

# High Test Peroxide

REFUELING THE ROCKETS WITH HTP  
PHOTOGRAPHS COURTESY OF SAUNDERS ROE ARCHIVE



## Rocket Fuel

The rocket engines of Black Knight and Black Arrow were fuelled by High Test Peroxide (HTP) used with paraffin. HTP is a highly volatile chemical which can combust with devastating effect when it comes into contact with even a tiny speck of dust. Safety at the site was therefore very important.

## Working with HTP

When working with HTP special protective clothing had to be worn. If you were unlucky enough to get any of the chemical on your suit you would be plunged into one of a number of safety baths dotted around the site. The baths were filled with water to dilute the HTP and reduce the risk of combustion. It was common for the baths to begin to freeze during the winter months. Chilly!

In the early days the HTP fuel was brought over to the Island by ferry. It was then transported through the streets of Freshwater to the site. When the ferry operator found out what it was carrying things had to change! Thereafter the HTP came across the Solent by barge.

## What is HTP?

HTP is a very highly concentrated version of the hydrogen peroxide that you use to dye your hair.

# 3-12%

HYDROGEN PEROXIDE CONCENTRATE TO BECOME 'PEROXIDE BLONDE'

# 85-98%

HYDROGEN PEROXIDE CONCENTRATE TO POWER A ROCKET

## How does it power a rocket?

In contact with a catalyst HTP decomposes into a very high temperature mix of steam and oxygen.

The British discovered that when pumped through silver plated nickel gauze HTP will decompose.

HTP was used to provide the oxygen necessary to allow combustion outside the earth's atmosphere.

The oxygen released allowed the paraffin to burn.

The steam that was released drove pumps and boosters in the rocket.



## ACCIDENT!

"AN OPEN DAY FOR RELATIVES AND FRIENDS OF THE STAFF AT THE BLACK KNIGHT ROCKET TEST SITE OVERLOOKING THE NEEDLES ENDED MOST UNFORTUNATELY ON SATURDAY AFTERNOON WHEN A MYSTERY EXPLOSION INJURED SIX PEOPLE - ONE OF THEM VERY SERIOUSLY. MR KINLOCK WAS DEMONSTRATING HTP AS PART OF THE ENTERTAINMENT FOR THE VISITORS WHEN INSTEAD OF THE EXPECTED BURST OF FLAME FROM THE CONTAINER, THERE WAS A TERRIFIC EXPLOSION..."

ISLE OF WIGHT COUNTY PRESS - 16TH SEPTEMBER 1961