The study examined the supervisory practices of headteachers and how these supervisory practices relate with teacher motivation in public basic schools in the Anomabo Education Circuit of the Mfantseman Municipality in the Central Region of Ghana. Quantitative approach of the cross-sectional survey design was adopted. Using purposive and stratified random sampling techniques, 69 respondents, made up of 15 headteachers and 54 teachers were used for the study. Two sets of questionnaire (one each for headteachers and teachers) were used to collect data. A test-re-test method was used and to establish the reliability of the instruments, and correlation coefficients of 8.45 and 8.72 were obtained for headteachers and teachers questionnaires respectively. The data obtained were analysed using mean, standard deviation, and Pearson Product Moment Correlation. The results indicated that headteachers in the Anomabo Education Circuit often used all the instructional supervisory practices outlined in the study and they performed above average. However, orientation of new teaching staff was the dominant supervisory practice among the headteachers while the least practiced was provision of in-service training for teachers. Generally, teachers in public basic schools in the Circuit were highly motivated, and there was a statistically significant positive but weak relationship between headteachers' supervisory practices and teacher motivation. The study concluded that pupils' performance had not been encouraging even though the teachers were adequately motivated. It was therefore recommended among others, that, the Mfantseman Municipal Directorate of Ghana Education Service should organize regular in-service training programmes for headteachers in public basic schools in the Anomabo Education Circuit to improve their skills to effectively balance and practice their instructional supervisory practices to enhance very high teacher motivation. Keywords: Instructional supervision, Practices, Headteachers, Teachers, Motivation