Explanation direct labour

Direct Labor:
A time estimate must be given in advance of the amount of time that will be required for a particular work.
The accuracy of such a prediction depends on many factors. The expertise of those who predict the time norm is obviously the most important factor.

Time norms:
For proper work preparation and subsequent cost monitoring and progress control, the composition of the costs must be clearly stated, either on the budget statement or in the associated auxiliary calculations.
It depends on the nature of the operation which unit is to be considered effective from the point of view of accuracy and targeting. For example: an hourly standard for setting 1 m1 of fencing is quite vague. Is it with style and framework, with gates etc? This makes quite a difference.

A bit of history
At the end of 1800, early 1900, scientific research was carried out into the use of time during production processes.
Frederick Winslow Taylor (March 20, 1856 - March 21, 1915) was an American mechanical engineer who contributed to the theory of workshop organization that would become known as scientific management (also known as Taylorism).
It is important here that he clearly looked at which is the most efficient production process.
According to Taylor, for every act of labor there is only one best, superior method. To research this, Taylor made use of the 'scientific' methods and techniques of work analysis: so-called 'time and movement studies'.
One of the methods to do a labor analysis is the so-called ***Multi Moment Method.***

definition:
Multi Moment Method is a study in which all activities within a company are inventoried in a certain period in order to gain insight into how quickly and efficiently processes run. A Multi Moment Method Study is therefore used to map out how effectively the company and all links and departments within a company function. In particular, the time factor is taken into account. By means of a study it becomes clear how much time the various activities cost. The time factor is an important factor for many companies because wasted time is often directly related to wasted money.

Business processes that take unnecessarily long are often not pleasant for both the company and the staff. Therefore, a multi-snapshot for both the executives and the executive staff is a useful means of optimizing the business. The objective of a multi snapshot is positive. Various improvement plans can arise from an MMM. These improvement plans can be implemented by a company in consultation with the staff. After implementation, the changes can be assessed and evaluated through a new multi-snapshot.

Explanation:
For example, in one case, it will take a blacksmith 30 minutes to forge a simple hook. In another case 100 minutes or 10 minutes. His time use will depend on the one hand on his skills and the efforts he makes and on the other hand on the circumstances (influencing factors).
Some influencing factors are:
-precise content of the task;
-the working conditions. Outside, inside, working height;
-the applied working method;
-the tools used;
-quality requirements;
-the amount of work;
-the work crew size.

The aforementioned influencing factors determine the duration.
Only when these factors are known can an amount of human labor be expressed in a time norm.
The definition of a time norm is therefore:
A time norm is the amount of time that someone who works with normal effort and skill will need to perform a certain task:
-a precisely defined task;
-under defined circumstances;
-according to a fixed working method;
-use of a specific tool;
-according to certain quality requirements;
-of a certain series size.

The calculation of processing times therefore mainly depends on obtaining the correct time data.
But how do we get it ?
1. Via estimation;
Estimation is the easiest way to get time data. But this method depends on the person who is estimating. His or her experience determines the accuracy.
Estimating time data should therefore be discouraged.
2. Via experience figures;
Norms obtained from past experience are, of course, more valuable than the above estimate.
Unfortunately, experiences are mostly based on memory.
3. Via subsequent calculation;
Experiences recorded on paper can be valuable. However, we must bear in mind that the circumstances for each work are always different and the data obtained in this way must be handled with the necessary care.
The manner of recording the influencing factors of a work is therefore decisive for later use.
4. Via time measurement; Here is the so-called ***Multi Moment Method*.** The More objective and reliable are the time data based on measurements by experts.
Every measurement should start with a thorough analysis of the event. In this way, it is checked in a systematic way which sub-operations an operation consists of. Subsequently, the sub-operations are decomposed into operations, which, if necessary, are again decomposed into sub-operations which are measured over a long period. The average of this is the correct time.
However, this expensive and time-consuming method is only suitable for repetitive work that often occurs.
On the other hand, you can of course easily keep track of which operation has taken which time to make new calculations with that experience data.
It's about getting paid for your hours.
5. And if you do not have the correct data yourself via standards files.
There is sure som insight in forging-costs when referring to the external sites of third parties.

Surcharges:
The required number of man-hours determined by means of the processing times will generally have to be increased in connection with the so-called loss of time, which can arise, for example, during the performance of work in winter conditions, or the inability to use a required crane at strong wind.
Depending on the location of a structure, an increase may also be necessary for any additional travel and accommodation costs required.

The basic hourly wage referred to here must also be increased by the social contributions to be paid by the employer.

Wages (roughly) in the construction industry / metal industry / forges:
For the calculator especially when a tender budget is being worked on, the treatment of the wage costs means no more than multiplying the number of budgeted hours by the so-called gross hourly wage costs. This often ignores the way in which the hourly wage costs are built up.

• time wage
determining wages is simple but determining labor costs is complicated but administration is simple
quality of work delivered is not under pressure from performance
• performance wage (piece wage)
determining wages proportional to performance and determining labor costs is simple, but the associated administration is complicated
quality of work delivered is under pressure of performance
• combined systems