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OPERATION PLUTO

A pipeline under the channel - a British engineering achievement which will rank as the "Operation Mulberry" of the Battle for Oil. Invention and manufacture of the lifeline which carried petrol for the Allied armies in Europe is a work of genius. Tribute is due to Mr. Geoffrey Lloyd, Minister in charge of the Petroleum Warfare Department. Constructed somewhat like a submarine electric power cable without the cores and insulation, this pipeline makes engineering history. The central lead tube is wrapped in layers of bitumen, paper, cloth, four thicknesses of steel tape, jute, steel wire and still more jute.

Two thirty-mile lengths were made first, with a two inch inner tube. After intensive tests the carrying capacity went up when the diameter was increased to three inches. The pipeline was proved equal to working pressures of more than 1,200 pounds to the square inch. The finished cable is loaded into circular tanks built into the converted coasters and tankers which are to take it across the channel. From the holds of these ships, like some fabulous ana kalike monster, the pipeline begins its cross-channel trek. First laying tests were carried out in the Bristol Channel at the end of 1942. Though they didn't know it, petrol users in Devon and Cornwall were running their lorries and cars on petrol pumped underwater from Swansea to Ilfracombe.

The "D-Day Pipeline" reached the opposite shore safely. It was scheduled to carry a continuous flow of petrol deep into Germany direct from tankers unloading at British ports.

Another variety of pipe was also used. The centre tube was of steel with the outer walls a quarter of an inch thick. This was stacked in long lengths on racks ready for welding. H.M.S Persephone, a converted hopper barge, and other similar ships were used in Operation Pluto. Great wheels rotating on trunnions on their decks carried miles of cable and steel pipeline.

Next development was the construction of large floating drums each capable of carrying some seventy miles of pipe. 90 feet long and more than 50 feet in diameter, these outside bobbins weigh 1,600 tons - the weight of a destroyer. They were christened H.M.S Gomudrums"

Off the French Coast the end of the cable is joined to another length in a barge.

The underwater artery for Allied armour and transport links Dungeness to Boulogne. A waiting squad of Royal Engineers run the line ashore.

2

The last lap of a long journey. The final join is made to an installation on the French side.

High pressure pumping stations were cleverly camouflaged in seaside bungalows, a holiday camp and an old fort. A million gallons of petrol a day were being pumped across land and sea from the Mersey to the Rhine. Field Marshal Von Rundstedt and ~~XX~~ other enemy Generals now in captivity have admitted that our stupendous lead in oil supplies was a major cause of their defeat. Operation Pluto, shrouded in mystery for ~~two~~ and a half years, was more than a magnificent British feat of engineering. Its success undoubtedly speeded the end of the war in Europe.