

## Q6 What is the trouble of chain and how to solve it?

**A** Please see the following trouble shooting guide of 1 to 27.

### Troubleshooting Guide

#### Fracture of pin, bushing and roller

##### 1. Improper lubrication

###### **maintenance**

Lubrication and maintenance must be done on 500km/ride.



##### 2. Corrosion of chain

###### **maintenance**

Check the condition and lubrication, and replace it with a new one.



##### 3. Wear of sprockets

###### **maintenance**

Replace old sprockets with new ones.



##### 4. Foreign objects

###### **maintenance**

Immediately remove foreign objects if any.

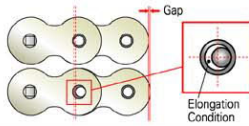


#### Run upon sprocket teeth

##### 5. Excessive wear elongation of chain

###### **maintenance**

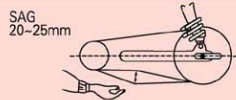
Replace an excessively worn chain.



##### 6. Chain too loose

###### **maintenance**

Pay constant attention to the chain sag. Correct by adjusting it according to the procedure stated in motorcycle instruction manual.



##### 7. Worn sprocket or deposit of foreign matter on tooth gap bottom

###### **maintenance**

Replace a worn sprocket immediately and remove foreign objects.



#### Vibration of chain

##### 8. Chain too loose

See 6.

##### 9. Uneven wear elongation

###### **maintenance**

Lubricate properly.



##### 10. Occurrence of stiff link

###### **maintenance**

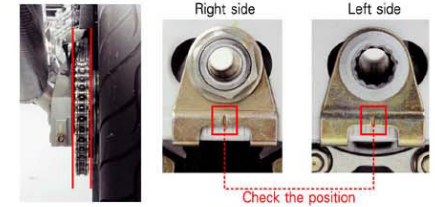
Lubricate the chain properly to avoid the stiff Link. Replace the chain if the chain already has the stiff Links.

#### Abnormal noise

##### 11. Incorrect alignment of sprockets

###### **maintenance**

Misalignment of drive and driven sprockets result in abnormal wear of sides of link plate, thereby shortening chain life. Checking the chain adjuster on motorcycle.



##### 12. Chain is excessively tensioned or slackened

See 6.

##### 13. Large wear elongation of chain or wear of sprocket

###### **maintenance**

Replace a chain that is elongated beyond tolerance and replace worn sprockets with new ones.



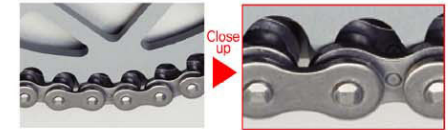
##### 14. Improper lubrication

See 2.

##### 15. Improper combination of chain and sprockets

###### **maintenance**

When replacing the chain, use the correct chain size and sprocket sizes. Select a chain suitable for sprocket size, and sprockets suitable for the chain size.

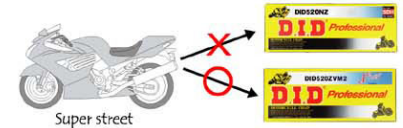


#### Stiff link

##### 16. Load in excess of tolerance

###### **maintenance**

Replace it with new one by checking the DID application chart and motorcycle instruction manual.



##### 17. Incorrect alignment of sprockets

See 11.

##### 18. Corrosion of chain & Improper lubrication

See 1. 2. 3.

##### 19. Interference between plate and foreign matter

###### **maintenance**

If a chain is in contact with foreign matter during running, the inner and outer plates may be opened. Immediately remove the foreign matter.



##### 20. Ingress of foreign matter into a bendable portion of chain

###### **maintenance**

If sand or mud enters a bendable portion, remove the chain, and wash and re-lubricate, or replace the chain. Furthermore, install a case, etc. to prevent the ingress of sand and mud.



## Rotation of pin

### 21. Excessive tension & Riding of chain over sprocket & Corrosion of chain and improper lubrication

#### **maintenance**

Replace it with new one by checking the DID application chart and motorcycle instruction manual.

## Fractured chain

### 22. Fatigue fracture

#### **maintenance**

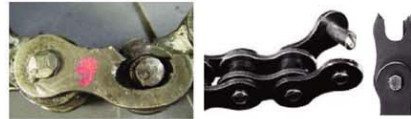
If a chain is used for a long time at a load exceeding the maximum allowable tension, fatigue fracture of plates and bending fatigue fracture of pins will occur. If the life before fatigue fracture is shorter than the expected life, select a chain on the DID application chart and motorcycle instruction manual.



### 23. Ductile fracture of plates Fracture of pins by shear or bending

#### **maintenance**

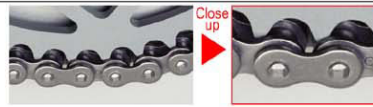
If a load or shock load greatly larger than the allowable tension acts on a chain, ductile fracture of plates or fracture of pins by shear or bending occurs. This fracture occurs when the chain size selected is incorrect and allowable tension is too small. Re-select a proper chain.



### 24. When the chain rides over a sprocket

#### **maintenance**

The fracture caused when the chain rides over a sprocket is mainly due to wear elongation. Select a proper chain, and practice correct lubrication.



### 25. Battery Liquid/Anti-Frozen Materials

#### **maintenance**

When battery (acid) liquid puts on a chain, that causes chain breakage, so replace it with new one. Be sure to clean the chain when contacted with anti-frozen materials like rock salt.



### 26. Interference with foreign matter

#### **maintenance**

If foreign objects should interfere with the running of chain or be caught, the chain is likely to be over loaded and its life will be shortened or it may break suddenly. Check the condition and remove any foreign objects.

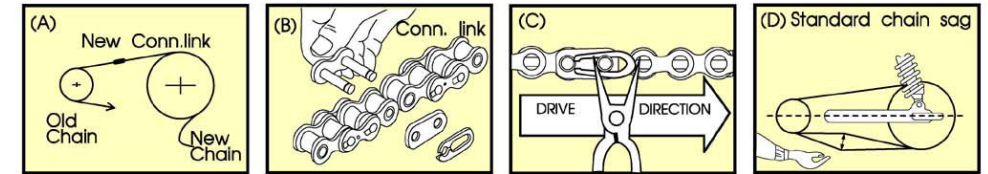


## Wear of plates and sprockets on their lateral sides

### 27. Incorrect alignment of sprockets

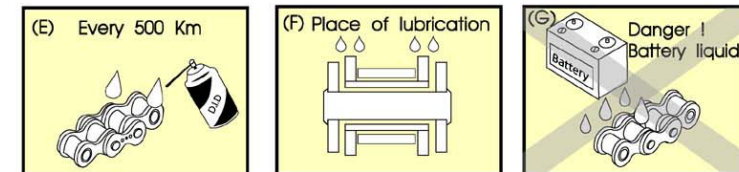
 See 11.

## SELECTION & INSTALLATION



1. Be sure to confirm with your DID chain distributor or local dealer that the chain being used is correct type for your application. Improper selection and use of DID motorcycle drive chain may result in serious damage to the motorcycle or bodily harm.
2. Cut the old chain at its connecting link. In the case of endless or riveted connecting link use the DID chain cutter or similar cutting tool.
3. Connect the new chain to the end of the old chain, using a new connecting link. Feed the new chain by turning the rear wheel, remove old chain once the new chain comes into position. (Fig. A)
4. When replacing a chain, connect both ends of the new chain with a new connecting link. (Fig. B) For a clip type connecting link, the open end of the clip must be set opposite of the chain drive direction. (Fig. C)
5. Follow manufacturer's manual for chain adjustment procedure. Standard chain sag is 20-25 mm. (Fig. D)

## MAINTENANCE



### 1. Cleaning and lubrication:

Externally lubricate the chain every 500 km. (300 miles) to prevent surface rust and ensure optimal performance. Clean the chain with kerosene dry sufficiently before lubricating the chain. Do not use steam, thinner, or similar volatile solvents such as gasoline or benzine. (Fig. E, F)

### 2. Replacement Interval:

Scratches, rust, or stiffness may cause the chain to break. If there is excessive elongation or abnormal noise during use, please replace the chain and sprockets at the same time.

### 3. Battery Acid / Icing Preventative:

If battery acid comes in contact with the chain, the resulting reaction can cause chain breakage, therefore please replace existing chain with new chain. Be sure to clean chain thoroughly after chain has come in contact with salt or any other icing preventative such as sodium chloride. (Fig. G)

## CAUTION

DID motorcycle chains undergo many quality controls during manufacturing. Except faulty materials and workmanship, the following are excluded from our responsibility; normal wear, incorrect fitment, poor maintenance, any alteration of the motorcycle, or racing use.