



Excavator / Backhoe Brush Cutter

42X & 48X

Owner / Operator

Instruction & Maintenance Manual



Before operation of your Brush Wolf attachment read the entire contents of this manual

Thank you for your purchase of the Brush Wolf rotary brush cutter. At Cross-Tech Manufacturing we take great pride in the design and manufacturing of our products and we appreciate your business. We are confident your Brush Wolf will provide many years of reliable service. Welcome to the Brush Wolf family.

For your safety and the safety of others, please read the entire contents of this manual prior to the operation of the Brush Wolf brush cutter.

If you have questions regarding your Brush Wolf, 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 (page 19) 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 and process for submittal can be found on page 20.

To ensure prompt and accurate information when working with your dealer regarding your Brush Wolf Brush Cutter 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 Brush Wolf brush cutters for the purpose for which it has been designed. **Always operate an excavator/backhoe with a forestry rated door and cab.** Hearing protection must be worn at all times.

Site Inspection: Before operation of your Brush Wolf, carefully inspect the area to be cleared. Remove any items which may be picked up and thrown by the cutting blades; wire, pipes, or rocks. Mark any object too large to move. This is an important step to help avoid damage to property, the Brush Wolf brush cutter, your excavator/backhoe or personal injury. If an object is struck when operating the Brush Wolf, immediately shut down power to both the attachment and the excavator/backhoe. Any damage should be corrected and tested before continuation of cutting.

Equipment Inspection: Prior to inspection, disconnect the unit from the excavator/backhoe. To inspect or to make repairs under the Brush Wolf cutter deck always block the unit securely in order to prevent accidental release of the lift mechanism. 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 excavator behind a shatter proof forestry rated door and cab.**

Excavator / Backhoe Auxiliary Hydraulic Flow: Check the specifications of the Brush Wolf models rated GPM to correctly match the hydraulic flow of your excavator/backhoe to ensure proper operation.

Do Not operate near bystanders, vehicles, pets, livestock or buildings. Objects may discharge while cutting with the Brush Wolf and has the potential to cause serious injury.

Do Not place hands, feet or other objects under the deck while the Brush Wolf is in operation. To inspect or perform maintenance under the deck, always shut down the power to the Brush Wolf, shut-off the excavator/backhoe engine, disconnect hydraulic hoses, and block the unit securely.

Do Not allow children to operate a rotary brush cutter. Only individuals with excavator/backhoe experience who are well acquainted with the rules of safe operation should be allowed to operate the Brush Wolf.

Do Not operate the Brush Wolf in conditions with poor visibility.

Safety Instructions

Do Not expose the underside of the blades towards the cab.

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

Do Not attempt to straighten blades. **Order replacement blades if blades are bent, cracked or damaged.**

Do Not leave the Brush Wolf unattended while in a raised position. Always make sure both the runners are placed firmly on the ground and shut down the excavator/backhoe.

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

Do Not allow anyone or any item on top of the mower deck when in operation.

Make sure all hydraulic connections are tight and hoses and shields are in good condition before applying pressure.



Hydraulic fluid escaping under pressure can penetrate skin and cause serious injury. If this type of injury occurs, **seek medical attention immediately.**

Operation Instructions

1. Prior to operation check the blades and replace if cracked or damaged. All blades must be replaced at the same time. Tighten the blade carrier to the blade bolts/nuts, and hydraulic motor mount nuts. Check the hydraulic fluid. A low level could indicate a leak and require a closer inspection of your unit.
2. Ensure pins or quick couplers are properly connected from the Brush Wolf to your excavator/backhoe.
3. Verify the auxiliary hydraulic flow available at the stick of your excavator/backhoe is within the range of the Brush Wolf rating of GPM - Gallons Per Minute.
4. Inspect the hydraulic couplers and wipe off water, dust or any debris. Dirt and debris can damage hydraulic components. Once cleaned, connect the couplers from the cutter to the auxiliary hydraulic system on the excavator/backhoe.
5. Connect the auxiliary hydraulic lines for the brush cutter to the excavator/backhoe. Twist the collars of the quick connect couplers to secure the hydraulic connections.
6. Confirm all safety measures have been completed per the Safety Instructions. Most importantly make sure the area is clear of personnel and pets.
7. Enter shatter-proof cab door, engage seat belt, release brake and start engine. The runners of the Brush Wolf should be as close to the ground as possible.
8. Slowly apply hydraulics to the Brush Wolf and increase the engine speed to high idle. Make sure the unit is operating smoothly before moving the excavator/backhoe forward. When temperatures are below zero allow additional time for hydraulic fluids to warm-up.
9. Maintain a speed to handle the volume of brush and to prevent stalling.
10. Stay alert for drop-offs, rocks, holes, abandoned wells and septic tanks. Do not operate or drive across a steep embankment as this may cause a rollover and possible injuries or death.
11. To cut large diameter brush and trees, move forward slowly to make the cut.
12. When finished cutting, make sure the cutter is placed flat on the ground, throttle down the excavator/backhoe and shut off the hydraulic flow to the unit, stop engine prior to leaving the cab.
13. To disconnect hoses use proper hand protection as the couplers may be hot.

Maintenance

Your new Brush Wolf is a precisely engineered attachment and requires little maintenance. The Brush Wolf 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 and blocked. Shut off the hydraulic power supply and disconnect hydraulic couplers.

Before operation, check the hydraulic hoses for any leaks.

2. Check all nuts and bolts for proper tightness. See Maintenance Schedule on page 8.
3. Every Brush Wolf is tested at the factory and all nuts and bolts have been tightened to specifications. We recommend you check them after the first 4 to 6 hours of operation and at regular intervals as defined in the Maintenance Schedule.
4. Tighten all the nuts which secure the blades to the blade carrier every eight (8) hours. Torque the nuts to 775 ft - lbs with a 1-11/16" socket wrench. The nuts are located under the access plate on the top of the blade carrier.
5. Inspect blades regularly to ensure they are sharp, tightened correctly and intact. Blades must be replaced as a set and never try to weld or straighten damaged blades, as loss of blade integrity will result.
6. Inspect hydraulic hoses daily or each use for damage, wear or leaks.



CAUTION: Always replace the entire set of blades. Never weld or straighten damaged blades, as loss of blade integrity may result.

CAUTION: Replace missing or illegible safety decals immediately. Decals are available at your Brush Wolf dealer.

CAUTION: Operator of excavator should be behind shatter-proof glass.

Maintenance Schedule / Checklist



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

Do Not loan your brush cutter to another excavator/back hoe owner. The potential exists for hydraulic contamination and could shorten the life of your operating equipment or the hydraulic motor on your Brush Wolf brush cutter.

ITEM	TYPE OF MAINTENANCE	FREQUENCY
Bearing Housing Gear Lube	Check oil - add 80W90 gear lube if required	Once per week
Hydraulic Motor Mount Bolts	Torque to 75 ft - lbs.	Daily or every 8 hours
Bearing Housing Nuts	Torque to 85 ft - lbs.	Daily or every 8 hours
Blade Carrier Mounting Bolts	Torque to 420 ft - lbs.	Daily or every 8 hours
Blade Bolt/Nuts	Torque to 775 ft - lbs.	Daily or every 8 hours
Blade Inspection	Check for damage, dullness or cracks. Blades should rotate freely and be clear of obstructions. Replace entire set of blades if damaged.	Daily or every use
Block Bolts	Torque to 100 ft - lbs.	Daily or every 8 hours
Hoses and Hose safety shield	Check for wear, damage or leaks. Replace if damaged.	Daily or every 8 hours
Hydraulic Motor Mount Bolts	Torque 75 ft - lbs.	Daily or every 8 hours
Brush Wolf machine	Clean the unit to view potential damage or obstructions that could result in poor performance.	As needed



Oil Port

Troubleshooting

Note: When performing maintenance, shut down the excavator/backhoe and remove hydraulic hoses from the power source.

Problem

Check

Loss of Power

Low hydraulic fluid level
Overheated hydraulic fluid*
Contaminated hydraulic fluid*

*May damage hydraulic motor

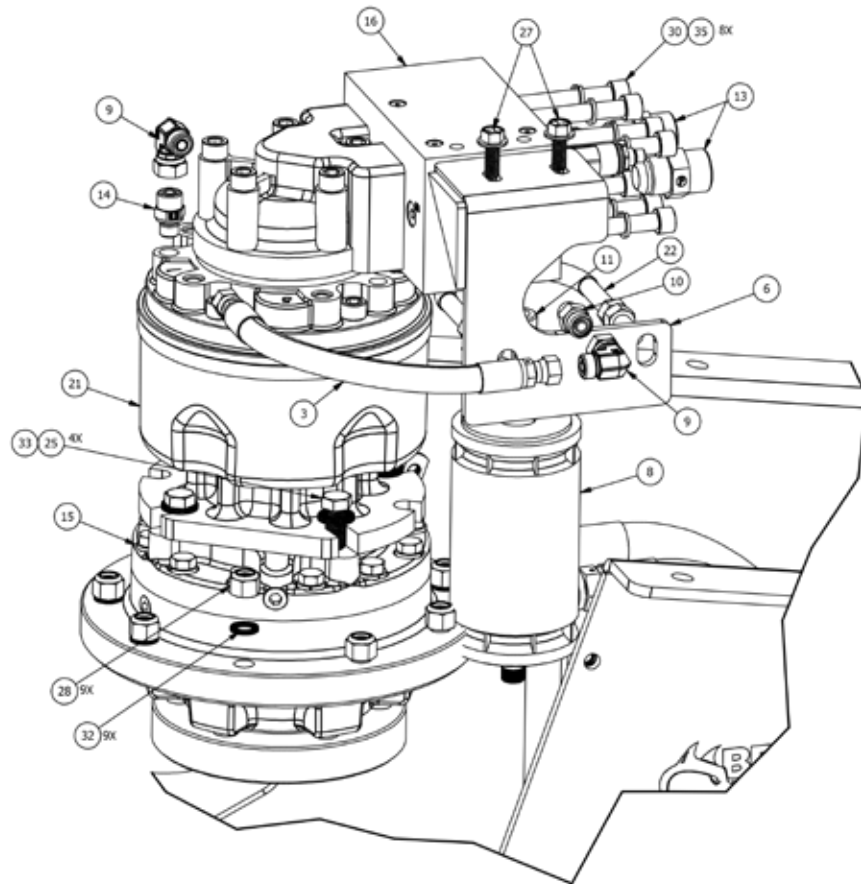
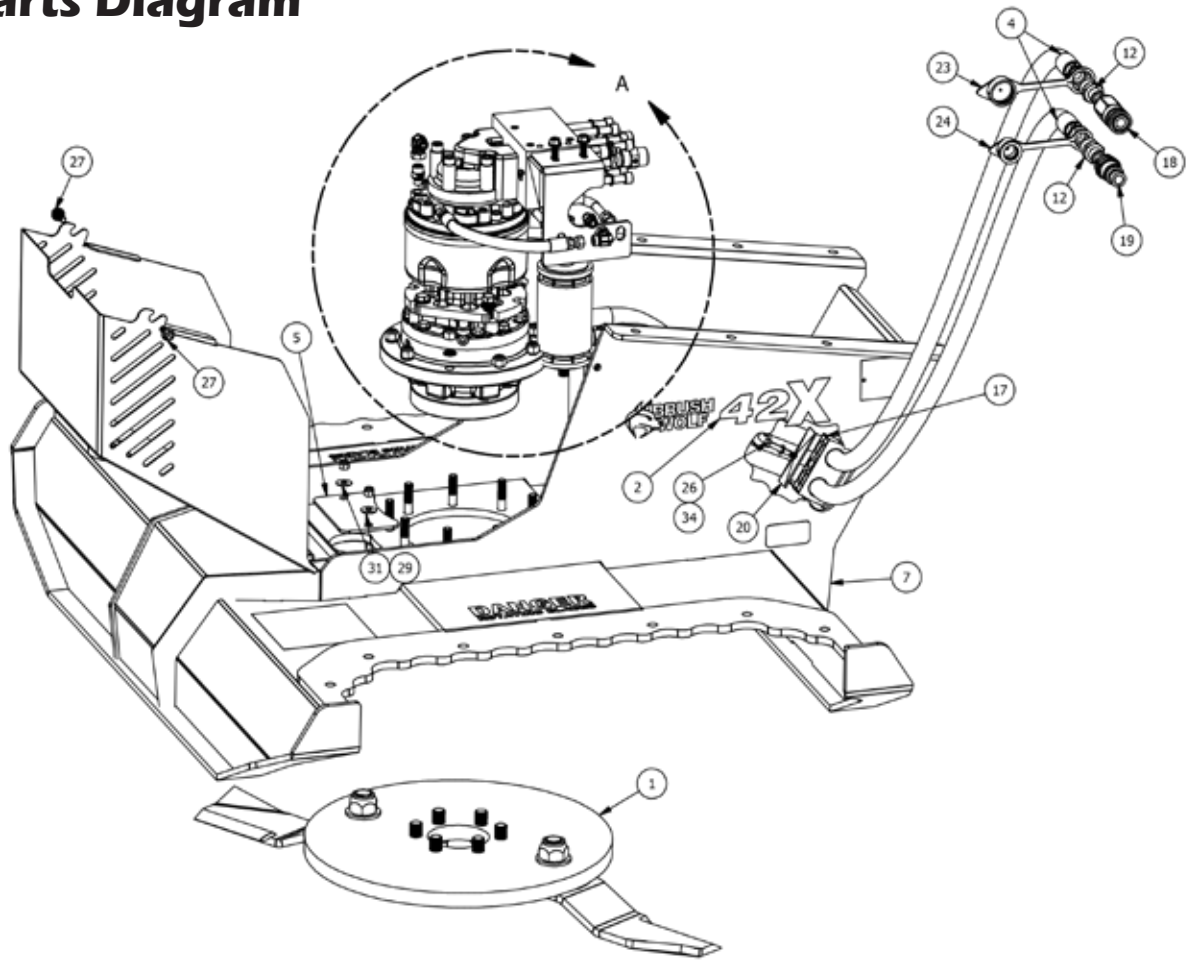
Excessive Unit Vibration

Dull, broken or damaged blades
Blade carrier out of balance
Loose nuts and bolts
New blade or bolts matched with worn blade or bolts
Wire or rope wrapped around blades

Leaking Oil

Loose hydraulic connections
Ruptured hydraulic motor seals
Loose or missing motor drain plug
Ruptured hydraulic motor seals

42X Parts Diagram

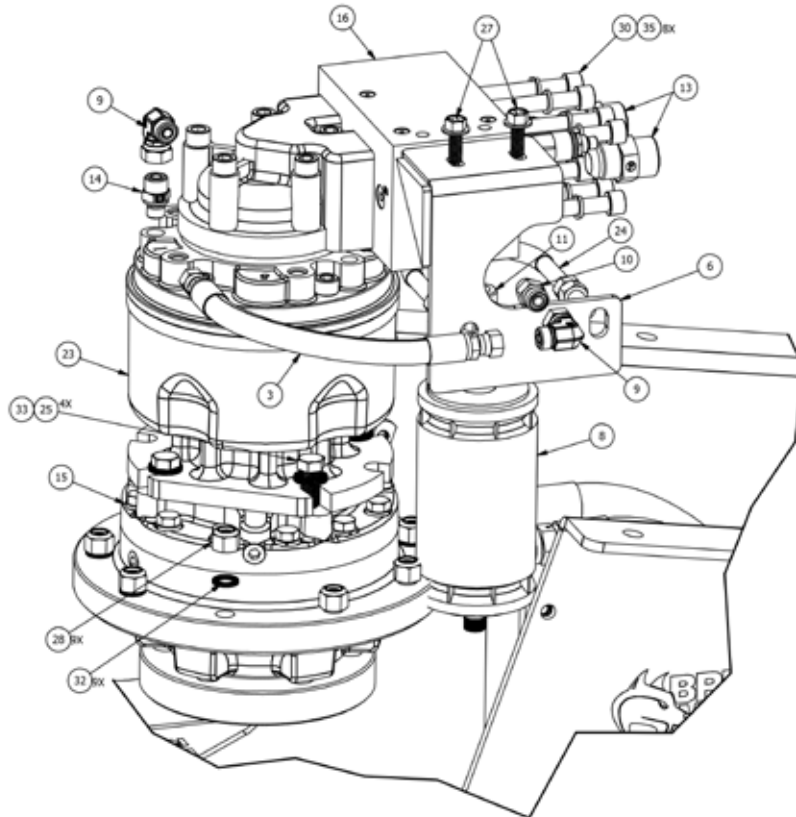
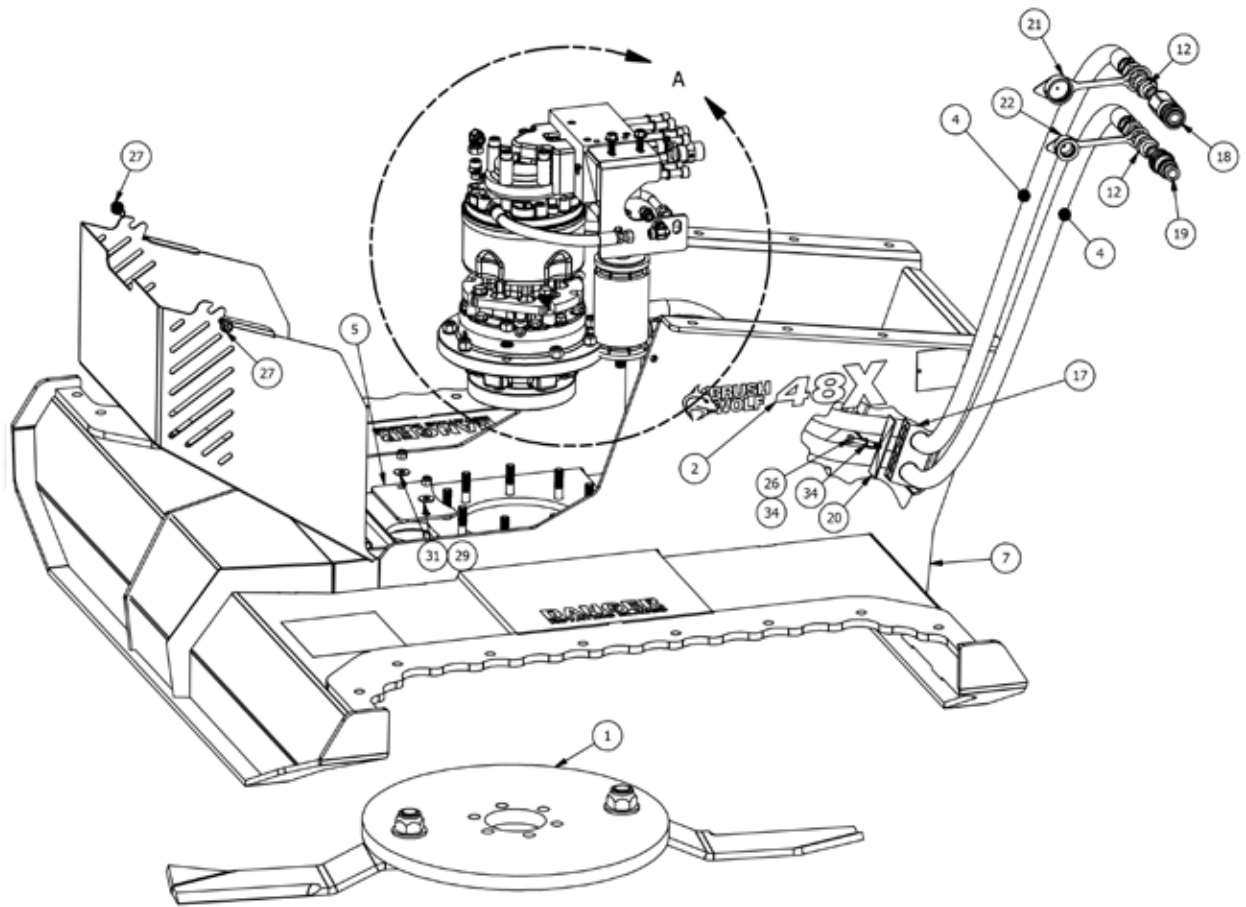


42X Model Parts List

ITEM	ITEM QTY	PART NUMBER	DESCRIPTION
1	1	16529	ASSEMBLY, BLADE CARRIER, 42X, DIRECT DRIVE
2	1	16713	DECAL KIT, 42X HD
2	1	16714	DECAL KIT, 42X XP
3	1	16533	HOSE WHIP ASSEMBLY, -6 ORFS/-8 ORFS, FEMALE SWIVEL COUPLINGS, 0.375 X 12.000 HOSE
4	2	15590	HOSE WHIP ASSEMBLY, -12 ORFS, FEMALE SWIVEL COUPLINGS, 0.750 X 90.000 HOSE
5	1	16518	PLATE, ACCESS, 2 HOLE, 4.000 x 6.238
6	1	16520	WELDMENT, 80MM ACCUMULATOR MOUNT, SF
7	1	16462	WELDMENT, FRAME, 42X DD
8	1	16498	ACCUMULATOR, PISTON, 80MM BORE, 0.32L
9	2	16522	ADAPTER, 90 DEG, #6 MORFS, #6 FORB
10	1	16007	ADAPTER, STRAIGHT, #6 MORFS, #6 MORB
11	1	16499	ADAPTER, STRAIGHT, #12 MORB, #12 MORB
12	2	15406	ADAPTER, STRAIGHT, #12 MORF, #10 MORB
13	2	15405	ADAPTER, STRAIGHT, #12 MORF, #12 MORB
14	1	16519	ADAPTER, STRAIGHT, 1/4MBSPP, #6 MOFS
15	1	16500	BEARING HOUSING, SAE "C" MOUNT, 2.25 SHAFT, 7.000 SPINDLE OUTPUT
16	1	16497	BLOCK, PISTON MOTOR MANIFOLD, STD FLOW
17	1	15248	CLAMP, BODY, TWO PIECE, 30MM, TWO HOSE
18	1	15078	COUPLER, FLAT FACED, 1/2 FEMALE, 7/8-14, O-RING BOSS
19	1	15079	COUPLER, FLAT FACED, 1/2 MALE, 7/8-14, O-RING BOSS
20	1	15249	COVER PLATE, CLAMP, 30MM, TWO HOSE
21	1	16495	MOTOR, 3.4 CU IN, A3 SAE C MOUNT ,1 SAE FLANGE PORTS -42X HD
21	1	16548	MOTOR, 4.71 CU IN, A3 SAE C MOUNT ,1 SAE FLANGE PORTS - 42X XP
22	1	30108	U-BOLT, 1/2-13 X 3 1/2 ID, RUBBER CUSHIONED
23	1	16563	DUST CAP, 0.500 COUPLER, FEMALE
24	1	16564	DUST CAP, 0.500 COUPLER, MALE, CAT
25	4	30111	BOLT, HH, 1/2-13 X 1 3/8 UNC, GRD 5, ZINC
26	1	30053	BOLT, HH, 5/16-18 X 2 1/2, GRD 5, ZINC
27	4	30058	BOLT, HH, FLANGED, 3/8-16 X 1, GRD 5, ZINC
28	9	30106	NUT, NYLOCK, 1/2-20, ZINC, GRD 5
29	2	30065	NUT, NYLOCK, 3/8-16, ZINC
30	8	30109	SCREW, SHCS, M12-1.75 X 110MM GR8
31	2	30083	WASHER, FLAT, 3/8, ZINC
32	9	16513	WASHER, NORD-LOCK, 0.500 X 0.770 OD, ZINC
33	4	15381	WASHER, NORD-LOCK, 0.500 X 1.000 OD, ZINC
34	1	30091	WASHER, SPRING LOCK, 5/16, ZINC
35	8	30110	WASHER, SPRING LOCK, M12 X 18MM OD

* OPTIONS IN BOLD FOR 42X HD OR 42X XP AS NOTED

48X Parts Diagram



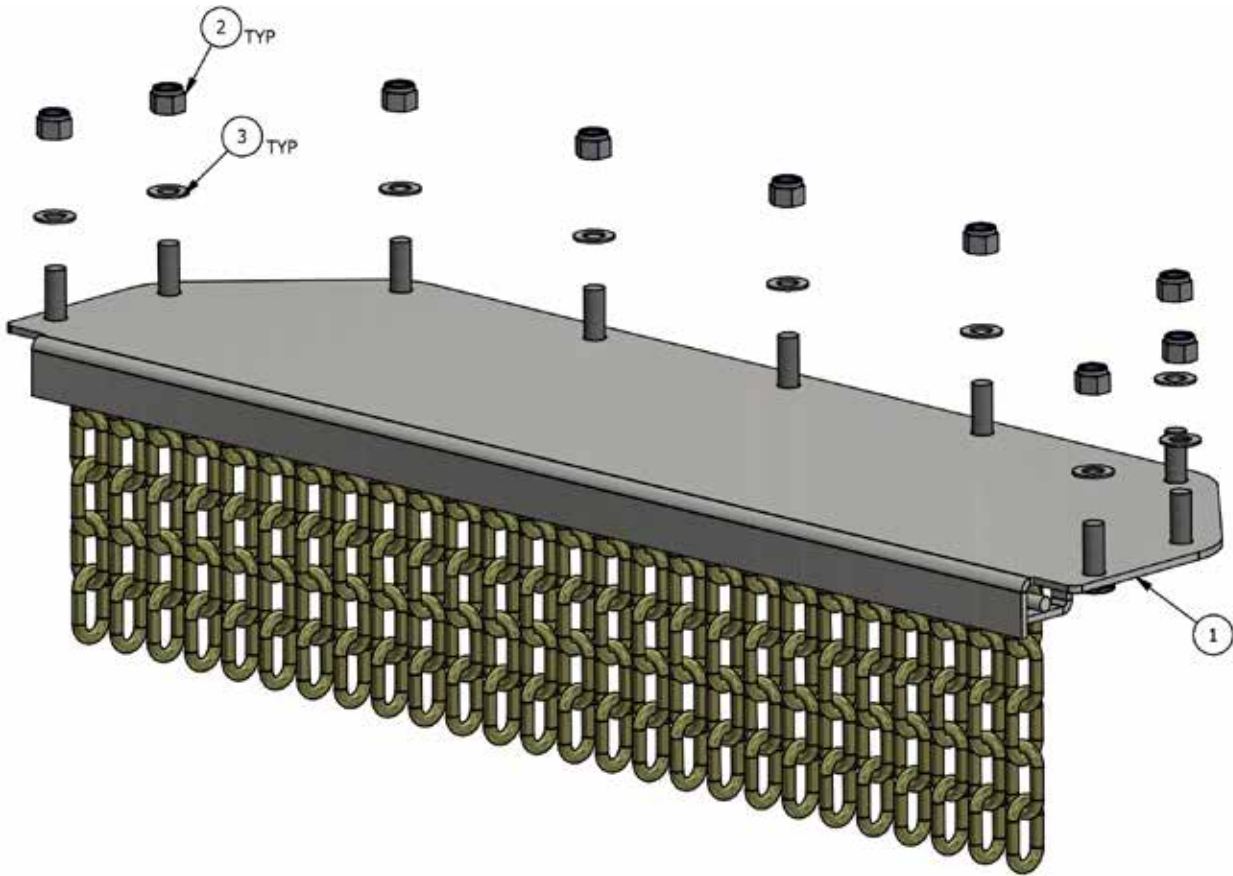
DETAIL A
SCALE 1:3

48X Model Parts List

ITEM	ITEM QTY	PART NUMBER	DESCRIPTION
1	1	16546	ASSEMBLY, BLADE CARRIER, 48X, DIRECT DRIVE
2	1	16715	DECAL KIT, 48X HD
2	1	16716	DECAL KIT, 48X XP
3	1	16533	HOSE WHIP ASSEMBLY, -6 ORFS/-8 ORFS, FEMALE SWIVEL COUPLINGS, 0.375 X 112.000 HOSE
4	2	15590	HOSE WHIP ASSEMBLY, -12 ORFS, FEMALE SWIVEL COUPLINGS, 0.750 X 90.000 HOSE
5	1	16518	PLATE, ACCESS, 2 HOLE, 4.000 x 6.238
6	1	16520	WELDMENT, 80MM ACCUMULATOR MOUNT, SF
7	1	16535	WELDMENT, FRAME, 48X DD
8	1	16498	ACCUMULATOR, PISTON, 80MM BORE, 0.32L
9	2	16522	ADAPTER, 90 DEG, #6 MORFS, #6 FORB
10	1	16007	ADAPTER, STRAIGHT, #6 MORFS, #6 MORB
11	1	16499	ADAPTER, STRAIGHT, #12 MORB, #12 MORB
12	2	15406	ADAPTER, STRAIGHT, #12 MORF, #10 MORB
13	2	15405	ADAPTER, STRAIGHT, #12 MORF, #12 MORB
14	1	16519	ADAPTER, STRAIGHT, 1/4MBSPP, #6 MOFS
15	1	16500	BEARING HOUSING, SAE "C" MOUNT, 2.25 SHAFT, 7.000 SPINDLE OUTPUT
16	1	16497	BLOCK, PISTON MOTOR MANIFOLD, STD FLOW
17	1	15248	CLAMP, BODY, TWO PIECE, 30MM, TWO HOSE
18	1	15078	COUPLER, FLAT FACED, 1/2 FEMALE, 7/8-14, O-RING BOSS
19	1	15079	COUPLER, FLAT FACED, 1/2 MALE, 7/8-14, O-RING BOSS
20	1	15249	COVER PLATE, CLAMP, 30MM, TWO HOSE
21	1	16563	DUST CAP, 0.500 COUPLER, FEMALE
22	1	16564	DUST CAP, 0.500 COUPLER, MALE, CAT
23	1	16548	MOTOR, 4.71 CU IN, A3 SAE C MOUNT, 1 SAE FLANGE PORTS- 48X HD
23	1	16712	MOTOR, 9.2 CU IN, A3 SADE C MOUNT,1 SADE FLANGE PORTS - 48X XP
24	1	30108	U-BOLT, 1/2-13 X 3 1/2 ID, RUBBER CUSHIONED
25	4	30111	BOLT, HH, 1/2-13 X 1 3/8 UNC, GRD 5, ZINC
26	1	30053	BOLT, HH, 5/16-18 X 2 1/2, GRD 5, ZINC
27	4	30058	BOLT, HH, FLANGED, 3/8-16 X 1, GRD 5, ZINC
28	9	30106	NUT, NYLOCK, 1/2-20, ZINC, GRD 5
29	2	30065	NUT, NYLOCK, 3/8-16, ZINC
30	8	30109	SCREW, SHCS, M12-1.75 X 110MM CLASS 12.9
31	2	30083	WASHER, FLAT, 3/8, ZINC
32	9	16513	WASHER, NORD-LOCK, 0.500 X 0.770 OD, ZINC
33	4	15381	WASHER, NORD-LOCK, 0.500 X 1.000 OD, ZINC
34	1	30091	WASHER, SPRING LOCK, 5/16, ZINC
35	8	30110	WASHER, SPRING LOCK, M12 X 18MM OD

* OPTIONS IN BOLD FOR 48X HD OR 48X XP AS NOTED

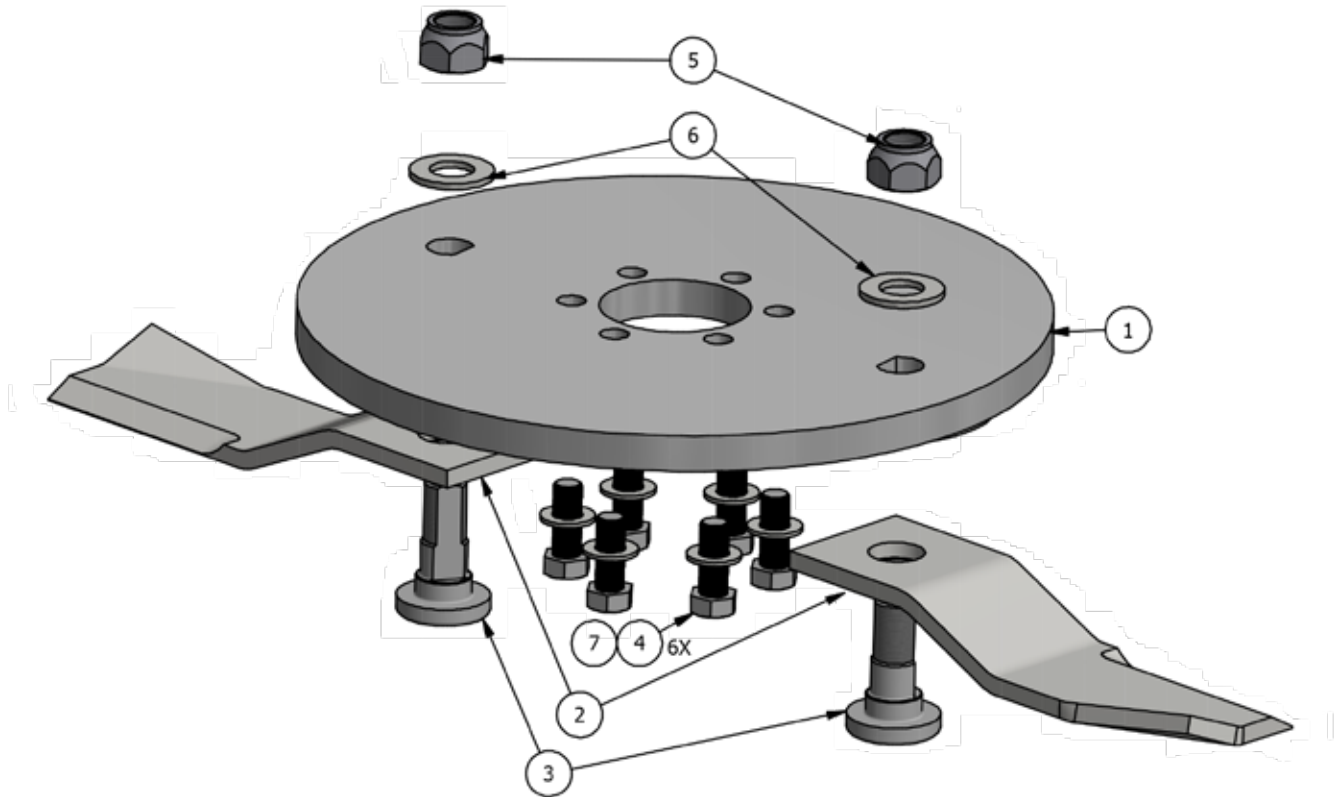
Optional Chain Curtain Insert for all models



ITEM	ITEM QTY	PART NUMBER	DESCRIPTION
1	1	16567	WELDMENT, CHAIN CURTAIN INSERT, 42X
1	1	16568	WELDMENT, CHAIN CURTAIN INSERT, 48X
2	9	30062	NUT, NYLOCK, 1/2-13, ZINC, 42X
2	10	30062	NUT, NYLOCK, 1/2-13, ZINC, 48X
3	9	30084	WASHER FLAT, 1/2, ZINC, 42X
3	10	30084	WASHER FLAT, 1/2, ZINC, 48X

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Blade Carrier & Parts Diagram - 42X & 48X



ITEM	ITEM QTY	MODEL SERIES	PART NUMBER	DESCRIPTION
1	1	ALL	16530	WELDMENT, BLADE CARRIER, 42X/48X, DIRECT DRIVE
2	1	42X	15265	SET OF 2 - BLADE, 14.750 X 4.000 X .500
2	1	48X	16631	SET OF 2 - BLADE, 17.750 X 4.000 X .500
3	2	ALL	15066	BOLT, D-BOLT, 1 1/8-12, BW
4	6	ALL	30112	BOLT_HH_3_4-16X2 UNC_GRD8 YZ
5	2	ALL	15148	NUT, TOP LOCK, 1 1/8-12, GRADE C, PLAIN
6	2	ALL	30089	WASHER, FLAT, 1 1/8, F436, ZINC
7	6	ALL	30087	WASHER, FLAT, 3/4, F436, ZINC

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Dealer Instructions / Purchaser

Checklist

The checklist below is important information for the Dealer to review with the Purchaser.

Mail, email, or fax a copy to:

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

SAFETY OPERATIONS CHECKLIST

- Explain and alert buyer of High Flow motor and case drain - if applicable.
- Explain and demonstrate operation of the Brush Wolf attachment.
- Explain and demonstrate inspection points and frequency; including nuts, bolts, blades, hoses, etc.
- Review the Owner/Operator Manual Safety Instructions.
- Alert buyer not to remove safety devices or decals.
- Advise buyer that all safety decals are available upon request.

Dealer Information

Dealer Company Name

Technician Name

City

State/Province/ Region



Warranty Registration Form

Thank you for choosing Brush Wolf. Please complete the form below to register your Brush Wolf product, you can also use the self-addressed Post Card insertion found in the packet attached to the Brush Wolf or 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 product to your friends? Yes No

Condition of the product? Excellent Good Fair Poor

Use of cutter: Personal Commercial Rental

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 its warranty to the hydraulic motor for eighteen (18) months from the original date of sale. A three (3) 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 motor, gearbox or 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 motors, 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 hydraulic motor, gearbox, 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