CV-1400
OIL SYSTEM MODIFICATION KIT
INSTALLATION INSTRUCTIONS

For CV-616 and CK-10 Vertical Honing Machines

This Oil System Modification Kit is intended for use on the following machines which were equipped with CV-1388, 10 GPM "Hypro" Brand Pumps and PPP-151, Low Pressure Relief Valves:

CV-616, Serial No. 2358 to Serial No. 2719
CK-10, Serial No. 2925 and up

INTRODUCTION

The Oil System Modification Kit is designed to recirculate clean oil and create less turbulence in the Oil Reservoir. Benefits of kit modification are:

Increased Pump Life
Increased Valve and Filter Cartridge Life
More efficient use of the Oil Reservoir as a settling tank (Due to decreased turbulence)

KIT INCLUDES

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>PART NUMBER</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducer Bushing</td>
<td>PPP-155</td>
<td>2</td>
</tr>
<tr>
<td>Street Service Tee</td>
<td>PPP-101</td>
<td>1</td>
</tr>
<tr>
<td>Edge Guard</td>
<td>KKN-1847</td>
<td>2</td>
</tr>
<tr>
<td>Hose</td>
<td>CV-1401</td>
<td>1</td>
</tr>
<tr>
<td>Hose Clamp</td>
<td>CK-1292</td>
<td>2</td>
</tr>
<tr>
<td>Pipe</td>
<td>CK-1306</td>
<td>2</td>
</tr>
</tbody>
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SUNNEN PRODUCTS CO. • 7910 MANCHESTER • ST. LOUIS, MO 63143, U.S.A. • PHONE: 314-781-2100 •
DISASSEMBLY

Remove Old Style Oil System as follows:

A. SHUT OFF power to machine at Main Control Panel (Main Electrical Shutoff Switch).

FRONT OF MACHINE

B. Raise the lower Front Door Panel enough to slide a Block under the right end of the Panel; then lower the Front Door onto the Block as illustrated (see Figure 1).

C. Remove Dump Pipe (PPP-153) from Street Elbow, Low Pressure Relief Valve and discard.

D. Remove left Non Splash Screen (CK-1010) from the machine. Keep for reinstallation.

E. Move Spindle Carriage to far left side of the machine.

FIGURE 1 - Old Style Oil System (Front View)
REAR OF MACHINE

F. Remove Back Panel and Door Assembly (CK-1760) from rear of machine by removing four (4) Screws. Keep for reinstallation.

G. Remove Intake Strainer and Hose Assembly from Reducing Elbow on Pump Intake and place in a bucket to drain. Keep for reinstallation (see Figure 2).

FIGURE 2 - Old Style Oil System (Rear View)
Install Oil System Modification as follows:

**NOTE:** Clean threaded fitting and coat with sealant before installing.

**FRONT OF MACHINE**

**A.** Install Reducer Bushing (PPP-155, supplied) and Pipe (CK-1306, supplied) on Street Elbow, Low Pressure Relief Valve (see Figure 3).

**B.** Connect Hose (CV-1401, supplied), using Hose Clamp (CK-1292, supplied) on Pipe (CK-1306), Low Pressure Relief Valve.

**C.** Feed Hose (CV-1401) through Oil Reservoir to rear of machine (to Pump).

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**FIGURE 3 - Oil System Modification (Front View)**
**REAR OF MACHINE**

**D.** Install Street Service Tee (PPP-101, supplied) on Intake Strainer and Hose Assembly (see Figure 4).

**E.** Install Intake Strainer and Hose Assembly (with Street Service Tee) on Reducing Elbow, Pump Intake (refer to illustration).

**F.** Install Reducer Bushing (PPP-155, supplied) and Pipe (CK-1306, supplied) on Street Service Tee, Pump Intake.

**G.** Connect Hose (CV-1401, refer to step C), using Hose Clamp (CK-1292, supplied) on Pipe (CK-1306), Pump Intake.

**H.** Reinstall Back Panel and Door Assembly (CK-1760).

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**FIGURE 4 - Oil System Modification (Rear View)**
FRONT OF MACHINE

1. Cut a $3\frac{1}{4}'' \times 3\frac{1}{4}''' notch out of the left corner of the Left Non Splash Screen (see Figure 5).

J. File rough edges on frame of Screen and install Edge Guards (KKN-1647, supplied).

K. Reinstall Left Non Splash Screen in machine as illustrated.

L. Remove Block from under Front Door.

M. Bleed system as follows:

   1. TURN ON power to the machine at Main Control Panel (Main Electrical Shutoff Switch).
   2. Raise Front Door.
   3. Direct Oil Nozzle downward and open valve.

WARNING: DO NOT PULL START LEVER FORWARD.

4. START motor by pushing START Lever all the way back.

5. Partially open Air Vents on top of Filter Canisters.

6. As oil fills Filter Canisters, air will escape through Air Vents. When oil appears through Vents, close Vents.

7. SHUT OFF power, by pushing STOP Button.

8. Wipe any excess oil from Filter Canisters.

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FIGURE 5 - Left Non Splash Screen
OIL FLOW DIAGRAM (OLD STYLE)

OIL FLOW DIAGRAM (NEW STYLE)