Foreword

"The Moon is Looking"

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Beginning 2006, Komatsu has started to sequentially manufacture in high volumes vehicles that incorporate features developed in the past to comply with exhaust gas regulations. The development activities involved many models and were very demanding. Nevertheless, the concerted efforts of all the departments and divisions of Komatsu as synergy including the Research Department that demonstrated its capability in noise and vibration problems, the Production Department that spent efforts in prototyping amidst a call for increased production and the Sales Department and Product Support Division that worked hard to ensure smooth market entry, in addition to the Development Department, were instrumental in bringing the entire project to a successful conclusion. A series of challenges were encountered in the manufacturing process. These challenges were surmounted by merging Komatsu's unique component technologies such as the engine, transmission, axle, hydraulic components and electronic controller that controls hydraulic components to optimize them as entire vehicles. iT equipment including KOMATRAX and VHMS (Vehicle Health Monitoring System) that is higher in level than the vehicle systems is actively installed in the vehicles. The new vehicles will be introduced to the world markets gradually including Japan, the U.S.A. and Europe.

Komatsu's technology is not built overnight yesterday or today. It has been built as a result of an accumulation of improvements over the past several decades in which the customers and Komatsu seriously studied phenomena and events taking place with the machines at operation sites. For example, Model 7 of the dump truck HD785 has now been introduced to the market. Model 1 of the HD785 was first introduced to the market in mid-1970s, which is more than 20 years ago, involving numerous improvement episodes. Each of the models has a history of episodic development. Efforts should be continued to further enhance the quality and reliability that have been achieved through these activities.

Unexpected problems are encountered in the process of development. Technical solutions are provided in these cases to solve these problems short term and long term. At Komatsu, in addition to providing technical solutions, processes are discussed in depth. Komatsu's tradition is to determine why a problem was caused, to analyze the process and to argue what should be done to prevent the recurrence of such problems. In the process of development, like the recent congested example, such process management is important. The various new ideas gained in the recent process will undoubtedly be very useful in complying with the Tier-4 exhaust gas regulations that will prevail.

The approaches and action formats that have been chosen by Komatsu as eternally viable practices that will remain unchanged have been summarized and compiled as Komatsu ways. The development part encapsulates the hopes that the development staff especially value. These processes and approaches will spread to Komatsu's development centers outside of Japan and these various development centers will develop vehicles emanated by the Komatsu ways for introduction onto the market.

Komatsu's strengths, namely, the component, control and iT technologies, will continue to be important in the future also. The world market for construction and mining machine is active and many customers are waiting for machines. However, more manufacturers will enter the market if the market becomes favorable. What are regarded as strengths sometimes turn out to be weaknesses. Never be content, never be overconfident, look at competitors and compare with self, make more challenges and turn them into reliable and mature technologies and send

them to the market as products.

Long before humans started to exist, the moon has been gazing at the earth without turning its face away. The moon may be making a fool of the earth for all the energy and environmental problems triggered on a global scale at present as a result of the rapid growth of industry since the 20th century. The tasks that lie ahead of us are clear in that sense. The moon will smile when it finds engineers who care about each bolt and clamp in running toward that goal. Komatsu products are manufactured and are used in various parts of the world. What will be important in the future for the Corporate Development Division, which is at the origin of the development activities, is to further enhance the quality and reliability of not only products, but also of each engineer to a higher level.

PS: I do admire the Sun, but I prefer the moon if I could get a comment because the moon is closer to us as we work under the moon.