Modelling and Modification of Cafe Racer Bike - A Review

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Abstract— A cafe racer is a lightweight, light powered motorcycle used for speed and handling comfort and for quick rides over short distances. Aim of our project is reduce weight and change bike look from sport to cafe racer and improve style and design of bike in very low budget. In our project first we have to find bike and then disassemble it and then design our new bike according to existing bike chassis and then after we have to done some manufacture work and paint job. Our new bike will be very different from old bike and the wheel base is long and weight will be reduce and making bike which had good style and presentation.

Keywords — Cafe Racer, Bike, Modification, Modelling

I. INTRODUCTION

Now a day's riding the sport bike is major problems that are caused by back pain of body while riding on long route and rough road surfaces. This affects on body and hand and body stress. The solution for this we change the seating position and handle bar of our bike. So more comfortable for rider on long route and back pain and body stress becomes less. In this modification we change the handle bar, seat, fuel tank, suspension, tail light, exhaust. In our project first we have to find bike and then disassemble it and then design our new bike according to existing bike chassis and then after we have to done some fabrication work and paint job. Our new bike will be very different from old bike and the wheel base is long and weight will be reduce and making bike which had good style and performance.

II. LITERATURE REVIEW

(1). Jim's Guide to Upgrading Cheap Old Bikes

In this literature author studied that this is for somebody who wants something different. Instead of buying a fairly modern starter Sport bike like a Suzuki SV650, you want to take something older and upgrade it to personal taste. Or you've already got something older and want to tune it up on a budget.

This guide will use the “Cafe Racer look” as a starting point, and the info in that will valuable to anybody going a different direction such as a Bobber or Scrambler/Flat-tracker (the latter two more or less the same thing).

(2). Bike Modification and Upgradation

A motorcycle’s relativity simple design and availability of replacement or accessory component make it easy, inexpensive and popular to modify with unknown safety consequence. Virtually every part of a motorcycle can be modified not even the engine components. Modification aimed at fixing or modifying the way of machine works counting those directed at engine performance, comfort, handling, breaking etc. The vehicle which is modified as street-bike which is powered by 150cc oil-cooled DTSI engine. It is to be modified for dual purpose on-road and off-road sports bike. Some changes are made to personalized and customize the appearance such as fitting new tires can change a motorcycle handling. Some changes (such as upgrading suspension, tires, or break component) can be purely helpful.

III. IMPLEMENTATION

Step 1: Know your budget

We all know, when you start with a 10000 rs project, you will end up around 10000-15000, if you do not do much modification you can easily go from 10,000 to 15,000, but this isn’t what we want. We want to build a cafe racer on a budget!

Step 2: Choosing a Bike

There is a reason why people used to like BAJAJ PULSAR’s for building a cafe racer. They are easily available in Second hand users, Good working condition and old parts may be used to sale.
Step 3: Planning

Make sure to plan out your idea before doing anything. This will give you an idea what work will have to be done, get a budget set for what parts will cost.

Step 4: Parts and Materials

Things needed for converting your old bike into cafe racer but the common parts that are changed as given: The Seat Lights (Headlights/Signals, Tail lights), Air Filter, Handle Bars, Exhaust, Paint.

Step 5: Frame Cutting

Most bikes have their frame extend out over the rear wheel to support the seat and the lights back there. This usually is too long and will need to be cut.

Step 6: Paint, coatings

Once you have a bike apart, it will usually be dirty. Try washing everything off. Just because it's dirty doesn’t mean the paint is all bad. If your paint looks brand new other than a few spots, sand anywhere the little spots of paint have come off, if they have oxidize, smooth until the rust is gone and you're down to naked metal.

Step 7: Reassembly

Now finally after all this process reassemble the all parts of the bike.

IV. DESIGN OF MODELLING

We will nominally approach each problem from a every point of view during the time of design and our approach leads to empirically weigh the cause and effect of each design decision against the project's technical and economic design targets.

V. EXPECTED OUTCOME

After modification and converting into cafe racer the bike should be more comfortable and should be light weight than old bike.

VI. CONCLUSION

This project conclude that a custom motorcycle concept build is a complete one of the innovative and require countless hours poured into each build regardless of the style and base motorbike. We have create that it is important that each and every build that leaves the project works of assembly is a true old empire motorbike and this is why we took so much time consider each build and whether they are suitable to be part of this very special type of motorbike.

VII. RESULT

Due to the high importance of mechanical components or even exposed engines to motorcycle styling, the professional and specialists will collaborate on each project development.
A new set of wheels: there are many styles out there—but in general most riders option for wider ones.

REFERENCES
[9] Vietnamese Rider Creates His Own Custom Bike, By Damon Lowney