

Understanding Maintenance

Tire Inspections



In this column, we share information that readers can begin using today, including concise advice regarding inspections and the important role played by maintenance. We introduced our readers to the importance of daily inspections in our last issue. In this one, we would like to focus on daily tire inspections.

As the only components exposed to the road, tires are subjected to extreme loads, and as such, require daily inspection. For example, worn tires may lack sufficient gripping performance, which, if left unattended, can lead to considerably longer braking distances and slippage on curves. Particularly under rainy conditions, they can cause "hydroplaning," which is a phenomenon where the tire "floats" on a film of water, making it impossible to steer the vehicle. Needless to say, this is very dangerous. Additionally, abnormalities with tire pressure can lead to premature wear, and also make the tire prone to uneven wear and damage. Driving the truck with damaged tires, tires with nails and other objects having penetrated, and tires with cracks in their sidewalls or at the bottom of their treads can, in the worst case, lead to sudden blowouts. Additionally, improper tire pressure increases driving resistance, which may not only affect safety, but also cause fuel economy to decline. A tire loses about 0.7kg/cm² of its pressure per month. According to Hino's own research, a 10% decline in tire pressure from the rated pressure reduces fuel economy by approximately 4%, and a 30% decline causes fuel economy to decline by 12%. As you can see, absolutely nothing good can come from tire problems. Please therefore carry out daily inspections with safety and fuel economy in mind. Important points to consider are: (1) Check the slip signs on tires to ensure they still have enough tread. If these signs indicate that a tire has reached its limit, replace it. (2) Check the tire pressure. It must be no higher or lower than the rated pressure.

(3) Check whether there are any excessively or unevenly worn areas on the tire. (4) Check to see that there are no significant cracks or damage to the tire, that no objects such as nails or stones are penetrating the tire, and that there are no cracks on the tire's sides or at the bottom of its treads. (5) Tap the wheel nuts with an inspection hammer to ensure that none are loose. All these inspection steps are easy to perform. Please start making these a habit today to ensure safety and good fuel economy for your vehicles.

In our next issue, we would like to discuss the significance of brake inspections.



Air pressure Check the tire inflation by visual check of the tire deflection at its contacting section with the ground.	
Clacks, damage and foreign material	
Groove depth and abnormal wear Abnormal Wear	
Wheel nuts tightness	

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HINO

Cares

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HINO continues to pursue customer satisfaction.

HINO is a "people" brand.

We believe that our technological capability and the high-quality service whose achievement we pursue are the aggregates of the abilities and the passion of HINO's staff members. HINO is the sum of its "people."



HINO's Vision

We carefully produce and deliver each of our trucks for our customers in close cooperation with our local partners in different countries.

**Seiei Okazaki,
SENIOR MANAGING DIRECTOR, MEMBER OF THE BOARD, HINO MOTORS**

the expansion of our customers' business opportunities, we believe there is great significance in delivering products that they want as soon as possible. In order to achieve this goal, we must transplant processes that involve a wide variety of parts and components as close to local markets as possible. In other words, Mr. Okazaki says that it is important to assemble the products as close to our customers as possible. This is the concept of "delayed differentiation" espoused by Hino. Another idea that plays a role in this is the "modularization" of components that go into our products. "We are currently developing a production system where the development of technological strategies, platform conception, development of basic model types, module conception and development of core modules, and development of basic customized modules are done at Hino headquarters in Japan, and the designing of local customized modules, and support for processes such as

combining, revising, installing and modifying modules are carried out at regional development and production facilities in overseas countries."

One of the core facilities for these operations is Hino Motors Manufacturing Thailand shown in the photo. This facility is responsible for the production of the HINO 500 Series marketed to Australia, India, Laos, and Cambodia. At the time of this interview, Mr. Okazaki had just returned from a meeting in Thailand. "Of course, it is important to enhance production efficiency. Of more importance though, is to work closely with our local partners based on the quality and reliability of our products, and remain in step with each country's pace of development to carefully produce and deliver each truck aiming to meet the demands of our customers. Precisely for this reason, we place great importance on employing locally at our production facilities and establishing good



Mr. Okazaki at Hino Motors Manufacturing (Thailand) Ltd., one of Hino's production plants



Mr. Noppadol (right) of Hino Motors Manufacturing (Thailand) Ltd.



Mr. Somchai (left). In the background is a Hino 500 Series truck equipped with a CNG engine that runs on natural gas

Let's say that there is a certain "means" that is effective for realizing a certain "objective." If we make it our sole goal to execute this "means" perfectly, we may lose sight of our original "objective." Precisely for this reason, Seiei Okazaki, Senior Managing Director of Hino Motors, says that we must remind ourselves to return to our origins on a constant basis in order to remain true to our "objectives." As a manufacturer of productive assets, one of the most important objectives of Hino is to contribute to our customers' businesses. The "means" to achieve this objective on an ongoing basis are diverse, and include constantly strive to develop products that our customers demand through a process of evolution, deliver products to our customers in as short a time as possible, and enhance our total support efforts so that our customers can continue to use Hino products with peace of mind year in and year out. Not only are these means diverse, they are interconnected in an organic way. The reason we are able to move forward all of these numerous "means"

toward a single goal without straying off course, is because Hino consistently reminds itself of the "for our customers" origins, and is fully committed to the "Customer First" philosophy.

Mr. Okazaki, who oversees production planning, management, and engineering of Hino products, is currently focused on enhancing operations at overseas production facilities. "Hino is a brand that strives for customer satisfaction. In other words, we do not simply pursue production and sales figures, but strive to create vehicles that our customers truly need. Needs for trucks vary widely depending on where they will be used, the conditions under which they will be operated, and what they will be transporting. For example, length & frame may have to be varied in units of 10 mm. In order to be able to respond to these small but distinct differences in customer needs, it is absolutely necessary for us to have a production system to produce and provide a large variety of products in small lots as quickly as possible." From the standpoint of contributing to



relationships with our local suppliers. I believe there are many, many more things that we can do." Mr. Okazaki said that he gave a pep talk to the local staff and associates of the Thailand plant to work together towards a common objective as "equal partners." "Taking on these responsibilities and setting goals for themselves puts that twinkle in the eyes of the staff members. And when our staff are feeling motivated, I believe we are able to deliver good products. And when we deliver good products, our customers are happy." Through these words from Mr. Okazaki, we were able to reaffirm the concept that Hino is a "people" brand. The most important "means" for realizing our "objective" of contributing to our customers' businesses are the passion and enthusiasm of individual staff members who work at Hino around the world. As long as we have this as our basis, we believe that Hino will continue to evolve to achieve its objectives.

HINO sees the path it should take.

HINO's Technology

Aiming to embody the HINO brand in every aspect of our vehicles and deliver to our customers around the world vehicles that please them.

Masahiro Hosokawa,
CHIEF ENGINEER OF MEDIUM-DUTY TRUCKS, PRODUCT PLANNING DIV.

Satoshi Sakai,
GENERAL MANAGER OF QUALITY CONTROL DIV., HINO PLANT



Mr. Masahiro Hosokawa



Mr. Satoshi Sakai

It was in 1964 that Hino launched medium-duty trucks onto the world market. This memorable truck, the first truck to be launched overseas, was the KM300 3.5 ton medium-duty truck that had debuted in Japan the previous year in 1963.

“At the time, Hino also produced general passenger cars as part of its lineup, but the KM300 was the first truck born out of Hino’s determination to move forward as a manufacturer of commercial vehicles. Another good example of our decision at that time was the first overseas production vehicle durability test we conducted in Australia around this time,” says Mr. Sakai, showing us a photo of the KM model of the time the truck that heralded the birth of Hino as a manufacturer of commercial vehicles. This KM300 model, which was one of the important trucks in the history of Hino, was modified over the years and became a long seller, with production and export to many countries continuing until 1993. We believe that other Hino medium-duty trucks including the KL and KT models were also renowned for their Quality, Durability,

Reliability and after sale services, and their model lineup as well as range of market countries to which they were exported expanded over the years. Then in 2002, Hino launched the HINO 500 Series, which was an evolution inheriting the traits of previous Hino trucks, and now travels the roads of many countries around the world. We asked Mr. Hosokawa about the characteristics of the HINO 500 Series. “In addition to its engine that is designed to be highly evolved in the areas of low fuel consumption and low emissions, we enhanced the reliability of every unit. We also positioned the sales, maintenance, and supply aspects of our operations as an integral part of our products, and we continue to introduce enhancements in these areas to this day. You could say that this is one of the things that ‘sets us apart.’ One big step forward in terms of our development operations is that we have created a chief engineer position that is dedicated to trucks for overseas markets.”

He notes that Hino has a chief engineer for export trucks apart



KM300 was the first model designed specifically for overseas



KM300 was produced and sold until 1993



HINO 500 Series FM



The KL was produced and sold until 1989



Hino KL catalog of the time

from a chief engineer for domestic models, but what exactly does this mean? Mr. Hosokawa continues, “ In order to respond flexibly to the diverse range of wants and needs of our customers overseas, we needed to customize and optimize our products further for each specific market, and to do this, we needed to make changes to our organization.” Our aim is to provide trucks that are optimized for each country based on an extensive process of investigations and analyses. This idea of “more regionally optimized vehicles” was fully engaged in 2004 when we put forward our corporate strategy, “From HINO of Japan to HINO of the world.” In addition to the HINO 700 Series, which underwent a full model change that year, all of Hino’s export-only vehicles have continued to evolve as trucks that were more optimized for each region. “For example, there are 5 different engine units available for the HINO 500 Series, and we choose the best engine depending on the specific needs of different regions. Apart from engines, we also have a range of different transmissions, chassis, suspensions, and cabs aiming to create the optimum truck for our customers.” Mr. Hosokawa adds that, as a result of these efforts, the HINO 500 Series range from 10-26t in Gross Vehicle Mass (GVM), and come in a wide range of vehicle types. “Of these, there are many models that we have developed with the aim of responding to our customers’ needs.” A good example would be the HINO 500 Series truck that is propelled by a CNG engine, a newly developed engine that runs on natural gas. This model was launched in 2009, and is currently used by many customers in Thailand. In 2010, we introduced a model equipped with our new 9-speed transmission ; a transmission that is designed not only to deliver both good driving performance and economic efficiency, but also good drivability under various operating conditions; and

this model is gaining popularity in an increasing number of markets. The 9-speed transmission, which was developed for the purpose of being equipped on the HINO 500 Series, has undergone a variety of field tests in many countries around the world to enhance its reliability and durability , and has recently found its way onto the latest model for the Japanese market.

“No matter what our global customers’ needs are, we believe that the HINO 500 Series and other HINO trucks will continue to embody the HINO brand in various aspects and evolve with the aim of becoming the optimum truck that would satisfy our customers.” With these words from Mr. Sakai, we concluded our interview.

All technology is used to create the best HINO for you.



HINO Owner's Voice

HINO, because there are reasons to be selected.

Trucks aren't the only things HINO provides. One of HINO's most important objectives is to "create" as many "reasons to be selected" whatever the product or service HINO provides, or where they are marketed, and to "create" relationships based on trust with our customers. In this section, we introduce the companies that operate HINO trucks to our readers. We would like to give you a glimpse of how HINO trucks serve our customers around the world by asking them their reasons for choosing HINO.

*The customers are introduced alphabetically by country name.

For more detailed stories about the HINO owners, please visit:

http://www.hino-global.com/products/owners_voice/index.html



Bahrain/ Al Hassanain Company BSC Abdul Rasool, GM-Plant & Equipment

Al Hassanain Co. BSC is a construction company with over 30 years of service in the field of land reclamation, marine excavation, and infrastructure development. In Bahrain, they are classified as A+ contractor grade which is top in its class. "We felt that HINO trucks, with their powerful power train, were the best choice for our applications. We currently operate 34 HINO 700 series trucks. The introduction of powerful HINO trucks helped us reduce cycle time due to the increase in load movement frequency. Also with strong after sales support, the downtime of the units was very low. Indeed, Hino trucks in Bahrain represent excellent value for money for our company," says Mr. Abdul Rasool .



New Zealand/ Garry Bros 1990 Ltd. Ian Garry and Rod Garry, Presidents

Founded in 1893, Garry Bros 1990 Ltd. has a history of over a century transporting stock, grass and maize silage, hay and fertilizer sowing. The company purchased its first HINO truck in 1974. Ian and Rod Garry are partners in this business. The company currently operates 5 units of HINO 700 and 3 units of HINO 500 series trucks. Rod expresses his satisfaction with HINO trucks, "We like HINO trucks for their low running costs, good quality, durability, and reliability. The local HINO distributor also offers good services. Our parts representative would contact us on a regular basis and the delivery time of genuine parts is excellent." Ian told us the following heart-warming story, "I courted my wife in a Hino. She would catch the bus from Palmerston North on the Friday and travel back with me on the Sunday doing the calf run to Feilding."



Chile/ Cargo Trader Ltda. PDQ Helia Garcés Puentes, President

Cargo Trader Ltda. PDQ was founded in 1983 and specializes in the land transport of general cargo, which includes documents, post and parcels, and freight. Helia Garcés Puentes, president of the company says, "Our company's motto is to understand our customers' needs and provide transport services with a focus on promptness and safety. This is why it was crucial for us to find a brand of trucks that would deliver high durability since we are required to drive the trucks under harsh operating conditions. HINO is a brand that we can fully trust, and I have no doubt that by operating these high-quality trucks, our company will continue to grow."



Taiwan/ President Logistics International Corp. Hsien-Shou Peng, President

President Logistics International is one of the largest logistics companies in Taiwan, and focuses on providing logistics services to Seven-Eleven. Mr. Hsien-Shou Peng says, "We are committed to providing the best in logistics services based on our policy that brings safety and service quality first." The approximately 1000 trucks that the company currently owns are serviced by Hino dealer (Chang Yuan Motor Co., Ltd.). "Thanks to Hino's service network, our trucks can be serviced anytime, anywhere, and this is why we are able to ensure the safety of our drivers and continue to deliver what our customers demand. I am convinced that the decision to maintain a long-term relationship with Hino moving forward is the right one for our company."



Let the world know how you feel.

We are currently inviting HINO owners to appear in the "HINO Owner's Voice" section! Let other HINO fans around the world know how you feel about HINO products. Please contact your local HINO representatives for details.



Mr. Marvin Espina (right) of Motores Hino de Guatemala, S.A.
Mr. Jose Antonio Gomez (left) of Hino Motores de Venezuela, C.A.

Mr. Hiromi Watanabe in front of the "Customer Technical Center"

HINO's Service at the front

What we value the most is not only the teaching of techniques and knowledge, but also the nurturing of a "mind" that enables people to put these into action at all times.

Hiromi Watanabe, GENERAL MANAGER, CUSTOMER TECHNICAL CENTER

Hino Japan operates a facility called the "Customer Technical Center." This Center opened in June 2005 at the Hamura Plant to provide free seminars on fuel-efficient and safe driving, as well as opportunities to test drive Hino's latest technologies including new vehicles and low-emissions vehicles. This facility consists of

the seminar building, a demo space that is used as a special course for safe driving seminars, and a circular course that is used for test drives and fuel-efficient driving seminars. The Center features displays of Hino's representative engines, emissions reduction systems, and hybrid parts, and also a simulator where visitors can



The training building houses Hino's main engines and other items of interest



The training building is used to hold seminars as well



This circuit course is used for test drives and fuel-saving driving seminars



Mr. Watanabe offers advice on fuel-saving driving practices



Safety systems simulator



An instructor accompanies a seminar participant in the passenger seat



Hino Drive Master measures fuel consumption and other data

experience the safety systems used in HINO vehicles. "We have been providing similar seminars and test drive opportunities to our customers even before the Center opened. When the Center opened, HINO became the first Japanese automobile manufacturer to provide a facility solely for its customers, operated by a specialized team," says Mr. Watanabe, who has been the chief of the Center for the past 3 years. Mr. Watanabe also works as a lecturer to serve customers face to face as one of a specialized team of 13 staff members. "As of October 2010, five and a half years after its opening, about 28,000 customers from about 1,500 companies have taken seminars at the Center. While the majority of participants are transport companies, we have also seen participants from government agencies and universities, who have utilized our facilities to engage in discussions regarding the role of automobiles in the area of safety and the environment." Other participants include customers from around the world, as well as Hino dealers and distributors who seek to learn how they can hold similar seminars and educate trainers in their home countries.

When the HINO Cares news team visited the Center to shoot some photos of the facility, we had the chance to meet with guests from Distributors in Guatemala and in Venezuela who were taking part in a fuel-efficient driving seminar. After the seminar, Mr. Marvin Espina of Motores Hino de Guatemala remarked, "Once I'm back in Guatemala, I would like to communicate what I've learned in this seminar." And Mr. Jose Antonio Gomez of Hino Motors de Venezuela, C.A. commented, "I am glad I took the seminar. I think fuel-efficient driving is important both in terms of saving fuel and reducing our environmental impact. I would like to communicate what I have learned here." Mr. Watanabe says, "We welcome everyone from all countries around the world who are interested in taking part in the seminars or test driving our vehicles. Our ultimate joy is to contribute to the business of our customers by helping them reduce transportation costs through fuel-efficient driving, helping learn safe driving skills, and offering opportunities to experience our new products." In addition to services provided at these facilities, the Center works with dealerships in Japan to dispatch staff members to different regions in Japan to deliver these seminars. "We would like to consider doing the same for overseas markets if we are requested. A few years ago, GAC Hino Motors in China informed us that they would like to hold their own fuel-efficiency seminars, so we traveled to China to train their trainers. Moving forward, one of our important challenges would be to reorganize ourselves in a way that will allow us to flexibly respond to such requests from other parts of the world."

Next, we would like to touch on some of the details of these seminars. In fuel-efficient driving seminars, participants are first asked to drive a truck on a circular course as they normally do. The truck is equipped with the "Hino Drive Master," a system that collects data on fuel consumption, the vehicle speed, the amount of accelerator pedal movement, and engine speed. The participants then take a seminar on fuel-saving driving practices, after which they are asked to drive the same course using the techniques they have just learned. "When you look at the levels of fuel consumption before and after the seminar, we find that consumption after the seminar is reduced by 20% on average (based on all seminars held at the Center in the past)," says Mr. Watanabe. As for safe driving seminars, we gather information before the seminar on examples of accidents our seminar-participating customers have encountered in the past to create a special course that mimics the actual situation in which the accident occurred. The participants then learn skills by actually driving the course, and take part in seminars that address areas of safety awareness and psychology. We also conduct seminars that explain daily inspection practices, which is one of the important factors in ensuring safe driving. "As long as people drive automobiles, it's impossible to eliminate the risk of the traffic accident unfortunately. But what we can do is help reduce the risk of accidents by helping drivers gain the appropriate mindset. At our Center, we focus on training the "minds" of people who drive trucks, for example, gaining the appropriate mind-set for performing driving maneuvers that would help give them the ability to pass through an obstacle course 100 out of 100 times, and to develop sensitivities towards potentially hazardous situations.

Our fuel-efficient driving seminars and safe driving seminars are not limited to simply imparting techniques and knowledge. Rather, the aim of these seminars is to help drivers develop their "minds" that would allow them to put these techniques and knowledge into practice on a daily basis. This stance symbolizes Hino's "mind-set" of considering what would be best for the benefit of its customers.

HINO... it is where services continue to evolve!



Customer Service Activity

Our ongoing goal is to provide services that will please our customers.

**Mr. Yang Yousheng,
SERVICE SECTION, SERVICE DIV., GAC HINO MOTORS CO., LTD.**

There are simple things that drivers can do to reduce fuel consumption, and such fuel-efficient driving practices can lead to reducing CO₂ emissions. Because of this, efforts taken by our customers to reduce the fuel consumption in each of the trucks that they operate have significant meaning both from the standpoint of reducing fuel costs, and also our impact on the environment. This is precisely why HINO recommends "fuel-efficient driving" practices to our customers.

We at HINO are very happy with the fact that interest in fuel-efficient driving among our worldwide customers has grown in recent years. To better serve these customers, we envision creating opportunities for people in as many countries or in as many companies as possible to acquire these fuel-efficient driving skills. One such case that represents our passion in this area can be found in China. The HINO Cares news team visited Guangzhou in China to give our readers a glimpse of this example.

Mr. Yang Yousheng, Service Section, Service Div., GAC Hino says, "One of HINO's themes is to "constantly pursue services that make our customers happy, and remain conscious of sustainable development" from the basis of our 'Customer First' philosophy. Precisely for this reason, fuel-efficient seminars are a valuable service in that they provide real benefits to our customers in the form of reduced fuel costs, and contribute to reducing automobile emissions in a world where the emissions are linked to accelerating climate change and environmental impact." The company just began organizing "fuel-efficient driving practice" seminars in earnest in October 2009. "The seminars are made up of a theory class (3 hours) and hands-on operations (8 hours). They cover 1) topics relating to the environment and global warming, 2) information on key points of fuel-efficient driving practices such as truck model, specs, driving practices,

maintenance, repairs, and fuel cost management, 3) learning fuel-efficient driving practices, 4) a summary of fuel-efficient driving practices, and 5) actual examples of fuel-efficient driving practices. A total of 527 people have taken the seminars so far." Mr. Yang says that all customers who have taken the seminars are very happy with the significance of what they learned here. "The most memorable seminar was one that we held in Hunan. Prior to the seminar, customers were burning 46L of fuel to travel 100km. After the seminar, this amount came down to 41L. Based on gasoline prices in China at the time, this represented an average saving of 4.53 USD* for every 100km traveled. All of the customers at the seminar were surprised to see these results."

We were also able to speak with one of GAC Hino's customers, Sankyu Guangzhou Logistics, who has actually taken part in one of these seminars. Founded in 1996, this company's main operations are warehousing, domestic transport, air transport, and sea transport in Guangzhou, and it currently operates a total of 12 HINO trucks. Mr. Jin Jiqun, chief of the transport section, domestic logistics dept, says, "We took part in the seminar from a corporate standpoint with the aim of reducing fuel consumption and costs, and the results were very clear. We conducted a test on one of our trucks over a distance of 3km. Whereas the amount of fuel used before the seminar was 2.28L, this came down to 1.73L after the seminar. Based on a fuel price of 0.91 USD* per liter, this comes out to a saving of 0.50 USD* over a distance of just 3km." The effects of "fuel-efficient driving" practices can be felt after every seminar. Needless to say, activities carried out at GAC Hino based on their commitment to bringing customer benefits first are not limited to fuel-efficient driving seminars. "Our ongoing goal is to provide services that will please our customers. At GAC Hino's seminar center, we conduct a range of other seminars based on analyses of customer needs, such as seminars on improving the after-sale service skills of our staff, as well as seminars on safe



Fuel-saving driving seminars began in earnest in October 2009



driving. Once customers become more knowledgeable of how to operate and maintain the trucks, they can reduce the number of breakdowns that can result from inappropriate use, maintenance costs, and down times. And all of these factors help improve our customers' economic efficiency." Mr. Yang continues emphatically, "We are committed to doing our best to improve our skills and

provide better services so that our customers are able to feel secure in purchasing, and comfortable in continuing to use HINO trucks."

* Currency exchange rate as of January 6th, 2011.

What we strive to deliver is the peace of mind that HINO is always by your side.



GAC Hino staff members and seminar participants



Training center at GAC Hino



Sankyu Guangzhou Logistics Co., Ltd.



Mr. Zhou Tao (right), director of Transportation Dep. at Sankyu Guangzhou Logistics Co., Ltd., and one of the company's drivers