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# HPU-750 Portable Hydraulic Power Unit User's Manual



E.H. Wachs Company Part No. 79-405-MAN  
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# Chapter 1

## About the HPU-750

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### PURPOSE OF THIS MANUAL

This manual explains how to operate and maintain the HPU-750 portable hydraulic power unit. It includes instructions for set-up, operation, and maintenance. It also contains parts lists, diagrams, and service information to help you order replacement parts and perform user-serviceable repairs.

Before operating the HPU-750, you should read through this manual and become familiar with all instructions. You should also read the manual for the gas engine that powers the HPU; it describes how to service and maintain the engine.

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### HOW TO USE THE MANUAL

This manual is organized to help you quickly find the information you need. Each chapter describes a specific topic on using or maintaining your equipment.

Each page is designed with two columns. This large column on the inside of the page contains instructions and illustrations. Use these instructions to operate and maintain the equipment.

The narrower column on the outside contains additional information such as warnings, special notes, and definitions. Refer to it for safety notes and other information.

### In This Chapter

PURPOSE OF THIS MANUAL  
HOW TO USE THE MANUAL  
SYMBOLS AND WARNINGS  
MANUAL UPDATES AND  
REVISION TRACKING  
EQUIPMENT DESCRIPTION

Throughout this manual, refer to this column for warnings, cautions, and notices with supplementary information.

## SYMBOLS AND WARNINGS

The following symbols are used throughout this manual to indicate special notes and warnings. They appear in the outside column of the page, next to the section they refer to. Make sure you understand what each symbol means, and follow all instructions for cautions and warnings.



### WARNING

A WARNING alert with the safety alert symbol indicates a potentially hazardous situation that **could** result in **serious injury or death**.



This is the **safety alert symbol**. It is used to alert you to **potential personal injury hazards**. Obey all safety messages that follow this symbol to avoid possible injury or death.



### CAUTION

A CAUTION alert with the safety alert symbol indicates a potentially hazardous situation that **could** result in **minor or moderate injury**.



### CAUTION

A CAUTION alert with the damage alert symbol indicates a situation that **will** result in **damage to the equipment**.



This is the **equipment damage alert symbol**. It is used to alert you to **potential equipment damage situations**. Obey all messages that follow this symbol to avoid damaging the equipment or workpiece on which it is operating.



### IMPORTANT

An IMPORTANT alert with the damage alert symbol indicates a situation that **may** result in **damage to the equipment**.

## NOTE

This symbol indicates a user note. **Notes** provide additional information to supplement the instructions, or tips for easier operation.



## NOTE

A NOTE provides supplementary information or operating tips.

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## MANUAL UPDATES AND REVISION TRACKING

Occasionally, we will update manuals with improved operation or maintenance procedures, or with corrections if necessary. When a manual is revised, we will update the revision history on the title page.

You may have factory service or upgrades performed on the equipment. If this service changes any technical data or operation and maintenance procedures, we will include a revised manual when we return the equipment to you.

Current versions of E.H. Wachs Company manuals are also available in PDF format. You can request an electronic copy of this manual by emailing customer service at [sales@wachsco.com](mailto:sales@wachsco.com).

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## EQUIPMENT DESCRIPTION

The Powerpack HPU is designed to supply hydraulic power to the Wachs ERV-750 valve operator, other Wachs utility tools (except the Trav-L-Cutter), or any HTMA Class II hydraulic tool. It supplies 8 gallons per minute (gpm) flow at a pressure of 2000 psi.

Figure 1-1 shows the components of the Powerpack. Figure 1-2 illustrates the front panel controls. Figure 1-3 shows the engine controls.

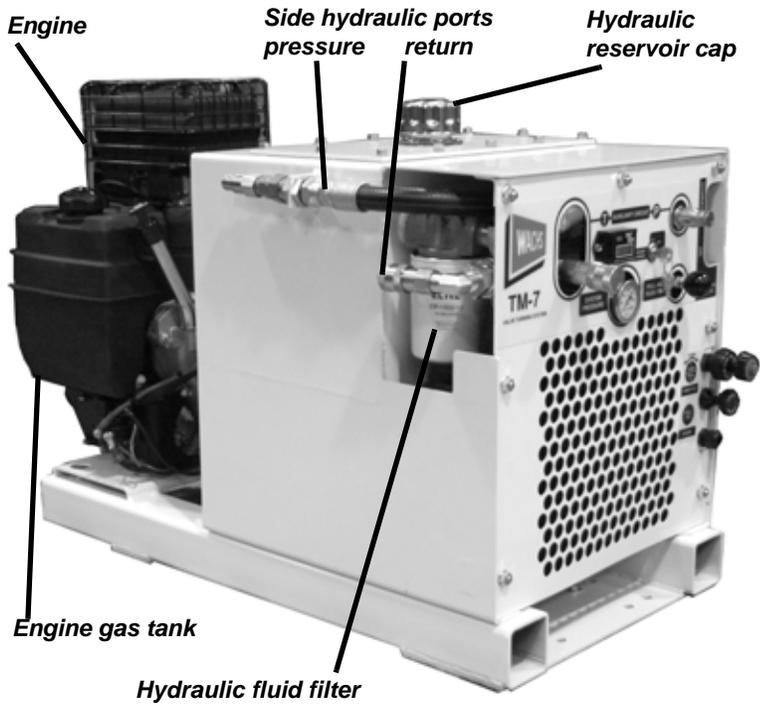


Figure 1-1. The photo shows the major components of the Powerpack HPU.

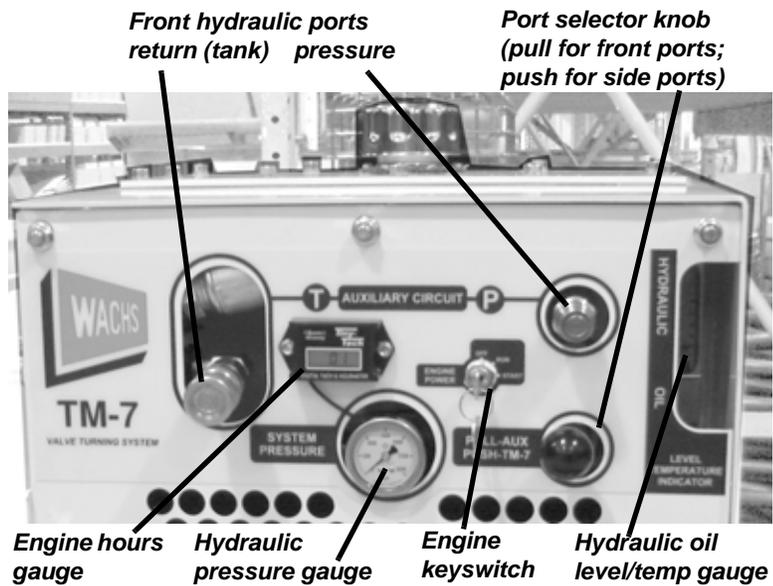


Figure 1-2. The photo shows the HPU front panel.

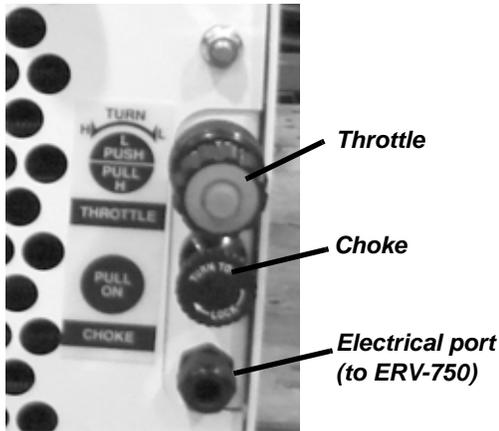


Figure 1-3. The photo shows the front panel engine controls.

### Specifications

Hydraulic supply	8 gpm at 2000 psi
Engine performance	15 horsepower 1500 lb-ft at 2000 psi 4 hour fuel endurance
Hydraulic reservoir	10 gallons (37.8 l)
Filtration	10 micron canister filter
Finish	Powder coated white
Weight:	265 lb.



## Chapter 2

# Safety

The E.H. Wachs Company takes great pride in designing and manufacturing safe, high-quality products. We make user safety a top priority in the design of all our products.

Read this chapter carefully before operating the HPU-750. It contains important safety instructions and recommendations.

Also refer to safety information in the manual for the gas engine.

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### OPERATOR SAFETY

Follow these guidelines for safe operation of the equipment.

- **READ THE OPERATING MANUAL.** Make sure you understand all setup and operating instructions before you begin.
- **INSPECT MACHINE AND ACCESSORIES.** Before starting the machine, look for loose bolts or nuts, leaking lubricant, rusted components, and any other physical conditions that may affect operation. Properly maintaining the machine can greatly decrease the chances for injury.
- **ALWAYS READ PLACARDS AND LABELS.** Make sure all placards, labels, and stickers are clearly legible and in good condition. You can purchase replacement labels from E.H. Wachs Company.

### In This Chapter

OPERATOR SAFETY

SAFETY LABELS

MACHINE SAFETY



Look for this symbol throughout the manual. It indicates a personal injury hazard.

- **KEEP CLEAR OF MOVING PARTS.** Keep hands, arms, and fingers clear of all rotating or moving parts. Always turn machine off before doing any adjustments or service.
- **SECURE LOOSE CLOTHING AND JEWELRY.** Secure or remove loose-fitting clothing and jewelry, and securely bind long hair, to prevent them from getting caught in moving parts of the machine.
- **KEEP WORK AREA CLEAR.** Keep all clutter and nonessential materials out of the work area. Only people directly involved with the work being performed should have access to the area.

### Safety Symbols



This icon is displayed with any safety alert that indicates a personal injury hazard.

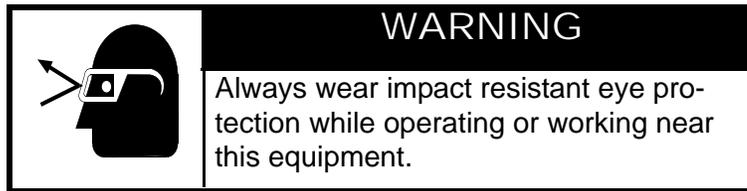
### WARNING

This safety alert indicates a potentially hazardous situation that, if not avoided, **could** result in **death or serious injury**.

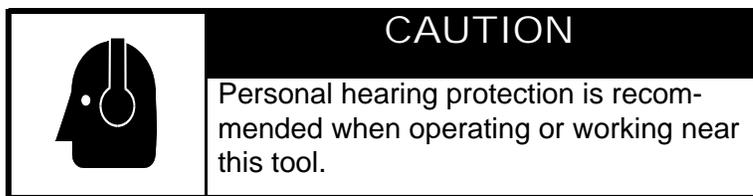
### CAUTION

This safety alert, with the personal injury hazard symbol, indicates a potentially hazardous situation that, if not avoided, **could** result in **minor or moderate injury**.

## Protective Equipment Requirements



For additional information on eye and face protection, refer to Federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.133., Eye and Face Protection and American National Standards Institute, ANSI Z87.1, Occupational and Educational Eye and Face Protection. Z87.1 is available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.



Hearing protectors are required in high noise areas, 85 dBA or greater. The operation of other tools and equipment in the area, reflective surfaces, process noises, and resonant structures can increase the noise level in the area. For additional information on hearing protection, refer to Federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.95, Occupational Noise Exposure and ANSI S12.6 Hearing Protectors.

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## SAFETY LABELS

There is no safety labeling on the HPU-750.

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## **MACHINE SAFETY**

To avoid damaging the equipment, follow these usage guidelines.

- Make sure the hydraulic fluid is clean and that there is no air in the hydraulic system.
- Make sure that the engine has oil and is running properly. Follow the engine maintenance schedule in the engine manual.
- Make sure that all hydraulic connections are secure.

## Chapter 3

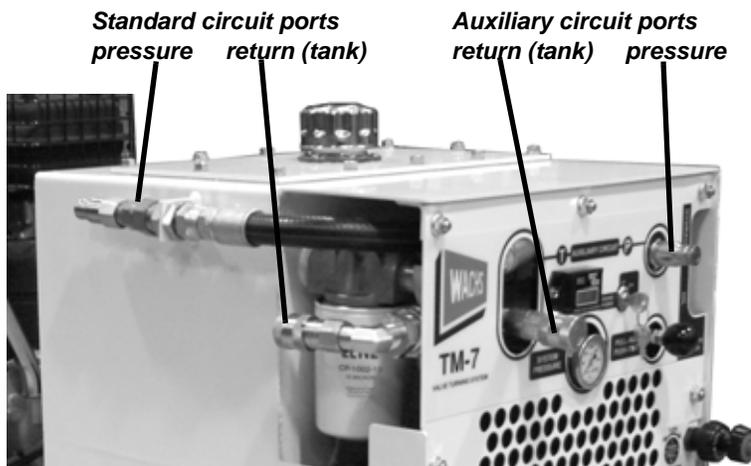
# Operating Instructions

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### CONNECTING THE HYDRAULIC HOSES

You can use **either** the standard hydraulic circuit ports on the side of the HPU, or the auxiliary circuit ports on the front—not both.

1. Connect the hydraulic hoses to one of the circuits on the HPU.



*Figure 3-1. Connect the hydraulic hoses to **only one** circuit on the HPU.*

2. If you are using the standard circuit (side connectors), push the port selector knob **in**. (This option is labeled “TM-7” on the front panel.)

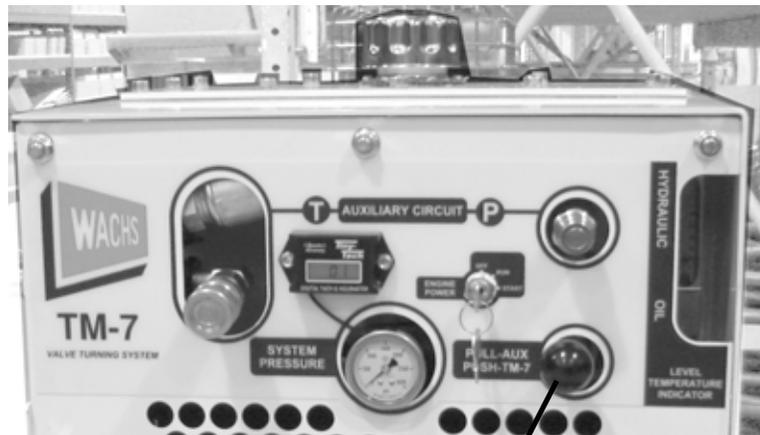
### In This Chapter

CONNECTING THE HYDRAULIC HOSES

STARTING THE ENGINE

OPERATING THE HPU

3. If you are using the auxiliary circuit (front connectors), pull the port selector knob **out**.



**Port selector knob**

**Push in when using standard (side) ports.  
Pull out when using auxiliary (front) ports.**

*Figure 3-2. Set the port selector knob for the circuit you are using.*

4. Connect the other ends of the hoses to the ERV-750 or other tool you are using.

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## STARTING THE ENGINE

1. Check that there is enough fuel in the gas tank for the job you are performing.
2. Open the fuel valve on the engine fuel line.
3. Pull the throttle halfway out.
4. If the engine is cold, pull the choke out.
5. Turn the keyswitch on the front panel to **START**. When the engine starts, release the keyswitch back to the **ON** position.
6. Allow the engine to run for a minute or so to warm up. Push the choke back in.



### CAUTION

Use short starting cycles with the keyswitch. Prolonged cranking (more than 15 seconds) can damage the starter motor.

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## **OPERATING THE HPU**

The HPU does not have built-in flow control. To adjust flow, you will need to use the controls on the tool you are operating, or use a flow control valve.

1. Set the throttle so that the system pressure gauge displays the pressure you need for the tool you are operating.
2. Use the controls on the hydraulic tool to adjust the flow rate. If necessary, adjust the pressure using the throttle on the HPU.



# Chapter 4

## Maintenance

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### HYDRAULIC SYSTEM

1. Check the hydraulic oil level every time you use the HPU. Add oil if necessary. Keep the oil level at the full mark on the gauge.
2. Change the hydraulic oil filter once per year.
3. Change the hydraulic oil (Mobil, DTE Light, or equivalent) every two years.
4. Check the oil temperature as the pump is operating. If the temperature exceeds 180° F, the oil will break down, and continued operation will damage the pump. Replace the oil if it exceeds 180° F, and check to make sure that the cooler is working.

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### ENGINE

Refer to the manufacturer's manual supplied with the engine for maintenance schedules and instructions.

Check the engine oil level every time you use the HPU-750, and add oil if necessary.

### In This Chapter

HYDRAULIC SYSTEM

ENGINE



## Chapter 5

# Parts List and Ordering Information

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### ORDERING INFORMATION

To place an order, request service, or get more detailed information on any E.H. Wachs Company products, call us at one of the following numbers:

U.S. 800-323-8185

International: 847-537-8800

You can also visit our Web site at:

[www.wachsco.com](http://www.wachsco.com)

### Ordering Replacement Parts

When ordering parts, refer to the parts lists in this chapter. Please provide the part description and part number for all parts you are ordering.

### Repair Information

Please call us for an authorization number before returning any equipment for repair or factory service. We will advise you of shipping and handling. When you send the equipment, please include the following information:

- Your name/company name
- Your address
- Your phone number

### In This Chapter

ORDERING INFORMATION

PARTS LISTS AND DRAWINGS

- A description of the problem or the work to be done.

Before we perform any repair, we will estimate the work and inform you of the cost and the time to complete it.

### Warranty Information

Enclosed with the manual is a warranty card. Please fill out the registration card and return to E.H. Wachs Company. Retain the owner's registration record and warranty card for your information.

### Return Goods Address

Return equipment for repair to the following address.

E.H. Wachs Company  
600 Knightsbridge Parkway  
Lincolnshire, Illinois 60069 USA

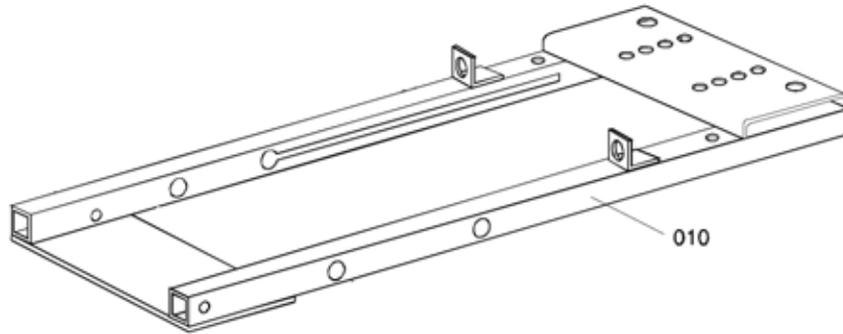
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## PARTS LISTS AND DRAWINGS

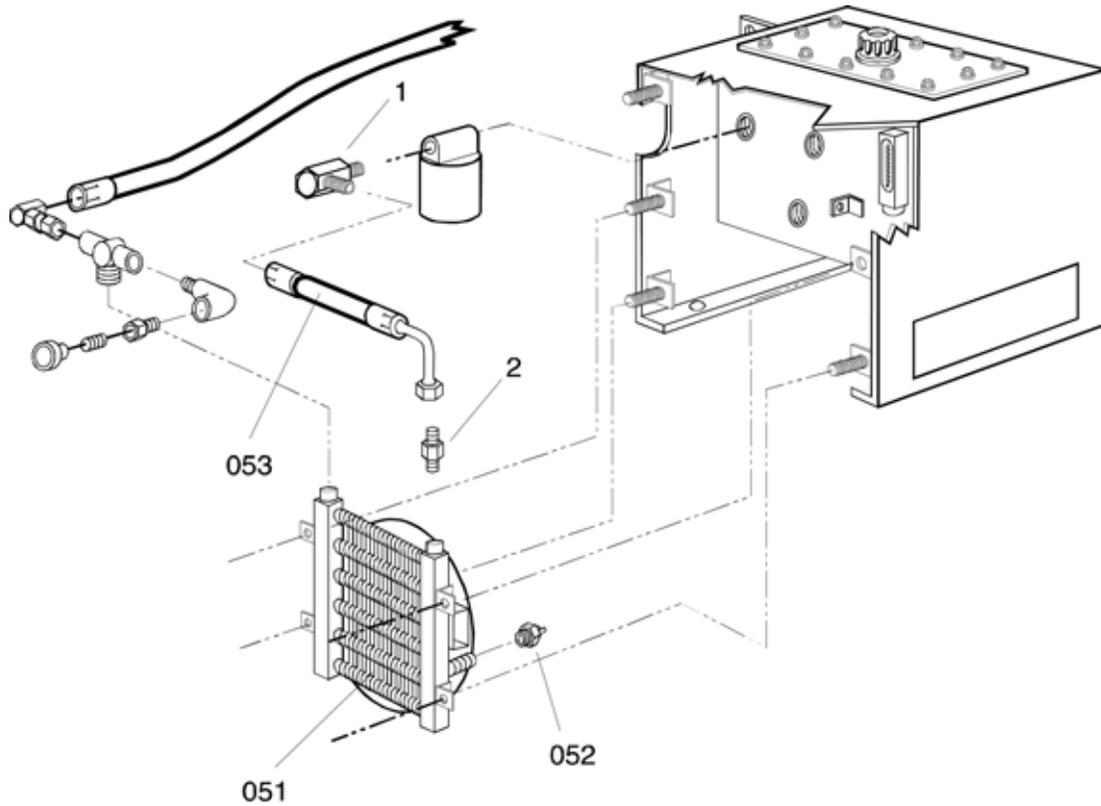
The following pages illustrate components of the HPU-750. Refer to the figures to identify parts for ordering.

**Table 1: HPU-750 Assemblies**

Qty.	Part No.	Description
1	17-135-00	Weldment, HPU-750 Frame
1	17-302-01	Tank for HPU-750
1	17-401-00	Cooler
1	17-402-00	15 HP Gas Hydraulic Supply



17-135-00, Frame Weldment



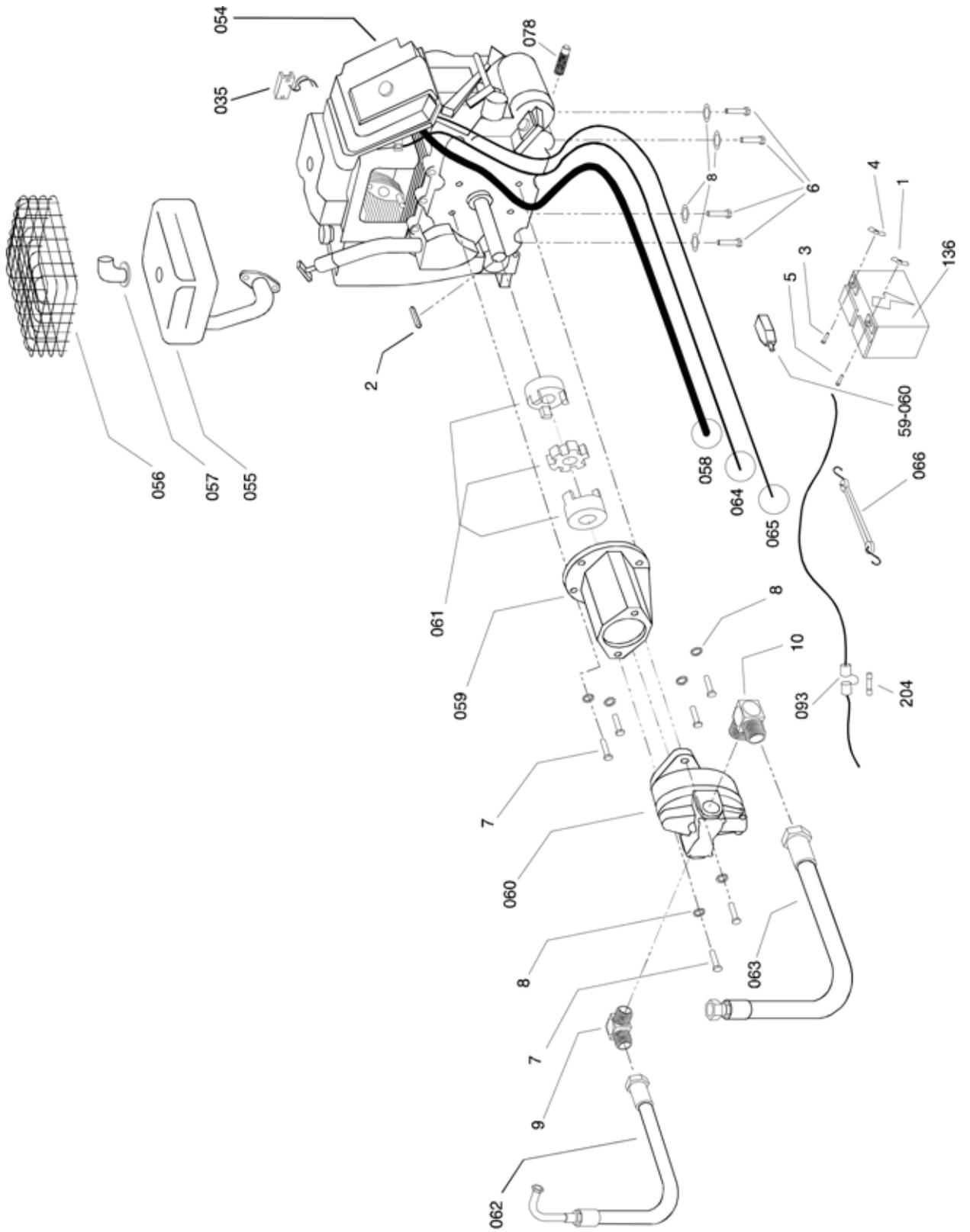
### AUXILLIARY COOLER ASSEMBLY

\* indicates part not shown in exploded view

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
051	17-051-00	Oil Cooler	1
052	17-052-00	Thermostat Switch	1
053	17-053-00	Cooler Hose	1
1	90-238-57	1" NPT-1"JIC Male EL	1
2	90-238-59	NPT-JIC 1" Adapter	1
3	90-501-42	16 Ga. Bullet-M Terminal*	1
4	90-501-43	16 Ga. Bullet-F Terminal*	1

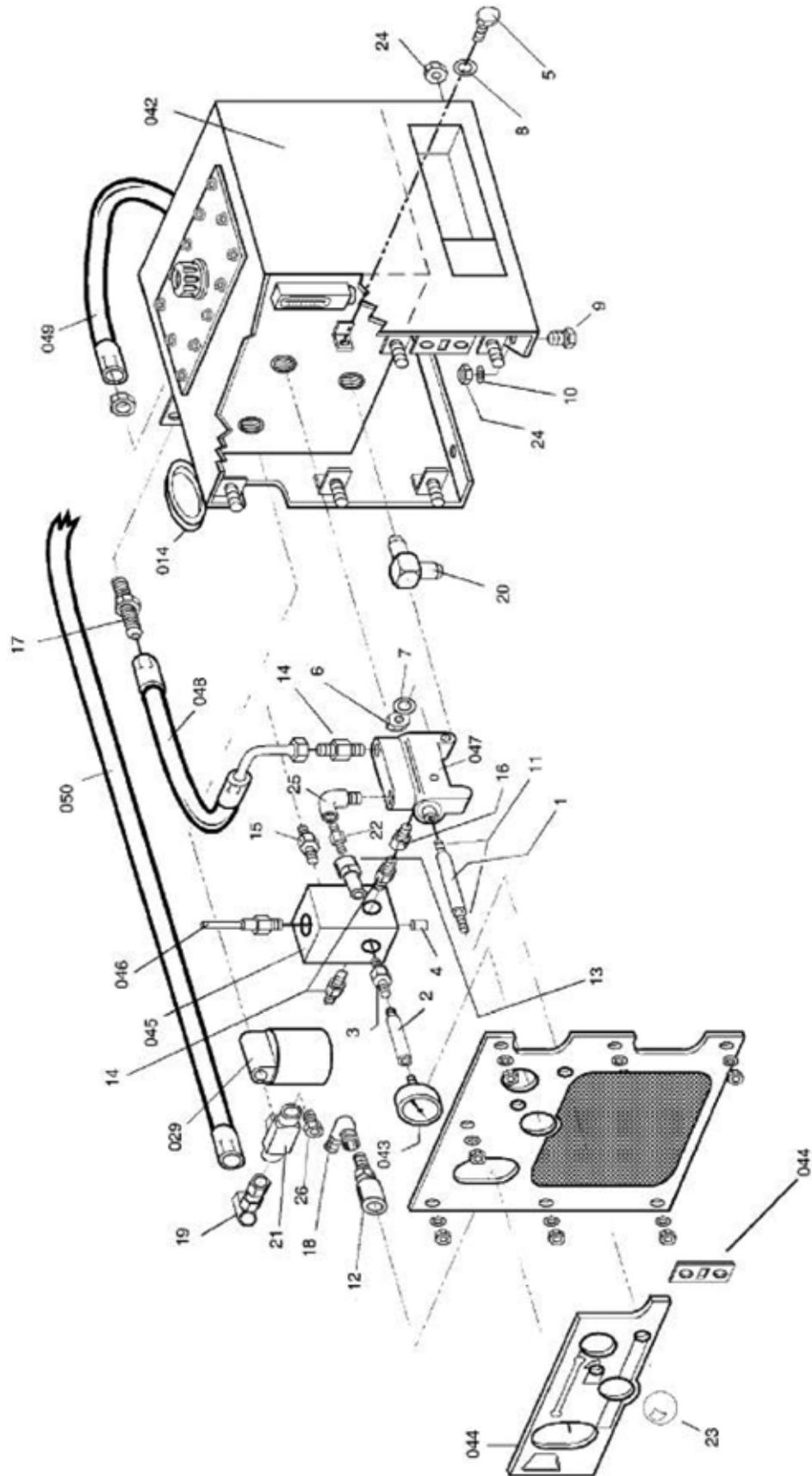
REF. NO.	PART NO.	DESCRIPTION	QUANTITY
136	14-136-00	9AL Battery	1
054	17-054-00	15HP Gas Engine	1
055	17-055-00	15HP Engine Muffler	1
056	17-056-00	Muffler Guard	1
057	17-057-00	Exhaust Deflector	1
058	17-058-00	Wiring Harness	1
059	17-059-00	PTO Adapter	1
060	17-060-00	Hydraulic Pump	1
061	17-061-00	Drive Coupling	1
062	17-062-00	Pump Hose	1
063	17-063-00	Tank Hose	1
064	17-064-00	Choke Cable	1
065	17-065-00	Throttle Cable	1
066	17-066-00	14" Tie Down Strap	1
078	90-078-11	Nipple, 3/8 x 6"	1
59-060	59-060-00	Terminal Cover	1
035	59-035-00	Tach/Hourmeter	1
093	59-093-00	Fuse Holder	1
204	67-204-00	7.5 AMP Fuse	1
1	90-055-15	1/4-20 Wing Nut	1
2	90-057-00	1/4" Sg. x 1" Key	1
3	90-059-37	1/4-20 x 3/4" CRG-Bolt	1
4	90-065-06	5/16-18 Wing Nut	2
5	90-069-37	5/16-18 x 3/4" CRG Bolt	2
6	90-071-10	3/8-16 x 1" HHCS	4
7	90-071-12	3/8-16 x 1-1/4" HHCS	6
8	90-075-52	3/8" Lockwasher	10
9	90-218-95	ORB x JIC 3/4" M90° Adapter	1
10	90-238-60	ORB x JIC 1" EL	1
	90-501-06	1/4" Male Terminal*	1
	90-501-15	3/8" Yellow Ring Terminal*	2
	90-501-32	6 Ga. 1/4" Terminal*	2
	90-501-33	6 Ga. 3/8" Ring Terminal*	3
	90-501-42	16 Ga. Bullet-M Terminal*	2
	90-501-43	16 Ga. Bullet-F Terminal*	2
	90-900-60	Loop Clamp*	1
	90-901-06	14 Ga. Black Wire*	3'
	90-901-07	6 Ga. Red Wire*	3'
	90-901-08	6 Ga. Black Wire*	1.5'
	90-901-09	18 Ga. White Wire*	1.5'
	90-901-10	14 Ga. Yellow Wire*	3'

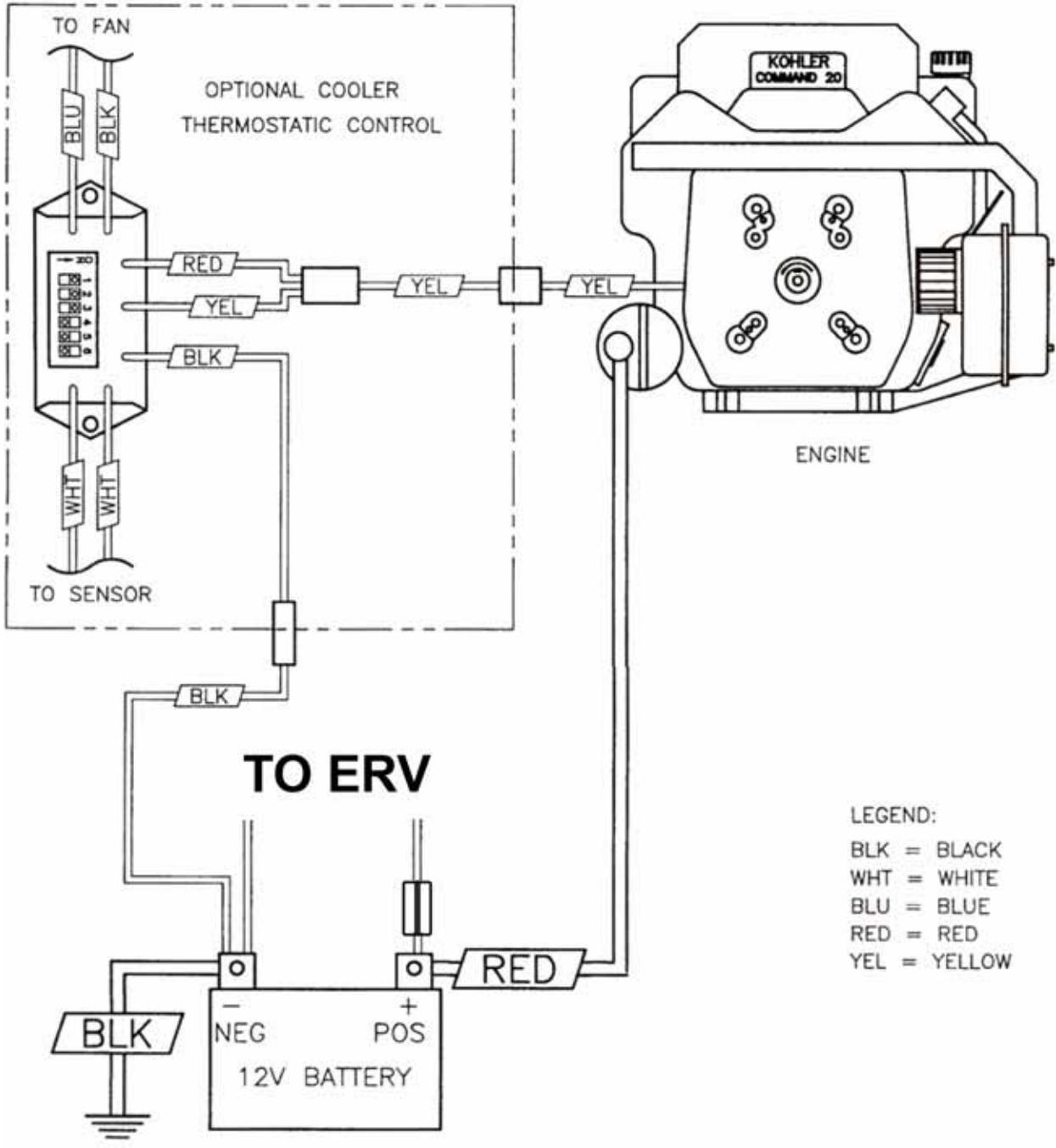
**17-402-00, Gas Engine Assembly**



## TANK ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
042	17-042-00	Tank Assembly	1
044	17-044-00	Label	1
045	17-045-00	Manifold	1
046	17-046-00	Relief Valve	1
047	17-047-00	Auxilliary Valve	1
043	17-043-00	Pressure Gauge	1
014	17-014-00	Grommet Strip	7"
048	17-048-00	Pressure Hose	1
048	17-049-00	Supply Hose	1
050	17-050-00	Return Hose	1
029	17-029-00	Filter Assembly	1
1	90-075-17	3/8-16 x 1-3/4" Coupling	1
2	90-058-04	1/4" Galvanized LP Coupling	1
3	90-058-58	1/4" Hex HD Nipple	1
4	90-059-62	NPT 1/4" Plug	1
5	90-061-17	5/16-18 x 1-3/4" HHCS	1
6	90-065-01	5/16-18 Hex Nut	1
7	90-065-51	5/16" Split Ring Lockwasher	1
8	90-065-52	5/16" Flat Washer	2
9	90-071-08	3/8-16 x 7/8" HHCS	2
10	90-075-52	3/8" Lockwasher	2
11	90-075-65	3/8-16 x 1-1/2" SSS	2
14	90-218-93	ORB-JIC 3/4" MAL Adapter	3
15	90-218-94	M-ORB x F-NPT 3/4" Adapter	1
16	90-218-97	ORB-JIC SWVL 3/4" Adapter	1
17	90-218-96	Bulkhead 3/4" JIC M Adapter	1
19	90-238-52	W/SWVL 1-90° ST. EL	1
20	90-238-57	1" NPT-1" JIC Male EL	1
21	90-238-58	1" NPT Male-Female Tee	1
23	90-900-50	BL 3/8-16 x 1-3/8" Knob	1
24	90-075-05	3/8-16 Nylock nut	1
25	90-238-61	Adpt-Orb-nptf 90	1
18	90-098-65	Elbow, Male 1/2 HP*	1
22	90-098-58	Hex Nipple, 1/2 HP*	1
12	09-025-00	Disconnect, FML-Htma*	1
13	09-026-00	Disconnect, ML-Htma*	1
26	90-098-75	Bushing, Red. 1/2" x 1"	1





*Wiring Diagram*





**E.H. Wachs Company**

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