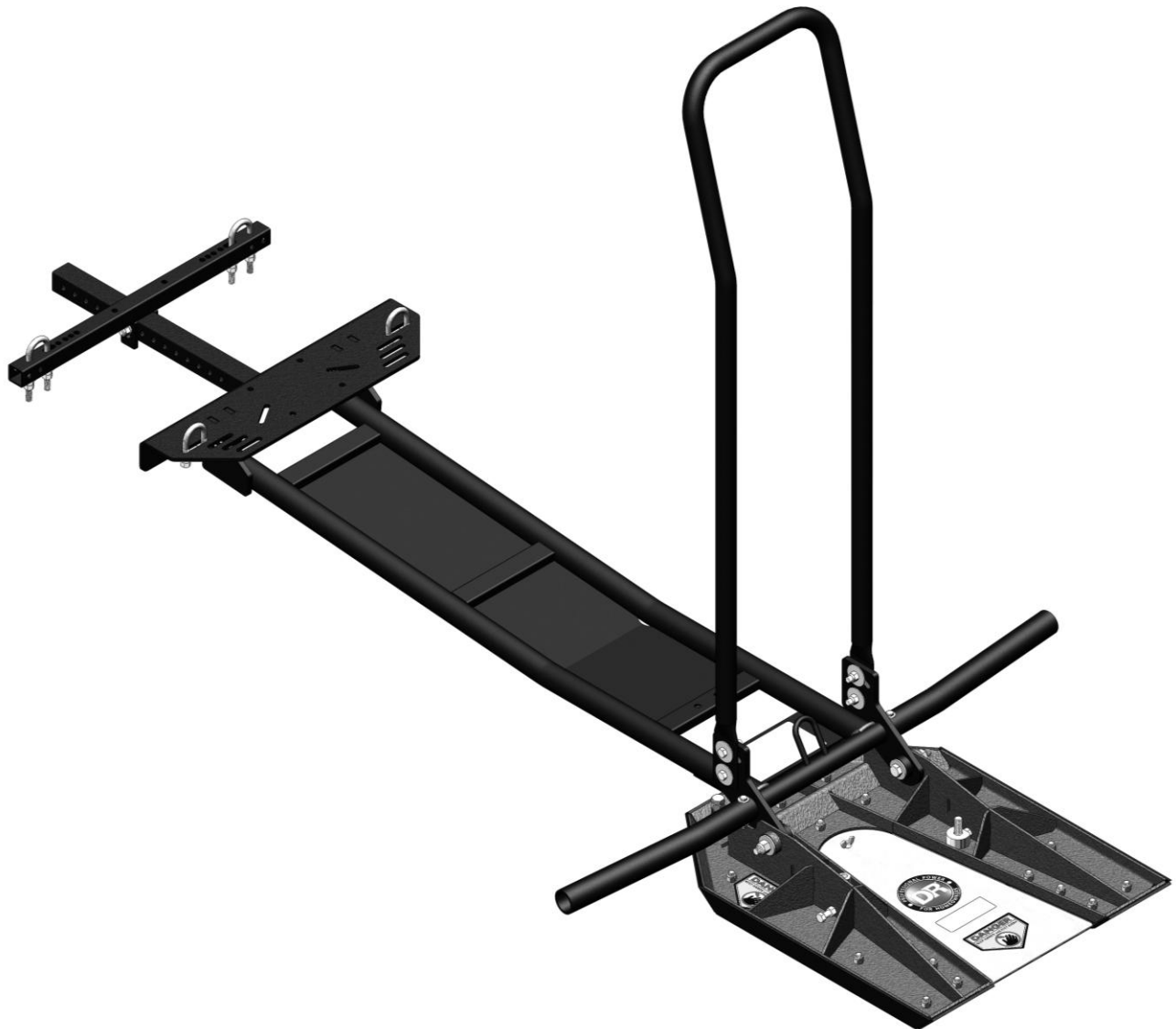


DR[®] TreeChopper™



SAFETY & OPERATING INSTRUCTIONS



Serial No. _____

Order No. _____

Original Language

DR Power Equipment
Toll-free phone: 1-800-DR-OWNER (376-9637)
Fax: 1-802-877-1213
Website: www.DRpower.com

! WARNING

Read and understand this manual and all instructions before operating the DR[®] TreeChopper™.

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Conventions used in this manual

WARNING

This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.

Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine. An Order Number is used to check and maintain your order history and is located on your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

Chapter 1: General Safety Rules

⚠ WARNING

Read this safety & operating Instructions manual before you install or use the DR TreeChopper. Failure to read this manual could result in personal injury or equipment damage. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

Labels

Your DR TreeChopper carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your TreeChopper as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.

⚠ WARNING!

- PRIOR TO USE REMOVE THE BLADE GUARD AND ENSURE THAT THE BLADES ARE PROPERLY ADJUSTED AS OUTLINED IN YOUR TREECHOPPER'S OPERATION MANUAL.
- STAY CLEAR OF ALL MOVING PARTS OR JOINTS THAT MAY BE A POTENTIAL PINCH POINT HAZARD
- NEVER ALLOW BYSTANDERS TO STAND, OR RIDE ON THE CHASSIS OR THE HEAD OF THE TREECHOPPER.
- ALWAYS REINSTALL THE BLADE GUARD AFTER USE AND PRIOR TO TRANSPORT.
- NEVER OPERATE THE TREECHOPPER WITHOUT THE TREE GUARD PROPERLY AFFIXED AND ADJUSTED PER THE INSTRUCTIONS OUTLINED IN YOUR OPERATORS MANUAL.
- NEVER ATTEMPT TO CUT TREES LARGER THAN 4" IN DIAMETER
- NEVER OPERATE THE TREECHOPPER WITHOUT THE EXTENSION ARMS INSTALLED
- NEVER EQUIP A TREECHOPPER TO AN ATV THAT IS LESS THAN 400CC AND ALWAYS OPERATE THE ATV IN FOUR WHEEL DRIVE
- INSPECT ALL HARDWARE, MOUNTING BRACKETS, BLADES AND GUARDS FOR LOOSE, BENT, BROKEN OR FAILING COMPONENTS PRIOR TO OPERATION. IF ANY COMPONENT IS DAMAGED, OR MISSING, REPLACE IT IMMEDIATELY PRIOR TO OPERATION.

311801

#31180



#13649

⚠ WARNING

REPLACE BLADE GUARD WHEN NOT IN USE OR DURING TRANSPORT.

31211

#31211

⚠ WARNING

DO NOT EXCEED 15 MPH

31191

#31191

⚠ WARNING!

- ALWAYS FOLLOW ALL WARNINGS OUTLINED IN YOUR ATV'S OPERATION MANUAL AND ON THE MACHINE'S WARNING LABELS
- ALWAYS USE AN APPROVED FULL FACE MOTORCYCLE HELMET WITH A FACE SHIELD, OR IN CONJUNCTION WITH EYE PROTECTION.
- ALWAYS WEAR A LONG SLEEVED SHIRT, LONG PANTS, PROTECTIVE GLOVES AND BOOTS. NEVER OPERATE THE TREE CHOPPER BAREFOOT OR WHILE WEARING OPEN TOED FOOTWEAR.
- KEEP BYSTANDERS AT LEAST 100 FEET AWAY FROM YOUR INTENDED WORK AREA AND ALWAYS BE AWARE OF THEIR LOCATION.
- NEVER ATTEMPT TO CUT A TREE LARGER THAN 4" IN DIAMETER. THE TREECHOPPER IS DESIGNED TO ONLY CUT TREES. DO NOT ATTEMPT TO CUT WOODEN FENCE POSTS, REBAR, OR ANY OBJECT OTHER THAN A 4" DIAMETER OR SMALLER TREE.
- NEVER CUT TREES NEAR POWER LINES, GAS LINES, OR ANY OTHER OBSTACLE THAT MAY POSE A FIRE, EXPLOSION, OR ELECTRICAL HAZARD. NEVER ASSUME A TREE WILL FALL WHERE YOU INTEND IT TO.
- ALWAYS STOP THE ATV, PLACE THE TRANSMISSION IN NEUTRAL, SET THE ATV'S BRAKE LOCK, REPLACE THE BLADE GUARD AND LOWER THE TREECHOPPER TO THE GROUND PRIOR TO ALLOWING ANOTHER PERSON OR PET TO APPROACH.
- NEVER ALLOW PASSENGERS TO RIDE ON THE ATV WHILE THE TREECHOPPER IS EQUIPPED, EVEN IF THE ATV IS DESIGNED TO SAFELY TRANSPORT ADDITIONAL RIDERS.
- NEVER ALLOW BYSTANDERS TO STAND, OR RIDE ON THE CHASSIS OR THE HEAD OF THE TREECHOPPER.

311871

#31187

⚠ WARNING!

- PRIOR TO CHOPPING TREES INSPECT THE AREA YOU WILL BE INTENDING TO CUT IN FOR ANY DEBRIS OR OBJECTS THAT MAY POSE A HAZARD. INSPECT ALL TREES PRIOR TO CHOPPING THEM BY FOLLOWING THE PRACTICES OUTLINED IN THE TREECHOPPER OPERATION MANUAL.
- REMOVE ALL BRANCHES THAT MAY POSE A THREAT FOR POSSIBLE IMPALEMENT WHEN ATTEMPTING TO CHOP THROUGH A TREE.
- ALWAYS INSPECT THE TREE(S) YOU ARE INTENDING TO CUT FOR INGROWN HAZARDS SUCH AS ROCKS, METAL REBAR, OR FENCING. NEVER ATTEMPT TO CUT A TREE THAT HAS AN INGROWN OBJECT.
- INSPECT ALL HARDWARE, MOUNTING BRACKETS, BLADES AND GUARDS FOR LOOSE, BENT, BROKEN OR FAILING COMPONENTS PRIOR TO OPERATION. IF ANY COMPONENT IS DAMAGED, OR MISSING, REPLACE IT IMMEDIATELY PRIOR TO OPERATION.
- DO NOT OPERATE THE TREECHOPPER ON SLOPES GREATER THAN 10°.
- NEVER OPERATE THE TREECHOPPER WITHOUT THE EXTENSION ARMS INSTALLED
- ALWAYS BEGIN CUTTING ON SMALL DIAMETER TREES THAT ARE IN THE EARLY STAGES OF GROWTH TO LEARN THE CHARACTERISTICS AND TECHNIQUES OF THE TREECHOPPER EQUIPPED TO YOUR ATV
- NEVER EQUIP A TREECHOPPER TO AN ATV THAT IS LESS THAN 400CC AND ALWAYS OPERATE THE ATV IN FOUR WHEEL DRIVE
- NEVER OPERATE THE ATV WITH ONE HAND WHILE THE TREECHOPPER IS MOUNTED
- ALWAYS APPROACH ALL RAVINES, POT HOLES AND DITCHES AT A SLOW SPEED AND HEAD ON TO PREVENT ROLL-OVER. AVOID ALL OBSTACLES AND NEVER ATTEMPT TO CHOP A TREE THAT LIES NEAR OR IN A RAVINE, DITCH OR OTHER HAZARDOUS TERRAIN FEATURE.

312071

#31207

Protective Gear

WARNING

- Always wear an approved motorcycle helmet that fits properly and is equipped with a face shield in conjunction with protective goggles to protect your eyes and face from stray branches or debris.
 - Avoid wearing loose clothing or jewelry, which can catch on moving parts.
 - We recommend wearing gloves while using the TreeChopper. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
 - Wear shoes with non-slip treads when using your TreeChopper. If you have safety shoes, we recommend wearing them. Never work on or use the TreeChopper barefoot or while wearing open toed shoes/sandals (footwear).
 - Wear a long sleeve shirt or riding jacket and long pants while operating the TreeChopper.
-

Safety for Children and Pets

WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the machine and the chopping activity. *Never* assume that children will remain where you last saw them. Always follow these precautions:

- Never operate the TreeChopper with children or pets present. Keep children and pets at least 100 feet from the working area and ensure they are under the watchful care of a responsible adult.
 - Be alert and put the ATV in “Park”, set the parking brake, turn the ATV off, lower the TreeChopper and install the guard if children or pets enter the work area.
 - Never allow children under the age of 16 to operate the TreeChopper.
-

Protecting yourself and those around you

WARNING

Operating this TreeChopper safely is necessary to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you as well as anyone else in the nearby area. Always take the following precautions when operating this TreeChopper:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
 - Read the ATV operators manual, the Winch operators manual and all warning labels before operating.
 - Prior to use remove the blade guard and ensure that the blades are properly adjusted as outlined in your TreeChopper’s operation manual.
 - Stay clear of all moving parts or joints that may be a potential pinch point hazard.
 - Never allow bystanders to stand, or ride on the chassis or the head assembly of the TreeChopper.
 - Always reinstall the blade guard after use and prior to transport.
 - Never operate the TreeChopper without the tree guard properly affixed and adjusted per the instructions outlined in your operators manual.
 - Never attempt to cut trees larger than 4" in diameter.
 - Never operate the TreeChopper without the extension arms installed.
 - Never equip a TreeChopper to an ATV that is less than 400cc and always operate the ATV in four wheel drive.
 - Inspect all hardware, mounting brackets, blades and guards for loose, bent, broken or failing components prior to operation. If any component is damaged, or missing, replace it immediately prior to operation.
 - Always follow all warnings outlined in your ATV’s operation manual and on the machines warning labels.
 - Never exceed 15 mph (24 kph) even with the TreeChopper in the raised transport position.
 - Keep bystanders at least 100 feet away from your intended work area and always be aware of their location.
 - Never attempt to cut a tree larger than 4" in diameter. The TreeChopper is designed to only cut trees. Do not attempt to cut wooden fence posts, rebar, or any object other than a 4" diameter or smaller tree.
-

Protecting yourself and those around you (continued)

WARNING

- Never cut trees near power lines, gas lines, or any other obstacle that may pose a fire, explosion, or electrical hazard. Never assume a tree will fall where you intend it to.
- Always stop the ATV, place the transmission in park (when applicable) set the parking brake, replace the blade guard and lower the TreeChopper to the ground prior to allowing another person or pet to approach.
- Never allow passengers to ride on the ATV while the TreeChopper is installed on the machine, even if the ATV is designed to safely transport passengers.
- Prior to chopping trees inspect the area you will be intending to cut in for any debris or objects that may pose a hazard. Inspect all trees prior to chopping them by following the practices outlined in the TreeChopper operation manual.
- Never attempt to cut a tree without first surveying the tree for branches that may cause an impalement hazard. Remove all branches that pose such hazards prior to cutting. Failure to do so can cause serious injury or even death.
- Always inspect the tree(s) you are intending to cut for ingrown hazards such as rocks, metal rebar, or fencing. Never attempt to cut a tree that has an ingrown object.
- Do not operate the ATV on slopes greater than 10° with the TreeChopper installed.
- Always begin cutting on small diameter trees that are in the early stages of growth to learn the characteristics and techniques of the TreeChopper equipped to your atv
- Never operate the atv with one hand while the TreeChopper is mounted
- Always approach all ravines, pot holes and ditches at a slow speed and head on to prevent rollover. Avoid all obstacles and never attempt to chop a tree that lies near or in a ravine, ditch or other hazardous terrain feature.
- Do not operate your TreeChopper with material wedged in the blades. Safely remove any stuck or jammed material prior to using your TreeChopper. Once material is removed, inspect your TreeChopper Blades for damage, alignment, and spacing.
- Never stand or ride on the TreeChopper head or chassis – never allow passengers or bystanders to do so either.
- Always reinstall the blade guard after use and prior to transport. The blade guard should only be removed prior to cutting trees and should be promptly reinstalled after use.
- Never operate the TreeChopper without first inspecting all hardware connections for bent bolts, missing hardware, or loosened components. Tighten or replace before use with DR components.
- Learn to properly operate your ATV prior to using your TreeChopper.
- Prior to and after use, always check the condition of the cutting blades. Sharpen or replace any damaged blade per the instructions found in your operators manual.
- When readying to cut a tree make sure you are firmly seated on the ATV. Never attempt to cut a tree in a slightly raised or standing position.
- Your TreeChopper is a powerful tool, not a plaything. Exercise extreme caution at all times. The machine is designed to chop small trees. Do not use it for any other purpose.
- Always follow ATV warning and riding instructions in your ATV manual. Failure to read your ATV manual could result in personal injury or equipment damage.
- Do not attempt to cut Trees with trunks larger than a 4 inch diameter.
- Prior to use, check the TreeChopper to be sure all bolts are tight and the blades are properly adjusted. Floating head bolts should be snug, but loose enough to allow the head to float and follow the contours of the ground.
- Approach trees to be cut from a safe distance, approximately 10 feet.
- Approach tree at a safe speed and accelerate through the tree during cutting.
- Know how to stop your ATV quickly; see your ATV owners Manual.
- Never operate TreeChopper in slippery, wet, muddy, or icy conditions.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
- Never use the machine without ensuring that all guards and shields are in place.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the TreeChopper. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will void your warranty.

Protecting yourself and those around you (continued)

WARNING

- Allow only one person on the ATV to operate the TreeChopper at any time.
 - If the TreeChopper should start making an unusual noise or vibration, stop the ATV and put it in park, lower the TreeChopper to the ground, turn the ATV ignition to the “Off” position, remove the key and set the emergency brake, then inspect for damage. Vibration is generally a warning of trouble. Check for damaged parts and clean, repair, and/or replace as necessary.
 - Never tamper with safety devices. Check their proper operation regularly.
 - Before performing any maintenance or inspection procedure on the TreeChopper, stop the ATV and put it in park, lower the TreeChopper to the ground, turn the ATV ignition to the “Off” position, remove the key and set the emergency brake.
 - Never allow people who are unfamiliar with these instructions to use the TreeChopper. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
 - Never overload or attempt to chop material beyond the manufacturer’s recommendation. Personal injury or damage to the machine could result.
 - While using the TreeChopper, don't hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over.
 - Never operate the machine when under the influence of alcohol, drugs, or medication.
 - Use the machine only in daylight.
 - Stay alert for hidden hazards or traffic.
 - Keep all nuts and bolts tight and keep the equipment in good operating condition.
-

A Note to All Users

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this DR TreeChopper in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Setting Up The DR® TreeChopper™

It may be helpful to familiarize yourself with the controls and features of your DR TreeChopper as shown in Figure 1 before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

DR TreeChopper Controls and Features

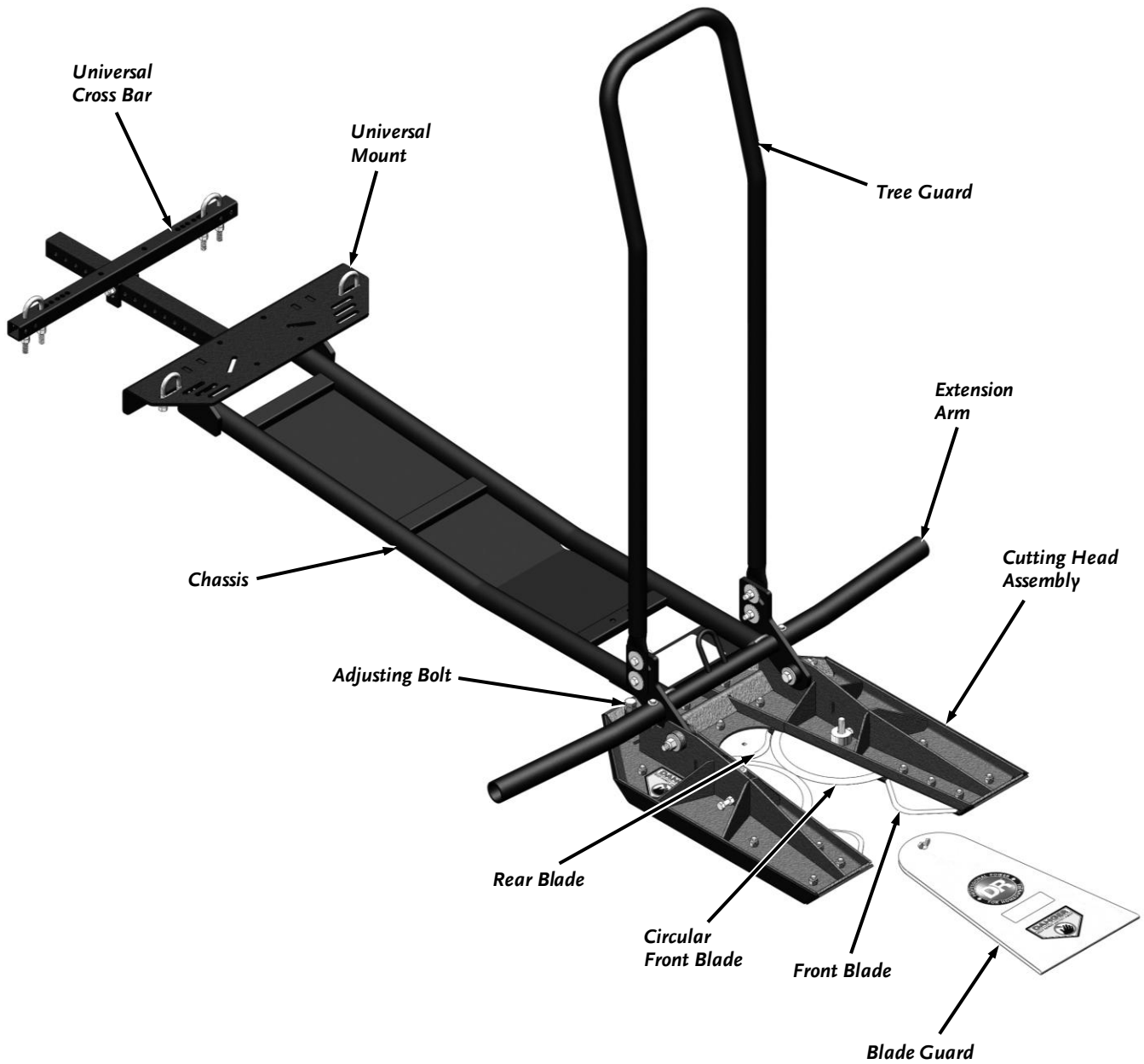


Figure 1

Specifications

Max Tree Size	4" Diameter
Frame	1-1/4" Diameter Pipe reinforced with a 14 Ga Steel Skid Plate
Cutting Blades	3 Fixed Blades and 2 Rotating Cutting Blades
Weight	160 lbs
Dimensions	Head: 27" L X 22" W X 5" H Chassis: 52" L X 43" W X 8" H

Common Parts Supplied: (Figure 2 and List below)

Note: These parts are supplied with every TreeChopper package. For assembly reference, the item numbers below match the item numbers of the applicable exploded illustration in Chapter 6.

Item	Description	Qty
01.....	Guard, Tree.....	1
02.....	Chassis.....	1
03.....	Cutting Head Assembly.....	1
04.....	Arm, Extension.....	2
05.....	Bolt, 1/4-20 X 2.25", GR5, ZP.....	2
06.....	Pin, Pivot.....	2
07.....	Bolt, 1/2-13 X 2.75", GR5, ZP.....	2
08.....	Bolt, HCS, 3/8-16 X 1-1/2", Gr5, ZP.....	4
09.....	Nut, Nylon Lock, 3/8-16, ZP.....	4
10.....	Washer, Fender, 3/8 X 1.5" OD.....	8
11.....	Nut, Nylon Lock, 1/2-13.....	2
12.....	Washer, Flat, 1/2", USS.....	4
13.....	Pin, Hairpin Cotter, .12" Dia 2-3/8".....	2
14.....	Nut, Nylon Lock, 1/4-20, ZP.....	2
15.....	Washer, Flat, 1/4", USS.....	4

Compare the contents of the shipping package with the parts supplied list above and Figure 2. If you have any questions, contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637).

Kit Parts Supplied

The Kit that applies to your specific application has been determined by your interaction with our customer service team. You should now have a Kit reference number and the Kit name. Pick your Kit from the four Kits below to continue comparing with the shipping package.

Round Tube Frame Kit #31956: (Figure 3 and List below)

Note: For assembly reference, the item numbers below match the item numbers of the applicable exploded illustration in Chapter 6.

Item	Description	Qty
01.....	Cross Bar, Universal.....	1
02.....	Mount, Universal.....	1
03.....	Washer, Flat, 3/8", USS.....	10
04.....	Nut, Nylon Lock, 3/8-16, ZP.....	1
05.....	Washer, Lock, 3/8".....	9

Parts List Continued on next page

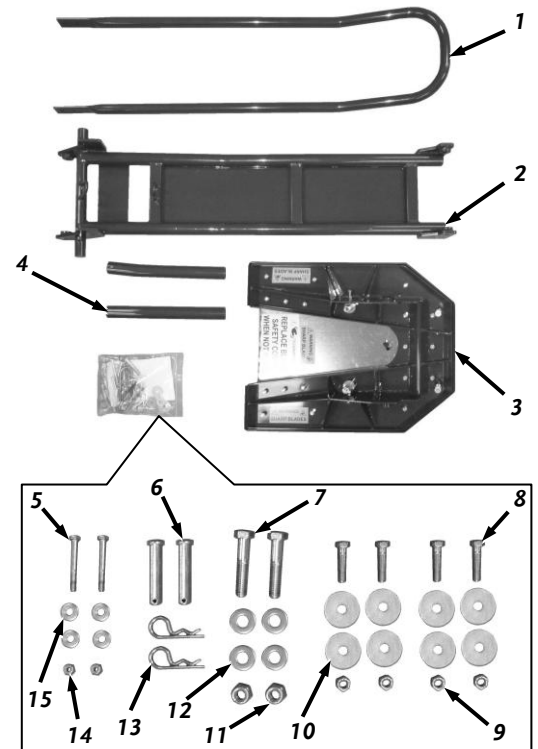


Figure 2

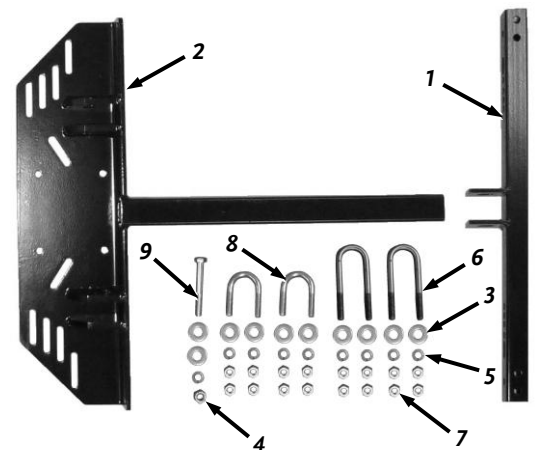


Figure 3

- 06..... U-Bolt, 1.25" Id, 3/8-16 X 4" L.....2
- 07..... Nut, 3/8-16, Zp.....16
- 08..... U-Bolt, 1.25" Id, 3/8-16 X 2.25" L2
- 09..... Bolt, 3/8-16 X 2.75", Gr5, ZP.....1

Compare the contents of the shipping package with the parts supplied list above and Figure 3. If you have any questions, contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637).

Square Tube Frame Kit #31957: (Figure 4 and List below)

Note: For assembly reference, the item numbers below match the item numbers of the applicable exploded illustration in Chapter 6.

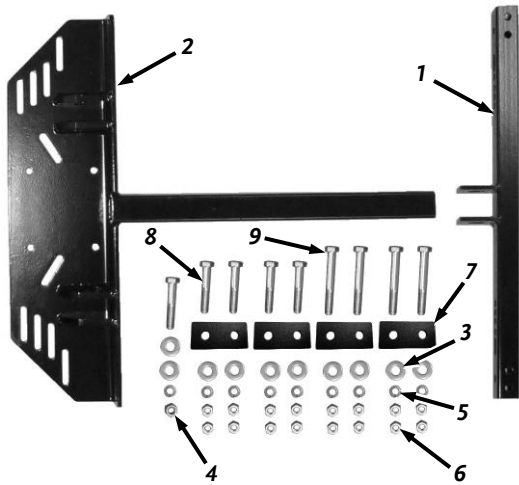


Figure 4

Item	Description	Qty
01	Cross Bar, Universal.....	1
02	Mount, Universal.....	1
03	Washer, Flat, 3/8", USS.....	10
04	Nut, Nylon Lock, 3/8-16, ZP.....	1
05	Washer, Lock, 3/8".....	9
06	Nut, 3/8-16, Zp.....	16
07	Bracket, Square Frame.....	4
08	Bolt, HCS, 3/8-16 X 2-3/4", Gr5, ZP.....	5
09	Bolt, HCS, 3/8-16 X 3-3/4".....	4

Compare the contents of the shipping package with the parts supplied list above and Figure 4. If you have any questions, contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637).

Polaris Frame Kit #31958: (Figure 5 and List below)

Note: For assembly reference, the item numbers below match the item numbers of the applicable exploded illustration in Chapter 6.

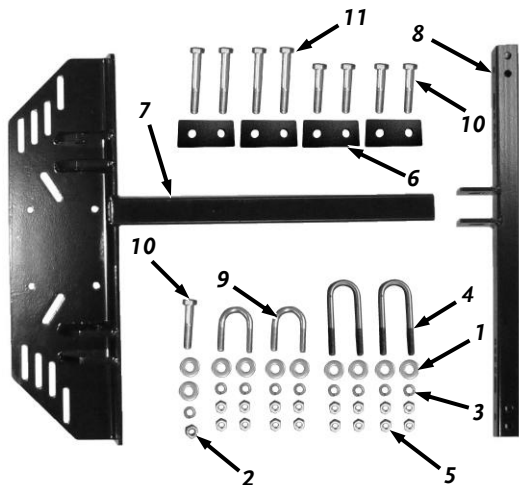


Figure 5

Item	Description	Qty
01	Washer, Flat, 3/8", USS.....	10
02	Nut, Nylon Lock, 3/8-16, ZP.....	1
03	Washer, Lock, 3/8".....	9
04	U-Bolt, 1.25 ID, 3/8-16 X 4 L.....	2
05	Nut, 3/8-16, Zp.....	8
06	Bracket, Square Frame.....	4
07	Mount, Polaris.....	1
08	Cross Bar, Polaris.....	1
09	U-Bolt, 1.25 ID, 3/8-16 X 2.25 L.....	2
10	Bolt, 3/8-16 X 2.75", Gr5, ZP.....	1
11	Bolt, HCS, 3/8-16 X 3-3/4".....	4

Compare the contents of the shipping package with the parts supplied list above and Figure 5. If you have any questions, contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637).

Beam Frame Kit #31959: (Figure 6 and List below)

Note: For assembly reference, the item numbers below match the item numbers of the applicable exploded illustration in Chapter 6.

Item	Description	Qty
01.....	Cross Bar, Universal.....	1
02.....	Mount, Universal.....	1
03.....	Washer, Flat, 3/8", USS.....	6
04.....	Nut, Nylon Lock, 3/8-16, ZP.....	1
05.....	Washer, Lock, 3/8".....	5
06.....	Nut, 3/8-16, Zp.....	8
07.....	Bracket, Beam Frame.....	2
08.....	Bolt, 3/8-16 X 2.75", Gr5, ZP.....	1
09.....	Bolt, HCS, 3/8-16 X 4-1/2", Gr5, ZP.....	4

Compare the contents of the shipping package with the parts supplied list above and Figure 6. If you have any questions, contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637).

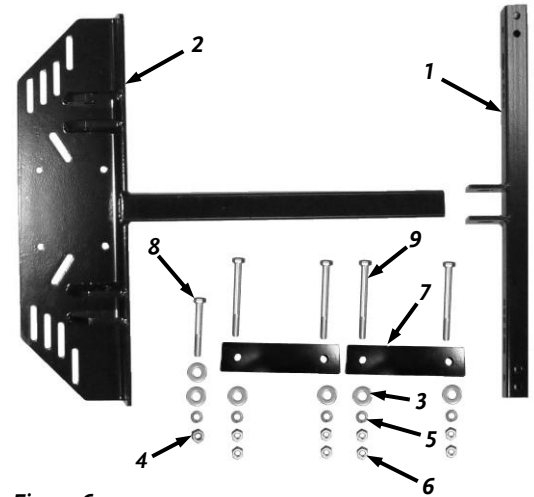


Figure 6

Installation Notes

- The universal mounting plate has been designed to easily attach to most ATV frames.
- The mounting bracket attaches to the frame of your ATV which must not be dented, bent, collapsed or rusted. Secure mounting is necessary for safe and successful use of the TreeChopper.
- The TreeChopper should only be installed on ATVs that are 400cc or more and have 4-wheel drive.
- Always keep all guards and shields in place when the TreeChopper is not in use. This includes during assembly and while attaching or detaching the TreeChopper to your ATV.
- Proper installation of the mounting bracket onto the frame of your ATV is necessary for safe and successful use of the TreeChopper. The mounting bracket must be securely affixed to the frame of the ATV. If mounting to the frame and skid plate, the skid plate must be constructed of heavy metal. Do not attach to a plastic skid plate.
- If the metal skid plate is not flat and causes the Mounting Bracket and Cross Brace to not be flat against the frame, you cannot safely mount to your ATV. It is very important to make sure the mounting bracket fits securely to the frame of the ATV
- Always install the Blade Guard when the TreeChopper is not in use.

Assembling and Installing the DR TreeChopper

Tools and supplies needed:

- Two 7/16" Wrenches
- Two 9/16" Wrenches
- Two 3/4" Wrenches
- Gloves

Mounting for ATVs

Note: The following photos in this chapter focus on the installation of the Round Tube Frame Kit #31956 but the steps describe all kits. Please refer to the illustrations in Chapter 6 for accurate representation of the parts and assembly order of your kit.

1. Attach the Cutting Assembly to the Chassis (Figure 7) with two 1/2-20 Bolts, four 1/2" Flat Washers and two 1/2-20 Locknuts using two 3/4" Wrenches. Do not tighten the hardware completely to allow the Cutter Assembly to rotate independently of the Chassis.

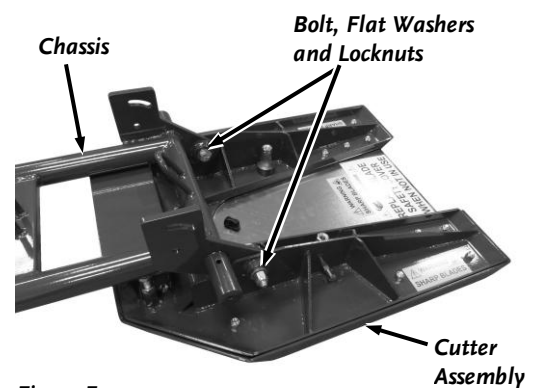


Figure 7

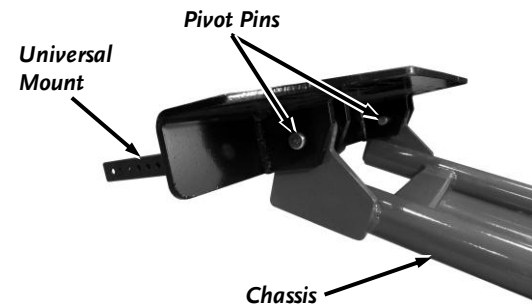


Figure 8

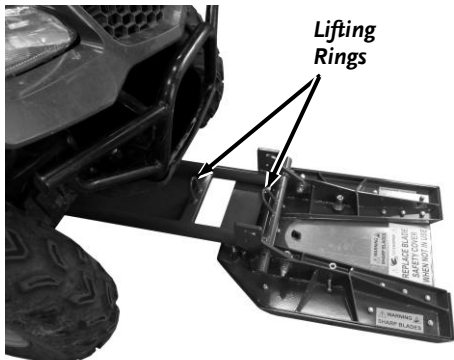


Figure 9

- Temporarily attach the Universal Mount to the Chassis using the two Pivot Pins (Figure 8).
- Slide the Universal Mount and Chassis under the ATV far enough so that the non-removable lifting ring on the chassis is forward of the front of the winch (or other lifting device) by one to two inches. This allows for a slight angle during lifting (Figure 9). The Universal Mount should be centered as closely as possible to the center of the ATV (side to side).

Note: Included in your hardware kit is a removable 2nd lifting ring and hardware if you need to mount your TreeChopper farther forward. The two lifting rings locations are available to allow for more flexibility when finding an accessible position to attach the front mounting plate.

Note: Some plastic guarding or similar material may need to be removed to ensure an ideal mounting point to the Frame.

- Look under the ATV to determine the closest location on the Frame where the Universal Bracket and Cross Bar can be attached. If you have a plastic skid plate remove it from where the front and back mounting plates will fasten to the frame. Make sure that the Universal mount is tight to the frame or metal skid plate. If there is a plastic skid plate between the bracket and the frame it should be removed so that the bracket tightens flat against the ATV frame.
- Unpin the Universal Mount from the Chassis and lift it into position against the Frame to determine where the hardware can go around the Frame and into the slots of the Mount.

! WARNING

Never attempt to mount the Universal Mounting Bracket to your ATV by drilling into the frame, skid plates, or mounting bracket.

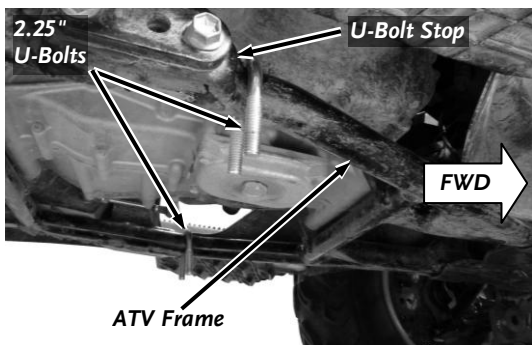


Figure 10

- Round Tube Frame (also some Polaris Frames):** Lower the Universal Mount and place a 2.25 Long U-Bolt around the Frame on both sides where it can rest against a stop on the rear facing side of the U-Bolt (Figure 10).

Square Tube Frame (also some Polaris Frames): Lower the Universal Mount and place a Square Frame Bracket over the top of the Frame on both sides where it (or the Bolts that will support it) can rest against a stop on the rear facing side of the Bracket. Insert a 3/8-16 X 2-3/4" Bolt down through each hole on the two brackets.

Beam Frame: Lower the Universal Mount and place a Beam Frame Bracket over the Frame where it (or the Bolts that will support it) can rest against a stop on the rear facing side of the Bracket. Insert a 3/8-16 X 4-1/2" Bolt down through each hole on the bracket.

Note: "U-Bolt Stop, Square Bracket Stop, or Beam Bracket Stop" is an area of the Frame where there is a cross piece or welding point that the U-Bolt, Square Frame Bracket, or Beam Frame Bracket will push against as the TreeChopper cuts into a tree. Never use a U-Bolt to mount the TreeChopper to a Square Tube Frame, or a Square Frame Bracket and Bolts to mount the TreeChopper to a Round Tube Frame.

7. Secure the Universal Mount to each U-bolt or Bolt with a Flat Washer, Lock Washer and two Jam Nuts using a 9/16" Wrench for each Threaded portion of the U-Bolts, or Bolts (**Figure 11**).
8. Position the Universal Cross Bar further back on the Frame than the Universal Mount and place the tabs over the square tube of the Universal Mount. Determine the best place to attach the Cross Bar to the Frame.
9. **Round Tube Frame (also some Polaris Frames):** When you have determined the best place to attach the Cross Bar to the Frame, remove the Cross Bar and place a 4" Long U-Bolt around the Frame on both sides to determine where it can rest against a stopping point on the Frame (**Figure 12**).

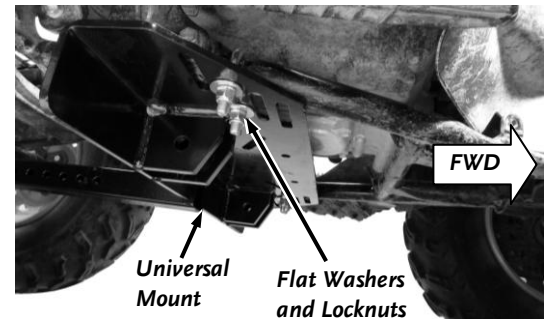


Figure 11

Square Tube Frame (also some Polaris Frames): When you have determined the best place to attach the Cross Bar to the Frame, remove the Cross Bar and place a Square Frame Bracket over the top of the Frame on both sides to determine where it (or the Bolts that will support it) can rest against a stopping point on the Frame.

Beam Frame: When you have determined the best place to attach the Cross Bar to the Frame, remove the Cross Bar and place a Beam Frame Bracket over the top the Frame to determine where it (or the Bolts that will support it) can rest against a stopping point on the Frame.

10. Reposition the Cross Bar against the Frame with the center Tabs over the Universal Mount Tube (**Figure 13**). Insert the U-Bolts, or Bolts into the holes in the Cross Bar. Install a Flat Washer, Lock Washer and two Jam Nuts on each U-Bolt or Bolt using a 9/16" Wrench but leave the hardware fairly loose for now.
11. Align the holes in the Tabs of the Cross Bar to the nearest holes in the Universal Mount Tube that will allow the Cross Bar to rest tight against the Frame. Install the 3/8-16 X 2-3/4" Bolt with a Flat Washer through the Tab holes and Mount Tube. Install a Flat Washer and Locknut on the end of the Bolt but only screw on by Hand.

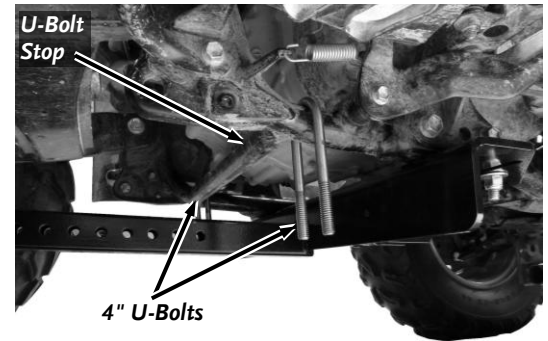


Figure 12

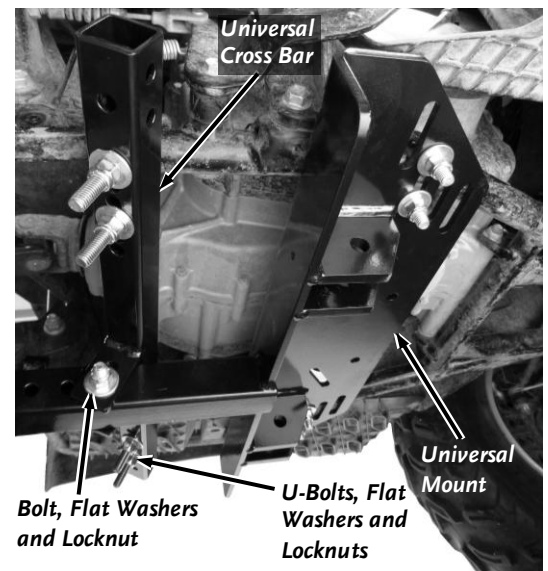


Figure 13

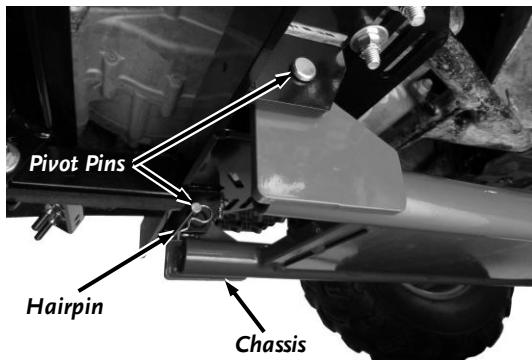


Figure 14

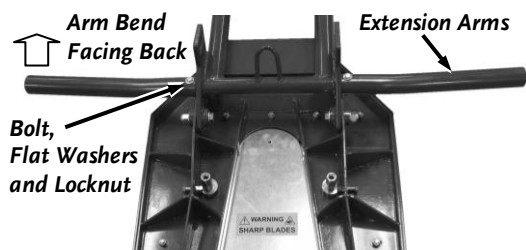


Figure 15

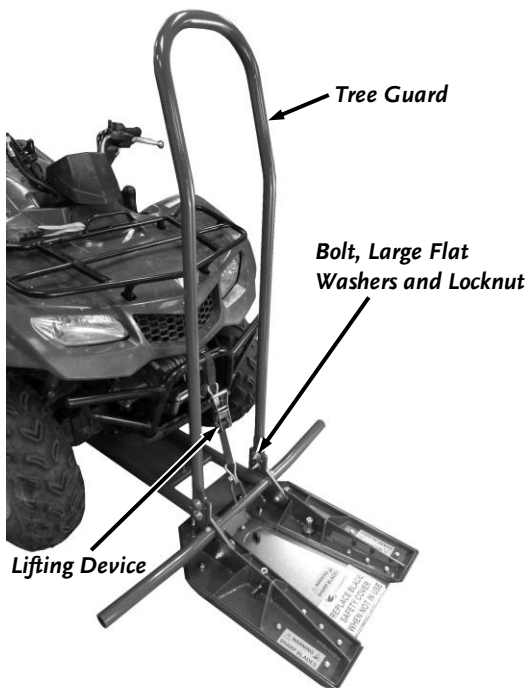


Figure 16

Note: The Cross Bar can be angled front to back as needed to align with the hole in the Universal Mount as long as it rests flat against the ATV Frame Tube.

NOTICE

The U-Bolt or Bolt Hardware must be tight to ensure that there is a strong connection between the Mounts and Frame, but do not over-tighten. Over-tightening could cause damage to your ATV frame and could weaken the Hardware attaching the TreeChopper Frame to your ATV.

12. Tighten the U-Bolt or Bolt Hardware with a 9/16" Wrench(es).
13. Tighten the Bolt and Locknut going through the Cross Bar tabs with two 9/16" Wrenches.
14. Install the Tree Cutter Chassis to the Universal Mount with the two Pivot Pins (head facing out) and Hairpins (pushed all the way on as shown) (Figure 14).
15. Attach the extension arms to the Chassis with a 1/4-20 X 2-1/4" Bolt, two 1/4" Washers and a 1/4-20 Locknut for each arm (Figure 15). Tighten with two 7/16" Wrenches.
16. Attach the Tree Guard to Chassis with four 3/8-16 X 1-1/2" bolts, eight Fender Washers (one on the Bolt side and one on the Locknut side) and four 3/8-16 Locknuts using two 9/16" Wrenches (Figure 16).

Adjusting the Cutter Assembly Angle

Important!

Make sure the cutting assembly is properly adjusted using the two Adjuster Bolts on the back of the Cutting Head Assembly as described below. This adjustment should be made on a flat, hard surface such as concrete. The wheels of the ATV must be on the same flat surface that you are adjusting the Cutter Assembly angle to. These Bolts should be adjusted so that the front forks of the Cutting Head Assembly are slightly pitched down. This enables the Cutting Head Assembly to stay parallel to the ground when accelerating the ATV through the tree.

1. Lower the Cutting Head Assembly with your lifting device until the forward end of the Head just touches the concrete (**Figure 17**).
2. Measure from the back end of the Cutting Head Assembly to the concrete. It should be 1" off the concrete.
3. If the back end of the Cutting Head Assembly is not 1" from the concrete, loosen the adjuster Nut and turn the adjuster Bolts in or out equally until the back end of the Cutting Head Assembly is 1" from the concrete when the front end is just touching.
4. Tighten the Jam Nut when adjustment is complete.

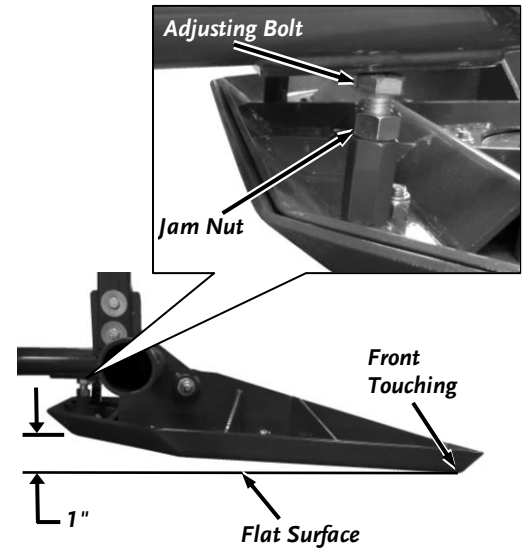


Figure 17

Removal and Installation of the Cutter Assembly

The TreeChopper can be quickly and easily installed or removed from the Universal Mount. To remove the TreeChopper simply remove the Hairpin Cotter Pins and Pivot Pins to drop the Chassis down onto the ground (**Figure 14** on page 14). The Head Assembly and Chassis can now be pulled away from the ATV. Install in the reverse order.

Chapter 3: Operating the DR® TreeChopper™

It may be helpful to better familiarize yourself with the features of your TreeChopper by reviewing **Figure 1** in Chapter 2 before beginning the steps outlined in this chapter.

⚠ WARNING

To avoid injury to yourself as well as others, you must read, understand and follow the warnings listed in “Chapter 1 General Safety Rules” before operating an ATV equipped with your TreeChopper.

Before You Begin

- The TreeChopper can safely cut trees up to four inches in diameter and very close to ground level which is necessary to lessen the possibility of re-growth.
- Before operating check the area where the TreeChopper will be used. If rocks or other debris will hinder access to the tree to be cut check for other angles of approach or move the rocks and debris. Keep people, livestock and pets out of the cutting area.
- Always start out cutting small trees, less than 2" in diameter to familiarize yourself with the necessary actions, speed and techniques to cutting trees with the TreeChopper. Once you have become comfortable with cutting smaller trees, you can move on to larger trees.
- Learn how to properly operate your ATV prior to using the TreeChopper.
- Do not attempt to cut Trees with trunks larger than a 4 inch diameter.
- Always make sure your ATV is in Four Wheel Drive and in Low Gear prior to cutting a Tree.

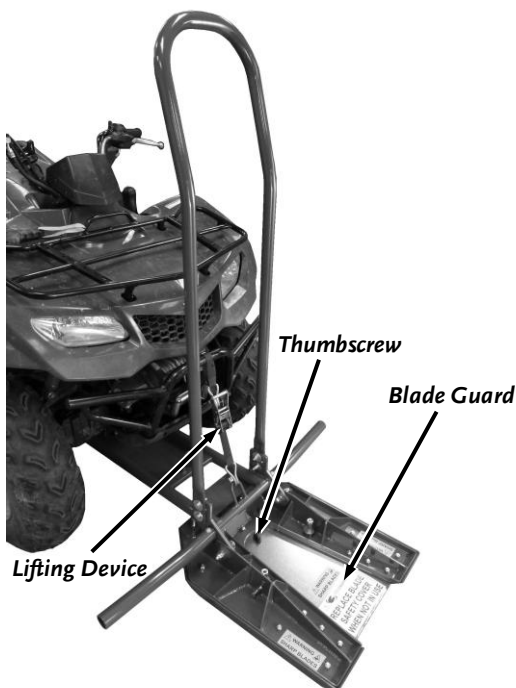


Figure 18

Operation

1. The TreeChopper can be raised and lowered by attaching a lifting device (winch, ratchet strap, chain) and using one of the hooks on the chassis (**Figure 18**). This allows for quicker travel to and from the cutting areas while the TreeChopper is in the raised position. Remember, the TreeChopper must be on the ground and properly adjusted prior to cutting.
2. Before beginning to cut, turn off your ATV and set the TreeChopper on the ground, making sure the winch line or other lifting device is loose. The TreeChopper will float along the terrain. This allows for the TreeChopper to cut close to the ground.
3. Remove the blade guard and visually inspect the unit. Make sure bolts are tight and the circular blades are not obstructed.
4. When first learning how to operate the TreeChopper and becoming comfortable with its use, select small trees 2 inches in diameter or less. It is important to get experience and establish a comfort level by cutting smaller trees first.
5. Always make sure that the TreeChopper is lined up so that the trunk of the tree is center to the cutting blades. To be sure the TreeChopper is centered, slowly drive into the tree to "bump" it to check that the tree can clear the front blades (indicating that the tree is less than 4" in diameter) and that the tree is against the rotating Circular Blades. Once the tree trunk is centered and you have cleared the area of debris you are ready to cut.

Note: If the tree is unable to pass by the Front Blades, the tree may be larger than 4" in diameter at the trunk. This is an indication that you will not be able to cut the tree, or that there is a hidden obstacle, such as a rock, stump, or other object that

would impede the cut. If there are no hidden obstacles impeding the cut, you may be able to approach the tree from a different angle to "bump" it and find that the trunk in that area is less than 4" in diameter.

6. Back your ATV away from the tree to approximately 8 to 10 feet. Accelerate the ATV in a forward motion through the tree. Impact should be minimal. Once you have gained confidence and experience with tree trunks 2 inches in diameter and less you should be ready to cut bigger trees with trunks of up to 4 inches. You will also find that you are able to cut trees at a steady pace as you become comfortable identifying chop-able trees while in motion.

Note: *After cutting, wash the TreeChopper with low pressure water spray. After washing, spray lubricating oil or silicone on the blades to prevent rusting.*

Chapter 4: Maintaining The DR® TreeChopper™

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual for maintenance procedures.

WARNING

Before performing any maintenance procedure or inspection, stop the ATV and put it in park, lower the TreeChopper to the ground, turn the ATV ignition to the “Off” position, remove the key and set the emergency brake.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	AFTER FIRST 20 TREES	AFTER EACH USE
Check General Equipment Condition	▲		
Check if Cutting Blades are dull or damaged (if damaged replace immediately)	▲		
Remove debris wrapped around Cutter Blades.	▲		
Check and adjust Cutting Blades		▲	
Lubricate Cutting Blades			▲

Protecting the Cutting Blades

Supplies Needed:

- Silicone Spray Lubricant

1. After use, clean the Blades of any debris and coat with silicone spray lubricant on all Blade surfaces to prevent rusting.

Note: Always have the Blade Guard installed over the Blades when the TreeChopper is not in use.

Sharpening the Cutting Blades

WARNING

- Never use a grinding wheel to sharpen the Blades. The heat produced from grinding will affect the Blade strength causing it to break during use creating a hazard for the ATV and the driver.
- Wear gloves to protect your hands from sharp blade edges.
- Wear safety glasses to protect your eyes from flying metal shavings.

Tools and Supplies needed:

- Flat File
- Leather Gloves
- Safety Glasses

1. File the cutting edges of the Blades.

Note: Do not sharpen to a razor sharp edge.

Replacing the Cutting Blades

Tools and Supplies needed:

- Two 3/4" Wrenches
- 9/16" Wrench
- Leather Gloves

CAUTION

- Wear gloves to protect your hands from sharp blade edges.

1. Place the Cutter Head Assembly flat on the ground and remove the Bolt, Flat Washers and Locknut from the two pivot points using two 3/4" Wrenches (**Figure 19**).
2. Remove the two Coupling Nuts that secure the Front Circular Blades with a 3/4" Wrench (**Figure 20**).
3. Remove the two Adjustment Pin Bushings that were under the Coupling Nuts.
4. Remove the 18 Locknuts that secure the Upper Cutting Plate to the Lower Cutting Plate using a 9/16" Wrench.
5. Pull the Upper Cutting Plate away from the Lower Cutting Plate.

Note: Take note of all Shim and Spacer locations for reassembling.

6. Remove the front and rear Shims (**Figure 21**).

Note: The front Triangular Blades can be flipped so the unused rear facing sharper edge is now facing forward to minimize sharpening time. However when both edges are dull the entire cutting edge will need sharpening.

7. Remove and replace the Blades as needed.

Note: Ensure that the Circular Blade Bushings are in place when the Blades are installed.

8. Reassemble the Cutter Head Assembly in the reverse order that it was disassembled.
9. Perform a Circular Blade adjustment before tightening Coupling Nuts and 18 Locknuts mentioned in steps 2 and 4 (see next section "Front Circular Blade Adjustment").

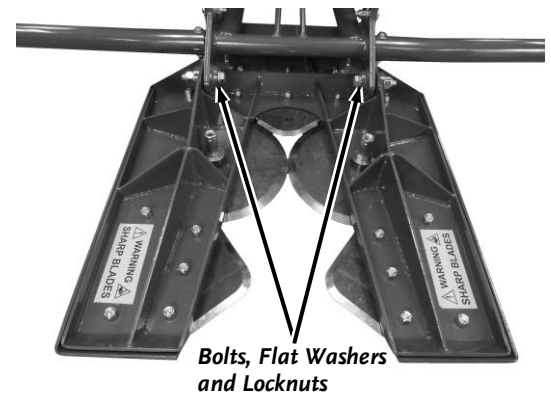


Figure 19

Coupling Nuts and Adjustment Pin Bushings

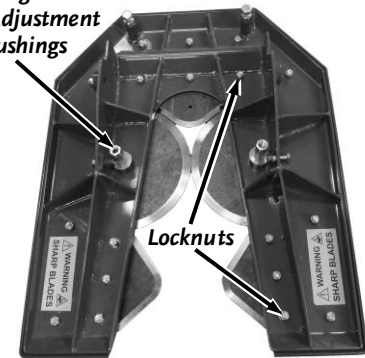


Figure 20

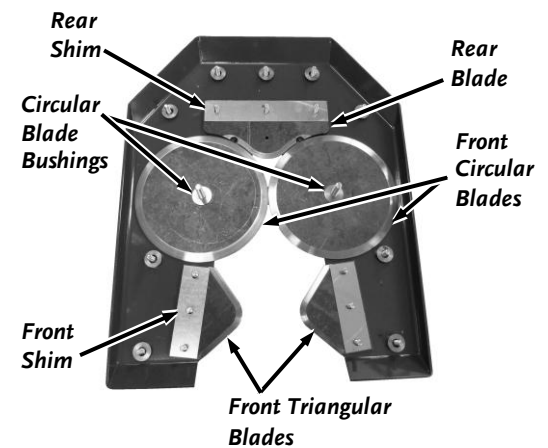


Figure 21

Front Circular Blade Adjustment

Tools and Supplies needed:

- 1/2" Breaker Bar and 3/4" Socket
- 9/16" Wrench
- Leather Gloves

CAUTION

- Wear gloves to protect your hands from sharp blade edges.

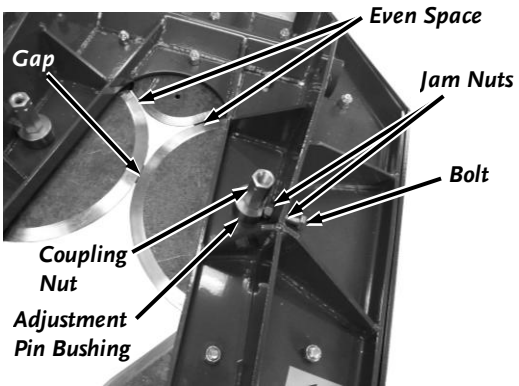


Figure 22

1. Loosen the Coupling Nuts at the center of each circular Blade with a 1/2" Breaker Bar and 3/4" Socket (**Figure 22**).

Note: Keep the spaces between the circular Blades and rear Blade the same on both sides of rear Blade when adjusting in next step.

2. Loosen the Jam Nuts and adjust the Bolts with two 9/16" Wrenches so the two Circular Blades are close enough together that a piece of paper can be dragged through with some resistance but without ripping or being cut.
3. When adjustment is accurate, firmly tighten the two Coupling Nuts using a 1/2" Breaker Bar and 3/4" Socket.
4. Tighten the Jam Nuts against the Frame to hold the end of the Bolt against the Adjustment Pin Bushings.

Note: The two Circular Blades must rotate. Make sure that the Blades are not obstructed and are rotating on the Bushings.

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

WARNING

Before performing any maintenance procedure or inspection, stop the ATV and put it in park, lower the TreeChopper to the ground, turn the ATV ignition to the “Off” position, remove the key and set the emergency brake.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>Cutter Head Assembly is off center</i>	<ul style="list-style-type: none">⇒ Attaching hardware from mount to frame is loose; tighten hardware.⇒ A pivot pin has pulled out of chassis and mount; reattach pin.
<i>Trees becoming harder to cut</i>	<ul style="list-style-type: none">⇒ Blades need sharpening; sharpen blades.⇒ Blades are damaged; replace blades as needed.⇒ Blades are out of adjustment; adjust blades.⇒ Circular Blades are not spinning freely; clean the top and underside of the Blades. Never loosen hardware in an attempt to allow the blades to rotate.
<i>Trees are not being cut as close to the ground</i>	<ul style="list-style-type: none">⇒ Cutter head assembly pivot needs adjustment; readjust bolts and jam nuts as required.

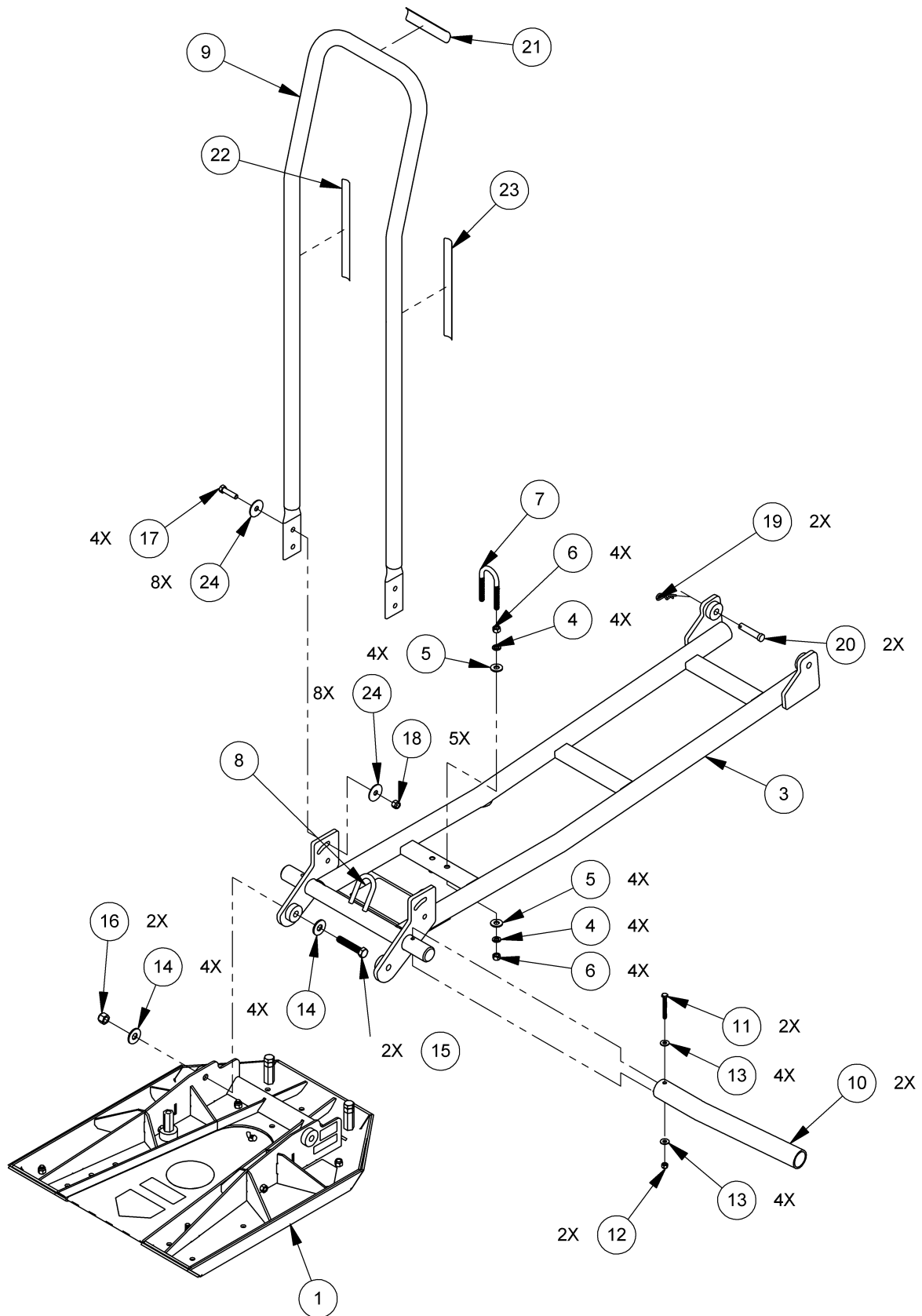
Chapter 6: Parts Lists and Schematic Diagrams

Parts List – FRAME ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>		<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	311571	Cutting Head	13	112381		Washer, Flat, 1/4" Uss
2	311791	Chassis, Asm W/ Labels	14	101791		Washer, Flat, 1/2-13
3	311601	Chassis	15	311721		Bolt, 1/2-13 X 2.75, Gr5 Zp
4	180811	Washer, Lock, 3/8	16	110721		Nut, Nylon Lock, 1/2-13
5	112391	Washer, Flat, 3/8, Uss	17	119851		Bolt, Hcs, 3/8-16 X 1.5
6	126831	Nut, 3/8-16, Zp	18	110751		Nut, Nylon Lock, 3/8-16, Zp
7	311761	Ubolt, 1.375 Id, 3/8-16 X 3-7/16 L	19	311731		Pin, Hairpin Cotter, .12 Dia 2-3/8
8	311801	Label, Chassis	20	311631		Pin, Pivot
9	311681	Guard, Tree	21	311911		Label, 15 Mph Max
10	311461	Arm, Extension	22	312071		Label, Tree Guard, Left
11	114631	Bolt, 1/4-20 X 2.25, Gr5 Zp	23	311871		Label, Tree Guard, Right
12	110731	Nut, Nylon Lock, 1/4-20, Zp	24	312091		Washer, Fender, 3/8 X 1.5" Od

Schematic – FRAME ASSEMBLY

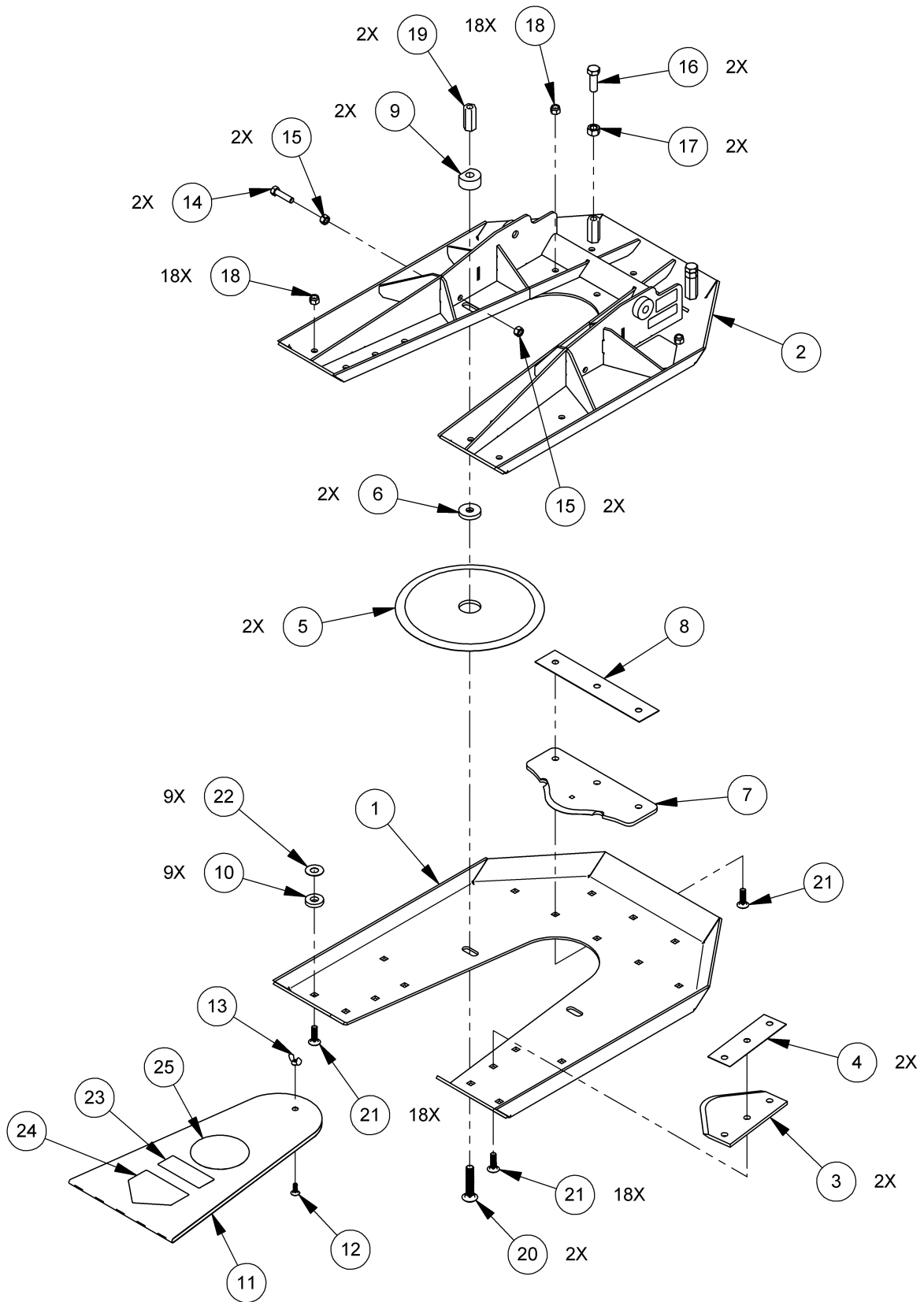


Parts List – HEAD ASSEMBLY

NOTE: Part numbers listed are available through DR Power Equipment.

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	311471	Plate, Lower Cutting	14	119851	Bolt, Hcs, 3/8-16 X 1.5
2	311481	Plate, Upper Cutting	15	126831	Nut, 3/8-16, Zp
3	311491	Blade, Front	16	229091	Bolt, Hhcs, 1/2-13 X 1.5, Gr5 Zp
4	311501	Shim, Front	17	229101	Nut, Hex, 1/2-13, Gr5 Zp
5	311511	Blade, Circular	18	110751	Nut, Nylon Lock, 3/8-16, Zp
6	311521	Bushing, Circular Blade	19	311451	Nut, 1/2-13, Coupling
7	311531	Blade, Rear	20	311591	Bolt, Carriage, 1/2-13 X 2.5
8	311541	Shim, Rear	21	311581	Bolt, Carriage, 3/8-16 X 1.25
9	311551	Bushing, Adjustment Pin	22	311991	20ga Shim, Cutting Plate
10	311561	Shim, Cutting Plate	23	312111	Label, Warning, Blade Guard
11	311611	Guard, Blade	24	136491	Label, Danger
12	311961	Bolt, Carriage, 3/8-16 X 1.25	25	192021	Label, Dr Logo, 4.0", 4 Color
13	311981	Nut, Wing, 1/4-20, Zp			

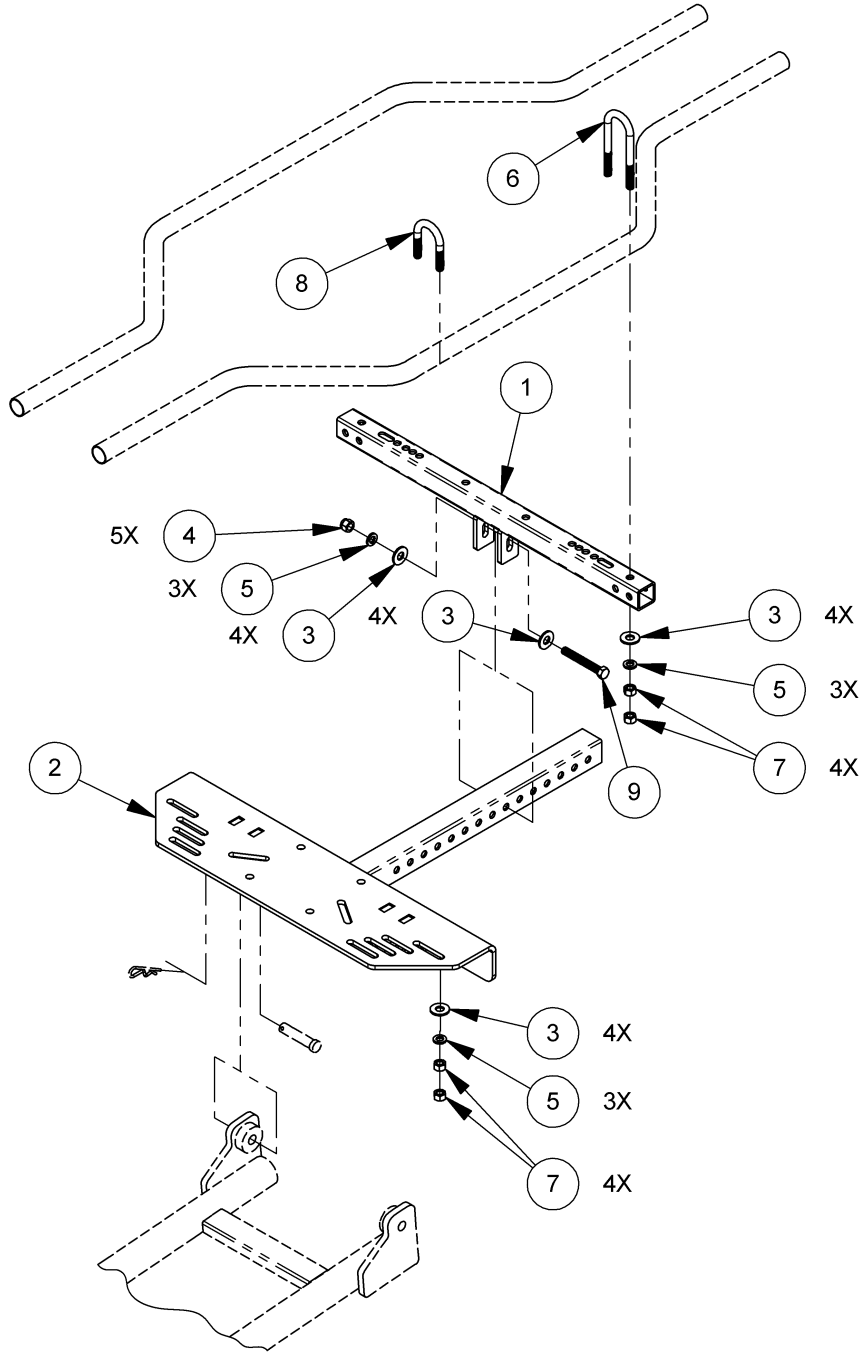
Schematic – HEAD ASSEMBLY



Parts List and Schematic – Round Tube Frame Kit #31956

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
1	311661	Cross Bar, Universal	6	311751	U-Bolt, 1.25 ID, 3/8-16 X 4" L
2	311641	Mount, Universal	7	126831	Nut, 3/8-16, ZP
3	112391	Washer, Flat, 3/8, USS	8	311741	U-Bolt, 1.25 ID, 3/8-16 X 2.25" L
4	110751	Nut, Nylon Lock, 3/8-16, ZP	9	123371	Bolt, 3/8-16 X 2-3/4, Gr5 ZP
5	180811	Washer, Lock, 3/8"			

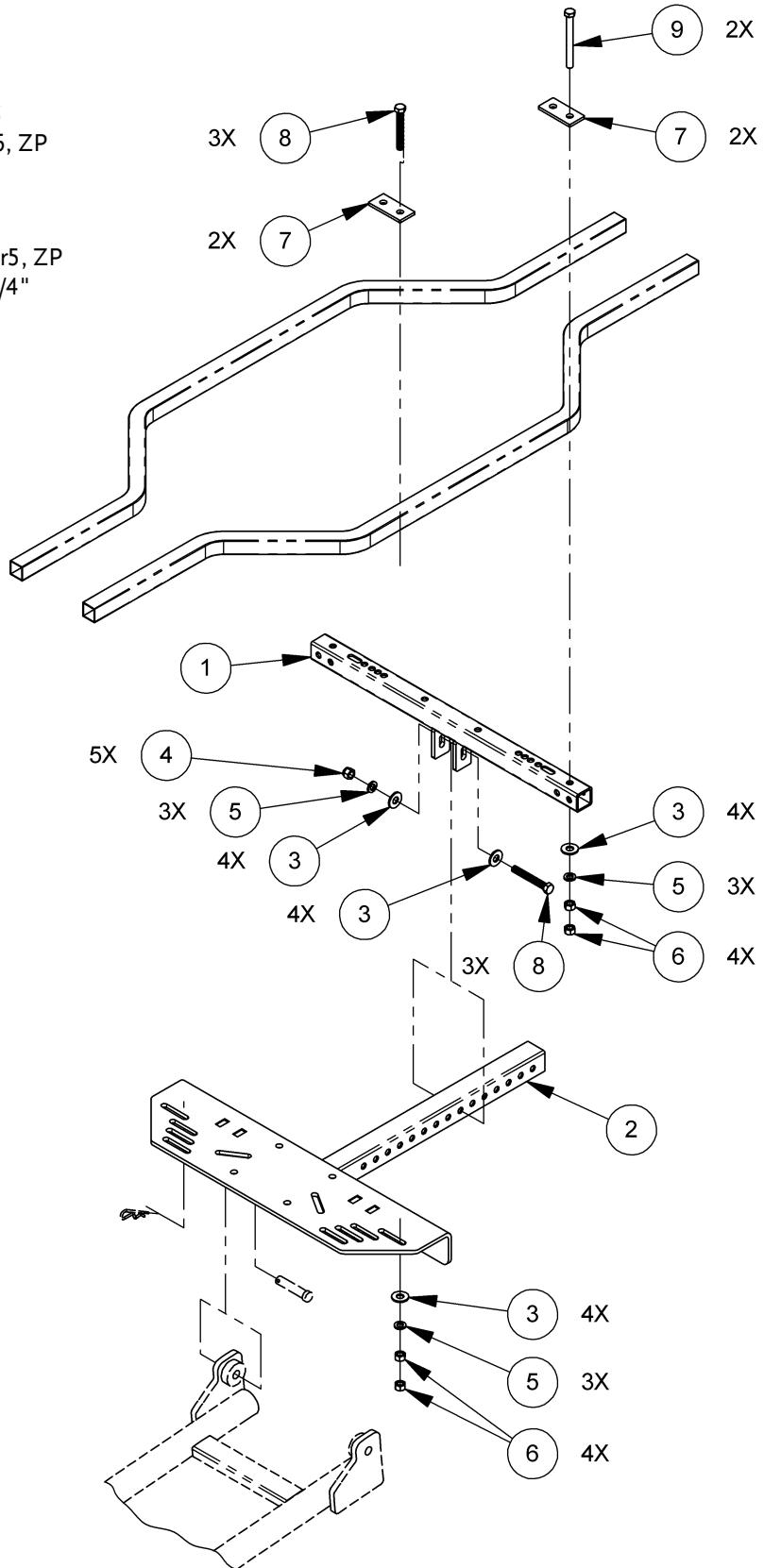


Parts List and Schematic – Square Tube Frame Kit #31957

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
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1	311661	Cross Bar, Universal
2	311641	Mount, Universal
3	112391	Washer, Flat, 3/8", USS
4	110751	Nut, Nylon Lock, 3/8-16, ZP
5	180811	Washer, Lock, 3/8"
6	126831	Nut, 3/8-16, ZP
7	311881	Bracket, Square Frame
8	123371	Bolt, 3/8-16 X 2-3/4", Gr5, ZP
9	150701	Bolt, HCS, 3/8-16 X 3-3/4"

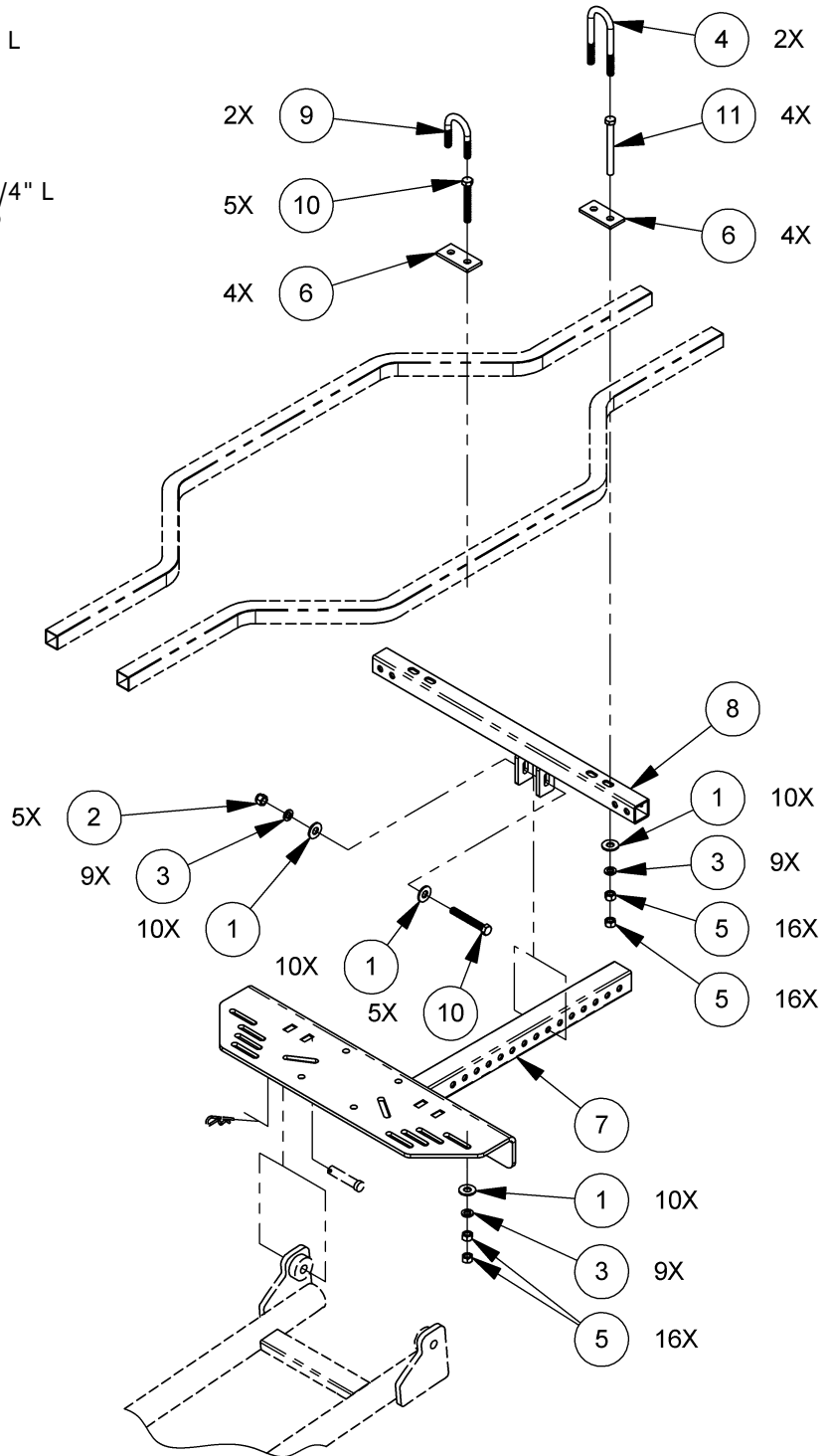


Parts List and Schematic – Polaris Frame Kit #31958

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
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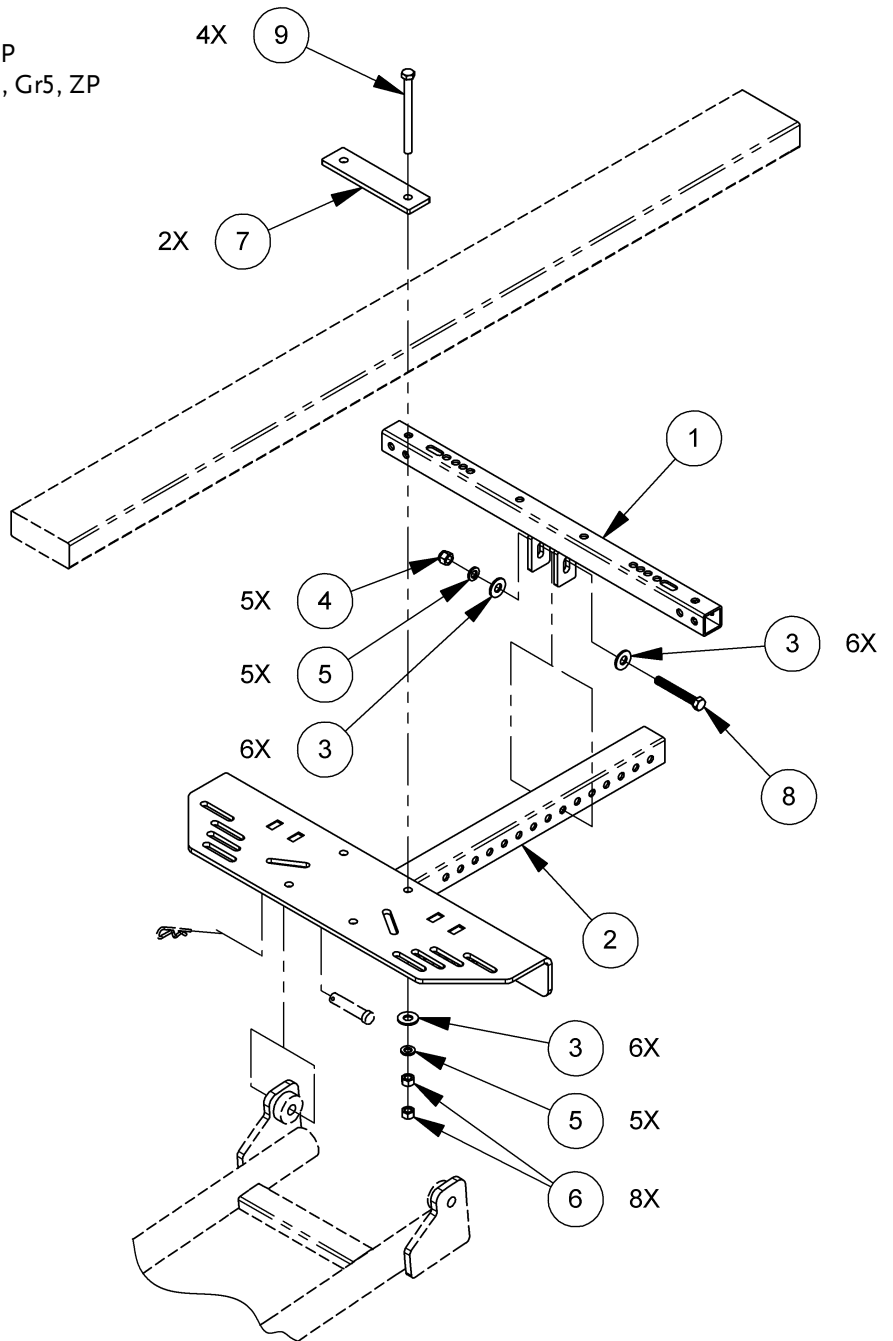
1	112391	Washer, Flat, 3/8, USS
2	110751	Nut, Nylon Lock, 3/8-16, ZP
3	180811	Washer, Lock, 3/8"
4	311751	U-Bolt, 1-1/4 ID, 3/8-16 X 4" L
5	126831	Nut, 3/8-16, ZP
6	311881	Bracket, Square Frame
7	311921	Mount, Polaris
8	312041	Cross Bar, Polaris
9	311741	U-Bolt, 1.25 ID, 3/8-16 X 2-1/4" L
10	123371	Bolt, 3/8-16 X 2-3/4, Gr5, ZP
11	150701	Bolt, HCS, 3/8-16 X 3-3/4"



Parts List and Schematic – Beam Frame Kit #31959

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
1	311661	Cross Bar, Universal
2	311641	Mount, Universal
3	112391	Washer, Flat, 3/8", USS
4	110751	Nut, Nylon Lock, 3/8-16, ZP
5	180811	Washer, Lock, 3/8"
6	126831	Nut, 3/8-16, ZP
7	311671	Bracket, Beam Frame
8	123371	Bolt, 3/8-16 X 2-3/4", Gr5, ZP
9	229121	Bolt, HHCS, 3/8-16 X 4-1/2", Gr5, ZP



Notes:

Notes:

Daily Checklist for the DR® TreeChopper™

To help maintain your DR TreeChopper for optimum performance, we recommend you follow this checklist each time you use

WARNING

Before performing any maintenance procedure or inspection, stop the ATV and put it in park, lower the TreeChopper to the ground, turn the ATV ignition to the “Off” position, remove the key and set the emergency brake.

your TreeChopper.

- Check that the cutting blades are clear of debris, making sure to avoid hand or foot contact with the blades.
- Check that Circular Blades turn freely.
- Check that Blades are lubricated after use to prevent corrosion.

End of Season and Storage

WARNING

Before performing any maintenance procedure or inspection, stop the ATV and put it in park, lower the TreeChopper to the ground, turn the ATV ignition to the “Off” position, remove the key and set the emergency brake.

- Wash the TreeChopper with low pressure water spray. After washing, lightly spray lubricating oil on the blades to prevent rusting.
- The TreeChopper should be stored in a dry and safe place with blade guard installed.
- Be sure all nuts, bolts, and screws are securely fastened.



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