

DG Series DG 72 & DG 84

Demolition Grapple Bucket

Owner/Operator

Instruction & Maintenance Manual

Before operation of your Demolition Grapple Bucket read the entire contents of this manual

Congratulations on your purchase of the Demolition Grapple Bucket. Cross-Tech Manufacturing takes great pride in the design and manufacturing of our products and want you to know we appreciate your business. We are confident your Grapple Bucket will provide many years of reliable service. Welcome to the Brush Wolf family of attachments.

For your safety and the safety of others, please read the entire contents of this manual prior to the operation of the Demolition Grapple Bucket.

If you have questions regarding your Demolition Grapple Bucket, contact your dealer.

Please take the time to fill out the Warranty Registration Form contained in this manual or go on-line at **Brushwolf.com**. **A Warranty Registration Form must** be on file within thirty days of the purchase date in order for warranty claims to be valid. A full description of the warranty can be found on page 14.

To ensure prompt and accurate information when working with your dealer regarding your Demolition Grapple Bucket please complete the Owner Reference Information below. The information will be vital for service, repair and warranty inquiries.

| OWNER REFERENCE INFORMATION | | | |
|-----------------------------|------------------------------|--|--|
| Date Purchased: | | | |
| Dealer Name: | | | |
| Dealer Phone: | | | |
| Model Number: | | | |
| Serial Number: | | | |
| | Thank you for your business! | | |



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Safety Instructions



The following safety instructions are provided to alert you to precautions which, if not followed, may cause serious injury to yourself or others. Please read these instructions completely. Cross-Tech Manufacturing can not cover every incident that might be a hazard; extreme caution should be used at all times, only use the Demolition Grapple Bucket for the intended purpose of the design. Always operate a skid steer with a forestry rated door and cab. Safety goggles and hearing protection must be worn at all times.

Site Inspection: Before operation of the Demolition Grapple Bucket, carefully inspect the area to be cleared. Contact the "Call before you dig" team to identify and mark locations of gas, electric, communications, water and sewer lines before digging or any removal of stumps. Maintain proper clearance when using the grapple bucket. Prior to lifting, lowering or tilting the grapple bucket ensure the area is clear of bystanders or objects.

Equipment Inspection: Prior to inspection the unit must be disconnected from the skid steer in order to prevent accidentla release of the lift mechanism. To inspect or to make repairs of the Demolition Grapple Bucket always do so on a flat surface. Inspect all hydraulic hoses and shields to ensure they are in good condition and without holes before pressurizing. Hydraulic fluid can escape under pressure and may cause serious injury or death. Wear safety goggles, ear protection, hard hat, and only operate the skid steer behind shatter proof forestry rated door and cab. Do Not inspect hydraulic lines with bare hands.

Do Not operate near bystanders, vehicles, pets, livestock or buildings. Objects may dislodge from the grapple and has the potential to cause injury or damage.

Do Not place hands, feet or objects not intended to be picked up or moved by the Grapple Bucket. To inspect or perform maintenance, always shut down the power to the Grapple Bucket, shut-off the skid steer engine, set the brake and disconnect hydraulic hoses.

Do Not operate while intoxicated or if taking medications that may impair your senses or reactions.

Do Not leave the Demolition Grapple Bucket unattended while in a raised position. Always make sure the grapple bucket is placed firmly on level ground.

Do Not continue operation if an unexpected object is struck. IMMEDIATELY shut down power to both the attachment and the skid steer. Disconnect from the hydraulic couplers from the power source. Evaluate the damage, repair and the test unit before continuing operations.

Do Not allow anyone or any item on top of the Grapple Bucket when in operation.



Operation Instructions

- 1. Recommended for skid steers with operating loads of greater than 1500 lbs. and
- 2. Inspect the Grapple Bucket for any damage to welds, loose fasteners or severe dents that could interfere with proper operation.
- 3. Prior to operation ensure the hydraulic connections are free from debris. Clean and dry before attachement to your skid steer. Contaminents that enter the hydraulic system will cause damage. Inspect the hydraulic to ensure there are not any leaks.
- 4. Connect the Demolition Grapple Bucket to your skid steer with the universal quick-tach mount. Lock down the coupler levers. If your skid steer has a hydraulically operated coupler, engage the coupler lock.
- 5. Once connected, visually check the lock pins to make sure the Demolition Grapple Bucket is securely locked in place.
- 6. Connect the hydraulic lines from the attachment to the skid steer.
- 7. Confirm all safety measures have been completed per the Safety Instructions. Most importantly make sure the area has been inspected and marked with all gas, electric, communications, water and sewer lines before any digging.
- 8. Enter shatter-proof cab door, engage seat belt, release brake and start engine.
- 9. Review your skid steer operator's manual for instructions on how run the hydraulic system for your loader.
- 10. Once you have the skid steer running check the hydaulic operation of the Grapple. The arms should raise and lower smoothly.
- 11. Stay alert for drop-offs, rocks, holes, abandoned wells and septic tanks. Do not operate or drive across a steep embankment to prevent rollovers.
- 12. The Grapple Bucket has two independent hydraulic cylinders and will pick up uneven loads.
- 13. Upon completion of use, lower the lift arms, make sure the grapple bucket is placed flat on the ground, throttle down the skid steer and shut off the hydraulic flow to the unit, stop the engine, and engage parking brake prior to leaving the cab.
- 14. To disconnect hoses use proper hand protection as the couplers may be hot. Store the hoses in a manner to keep them free of dirt and other debris.

Maintenance Schedule

Your new Demolition Grapple Bucket is a precisely engineered attachment and requires little maintenance. The Demolition Grapple Bucket is built to strict standards and will deliver years of dependable service by following these maintenance guidelines:

- 1. Perform maintenance on level surface with the unit firmly on the ground. Shut off the hydraulic power supply and disconnect hydraulic couplers.
- 2. Check all nuts and bolts for proper tightness. See Maintenance Schedule.
- 3. Inspect hydraulic cylinders and covers for damage or lose screws.
- 4. Grease eight pins with all purpose grease. See Maintenance Schedule.

| ITEM | TYPE OF MAINTENANCE | FREQUENCY |
|------------------------------|-----------------------------------|------------------------|
| Bolts/Nuts on hose spring | Torque bolts to +/- 15 ft/lbs | Daily or every 8 hours |
| Pins (8) | Grease with all purpose grease | Daily or every 8 hours |
| Cylinders | Inspect for damage | Daily or every use |
| Cylinder covers | Inspect for damage or lose screws | Daily or every use |
| Hoses and hose safety shield | Check for wear or damage. | Daily or every 8 hours |



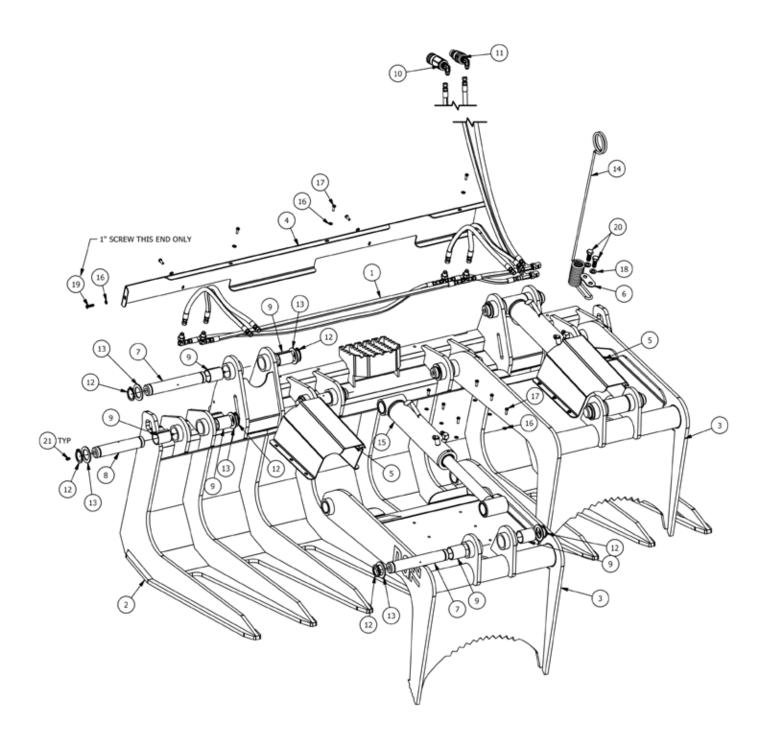
CAUTION: Perform maintenance on a level surface with the unit firmly on the ground. Shut off the hydraulic power supply and disconnect hydraulic couplers.

Do Not loan your Demolition Grapple Bucket to another skid steer owner. The potential exists for hydraulic contamination and could shorten the life of your skid steer.



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DG 72 Parts Diagram

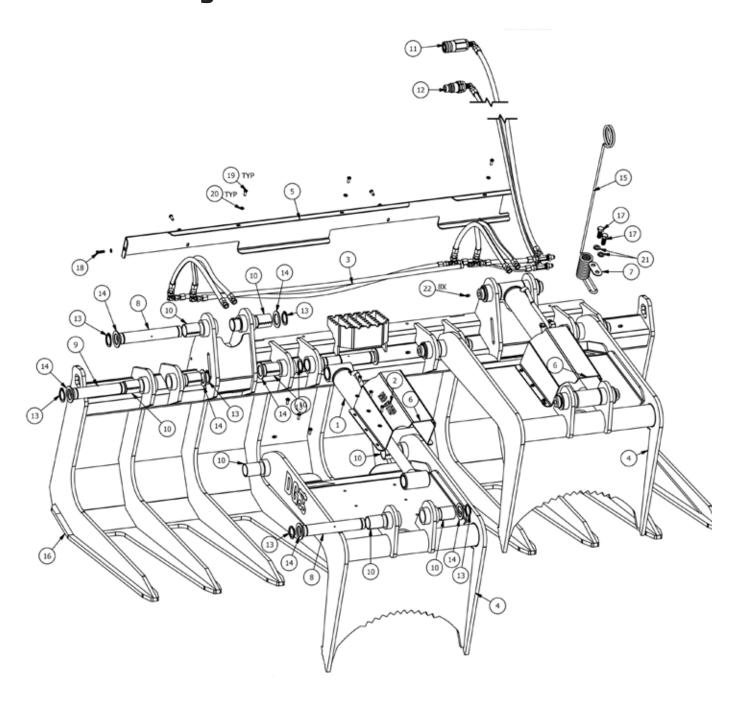




Parts List for DG 72

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|-------------|---|
| 1 | 1 | 15147 | HOSE KIT, DG SERIES |
| 2 | 1 | 15427 | WELDMENT, FRAME, DG-72 |
| 3 | 2 | 15457 | DG-72 GRAPPLE ARM WELDMENT |
| 4 | 1 | 15464 | PLATE, DG-72, REAR COVER |
| 5 | 2 | 15465 | PLATE, DG-72, CYLINDER COVER |
| 6 | 1 | 15466 | PLATE, GRAPPLE, HOSE HANGER |
| 7 | 4 | 15467 | PIN, PIVOT, 1.498 DIA X 9.240 |
| 8 | 4 | 15468 | PIN, PIVOT, 1.498 DIA X 7.650 |
| 9 | 18 | 15469 | BUSHING, SPRING, 1.750 OD X 1.500 IDX 2.000 |
| 10 | 1 | 15470 | COUPLER, FLAT FACED, 90 DEG, FEMALE, 3/4 |
| 11 | 1 | 15471 | COUPLER, FLAT FACED, 90 DEG, MALE, 3/4 |
| 12 | 16 | 15472 | RING RETAINING, HD 1.500 SHAFT, 0.109 THK |
| 13 | 16 | 15473 | SHIM, STEEL 1.500 ID X 2.250 OD 0.134 THK |
| 14 | 1 | 15474 | HOSE HANGER, 1/4" DIA. X 24" SPRING STEEL |
| 15 | 2 | 15476 | CYLINDER, 2.5 BORE, 1.5 ROD, 9 STROKE, CROSSTUBE FOR 1.5 PIN, PORTS ROD END |
| 16 | 19 | Hardware | WASHER, EXT TOOTH LOCK, 1/4 ID, .51 OD ZINC |
| 17 | 18 | Hardware | SCREW, BUTTON HEAD, SOCKET CAP SCREW 1/4-20 X 3/4 BLK ZNC |
| 18 | 2 | Hardware | WASHER, SPRING LOCK, .500 ZINC |
| 19 | 1 | Hardware | SCREW, BUTTON HEAD, SOCKET CAP SCREW 1/4-20 X 1 BLK ZNC |
| 20 | 2 | Hardware | BOLT, HH, 1/2-13 X 1 1/4 UNC, GRD 5, ZINC |
| 21 | 8 | 15247 | ZERK, GREASE, 1/4"-28 STRAIGHT, 0.688 LONG |

DG 84 Parts Diagram





Parts List for DG 84

| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|-------------|---|
| 1 | 2 | 15476 | CYLINDER, 2.5 BORE, 1.5 ROD, 9 STROKE, CROSSTUBE FOR 1.5 PIN, PORTS ROD END |
| 2 | 1 | 15145 | DECAL KIT, DG-84 |
| 3 | 1 | 15147 | HOSE KIT, DG-84 |
| 4 | 2 | 15457 | DG-84 GRAPPLE ARM WELDMENT |
| 5 | 1 | 15464 | PLATE, DG-84, REAR COVER |
| 6 | 2 | 15465 | PLATE, DG-84,CYLINDER COVER |
| 7 | 1 | 15466 | PLATE, GRAPPLE, HOSE HANGER |
| 8 | 4 | 15467 | PIN, PIVOT, 1.498 DIA X 9.240 |
| 9 | 4 | 15468 | PIN, PIVOT, 1.498 DIA X 7.650 |
| 10 | 18 | 15469 | BUSHING, SPRING, 1.750 OD X 1.500 IDX 2.000 |
| 11 | 1 | 15470 | COUPLER, FLAT FACED, 90 DEG, FEMALE, 3/4 |
| 12 | 1 | 15471 | COUPLER, FLAT FACED, 90 DEG, MALE, 3/4 |
| 13 | 16 | 15472 | RING RETAINING, HD 1.500 SHAFT, 0.109 THK |
| 14 | 16 | 15473 | SHIM, STEEL 1.500 ID X 2.250 OD 0.134 THK |
| 15 | 1 | 15474 | HOSE HANGER, 1/4" DIA. X 24" SPRING STEEL |
| 16 | 1 | 15489 | DG-84 BUCKET WELDMENT |
| 17 | 2 | Hardware | BOLT, HH, 1/2-13 X 1 1/4 UNC, GRD 5, ZINC |
| 18 | 1 | Hardware | SCREW, BUTTON HEAD, SOCKET CAP SCREW 1/4-20 X 1 BLK ZNC |
| 19 | 18 | Hardware | SCREW, BUTTON HEAD, SOCKET CAP SCREW 1/4-20 X 3/4 BLK ZNC |
| 20 | 19 | Hardware | WASHER, EXT TOOTH LOCK, 1/4 ID, .51 OD ZINC |
| 21 | 2 | Hardware | WASHER, SPRING LOCK, .500 ZINC |
| 22 | 8 | 15247 | ZERK, GREASE, 1/4"-28 STRAIGHT, 0.688 LONG |

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Warranty Registration Form

Thank you for choosing Cross-Tech Manufacturing. Please complete the form below to register your Grapple Bucket. There is a form available to fill out on-line at www.brushwolf.com. Please complete the Warranty Registration form within 30 days of purchase date to qualify for warranty.

Purchaser Information

| Company | |
|---|-----------------------------|
| Contact Name | |
| Phone | |
| Email | |
| Address 1 | |
| Address 2 | |
| City | State/Province/Region |
| Zip/Postal Code | Country |
| | |
| Model Number: | Serial Number: |
| | |
| Date of purchase MM DD | YYYY |
| Would you recommend this produ | uct to your friends? Yes No |
| Cross-Tech Manufacturing, Inc. 33877 Gendreau Road Crosslake, MN 56442-9303 | |
| email: info@brushwolf.com | |

Also available to fill out on-line: www.brushwolf.com

WARRANTY INFORMATION:

The Warranty Claim Form must be completed in full detail and received in good condition. Cross-Tech Manufacturing, Inc. limits it warranty to the cylinders for a period of one (1) year from the original date of sale. A two (2) year warranty is included on the structural steel from the date of sale.

A Warranty Registration Form for this equipment must exist before warranty claims will be valid. If a defect in a Cross-Tech Manufacturing product is discovered during the applicable warranty period, Cross-Tech will repair or replace, at its option the defective part. Cross-Tech Manufacturing, Inc. purchased components are subject to the original manufacturer's warranty.

The Equipment owner is responsible for proper maintenance. If the product is not maintained, all warranties by Cross-Tech Manufacturing will be null and void. Any modification to the product other than those made by Cross-Tech Manufacturing will cause this warranty to be void; including any modification or disassembly of cylinders, etc.

This warranty does not extend to repairs, adjustments, or replacement of a Cross-Tech product or part that results from misuse, negligence, alteration, modification tampering, improper maintenance or improper operation of the product. Claims submitted must be legible and in good condition. Cross-Tech does not cover service mileage, downtime or replacement of the attachment.

If a problem arises during the warranty period please contact your local dealer. The warranty is null and void if the product is modified or repaired without written consent from Cross-Tech Manufacturing. Cross-Tech units used in rental fleets are covered with a ninety (90) day warranty on the cylinders and structural steel with a valid warranty registration on file within thirty (30) days of the purchase date.

To file a warranty claim, please contact your dealer or Cross-Tech Manufacturing.



Cross-Tech Manufacturing, Inc. 33877 Gendreau Road Crosslake, MN 56442 218-692-1050 www.brushwolf.com