

PARTS MANUAL

2022
SOIL SAMPLER

MODELS
3012, 3024, 3036



2800 7th Avenue North
Fargo, ND 58108

Phone: (701) 232-4199
Fax: (701) 234-1716
[Www.amitytech.com](http://www.amitytech.com)

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 7th 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]

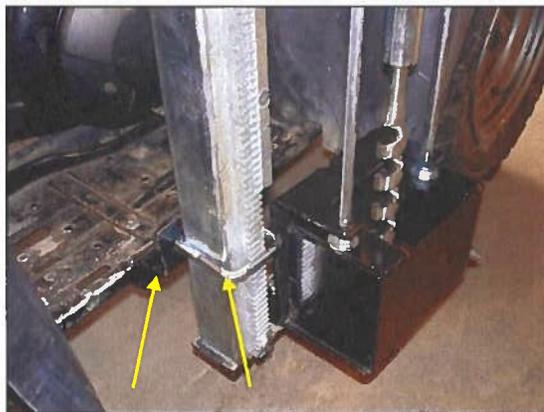


Figure 1

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]

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 and hardware. **[Figure 3]**



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.

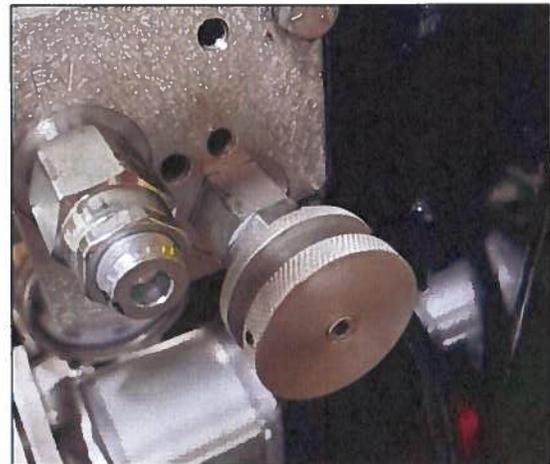


Figure 4

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.



Figure 5

WARNING: ENGINE WILL STOP IMMEDIATELY WHEN OIL LEVEL IS LOW
[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 ¼ 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

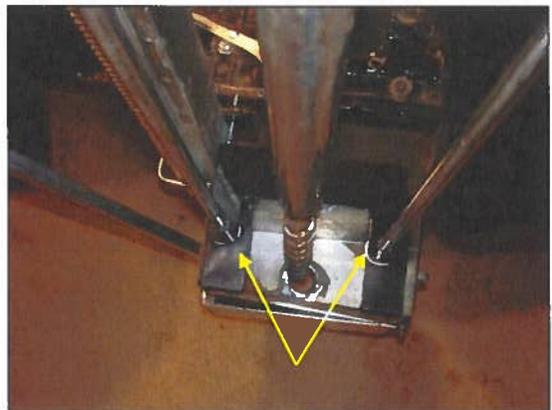


Figure 7

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.

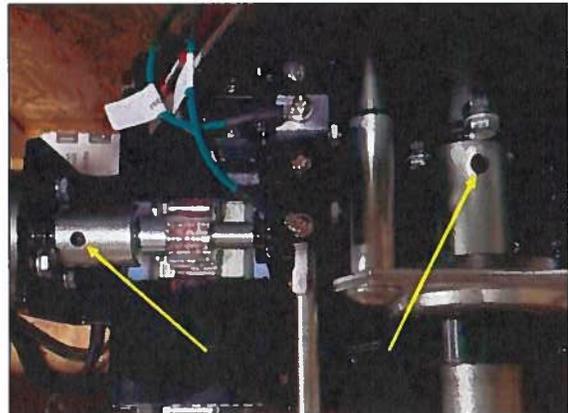
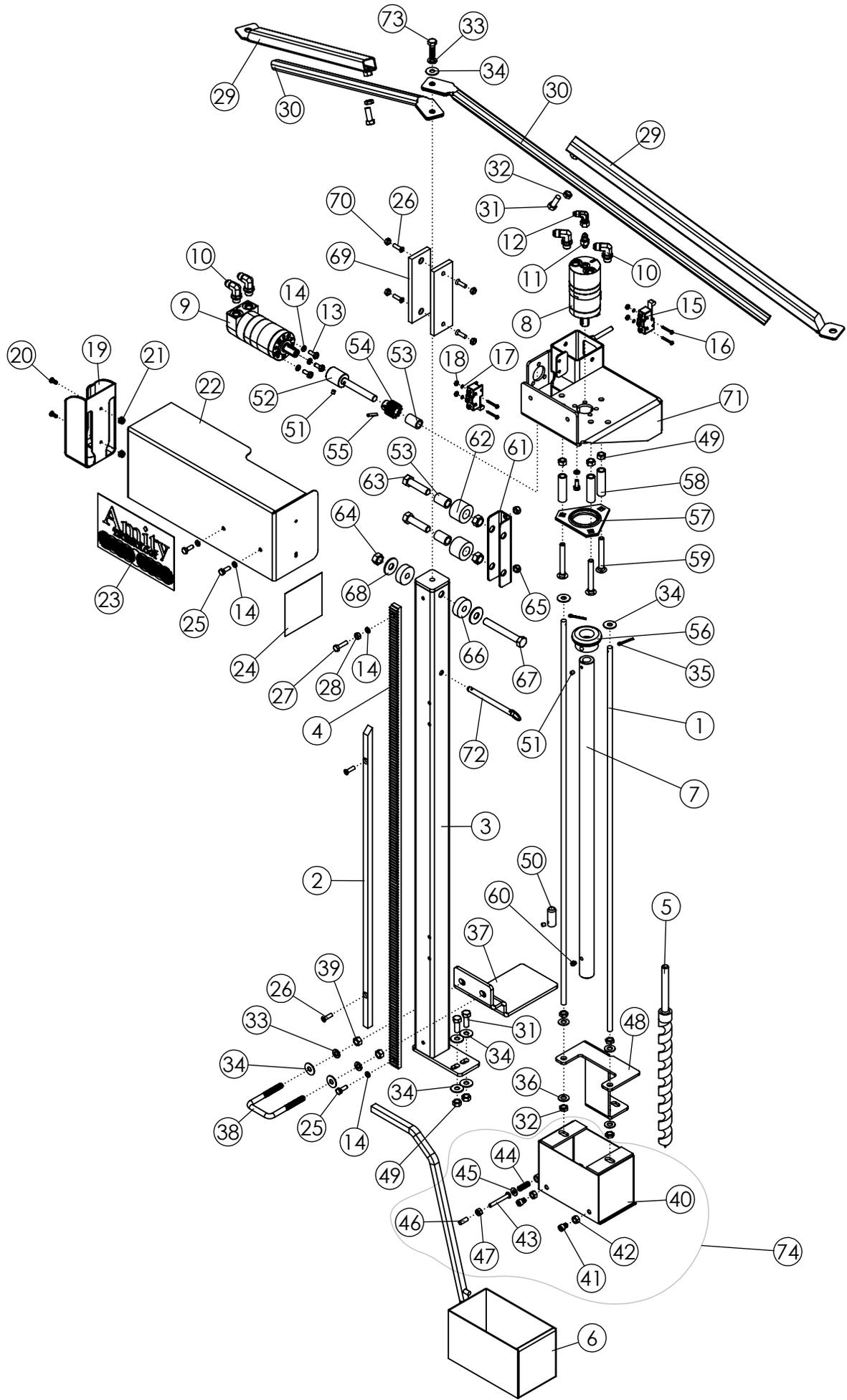


Figure 9

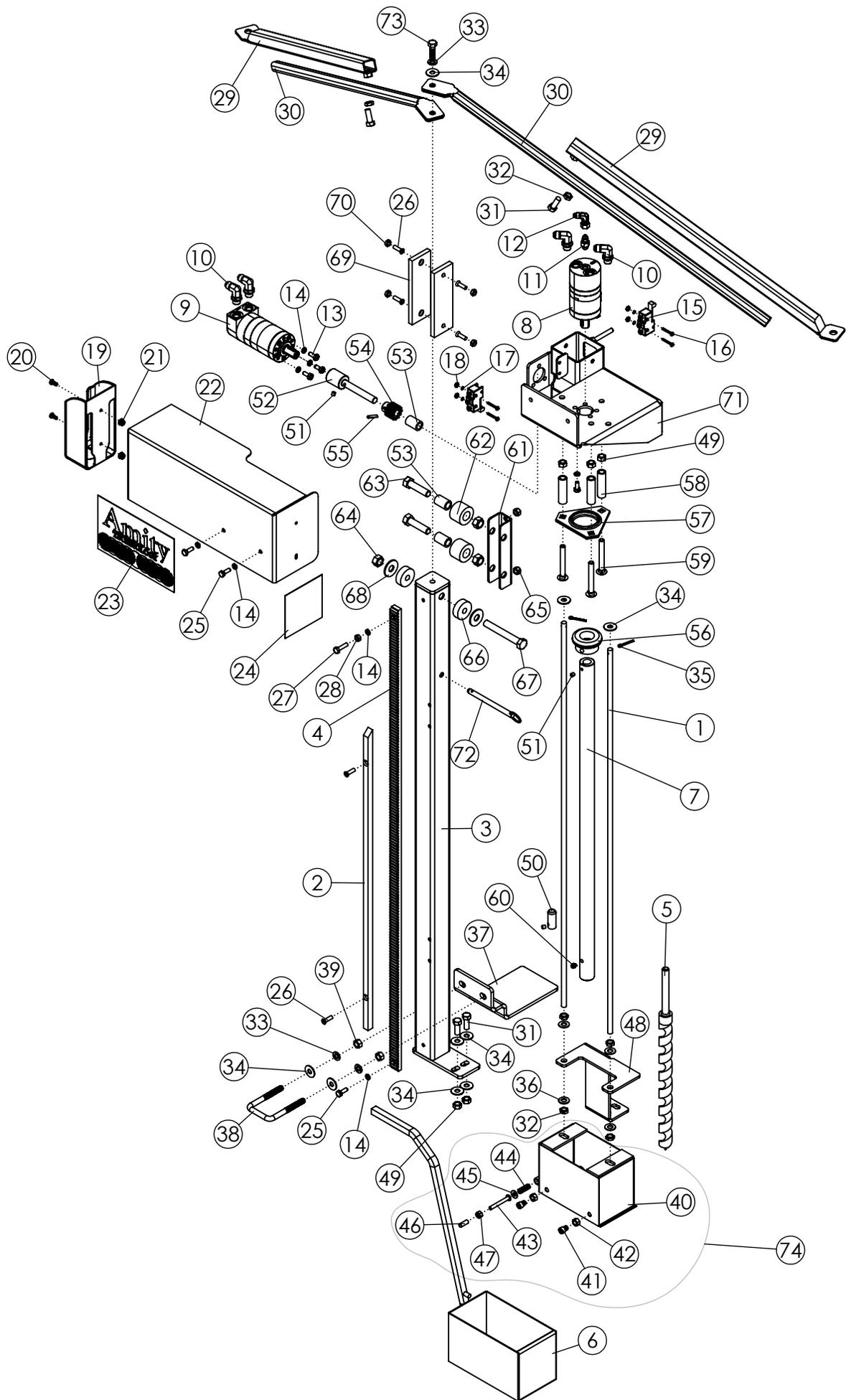
TABLE OF CONTENTS

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 ³ /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

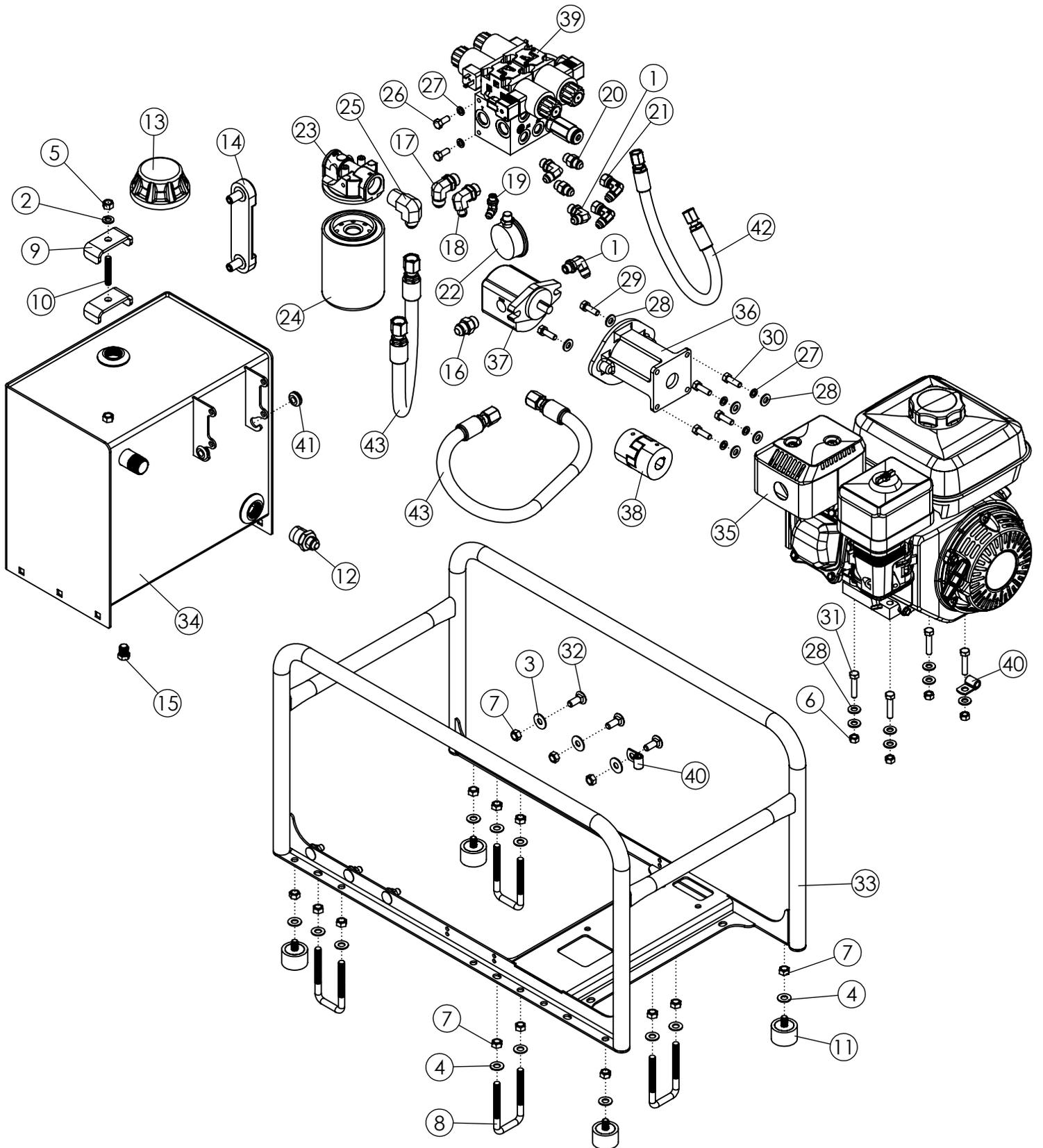
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TOWER ASSEMBLY (CONTINUED)

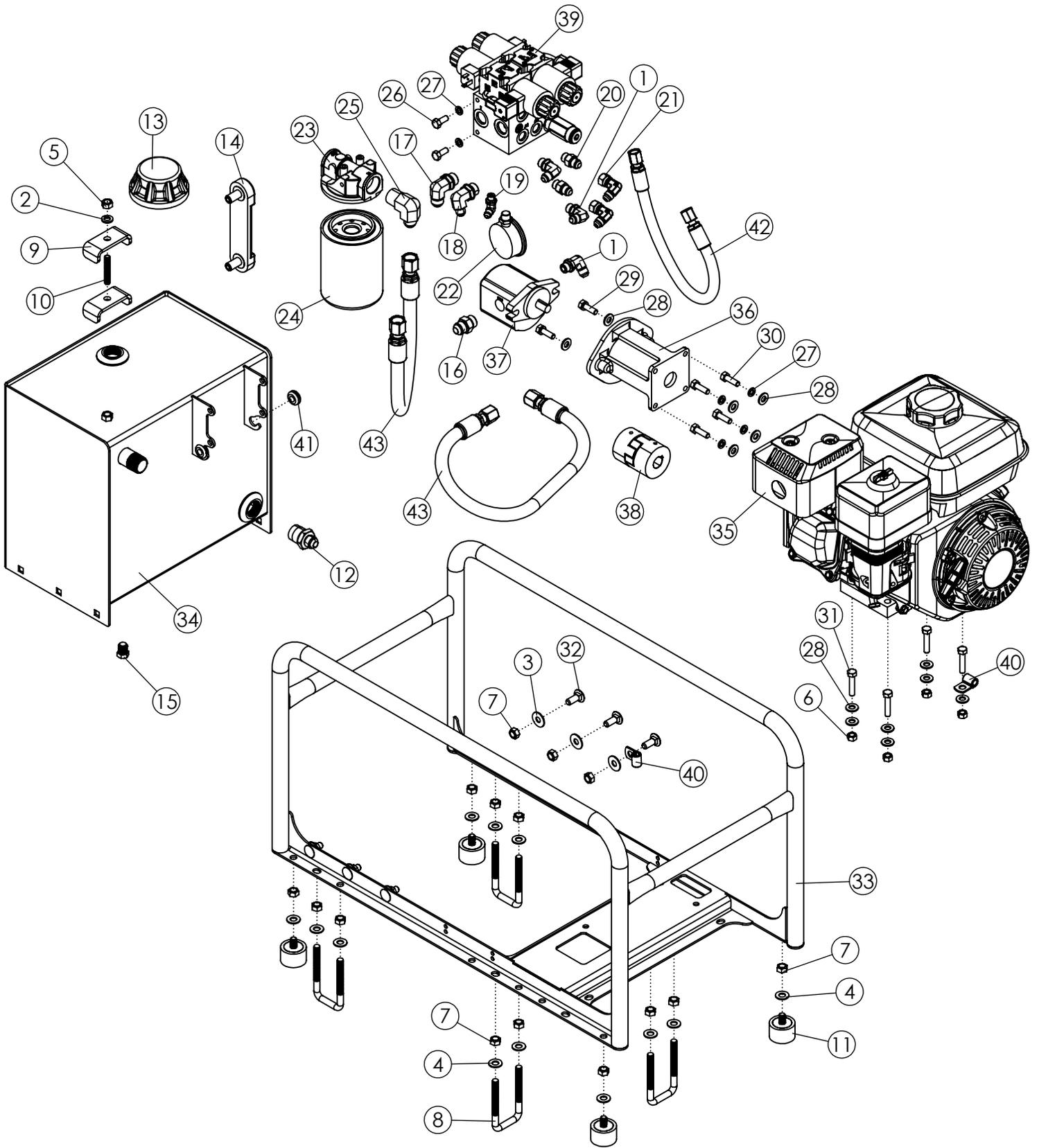
ITEM	PART NO.	DESCRIPTION	QTY
37	1040431	MOUNT-FOOT REST	1
38	1040468	U-BOLT: .38 X 3.50 X 2.00 X 3.50 ZP	1
39	1011576	NUT-HEX: .38 NC GR2 ZP	2
40	1040292*	WLDMT-LATCH BOX	1
41	1042048*	SCREW-SOCKET HD CAP .313 NC X .38	4
42	1030700*	NUT-TOPLOCK: .31 NC GR5 ZP	4
43	1040304*	LATCH BOLT 1/4"	2
44	1040306*	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



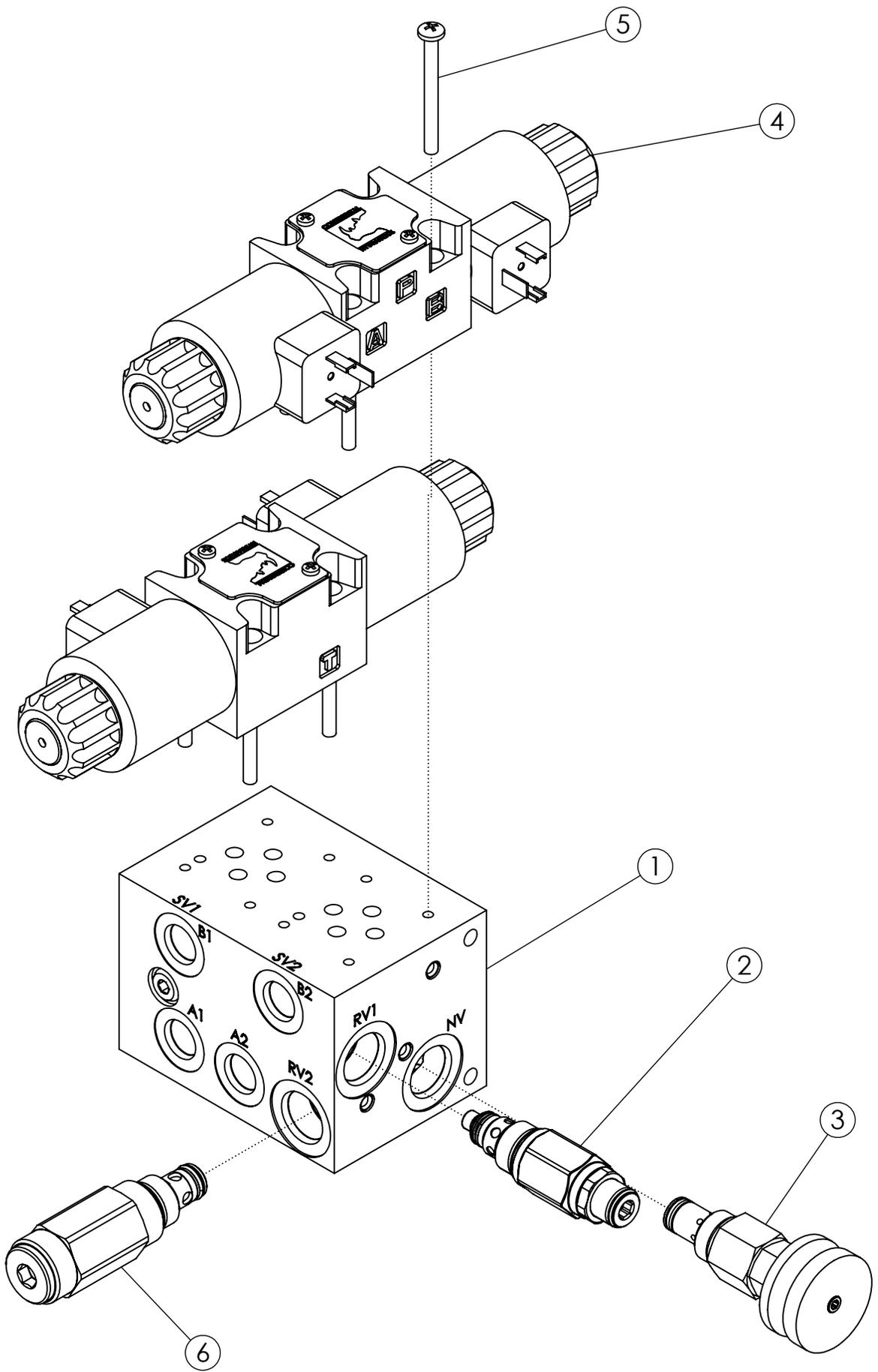
HYDRAULIC POWER UNIT			
ITEM	PART NO.	DESCRIPTION	QTY
1	57754	FTG-ELBOW: 6MB-6M J 90	3
2	1011586	WASHER-LOCK: .38 ZP	1
3	1011828	WHASER-FLAT .38 ZP	6
4	1014608	WASHER-FLT: SAE .38 ZP	12
5	1011576	NUT-HEX: .38 NC GR2 ZP	1
6	1030700	NUT-TOPLOCK: .31 NC GR5 ZP	4
7	1016999	NUT-TOPLOCK: .38 NC GR5 ZP	18
8	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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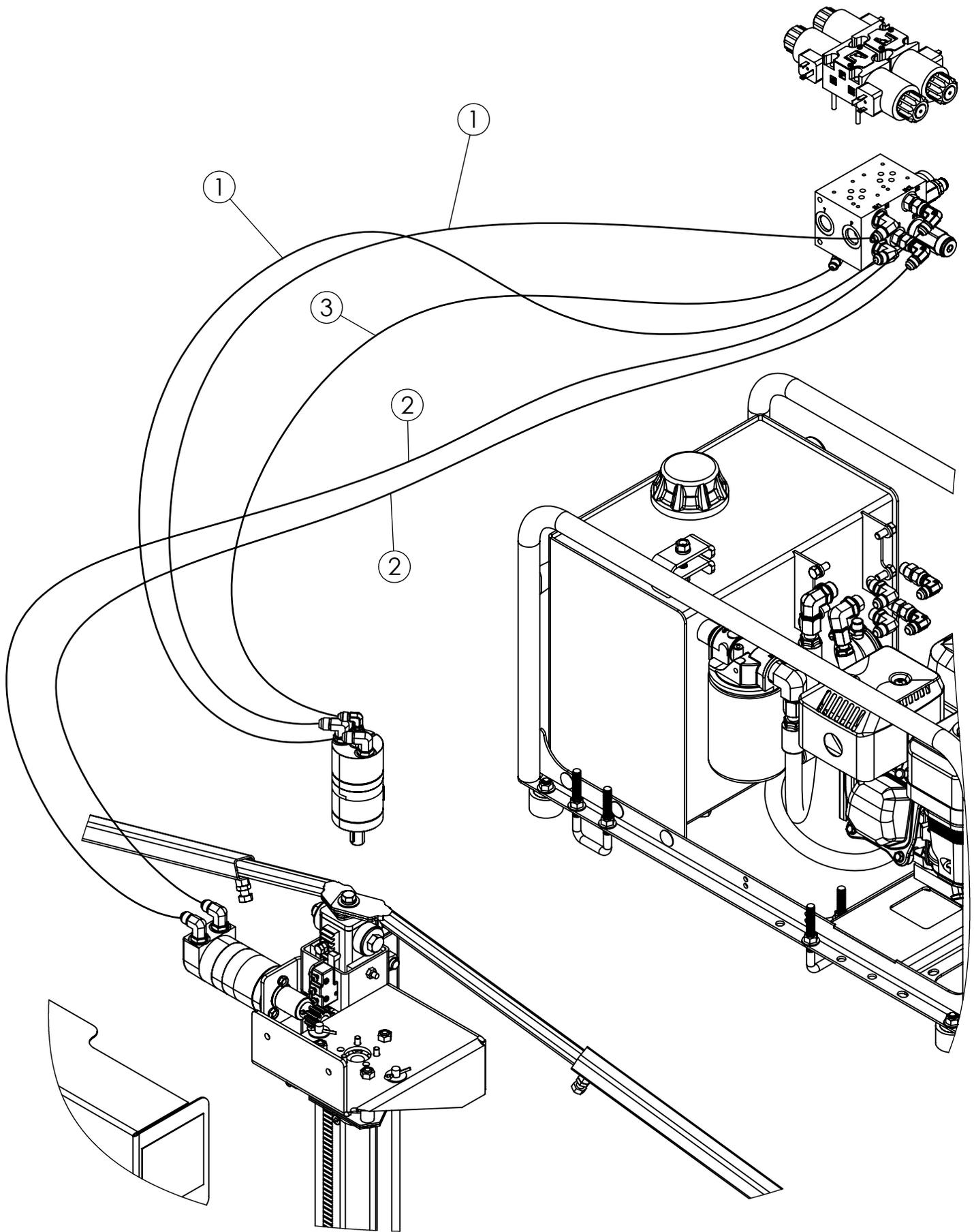
HYDRAULIC POWER UNIT (CONTINUED)

ITEM	PART NO.	DESCRIPTION	QTY
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



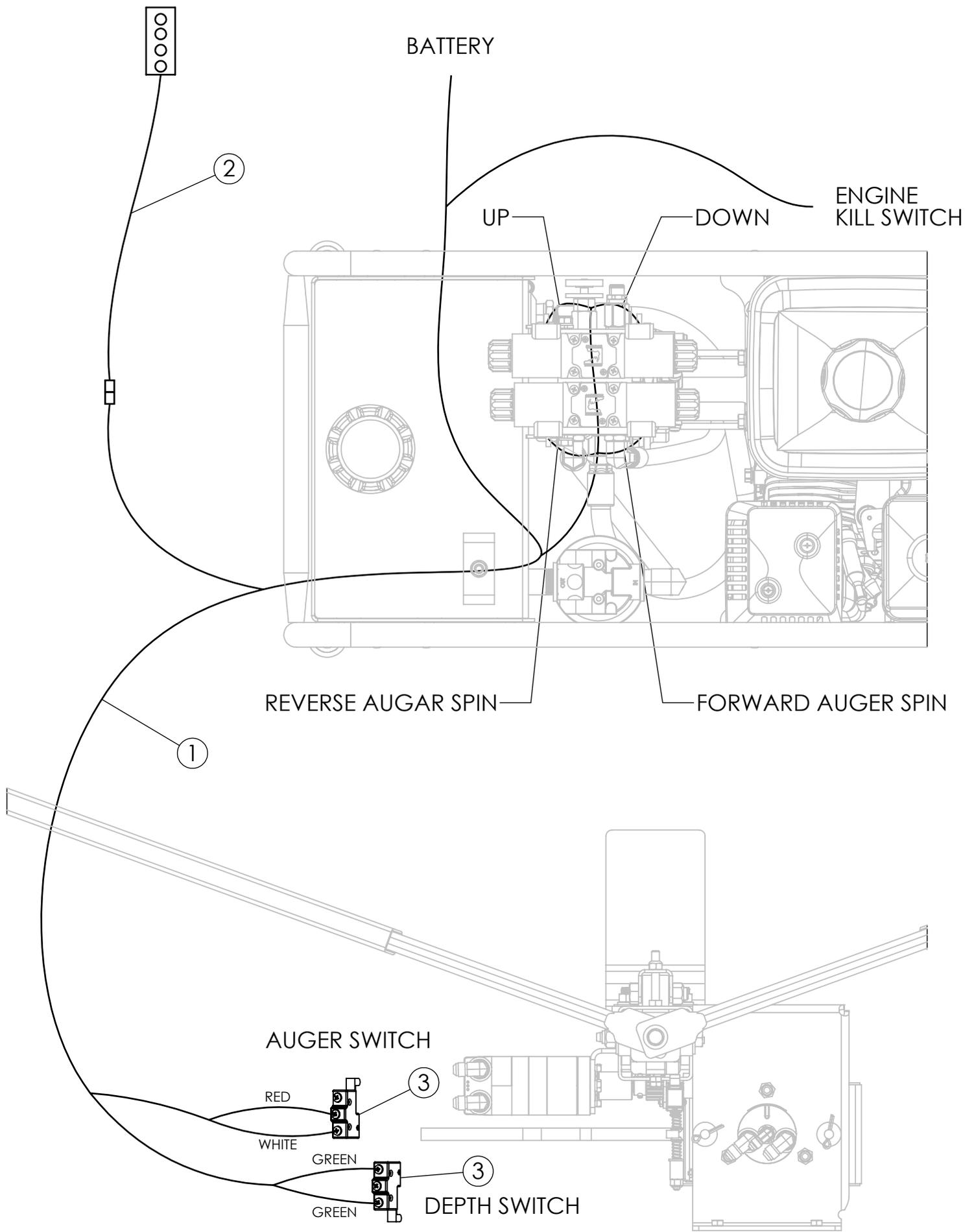
VALVE ASSEMBLY (1041072)

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