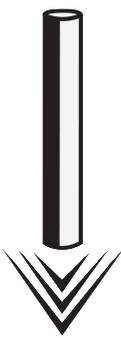


# KENCOVE NITRO



## Operator's Manual

Nitro 750

Nitro 1000

Nitro 750X

Nitro 1000X

# Table of Contents

|                                    |       |
|------------------------------------|-------|
| Introduction.....                  | 3     |
| Safety.....                        | 4     |
| Equipment Requirements.....        | 5     |
| What You Have Received.....        | 5     |
| Serial Number.....                 | 6     |
| How To Charge Your Unit.....       | 7     |
| Chisel Installation & Removal..... | 8     |
| Daily Checklist.....               | 8     |
| Torque Specs.....                  | 9     |
| How To Drive A Post.....           | 9     |
| Parts List                         |       |
| Nitro 750.....                     | 10-12 |
| Nitro 750X.....                    | 13    |
| Nitro 1000.....                    | 14-16 |
| Nitro 1000X.....                   | 17    |
| Trouble Shooting Guide.....        | 18    |
| Warranty.....                      | 19    |



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# Introduction:

Welcome to the Kencove Farm Fence Supplies Family. Kencove Nitro Post Drivers are able to quickly and efficiently pound posts up to 8" in diameter. With 2" of stroke, the Nitro is able to drive posts rapidly with hydraulic down-pressure at 500-800 beats per minute. With one simple grease fitting and minimal moving parts, the Nitro Driver provides years of low-cost operation.

The instructions and information within this manual are important for the proper assembly and operation of this equipment. Please be sure that everyone involved with the assembly, operation, and maintenance reads this manual in its entirety.

**Proper care is the owner's responsibility. Always follow all Local, State, and Federal Health and Safety Laws and Regulations.**

 **CAUTION: IT IS IMPORTANT THAT ALL SAFETY PRECAUTIONS MENTIONED THROUGHOUT THIS MANUAL BE FOLLOWED. FAILURE TO FOLLOW THESE INSTRUCTIONS OR CONFORM TO THE WARNING AND SAFETY LABELS ON THE EQUIPMENT MAY RESULT IN SERIOUS INJURY, DEATH, AND/OR PROPERTY DAMAGE.**

Kencove Farm Fence Supplies reserves the right to make changes to this product or discontinue manufacturing or sales at any time, without notice and without any liability or other obligation on its part in materials, equipment, specifications, and models.

 **WARNING! Adequate lifting device, space, work area, and personnel are required for assembly of this equipment. Two (2) people are recommended for assembly. Proper lifting is required as parts can be heavy and serious injury, death, and/or property damage can occur.**

## WARNING!

- **Read and follow operating instructions before using equipment**
- **Extreme caution must be exercised when operating**
- **Do not place hand on top of post while in operation**
- **Do not stand within a 65 foot radius of the machine while in operation**
- **Always wear eye, ear, and hand protection**
- **Check and tighten all bolts regularly**
- **Check that the chain is securely fastened**
- **Grease all fittings weekly**
- **Check nitrogen charge weekly**

### WARNING



**Hydraulic system parts and connections can contain high pressures which, if suddenly and unexpectedly released, can cause serious injury or death.**

# Safety

**IT IS IMPORTANT THAT ALL SAFETY STEPS MENTIONED BELOW ARE FOLLOWED. FAILURE TO FOLLOW THESE INSTRUCTIONS OR CONFORM TO THE WARNING AND SAFETY LABELS ON THE EQUIPMENT MAY RESULT IN SERIOUS INJURY, DEATH AND/OR PROPERTY DAMAGE.**



1. Personal protective equipment (PPE) should be worn at all times during assembly, operation, and maintenance. This includes, but is not limited to, safety glasses, hearing protection, protective gloves, and steel toe footwear.
2. Driving posts is a minimum two-person (2) operation for safety purposes.
3. **ONLY** allow **responsible adults**, who are familiar with these instructions to operate this machine.
4. Only operate the machine with equipment that is in proper working order. Know the limits of your machine.
5. Safety equipment and safety labels are **NOT** to be removed from equipment. Safety equipment and safety labels should be inspected before each use and in proper working condition before operation.
6. Always be aware of the environment in and around the area where you are operating this equipment.
7. Always contact your local utility companies prior to operation.
8. **NEVER** operate this equipment on steep slopes.
9. **No one** is to **EVER** stand in front of this machine.
10. **Keep hands clear** of posts and post driver when driving a post.
11. If the post fails to drive into the ground, there may be an underground obstruction. Move to another location. This could cause the post to splinter, resulting in injury to the operator.
12. Make sure all controls are in the neutral position before starting the driver.
13. Before leaving equipment, always lower the post driver to the ground to ensure the equipment is stable.
14. **Do NOT** operate the driver at oil temperatures above 175°F/80°C. Operation at higher temperatures can cause damage to the internal components of the driver and will result in reduced driver performance.
15. **DO NOT** modify the driver in any manner.
16. If you do not understand how to safely operate your driver, contact Kencove Farm Fence for assistance at 1-800-536-2683.
17. Do not operate this equipment if you are taking medication which may affect your judgement.
18. Do not operate this equipment if you are under the influence of drugs or alcohol.

**\*When transporting filled nitrogen tanks, abide by all State and Local Laws\***

# Equipment Requirements

| Model    | Machine Requirements | Hydraulic Requirements | Maximum Post Diameter |
|----------|----------------------|------------------------|-----------------------|
| PDN750   | 4-7 Ton Machines     | 10 GPM @ 1,600 PSI     | 8"                    |
| PDN750X  | 4-7 Ton Machines     | 10 GPM @ 1,600 PSI     | 8"                    |
| PDN1000  | 6-9 Ton Machines     | 15 GPM @ 1,800 PSI     | 8"                    |
| PDN1000X | 6-9 Ton Machines     | 15 GPM @ 1,800 PSI     | 8"                    |

GPM = Gallons Per Minute

PSI = Pounds Per Square Inch

## What You Have Received

With each Kencove Nitro Post Driver you will receive:

\*One (1) Chain

One (1) Nitrogen Tank

One (1) Tool Box

One (1) Post Driver

Two (2) Chisels

One (1) Driver Head

Two (2) Hydraulic Hoses

Two (2) Quick Couplers

One Charge Kit

\*Skid steer models only PDN750/PDN1000



\*Chisel and tool kits may vary as shown\*

# Serial Number

For warranty purposes, it is critical that you locate your post driver's serial number. You should also be familiar with the model of driver you have purchased to assist in ordering replacement parts. You can identify your serial number on the side of the unit (see photo below). The serial number is stamped on the unit above the hydraulic ports. Use the fields below to fill in your appropriate information for quick reference.

To identify your driver model, count the number of mounting bolts. The PDN750 series will have four (4) mounting bolts. The PDN1000 series will have six (6) mounting bolts.

You can also identify your driver model by the tool pins used to attach the driver head. The PDN750 series will have one (1) pin. The PDN1000 series will have two (2) pins. They are located a few inches above the bottom of the unit.

Serial Number: \_\_\_\_\_

Model Number: \_\_\_\_\_

Date Purchased: \_\_\_\_\_



# How To Charge Your Unit

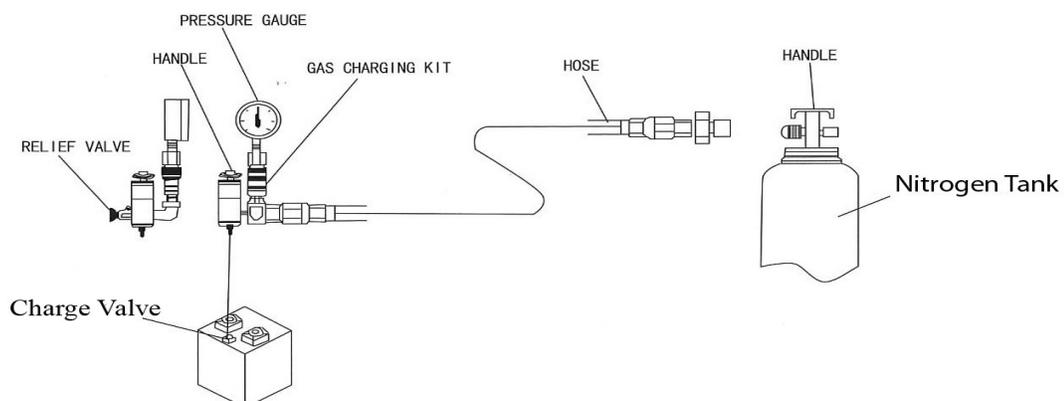
The pressure reading on your unit should be between 180-200 PSI (12-14 Bar kg/cm<sup>2</sup>). This is standard on all Nitro Post Driver Models.

- ⚠️ • **WARNING! PERSONAL INJURY AND/OR DEATH CAN OCCUR IF THE TANK AND/OR POST DRIVER ARE CHARGED INCORRECTLY.**
- **WHEN CHANGING OR INSTALLING THE POST DRIVER HEAD OR CHISEL, MAKE SURE ALL NITROGEN GAS HAS BEEN DISCHARGED FROM THE UNIT. REFER TO STEP 4 FOR INSTRUCTIONS.**
- **DO NOT USE ANY GAS OTHER THAN NITROGEN.**

⚠️ **WARNING! Personal Protective Equipment should be worn during all operation procedures. This includes, but is not limited to, safety glasses, hearing protection, protective gloves, and steel toe footwear.**

⚠️ **WARNING! Do not stand in front of the tool while nitrogen is charged in the back head. The nitrogen gas in the back head must be discharged completely when a through bolt is replaced or the main body is disassembled.**

1. Remove the plug and connect the treaded port of the gauge kit to the top of the post driver.
2. Connect the hose end of the nitrogen charging kit to the port of the nitrogen tank. Connect the other end of the hose to the gas charging kit.
3. Turn the exhaust knob of the nitrogen tank counter clockwise slightly to charge a small amount of nitrogen on the top head of the post driver and lock it.
4. Open the top valve and pull out the gauge button to completely discharge the chamber of nitrogen and air.
5. Turn the exhaust knob of the nitrogen tank counter clockwise slightly to charge a small amount of nitrogen on the top head of the post driver. The gauge should read between 180-200 PSI (12-14 Bar kg/cm<sup>2</sup>).
6. If the pressure is high, discharge it by opening the exhaust valve of the gauge kit until the gauge indicates a normal pressure between 180-200 PSI (12-14 Bar kg/cm<sup>2</sup>).
7. Remove the nitrogen charging kit and securely close the exhaust knob of the nitrogen tank.
8. To keep the exact nitrogen pressure, measure the nitrogen pressure with the inspection kit and make sure it reads within +/- 10% of specified Nitrogen pressure (180-200 PSI).
9. Remove the gauge kit and securely close the plug.
10. Open the exhaust valve of the nitrogen charging and gauge kit to vent the inside nitrogen.
11. Check for nitrogen leakage at the plug by applying a small quantity of oil around the plug.



# Chisel Install & Removal

## Installation:

1. Set the driver on level ground.
2. Make sure the machine's transition is neutral and the parking brake is engaged.
3. Stop the engine on your machine.
4. Release the back head nitrogen pressure.  
For details, see *"How to Charge Your Unit"* on page 7.
5. Install the cap/chisel, aligning its cavity with the hole for easy fitting the tool pin(s) later.
6. Install the tool pin(s).
7. Charge the Post Driver's Nitrogen pressure.  
For details, see *"How to Charge Your Unit"* on page 7.



**WARNING! Hydraulic fluid can be hot when pressurized.**

## Removal:

1. Set the driver on level ground.
2. Make sure the machine's transition is neutral and the parking brake is engaged.
3. Stop the engine on your machine.
4. Disconnect the hydraulic lines from your equipment.
5. Release the Post Driver's Nitrogen pressure.  
For details, see *"How to Charge Your Unit"* on page 7.
6. Remove the tool pin(s).
7. Remove the cap/chisel.



**WARNING! Hydraulic fluid can be hot when pressurized.**

# Daily Check List

1. Prior to each use and after every 3 hours of operation, apply grease to the grease fitting.
2. Prior to each use, inspect all nuts and bolts for tightness and breakage.  
Refer to page 9 for proper torque specifications.
3. Prior to each use, inspect all hydraulic hoses and fittings for cracks or loose fittings.
4. Prior to each use, inspect the driver head and/or chisel wear and cracks.
5. Prior to each use check that all pins are secure.

# Torque Specifications

| Unit     | Through-Bolt Torque | Mounting-Bracket Torque |
|----------|---------------------|-------------------------|
| PDN750   | 579-615 ft-lb       | 579-615 ft-lb           |
| PDN750X  | 579-615 ft-lb       | 579-615 ft-lb           |
| PDN1000  | 579-615 ft-lb       | 579-723 ft-lb           |
| PDN1000X | 579-615 ft-lb       | 579-723 ft-lb           |

 **WARNING!** If the post fails to drive immediately into the ground, move to another location. There could be an underground obstruction; this could cause the post to splinter and cause injury to the operator.

 **WARNING!** Personal Protective Equipment should be worn during all operation procedures. This includes, but is not limited to, safety glasses, hearing protection, protective gloves, and steel toe footwear.

 **WARNING!** Driving a post is a two (2) person operation. Never attempt to operate the post driver alone

## How To Drive A Post

1. Call local utility companies to ensure no underground utilities will be impacted. Check your surroundings to ensure no low limbs or utilities are present.
2. Ensure the safety manual is read and understood by all parties involved in the equipment operation. Proper Personal Protective Equipment should be worn. This includes but is not limited to, eye protection, hearing protection, gloves, and steel toe footwear.
3. Attach chain to desired post height.
4. Your assistant should stand the post upright.
5. Place the driver head over the top of the post.
6. Your assistant will then need to step away in order to provide clear hand signals on post direction.
7. Apply down pressure.
8. Engage your auxiliary hydraulics.

# Parts List

# Nitro 750

| Item Number | Part Name           | QTY | Part Number            |
|-------------|---------------------|-----|------------------------|
| 1           | Front Head          | 1   | Serial Number Specific |
| 2           | Spring Pin          | 1   |                        |
| 3           | Thrust Ring         | 1   |                        |
| 4           | Thrust Bush         | 1   |                        |
| 5           | Tool Bush           | 1   |                        |
| 6           | Tool Bush S Type    | 1   |                        |
| 7           | Moil Point Tool     | 1   |                        |
| 8           | Chisel Tool H-Wedge | 1   |                        |
| 9           | Post Cap            | 1   |                        |
| 11          | Socket Plug         | 2   |                        |
| 12          | Rubber Plug         | 2   |                        |
| 13          | Bush Pin            | 2   |                        |
| 14          | Tool Pin            | 1   |                        |
| 15          | Grease Nipple       | 1   |                        |
| 16          | Air Plug            | 1   |                        |
| 17          | Seal Housing        | 1   |                        |
| 18          | Piston              | 1   |                        |
| 19          | Socket Plug         | 3   |                        |
| 20          | Cylinder            | 1   |                        |
| 21          | In/Out Connector    | 2   |                        |
| 22          | In/Out Cap          | 2   |                        |
| 23          | Back Head           | 1   |                        |
| 24          | Gas Charging Seat   | 1   |                        |
| 25          | Gas Charging Plug   | 1   |                        |
| 26          | Bolt                | 1   |                        |
| 27          | Gas Charging Sleeve | 1   |                        |
| 28          | Valve Cover         | 1   |                        |
| 29          | Valve Core          | 1   |                        |
| 30          | Valve Sleeve        | 1   |                        |
| 31          | Through Bolt Nut    | 4   |                        |
| 32          | Through Bolt Washer | 4   |                        |
| 33          | Through Bolt        | 4   |                        |
| 34          | Guide Pin           | 3   |                        |

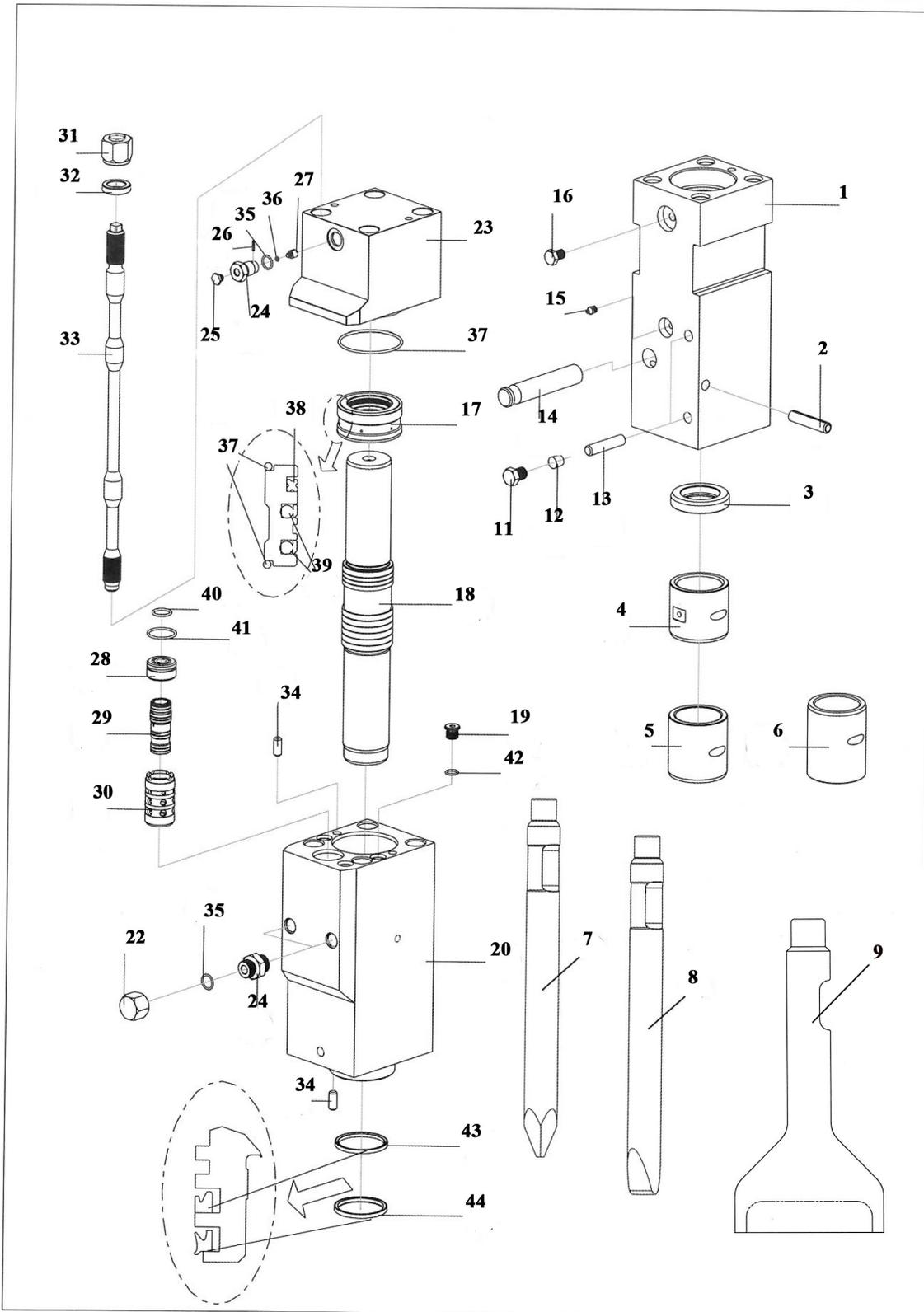
# Parts List Continued

Nitro 750

|    |                 |   |                        |
|----|-----------------|---|------------------------|
| 35 | O-Ring          | 3 | Serial Number Specific |
| 36 | O-Ring          | 1 |                        |
| 37 | O-Ring          | 3 |                        |
| 38 | Air Seal        | 1 |                        |
| 39 | Step Ring       | 2 |                        |
| 40 | O-Ring          | 1 |                        |
| 41 | O-Ring          | 1 |                        |
| 42 | O-Ring          | 3 |                        |
| 43 | U-Packing       | 1 |                        |
| 44 | Dust Proof Ring | 1 |                        |



# Nitro 750 Series

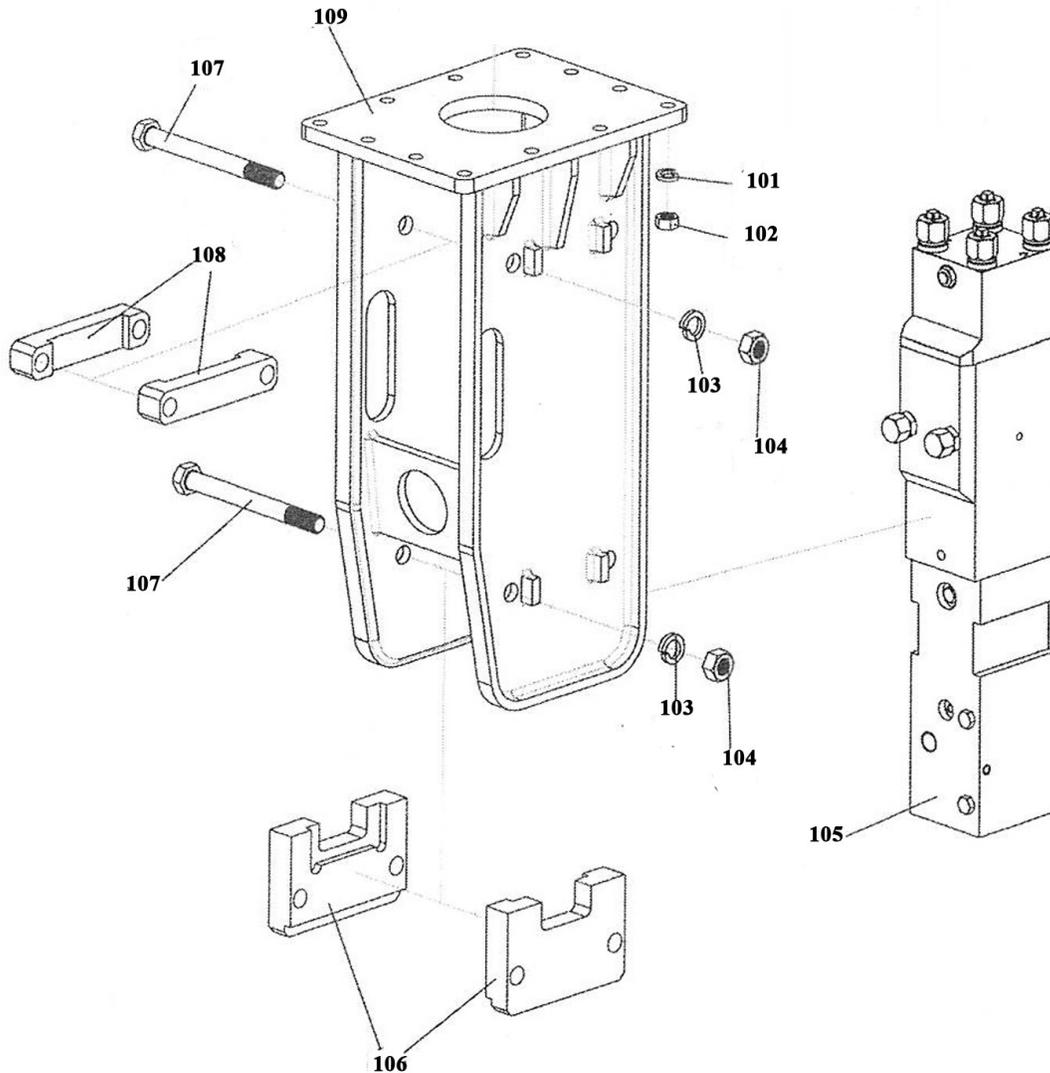


# Parts List

# Nitro 750X

| Item Number | Part Name     | QTY | Part Number            |
|-------------|---------------|-----|------------------------|
| 101         | Spring Washer | 12  | Serial Number Specific |
| 102         | Nut           | 12  | Serial Number Specific |
| 103         | Spring Washer | 4   | Serial Number Specific |
| 104         | Bracket Nut   | 4   | Serial Number Specific |
| 105         | Main Body     | 1   | Serial Number Specific |
| 106         | Set Plate     | 2   | Serial Number Specific |
| 107         | Side Bolt     | 4   | Serial Number Specific |
| 108         | Support Plate | 2   | Serial Number Specific |
| 109         | Bracket       | 1   | Serial Number Specific |

*\*Refer to page 12 for breakdown of item 105*



# Parts List

# Nitro 1000

| Item Number | Part Name           | QTY | Part Number            |
|-------------|---------------------|-----|------------------------|
| 1           | Front Head          | 1   | Serial Number Specific |
| 2           | Spring Pin          | 1   |                        |
| 3           | Thrust Ring         | 1   |                        |
| 4           | Thrust Bush         | 1   |                        |
| 5           | Tool Bush           | 1   |                        |
| 6           | Tool Bush S-Type    | 1   |                        |
| 7           | Moil Point Tool     | 1   |                        |
| 8           | Chisel Tool H-Wedge | 1   |                        |
| 9           | Post Cap            | 1   |                        |
| 11          | Thrust Pin          | 2   |                        |
| 12          | Rubber Plug         | 2   |                        |
| 13          | Socket Plug         | 2   |                        |
| 14          | Tool Pin            | 2   |                        |
| 15          | Grease Nipple       | 1   |                        |
| 16          | Air Plug            | 1   |                        |
| 17          | Seal Housing        | 1   |                        |
| 18          | Piston              | 1   |                        |
| 19          | Socket Plug         | 3   |                        |
| 20          | Cylinder            | 1   |                        |
| 21          | In/Out Connector    | 2   |                        |
| 22          | In/Out Cap          | 2   |                        |
| 23          | Back Head           | 1   |                        |
| 24          | Gas Charging Core   | 1   |                        |
| 25          | Gas Charging Seat   | 1   |                        |
| 26          | Gas Charging Plug   | 1   |                        |
| 27          | Screw               | 1   |                        |
| 28          | Valve Cover         | 1   |                        |
| 29          | Valve Core          | 1   |                        |
| 30          | Valve Sleeve        | 1   |                        |
| 31          | Through Bolt Nut    | 4   |                        |
| 32          | Through Bolt Washer | 4   |                        |
| 33          | Through Bolt        | 4   |                        |
| 34          | Guide Pin           | 2   |                        |

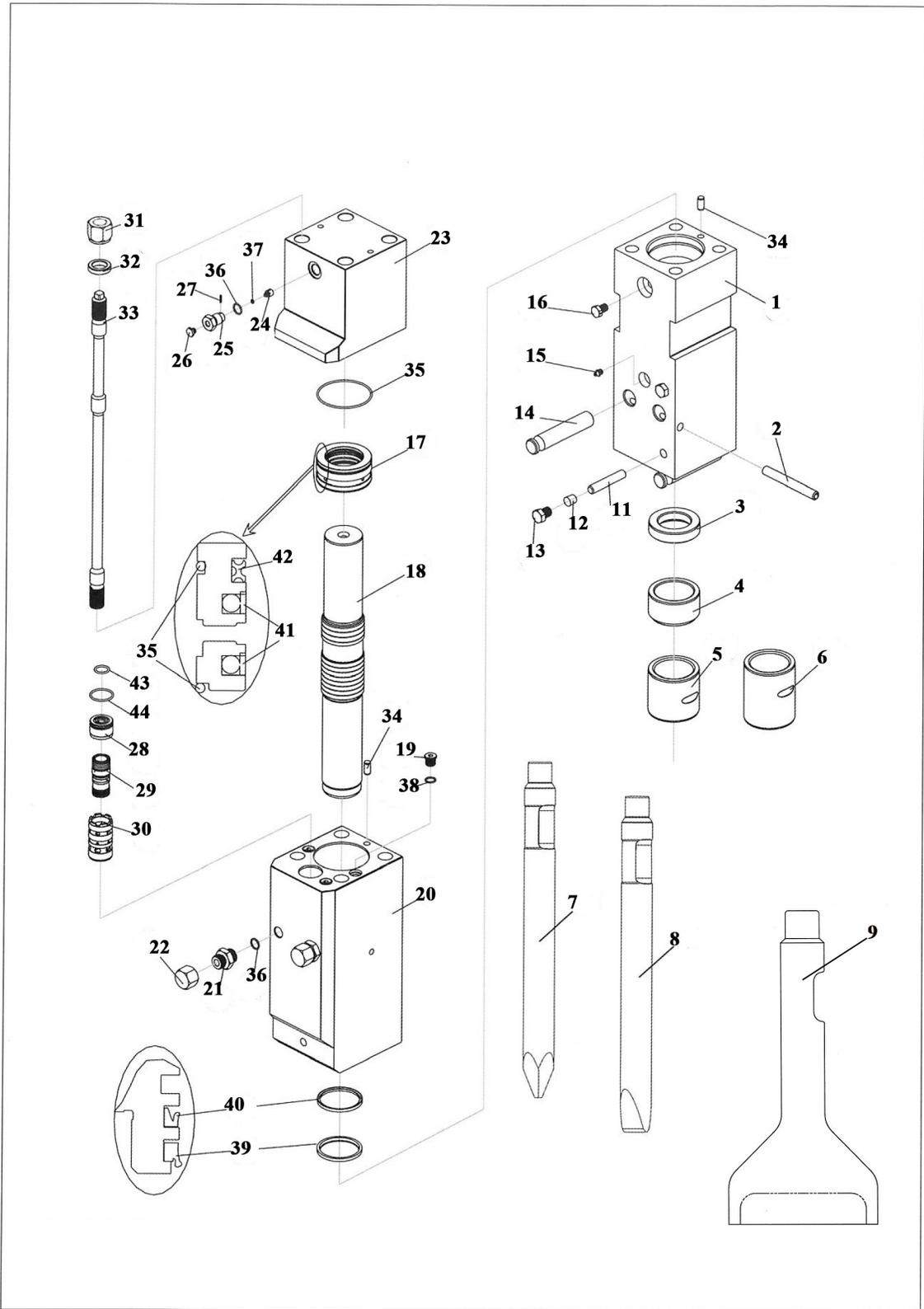
# Parts List Continued

# Nitro 1000

|    |                 |   |                        |
|----|-----------------|---|------------------------|
| 35 | O-Ring          | 3 | Serial Number Specific |
| 36 | O-Ring          | 3 |                        |
| 37 | O-Ring          | 1 |                        |
| 38 | O-Ring          | 3 |                        |
| 39 | Dust Proof Ring | 1 |                        |
| 40 | U-Packing       | 1 |                        |
| 41 | Step Ring       | 2 |                        |
| 42 | Air seal        | 1 |                        |
| 43 | O-Ring          | 1 |                        |
| 44 | O-Ring          | 1 |                        |



# Nitro 1000 Series

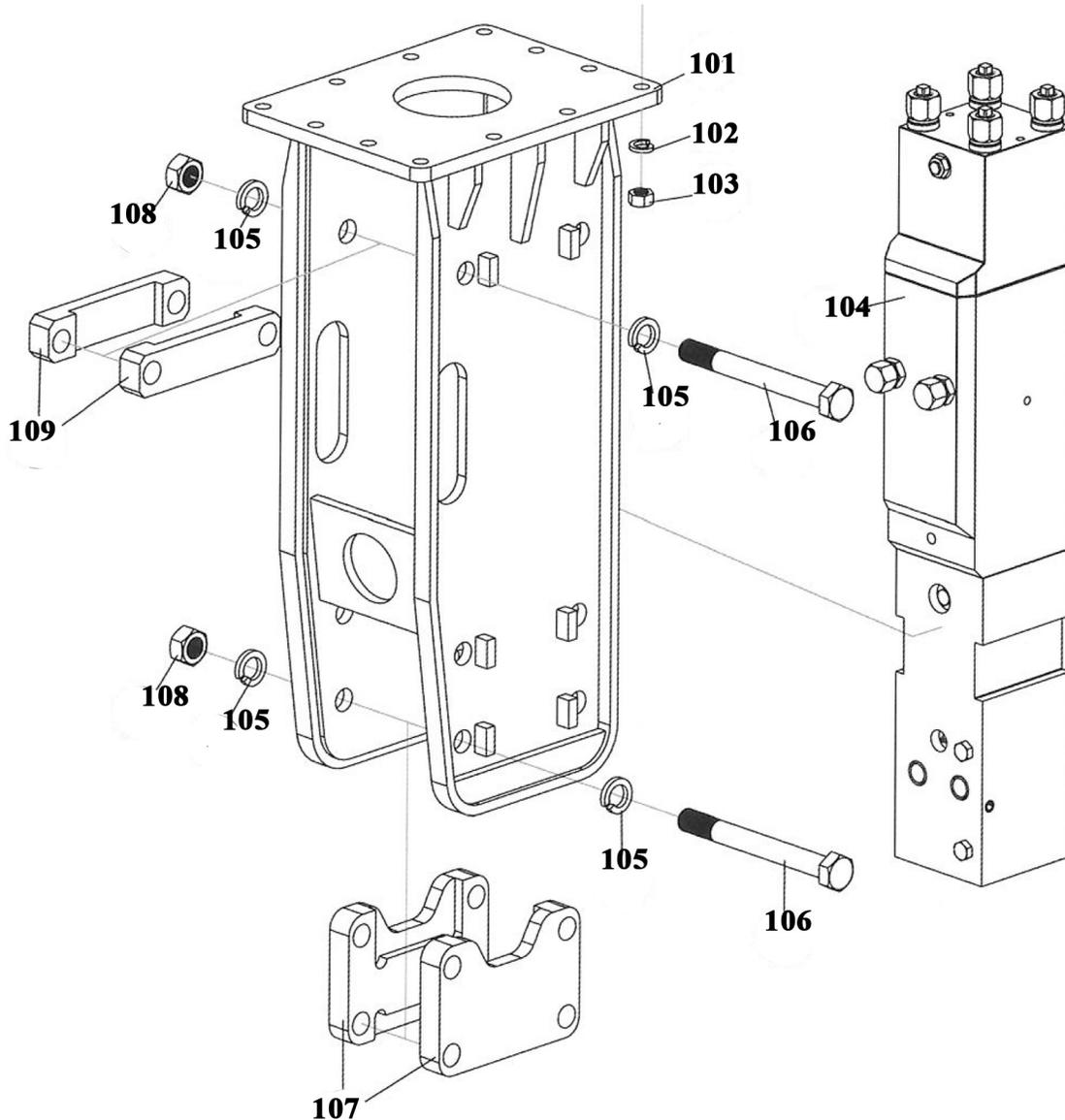


# Parts List

# Nitro 1000X

| Item Number | Part Name     | QTY | Part Number            |
|-------------|---------------|-----|------------------------|
| 1           | Bracket       | 1   | Serial Number Specific |
| 2           | Spring Washer | 12  |                        |
| 3           | Nut           | 12  |                        |
| 4           | Main Body     | 1   |                        |
| 5           | Spring Washer | 6   |                        |
| 6           | Side Bolt     | 6   |                        |
| 7           | Set Plate     | 2   |                        |
| 8           | Bracket Nut   | 6   |                        |
| 9           | Support Plate | 2   |                        |

*\*Refer to page 17 for breakdown of item 105*





# Warranty

Kencove Farm Fence Supplies will warrant to the original purchaser, who purchases the equipment in new condition from an authorized dealer, that its post driver will be free from defects in workmanship and materials for a period of one (1) year. This warranty period will commence on the date of retail purchase by the original purchaser. This warranty is non-transferrable beyond the original purchaser. Kencove Farm Fence Supplies provides no warranty on the post caps, chisels, chains, and hooks. This warranty is non-transferrable beyond the original purchaser.

- Warranty shall pertain to parts or service offered by Kencove Farm Fence Supplies. Any defective part replaced by Kencove Farm Fence Supplies becomes the property of Kencove Farm Fence Supplies.
- Shipping costs to transport the machine to the service center for warranty work will be the responsibility of the consumer.
- Kencove Farm Fence Supplies will pay for return shipping to the customer within the Contiguous US.
- For warranty claims, contact Kencove Farm Fence Supplies with proof of purchase date and your serial number.

## Limitations of Warranty

This limited warranty does not extend to any Kencove Nitro Post Driver which has been misused, abused, or improperly maintained, altered, or repaired by an unauthorized person. Nor does this limited warranty cover any damage to machine or parts due to faulty installation of parts, faulty operation, or faulty maintenance.

- Damage to components caused by operator error such as improper charging will not be considered for warranty replacement or service.
- Damage to cosmetic parts caused by rough handling, operator error, or improper storage and handling will not be considered for warranty replacement or service.
- Excluded components that may need replacement or repair due to normal wear and tear, or lack of proper use/maintenance include:
  1. O-rings and seals
  2. Lost or stripped fasteners
  3. Barrel of driver from incorrect use of machine
  4. Post Cap / Chisels

## Disclaimer of Warranty

Kencove Farm Fence Supplies disclaims all liability for any implied warranties. Under no circumstances shall Kencove Farm Fence Supplies be liable for any loss of business, revenues, profit, or indirect, incidental, special, or consequential damages or loss arising out of any defect in, or performance of, Kencove Nitro Post Drivers products, howsoever caused.



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