

# Operating Manual

2012, 2024, and 2026  
Soil Sampler



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## **AMITY TECHNOLOGY, LLC PRODUCT WARRANTY**

Amity Technology, LLC warrants to the original purchaser only, each new item of Amity Technology sold by it to be free of defects in workmanship materials for a period of twelve (12) months from the date the product is delivered to the Purchaser (Warranty Period).

The sole obligation of Amity is limited to the repair or replacement, whichever Amity chooses, of those parts which Amity, in its sole discretion, determines to have failed as a result of a defect in workmanship or material occurring during the Warranty Period. Such defective part will, at the option of Amity, either be repaired or replaced to the Purchaser through an authorized Amity dealer. The Purchaser must, within the Warranty Period, give written notice to an authorized Amity dealer and the dealer will have a reasonable time to repair or replace the defective part. Amity's dealer's claimed labor hours must be fair, reasonable and consistent with industry practice.

This Warranty does not cover damage to other parts of the product caused as a result of delay by the Purchaser to repair or replace defective parts. Amity will not be liable for direct or indirect costs other than those specified and this Warranty specifically excludes damage to crops, loss of use, transportation expense to a dealer, service calls, normal maintenance and upkeep costs, overtime labor costs, and any and all other injuries, claims or consequential damage or other economic loss. This Warranty does not cover damage caused to or by any equipment, accessories or parts attached to or used in connection with Amity equipment. This Warranty shall be void if alteration, modifications or additions are made to Amity products without written consent of Amity, or if in Amity's judgment, the failure was due to abuse or neglect in the operation or maintenance of the product. This Warranty shall only apply if Amity equipment is used for its recommended agricultural purpose. No dealer, salesman, or agent has any authority to alter or amend this Warranty.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**WARRANTY VOID IF NOT REGISTERED**

# WARANTY REGISTRATION

PLEASE READ THE FOLLOWIING INFORMATION REGARDING THE WARRANTY REGISTRATION OF YOUR NEW ATV AUGER SOIL SAMPLER (2012, 2024, 2036 circle model)

Thank you for your purchase. Amity Technology, LLC will warranty each new Auger Soil Sampler to be free from factory defects in material and workmanship under normal use and service, when operated in accordance with factory instructions. Warranty will cover a period of one year from the date of purchase.

Amity Technology’s obligation under this warranty is limited to the supplying of replacement parts in exchange for any parts which are defective. The warranty does not cover normal wear from usage. This warranty is void on any unit which has been tampered with or which has been subject to misuse, negligence or accident. Any part being returned for warranty service must be sent to Amity prepaid, and will be returned to you at our expense.

To obtain registered warranty coverage, please complete the section below and return it to Amity within 30 days of purchase.

Customer Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Prov. \_\_\_\_\_

Zip Code \_\_\_\_\_ Phone # \_\_\_\_\_

Email Address \_\_\_\_\_

Dealer Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Prov. \_\_\_\_\_

Purchase Date \_\_\_\_\_ Customer Signature \_\_\_\_\_

**Return To:** Amity Technology, LLC  
2800 7<sup>th</sup> Avenue North  
Fargo, ND 58102  
701.232.4199  
701.365.8323 fax

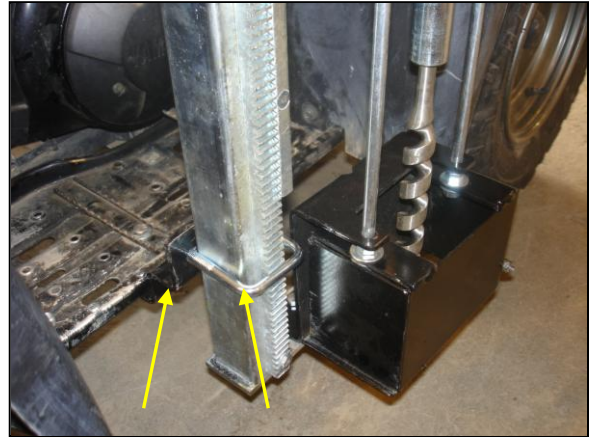
# 2012, 2024, & 2036 OPERATORS GUIDE

**Thank you for the purchase of your ATV mounted auger soil sampler.**

## Mounting

1. Use the flat iron bracket with three 90° bends to secure the bottom of the sampler mast to the foot rest of the ATV. This bracket can be mounted on the top or bottom of the foot rest and can also be turned upside down for more versatility when mounting. Fasten with the provided hardware.

**[Figure 1]**



**Figure 1**

2. Mount the sampler to the ATV frame so the bottom of the collection bucket is approximately 7" above the ground. This will allow for the 24" and 36" models to retrieve a sample to their full depth capabilities. The 12" model can be mounted up to 19" off the ground and still retrieve a full 12" sample.

3. Use the four metal straps to secure the top of the sampler, these can be mounted on either the front or back rack. Use any spare holes and the provided hardware to fasten the straps to the top of the mast.

**[Figure 2]**

**Note:** Although Amity includes brackets that will fit most ATV's, they may not be suitable for all applications. We welcome you to modify the included brackets or make your own to ensure a proper fit.



**Figure 2**

## Honda Power Unit

1. Mount the Honda power unit on the back rack with the provided U-bolts, backing plates, and hardware.

**[Figure 3]**

2. A 12 volt power source is needed to run the electric over hydraulic valves. The white (+) and black (-) wires must be connected to the corresponding terminals of the power source, typically the vehicle's existing battery.

3. Run the Honda engine at a speed you are comfortable with. Engine rpm will determine the operation speed of the sampler.

**Note:** For best results run engine at a minimum of half throttle. Typically the faster the auger rotates the better it spins in balance.

4. Adjust the hydraulic flow divider valve by loosening the jam nut with a 9/16" wrench and turning the needle with a 3/16" hex key. Turn the needle in (clockwise) to provide more hydraulic flow to the auger and less to the up and down control. Turn the needle out (counterclockwise) to provide less flow to the auger and more to the up and down control. Lock your adjustment by retightening the jam nut.

**[Figure 4]**

**Note:** Listen to the engine, if it sounds like it is about to stall, release the button and wait for it to catch up before continuing (you may have to increase engine RPM or adjust the flow control valve)

5. The hydraulic oil reservoir comes from the factory only partially filled. Although it comes with AW-46 type hydraulic oil, you are not limited to this. The pump and other components can accept a wide variety of hydraulic oils; the choice of oil type used is of personal preference.

**WARNING: ENGINE WILL STOP IMMEDIATELY WHEN OIL LEVEL IS LOW**  
**[Figure 5]**



**Figure 3**



**Figure 4**



**Figure 5**

## Adjustments

1. On the top of the mast there are two adjustment nuts, make sure they are loose enough that the spur gear does not bind on the rack, but tight enough that the rollers are in contact with the rear of the mast at all times.

**[Figure 6]**

**Note:** These two bolts can also be used to tilt the power head from front to back allowing you to adjust the auger for proper alignment into the collection bucket.

2. Two guide rods slide through the rod guide and attach to the latch box where they can be adjusted left or right for proper alignment of the auger into the bucket.

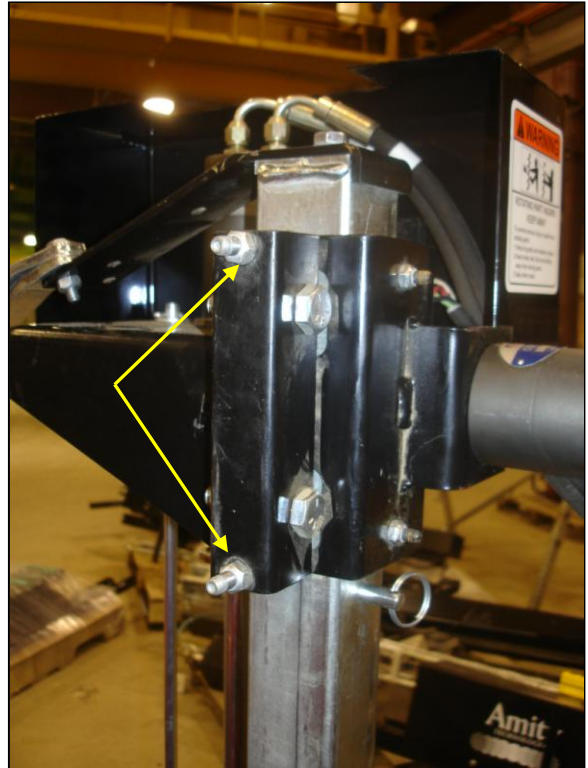
**[Figure 7]**

3. Adjust the auger with the set screw and a 5/32" hex key to slide the auger up and down for a best fit to enter the collection bucket.

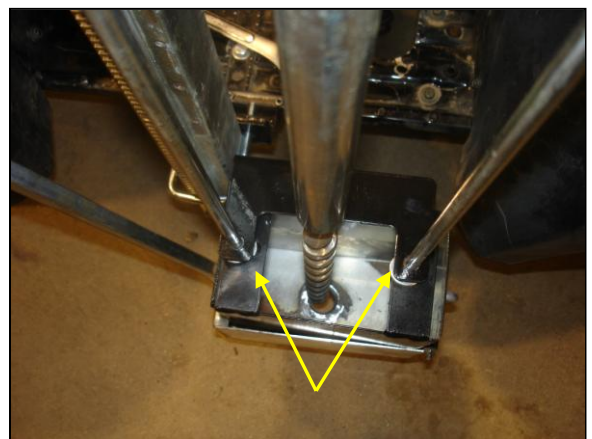
**Recommendation:** Set the auger so that it extends 1/4 inch into the hole of the bucket to keep it lined up properly.

**Note:** While taking a sample, be sure the bucket is on level ground (not on a rock or a lump of dirt).

**WARNING: DO NOT MOVE ATV WITH AUGER IN THE GROUND** as it can cause severe damage to the unit or personal injury.



**Figure 6**



**Figure 7**

4. To change the sampling depth, adjust the collar on the left hand guide rod by loosening the set screw with a 1/8" hex key. The distance between the micro-switch roller and the collar will trigger the sampler to stop at different heights.

**[Figure 8]**

**Example:** To take an 8" sample, adjust the collar so that the distance between the roller switch and the collar is 8".

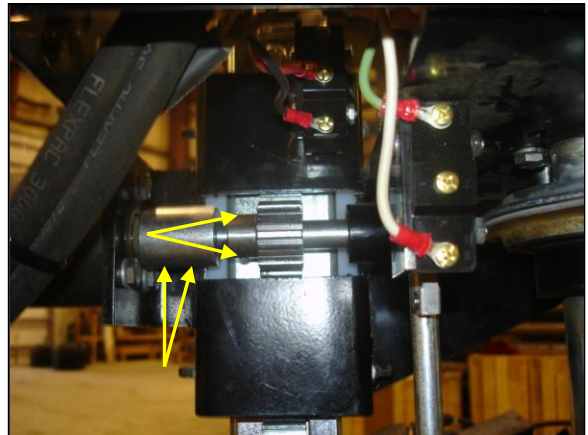


**Figure 8**

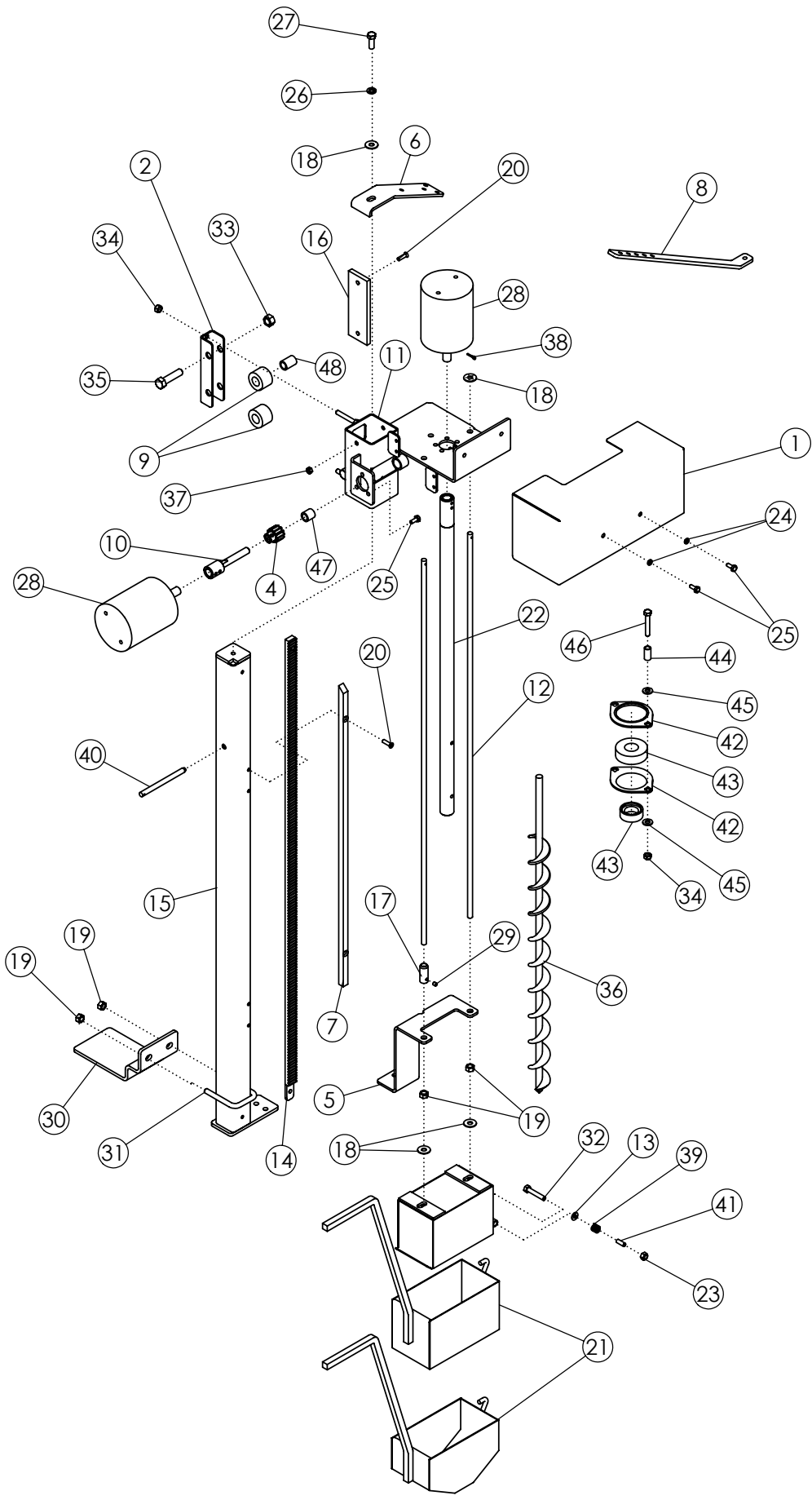
5. Before using your sampler ensure all set screws are tight that secure the auger in place, the spur gear to the drive shaft, and the drive shaft to the hydraulic motor.

**[Figure 9]**

**Note:** Clean and oil the auger regularly to improve sampling ease.



**Figure 9**

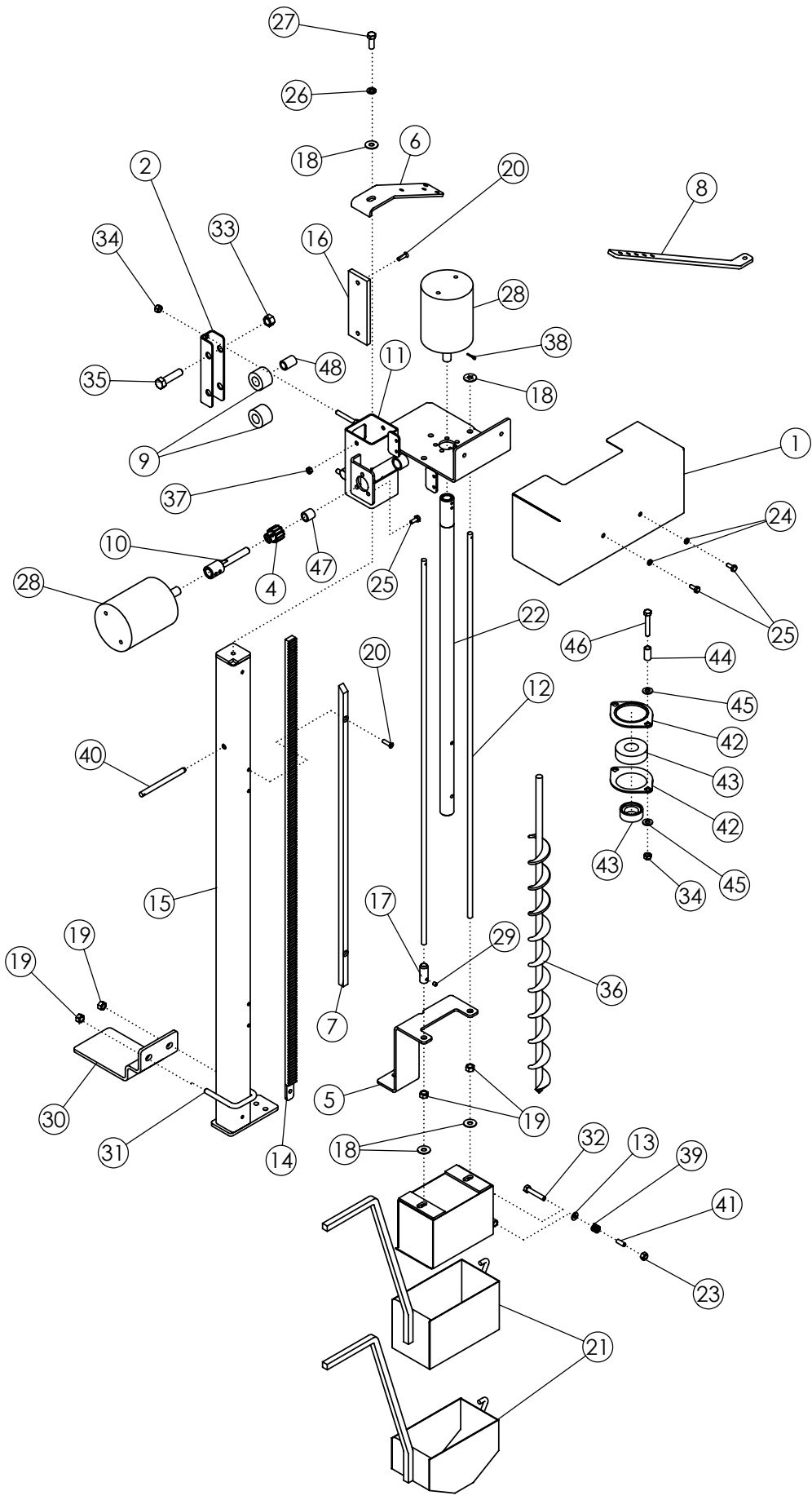




## 2012 & 2024 ATV MOUNT

ITEM	PART NO.	DESCRIPTION	QTY
1	1040273	COVER	1
2	1040277	ROLLER MOUNT	1
3	1040292	WLDMT-LATCH BOX	1
4	1040313	SPUR GEAR	1
5	1040283	ROD MOUNT	1
6	1040270	FRONT BRACE MOUNT	1
7	1040281	BAR-RAMP	1
8	1040284	BRACE-FRONT	1
9	1040285	ROLLER	2
10	1040959	DRIVE SHAFT ZP	1
11	1040296	WLDMT-POWERHEAD	1
12	1040272	ROD	2
13	0100979	WASHER-FLAT: SAE .25 ZP	1
14	1040294	WLDMT - RACK	1
15	1040293	WLDMT-MAST	1
16	1040295	POWER HEAD GUIDE	1
17	1040280	STOP	1
18	1011828	WASHER-FLAT .38 ZP	7
19	1011576	NUT-HEX: .38 NC GR2 ZP	6
20	1029108	SCREW-F-H-S-C: .25-20 X .75 GR8	2
21	1040291	WLDMT-BUCKET ZP	1
	1040302	WLDMT-BUCKET SSO 2012 ZP	
22	1040999	SHAFT-AUGER 12"	1
	1041000	SHAFT-AUGER 24"	
23	1030700	NUT-TOPLOCK: .31 NC GR5 ZP	1
24	1013242	WASHER-LOCK: .25 ZP	4
25	1011198	BOLT-HEX: .25 X .63 NF ZP	4
26	1011586	WASHER-LOCK: .38 ZP	1
27	1011600	BOLT-HEX: .38 X 1.00 NC GR5 ZP	1
28	1031963	MOTOR-HYDRAULIC	2
29	1040328	SET SCREW: .25 - D11	6
30	1040431	MOUNT-FOOT REST	1
31	1040468	U-BOLT: .38 X 3.00 X 2.00 X 3.00	1
32	1040304	LATCH BOLT	2
33	1011577	NUT-HEX: .50 NC ZP	2
34	1032278	NUT-TOPLOCK: .31 NC GR5 ZP	3
35	1011609	BOLT-HEX: .50 X 2.00 NC GR5 ZP	2
36	1031969	BIT-AUGER .75 X 12"	1
	1040312	BIT-AUGER .75 X 24"	
37	1011587	NUT-HEX: .25 NC GR5 ZP	1
38	65321	PIN-COTTER	2

CONTINUED



## 2012 & 2024 ATV MOUNT (CONTINUED)

ITEM	PART NO.	DESCRIPTION	QTY
39	1040306	SPRING	2
40	1025090	PIN-QUICK RELEASE	1
41	1040320	BUSHING-LATCH BOLT	2
42	1031959	FLANGETTE-BEARING: 2 HOLE - D3	2
43	1031962	RND BEARING W/LOCKING COLLAR- D3	1
44	1031927	BUSHING	2
45	1011582	WASHER-FLAT: SAE .31 ZP	4
46	1011285	BOLT-HEX: .31 X 2.00 NC	2
47	1040828	BUSHING-OILITE	1
48	1040314	BUSHING-ROLLER	2