

autoExpert

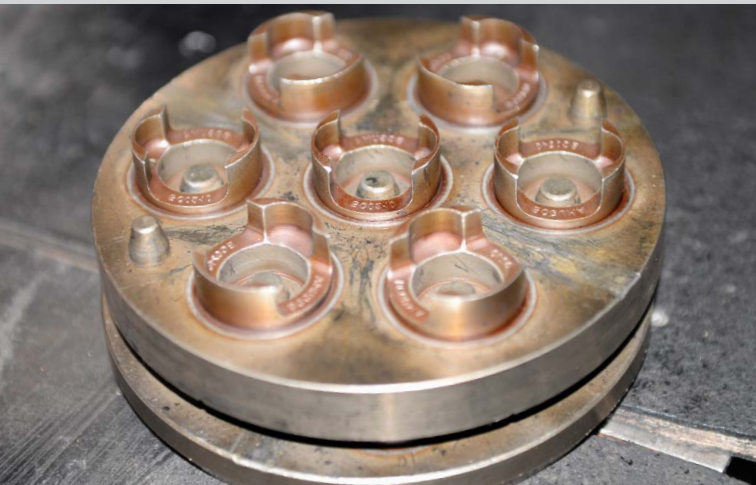
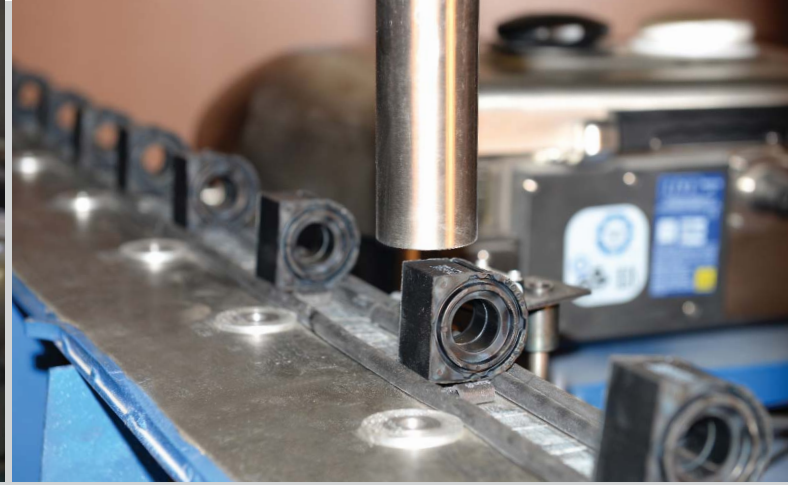
Automotive aftermarket



**Always
a winning
combination!**

**Made in Ukraine
for Europe**





Made in Ukraine for Europe

The history of the company lasts for almost 20 years and today the Ukrainian trade mark BCGUMA is rapidly gaining popularity in Ukraine and abroad. The range of products includes about 600 items and continues its planned growth. And all this - despite the unfavorable conditions for the manufacturing business in Ukraine. How does the Ukrainian flagship of the rubber-reinforced automotive parts production live and develop? AutoExpert magazine was told and shown in the Belotserkovsky company BCGUMA.

The leader's location

Ukraine's aspiration to industrial development is hampered by tax, customs, credit and other conditions, which is why its giant intellectual and production potentials are still not in demand. But even in these conditions, not only domestic, but also foreign markets are entered by the enterprises that without privileges, subsidies and state preferences managed to establish the output of industrial products that are competitive and meet the highest world standards.

BCGUMA brand is registered in the city of Belaya Tserkov and is known by Ukrainian motorists for a long time. This brand produces silentblocks, stabilizers and shock absorbers bushings, engine and gearbox cushions, anthers and other rubber and rubber-reinforced spare parts for cars.

Before telling you what was the prerequisite for the birth of the enterprise, it is necessary to say a few words about the role rubber-reinforced parts play in the car, and first of all - silentblocks.

Quiet units

Translated from English, a silent block literally means "a quiet units". It is a rubber-metal hinge that serves as a vibration isolator and is used to damp vibrations and absorb shock loads that are caused due to the car-road interaction or as a result of its units and assemblies operation.

The typical construction of a silentblock is quite simple - there are two coaxially placed bushings (fittings), permanently connected by a layer of vulcanized elastomer. The best anti-vibration properties pertain to the natural rubber elastomers.

When the silentblocks fail, the car has poor course stability and controllability, everything rattles on a bad road, because of the irregular geometry of the suspension, there is an uneven wear of the tires. On bad roads, even high-quality silentblocks serve about 50 thousand km, on normal roads - twice or even several times longer.

The Ukrainian alternative

In the 90s in Ukraine there was a drastic change of formations, the industry was falling, enterprises were destroyed. Many specialists of the highest qualification were forced to make a difficult decision: to immigrate abroad, or still seek the application of their intellect in their homeland. In this difficult time, the foundation of the future BCGUMA company was laid. With the support of his own enthusiasm, engineering and organizational talent, in 1998 Vitaly Klochko established a small team of specialists in the field of the production of rubber goods. The backbone of the team has been working for the company till this day: Stanislav Glavak, Oleg Ivko, Vladimir Goncharov. These people were not afraid of difficulties and believed in a dream.

It took many years to develop the production from scratch and create sufficient product range. And only 7-8 years ago BCGUMA decided to publicly position its brand. Now the BCGUMA company can rightly be called the leader of Ukraine in the field of production of rubber-reinforced parts for cars.

In the period from 2013 to 2017, the volume of the output increased three-fold. And all this despite the fact that the company does not work for the initial equipment of cars.

The quality of BCGUMA products is annually confirmed by the certificate of UkrSEPRO. In February 2018, the ISO 9001:2015 certificate was obtained - this is the first step that will give a real opportunity in the future to become a supplier for the initial equipment of cars.

Achieving such a success would be simply impossible, if from the very beginning the founder of the brand did not ensure scrupulous compliance with production technologies and the supply of quality raw materials. Such priorities determined the main thing: quality and high demand for the product.

Optimal adaptation

In the beginning, BCGUMA solved issues related to design and reverse engineering, by ordering these works to outside specialists, but the time required the creation of its own design and technology office.

The tasks of the bureau are the development and adaptation of product designs not only to the requirements of the market, but also to their own production technologies.

If the terms "development" and "design" are clear, then what does "reverse engineering" mean? This is the study of the finished product in order to understand the principle of its design and operation, to reproduce it, but without direct copying. After all, often the method of simple copying can be inefficient (also due to the difference in technology) both in terms of reliability and durability of such a "copy", and in terms of pricing. So, how everything happens ...

Work on the logic of reverse engineering requires a special approach. As a sample BCGUMA specialists select only original parts and parts from the supplier to the conveyor of the car manufacturer, while comparing them with the same ones, but having been in operation. The design, material properties and the manufacturing technology are thoroughly studied.

First, a new and later a used part is cut, places of increased wear are studied, potential weaknesses of the structure are determined and the feasibility and possibility of finalizing the design is evaluated.

Often, when evaluating the type of construction of the seat under the silentblock that "meets" the BCGUMA part in a state which is far from new, it is decided to slightly increase the outer diameter of the silicone block, which is considered acceptable, and at the same time gives the best result when pressing. Such an approach clearly characterizes the enterprise, as focused on maintaining a close connection with the market and attention to the opinion of repairmen and car owners.



Vitaly Klochko, owner of the BCGUMA company:

"People are the foundation of the company's business and its highest value. The team of the enterprise was formed decades ago, these people believe in the company, are convinced of the value of their work not only for themselves, but also for society, for the image of Ukraine. Thanks to them, the enterprise became the industry leader, the flagship in the production of rubber-reinforced auto parts in Ukraine".

Improving the perfect

There is a well-known trend in terms of which the world auto industry is characterized by a decrease in the maintainability of units and aggregates of cars, as a result of which, the priority is given to large-node and unit replacement in case of deterioration or failure. We should pay tribute to this policy. After all, the leading factories of the world automobile industry produce perfect products, and if it is operated on good roads, the unit together with all their elements can fully work out its planned resource and in the future must be scrapped and not repaired.

But if the roads are bad and fuel is substandard, the aggregate method of repair will quickly empty the car owner's wallet. Therefore, both car owners and repair business in every way resist aggregate techniques and successfully find ways to repair something that at first glance can not be repaired in general. And one should not think that such approaches are practiced only by Ukrainian repairmen. In the US or Germany, for example, this phenomenon is also observed.

BCGUMA works in the same way. Let us give an example. Mercedes started installing a non-assembled support of a drive shaft pendant bearing on Sprinter cars (body 901, 906). That is, if the bearing fails, the entire support must be changed, despite the fact that the life of the rubber cushion is usually three times longer than that of the bearing.

In response to such a waste, BCGUMA offered consumers an improved collapsible support from the XD

bcguma

BC1333

Xclusive Design



ПОДВЕСНОЙ ПОДШИПНИК В СБОРЕ

Артикул: BC1333
A9014110412;
A6014102110;
A9014110312;
2D0521351;
2D0598351A;
2D059835

Номера других производителей (OEM):
A9014110412;
A6014102110;
A9014110312;
2D0521351;
2D0598351A;
2D059835

Вес, г: 790
Необходимое количество: 1
Деталей в упаковке: 1
Внешний диаметр, мм: -
Внутренний диаметр, мм: -
Толщина, мм: -
Материал: Металл / Резина
Ось установки: -
Сторона установки: -

ПРИМЕНЯЕМОСТЬ:
MERCEDES-BENZ; VW

Xclusive Design (эксклюзивная конструкция)

Особенность данной конструкции состоит в возможности полной разборки подвесного подшипника и замены его основной части не меняя самого кронштейна.

Схема сборки:

1. Пылезащитное кольцо;
2. Подшипник;
3. Пылезащитное кольцо;
4. Стопорное кольцо;
5. Защитная шайба;
6. Защитная шайба.



BC1333

BC0104

www.bcguma.ua/auto/BC0104

САЙЛЕНТБЛОК ЗАДНИЙ ПЕРЕДНЕГО РЫЧАГА, УСИЛЕННЫЙ «BAD ROADS»

Артикул: BC0104

Номера других производителей (OEM): 1K0199232J; 1K0199231G; 1K0199231J; 6C0407183A; 1K0407183E; 6C0407183; 1K0407183

Вес, г: 140
Необходимое количество: 2
Деталей в упаковке: 2
Внешний диаметр, мм: 64.0
Внутренний диаметр, мм: 17.0
Толщина, мм: 51.0
Материал: Полимерный материал
Ось установки: Задняя Передняя
Сторона установки: Слева / Справа

ПРИМЕНЯЕМОСТЬ:
AUDI, BMW, FIAT, HONDA, LAND ROVER, SEAT, SKODA, VW



Преимущества сайлентблока BC0104 "BAD ROADS" по сравнению с другими производителями:

1. Уменьшен внутренний диаметр изделия, что составляет 17 мм. (ремонтный размер для рычагов с многолетним сроком эксплуатации).
2. Для исключения проворачивания детали в рычаге, увеличен наружный диаметр и толщина стенки.
3. Были обнаружены и устранены критические места разрушений эластомера в следствии больших осевых и динамических нагрузок.
4. Основываясь на анализе результатов испытаний был разработан специальный состав резиновой смеси, обеспечивающий динамическую выносливость, усталостную прочность, сопротивление разрастанию трещин.
5. Благодаря этим изменениям был увеличен эксплуатационный ресурс сайлентблока.

Прежняя деталь



"NEW" BCGUMA BC0104 "BAD ROADS"



(Exclusive Design) series, in which it is possible to replace the bearing (article BC1333). Besides, BCGUMA firstly complements the support with relatively inexpensive, but quite reliable bearing CX of Polish production. After it completes its resource, the client can easily replace it with any other - cheap or the best quality. The proposal went "with a bang"! And this is not the only example.

A similar approach is implemented by the company with respect to the entire product line, designed by the reverse engineering method. And although not for each unit of the assortment the changes have such a pronounced character, in any case the products of the enterprise are different from the analogues. The company's specialists have done everything necessary for these changes to be realized as an improvement from the point of view of operation in harsh conditions, which is very important not only for Ukraine, but also for neighboring markets - a lot of roads not only in Moldova, Belarus, Russia or Georgia, but and in Romania, Bulgaria and even Poland are still far from ideal.

As a response to this, the BAD ROADS series was born - the parts that were maximally adapted and reinforced to our realities. The company's ability to develop and launch a series of auto parts that will adapt the suspension of cars to particularly difficult road conditions without affecting the parameters of traffic safety and controllability of the car with a significant increase in reliability and durability speaks for itself. It was a responsible step and BCGUMA made it, and did not have to regret.

Machine production base

Production begins with a mechanical workshop, where the workpieces for future silentblocks are produced from rolled section - steel sheets and pipes of different lengths and diameters. After appropriate mechanical and stamping treatment, they will become the basis for most products of the entire product range.

Mechanical processing of metal is performed both on traditional and modern imported equipment.

The punching site is equipped with a powerful stamping equipment - presses with capacity from 25 to 100 tons, which allows to solve any production tasks that can be set for production of this level.

In addition to working with steel, in the same workshop, there is a site for working with polyamide where new machine-tools for the production and machining of polyamide products are installed. The organization of this site became a necessity, considering the company's desire to keep pace with the times.

Polyamide - the material of the future

In the automotive industry, polyamide begins to increasingly displace metal products due to its properties. Polyamide combines high mechanical strength (strength of polyamide is comparable with non-ferrous metals and alloys of them) and low density with good antifriction and dielectric properties, chemical resistance to oils and gasoline, ability to glue and paint nicely - all this makes polyamide one of the most important structural materials. Polyamide has a high load-bearing capacity, good rigidity and resistance to wear. Parts with polyamide components, in comparison with metal components, reduce noise, vibration and are not subject to corrosion.

Mysteries of rubber compounds

There are many methods of manufacturing rubber parts, depending on their purpose, - calendaring (rolling), continuous extrusion, pressing, injection molding, winding, etc. But the practice and elementary technical and economic calculations have shown that compared to other methods, the injection method has a number of advantages. For example, by



Photos above: Keeping up with the times, the BCGUMA works with machine-tools for the production and machining of polyamide products.

Photo below: BCGUMA rubber-reinforced products with polyamide.



On the left: In February 2018 BCGUMA received a certificate of the quality management system ISO 9001: 2015. This is the first step that in the future will give a real opportunity to become a supplier for the initial equipment of cars. At the same time, the company likes to quote the phrase of **Henry Ford**: "Quality is doing your job right even when no one controls the process."

Made in Ukraine

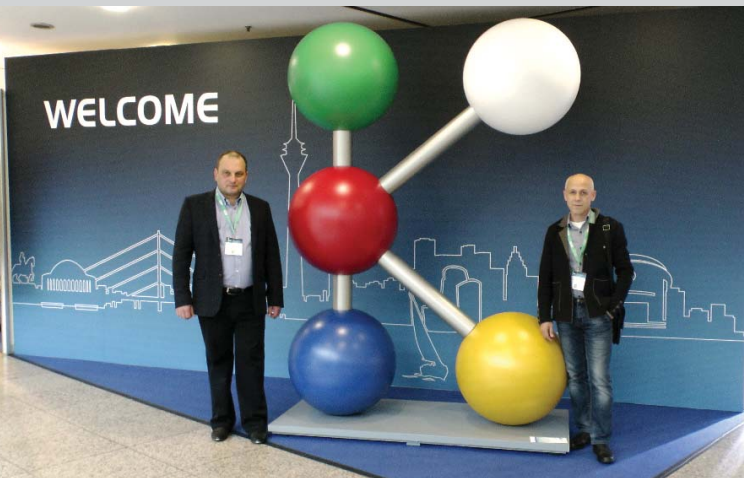


Evgeny Litvinov, Commercial Director of BCGUMA:

"Our three pillars - assortment, quality and reasonable price! I am convinced that the buyer should enjoy not only the affordable value of our products, which he pays attention to in the first place, but also on their quality. That is why we pay great attention to developments, new materials, new equipment, production technologies and the quality control system.

The priorities we have chosen - the quality of raw materials and products, modern technologies and affordable prices - determine the high consumer demand for all products. Our client network has been expanding quite extensively in recent years. At the same time, we do not force anyone or persuade you to purchase BCGUMA products. We just welcome the desire of potential customers to become our partners. And the fundamental rule of partnership is work for mutual benefit and focus on long-term and fruitful cooperation. Such an approach gives its own logical results - we have been increasingly turning to buyers from abroad - both private car owners, since the price for similar products in Europe is many times higher, and wholesale companies."

Photo below: The management and specialists of BCGUMA regularly visit the leading and the most important for the industry specialized exhibition in the field of plastics and rubber in German Dusseldorf - "K". It is held only once every three years and is key to the producers working in this segment.



reducing the time for vulcanization, labor productivity is increased by a factor of 1.5. At the same time, rubber waste is reduced by one third, and the quality of products is increased against the background of a reduction in the percentage of rejects. In addition, the further processing of products after vulcanization is reduced, and in some cases even omitted. Also, the application of the method of molding rubber under pressure contributes to the mechanization of the process for the production of molded articles.

The essence of the method of molding rubber under pressure is as follows. The rubber mixture that is in the injection cylinder, under the action of a plunger or screw, begins to flow through the nozzle of the injection cylinder and the casting channels into closed-form seats. The pressure generated during casting increases with pressing and remains constant with further vulcanization of the product, which allows to exclude the formation of pores, voids in the details and to obtain a monolithic system "rubber-metal", "rubber-polyamide".

One of the most important advantages of this method is the heating of the rubber compound during injection molding. As a result, the product is vulcanized more evenly, and the total vulcanization time is significantly reduced.

Rubber molding under pressure is attractive for any manufacturer of rubber and rubber products. Therefore, in a competitive situation, when equipment is basically the same, the main emphasis is on materials. That is, the highest quality resource lies precisely in the components of the rubber compound.

The main characteristics of rubber are tensibility, elasticity, tensile strength, and also resistance to deformation at different temperatures, which determine its ability to withstand the applied loads and restore the molds after removing the forces that caused it to change. It is these properties of rubber that provide silentblocks and other similar parts with the function of vibration protection of the suspension and body parts. And special additives allow to increase the temperature range of the work of the part, ensuring the ability of the part to be elastically deformed without cracking or flaking even at temperatures down to -40°C .

The selection of the optimal composition of the raw mix is important, from supplier selection to laboratory control.

In Ukraine, there is no raw material base, all raw materials for the production of rubber compounds are imported. Therefore, the company turned to the European manufacturers of rubber compounds, who produce them when ordered. During manufacturing, the requirements of BCGUMA technologists for the properties of rubber compounds are taken into account, considering their purpose. The company-producers keep the finished rubber composition in secret. And the correctness of its choice at BCGUMA is very transparently proved by the almost total absence of rejects and reclamations.



The future lies in assortment

BCGUMA has an ambitious goal: to enter the European markets as an equal participant. And for this you have to meet certain criteria. As a manufacturer, the company has already brought them to the European level. Except one - the range. To become a partner of large trading companies and to enter the European markets systematically, BCGUMA companies need to rapidly increase the range of products. Successful experience in the development of a wide range of diverse products gives every reason for a sound self-confidence.

The immediate goal of the company is to set up a complete production of rubber-reinforced parts - all the details of the suspension for a particular car. First of all, it is planned to fulfil for popular passenger and commercial European and Asian cars, and in the future - for trucks and buses.

The next stage is the improvement of protective coatings for metal parts of silicone blocks and other metal suspension elements by using electrolysis technologies.

Today, the main production is still the same list of goods, limited mainly by rubber and rubber-reinforced products. Therefore, the plans for technological equipment of the company's production facilities are based on the need for the most complete automation of processes and increase in production volumes. The company is already implementing plans to upgrade and expand the fleet of casting machines. So, in order to significantly increase the assortment, production volumes, boost its profitability, it is planned to purchase automated injection machines for molding rubber from the world's leading manufacturers in this industry. Such equipment will raise the productivity, reduce the proportion of manual labor, decrease the costs of human labor as a whole. And it will not only guarantee the world level quality, but will also reduce the amount of raw material waste.

BCGUMA closely monitors and evaluates all the smallest opportunities associated with its entry into the markets of foreign countries. The development of the Moldovan market is already underway. Belarus is also familiar with the products of the Ukrainian manufacturer. Negotiations are being held with large suppliers of spare parts in the Balkans, Poland and Romania.

As a confirmation of the correctness of the chosen strategy, the company has already started receiving applications from the near abroad with a proposal to supply products for packaging under European brands.

The rapid development of the company gives confidence that soon Europe will designate the Ukrainian plant BCGUMA on its industrial maps.

Alexander Kelm, autoExpert magazine





BCGUMA is a Ukrainian trademark, under which a wide range of high-quality rubber-reinforced automotive parts are manufactured for after-sale service of European and Asian cars: silentblocks, stabilizer bushings, engine and gearbox cushions, anthers, shock absorber bushings and much more.

The enterprise was established in 1998 in Belaya Tserkov, Kiev region and in a short time managed to reach the level where the products are in constant demand in various regions of Ukraine and beyond.

BCGUMA is developing steadily and successfully due to the introduction of advanced technologies and the use of modern equipment.

Ukrainian automotive spare parts manufacturer
BCGUMA company, Ukraine, Belaya Tserkov
www.bcguma.ua, e-mail: info.bcguma@gmail.com
+38 097 130 2629, 068 133 9393, 095 133 9393