

# PARTS MANUAL

2022  
SOIL SAMPLER

MODELS  
3012, 3024, 3036



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Fargo, ND 58108

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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 (3012, 3024, 3036 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



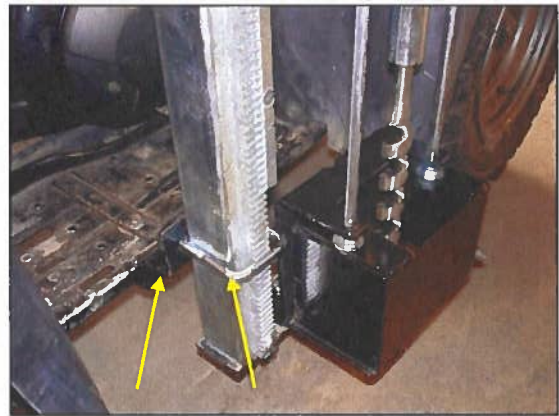
# 3012, 3024, & 3036 OPERATORS GUIDE

**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 telescopic braces to secure the top of the sampler. These are necessary in order to create three points of mounting providing a rigid & sturdy mounting system. Drill any necessary hole or use any spare holes, and the provided hardware to fasten the braces to the top of the mast.

**[Figure 2]**



**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.



## Honda Power Unit

1. Mount the Honda power unit on the back rack with the provided U-bolts and hardware.  
[Figure 3]
2. A 12 volt power source is needed to run the electric over hydraulic valves. The red (+) 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 speed at which the sampler moves up and down by adjusting the hydraulic flow regulator valve. Loosen the locking knob to turn the adjusting knob in (clockwise) and provide more hydraulic flow to the up/down motor. Turn the knob out (counterclockwise) to provide less flow to up/down motor. Lock your adjustment by retightening the locking knob.

[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 regulator valve)

5. The hydraulic oil reservoir comes from the factory only partially filled. Although it comes with HD32 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. The rod guide also has slotted holes for further adjustment.

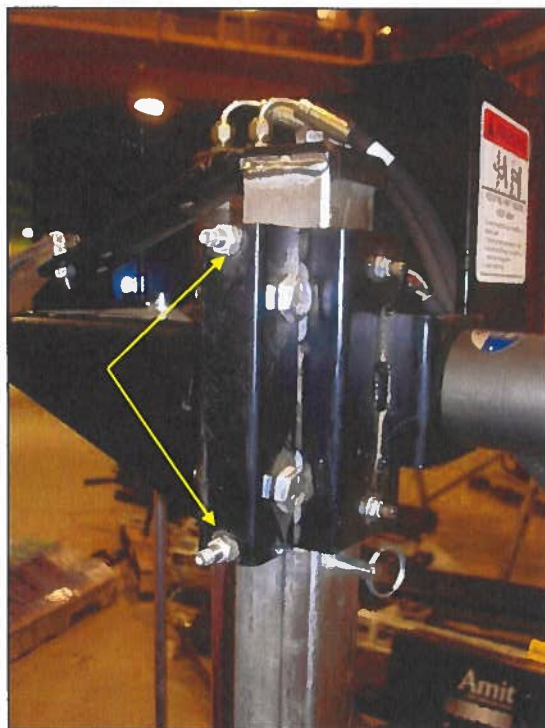
**[Figure 7]**

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.

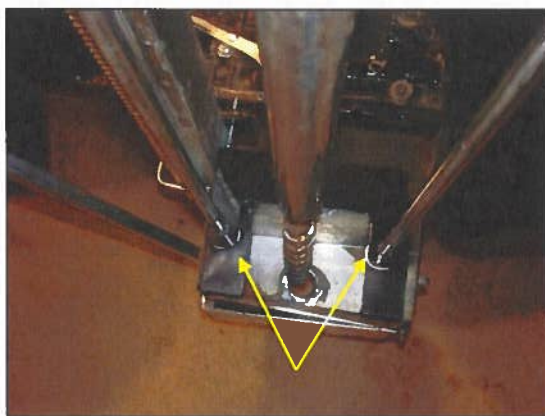
**Recommendation:** Set the auger so that it extends 1/4 inch into the hole of the bucket to keep it lined up properly.

**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".

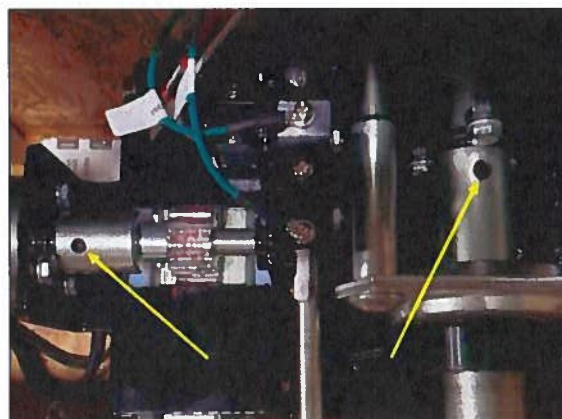


**Figure 8**

5. Before using your sampler ensure all set screws are tight that secure the auger in place, and the drive shafts to the hydraulic motors.

**[Figure 9]**

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



**Figure 9**

# TABLE OF CONTENTS

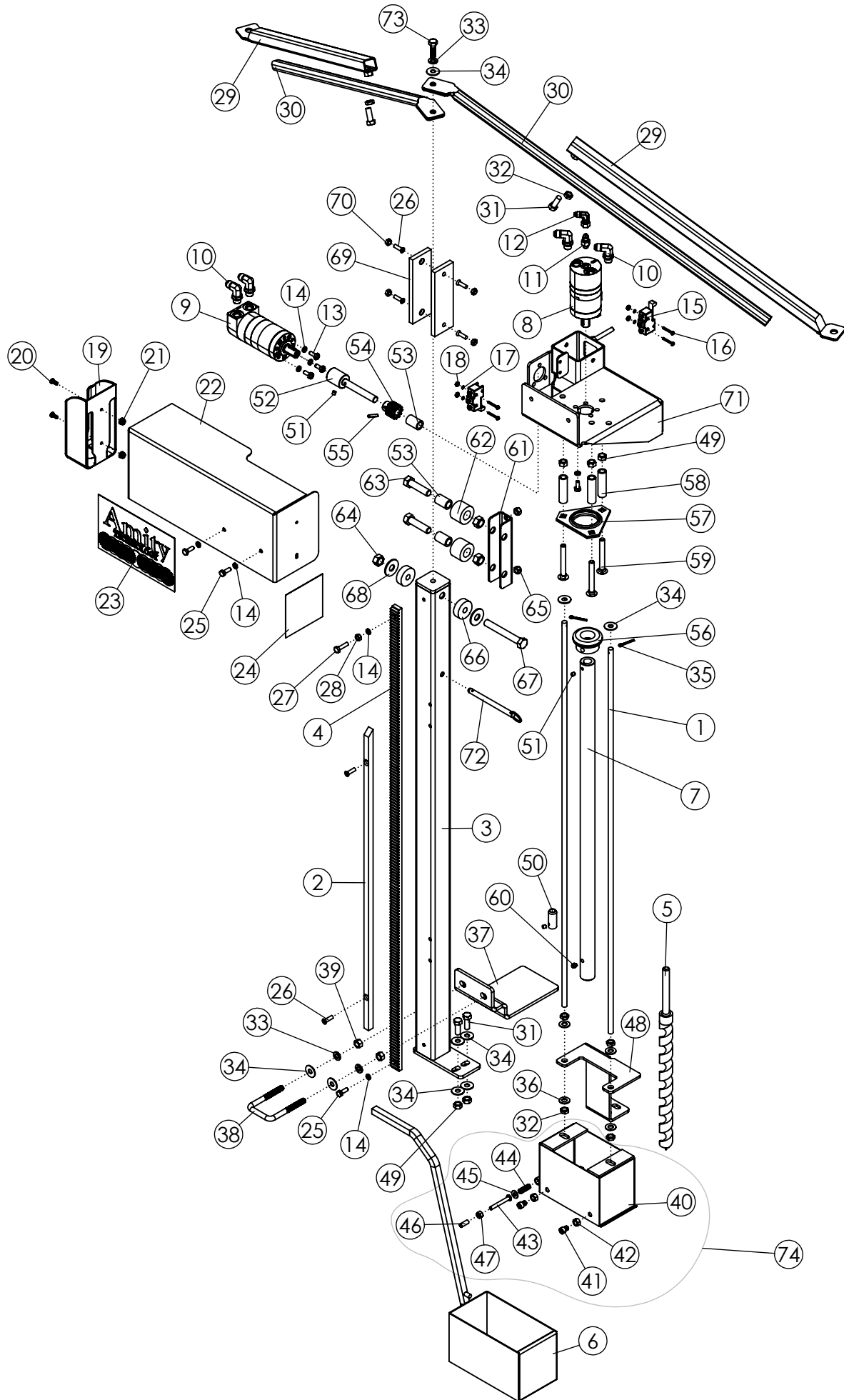
Tower Assembly..... 1-4

Hydraulic Power Unit ..... 5-8

Valve Assembly..... 9-10

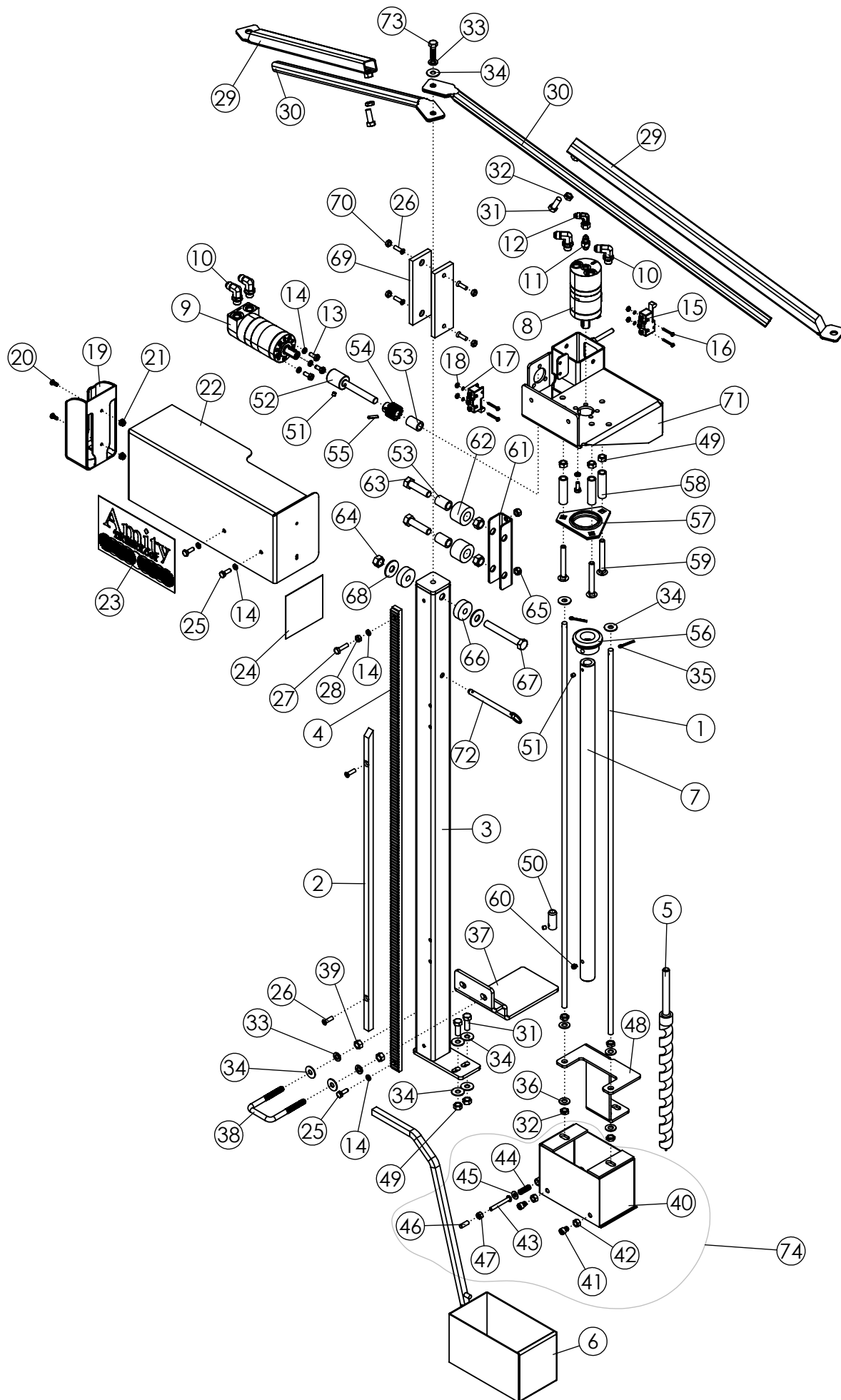
Hydraulic Hoses ..... 11-12

Wiring Harnesses..... 13-14



| TOWER ASSEMBLY |          |                                         |     |
|----------------|----------|-----------------------------------------|-----|
| ITEM           | PART NO. | DESCRIPTION                             | QTY |
| 1              | 1040272  | ROD-36" ZP                              | 2   |
|                | 1060065  | ROD-48" ZP                              | 2   |
| 2              | 1040281  | BAR ZP                                  | 1   |
|                | 1060066  | BAR-RAMP ZP                             | 1   |
| 3              | 1040293  | WLDMT-MAST ZP                           | 1   |
|                | 1060067  | WLDMT-MAST 2036 ZP                      | 1   |
| 4              | 1040294  | RACK-2012/2024                          | 1   |
|                | 1060069  | RACK-2036                               | 1   |
| 5              | 1031969  | BIT: AUGER 2012 (1 X 12)                | 1   |
|                | 1040312  | BIT: AUGER 2024 (3/4 X 24)              | 1   |
|                | 1060064  | BIT: AUGER 2036 (3/4 X 36)              | 1   |
| 6              | 1042046  | WLDMT- BUCKET 12" SS                    | 1   |
|                | 1042044  | WLDMT-BUCKET 24" SS                     | 1   |
| 7              | 1040999  | SHAFT-AUGER 12" ZP                      | 1   |
|                | 1041000  | SHAFT-AUGER 24"-36" ZP                  | 1   |
| 8              | 1031963  | MOTOR-HYDRAULIC OMM 12.5                | 1   |
|                | 1060225  | MOTOR-HYDRAULIC OMM 20                  | 1   |
| 9              | 1041109  | MOTOR-HYDRAULIC 3.0IN <sup>3</sup> /REV | 1   |
| 10             | 57754    | FTG-ELBOW: 6MB-6MJ 90                   | 4   |
| 11             | 1041089  | FTG-ADAPTER: 4MJ-3MB                    | 1   |
| 12             | 1060234  | FTG-ELBOW: 4MJ-4FJX-90                  | 1   |
| 13             | 1011198  | BOLT-HEX: .25 X .63 NF ZP               | 6   |
| 14             | 1013242  | WASHER-LOCK: .25 ZP                     | 10  |
| 15             | 1040315  | SWITCH: SNAP ACTION                     | 2   |
| 16             | 1040446  | #6X32 1.0 MACH SCREW                    | 4   |
| 17             | 1040447  | #6 LOCK WASHER                          | 4   |
| 18             | 1040448  | #6 NUT                                  | 4   |
| 19             | 1041100  | PLASTIC-30 SERIES PENDANT WALL MOUNT    | 1   |
| 20             | 750354   | SCREW-P-H: 10-24 X.50 NC GR2 ZP         | 2   |
| 21             | 1026591  | NUT-K-LOCK: #10-24 NC GR2 ZP            | 2   |
| 22             | 1041088  | WLDMT-30 SERIES SOIL SAMPLER COVER      | 1   |
| 23             | 1040622  | DECAL-"AMITY" LOGO, HORIZONTAL          | 1   |
| 24             | 1040333  | DECAL WARNING                           | 1   |
| 25             | 1011595  | BOLT-HEX: .25 X .75 NC GR5 ZP           | 3   |
| 26             | 1029108  | SCREW-F-H-S-C: .25-20 X .75 GR8         | 6   |
| 27             | 1013423  | BOLT-HEX: .25 X 1.00 NC GR5 ZP          | 1   |
| 28             | 1011587  | NUT-HEX: .25 NC GR5 ZP                  | 1   |
| 29             | 1060038  | WLDMT-TUBE BRACE                        | 2   |
| 30             | 1060036  | TUBE-BRACE                              | 2   |
| 31             | 1011600  | BOLT-HEX: .38 X 1.00 NC GR5 ZP          | 4   |
| 32             | 1013519  | NUT-JAM: .38 NC GR2 ZP                  | 6   |
| 33             | 1011586  | WASHER-LOCK: .38 ZP                     | 3   |
| 34             | 1011828  | WASHER-FLAT .38 ZP                      | 9   |
| 35             | 1029137  | PIN-COTTER: .13 X 1.00 ZP               | 2   |
| 36             | 1014608  | WASHER-FLT: SAE .38 ZP                  | 4   |

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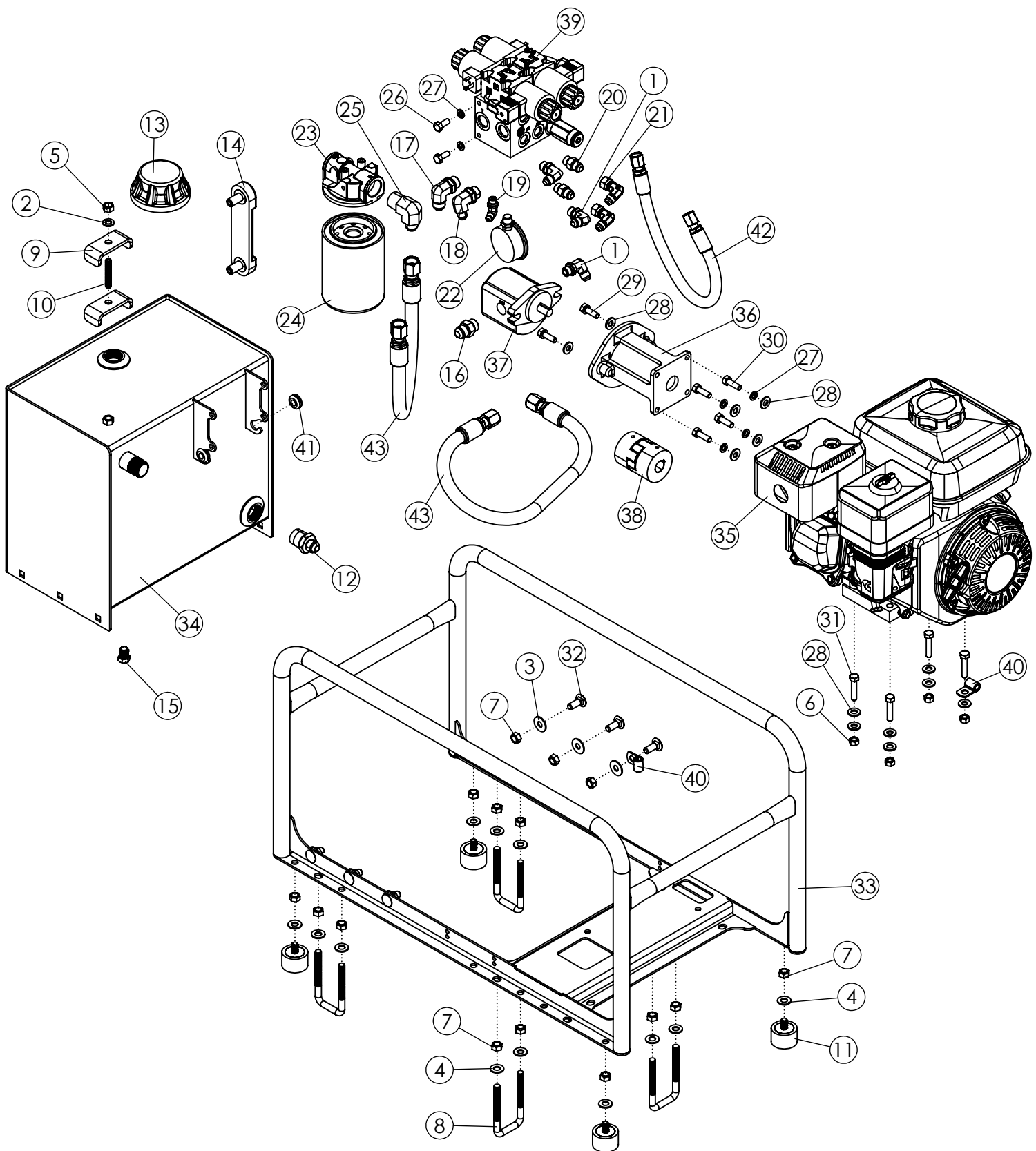


## TOWER ASSEMBLY (CONTINUED)

| ITEM | PART NO. | DESCRIPTION                          | QTY |
|------|----------|--------------------------------------|-----|
| 37   | 1040431  | MOUNT-FOOT REST                      | 1   |
| 38   | 1040468  | U-BOLT: .38 X 3.50 X 2.00 X 3.50 ZP  | 1   |
| 39   | 1011576  | NUT-HEX: .38 NC GR2 ZP               | 2   |
| 40   | 1040292* | WLDMT-LATCH BOX                      | 1   |
| 41   | 1042048* | SCREW-SOCKET HD CAP .313 NC X .38    | 4   |
| 42   | 1030700* | NUT-TOPLOCK: .31 NC GR5 ZP           | 4   |
| 43   | 1040304* | LATCH BOLT 1/4"                      | 2   |
| 44   | 1040306* | SPRING-LATCH BOLT                    | 2   |
| 45   | 0100979* | WASHER-FLAT: SAE .25 ZP              | 2   |
| 46   | 1040320* | BUSHING-LATCH BOLT                   | 2   |
| 47   | 1013240* | NUT-NYLOCK: .25 NC ZP                | 2   |
| 48   | 1040283  | ROD MOUNT                            | 1   |
| 49   | 1016999  | NUT-TOPLOCK: .38 NC GR5 ZP           | 5   |
| 50   | 1040280  | STOP PIN ZP                          | 1   |
| 51   | 1040328  | SCREW-SET: .25 X .25 NC              | 3   |
| 52   | 1041044  | DRIVE SHAFT ZP                       | 1   |
| 53   | 1040314  | BUSHING ROLLER                       | 3   |
| 54   | 1040313  | SPUR GEAR                            | 1   |
| 55   | 1025601  | PIN-ROLL                             | 1   |
| 56   | 1041002  | RND BEARING W/LOCKING COLLAR         | 1   |
| 57   | 1023784  | BEARING-3 BOLT FLANGETTE             | 2   |
| 58   | 1031927  | SPACER ZP                            | 3   |
| 59   | 1030879  | BOLT-CRG: .38 X 3.00 NC GR5 ZP       | 3   |
| 60   | 1040305  | SCREW-SET: .31 X .31 NC              | 1   |
| 61   | 1040277  | ROLLER MOUNT                         | 1   |
| 62   | 1040285  | ROLLER ZP                            | 2   |
| 63   | 1011609  | BOLT-HEX: .50 X 2.00 NC GR5 ZP       | 2   |
| 64   | 1027461  | NUT-TOPLOCK: .50 NC GR5 ZP           | 3   |
| 65   | 1018693  | NUT-NYLOCK: .31 NC GR2 ZP            | 2   |
| 66   | 1041110  | PLASTIC-SOIL SAMPLER CUSHION         | 2   |
| 67   | 1029104  | BOLT-HEX: .50 X 3.75 NC GR5 ZP       | 1   |
| 68   | 1014443  | WASHER-FLAT: .50 ZP                  | 2   |
| 69   | 1040295  | POWER HEAD GUIDE                     | 2   |
| 70   | 1030946  | NUT-TOPLOCK: .25 NC GR5 ZP           | 4   |
| 71   | 1040296  | WLDMT-POWERHEAD                      | 1   |
| 72   | 1025090  | PIN-QUICK REL. RING-GRIP .38 X 4.00" | 1   |
| 73   | 1011601  | BOLT-HEX: .38 X 1.25 NC GR5 ZP       | 1   |
| 74   | 1060290  | ASSY-LATCH BOX                       | 0   |

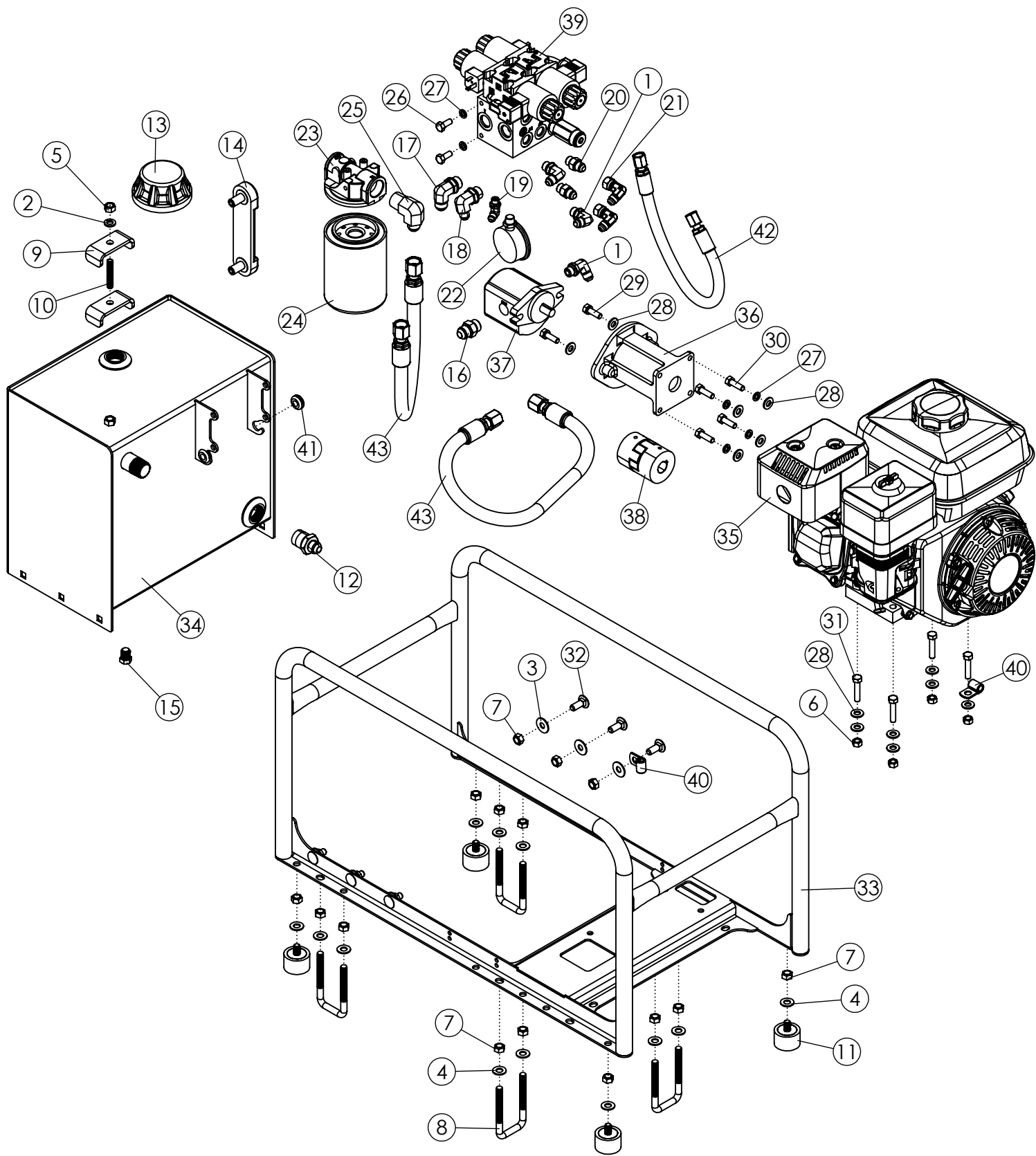
\* - ITEMS INCLUDED IN ITEM # 74



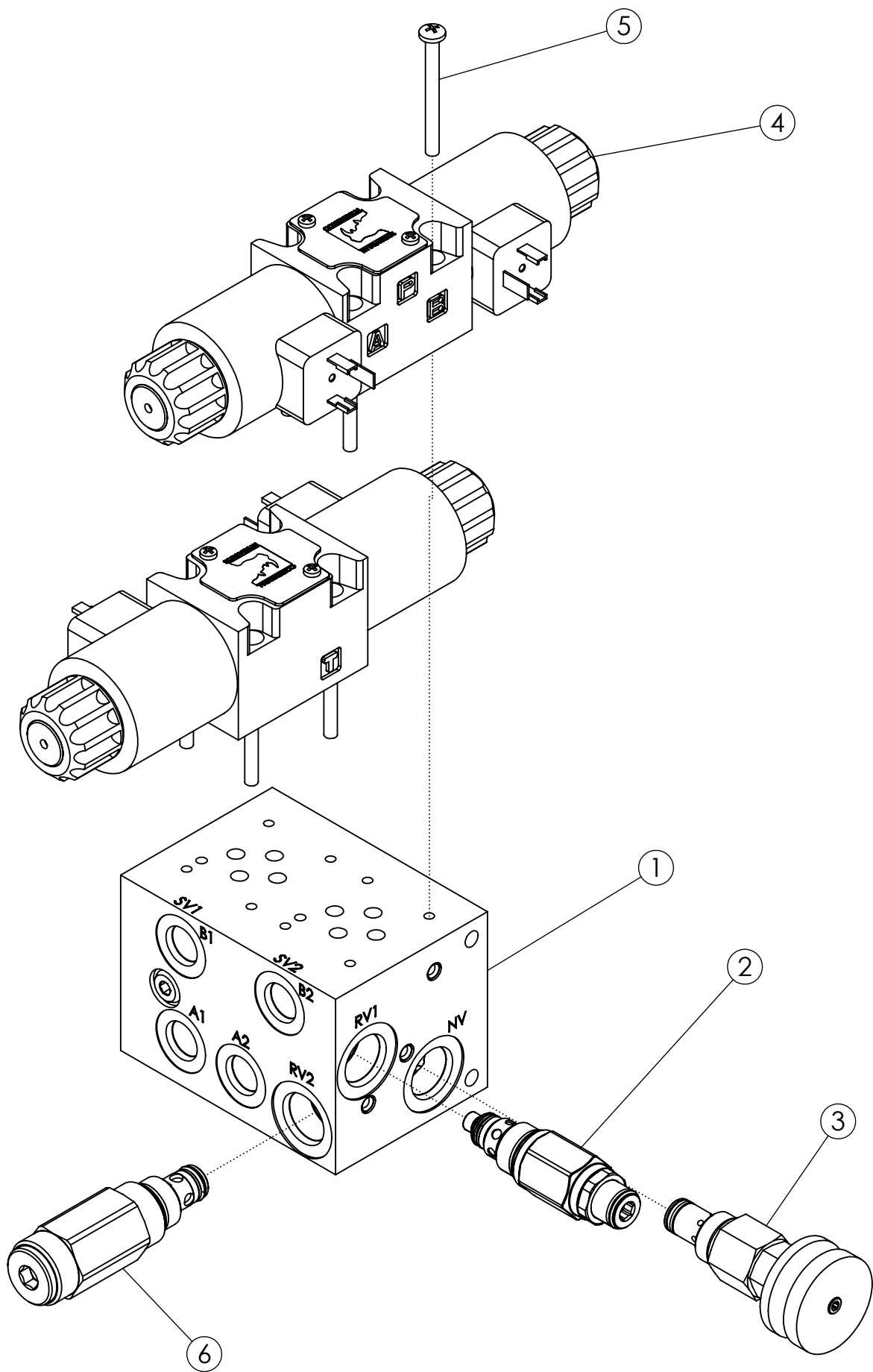


| HYDRAULIC POWER UNIT |          |                                        |     |
|----------------------|----------|----------------------------------------|-----|
| ITEM                 | PART NO. | DESCRIPTION                            | QTY |
| 1                    | 57754    | FTG-ELBOW: 6MB-6M J 90                 | 3   |
| 2                    | 1011586  | WASHER-LOCK: .38 ZP                    | 1   |
| 3                    | 1011828  | WHASER-FLAT .38 ZP                     | 6   |
| 4                    | 1014608  | WASHER-FLT: SAE .38 ZP                 | 12  |
| 5                    | 1011576  | NUT-HEX: .38 NC GR2 ZP                 | 1   |
| 6                    | 1030700  | NUT-TOPLOCK: .31 NC GR5 ZP             | 4   |
| 7                    | 1016999  | NUT-TOPLOCK: .38 NC GR5 ZP             | 18  |
| 8                    | 1040437  | U-BOLT: .375 X 3.50 X 1.63 X 3.50 SPTH | 4   |
| 9                    | 50714    | CLAMP 1/2" ZP                          | 2   |
| 10                   | 330045   | STUD- .375 X 2.00 UNC                  | 1   |
| 11                   | 1041083  | BUMPER-RUBBER WITH 3/8" NC STUD        | 4   |
| 12                   | 1031846  | FTG-ADAPTER: 12MP-8MJ                  | 1   |
| 13                   | 1041081  | CAP-FILLER 3/4" NPT                    | 1   |
| 14                   | 1041082  | GAUGE-LEVEL & TEMP 5" X 1.2" NC        | 1   |
| 15                   | 1030948  | FTG-PLUG: 4MP                          | 1   |
| 16                   | 56226    | FTG-ADAPTER: 8MB-8MJ                   | 1   |
| 17                   | 58560    | FTG-ELBOW: 8MB-8MJ-90                  | 1   |
| 18                   | 58557    | FTG-ELBOW: 8MB-6MJ-90                  | 1   |
| 19                   | 1041079  | FTG-ELBOW: 4MB-4MJ-90                  | 1   |
| 20                   | 37259    | FTG-ADAPTER: 6MB-6MJ                   | 2   |
| 21                   | 57897    | FTG-ELBOW: 6MJ-6FJX-90                 | 2   |
| 22                   | 301175   | GUAGE-PRESSURE: 1/4" MB 3000 PSI       | 1   |
| 23                   | 58690    | FILTER-HEAD 4"                         | 1   |
| 24                   | 1041077  | FILTER-HYDRAULIC 4" 10 MICRON          | 1   |
| 25                   | 57664    | FTG-ELBOW: 12MP-8MJ-90                 | 1   |
| 26                   | 1011597  | BOLT-HEX: .31 X .75 NC GR5 ZP          | 4   |
| 27                   | 1029115  | WASHER-LOCK: .31 ZP                    | 10  |
| 28                   | 1011582  | WASHER-FLAT: SAE .31 ZP                | 13  |
| 29                   | 1011598  | BOLT-HEX: .31 X 1.00 NC GR5 ZP         | 2   |
| 30                   | 1011197  | BOLT-HEX: .31 X 1.00 NF                | 4   |
| 31                   | 1014124  | BOLT-HEX: .31 X 1.50 NC GR5 ZP         | 4   |
| 32                   | 59488    | BOLT-CRG: .38 X 1.00 NC GR5 ZP         | 6   |
| 33                   | 1041058  | WLDMT-POWER UNIT FRAME                 | 1   |
| 34                   | 1041047  | WLDMT-SOIL SAMPLER HYD TANK PAINTED    | 1   |
| 35                   | 1041065  | ENGINE-GAS 5.5HP HONDA GX200           | 1   |
| 36                   | 1041066  | ADAPTER-GAS ENGINE TO HYD PUMP         | 1   |
| 37                   | 1041067  | PUMP- .25^3 SAE AA (CW) (2900PSI)      | 1   |

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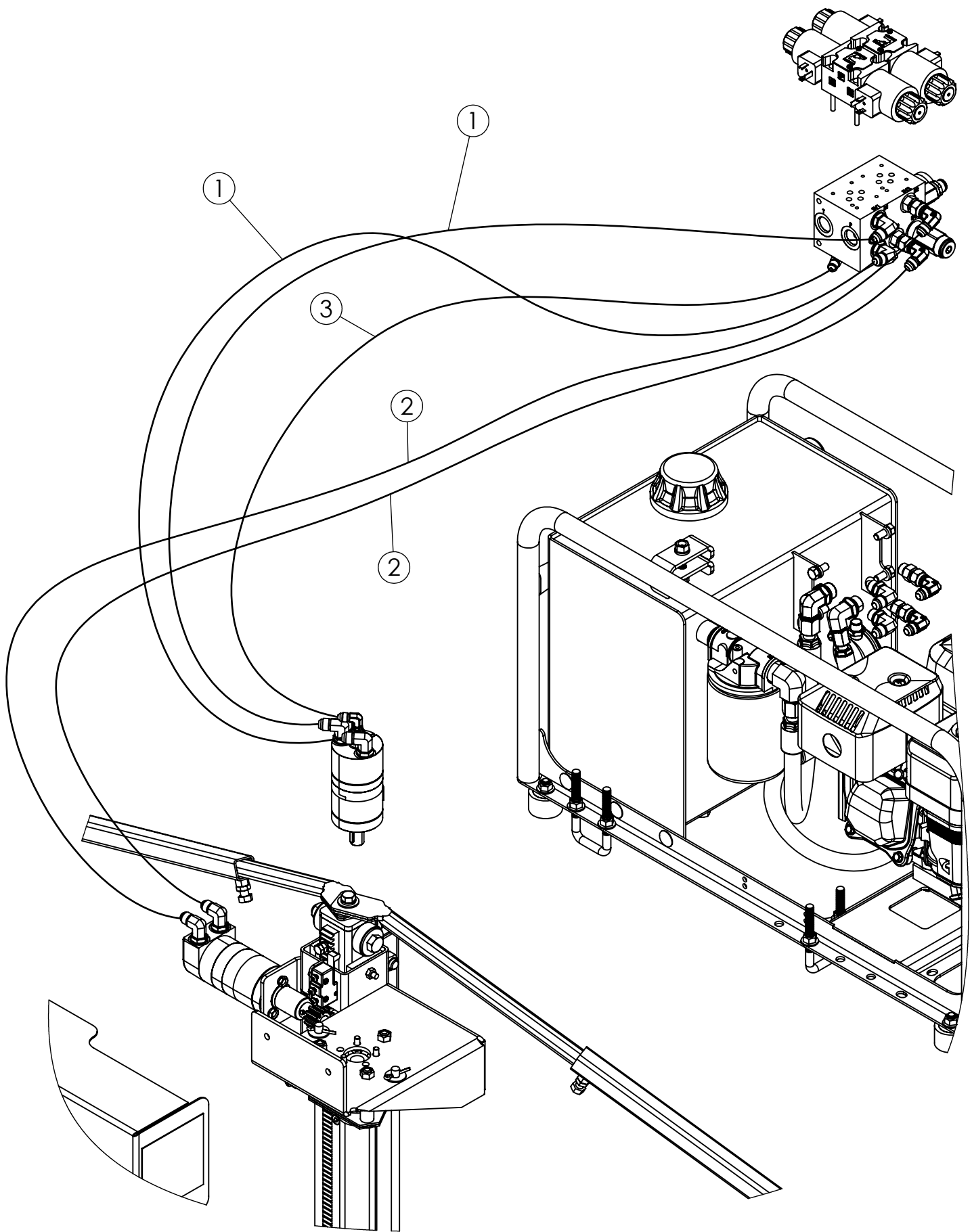


| <b>HYDRAULIC POWER UNIT (CONTINUED)</b> |                 |                                           |            |
|-----------------------------------------|-----------------|-------------------------------------------|------------|
| <b>ITEM</b>                             | <b>PART NO.</b> | <b>DESCRIPTION</b>                        | <b>QTY</b> |
| 38                                      | 1041068         | ASSY-COUPLER 3/4" TO 1/2"                 | 1          |
| 39                                      | 1041072         | VALVE-SOIL SAMPLER                        | 1          |
| 40                                      | 300249          | P-CLIP .38 X .313                         | 2          |
| 41                                      | 1041084         | GROMMET- .375 ID X .625 HOLE X .125 THICK | 2          |
| 42                                      | 67505           | HOSE: .38 X 018 6FJX-6FJX                 | 1          |
| 43                                      | 44174           | HOSE: .50 X 024 8FJX-8FJX                 | 2          |



## VALVE ASSEMBLY (1041072)

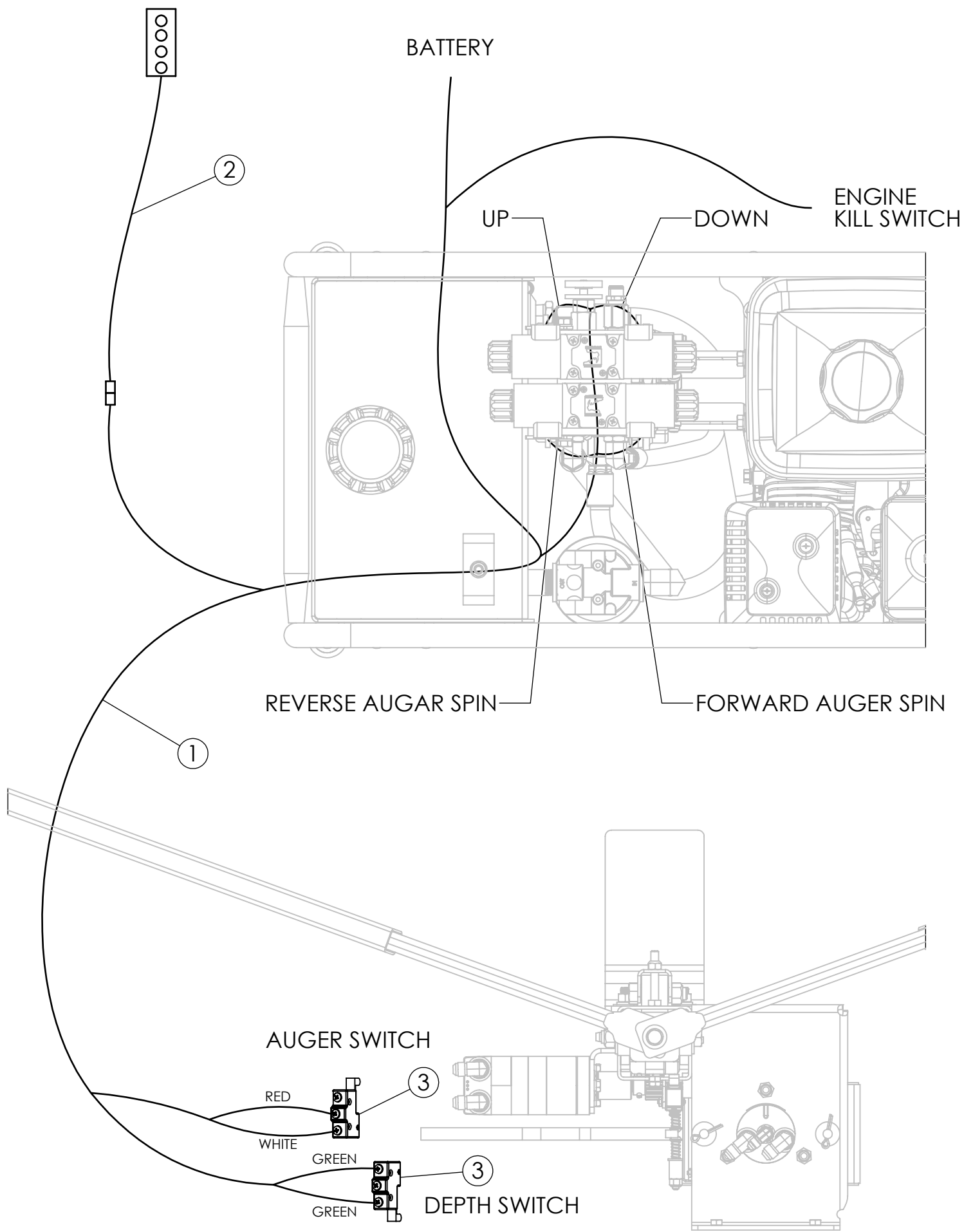
| ITEM | PART NO. | DESCRIPTION                                 | QTY |
|------|----------|---------------------------------------------|-----|
| 1    | 1041073  | BLOCK-SOIL SAMPLER                          | 1   |
| 2    | 1041074  | VALVE-RELIEF VALVE 2000PSI                  | 1   |
| 3    | 1041075  | VALVE-ADJ NEEDLE VALVE (PRESSURE COMP)      | 1   |
| 4    | 1041076  | VALVE-3 POS-4 WAY DIRECTIONAL VALVE         | 2   |
| 5    | 1040925  | SCREW: P-H-PHILLIPS, 10-24 X 2.00"          | 8   |
| 6    | 1041116  | CARTRIDGE- #8 RELIEF VALVE (700 PSI PRESET) | 1   |





## HYDRAULIC HOSES

| ITEM | PART NO. | DESCRIPTION               | QTY |
|------|----------|---------------------------|-----|
| 1    | 1041111  | HOSE: .38 X 103 6FJX-6FJX | 2   |
| 2    | 1041112  | HOSE: .38 X 090 6FJX-6FJX | 2   |
| 3    | 1041117  | HOSE: .25 X 103 4FJX-4FJX | 1   |



## WIRING HARNESSES

| ITEM | PART NO. | DESCRIPTION                  | QTY |
|------|----------|------------------------------|-----|
| 1    | 1041085  | HARNESS-SOIL SAMPLER MAIN    | 1   |
| 2    | 1041086  | HARNESS-SOIL SAMPLER PENDANT | 1   |
| 3    | 1040315  | SWITCH: SNAP ACTION          | 2   |