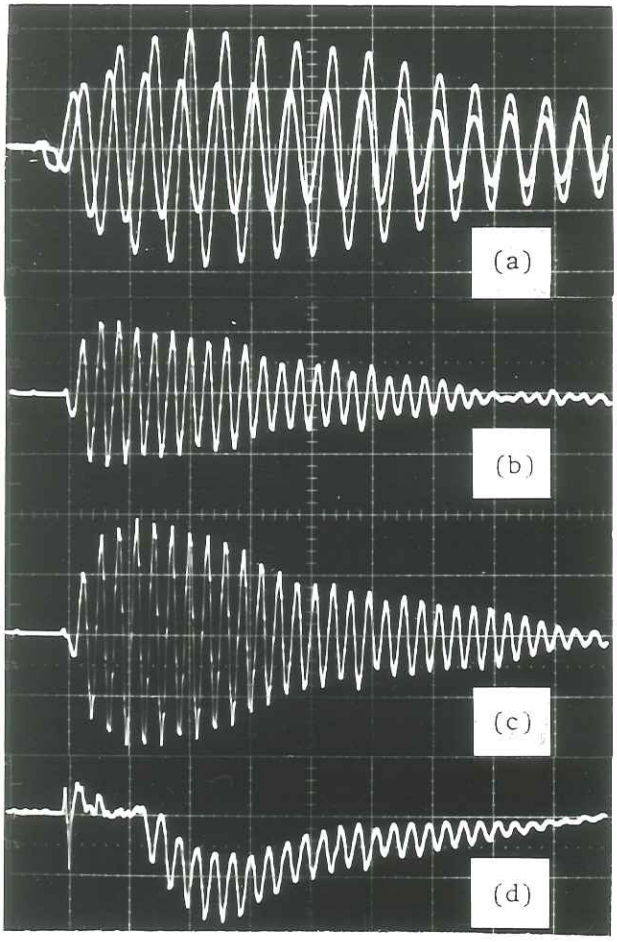

Figure 5.3 Oscillograms showing integrated Rogowski belt measurements of the line generator currents and the total toroidal current driven using an $m=0$ type coil structure. Each generator load consisted of 8 $m=0$ coils with 2 turns per coil. The periodicity length of the structure was $l=20$cm. (a) - Line generator current waveforms superposed and displayed on a timescale of 5μs/division to show the decrease in phase difference with time. (b) - Line generator 1 and (c) - Line generator 2 waveforms shown on a timescale of 10μs/division. The vertical scale in (a) - (c) is 0.67kA/division. Note that the amplitudes of the line generator currents are not equal. (d) - Rogowski belt measurement of the driven toroidal current. The timescale is 10μs/division. The vertical scale is 0.92kA/division. Experimental conditions: filling pressure=0.45mTorr Argon, line charging voltage=20kV, no external toroidal or vertical magnetic field.