

Working for the BBC at Television Centre



Cameras were modified to BBC standards and the camera in the photo left is being modified to take a heavier lens turret. The camera is made by EMI. When the EMI technicians came to visit our workshop they were amazed that we could alter the cameras as they never intended them to be modified. The camera could weigh about 150 pounds with all lenses etc.



At Television Centre there were eight studios. Also there were three different makes of camera used in the studios. Marconi, PYE and EMI. Therefore when a studio was fitted out it could only handle one company's product as none were compatible. Marconi products were not mechanically well designed and we had to make our own spares.



All the lenses were stripped down and adjusted on a regular basis and modified if necessary. The panel in the background was used to test the slide projectors that were brought in for repair. The projectors could be controlled to select any of the slides that were loaded into the slide boxes so that one could go back and forth choosing different slides. In each studio two slide projectors were used side by side and operated from a panel in the control room.



We made all our own spares for cameras and also all the other mechanical equipment used in the TV service. We also made any kind of gadget that was needed for programmes. We had five lathes, two milling machines, one grinder and one engraving machine. We had our own paint spraying shop complete with waterfall to keep paint spray from polluting the air.



After the lens was cleaned and adjusted it had to be checked for correct focusing. The lenses were made by a firm called Taylor Hobson. The room was dust free and the air pressure was regulated to keep the air in the room higher than the air outside the lens room. All lenses had to be engraved with a serial number and the letters BBC which was done on another machine kept in the main workshop. Any equipment that was not locked down would have to be engraved so that it could be identified as BBC property.



All the vehicles used in the studios were controlled by hydraulic motors. The hydraulic pumps were in turn driven by electric motors and the vehicles could hardly be heard operating. The vehicle shown would be driven by an operator standing at the back while the camera and cameraman would be seated at the front. The cameraman could raise the camera up and down similar to a forklift truck. The vehicle was steered from behind and it was possible to “crab” from side to side because the four wheels could be turned through 90 degrees.



A camera dolly can be seen awaiting repair in the workshop. The camera which weighed over 100 hundred pounds was locked on top and the dolly could be balanced so that the camera could be raised up and down by one hand. They were operated by hydraulic oil and a separate nitrogen gas system. There was a forge at one end of the workshop where all gas welding took place. Next to this was a metal storeroom where sheets and bars of brass, copper, aluminium and dural (duraluminium) were stored.



I used to service all the 35mm projectors in the studios. There were three locations in London, the main studios at Television Centre, a studio near Hammersmith Bridge called Riverside and the third at Lime Grove. There were two kinds of projectors, one that took 35mm film strips and the one that took 35mm slides. The film strip projectors were well made and gave no trouble whereas the slide projectors which were made by Marconi were always failing. They had to be serviced once a week without fail and I used to go around the three centres doing the maintenance. One day visitors from RCA in New York came to visit the workshop and asked me about the Marconi slide projectors because they were using them in their studios and had many problems. I showed them how we had modified the projectors to make them more reliable and one man said that Marconi had told them that the BBC were using them and they worked all right. The Marconi salesperson certainly was clever because when we complained to Marconi they told us that RCA in New York used the very same projectors and they had not complained about any faults. Slide boxes can be seen sitting on top of the test panel and in the picture I am stripping down a lens for repair. A typical fault would be the iris sticking or jammed. Also note the clipboard which held the worksheet for the day.