







Correct bearing mounting extends service life

It's a warm day in August. The combine harvester is running at full speed, because the grain has to be removed from the land. Suddenly you hear a buzz from the mowing board and the machine vibrates. A bearing has failed and needs to be replaced as soon as possible. After all, you have no time to lose. You return to the workshop and start dismantling the jammed bearing. With a hammer you hit the bearing off the shaft with the necessary force, after which you can mount a new bearing. Somewhere you have a bushing, but there is no time to look for it. With a hammer and an old chisel you decide to hit the bearing tap by tap on the shaft. This works fine, but the bearing will be damaged.

Approximately 16 percent of bearings fail prematurely because they are incorrectly fitted. According to Jeroen Heerdt, business manager of SKF Training Solutions Benelux, there is also a lot of ignorance in the agricultural sector. "Many mechanics think they can hit a bearing with a hammer. As a result, some of the bearings are already broken before they have even turned at all. Because with every stroke of the hammer, the balls in the bearing damages the raceway. In these places, the lubrication film will build up less well and the bearing will therefore rotate more easily. In addition, hitting with a hardened steel hammer also brings dangers with it. If you hit steel on steel, shards can splinter off the bearing. These shards shoot away and can penetrate so deeply into your skin that they need to be removed surgically". The first and most important aspect to pay attention to when assembling bearings is your own safety. Wear safety goggles and clean gloves.

Clean working

It is important that your workplace is as clean as possible. A bearing is a sensitive product and you should therefore handle it with care. Clean up the workplace before you start. Engineers sometimes place the bearing on the workbench or tool trolley. But this is often a dirty place. Remove all dust, sand, grease and oil before you start. Then leave the bearing in the packaging for as long as possible, especially if you are cleaning the workplace. Also, do not mount bearings near a colleague who is welding or grinding. This will release dust and dirt. If this material gets into the bearing, it will damage the bearing's raceway, causing the bearing out of the packaging and take a break or the working day is over, put it back in the packaging. You can also cover the bearing with a clean cloth.

A common mistake when mounting a new bearing is that the wrong bearing is mounted. Measure the shaft accurately, at least

in two places in four directions. Then find out which bearing is intended for the diameter in question. In order to get a bearing firmly on the shaft, the bore, the hole in the bearing, is often slightly smaller than the shaft diameter. In short, it is not always easy to slide the bearing onto the shaft. In agriculture, a bearing with too large a bore is often chosen. A bearing like this is easy to slide on the shaft, but then it is difficult to secure. In practice, therefore, mechanics often hammer centering points into the shaft or glue the bearing to the shaft. But this is ineffective and there is a high risk that the shaft will rotate loose in the bearing. This damages the bearing and causes it to rotate only a short period of time.

How do you mount a bearing?

Before mounting a bearing, it is necessary to clean the shaft properly. Many mechanics remove rust with scouring cloth or deburring disc. "You should never do this, because it also removes metal. If you want to remove rust, do this with a solvent. If there are pits or burrs on the shaft, don't use a file. Carefully remove them with a whetstone. To make it easier to get the bearing on the shaft, lubricate the bore and the shaft with a thin mineral oil. Do not use WD-40 at all. By the way, WD-40 is useful for dismounting a bearing. Inject the bearing with WD-40 one day in advance. The oil has a high penetrating capacity, i.e. it penetrates deep between the bearing and the shaft, so that you can easily remove the bearing from the shaft later on. But how and with which tools do you mount the bearing? SKF has developed a website for this purpose. On skf.com/mount, you enter the bearing designation on the bearing or box. Then you choose the method of assembly, for example hot or mechanical assembly. A step-by-step plan explains how to proceed and prevents dangerous situations. You can also find these instructions in the Bearing Assist app.

Which tools to use?

Fitting tools, axial lock nuts, bearing pullers, induction heaters, etc. Always use the correct tools for mounting and dismounting of bearings. "That sounds logical, but the right tool makes the job easier, safer and results in a longer life of the bearing," But how do you know which tools to use? On skf.com/mount you will find the mounting options for each type of SKF bearing.

