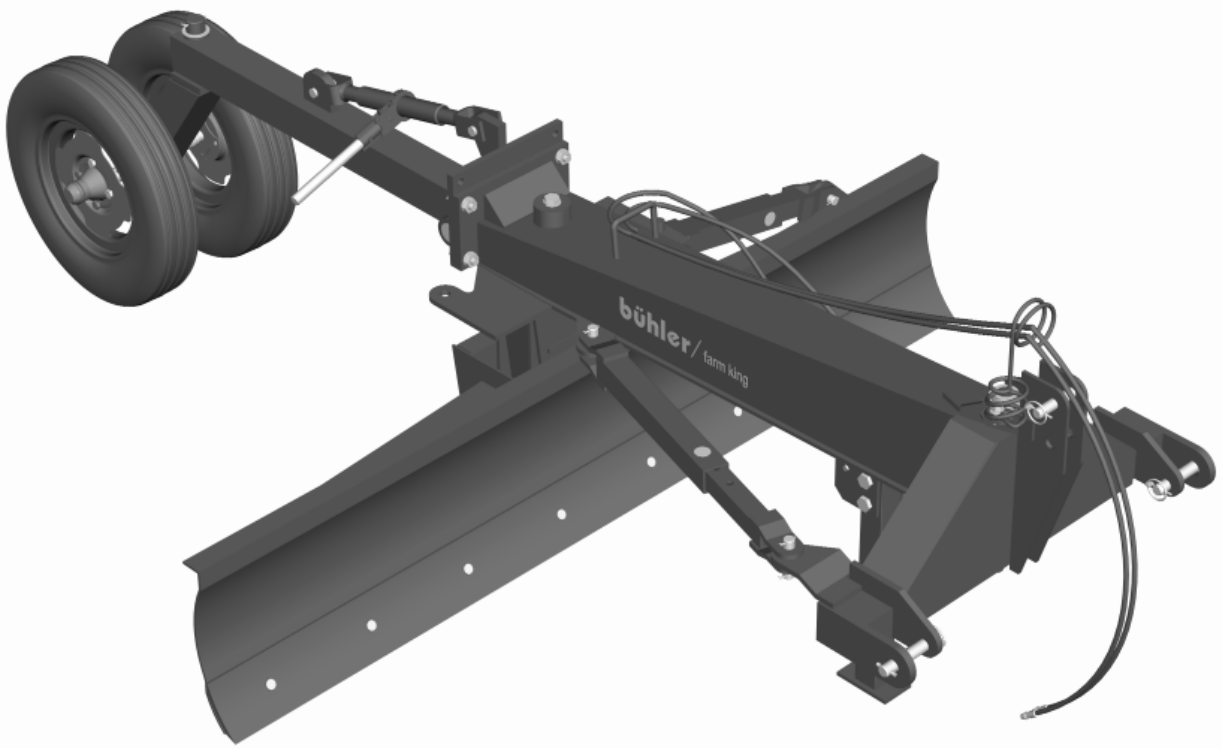


# bühler

## farm king



### **80 Series Rear Blade**

Operator's and Parts Manual  
FK345

2008



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## WARRANTY POLICY

Buhler Manufacturing products are warranted for a period of twelve (12) months (90 days for commercial application) from original date of purchase, by original purchaser, to be free from defects in material and workmanship under correct, normal agricultural use and proper applications.

Buhler Manufacturing's obligations under this warranty shall be limited to the repair or exchange, at Buhler Manufacturing's option, of any Buhler Manufacturing product or part which proves to be defective as provided. Buhler Manufacturing reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection.

The above warranty does not extend to goods damaged or subject to accident, abuse or misuse after shipment from Buhler Manufacturing's factory, nor to goods altered or repaired by anyone other than an authorized Buhler Manufacturing representative.

Buhler Manufacturing makes no Express Warranties other than those, which are specifically described. Any description of goods, including any references and specifications in catalogues, circulars and other written material published, is for the sole purpose of identifying goods and shall conform to such descriptions. Any sample or model is for illustrative purposes only and does not create an Express Warranty that the goods conform to sample or model shown.

The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Manufacturing will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

### WARRANTY CLAIMS:

Warranty requests must be prepared on Buhler Manufacturing Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

### WARRANTY LABOR:

Any labor subject to warranty **must** be authorized by Buhler Manufacturing. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate. Defective parts will receive an extra 10% discount to assist with freight or other incidental costs.

### GOVERNMENT LEGISLATION:

Warranty terms and conditions are subject to Provincial or State legislation.

### IMPORTANT FACTS:

Buckets and Bucket Tines Carry No Warranty  
Bent Spears Carry No Warranty  
Snowblower Fan Shafts Carry No Warranty  
Mower Blades Carry No Warranty  
Portable Auger Parts Have Two (2) Year Warranty  
Loader Parts Have Two (2) Year Warranty

**IMPORTANT NOTE: This warranty does not apply to rentals**

## INTRODUCTION

Buhler Farm King has been building a wide variety of rear blades for several decades. These blades are built using more steel, which adds strength, longevity and durability to each blade. Buhler Farm King rear blades are capable of tackling tough scraping projects. These rear blades have been precisely built, with particular attention to the pivot point. The tight tolerances minimize metal-on-metal wear and allows for accurate adjustments and longer blade life. Buhler Farm King Rear Blades are **quick hitch** compatible and the parking stand is standard equipment. **Series 80 (to 80 hp)** comes in 7', 8' and 9' widths. Angle adjustment, offset and tile can be fitted with either hydraulic cylinders or mechanical linkage.

Keep this manual handy for frequent reference. All new operators or owners must review the manual before using the equipment and at least annually thereafter. Contact your Buhler Dealer if you need assistance, information, or additional copies of the manual. Visit our website at [www.buhler.com](http://www.buhler.com) for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

## SAFETY

Remember, YOU are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

The alert symbol is used throughout this manual. It indicates attention is required and identifies hazards. Follow the recommended precautions.



The safety alert symbol means...

**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



### CAUTION

The caution symbol indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



### WARNING

The Warning Symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



### DANGER

The Danger Symbol indicates an imminently hazardous situation that, if not avoided will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

## **GENERAL SAFETY INSTRUCTIONS**

Have a first-aid kit available for use and know how to use it.

Have a fire extinguisher available, stored in a highly visible location, and know how to use it.

Wear appropriate protective gear. This list may include but is not limited to:

- hard hat
- protective shoes with slip resistant soles
- protective glasses or goggles
- heavy gloves
- wet weather gear
- hearing protection
- respirator or filter mask

Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.

Do not attempt any unauthorized modifications to your Buhler product as this could affect function or safety, and could affect the life of the equipment.

Inspect and clean the working area before operating.

Keep hands, feet, clothing, and hair away from moving parts.

Ensure bystanders are clear of the area before operating.

## **START-UP SAFETY**

Do not let inexperienced operators or children run this equipment.

Operate only with ROPS and seatbelt equipped tractors.

## **OPERATION SAFETY**

Do not permit riders.

Do not wear loose fitting clothing during operation.

## **TRANSPORT SAFETY**

Review Transport Safety instructions in tractor manual before moving. Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean, and can be seen clearly by all overtaking and oncoming traffic.

Always travel at a safe speed.

Inflate transport tires to recommended pressure.

## SERVICE AND MAINTENANCE SAFETY

Stop engine, set brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.

Support the equipment with blocks or safety stands before working beneath it.

Follow good shop practices including:

- keep service area clean and dry
- be sure electrical outlets and tools are properly grounded
- use adequate light for the job

Use only tools, jacks, and hoists of sufficient capacity for the job.

Use heavy leather gloves to handle sharp objects.

Check hydraulics regularly for leaks. Use cardboard to look for leaks, and use hand and eye protection.

Relieve pressure on hydraulic system before repairing or adjusting.

Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion, which may result in serious injury or death.

## STORAGE SAFETY

Store the unit in an area away from human activity.

Do not permit children to play on or around the stored machine.

Support the frame on stands and blocks to provide a secure base.

## SAFETY SIGNS

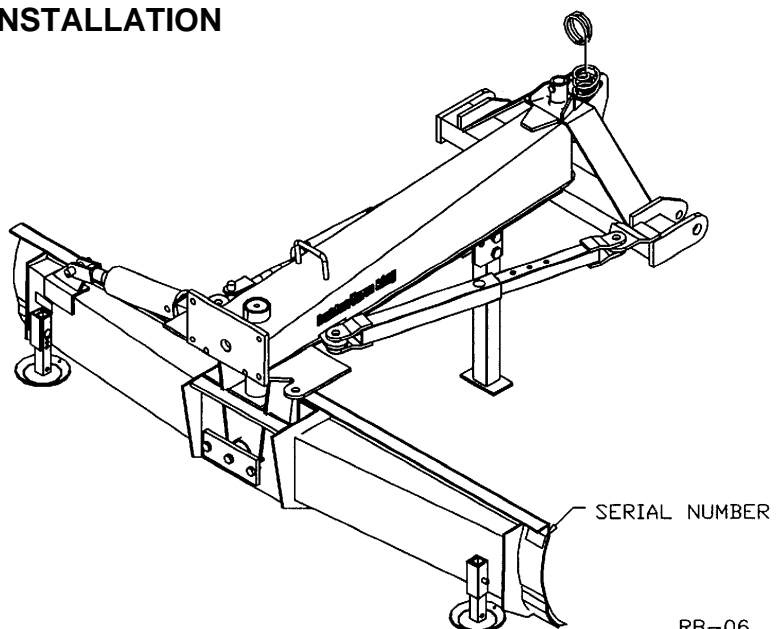
The following illustration shows the approximate location and detail of safety signs.

Keep all safety signs clean and legible and replace any that are damaged or missing.

When original parts are replaced, any safety signs affixed to those parts should be replaced as well. Replacement safety signs are available from your local dealer.

## INSTALLATION

To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place. Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.



RB-06

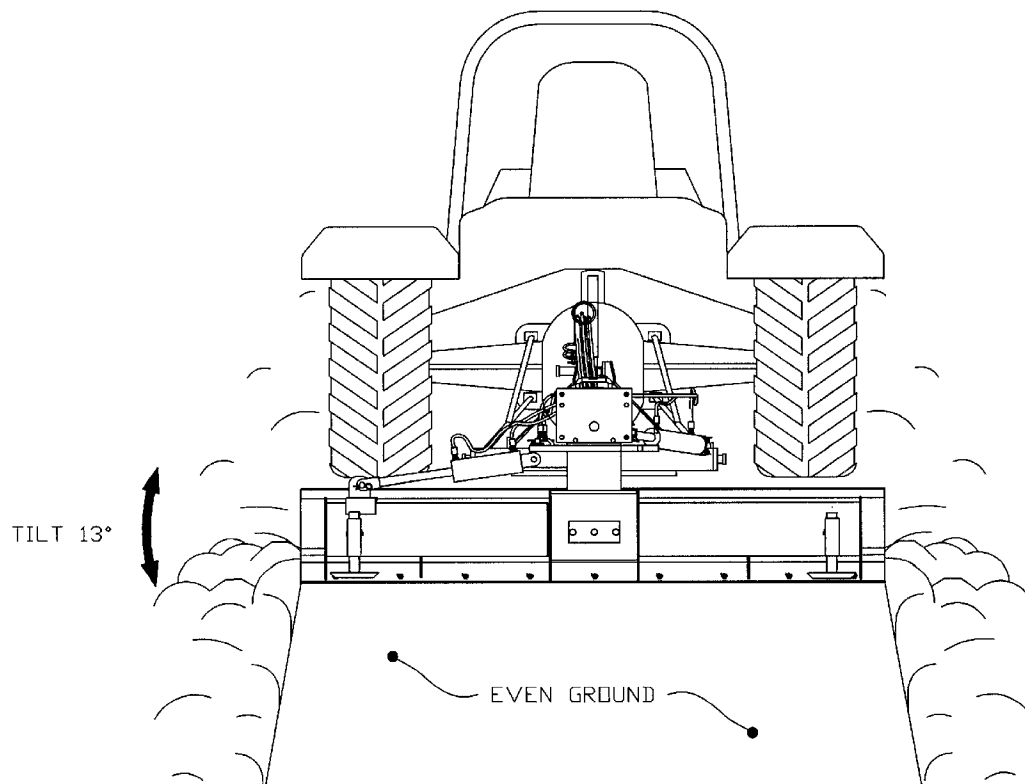
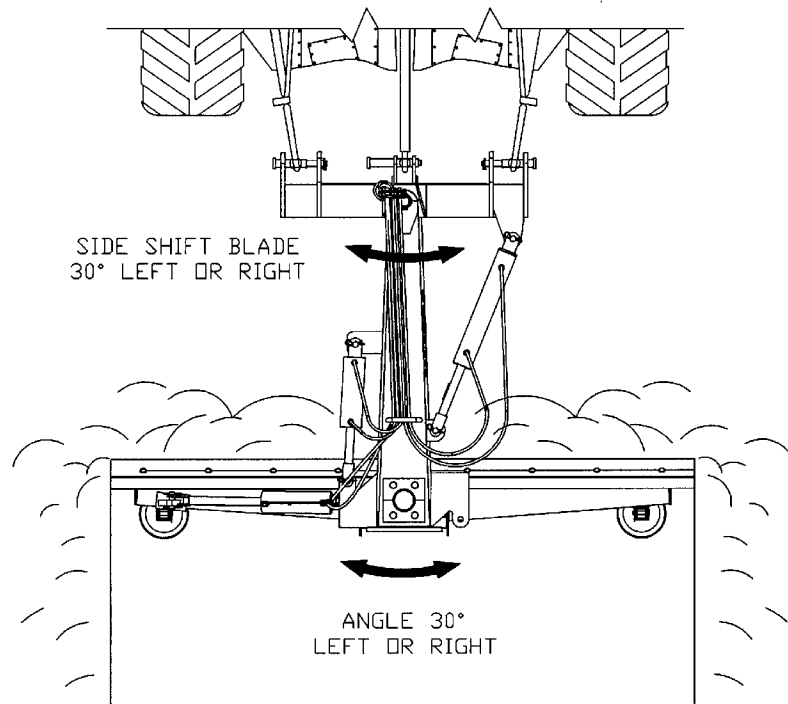


**ASSEMBLY INSTRUCTIONS**

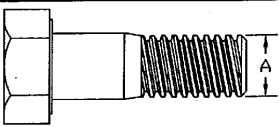
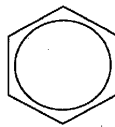


1. Remove the Blade Pin (#4) and the Clamp Plate (#5) from the blade assembly. Insert the King Pin Weldment (#6) into the blade assembly and assemble the Blade Pin and Clamp Plate using the hardware supplied.
2. Slide the Arm Weldment (#8) onto the King Pin Assembly. The Arm Weldment is held in place using a 3 ½" O.D. disk (#42) and a ¾" x 2" bolt and lock washer (#43 & #44).
3. Bolt the Stand (#7) to the Arm Weldment.
4. Remove the Arm Swivel Pin (#12) from the Hitch Weldment (#9). Slide the Hitch Weldment on to the Arm Weldment and connect using the Swivel Pin. The pin is held in place with a hex bolt and lock nut.
5. Connect the two mechanical links and hydraulic cylinder. Angle Cylinder (#35) is a 3" x 12" cylinder which controls the angle of the arm. Mechanical link (#40 & #41) controls the tilt of the blade. Mechanical link (#10 & #11) controls the offset of the blade. Optional cylinders (#34 & #36) are available for both mechanical links for the 150 series.
6. Attach hydraulic hoses to the hydraulic cylinder. Bolt the Hydraulic Hose Holder (#39) to the hitch.
7. Recheck and tighten all bolts. Grease the bushings at both ends of the Arm Weldment.
8. Optional Wheel Kit: Bolt the Wheel Kit Bracket (#56) at the end of the Wheel Kit Arm to the back of the blade using ¾" x 2 ¼" hex bolts, lock washers and hex nuts (#60, #61, & #44). Mount the wheel and tires to the Axle (#58). The shaft at the top of the axle fits through the bushing at the end of the arm and is held on by a washer (#65) and cotter pin (#64). Connect the Ratchet Jack (#57) to the Arm. The Ratchet Jack is used to control the cutting depth of the blade. Grease the bushings at both ends of the Wheel Kit Arm.

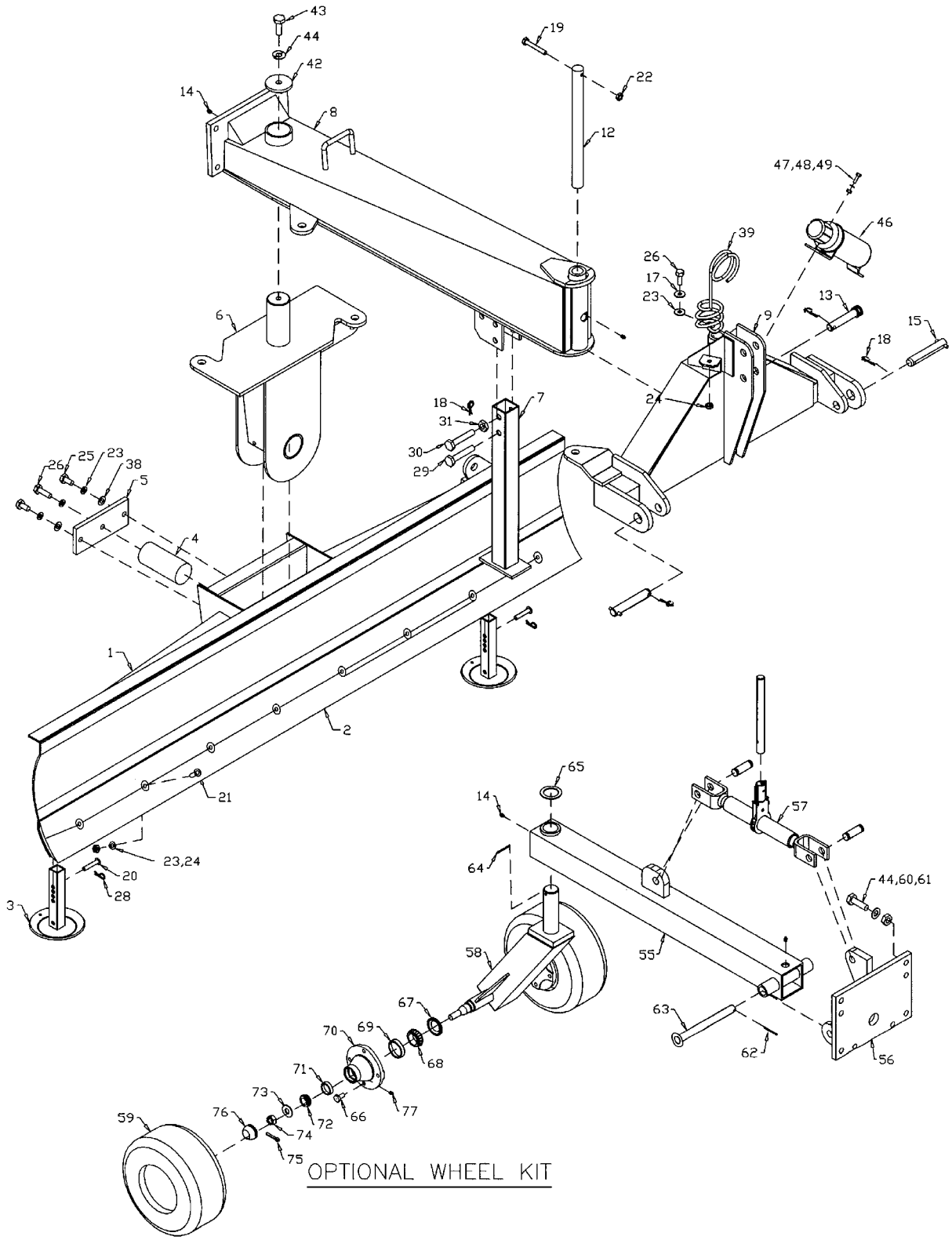
OPERATION INSTRUCTIONS

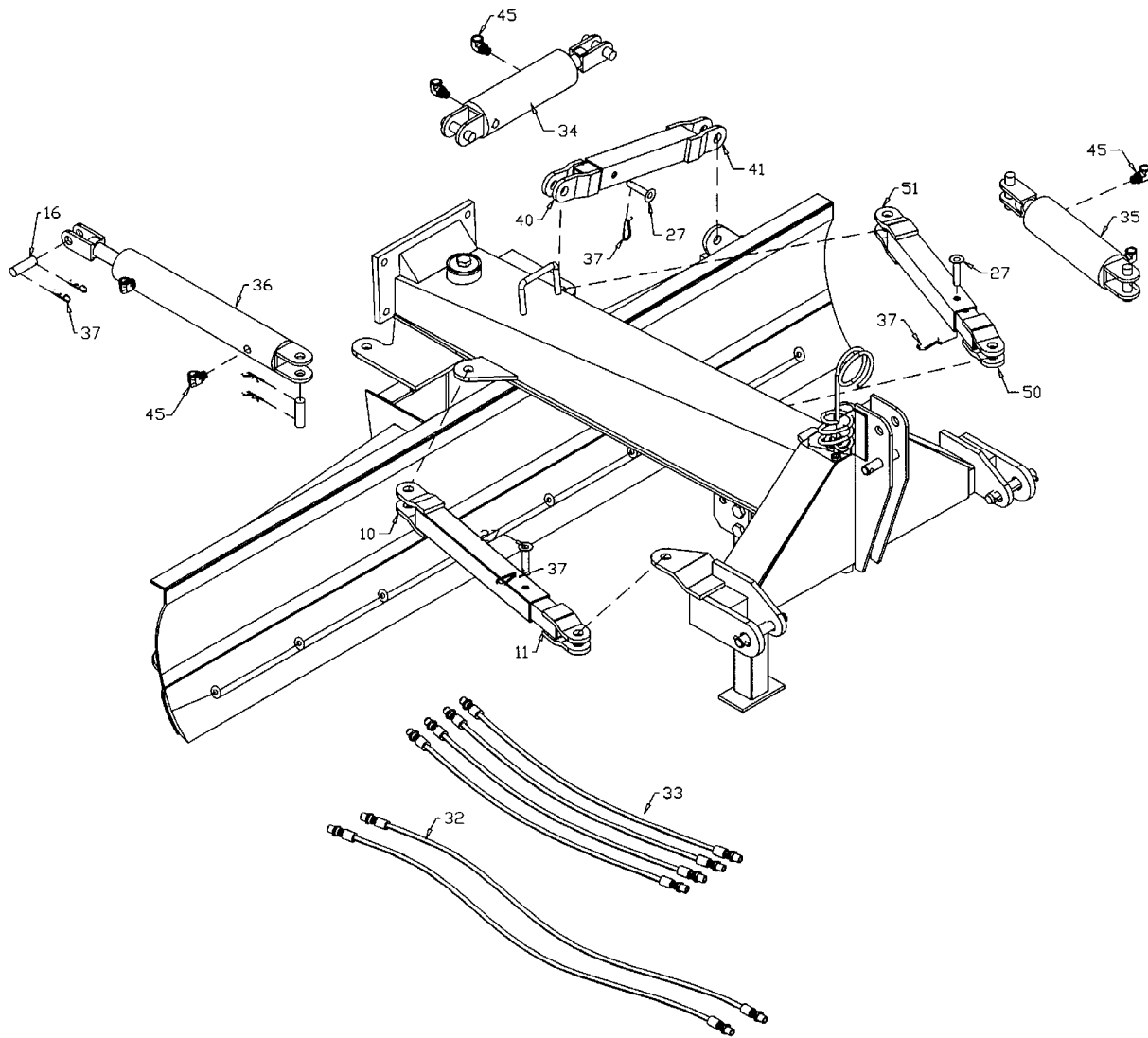
THEORY OF OPERATION



MAINTENANCE

| Bolt Torque   |   |       |  |       |   |       |
|---|---|-------|--|-------|---|-------|
|  |  |       |  |       |  |       |
| Bolt Diameter   | SAE2  |       | SAE5   |       | SAE8  |       |
| "A"   | N.m   | lb-ft | N.m  | lb-ft | N.m   | lb-ft |
| 1/4"  | 8   | 6     | 12   | 9     | 17  | 12    |
| 5/16"   | 13  | 10    | 25   | 19    | 36  | 27    |
| 3/8"  | 27  | 20    | 45   | 33    | 63  | 45    |
| 7/16"   | 41  | 30    | 72   | 53    | 100   | 75    |
| 1/2"  | 61  | 45    | 110  | 80    | 155   | 115   |
| 9/16"   | 95  | 70    | 155  | 115   | 220   | 165   |
| 5/8"  | 128   | 95    | 215  | 160   | 305   | 220   |
| 3/4"  | 225   | 165   | 390  | 290   | 540   | 400   |
| 7/8"  | 230   | 170   | 570  | 420   | 880   | 650   |
| 1"  | 345   | 225   | 850  | 630   | 1320  | 970   |





RB-05

**WHEN ORDERING PARTS**

Always give your dealer the Model, Color and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.

**80 SERIES REAR BLADE**

| <b>ITEM</b> | <b>PART #</b> | <b>DESCRIPTION</b>                    |
|-------------|---------------|---------------------------------------|
| 1           | 902474        | 7' Blade                              |
|             | 902475        | 8' Blade                              |
|             | 902476        | 9' Blade                              |
| 2           | 967522        | 7' Cutting Edge                       |
|             | 967523        | 8' Cutting Edge                       |
|             | 900457        | 9' Cutting Edge                       |
| 3           | 902477        | Skid Plate Weldment                   |
| 4           | 902388        | Blade Pin                             |
| 5           | 902469        | Clamp Plate                           |
| 6           | 903133        | King Pin Weldment W/ Grease Zerk      |
| 7           | 900417        | Stand                                 |
| 8           | 906717        | Arm Weldment                          |
| 9           | 902443        | Hitch Weldment                        |
| 10          | 902482        | Mechanical Link - Offset Outer Sleeve |
| 11          | 902483        | Mechanical Link - Offset Inner Sleeve |
| 12          | 902454        | Arm Swivel Pin                        |
| 13          | 965910        | Top Link Pin Category 2               |
| 14          | 967164        | Tap-in Grease Zerk                    |
| 15          | 965966        | Lift Pin Category 2-3                 |
| 16          | 103753        | 1"dia x 4" Cylinder Clevis Pin        |
| 17          | 81638         | 1/2" Flat Washer (pl)                 |
| 18          | 965911        | 7/16" Linch Pin                       |
| 19          | 967488        | 3/8" x 2 3/4" Hex Bolt (pl)           |
| 20          | 901435        | 1/2" x 2 1/2" Clevis Pin (pl)         |
| 21          | 967524        | 1/2" x 1 1/2" Plow Bolt               |
| 22          | 812363        | 3/8" Lock Nut (pl)                    |
| 23          | 81637         | 1/2" Lockwasher (pl)                  |
| 24          | 81636         | 1/2" Hex Nut (pl)                     |
| 25          | 81619         | 1/2" x 1" Hex Bolt (pl)               |
| 26          | 84277         | 1/2" x 1 1/2" Hex Bolt (pl)           |
| 27          | 902486        | 5/8" x 3 1/8" Pin                     |
| 28          | 961012        | #16 Hair Pin Clip                     |
| 29          | 965807        | Category 1 Top Link Pin               |
| 30          | 811790        | 3/4" x 4 1/2" GR5 (pl) Hex Bolt       |
| 31          | 812365        | 3/4" Lock Nut GRB (pl)                |
| 32          | 114905        | 144" Hydraulic Hose (optional)        |

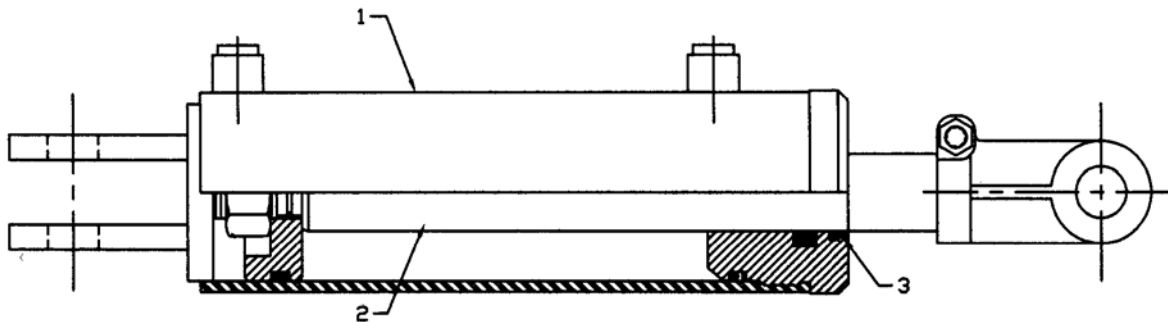
|    |        |   |
|----|--------|---|
| 33 | 114906 | 120" Hydraulic Hose (angle)             |
| 34 | 24791  | Tilt Cylinder 3" x 8" (optional)        |
| 35 | 24794  | Angle Cylinder 3" X 12"                 |
| 36 | 24797  | Offset Cylinder 3 1/2" x 16" (optional) |
| 37 | 12779  | #9 Hair Pin Clip                        |
| 38 | 84048  | 1/2" Flat Washer S.A.E. (pl)            |
| 39 | 966314 | Hydraulic Hose Holder 10 3/4"           |
| 40 | 902707 | Mechanical Link - Tilt Inner Sleeve     |
| 41 | 902706 | Mechanical Link - Tilt Outer Sleeve     |
| 42 | 902785 | 3/8" x 3 1/2" o.d. Disk                 |
| 43 | 84467  | 3/4" x 2" Hex Bolt (pl)                 |
| 44 | 81701  | 3/4" Lock Washer (pl)                   |
| 45 | 905392 | Elbow 3/4 MORB x 3/4 FORB               |
| 46 | 909277 | Manual Holder                           |
| 47 | 812026 | 5/16" x 1" Hex Bolt (pl)                |
| 48 | 81569  | 5/16" Lock Washer (pl)                  |
| 49 | 81568  | 5/16" Hex Nut (pl)                      |
| 50 | 905426 | Mechanical Link - Angle Inner Sleeve    |
| 51 | 905425 | Mechanical Link - Angle Outer Sleeve    |

**Optional Wheel Kit**

|    |         |                                  |
|----|---------|----------------------------------|
| 55 | 906733  | Wheel Kit Arm                    |
| 56 | 906729  | Wheel Kit Bracket                |
| 57 | 967499  | Ratchet Jack                     |
| 58 | 906740  | Axle                             |
| 59 | F253    | Tire Mounted 6.70                |
|    | F7110   | Wheel 15" x 4.5 X 4 Bolt         |
| 60 | 84346   | 3/4" x 2 1/2" Hex Bolt (pl)      |
| 61 | 81700   | 3/4" Hex Nut (pl)                |
| 62 | 967162  | 5/16" x 3" Cotter Pin (pl)       |
| 63 | 906735  | Swivel Pin 1 1/4" x 10 3/8"      |
| 64 | 81210   | 1/4" x 2" Cotter Pin (pl)        |
| 65 | 967153  | Narrow Rim Washer 2" x 10ga (pl) |
| 66 | 968404  | 1/2" x 1 1/4" Wheel Bolt (pl)    |
| 67 | 961891  | Oil Seal CTD (SE11)              |
| 68 | 967712  | Outer Bearing Cone (LM67048)     |
| 69 | 968405  | Bearing Cup (LM11910)            |
| 70 | 105173  | 4-Bolt Hub (411) w/Cup (LM67010) |
| 71 | 967711  | Outer Bearing Cup (LM67010)      |
| 72 | 968406  | Outer Bearing Cone (LM11949)     |
| 73 | 9812416 | Washer 3/4" SAE (br)             |
| 74 | 81834   | 3/4" Slotted Hex Nut (br)        |
| 75 | 981309  | 1/8" x 1 1/4" Cotter Pin         |
| 76 | 968409  | Dust Cap (DC12)                  |
| 77 | 967900  | 1/4" Grease Fitting              |

**3 x 8 CYLINDER ASSEMBLY**

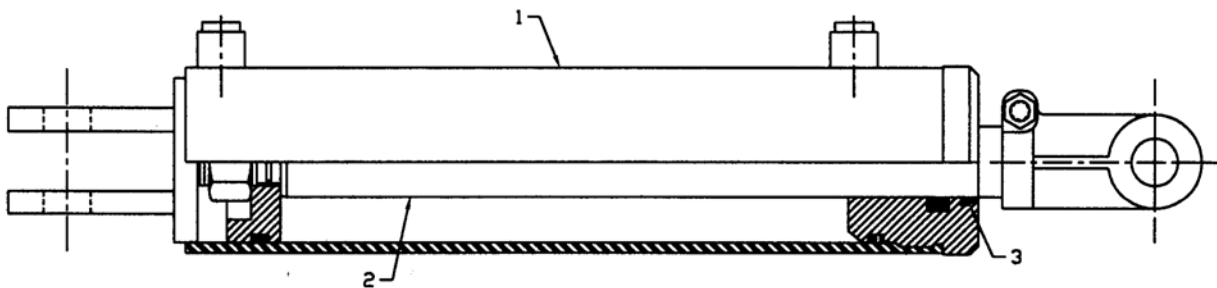
| Item # | Part # | Description        |
|--------|--------|--------------------|
|        | 24791  | Cylinder Complete  |
| 1      | 24827  | Tube Weldment      |
| 2      | 113934 | Piston Rod 1.5 Dia |
| 3      | X2415  | Seal Kit           |



24791

**3 x 12 CYLINDER ASSEMBLY**

| Item # | Part # | Description        |
|--------|--------|--------------------|
|        | 24794  | Cylinder Complete  |
| 1      | 24828  | Tube Weldment      |
| 2      | 113935 | Piston Rod 1.5 Dia |
| 3      | X2415  | Seal Kit           |

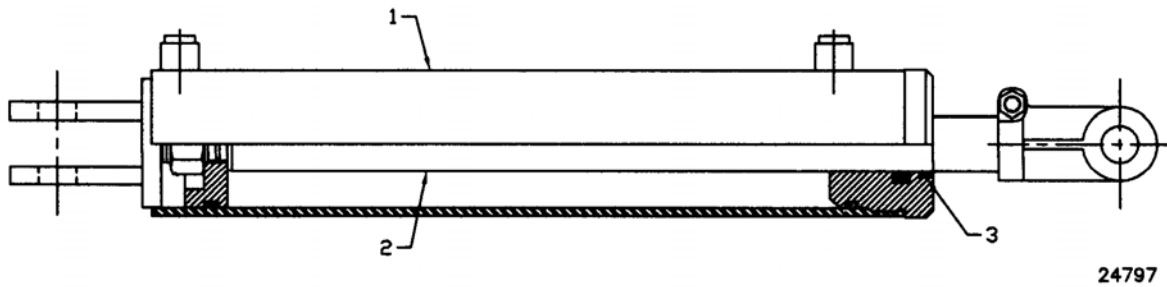


24794



3 1/2 X 16 CYLINDER ASSEMBLY

| Item # | Part # | Description        |
|--------|--------|--------------------|
|        | 24797  | Cylinder Complete  |
| 1      | 24829  | Tube Weldment      |
| 2      | 114779 | Piston Rod 1.5 Dia |
| 3      | X2098  | Seal Kit           |



**SHIPPING KIT AND BUNDLE NUMBERS**

The following is a list of Kit Numbers for this product and the Bundle Numbers, Descriptions, and Quantities for each Kit.

| <b>QUANTITY</b>  | <b>BUNDLE NO.</b> | <b>DESCRIPTION</b>                |
|--|-------------------|-----------------------------------|
| <b>C7080 7' REAR BLADE</b>   |                   |                                   |
| <b>c/w hydraulic angle adjust and mechanical tilt and offset adjust:</b> |                   |                                   |
| 1  | F6698             | Crate of Parts with cylinder      |
| 1  | F0338             | 7' Bundle                         |
| <b>C7081 7' REAR BLADE c/w cylinders and hoses:</b>                      |                   |                                   |
| 1  | F0329             | Crate of Parts with all cylinders |
| 1  | F0338             | 7' Bundle                         |
| <b>C7082 7' REAR BLADE less cylinder and mechanical links:</b>           |                   |                                   |
| 1  | F0790             | 7' Bundle                         |
| <b>C8080 8' REAR BLADE</b>   |                   |                                   |
| <b>c/w hydraulic angle adjust and mechanical tilt and offset adjust:</b> |                   |                                   |
| 1  | F6698             | Crate of Parts with cylinder      |
| 1  | F0339             | 8' Bundle                         |
| <b>C8081 8' REAR BLADE c/w cylinders and hoses:</b>                      |                   |                                   |
| 1  | F0329             | Crate of Parts with all cylinders |
| 1  | F0339             | 8' Bundle                         |
| <b>C8082 8' REAR BLADE less cylinder and mechanical links:</b>           |                   |                                   |
| 1  | F0791             | 8' Bundle                         |
| <b>C9080 9' REAR BLADE</b>   |                   |                                   |
| <b>c/w hydraulic angle adjust and mechanical tilt and offset adjust:</b> |                   |                                   |
| 1  | F6698             | Crate of Parts with cylinder      |
| 1  | F0340             | 9' Bundle                         |

**C9081 9' REAR BLADE c/w cylinders and hoses:**

|   |       |                                   |
|---|-------|-----------------------------------|
| 1 | F0329 | Crate of Parts with all cylinders |
| 1 | F0340 | 9' Bundle                         |

**C9082 9' REAR BLADE less cylinder and mechanical links:**

|   |       |           |
|---|-------|-----------|
| 1 | F0792 | 9' Bundle |
|---|-------|-----------|

**OPTIONAL BUNDLE NUMBERS**

The following is a list of options available for the Kits listed above.

|       |                                     |
|-------|-------------------------------------|
| C9151 | Dual Gauge Wheel w/Tires            |
| F6598 | Skid Shoe Set                       |
| F6680 | Mechanical Link – Tilt              |
| F6683 | Hydraulic Cylinder & Hoses – Tilt   |
| F6718 | Mechanical Link – Angle             |
| F6684 | Hydraulic Cylinder & Hoses – Angle  |
| F6682 | Mechanical Link – Offset            |
| F6685 | Hydraulic Cylinder & Hoses - Offset |

## NOTES

## NOTES

# NOTES



## DIVISION LOCATIONS

Farm King Division  
301 Mountain Street S.  
Morden, MB R6M 1X7  
Ph.: (204) 822-4467  
Fax: (204) 822-6348

Allied/Inland Division  
1260 Clarence Avenue  
Winnipeg, MB R3T 1T2  
Ph.: (204) 284-6100  
Fax: (204) 477-2325

B.I.I. Division  
1330 43<sup>rd</sup> Street N.W.  
Fargo, ND 58102  
Ph: (701) 282-7014  
Fax: (701) 282-5865

## U.S. WAREHOUSES

AR, West Memphis  
(870) 732-3132

GA, Stone Mountain  
(770) 908-9439

ID, Meridian  
(208) 887-6006

IN, Clarksville  
(812) 284-3376

KS, Wichita  
(316) 265-9577

MN, Lakeville  
(952) 469-5267

MT, Billings  
(406) 248-7771

ND, Bismarck  
(701) 223-1886

ND, Fargo  
(701) 282-7003

NE, Blair  
(402) 426-8211

OH, Youngstown  
(330) 793-0862

OR, Beaverton  
(503) 641-1865

SD, Huron  
(605) 352-8616

TX, Houston  
(713) 928-2632

UT, Salt Lake City  
(801) 972-4321

WI, Portage  
(608) 742-1370

## CANADIAN WAREHOUSES

B.C., Abbotsford  
(604) 864-2665

AB, Edmonton  
(780) 962-6991

SK, Regina  
(306) 781-2300

ON, Woodstock  
(519) 539-0435

QC, Dorion  
(450) 455-4840

## OFFSHORE WAREHOUSES

Burando Hill  
Katanning  
W. Australia  
011-618-98-214422

Chihuahua, Mexico  
011-52-158-90306

John Kerr Equipment Ltd.  
Wilcoxholm Farm  
Linlithgow, W. Lothian  
Scotland  
011-441-506-842280

Skovde, Sweden  
011-46-500-452651

Naestved, Denmark  
011-45-557-29511

# bühler

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