

NKI Kaizen initiatives (this section has been quoted from President Komaba's message.)

I visited our overseas NKI (Nusa Keihin Indonesia) plant on November 11th (Monday).

The reason for this is that I wanted to see for myself just how much the plant's kaizen activities and factory administration had been improved after the NKI team gave such a wonderful kaizen presentation at the KSK Kaizen Convention.

It was my first visit for some time, and I discovered that an amazing system that exceeded even my own expectations had been adopted by NKI.

I received reports of various kaizen activities, including improved productivity and quality of the processing and assembly lines, as well as the progress made with 2S and improved productivity with regard to casting machines, and seeing for myself the way in which reforms within the factory are being carried out on a lateral basis made me realize the hard work that is being put in, all of which enabled me to have an extremely enjoyable visit.

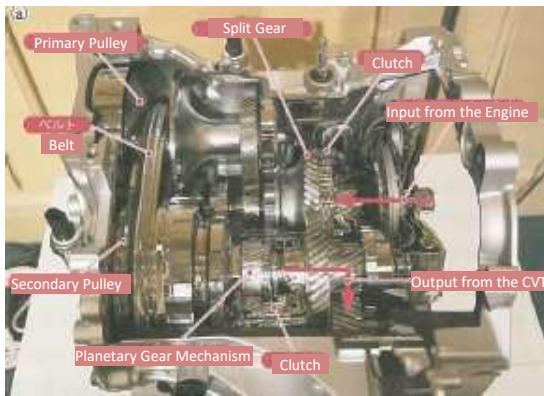
I also saw the bright smiles of the people who gave us the kaizen presentation and other workers within the plant, and I was able to confirm with my own eyes the way in which everybody is striving toward their aim of becoming an "excellent company".

I also experienced the difficult conditions caused by photochemical smog in Jakarta during my visit. Work is moving ahead at a rapid pace to maintain the public transportation infrastructure, the opening of a railway line that connects the airport with the city and a subway system, as well as other transportation initiatives (new expressway, overhead railways lines) providing access to the suburbs, but severe traffic congestion still continues.

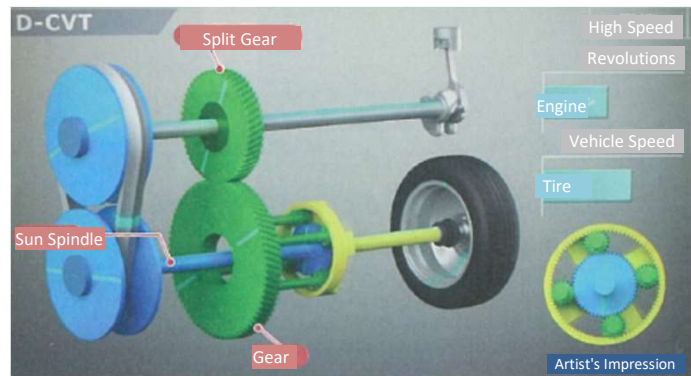
I pray for the continued development of NKI and Indonesia. Thank you all very much.

Automotive area (Details now available on Daihatsu's new CVT upgrade)

Daihatsu Motors has mounted a new continuously variable transmission, (CVT) known as the D-CVT (Dual Mode CVT), manufactured in-house on its Tanto light vehicle, which was completely overhauled in July 2019. The main feature of this is that it uses gears in addition to the CVT belt that is used to drive normal CVTs to create a combined power transmission mechanism. The power is transmitted by the belt at low and medium speeds in the same way as normal CVTs, but power transmission is switched across to the gears at high speed. This enables it to run in the same way as normal CVTs at low and medium speeds. The torque input from the engine is transmitted to a primary pulley. The torque is then transmitted to a secondary pulley via the CVT belt and output. The split gears are disengaged at this point with the clutch. In addition, a planetary gear mechanism becomes a single unit with the clutch engaged to transmit the output torque from the secondary pulley without modification. Three different actions take place when the split mode is activated. The first of these is the operation of the clutch installed on the input spindle from the engine. The split gears are synchronized with the input spindle when the clutch is engaged. The second action is the activation of the planetary gear mechanism installed just in front of the secondary pulley's output spindle. The clutch that is combined with the planetary gear mechanism is disengaged so that the sun gear, the planetary gear and the ring gear can operate independently. And, the third action is pulley control. Enabling the secondary pulley to change from a high gear to a low gear provides the control required to prevent the output spindle from rotating from the secondary pulley. The torque from the engine's input spindle is divided from the split gear while at the same time transmitted to both the primary gear and the secondary gear via the belt. Connecting the secondary pulley to the planetary gear mechanism's sun gear provides a function that determines the sun gear's revolutions based on the revolutions of the secondary pulley. This system is used to change gears in the split mode. Sun gear revolutions are slowed down when the secondary pulley changes from a high gear to a low gear. This increases the revolutions to the ring gear by activating the planetary gear mechanism's planetary gear. CVT output spindle revolutions are consequently increased. In other words, it results in a high gear being engaged.



Main D-CVT Mechanism



Source: Nikkei Automotive

#### Keihin Seimitsu Kogyo (NKI kaizen exchange launched)

Six members who scored high results during the KSK Kaizen Convention visited our Indonesian NKI company between November 11th (Monday) and 13th (Wednesday) to take part in a kaizen exchange program.

The members from both sides gave kaizen presentations at NKI and carried out workshops targeting the NKI production lines, and interactively studied the areas that had room for improvement as well as kaizen methods. They also interactively shared the skills that they had accumulated up until now, and the KSK members learned a lot.

The NKI employees then showed them around the National Monument, historical buildings and other sights in Jakarta, which enabled them all to gain a deep understanding of the passion they felt for Jakarta and return home with enormous enthusiasm for future kaizen activities.

#### Post-editorial Notes: (Nephew and niece weddings)

My nephew got married in Kumamoto on November 3rd (Sunday).

About ten relatives travelled to Kumamoto the day before. Immediately on arrival, I feasted on basashi (horse meat sashimi) and draft beer! The delicious beer quenched my parched throat and the fresh basashi melted on my tongue... The red meat was delicious, the fat-marbled meat amazing, and the mane meat out of this world!

Feeling pleasantly tipsy after lunch, I visited Kumamoto Castle and was once again reminded of the enormity of the destruction the castle received when I saw the renovation work being carried out on the castle keep with the use of cranes by Taisei Corporation.

At the wedding ceremony, my nephew, who was always a very handsome guy, looked absolutely radiant with happiness.

The bride was born in Kumamoto, so the ceremony was attended by a large number of her relatives, many of whom plied my glass with beer every ten minutes. I drank white wine, red wine and beer until I felt pleasantly intoxicated... I then split up with my brothers and their wives, who were staying overnight at the Aso Hot Springs owing to the following day being a national holiday, and headed off to Kumamoto Airport for my flight back to Haneda.

I had a slightly late dinner at a Chinese restaurant near the station, where I ordered gyoza (meat dumplings) and beer, and the view of the neon street lights from the 7th floor restaurant looked beautiful through my inebriated eyes. Thoughts of the days that I had spent with my brothers from our 20s through to our 30s rushed kaleidoscopically throughout my mind like neon lights, and I became strangely sentimental as I realized that the view I was seeing was like a window into my own soul.

My niece got married in Utsunomiya on November 16th (Saturday).

This wedding ceremony was held in the familiar Hotel Higashinihon Utsunomiya, and in addition to noticing that my niece look truly happy from the grin that refused to leave her face, a hot flush spread across my face as I watched the stoic look on her father's face, who was sitting next to me, and imagined the same scene with my own daughter in her place.

On the train home, I suffered agonies as my mind wandered over what I would say at my own frank and honest daughters' weddings in the role of father figure. Fathers tend to be shy and tongue-tied when it comes to their own daughters.

However, every father wants nothing more than for them to be happy from the bottom of their hearts...

In other words, I guess I would lead off with something like, "Thank you for being my daughter and spending the first part of your life with me. Rest assured that I will be with you in my heart as you take the first steps into your new life."

Nephew's wedding ceremony



Kumamoto Castle Keep



Niece's wedding ceremony

