SERVICE BULLETIN | MODEL: DUO-GLIDE | DEALER INFORMATION O | PRODUCT C
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CARE OF WHEELS, TIRES AND OTHER CHASSIS ASSEMBLIES DUO-GLIDE MODELS

Generally, motorcycle service stations do high-quality tuning of an engine for best performance but may give just brush-over attention to chassis inspection and adjustment, considering this attention to be given only after something fails, or serious handling difficulties are experienced at high speed.

Good handling of a solo motorcycle, particularly at higher speeds, goes hand in hand with good maintenance of chassis assemblies. High-quality preventive maintenance, applied to chassis, is just as important as high-quality tuning of an engine.

Particularly, steering head bearings, rear fork bearings, and wheel hub bearings must be correctly adjusted. Spokes must not be allowed to run loose. Tires must be kept correctly inflated and must be transposed frequently enough so front tire does not become worn irregularly or peaked. A front tire with any amount of irregular tread wear is likely to set up a high speed weave, especially if tire is over-inflated.

At regular intervals of 4,000 to 5,000 miles, or at any time a solo motorcycle develops handling irregularities at high speed, check the following and give attention as needed.

CHECK FOR:

1 - Loose wheel axle nuts.

2 - Excessive wheel hub bearing play.

3 - Loosened spokes.

4 - Rear wheel alignment in frame, and with front wheel.

5 - Rims and tires too much out-of-true sideways. (Tire run-out should not be more than 3/64").

6 - Rims and tires too much out-of-round, or eccentric with hub. (Tire run-out should not be more than 3/32").

7 - IRREGULAR OR PEAKED FRONT TIRE TREAD WEAR. IF A SOLO MOTORCYCLE DOES NOT SEEM TO HANDLE JUST RIGHT AT HIGH SPEED, DETERMINE MILEAGE SINCE TIRES WERE LAST TRANSPOSED. IF MILEAGE IS FOUND TO BE 4,000 OR MORE, TRANSPOSE FRONT AND REAR WHEELS AND TIRES EVEN THOUGH IRREGULAR WEAR OR PEAKING OF FRONT TREAD IS NOT VERY NOTICEABLE.

CAUTION: BRAKE LINING BONDING IS A HIGHLY SPECIALIZED OPERATION:

Brake shoe linings must be bonded to brake shoes according to the approved method by the manufacturer of the bonding material used.

Bonding (of brake linings to brake shoes) must be performed only by a qualified brake service shop which specializes in automotive brake shoe bonding, since special materials and equipment must be used to obtain a satisfactory job.

We recommend using brake lining material with our brakes. Excessive wear or damage to the linings and brake drums may result from using other linings which are incompatible with brake drum material.

Intervals at which tires may need transposing vary with the operator's style of riding, and how correctly he maintains tire pressures, also with road surface over which most miles are traveled. One operator may need tire transposing at shorter intervals than another.

Normally, tire attention should be given at 4,000 to 5,000 mile intervals.

8 - Tire inflation per inflation pressure chart. DO NOT OVER-INFLATE.

9 - Tire and wheel balance, if balancing equipment is available. Static balancing will be satisfactory, if dynamic balancing facilities are not at hand.

10 - Correct adjustment of steering head bearings.

With front end of motorcycle jacked up until wheel is free, (and with all steering damper parts removed if motorcycle is so equipped), the front fork should turn completely free either to full right or to full left. Set fork in straight ahead position at a point where it holds its position, hands off. Give handlebar a slight push in either direction. Fork must fall of its own weight to its full travel stop, either to right or to left.

If front fork does not fall freely its entire travel to right or to left, loosen head bearing adjustment just enough so that free movement is obtained. Of course, head bearings should not be adjusted so loose that any noticeable shake in head bearings can be noted.

If, when head bearing is so adjusted that front fork turns freely of its own weight when a slight push is given in either direction, but with steering damper parts reinstalled, and adjusting screw set at free position, it is found front fork binds due to some drag in steering damper parts, make necessary repair, and/or replacement, to attain completely free turning, as with steering damper removed.

If there is front fork turning drag with steering damper parts reinstalled, it may be enough to make motorcycle unstable at high speeds.

11 - Correct adjustment of rear fork bearings.

If it is found that motorcycle is still unstable at high speeds after operations 1 to 10 are checked, it is possible that rear fork bearings are adjusted too loosely, or bearings are in bad order.

The rear fork Timken bearings are not to be adjusted free like the steering head bearings, but instead must be pre-loaded. Adjustment is made on the right side of the frame. Remove all parts (rear wheel and shocks) from rear fork. Bend back tang of lock washer, loosen pivot bolt so bearings and fork are perfectly free. Weigh extreme end of rear fork. Attach a spring scale and raise fork to a horizontal position with center line of frame. Take scale reading. Tighten up on pivot bolt as necessary to provide from 1-1/2 to 2 pounds more weight with bearings pre-loaded, again weigh rear fork. Scale should show 1-1/2 to 2 pounds more than it did when bearings and fork were perfectly free.

Do not discount the possibility of Timken bearings being in bad order, such as races and rollers pitted, or bearings rusted due to moisture finding its way into the bearings.

If bearings are in bad order motorcycle may be unstable at high speeds, even though bearings may have the recommended pre-load.

It may be advisable when all parts are removed from the rear fork to remove the fork and inspect the bearings.

If bearings are in bad order and need replacing, or if original bearings are still good and will be reused, be sure to pack fork bearing housing and bearings fully with grease before fork is installed to prevent moisture from getting into bearings - Renew grease seals.

With attention given as outlined, you will in nearly every case, find any high speed handling faults corrected. The possible exception will be the case where there is serious frame or fork misalignment, or maybe a tire in extremely bad condition, which should be replaced. (USE ONLY "100" TIRES FOR REPLACEMENT. SEE RIDER HAND BOOK).

REMEMBER, TRANSPOSING WHEELS AND TIRES EVERY 4,000 TO 5,000 MILES, AND INFLATING NO HIGHER THAN RECOMMENDED PRESSURES, ARE OF FIRST IMPORTANCE. IN MANY CASES YOU WILL FIND THAT THIS ATTENTION ALONE, APPLIED TO A SOLO MOTORCYCLE THAT DEVELOPS FAULTY HANDLING AT HIGHER SPEEDS, WILL GAIN THE DESIRED RESULT.

It is advisable to rebalance wheels and tires, at least statically, whenever casing, and/or tube is replaced.

It is suggested you offer riders this chassis tune up service as a preventive maintenance service at 4,000 to 5,000 mile intervals. Strongly recommend that they take advantage of it. If you sell this plan, you will most likely hear very little about faulty handling at high speeds.

Tire Inflation Chart

Solo Motorcycle Only

5.00" Tire - Front 12 lbs. Rear 14 lbs.

Recommended tire inflation pressures are based on standard motorcycle equipment, and rider weight of about 150 pounds.

For each additional 50 pounds (rider or equipment), increase front tire pressure one pound, rear tire pressure two pounds.