AUTOMATIC SIDE-STAND RETRIEVE SYSTEM

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ABSTRACT

In modern developing world, automobile plays important role especially two wheeler. i.e (motorcycles& bikes) plays a major role. Even though they are helpful there are some sad events like accidents due to careless of rider. Major accidents occur due to forgetting of lifting side stand. To rectify this problem many advance measure have taken, but they are useless. so, by considering that it should be implemented practically in all types bikes .The new system "AUTOMATIC SIDE-STAND RETRIEVE SYSTEM" is to be designed based on the working principle of bikes. Since all bikes transmit power from engine to rear wheel by means of chain drive. Since the design setup is to be kept in between chain drive, then setup (Sprocket) rotates and side stand get retrieves automatically

Keywords: *side stand, chain drive, rear wheel, sprocket*

INTRODUCTION

A side stand is a device on a bicycle or motorcycle that allows the bike to be Kept upright without leaning against another object or the aid of a person. A side stand is usually a piece of metal that flips down from the frame and makes contact with the ground . It is generally located in the middle of the bike or towards the rear. Some touring bicycles have two: one at the rear, and a second in the front. . A side stand is usually a piece of metal that flips down from the frame and makes contact with the ground. It is generally located in the middle of the bike or towards the rear. We may have witnessed motorcycle accidents because of the surface hindrance of retracted positioned side stand. One of the most common problems that are encountered in using the side stand is negligence or carelessness to kick back the side stand The negligence may be due to absence of mind. The side stand lock link relates to the field of automobiles industry, especially for two wheeler vehicles using side stand apart from the aim center stand provided there in for the resting of the vehicle. The side stand lock link makes the contact with the gear lever there by indicating the person handling the vehicle about the unreleased side stand when the rider tries to apply the gear in unreleased state of stand and prevents him from being endanger or to have unsafe ride of motor cycle .

Fig.1.1 side stand

LITERATURE REVIEW

[1] The first step in the invention of this glorious machine can be tracked down in 1791 at Parisian Park a toy-like machine named Hobby Horse as a plaything for rich. Improvement in it is seen in 1817, now front wheel can be turned by a handle. This was named as Draisienne after German Baron von Draise or a Velocifer. The first treadle led true bicycle appeared in 1830 which was ridden with both feet"s entirely off the ground by a

Scottish blacksmith named Krikpatrik MacMillan. In 1863 Pedals were added to the front wheel. The Bone-shaker is launched. Riding velocipedes soon becomes a fad.

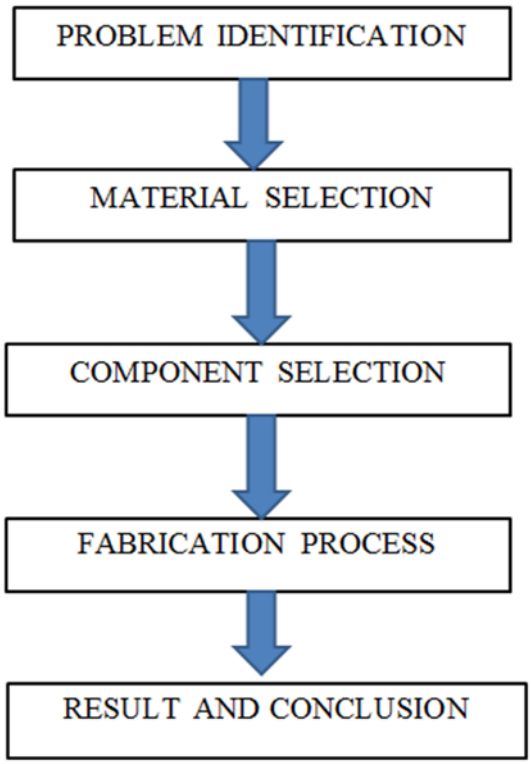
[2] R. S. Jadoun et al. in their paper they discussed the flaws in the conventional electric bicycle which was propelled only with the battery power and no human muscular power can be assisted to it. In their work they designed the bicycle which can run on both electrical as well as pedal power. With the aid of battery it can travel for 2 hours at a speed of 15km/hr and the battery can again be charged within 1 hour. Frederic Grappeetal.

[3] Carmelina Abagnale et al. in the journal it discussed about the model for electric motor assisted bicycle. So that the human power can be modeled separately with motor power and in the last the total power required can also be determined.

PROBLEM DEFINITION

The side stand plays major roll while the vehicle is in rest position. The side stand is used for supporting a parked Motorcycle it has some disadvantages takes place as while the driver starting the motorcycle, there may be possibility of forget to release the side stand this will caused to unwanted troubles. Then the undistracted stand hitting the ground and affected the riders control during the turn. While the two-wheelers is concerned accidents occurs due to riding the vehicle in high speed, ignores to use helmets, does not maintains the speed limit and forgets to lift the side stand while riding the vehicles. These are the major source for accidents. Forgetting to lift the side stand causes huge accidents in rural areas partly in urban areas too, because all the other source of accident has preventive measure, but accident due to side stand do not have proper preventive measure. If you see the accident status 36% of the accidents occur due to this problem.

METHODOLOGY



OBJECTIVE

1) To avoid the accidents while driving in the roads.

2) To lift the side stand while driving. It may reduce the accidents while driving

CONCLUSION

“Sprocket- side stand retrieve system” will definitely good retrieve system. Since the setup is compact it does not affect the performance of the vehicle. Because of the power is obtained from chain drive. Definitely this system could be used in all type of two-wheelers (TVS-XL, all front, back, hand geared) for retrieving the side stand, it will be the major system to control accidents due to side stand problem and protect the careless rider. These system can be implemented in all types of bikes by changing small variation in size and cost of this system also very low and so it will not affect the economic level also while compare to other system this

SPROCKET SIDE STAND RETRIEVE SYSTEM will be the life saver

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