



How to Perfect the Interpretation and Translation in Engineering Projects

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Abstract

Engineering Interpretation and Translation is an important branch of Language Translation. Through analyzing the engineering properties from the angle of Translation, this article shows that, due to its distinctiveness, the difficulty of proper Interpretation and Translation in Engineering Projects mainly rests with accurately understanding the meaning of source language and correctly using specialized vocabulary to effectively translate the original meaning to audience. To obtain satisfaction in the process of Engineering Interpretation and Translation, translators not only have to have theoretical knowledge and practical experience, but also need to know the industry-related vocabulary.

Keywords: Engineering interpretation and translation, Engineering, Specialized vocabulary

1. The theoretical knowledge of Engineering in the process of Interpretation and Translation

The Interpretation and Translation in the field of engineering, engineering technology, engineering design and construction could be defined as Engineering Interpretation and Translation. Engineering translation, technology translation, foreign trade and economy translation, literary translation and other social sciences translation are all categorized as the important part of Language Translation. Compared with the translation of other disciplines, the Interpretation and Translation of Engineering not only covers numerous subjects such as mechanical engineering, civil engineering, bioengineering and chemical engineering, but also gets involved in many technological process such as product design, metal smelting, rough forging, casting, workpiece heat treatment, welding, mechanical workout and quality testing; In addition, the Interpretation and Translation of Engineering is sometimes relevant to the Department of Legal, Logistics, Finance, Insurance, Taxation and Labor. In this complex situation, all translators are required to have the basic knowledge of mentioned subjects: the mission of translator is translating the source language into target language on the basis of well understanding the original meaning. It means translator should dominate not only the language but also the specialized knowledge.

I serve in an Italian enterprise as an Application Engineer and Translator and have worked in and visited to several countries. After finishing some engineering projects, I realize that the well domination of specialized knowledge of translator would almost play a decisive role on effective translation. For example, there are many polysemous words in English. Although a number of monosyllabic words are used in engineering vocabulary, many words that could indicate multi-table concept and multiple meanings are still used in this field. The common meaning of "cut" is "the act of reducing the amount or number", but it means "cubage of excavation" in Engineering Translation. In the process of translating the catalog of foreign machinery, translator should properly translate the component of machinery, for example, driving wheel and driven wheel may be translated into Sprocket, and idler wheel should be translated into the wheel. While translating the drawings, translators could not translate "Other bore sizes in imperial units are available" into "other metric units dimension sprockets are available" but into "Imperial units available in other sizes of the bore". Thereby, translator cannot perfectly finish the engineering translation without high degree of industrial sensitivity and well understanding of engineering knowledge. The mistakes of target language could seriously obstruct the completion of engineering projects.

However, the poor English level of engineers who master engineering principles and the little specialized knowledge of translators who are conversant with English result in the embarrassment of engineering translation. Generally speaking, translators learn foreign language and translation skill in the university but they fail to engage in professional knowledge. Whereas, most of translators have to face different disciplines in different translation projects, such as from mining to metallurgy, from ceramic to plastic injection and so on. Therefore, translators, whose nature should be curious, have to love their job, adhere to long-term study and good at summing up the previous experience.

According to my work experience and experience in Translation, to perfect the Interpretation and Translation in Engineering Projects, one should achieve several goals shown as follow besides the good capacity of translation:

(1) Familiar with the contents of Translation.

What do you focus on, a mechanical engineering project or a civil engineering project? What is your status, translator that required translation precision or interpreter that with time limits? What kind of the document, an engineering contract or an engineering drawing?Understanding the basic principle, construction, and components of relatively engineering is the first step in accurate translation.

(2) Find out what the object of target language and source language are.

Take translating Italian into Chinese for example. In Italian mechanical drawings, many words, which are neither Italian nor English, could not be found in the dictionary. All these fixed expressions established by usage could only accumulate by translators in normal times. Meanwhile, the marking of drawings in the Commonwealth countries and the Inter-American countries is different from other countries. Translators who have engaged in engineering project of these countries would notice that there are many English and non-English mixtures in their expression.

Finding out the object of target language is the second step in effective translation. In the process of engineering translation, translators serve not only the well-educated engineers and managers but also the factory workers who have never entered into the door of senior class. The name of some mechanical parts and accessories in Textbook may be different from the name known by our “apprenticeship system” workers. Thereby, translators should communicate with both sides before launching translation and use plain target language. Finding out the content and scope of the translation and well preparing to the existing problems and solution is the good way to perfect the translation in engineering projects.

(3) Do not overly rely on the Sino-British dictionary.

Perfect translation is from practice and accumulation, the same as engineering. Copy dictionary mechanically and apply it indiscriminately would be easy to confuse one thing with another. Take "gear" as an example, there are more than ten kinds of expressions in a dictionary such as gear, gear wheel, wheel gear, toothed wheel, toothed gear, tooth wheel, cog-wheel, cogwheel, cogging, tooth gear, central gear and so on. Before choosing one of them in the process of translation, translators should refer to the specific objectives and language situation:

A device for shifting gears on a bicycle by moving the chain between *sprocket wheels* of different sizes.

One *cog-wheel* engages with another.

A mechanism for changing from one *gear* to another in a transmission.

The *gearing* of this machine is unusual.

Therefore, translators should think about the details of engineering projects. Responsible translators would never rely on dictionaries or make a facile remark by intuition or common sense. They would comply with the translation principle of "Faithfulness, Expressiveness and Elegance" and use standard engineering terminologies in the process of translation.

(1) Not abbreviated translation.

If translators find spelling error or non-standard, abbreviated marking in documents or drawings of source language, they should communicate with engineers immediately. The detailed and accurate translation is praisable while the translation seemingly right but actually wrong is faultiness.

2. The accumulation of specialized vocabulary in Engineering Translation

There are three major features of specialized vocabulary in engineering, the first one is “**specialized**”, non-insiders are often completely at sea when hearing these words; the second one is “**high frequency of utilization**”, many translations are often center on one specialized issue; and the third one is “**limited quantity**”. The latter two features are the breakthrough points of successful translation. In my opinion, the best shortcut for translator is thoroughly studying the tender. Engineering Tenders would cover all useful aspects of the project such as engineering requirements, construction progress, materials, construction methods, engineering inspection and insurance, etc. Through study tenders, translators could not only learn specialized vocabulary but also acquire professional knowledge.

I was with responsibility for the tender translation for a Changsha Construction Machinery Group in 2007. I translated the asphalt paver into Spreading Machine as I knew very little about the road machinery at that time. After checking the previous tenders, I replaced it by Asphalt Paver. In the process of tender study, I appreciate the tenders as a good teaching material for specialized vocabulary and professional knowledge. Translators could be competent for engineering translation after predominate a certain number of professional terminology, which can be easily obtained by studying tenders in-depth.

To sum up, perfect engineering translation is a cumulative process of practice, experience, the ever-expand range of professional knowledge and the mastery of terminology. Engineering students who just learn general knowledge in universities should enhance the practical experience and combine the theory and practice so as to obtain the basic skill of engineering translation. Professional translators should read pre-translated data, communicate with engineers before launching translation, learning-by-doing during the process of translation and write a summary after the translation. In doing so, translators could solve the problem of professional knowledge and terms more easily and finish the translation more perfectly.

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