CARWASH

CAR WORKSHOPS: A SERIOUS GAME APPROACH TO MANAGING WASTE CONSIDERED HAZARDOUS

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IO6-BEST PRACTICE:
“Polir tuning” Carwash: with care for the environment”

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1. INTRODUCTION

This best practice provides an example of a Bulgarian carwash station – “Polir Tuning” applying modern practices in its activities in a persistent and continuous way.

This best practice could be used by owners and managers of car workshops, workers in car workshops, students, trainers, associations and/or VET providers.

The information about this best practice was collected from secondary sources and the company website (http://polir-tuning.com/avtomivka/home.html).

2. BACKGROUND INFORMATION

The number of enterprises dealing with car wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods (Code G) in Bulgaria, incl. the salaries and number of employed persons for 2007 at national level and by statistical regions are presented in Table 1.

Table 1. Main Economic Indicators For Section “Wholesale And Retail Trade; Repair Of Motor Vehicles, Motorcycles And Personal And Household Goods” - 2007

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Eurostat code</th>
<th>Bulgaria</th>
<th>North-West</th>
<th>North-Central</th>
<th>North-East</th>
<th>South-East</th>
<th>South-West</th>
<th>South-Central</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises - num.</td>
<td>11 110</td>
<td>127 443</td>
<td>12 694</td>
<td>14 405</td>
<td>17 280</td>
<td>19 277</td>
<td>39 605</td>
<td>24 182</td>
</tr>
<tr>
<td>Wages and salaries - thous. BGN</td>
<td>13 320</td>
<td>1 663 080</td>
<td>73 184</td>
<td>108 919</td>
<td>154 345</td>
<td>133 622</td>
<td>956 234</td>
<td>176 776</td>
</tr>
<tr>
<td>Number of persons employed - num.</td>
<td>16 110</td>
<td>483 347</td>
<td>36 742</td>
<td>49 092</td>
<td>61 574</td>
<td>62 226</td>
<td>193 966</td>
<td>79 747</td>
</tr>
</tbody>
</table>

1 According to Classification of the Territorial Units for statistics in Bulgaria (NUTS) of 14 February 2009.

29.01.2010


The main economic indicators of the enterprises dealing with car wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods (Code G) for the period 2011-2013 are provided in Table 2.

Table 2. Main Economic Indicators For Section “Wholesale And Retail Trade; Repair Of Motor Vehicles, Motorcycles And Personal And Household Goods”, 2011-2013

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>139 950</td>
<td>520 784</td>
<td>414 962</td>
<td>140 782</td>
<td>509 788</td>
<td>402 864</td>
<td>141 423</td>
<td>505 794</td>
<td>400 183</td>
</tr>
</tbody>
</table>

Source: National Statistical Institute, www.nsi.bg
3. SERVICES OFFERED

“Polir tuning” Carwash station is situated in town of Rousse. It offers the following five services: external and internal washing, disinfecting/cleaning of air-conditioning system, washing of upholstery and trim, car pasting, and head-lights polishing.

3.1 External and internal washing

The external washing includes several activities: 1/ jet washing with high-quality contactless solution, 2/ if necessary, a special attention is paid to cleaning of the rims with special brushes and products, 3/ boards of tires could be treated with wax for extra shine, 4/ under client request protective wax can be applied and extra refreshment of plastic parts could be done.

The internal washing includes the following activities: 1/ standard cleaning of upholstery and floors with vacuum cleaner, 2/ blowing, wiping and polishing of the board with special solution, 3/ under client request the internal surface of the glasses could be cleaned and polished.
Management of wash waste water

According to the Quality Management System adopted by the company the procedure for wash waste water treatment includes the following steps:

1. Draining of the wash waste water into the separator.
2. Sand filtration of wash waste water.
3. Removal of solid parts and oils from the separator.
4. Hydrocarbon and bio purification (recycling process).

3.2 Disinfecting and cleaning of air-conditioning system

The air-conditioning system of cars kept many bacteria and dirt, which often cause an unpleasant odor when the air conditioning system is switched on. The problem area is the evaporator and the filter. It creates cold air stream and it is continuously wet due to water condensation turning into a good medium for mold and bacteria. They can easily multiply in such well-disposed environment and then enter the interior of the car as soon as the air conditioner is switched on.
The staff of the company uses professional products for cleaning the spores and bacteria, and disinfect the air conditioner ducts and filter. The procedure takes 30-40 minutes and gives exclusive fresh scent of the vehicle.

Management of used gases and liquids

According to the Quality Management System adopted by the company the procedure for used gases and liquids treatment includes the following steps:

1. Used liquids are collected into waste tanks/barrels.

2. Empty packages like carton boxes, tins, PVC packages are collected separately and prepared for removal.

3.3 Washing of upholstery and trim

Washing of upholstery and trim is done through machine called extractor, which ensures maximum efficiency of the process. Unlike hand washing, not dirt rammed inside the seats. Another advantage is that after the washing the seats and the details remain semidry, which shortens the duration of the natural drying and is energy-saving.
3.4 Car pasting and head-lights polishing

Car pasting provides the car with desired gloss and creates a protective layer on the paint. The service is machine-supported with high quality products of 3M brand.

Polishing of head-lights consists of two phases. The first phase includes finely removal of the upper layer by water-based sandpaper. The second phase includes mechanical polishing with high quality professional products of 3M brand. On customer request there is an option of placing additional protective micas.

4. QUALITY MANAGEMENT SYSTEM

Since company focuses on environmental protection it uses only professional high-quality products which are developed through modern technologies and use substances with minimum effect on environment.

Quality management system is developed and implemented in company. Three certifications were successfully passed.
ISO 9001:2008 Quality management systems

ISO 9001:2008 aims to ensure the maintenance of a constant product quality and regulatory compliance, continuous implementation of best practices and ensure customer satisfaction.

ISO 14001:2004 Environmental management systems

ISO 14001:2004 certification demonstrates the responsibility of the organisation to protect the environment. It ensures improved control over raw materials and energy and reduce waste.

BS OHSAS 18001:2007 Occupational Health and Safety

This standard specifies the requirements for the systems for managing health and safety at work. Applying this standard organisation can control and improve health and safety at work. The standard demonstrates the company's commitment to a safe work environment, protection of employees and other stakeholders of accidents and incidents.


The company has elaborated written internal rules for car wash waste collection, labelling the bins and tanks, signs and sites where to store the wastes. It has concluded contract for removal of the different wastes with a specialised and licensed truck company.

Every 6 months the company updates the rules and the processing, and does trainings to the staff.