Mechanical Perforator Running Procedure

- 1. Assemble Perforator as per schematic with new shear pins (items 12&16) and a sharp knife installed in the assembly. Knives need to be sharpened for every run.
- 2. Make a gauge ring run to below the desired perforating depth to ensure that the tubing is free from any obstructions.
- 3. Run a collar stop to the desired depth required for perforating. This will provide the "stop" that the perforator will be sheared against. (Western Pressure does not recommend running the collar stop attached to the perforator. This can cause improper alignment and or function of the tool resulting in broken parts and failed runs). A tubing stop will also function as an alternative to the collar stop if desired.
- 4. Attach the Perforator to the wireline tool string.
- 5. Run the perforator to the stop run previously.
- 6. Jar down with sufficient force to shear the 1/8" Pin (Item #12). This will release the knife (punch) from the running position to the cutting position. Care must be used here to only shear (item #12 and NOT item #16). If the perforator is being run in "Heavy Oil", allow time for parts to position as they will be very slow moving in the heavy oil.
- 7. Pull up on the tool string forcing the knife to "catch" on the tubing wall and begin cutting the perforation. If the tool does not catch immediately and skids up the tubing. Set it back down to the stop and try again. Do not continue dragging it up the joint as this will only dull the knife or break it when you reach a collar. Once the knife catches the tubing wall jar upwards until body is pulled past the knife and the hole is created. Caution must be used here to not jar down when resetting the jars. Too much down force can remove the perforator knife from the cut. Only set down to with enough force to reset hydraulic jar. Once perforation is complete the knife will be inside the tool and the perforator can be pulled from the well.
- 8. If the perforator will not catch or perforating is not desirable, jar down and shear item #16. This is the safety shear and allows the retrieval of the tool without perforating.

WESTERN PRESSURE CONTROLS 2005 LTD. PART 12 **SHARPENED KNIFE** PART 16

TOOL

ASSEMBLY WITH NEW SHEAR PINS AND SHARP KNIFE (SECTION 1)



WESTERN PRESSURE CONTROLS 2005 LTD.

TOOL

SETTING THE PERFORATOR (SECTIONS 3,4,5,6)



WESTERN PRESSURE CONTROLS 2005 LTD. 1 0.750 0.250 **APPROXIMATE** 3 PERFORATION SIZE **TOOL** PERFORATOR KNIFE OPERATION

PERFORATOR KNIFE OPERATION AND SAMPLE PERFORATED PIPE (SECTION 7) 10021-56 AVENUE EDMONTON, ALBERTA, CANADA PHONE: (780) 437-3615 FAX:(780) 437-3616

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TOOL

SETTING SAFETY SHEAR (SECTION 8)

