

Construction Engineering, Equipment Installation, Construction Engineering

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ABSTRACT

At present, with the development of society, China's civil construction equipment installation engineering has many majors, complete categories and high functional requirements. In particular, the installation of the equipment is a large amount of work, with a large number of types of work, with a strong degree of specialization, and also technically complex. In the construction of construction projects in China, the installation of engineering equipment is a key control point of construction safety, and equipment installation has always been a key point that construction enterprises attach great importance to. The installation of engineering equipment will not only affect the overall progress of engineering construction, but also affect the quality of the project, therefore, the installation of construction equipment has played a vital role and has attracted increasing attention. Combined with the actual situation of construction enterprises, this paper briefly introduces some problems and solutions existing in the construction of construction enterprises.

1. Introduction

The installation of construction equipment is an important part of construction engineering. Whether it is in the design of the building, or in the installation, we must try to improve the quality of life of people, therefore, the construction company should try to improve the installation management of the equipment, and develop a set of scientific and efficient measures to ensure the installation quality of the equipment, to create a safe and comfortable

living and working environment for the future residents, in recent years, the relevant construction technology of domestic construction equipment has made great progress, not only to broaden the company's business scope, but also to ensure the quality of the company's projects, Promote the sustainable development of the company. Therefore, how to make better use of construction equipment in China's construction is an urgent problem to be solved^[1].

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2. The significance of construction equipment installation management

The installation and management of construction equipment will affect the development of the entire construction industry and can strengthen the advantages of construction quality. First, when installing construction equipment, ensure that the equipment is at a good operating level and give full play to the performance and role of the equipment. When the equipment does not work well, it will affect the quality of the construction project. Therefore, the installation of construction equipment in accordance with the requirements of the standard specifications can maintain the operational effect. Second, scientifically manage the installation and operation of construction equipment to ensure that the indicators and parameters meet the requirements of the specification, so as to realize the stable development of construction equipment installation, so as to improve the overall level of the building ^[2].

3. Installation of construction engineering equipment

With the rapid development of the national construction industry and the national economy, the demand for equipment in the construction industry is getting higher and higher, and the demand for equipment in the construction industry is also increasing. Mainly include: building electrical, building water supply and drainage, air conditioning, smoke prevention system, building video intercom, access control system, monitoring system, elevator engineering and so on. At present, the installation of construction equipment in China is still facing many problems. While the form of bidding is generally accepted, only a few capable companies can win the bid, and many large contractors do not live up to the green county project. Generally speaking, when the project is fully completed, they will subcontract some of the small project days and then send a small number of technical experts to the site for guidance. As for the technicians who were temporarily borrowed, they would occasionally come back to check it out. In addition, most small and medium-sized industries have low technology content, and there are certain safety risks in the construction process. Therefore, in order to ensure the quality of the project, supervision should be strengthened in the construction of the project ^[3]. In addition, due to the weak technical strength of small companies and the small number of personnel, safety problems often arise to construction equipment during construction. Therefore, in the process of engineering construction, it is necessary to strengthen the quality control in the construction process. In the construction of the project, it is neces-

sary to strengthen the review of engineering data, monitor and manage the construction of the project, and improve the quality of the construction of the project.

4. Management of construction equipment installation process

Since the installation of contractor equipment involves the installation of different equipment, we start with different aspects of the construction process, rather than the installation and management of a single piece of equipment.

4.1 Construction equipment installation, construction materials management

The quality of the purchased building materials must be carefully inspected, the materials must be inspected on site, and the materials meet the requirements of the design drawings. Controls the amount of material entering the object. Through layers of checks, the quality of drainage equipment is ensured. In addition, it is necessary to strengthen the auxiliary materials for the installation of engineering equipment. Material managers must always be aware of the warranty period, service life, etc. Due to the dual monitoring of the main and auxiliary materials, the requirements of building materials are met, which provides a basis for the installation quality of construction equipment ^[4].

4.2 Safety management during installation

How to improve the quality of the project, shorten the construction period, improve the construction safety, and improve the safety of the construction personnel is another important topic in front of the installation enterprises at this stage. During the construction process, the conventional strength test of the safety rope is used to avoid accidents due to poor control and improper strength testing. Due to the particularity of the supervision personnel, the development of supervision work also directly affects the safety of the construction site. strengthening the professional capacity of regulators; Enables supervisors to enforce construction site safety requirements while focusing on project quality.

4.3 Installation and construction progress management

We understand the organizational level of the entire construction team, the ability to respond quickly, the use of the contractor's equipment and many other aspects, which can be reflected through the construction progress management of the equipment installation project. The construction progress management of building mechanical

and electrical installation projects must formulate detailed objectives and action plans, and according to the construction plan, decompose the small objectives of the construction plan into various control points, and strictly implement the daily engineering objectives. Plan detailed daily, weekly, ten-day, monthly and daily work summaries, and deal with and coordinate problems in a timely manner. The project manager must not only check the construction progress on a regular basis, but also supervise the construction personnel to carry out the corresponding work according to the plan ^[5].

4.4 Installation and construction cost management

In the management of equipment installation, we attach importance to the management of construction costs and reduce construction costs through diversified measures. Managers should be clear about their responsibilities and control the cost of equipment installation and construction in an all-round way. In the early stage of design, a detailed construction budget should be prepared to guide the installation and operation of the equipment. During the construction process, the relationship between construction quality and cost should be reasonably controlled and coordinated. In the completion process, it is necessary to accurately calculate the cost of the project and ensure the rationality of the funds. Summarize practical experience and continuously improve the effect of cost management. The construction quality and construction cost have a mutual influence relationship, and the construction cost can be scientifically controlled, which can achieve economic goals and strengthen the construction quality. Installing equipment in accordance with specifications can improve construction efficiency. When the enterprise does not organize and control the construction cost, when the cost exceeds the limit, the cost will be excessively compressed, which will seriously affect the construction quality. Therefore, the management personnel pay attention to the coordination of the relationship between construction quality and cost to ensure the smoothness of equipment installation and management.

4.5 Management of equipment installers

When installing equipment, personnel will directly affect the quality of installation, so it is necessary to manage the installers scientifically. Equipment installation often involves a lot of content, follow different needs, reasonably divide construction personnel, refine the responsibilities of each position and process personnel, and accurately install equipment ^[6].

First, when selecting installation personnel, select and

appoint installation personnel according to their professional foundation and professional ability.

Second, regularly organize installers to participate in education and training activities, improve the structure of professional knowledge, and strengthen practical operation capabilities.

Third, while improving the work ability of installers, it is necessary to do a good job in ideological education and safety education, and strengthen the quality responsibility awareness of installers.

5. Problems that should be paid attention to in the installation of construction equipment

5.1 Improve the level of equipment

Mastering the process points of each construction step is an important guarantee to ensure the quality of construction. Attention should be paid to the strict control of the position, tightness and strength of the equipment, and the pressurization test of the equipment can effectively ensure the quality of the equipment, carry out the construction of the equipment in accordance with the design specifications and technical standards, and strictly control each technical key point in the construction process to prevent accidents in the construction process, and then improve the construction quality. In addition, the friction of the equipment can cause the bearings to heat up. The reasons for this are: low grease content, quality deviation of grease, improper clearance adjustment of bearings, etc. To this end, it is necessary to adjust the bearing clearance to ensure the lubrication quality and prevent the machine from overheating, so as to ensure the normal operation of the machine.

5.2 Improve the level of site management

The construction unit should ensure the personal safety of workers, strengthen the inspection of the construction site, strengthen the inspection of construction equipment and construction personnel, and ensure the normal and long-term operation of the equipment. Perform routine maintenance on the equipment to ensure that the equipment is in good working order. In order to avoid high-quality accidents caused by non-standard equipment in the project, it is necessary to deal with and improve it.

5.3 Improve safety work

On this basis, the safety guarantee system of construction projects is proposed, the work responsibilities of construction projects are clarified, and the standardization and institutionalization of construction projects are pro-

moted. At the construction site, safety measures should be strengthened on the construction site, hidden dangers should be eliminated, accidents should be prevented, and the smooth progress of construction should be ensured. It is necessary to establish an emergency management system to deal with emergencies that occur in emergencies to minimize economic losses caused by security incidents. In the process of construction and installation, it is necessary to strengthen the safety management in the process of construction and installation. The safety inspection work of construction personnel, first, should strengthen the safety training of construction personnel and cultivate their professional skills and professional skills; Establish a sound safety and security system, equipped with sufficient fire-fighting equipment, and regularly repair and replace fire-fighting equipment. Thirdly, security issues must be addressed. All potential hazards and safety systems are set up in accordance with the relevant standards so that hazards can be detected and eliminated in a timely manner.

5.4 Strengthen the inspection of instruments and the control of materials

Testing is an important method to verify the quality of the project. It is mainly through the testing of various materials and projects, and based on the test data to evaluate the quality of materials and projects, so as to judge whether the quality of materials and projects meet the relevant standards. Through the testing of all equipment, comprehensive management of its overall performance, analysis of its problems, and timely measures to solve them, to ensure the normal operation of the equipment, improve its work efficiency, in the purchase of all kinds of construction equipment required materials, should first do a good job in the research of materials, to ensure the quality of materials, for the future work to lay a solid foundation.

5.5 Implement construction quality management measures

First, scientific management of construction technology: construction organization design, technical disclosure, and program management will affect the installation quality of construction equipment. Due to the lack of a standard system for the above-mentioned content, there are a variety of undesirable problems, based on the actual situation, formulate a detailed construction plan, and scientifically guide the installation and construction of equipment. When formulating the construction plan, it is necessary to pay attention to the design instructions, process standards and other materials to ensure that they meet the construction requirements and continuously improve the effect of

the plan. When the subcontractor prepares the construction plan, it shall consult with all the participating parties, do a good job of technical disclosure, and reduce the gap in quality management standards. In the construction plan, due to the lack of schedule, technical protection, quality acceptance standards and the review work is too formal, it has not been implemented into the actual construction operation. The main cause of this phenomenon is the lack of a quality management system. When the construction personnel install the equipment, they should be based on the specific situation, improve the content of the construction management plan, and apply it to the specific construction. Personnel should receive education and training, and constantly update their professional knowledge and skills. Introduce excellent technical personnel and management personnel to maintain the level of construction management. According to the development of the industry and the market, construction enterprises should optimize the installation process and standards of equipment, and promote the application of new materials, new technologies and new processes. In addition, the implementation of the responsibility management system, involving personal responsibility, determine the responsibility of departments and individuals, when there is an adverse event, the relevant responsibility can be investigated in a timely manner.

Second, scientific management of construction materials: in the installation of construction equipment, pay attention to the performance and quality of construction materials, and focus on the two-person review method to ensure that the materials meet the design requirements. For example, when installing water supply and drainage equipment, check the type of pipe according to the indicated pipe diameter. Follow the design standards and construction requirements, and check the pipe material. Pay attention to the verification of the quantity of incoming materials. At the same time, pay attention to the performance and quality of control materials, and pay attention to the improvement of equipment installation quality. Construction enterprises should inspect auxiliary materials, such as when installing central air conditioning, they should check the specifications, quality, and shelf life of sealants, and check the main materials and auxiliary materials in accordance with the standard requirements, so as to eliminate the potential safety hazards of construction equipment installation and construction.

6. Conclusion

According to the above analysis, we can understand that there are still many deficiencies in the whole process of construction equipment installation and management, and construction enterprises need to find and formulate

countermeasures to solve and improve. In the increasingly competitive market, construction enterprises want to survive, their own competitiveness is a very decisive factor, but also must be responsible for the construction equipment installation management related work, to ensure the quality of installation management, improve the quality of the entire construction project, so that construction enterprises in such market competition to obtain better development and occupy a place. In addition, it is also necessary to pay attention to the daily maintenance and maintenance of equipment engineering, so that it can improve the construction efficiency of the construction project and ensure the quality and efficiency of the project construction under good performance and working conditions.

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