RACEFORM PRO BODYPOST LAZER TRACER

Field of use

This invention provides a solution, accurately locating the location of the body post in a remote control car chassis, and tracing the location over to a new body shell, in preparation for reaming of holes for the bodyshell to be sit perfectly.

Background

Traditionally, racers will only be able to position the holes before the bodyshells are painted, which is clear and will be able to locate the body post visually. That often results in an inaccurate positioning due to parallax error, attributed by the slanted front body post. Centering the body poses a great challenge in this method as well.

Some racers also will use the old bodyshell to stack it over the new one to determine the location, but that would only work if the bodyshells are the same brand and model. It would not be a perfect solution if the new bodyshell is not the same mode, or when the racer had to change a brand or model of chassis, without an old bodyshell to trace as reference. If there are errors in the old bodyshell, it would also be copied over to the new one.

In the market, there is a magnetic post marker system, that they assemble it onto the 4 body post of the chassis, place the new bodyshell over and use another set of magnets with center hole to find the location of the holes to be ream. This method is not accurate simply due to the front slanted body post and parallax error and centering of the body is not ideal in this method. Another problem with this method is that the top magnets don't usually align perfectly to the bottom ones and poses a huge challenge, especially painted bodyshells which racers are not able to verify if it is aligned properly.

Detailed Description

This invention of the product consists of 5 main parts. Fig.1.

Parts name and purpose as per below:-

1) *Front and Back Main Plate – This main frame will be adjusted length wise to suit the different chassis, to be secured with 2 main screws, as well as serving to hold the rest of the linkages in place with the help of slots and mounting holes.*

2) *Self Centering bodyshell holder bars with magnet ends – These parts are identical for front and back, designed to hold the bodyshell in place with the help of additional magnets at 4 ends. It is slide fit mounted to the main plate, always aligned to the center, regardless of any bodypost position.*

3) *Flexible linkage for locating bodypost - The system consist of these 4 identical linkages that is to be adjusted according to chassis and slide into the bodypost through the 4 holes.*

4) *Intermediate Linkages – These are linkages that provide the scissors effect, thus supporting the self centering of the tool to the bodyshell and chassis.*

5) *Marking Stripe and Center post marker – The marking stripe is to be mounted in the front of the tool and with the center post marker sliding into the front of the bodypost, you will be able to mark a reference line with reference to the bodypost. Another line will be marked by the lip of the bodyshell. This distance between the 2 lines will be your references for current or new bodyshell.*

Instructions

Step1) Slide the Front Flexible Linkage to the correct width and mount them onto the front post of the car and secure with bodypin. Do note that the height of the bodypin is set to the exact ride height. *Fig.2*

Step2) Slide the Rear Flexible Linkage to the correct width and mount them onto the rear post of the car. Fig3

Step3) Now that all the 4 Flexible Linkages are in place, fasten the X- screws to secure the length of the tool. Fasten the screw and try not to do it forcefully that it affects the alignment of the Lazer Tracer. Fig 4

Step 4) Fasten the Y- screws to secure the width of the Flexible linkages. Fig 5

Step 5) Use the Post Centre Marker to mark a line on the Marking Stripe. That will be a reference line for this particular chassis. Fig 6

Step 6) Place the new bodyshell over chassis with the tool still in place. Move the Body front or back to your liking or factory recommendations and make a mark on the Marking stripe to indicate the front lip location. Fig7

Step 7) Remove the Bodyshell and the tracer tool from the chassis.

Step 8) Place the Tracer Tool as close to the underside of the bodyshell as possible and use the 4 magnets to snap hold the tracer tool to the bodyshell. Align the bodyshell to the marking line you have made and you mark the location of the 4 holes with a marker. Fig 8, Fig 9, Fig 10

Step 9) Remove the Tracer Tool and ream the 4 holes.

Step 10) If you are changing a different bodyshell, repeat STEP 1 to 5, then place your old bodyshell over to mark the Front lip location. Then place the Tracer Tool over your new body and continue STEP 8 and 9.

Claims

System for accurately locating the location of the body post in a remote control car chassis, and tracing the location over to a new body shell, in preparation for reaming of holes for the bodyshell to be sit perfectly.

Main Patent Independent Claim

Patent Claim 1. A tracing system that utilize linkages as its primary function, adjusting to correct position to be assembled to a remote control car chassis with bodypost and transferring the dimensions over to a bodyshell in preparation of reaming the mounting holes to fit chassis.

Patent Dependent Claim 2. The system of claim 1 where the tool consist of a self centering system to ensure that the tool are centered left and right once when mounted to the body shell

Patent Dependent Claim 3. The system of claim 1 where the methods of holding the tool to the bodyshell in preparation of marking the location by means of magnetic system.

Patent Dependent Claim 4. The system of claim 1 where there is marking reference system aligned to the front bodypost to provide a consistent reference point.

Patent Dependent Claim 5. The system of claim 1 where the bodyshell can be adjusted front and back freely when the tool is secured in the bodyshell prior to marking the holes for reaming.

Patent Dependent Claim 6. The system of claim 1 where in the assembled parts consisting Front and Back main plate, Self centering body shell holder bars with magnet ends, 4X Flexible linkage for locating bodypost, 4X intermediate Linkage, Post Center Marker, Marking stripe, 4X Magnet to hold the bodyshell *is designed to work together, allowing a precise locating of the body post in a remote control car chassis, and tracing the location over to a new body shell, in preparation for reaming of holes for the bodyshell to be sit perfectly.*