

# Bearing Grease Filling Machine

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**Abstract-** In many industries, as there are the part of automobile components such as bearings used in the gears and components. As we know lubrications are very necessary for the components to work properly without wear and tear of the components while working.

Grease filling machine fills bearings with grease used in the gear. They are to filled proportionally and not to be overfilled or under filled. To fill the bearing with the grease with sufficient quantity. Hence the only solution in such cases is filling the grease by using hydro grease pump and jig and fixture. This method does not require extensive labor and skill and is not time consuming. It fills up the grease completely into the component And environment friendly. And also makes it efficient filling of the bearing.

**Keywords-** automobile components, overfilled, under filled, hydro grease pump

## I. INTRODUCTION

This project is an attempt to reduce the effort or time consumes to fill the grease in the bearing, before it is not fill or lubricated with the grease. This system can be safely used for filling the grease in the all the frictional machine parts could be used in machinery an automobile, such as bearings, universal joint, axle, and other parts also. For filling the grease in the bearing the grease is fill in the grease pump and the quality of the grease is also good as other. Because the life of the part is increase using lubrication.

The lubricant is the most important factor considered in the maintenance of machine parts. Because, every machinery part is fractioning on each other as the use of it, an average at the time of maintenance of any machine the 1 kilo of lubricant is used. The less lubrication cause the damage to the frictional parts of machines. A lubricant is a substance introduced to reduce friction between surfaces in mutual contact, which ultimately reduces the heat generated when the surfaces move. It may also have the function of transmitting forces, transporting foreign particles, or heating or cooling the surfaces. The property of reducing friction is known as lubricity which is known to be good for other people's daily uses.

In addition to industrial applications, lubricants are used for many other purposes. Other uses include cooking (oils and fats in use in frying pans, in baking to prevent food sticking), bio-medical applications on humans (e.g. lubricants for artificial joints), ultrasound examination, medical examinations, and the use of personal lubricant for sexual purposes.

The bearing grease filling machine is the machines which can be fill the grease in the bearing in fraction of time. Because the high pressure grease is used as a lubricant. Which fill the grease in bearing very quickly. The cost of the product is low then that of the other machines used to fill the grease. The machine is also easy to used and no skilled labor is required to operate the machine. It is easy to assemble and dissembled.

## II. INDENTATIONS

### 2.1 : overfilling

Over-filling a bearing with too much grease can cause excess churning of the grease during operation and high temperatures, resulting in overheating and excess grease purging.

Overheating occurs because the heat generated cannot dissipate correctly, continually building until damage occurs.

### 2.2: Under Filling-

Under-filling a bearing with grease can also have adverse consequences. As in overfilling, heat can be generated but for different reasons. When the grease amount is low, a grease starvation condition may be created, causing heat generation or excessive metal wear during operation



Fig. Manual Grease Filling

Basically the grease filling machine is consist of the hydro pump which having the grease filling in it the working of hydro grease pump is the pressure is applied on the grease by using the sprig pressure applied from the top of the pump. When the pressure is suitable then fit the rod. After that we can operate the lever for pumping the grease. The grease from grease pump is get in the pipe line to the “T” section in that we are separate the one input into two output hence, it is called as a separator.



Fig. Automatic Grease Filling Machine

Then the two output are connected to the lower side of the bearing holder by using the ferol nut and bolt. The pipe are fitted in the drilled hole at the bottom of the locator. The locator is a device manufacture by various machining process for locating and holding purpose of bearing . At the top portion of the locator the cylindrical shape is generated hence, the locator is called as the cylindrical locator. For the holding of bearing in the locator for filling the grease the horizontal clamping device is used which can ne capacity to hole up to weight of 50 kg.

For holding and supporting of the all unit of the machine the stand is design which can made up of the hollow metal bars by using the welding operation on it.

### III. CONCLUSION

An grease filling machine is the more efficient and quick filling of grease in the machine parts. It is the future scope in the industrial area where there is the more maintenance required. The grease filling machine is small in size and low cost it is the best product for the small scale industries and garages. The operation is easy and no skilled labor is required for Operating the machinery

There has been an increasing concern in recent years over the increasing of transportation and the maintenance of the vehicle is high. The engine parts are damage by the friction on each other. Almost all moving parts are replace every time. But some time the life of the part is more by using the lubricant. The lubricant is the best for the increasing the life of the parts.

### REFERANCES

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