

## *Underwater Cutting System*

**PETROGEN cuts steel under water! And as fast as surface cutting. No expensive electrical generating apparatus is required. No special transportation costs. No expensive consumable burning rods and much less oxygen consumption. And PETROGEN cuts faster than electric arc with no downtime for changing rods.**

### TORCH



Specially designed for underwater cutting operation, the torch's cutting-oxygen lever is an over-centre design. Push- it's on, Pull- it's off. This permits a good grip and assists in one-hand control. The standard spring lever is included for alternate operation. Forgings are heavy duty for long life. As will all Petrogen torches, it is impossible to back flash the fuel line. Hand wheels are located far apart for easy identification, even in zero visibility.

### CONSTANT PRESSURE FUEL TANK



Our standard, time proven 9.5 litre fuel tank is ASME coded and tested for operation at 100psi. The contents provide about 5 hours of continuous underwater cutting. The tank is pressurised by air coming from your 100psi compressor or air-carry tank, entering the tank through our air pressure regulator. With the regulator set to the required depth pressure, the petrol will be constantly and automatically delivered to the torch at the correct pressure. The weight of liquid petroleum compensates for 72% of the depth pressure, which means that 100psi in the tank delivers gasoline to a depth of more than 600 feet.

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## UNDERWATER IGNITER



This Petrogen designed-and-built sparker is a breakthrough in underwater ignition. The self-contained, solid state sparker delivers years of operation, at any depth. The spark gap is kept dry by oxygen coming from the cutting tip. When the diver pushes the igniter switch, the built-in battery activates the protruding spark plug. While the igniter is sparking inside the oxygen bubble, the petrol valve is slowly opened and ignition occurs at the optimum mixture.

## SHROUD ASSEMBLY



The Petrogen torch has a natural ability to burn easily underwater. Other types of gas torches need a curtain of air to protect the flame, and therefore need a 3<sup>rd</sup> hose passing compressed air through the shroud. The Petrogen torch does not need an air curtain. The shroud serves as an insulator which returns the heat to the cutting tip. This keeps the tip warm enough to evaporate and utilise all the petrol delivered to the cut. The adjustable heat sink also serves as a standoff.

### Contents of PETROGEN Underwater Package (Part 5000):

- Underwater torch
- 3 underwater cutting tips
- Underwater igniter
- Underwater shroud assembly
- 2.5 gallon fuel tank with air pressure regulator
- 25 foot air hose
- 50 foot gasoline hose
- 50 foot oxygen hose
- oxygen backflash arrestor
- extensive parts and tool kit