

# **WIRE ROPE CUTTER**

## **TYPE WCOS38LP**

**980470**

**INSTRUCTIONS FOR INSTALLATION**

**OPERATION & MAINTENANCE**

**5<sup>TH</sup>. May 2004 – Issue 1**

These instructions give all necessary information for installation, operation and maintenance of a WCOS38LP Wire Rope Cutter.

## **THINK SAFETY**

Before using the tool to cut, review the safety aspects of the operation,

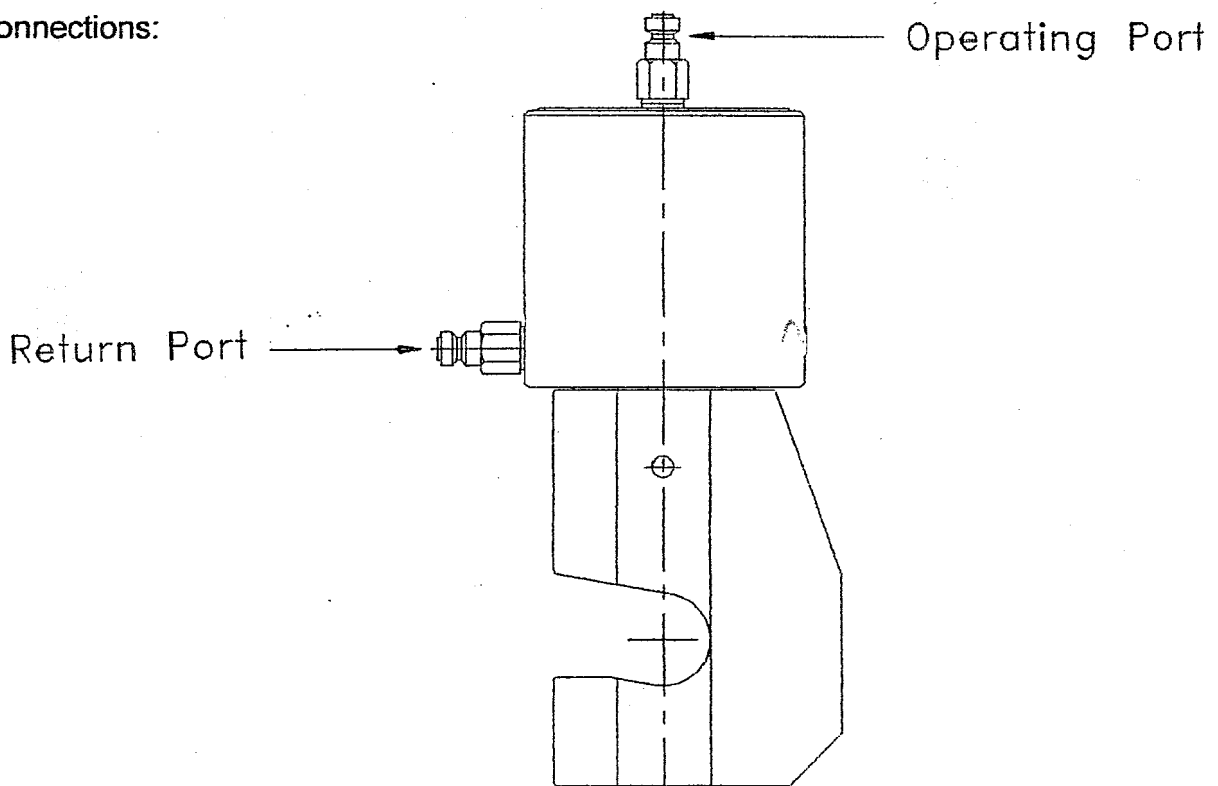
Ensure:       that the hose couplings are properly made and safe  
                  That the tool is in good condition  
                  That the rated pressure of the tool cannot be exceeded  
                  That the item to be cut is not under tension and that it is properly within the tool  
                  That any severed ends cannot fly off and injure the operator. If in any doubt, always arrange shields.

## **OPERATING & MAINTENANCE INSTRUCTIONS**

### Hydraulic Supply Requirements:

The tool must be connected to a double acting hydraulic power source which can be either a manual or powered pump. IT IS IMPORTANT that the pressure source incorporates a pressure relief or limiting valve so that the applied pressure cannot exceed the rating of the tool. A relief valve must also be incorporated in the return line. The maximum working pressure is 220 Bar. A good quality ISO22 grade hydraulic oil e.g. Shell Tellus 22, is suitable.

Connections:



### Operations:

Operating the pressure source will cause the ram to extend, thus moving the blade to the anvil. It is safe to operate the cutter to full travel and full pressure, even without having wire in place to cut.

To cut, the wire rope should be placed between the blade and the anvil. Ensure that the anvil is fully home and that the retaining screw is tight.

The wire should be placed as far into the access slot as possible. Note that unless this is done, some strands of wire may escape being cut.

### Cutting Capacity:

The cutter is designed to cut wire rope up to the diameter indicated by the tool size. These capacities are for wire rope only. The cutter will not cut solid sections to these diameters. The cutter blade is designed for use on wire having an ultimate tensile strength of 1770 N/mm<sup>2</sup>. Attempts to cut wire rope of greater tensile strength may damage the blade or reduce its operating life.

### General Maintenance:

Since the cutter is manufactured with care from high quality materials, little maintenance will prove necessary. Replaceable parts in normal service are the blade and anvil. The life of the anvil may be extended by rotating it slightly to present a new cutting surface to the wire and blade. Otherwise, simply ensure that the tool is kept clean and free from debris. Seal kits are available part number 995 121

### Blade Renewal:

To change the blade, the following procedure should be adopted. Pump out the ram until the blade retaining pin (030522) can be seen under the access hole in the body. Drift out the retaining pin and remove blade (705032). When fitting a new blade, ensure that the retaining pin is below the surface of the ram (985033) on both sides.

### Dis-Assembly:

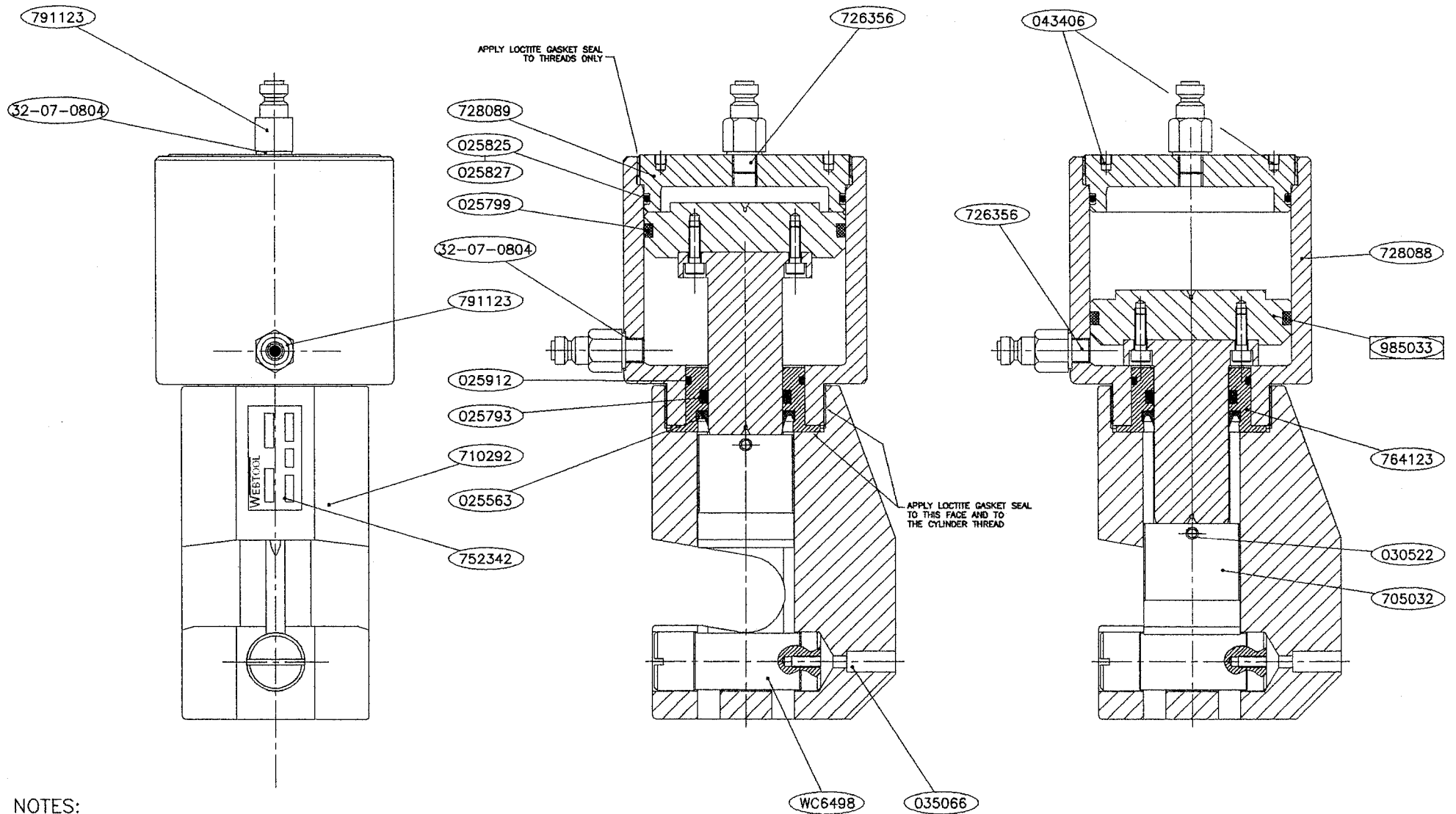
Remove the blade as described previously, then disconnect hose and unscrew hose coupling (791123). Unscrew the cylinder cap (728089) from the main cylinder (728088) then push out the piston (985033) upwards through the cylinder. Unscrew body (710292) from main cylinder and remove the seal block (764123). All seals are now accessible.

### Re Assembly:

Make sure all parts are clean and smear all parts with grease before assembly. Fit the coupling adaptor into the cylinder, ensure adaptor does not protrude into the cylinder bore. Place the seal block (764123) into the body (710292) and the piston (985033) into the seal block. Add liquid gasket to the threads of the body and screw onto the cylinder (728088) and tighten. Rotate the slot in the end of the piston until it lines up with the keyways in the body and temporarily insert the blade (705032) to maintain angular location. Hold in the retracted position. Add liquid gasket to threads of cylinder cap (728089) and screw into cylinder and tighten. Connect coupling and hose and then pump out piston until the hole for retaining pin (030522) is visible through body. Fit retaining pin (030522) then test the cutter ready for use.

Item	Description	Part Number	Quantity
1	Body	710292	1
2	Cylinder	728088	1
3	Cylinder Cap	728089	1
4	Piston	985033	1
5	Anvil	WC6498	1
6	Blade	705032	1
7	Wiper Seal	025563	1
8	Ram Seal	025793	1
9	Main Ram Seal	025799	1
10	'O' Ring	025825	1
11	Back Up Ring	025827	1
12	Retaining Pin	030522	1
13	Bonded Washer	32-07-0804	2
14	Adaptor	726356	2
15	Coupling	791123	2
16	Set Screw	043406	2
17	Anvil Screw	035066	1
18	Seal Block	764123	1

Diagram on following page shows cross section of cutter and lists all item numbers.



NOTES:

1. ORIENTATION ANGLE OF OUTPUT PORT WILL NOT BE GUARANTEED TO BE AS SHOWN
2. ESTIMATED WEIGHT OF CUTTER= 28.5Kg
3. PERFORMANCE TEST TO PTP 3.25

FIG 2