Gps and fuction on the field on construction

Engineering

GPS and Function on the field on construction Global positioning system has enhanced notable changes in the fieldof navigation. This has been achieved by providing accurate information at any point, and its functioning does not get affected by weather. It has various advantages that include fair price to anybody, no knowledge of navigation is required to operate the system, accuracy with good satellite signals and they are easy to use. The GPS device is rapidly developing and is used in various projects including road and bridge constructions, where the users have equipment that can track, change, receive and measure the signals of the GPS they can bring out the navigation measurement.

A global positioning system (GPS) receiver ensures that scrapers and graders are able to identify accurate courses with minimum reference to in ground markers. The field of view of the operator is built with light bars that give a signal of a proper angular view of the blades while the machine is in motion. The video display gives a proper cut view of the job site. The operators use a computer screen to keep track of the positions of their blades. The advantages of this include; accuracy, speed, improved productivity and a result which is of high quality. GPS ensures that the foremen and supervisors do not rest stakes but instead monitor work, cycle time and haul routes. Later on in the evening, the GPS-equipped vehicles are moved to where they are supposed to send progress data to the head office. The actual progress can then be checked and compared to the original schedule by the estimators. The automatic heavy equipments such as scrapers for instance use the GRS technology. GPS antenna is mounted on the scrapers bowl which enables the operator to differentiate the site plan and the depth cut. The earthmoving operations are safer because minimal time is taken on the

work and few people take part.

Road graders for instance have steel blade beneath the vehicle that are adjustable thus allowing the operator to control the angle and height of the blade when in operation. Graders that are equipped with GPS enables operators to control area they grade and where do not. The technology enables the operator to work on specified lengths instead of estimating the area to grade. Its blade is designed to grade a flat surface for the road construction, and it also levels surface of uneven ground, its blade can also be used to create ditches beside roads and drainage paths. This is done by the grader lowering the blades to the set height, and it pushes off the dirt until the road is smoothed down. Excess materials fall away due to the angle and positioning of the blade.

During the earth movement process, construction surveyors have various duties and responsibilities that they are supposed to undertake. They are the initiators of construction projects by providing measurements and requirements to the construction engineers at all stages. They also verify the construction before the earth moving is done, after the construction is done they ensure that the structures are in accordance with the original plans. Construction of complicated structures like roads require precision where small errors of measurement can cause significant deviations. This applies to construction of structures such as bridges, and construction surveyors. Therefore, contractors have to ensure that the constructions are done on correct locations with the correct measurements and recommendations.

Works Cited

Caterpillar Inc. AccuGrade GPS. Article: Cat. com, 2003. Web. 8. Jan. 2012.