IV. SUMMARY AND SUGGESTIONS FOR IMPROVEMENTS

While the system as a whole performs as it was intended, there is at least one feature which has not proven to be as useful as expected. This is the expanded time-base display of the magnetic pickup signals. It now appears that it is possible to lose display of an MPU pulse during the retrace time of the oscilloscope beam while the raster is being generated. Future work calls for the construction of a symetrical raster to overcome this deficiency.

A problem that may arise in the future is the high frequency noise structure that can occur in the pressure pulse. While the signal shown in Figure 2 shows only some slight structure, greater noise has been seen in signals generated when the compressor has been operated under different initial conditions. If the noise signal becomes too large, it could interfere with the proper operation of the voltage comparators. In the event noise does become a problem, solutions may be low-pass filtering of the signal, increasing the hysteresis of the comparators, or some sort of logic gating using delay circuits.

V. REFERENCES

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