

## THE LEAD/ACID BATTERY INDUSTRY IN MALAYSIA

H. RAHMAN IBRAHIM\*

*Domar Bateri Automotif Sdn. Bhd., 68100 Batu Caves, Selangor (Malaysia)*

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### Introduction

Malaysia is a country made up of a Federation of States and is geographically divided between Peninsular Malaysia, south of mainland Thailand, and East Malaysia in the island of Borneo. The country comprises a wide variety of ethnic and immigrant populations ranging from natives, immigrant Asians and indigenous Malays, totalling 15 million people. Soon after the Korean war, Malaysia (then called Malaya) enjoyed an economic boom by virtue of its ability to produce rubber in large commercial plantations. This was soon followed by the planting of oil palm and the extensive mining of large tin reserves. Between the 1950s and 1970s, Malaysia was recognised as the world's largest producer of rubber, palm oil and tin. The discovery and the exploitation of petroleum reserves added strength to the country's economy. In addition to the above primary products, Malaysia is also renowned for its exports of hardwood timber, pepper, and cocoa. This year, the formation of a new Ministry of Tourism will boost the importance of the tourist industry as the third largest revenue earner. Manufactured goods are increasingly becoming an important feature of the country's economy, including local manufacture of the Proton Saga automobile. Under this scenario of economic success, Malaysia went through an economic boom in the 1970s and early 1980s making it one of the fastest growing markets in Asia.

At present, Malaysia is facing an economic recession, mainly caused by the drop in the prices of its main commodities in world markets. This slowdown has caused many areas of industry to suffer. There are signs that the economy is beginning to pick up in a more sustained manner but another boom is not expected for some time to come.

### Motor trade in Malaysia

Until the mid-1960s, all motor vehicles found on Malaysian roads were imported. Private ownership of motor vehicles was confined to high-income wage earners and a small, select group of businessmen. Due to the colonial background, the majority of motor vehicles were of British origin. Towards

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\*Representing the Battery Manufacturers' Association of Malaysia.

the late 1960s, the government approved the setting up of car assembly plants and within ten years almost every European, Japanese, and Australian make was assembled in Malaysia by eight industrial groups producing more than fifty variants. All the major Japanese makes of motorcycle were also assembled locally. At the height of the economic boom, the country registered close to 100 000 motor cars each year. This figure excludes two-wheelers and commercial vehicles. Today, due to the economic slow-down, this figure has been reduced to one-third. However, there are signs that the figure will return to above 50 000 units after 1988.

The Malaysian car, the Proton and its variants, is expected to represent approximately 40% of the total number of vehicles produced and sold in the years to come.

## History of the battery industry in Malaysia

In keeping with the development of the motor vehicle trade in Malaysia, the sales of lead/acid batteries grew at the same pace. In 1959, the Chloride Group was the first to set up a battery manufacturing plant in Kuala Lumpur. This was soon followed by a plant commissioned by Century Batteries. Today, there is a total of ten major battery manufacturers, including a specialist in industrial batteries. With continued lobbying of the newly-formed Battery Manufacturers' Association of Malaysia, the Government introduced import taxation that made it prohibitive to import lead/acid batteries directly. Since 1985, the Malaysian domestic market has been completely protected.

## Malaysian battery market

### *Automotive*

With the official formation of the Malaysian Battery Manufacturers' Association, the industry has concentrated its efforts on the domestic market and has started to explore export opportunities. The domestic market is largely dependent on the present population of motor vehicles, construction equipment, marine activity, and other industrial applications. The local production of lead/acid automotive batteries is based on the true demand, assessed on Government statistics, for the current vehicle population (Table 1).

### *Industrial batteries*

The local manufacture of industrial batteries is relatively new in Malaysia; a large percentage is still imported. There is, presently, one company specialised in the manufacture of industrial batteries and several others are similarly active on a mixed basis. Applications of such batteries include:

TABLE 1

Malaysian motor vehicle population as at 1 January 1987

Vehicle type	Petrol	Diesel	Total
Buses	1 584	18 160	19 744
Taxis	6 898	13 920	20 818
Trucks/vans	138 890	131 410	270 300
Private cars	1 248 790	38 040	1 286 830
Tractors/ Industrial vehicles	11 900	92 840	104 740
Sub-total	1 408 062	294 370	1 702 432
Motorcycles	2 618 240	—	2 618 240
Total	4 026 302	294 370	4 320 672

motive power; communications; standby power/uninterruptible power supply; fire and security alarms; and industrial engine starting.

As Malaysia is shifting from an agrarian economy towards an industrial economy, the market for industrial batteries is expected to grow significantly in the coming years. However, since there is a wide variety of applications, the total size of the market may not justify the manufacture of all of the required battery types.

### Government regulations

The Malaysian Government places great emphasis on the manufacture of products consumed locally. A wide range of incentives is provided to encourage growth in the manufacturing sector. This is done by controlling imports by taxation and by providing incentives for investors to manufacture goods, especially if they are export oriented. In the case of the battery industry, the Government's involvement is described in the following two basic legislative categories.

#### (i) Legislation for manufacturers

Present legislation covers the control and monitoring of manufacturing activity in the following situations:

- control of wastes
- safety of workers, including exposure to pollution
- control of factory machinery
- control of organised labour.

#### (ii) Legislation for battery trade

The Malaysian Government imposes a high import duty for complete secondary lead/acid batteries of any kind imported into the country. The

present import duty structure is approximately 45%, or U.S.\$1.20 per kg. Batteries for use in aircraft and other specialised applications are partially exempted from this duty.

Raw materials used for the manufacture of lead/acid batteries are also taxed. Separators are taxed at approximately 30%, but a preferential rate of 5% is allowed for certain companies that conform to the New Economic Policy. Containers of plastic material are taxed at approximately 45%, or at the rate of U.S.\$0.35 per kg. Companies that conform to the rules of the New Economic Policy are allowed exemption from these duties on a volume quota basis. This preferential rate is reviewed from time to time.

For battery manufacturers intending to export their products, the Malaysian Government allows a refund of import duties on raw materials in the form of drawback claims. This is further encouraged by an export credit refinancing facility guaranteed by the National Bank. In addition, there is a wide number of new incentives covering specific situations — all for the purpose of encouraging Malaysian battery manufacturers to export their products. These facilities, therefore, enable the Malaysian battery manufacturers to compete in certain export markets.

### **General profile of battery manufacturers in Malaysia**

Battery manufacture in Malaysia is now almost thirty years old. Many small manufacturers have grown in size as a result of both the evolution of the industry and the protection provided by the Government. There is a wide variety of brands in the domestic market, including well-known international brands manufactured under licensed agreements. Batteries manufactured in Malaysia by the major companies are of good quality, as proven by their success in export markets. Today, Malaysian-made batteries are even exported to temperate countries and enjoy a good reputation. The manufacturing discipline in the industry started from well-defined process methods. These methods were obtained by international licencing arrangements and were further enhanced by suppliers of reputable machinery. The Malaysian battery manufacturers use the more established brands of manufacturing machinery. In most cases, the end products are of good quality and consistency.

In this age of factory automation, Malaysian battery manufacturers are attracted towards higher degrees of mechanization. The cost of human labour in Malaysia is rapidly increasing, but is still very much lower than that of the newly industrialised countries of Asia. A good balance has been achieved between a well-disciplined and educated labour force and the most sophisticated factory machinery available, since importation of manufacturing plant into Malaysia is exempt from import duties. The average cost of labour is approximately U.S.\$320 and U.S.\$200 per month for skilled workers and unskilled workers, respectively. This figure has remained the same over the past two years and is not expected to increase significantly in

the coming two years. This was the result of the economic down-turn when the cost of living index did not increase significantly.

## **Conclusions**

It is a well-known fact that the manufacturing industry as a whole, and the battery manufacturing industry in particular, can look forward to an interesting era of development in South East Asia. This, coupled with the fact that South East Asian markets are growing at a steady pace, augurs well for the future. The Malaysian battery industry is looking forward to better times through co-operation with its Asian neighbours.