

## 3. SERVICE DATA

### 3.1. Circuit description

#### 3.1.1. HF-OSCILLATOR (Fig. 25)

The frequency of the h.f.-oscillator is determined by the resonant circuit, which can be switched separately to the collector circuit of transistor 301. In conjunction with transistor 302 self-excitation occurs at the oscillation frequency due to positive feedback. The amplitude may be adjusted with potentiometer 612.

Transistors 301 and 302 are coupled via an automatically controlled and regulated current source 305/306. The amplitude of the oscillator is stabilized via this current source. The required control voltage is obtained by rectifying the output-amplitude of separating-amplifier 303/304 by diodes 406 and 407. Diodes 404 and 405 serve for temperature compensation.

The begin- and end frequencies of every range are tuned with adjustable coils and capacitors; adjusting is facilitated by using series and parallel capacitors. With triple tuning capacitor 599, five ranges can be calibrated on two scales; the frequency response of the remaining four ranges is marked on separate scales. Both i.f. ranges - 0.4 ... 0.5 MHz and 10.3 ... 11.1 MHz - have separate scales.

The scale, corresponding with the selected frequency range, is indicated by one of the six LED's 491 ... 496.

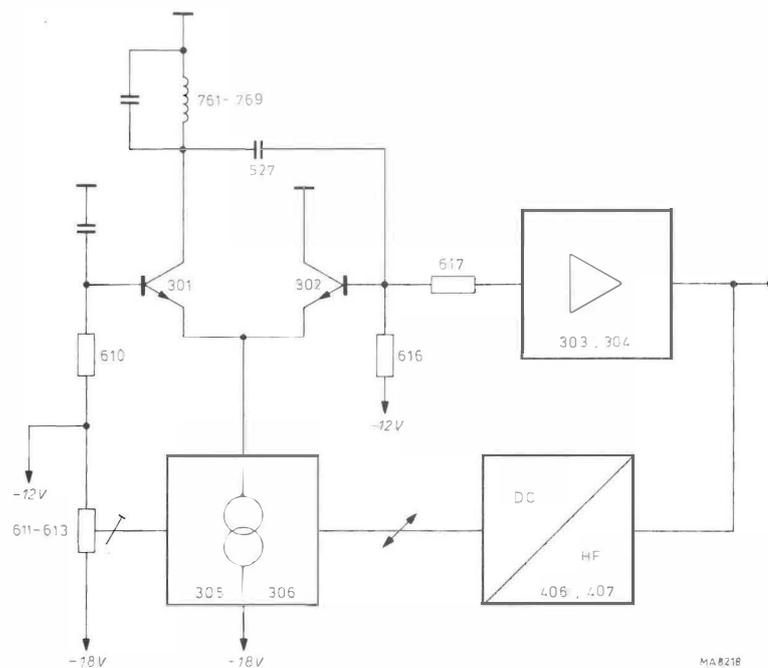


Fig. 25. HF-Oscillator