Preface

Lately, the North American market for off-road vehicles, used for leisure and agriculture, is moving from saddle-type ATVs (All Terrain Vehicles) to the growing market of Side × Side vehicles (vehicles on which the driver and passenger can sit next to each other). Kawasaki released the MULE (Multi-Use Light Equipment) four-wheel multipurpose vehicle for utility-oriented users in 1987, and since has been rolling out variations with different displacement, seat arrangement, etc. Also, we have offered the Teryx* for recreation-oriented users since 2008. Now we have released the Teryx4, focusing on family use, a four-seater recreational UV (Utility Vehicle) with superior dependability, comfort, and stability.

1 Product concept

North America has trail areas (Fig. 1) here and there offering opportunities for leisure such as recreational driving and hunting. With this in mind, we have developed a four-seater UV, with family use as the product concept, which enables the experiences of "Fun to Ride" and "Ease of Riding."

2 Product appeal and marketability

(1) Main specifications

The Teryx4's main specifications are shown in Table 1.

^{*} Teryx: An invented name combining "T. rex" (for the powerful image of the tyrannosaurus) and "Terra" (Earth).



Fig. 2 Engine exterior

riders to feel powerful acceleration, a centrifugal clutch*, our first in a four-wheel vehicle, and continuously variable transmission (CVT). Its characteristics are exhibited in full force on rocky stretches of trail areas. Also, it has engine braking responsive to road conditions, offering riding stability on rough roads that repeatedly go up and down, as well as a feeling of security going downhill.

Furthermore, it is equipped with a centrifugal clutch, which reduces load on the CVT belt, dramatically cutting belt maintenance frequency and improving dependability.

*Centrifugal clutch: A mechanism which activates a clutch shoe according to the engine speed to transfer or cut off drive by contact with the housing on the receiving side.

(3) Body

We have made the frame structure more compact, such as by shortening the wheelbase and securing ground clearance, and in so doing improved performance in tight turns and climbing over obstacles, enhancing handling on trail areas. At the same time, we have designed the living space in the cabin to have more than enough room for four adults to ride, making the vehicle very comfortable. The structure involves a double X frame (Fig. 3), and we applied FEM analysis to optimize rigidity and lower weight. This further enhances riding performance and stability.

Also, to improve shock-absorbing performance, we

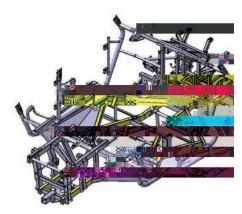


Fig. 3 Double X frame (Yellow colored parts)

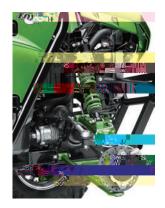


Fig. 4 FOX suspensions



Fig. 5 Two-seater Teryx model

adopted suspension from Fox, a company boasting some of the best technology in the off-road industry (Fig. 4). On top of that, we combined radial tires and bucket seats with improved shape and thickness to realize soft, pleasant riding comfort in action.

3 Variation deployment

We simultaneously released a new two-seater Teryx model with the same engine, drivetrain, and frame structure (Fig. 5).

Postscript

We will continue to accurately identify diversifying user demands in the North American Side × Side market and to develop attractive models that answer these demands while emphasizing dependability, comfort, and stability.

Hitoshi Kawakatsu

Contact information

Engineering Department 5, Research & Development Division, Motorcycle & Engine Company Tel: +81-78-921-1372 Fax:+81-78-923-1440