May 9, 2025
HKS Co., Ltd.

HKS to Exhibit at “Automotive Engineering Exposition 2025 YOKOHAMA”

-HKS presents innovative approaches toward a decarbonized society through both EV and ICE technologies-

HKS Co., Ltd. (Headquarters: Fujinomiya, Shizuoka, President: Daisuke Mizuguchi) will exhibit at the Automotive Engineering Exposition 2025 YOKOHAMA and ONLINE STAGE 1. This year's theme is: “Accelerating the Future with Energy and Technology.” HKS will introduce cutting-edge EV technologies and innovative solutions for sustainable mobility.

■ Featured Exhibits

1. HKS e-HIACE MULTI ENERGY CONCEPT

A new multi-energy concept powered by carbon-neutral (CN) liquid fuels, gaseous fuels, and electricity.

As the automotive environment rapidly evolves toward a sustainable, carbon-neutral society, HKS proposes a new concept of “Multi-Energy,” which is powered by carbon-neutral (CN) **liquid fuels**, **gaseous fuels**, and **electricity**.

■HV Conversion Structure

1.Engine

・Uses the OEM engine solely for high-efficiency power generation **(series hybrid system)**.

・Applies Bi-Fuel technology to support both liquid and gaseous CN fuels.

-Liquid fuels: HKS CN Fuel (under development), bioethanol, NH_3 blend

-Gaseous fuels: Green hydrogen, CN methane, RNG, CN-LPG

・Promotes "sustainable tuning" by utilizing existing engines for decarbonization.

2.Motor

・Generator and drive motors installed in the location of OEM AT (automatic transmission).

・The drivetrain components beyond the propeller shaft remain unchanged.

3.Fuel System

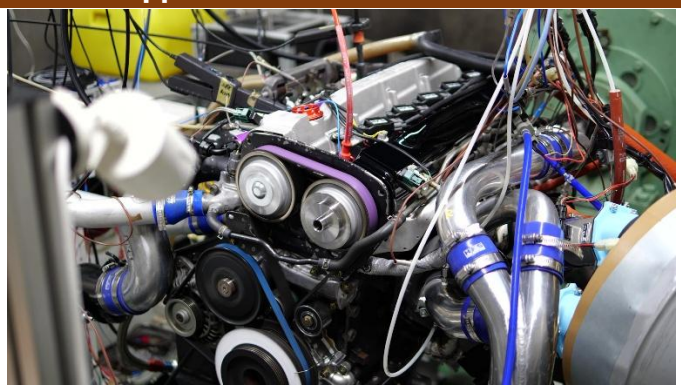
・Along with the standard fuel tank, **the battery is installed under the center floor** and **the CNG tank under the rear of the vehicle**.

・Three energy ports: fuel inlet, fast/standard EV charging ports, and gaseous fill port.

The vehicle is also designed for use with **high-power electrical devices** and as **a power supply vehicle during disasters or power outages**.

Note: Only component exhibits will be shown at the expo.

2．A New Approach to Decarbonization via Efficiency Improvements in Legacy Engines



Initiatives Focused on the Sustainability of Internal Combustion Engines

At HKS, our initiative, "A New Approach to a Sustainable Society through the High Efficiency of Legacy Engines, "focuses primarily on engines manufactured in the 1990s. We are developing high efficiency technologies including high compression ratios, pre chamber combustion, and enhanced knock resistance compatible with CN carbon neutral) fuels.

-Using a 25.5% base thermal efficiency engine, HKS **achieved a maximum 40.6% thermal efficiency** at a 15.5 compression ratio—a +15.1 point improvement.

-By increasing efficiency in legacy engines, HKS reduces lifecycle (LCA) environmental impact, including CO_2 emissions and resource consumption from new vehicle production and disposal.

We consider this retrofit-based approach leveraging HKS's unique expertise as **a key step toward realizing a sustainable society**.

■**Exhibits include:**

1.High-efficiency cylinder head (for RB26 engine – Skyline GT-R):

・Features pre-chamber combustion and high compression compatibility.

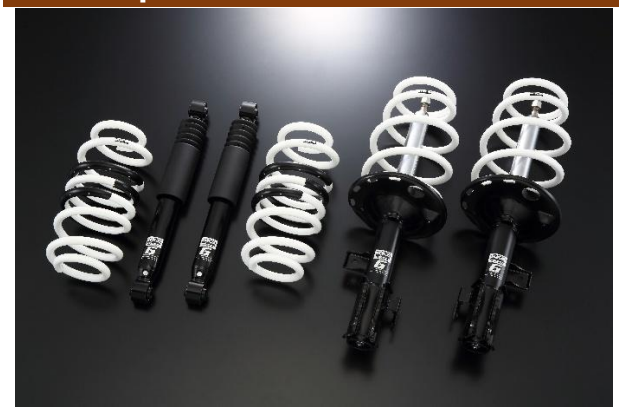
2. Assembly-Type piston (high rod ratio spec):

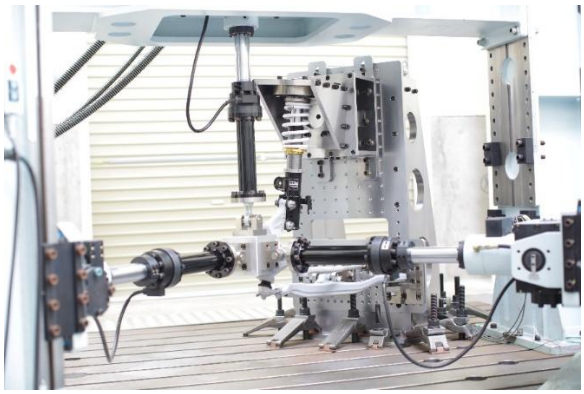
・A two-piece machined piston allows increased stroke and rod length without altering block height.

3.3D camshaft (radial valves layouts):

・HKS has introduced a cam grinding machine(EMAG) capable of 5 axis precision grinding. As a result, it is now possible to grind 3D cam profiles that are tailored to radial valve layouts.

3．Suspension Contract Services (Development ,Manufacturing ,Testing)





HKS will also display its products and services in the following areas, utilizing its decades of experience in suspension development.

・**Contract development & production of OEM-type shocks and springs**

・High-quality development and manufacturing services for both automotive manufacturers and the aftermarket parts industry.

・**Suspension testing services:**

・Durability, performance, and environmental testing for various needs.

・**Electronically controlled Shock Absorber:**

・Automatically adjusts damping force based on driving conditions and vehicle status.

・**Competition suspension (Dirt Trial specification):**

・Designed for extreme performance through real-world motorsports experience.

■**Exhibition Information**

人とくるまのテクノロジー展 2025 YOKOHAMA
Automotive Engineering Exposition 2025 YOKOHAMA

Automotive Engineering Exposition 2025 YOKOHAMA

■ Dates: May 21 (Wed) – May 23 (Fri), 2025

■ Venue: Pacifico Yokohama Exhibition Hall / North

■ Booth No.: 475 (Exhibition Hall)

■ Website: Official Expo Website https://aee.expo-info.jsae.or.jp/en/yokohama/

ONLINE STAGE1

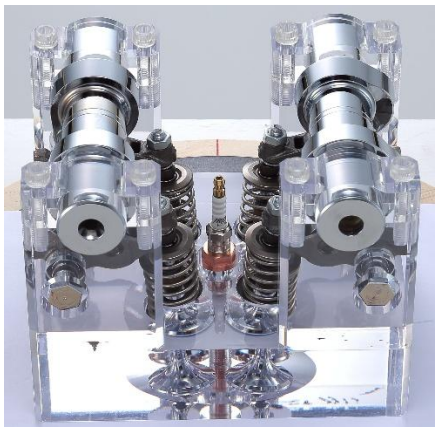
■ Dates: May 14 (Wed) – June 4 (Wed), 2025

■ Special site URL: 2025 YOKOHAMA ONLINE Exhibition

■ About HKS

Founded in 1973, HKS Co., Ltd. is a global leader in high-performance automotive aftermarket parts such as engines, turbochargers, exhaust systems, suspension kits, air filters, and electronic control units.
HKS has helped define and spread the culture of tuning worldwide. In addition to its aftermarket business, HKS has extensive experience in OEM contract development and production. Recent efforts include high-efficiency engine development and participation in Ministry of the Environment-sponsored EV truck demonstration projects, including battery-swappable EV platforms and regional decarbonized logistics systems.

Swappable Battery Pack for EV Trucks※



Pre-chamber Combustion +
Radial (Outwardly Splayed) Valves

（※Adopted for a project commissioned by Japan's Ministry of the Environment: "Demonstration Project for Sector Coupling through the Development of Swappable Battery EVs and the Utilization of Renewable Energy —Establishing a Regionally Contributive, Decarbonized Logistics System Using Battery-Swappable EVs and Battery Stations.")

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