

New, Lightweight Cruisers with Enhanced Ground Reach: ELIMINATOR and ELIMINATOR SE



These days customers want models that suit their own lifestyles, s Accordingly, we have developed the ELIMINATOR as a modern cruiser model for which the riding position is comfortable and that users can easily enjoy.

The ELIMINATOR is the lightest cruiser model in the 400-cm³ class, and this lightness combined with the low seat means that even beginners can feel safe handling it.

Introduction

The influence of COVID-19, which began spreading all around the world in 2020, prompted people to rethink the role of motorcycles in their life, triggering stronger demand for them as a way to get around that avoids closed spaces, crowds, and close contact in their daily lives and offers leisure on weekends.

1 Background

Nowadays customers have more motives than ever before enrich their lives with motorcycles as a hobby or interest without placing motorcycles at the center of their lives, so there is demand for models that blend smoothly into those customers' lifestyles. To meet this need, we have developed the ELIMINATOR and ELIMINATOR SE as modern, fun cruiser models with a comfortable riding position under the concept of "a lightweight, easy commuter with enhanced ground reach."

2 Product specifications

We focused on ease of handling in various situations from daily travel to long tours, represented by the slim, low, and long style, low, comfortable seat, and light, smooth handling. The models are the lightest among the 400-cm³ class cruiser models, and this lightness combined

with the low seat means that even beginners can feel safe handling it.

3 Product features

(1) Riding positions

To ensure that the rider is comfortable on the ELIMINATOR, the riding position is relaxing. As **Fig. 1** shows, the upper part of the body is relatively vertical compared with the riding position on the Z400. In addition, for the footrest position on the ELIMINATOR, we use mid control. This differs from many cruiser models that use forward control, so the riding position is natural with the knees moderately bent.

(2) Ease of handling

To enable even beginners to handle these bikes safely, we worked hard to reduce the weight by optimizing the frame with the engine as a stiffness/strength member and other measures.

In addition, as shown in **Fig. 2**, we have placed heavy objects, such as the battery and coolant reserve tank, under the seat to bring the gravity center closer to the rider comparing with the Z400. Moreover, the seat height is low at 735 mm. These improve the sense of safety when astride a bike, and make it easy to pick the bike up when it is parked. Furthermore, the ELIMINATOR delivers light, smooth handling expected from cruiser models

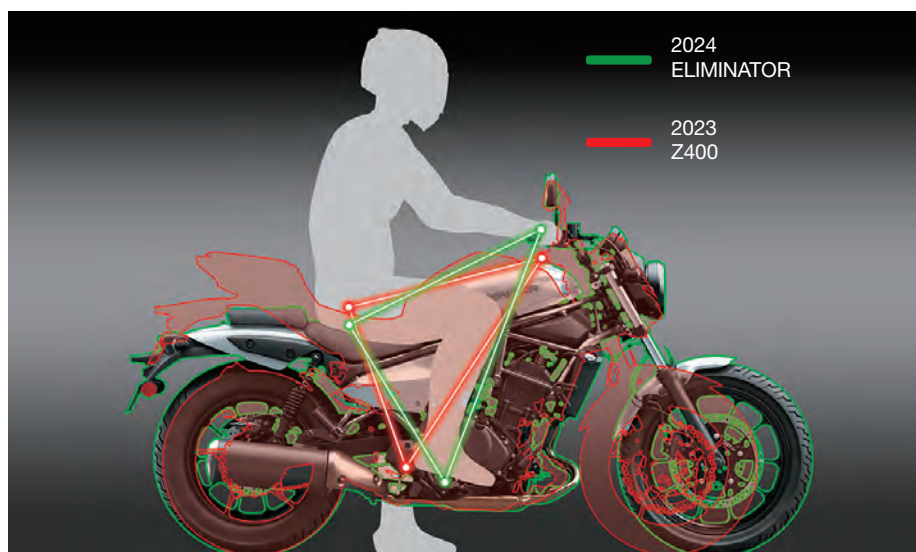


Fig. 1 Comparison of riding positions

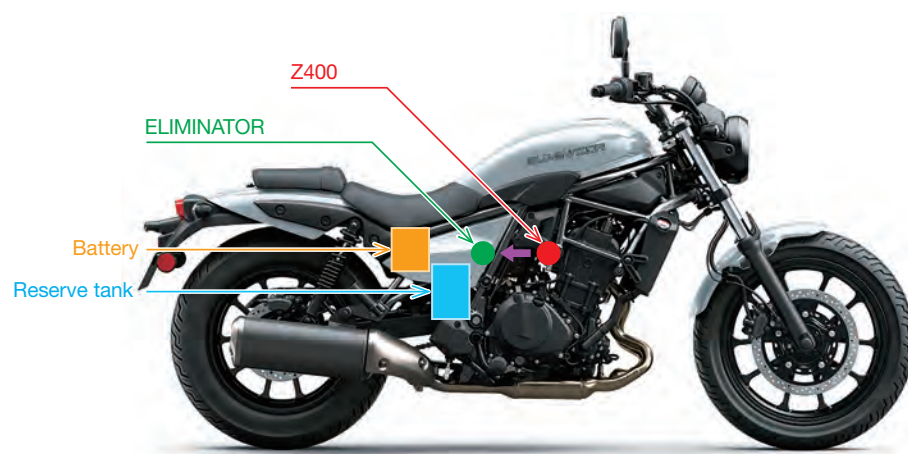


Fig. 2 Comparison of centers of gravity

thanks to the 1,520-mm long wheel base and 30° caster angle, while bringing the trail closer to that of sport models rather than general cruiser models as shown in **Fig. 3**.

(3) Ride comfort

For lasting comfort even during long rides, we secured sufficient urethane thickness in the seat by placing the locking mechanism at the front of the seat despite the low

seat height. In addition, as **Fig. 4** shows, putting a cavity at the bottom of the urethane distributes the pressure across the seat surface when sitting astride the ELIMINATOR's seat compared with urethane without a cavity. This further improves the riding comfort. A high seat (seat height: 765 mm) and low seat (715 mm) are available as accessories, so riders with a wide variety of physiques can enjoy riding the ELIMINATOR in comfort.

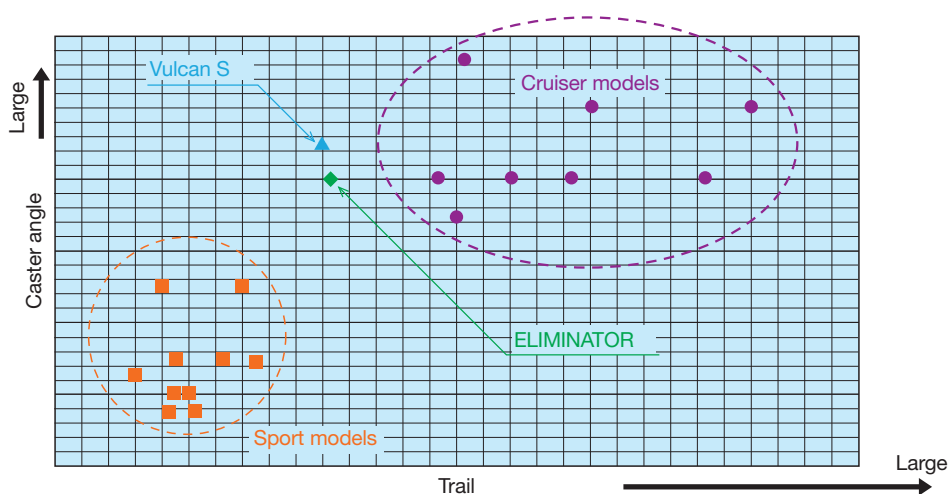


Fig. 3 Comparison of caster angles and trails

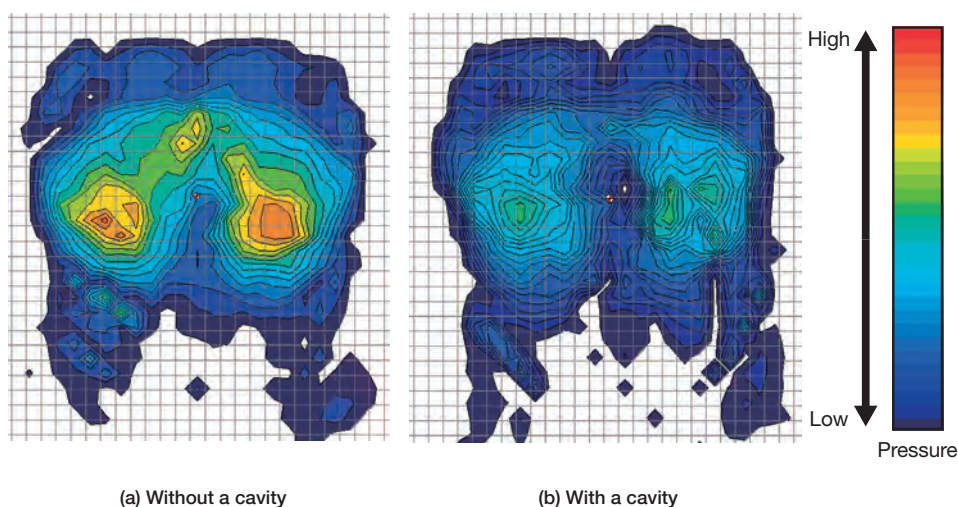


Fig. 4 Comparison of pressure distribution on seat surfaces

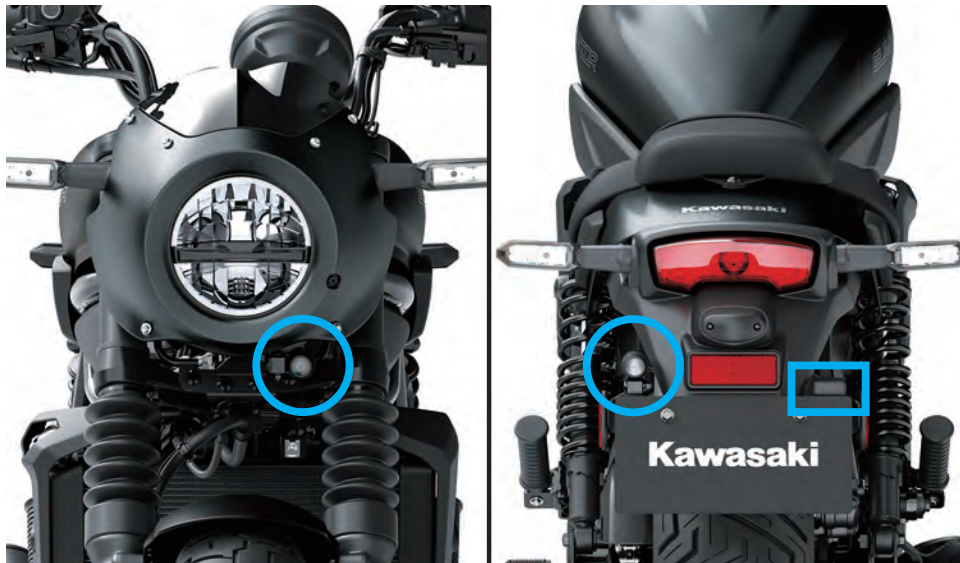


Fig. 5 GPS and both front and rear cameras

(4) Use of drive recorders

Although drive recorders for two-wheeled vehicles have not been widely adopted compared with those for four-wheeled vehicles because the installable locations are limited and installation is rather difficult for two-wheeled vehicles, demand is slowly increasing.

We designed a bracket and harness specially for the ELIMINATOR SE, blending in smoothly to the bike's form to keep them inconspicuous. The ELIMINATOR SE is the world's first commercially available motorcycle that has a drive recorder with the GPS and front/rear cameras shown in Fig. 5 as a standard feature*.

*Only for the Japanese specification (surveyed by Kawasaki Motors, Ltd. in March 2023)

Conclusion

Since the ELIMINATOR went on sale it has earned high acclaim in the market, winning the gold award (first prize) in the Japan Bike of the Year 2023 small motorcycle segment. In a nutshell, we believe we have succeeded in creating a product that matches market needs. We will continue to develop user-oriented products while monitoring market trends in the future as well.

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