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1085



OPERATION
AND
MAINTENANCE



FOLDING VEHICLE

DI BLASI

MOD. R7 (PATENTED)

Dear Customer,

You have just purchased one of the world's most unique motor vehicles. It is efficient, economical, compact, convenient and reliable.

You can assure yourself of all its benefits by thoroughly reading your Operation and Maintenance Manual prior to your first ride. We think you will enjoy owning and riding this vehicle. But, please, remember, it is not a toy — it is a true motor vehicle.

It should not be left in the hands of children or entrusted to others who have not learned how to use it.

Enjoy your new purchase and drive safely.

Sincerely,

1 - TECHNICAL SPECIFICATIONS

- 1.1 **Dimensions**
- | | | | |
|--------------|---------------------|----------------|--------------------|
| Open: length | 1283 mm - 50.51 in. | Folded: length | 725 mm - 28.54 in. |
| width | 540 mm - 21.25 in. | width | 330 mm - 12.99 in. |
| wheel base | 930 mm - 36.61 in. | height | 590 mm - 21.65 in. |
- 1.2 **Weight Dry** 33.5 Kg - 74 lbs
- 1.3 **Rim Size (Front & Rear)** 5"
- 1.4 **Tire Size (Front & Rear)** 4.00 x 5"
- 1.5 **Brakes (Front & Rear)** 90 mm Diameter - 3.54 in.
- 1.6 **Electrical Wiring Diagram**
- Vehicle with 6V-18W electric system: see Fig. 18a
 - Vehicle with 6V-25W electric system: see Fig. 18b
- 1.7 **Fuel Tank Capacity** 3 litres - 3.2 quarts
- 1.8 **Fuel Consumption** 1 litre every 50 Km - 120 M.P.G. (approx.)
- 1.9 **Maximum Speed** 40 Km/h - 24.5 MPH
- 1.10 **Engine**
- DI BLASI manufactured-Model Designation M 1 - Two stroke, single cylinder.
 - Total Volume 69.9 cc - 3.04 cu.in.
 - Compression Ratio 8.55:1
 - Maximum Power .92 KW - 1 1/4 HP (at 3700 RPM)
 - Maximum Torque 2.56 mN - 1.88 ft lbs (at 3000 RPM)
 - Spark Plug LODGE "HN" (or equivalent)
 - Carburetor Dellorto SHA 14-12
main jet size 54
choke tube: 12 mm Diameter
 - Fuel Mixture of regular fuel with 2% oil SAE 30
 - Primary drive: automatic variator composed by:
 - Expanding pulley, working also as automatic clutch
 - V-Belt
 - Reduction unit oscillating support.
 - Infinite velocity ratio: min. 1:1,577; max. 1:3,736
 - Secondary transmission by 1/2" x 3/16 Chain (Z 9/42 = 1:4,666).
 - Starting: by foot kick starter.



fig. 1

When the vehicle is folded, it stands up on its lateral support



fig. 2

Lift the handlebar until it is locked by the special hook.
 Make sure that both springs which pull the hook are functioning properly.
 Make sure the hook is properly positioned (sec. 3.2).
 When lifting the handlebar, do not turn the wheel.



fig. 3

Unfold the vehicle holding the saddle, with both hands, on its front and rear edges; lift upwards and backwards as far as possible.



fig. 4

Pull the saddle backwards until the frame is locked automatically by the little hook on its right side (fig. 12).
 Place the machine on the stand.
 Unfold the foot rest.
 Open the fuel tap located under the tank so that the lever is pointing down-on (fig. 9-A).
 Open the air vent hole unscrewing the knurled nut on the tank cap (fig. 9-B).
 Unfold the rearview mirror.



fig. 5

Close the fuel tap located under the tank so that the lever is pointing forward to OFF. (fig. 9-A).

Close the air vent hole screwing the inserted nut on the tank cap (fig. 9-B). Run the engine until it stops, to consume all the fuel in the carburetor.

Fold the rearview mirror.

Push the vehicle forward off its stand.

Turn the steering 90° to the right.



fig. 6

Release the frame-hook located on the right side under the saddle (fig. 12) and push the saddle forward.



fig. 7

The saddle may be pushed down until it is almost at the same level with the filler cap.

Unhook the handlebars and lower them.



fig. 8

Fold the foot rests.

The machine stands on its lateral support.

4 - OPERATING INSTRUCTIONS

4.1 Breaking In:

During the break-in period, 500 Km or 300 Miles, use a mixture of regular fuel with 4% oil SAE 30.

Do Not Operate Engine above 3/4 throttle during this period. After the first 500 Km, check all bolts and nuts for proper tightness. Tighten the cylinder head nuts to 1 m Kg or 8 Ft lbs torque.

4.2 Fuel:

Use a mixture of regular fuel with 2% oil SAE 30. This mixture is for a broken in engine.

CAUTION: An improper mixture or just fuel without oil, will cause engine damage and voids all warranties.

4.3 Tire Pressure:

Front: 1,2 atm or 18 psi.

Rear: 1,8 atm or 26 psi.

4.4 Ridings:

- Place the vehicle on it's stand and make sure that the rear wheel is rised from the ground.
- Open the fuel tap under the tank to ON, straight down (fig. 9-A).
- Open the AIR VENT HOLE unscrewing the knurled nut on the tank cap (fig. 9-B).
- Switch the ENGINE STOP SWITCH to RUN, located on right handlebar (fig. 10-A) (only in the vehicles with 6V-25W electric system).
- OPEN THE THROTTLE SLIGHTLY, twisting action of right handlebar grip (fig. 10-B).
- If the engine is cold, push down the CHOKE LEVER mounted in the carburetor (fig. 11-A).
- Start the engine with moderate pressure on the KICK STARTER; if it jams, release and try again.

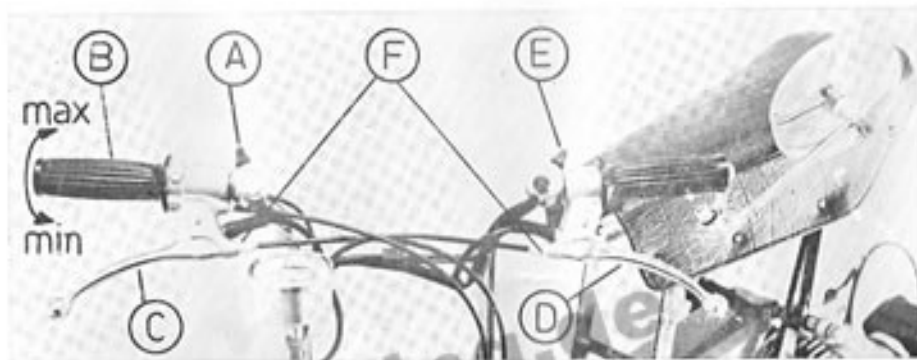


fig. 9

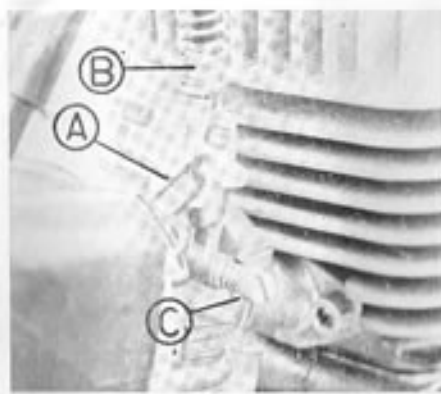


fig. 11

- h) A few seconds after the engine has started, OPEN THE THROTTLE COMPLETELY to release the automatic return of the choke to its open position. Prolonged operation with the choke on will cause spark plug fouling. Use caution to insure the vehicle is on the stand and apply the front brake while the throttle is opened completely.
- i) With the throttle in a CLOSED POSITION, apply the rear brake before pushing the vehicle off it's stand.
- j) The vehicle, once started, is driven at the desired speed solely by use of the TWIST GRIP THROTTLE (fig. 10-B).
- k) To slow down, CLOSE THE THROTTLE, and if necessary apply the brakes.
- l) The vehicle is equipped with two brakes. The front wheel brake is controlled by the lever on the RIGHT HANDLEBAR (fig. 10-C). The rear wheel brake is controlled by the lever on the LEFT HANDLEBAR (fig. 10-D). Under normal stopping conditions, use THE REAR BRAKE ONLY. If necessary, the front brake may be used but exercise extreme caution and apply VERY SOFT. Hard, sudden use of the front brake can be very dangerous.
- m) With the Throttle in the CLOSED POSITION, the engine will run while the vehicle is stopped.
- n) To stop the engine:
- in the vehicles with 6V-18W electric system: close the throttle and press the red button located on the left handlebar;
 - in the vehicles with 6V-25W electric system: close the throttle and switch the motor stop switch located on the right handlebar to OFF.

4.5 Lights

The lights are turned on by the switch located on the left handlebar.

4.6 Horn

The push button for the horn is located on the left handlebar. It is incorporated with the light switch. Horn will not operate until engine is not running.

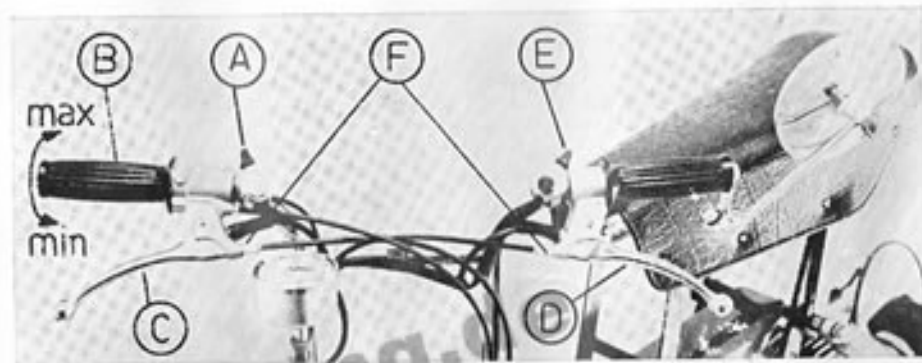


fig. 10



fig. 12

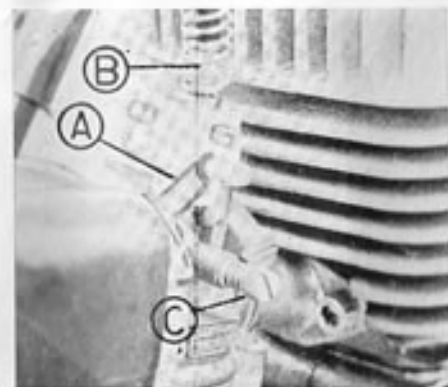


fig. 11

5 - CHECKS AND ADJUSTMENTS

5.1 Position of the handlebar

If the handlebar is not at right angles with the front wheel:

- loosen the cap lock nut of the head sets;
- turn the knurled metal ring (eccentric) located upon the handlebar hook in such a way as to obtain the correct position of the handlebar;
- tighten again the cap lock nut.

After this adjustment check the position of the handlebar hook (see sec. 5.2).

5.2 The Handlebar Hook

The locking hook mechanism is secured by two springs. Prior to riding, be sure that both springs are working properly.

The correct position of the hook is illustrated in fig. 14. If the hook goes out of adjustment (see fig. 13 & 15), readjust as follows:

— LOOSEN NUT C IN FIG. 14.

— If the hook is in the position indicated in fig. 13, unscrew the screw B (only a fraction of a turn).

— If the hook is in the position indicated in fig. 15, screw the screw B (only for a fraction of turn).

— Lock the lock nut (C - fig. 14).

— After this adjustment check that the position assumed by the hook is that indicated in fig. 14.

5.3 Handlebar Hinge (see fig. 16)

If the Handlebar hinge feels loose and requires adjustment proceed as follows:

a) loosen the lock nut (A).

b) adjust the two countersunk screws (B) so to take up the slack but without over-tightening.

c) tighten the lock nut (A).

5.4 Brakes

The brakes may be adjusted in two locations:

— One adjustment is accomplished at the handbrake levers (fig. 10-F).

— The other adjustment is accomplished at the brake backing plate (fig. 17-A).

After each adjustment be certain to tighten the lock nut.

With the brake levers in their normal position, the wheels must turn freely.

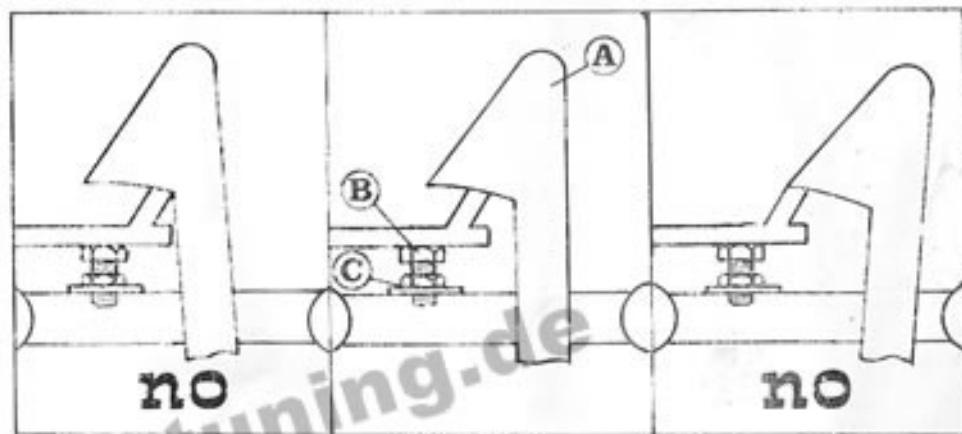


fig. 13

fig. 14

fig. 15



fig. 16

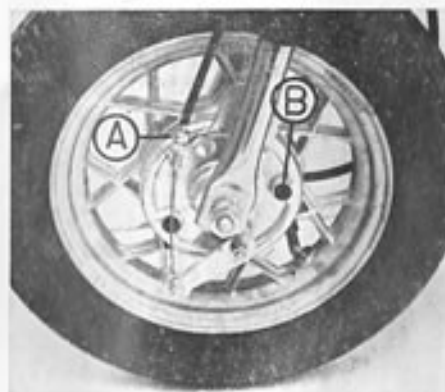


fig. 17

To check the brake lining thickness, remove the rubber plugs located in the brake lining plates (fig. 17-B).

5.5 Throttle Cable

To take up slack in the Throttle Cable, adjust device B in fig. 11. Remember to tighten the lock nut.

5.6 Idling

To adjust the engine idling speed, turning screw Fig. 11-C clockwise increases engine speed, turning counterclockwise decreases engine speed. This adjustment is factory set but if readjustment is necessary seek the aid of a competent mechanic.

5.7 Head Lamp

The head lamp inclination may be adjusted after loosening the two mounting screws.

5.8 Spark Plug

The gap of the electrodes should be $0,3 \pm 0,4$ mm or $0,012 \pm 0,016$ inch.

Clean spark plug with a wire brush.

Tightening torque of the spark plug on the cylinder head: 2,8 Kg m or 20,25 ft lbs

5.9 Flywheel Magneto

Ignition is provided by flywheel magneto. The spark advance is $22^\circ - 24^\circ$ corresponding to 2,30-2,45 mm or 0,070-0,095 in before the top dead center. It is possible to adjust contacts of the platinum points through suitable apertures. The gap of the contacts should be 0,42-0,45 mm or 0,16 to .018 inches.

5.10 Air Vent Hole

Check that the air vent hole in the tank cap is not clogged with dirt.

5.11 Nuts and Bolts

All nuts and bolts are equipped with locking devices, lock nuts, self locking nut, lock washers, nevertheless check the tightening periodically.

5.12 Electrical System

See sec. 1.6.

Make sure that the ground connection between the engine and frame is efficient.

5.13 Chain

To adjust the tension of the chain (fig. 23):

- loosen the nut (E);
- using a screw driver turn the eccentric pin (F) in such a way as to obtain the correct tension of the chain;
- keeping the screw driver on the slot, tighten again the nut (E).

12

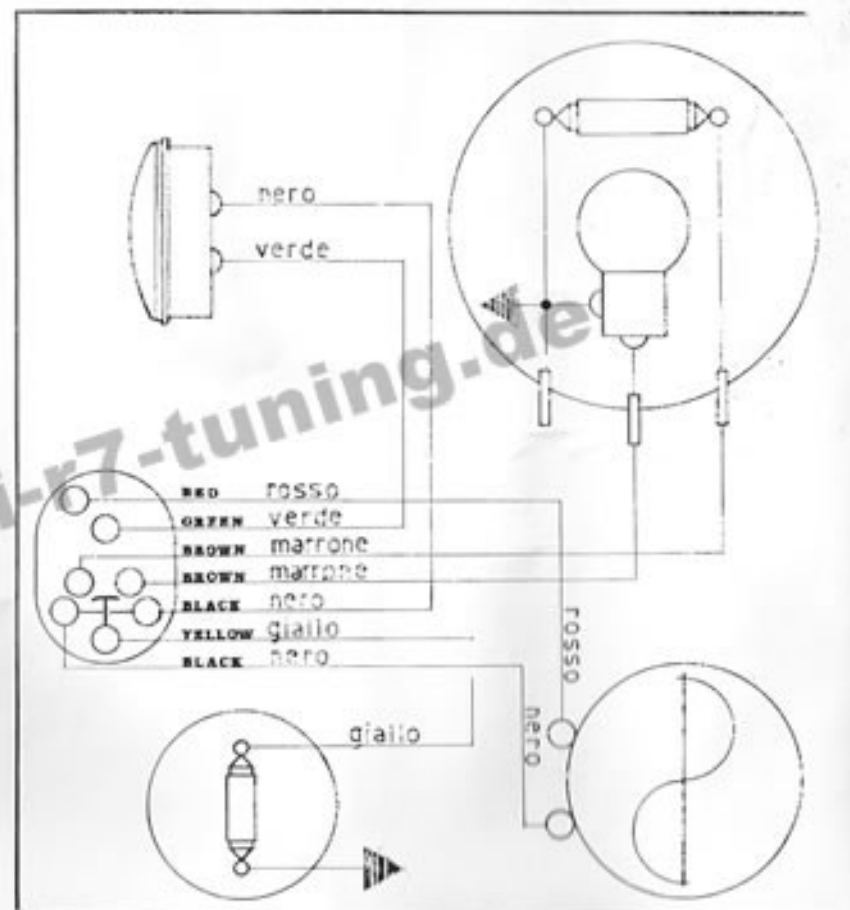


Fig. 18a

13

6 - DISASSEMBLIES

6.1 Front Wheel

- Disconnect the brake cable at the brake-backing plate (fig. 19-A).
 - Disconnect the speedometer transmission (for the models equipped with) (fig. 19-B).
 - Unscrew the nuts clamping the wheel (fig. 19-C).
- Attention: when reassembling the wheel, do not unscrew the chromed legs.

6.2 Rear Wheel

- Remove the transmission guard by removing the three screws.
- Disconnect the chain at its link (fig. 20-A).
- Remove the spring (fig. 20-D).
- Remove the belt from the rear pulley (fig. 20-B).
- Disconnect the brake cable at the brake backing plate.
- Unscrew the nuts holding the wheel to the fork (fig. 20-C).
- Remove the wheel from the fork.

6.3 Expanding Pulley (fig. 22)

To disassemble the expanding pulley:

- loosen screw A, fig. 22 from the lock washer B;
- unscrew screw A, fig. 22.

Attention: reassembling do not forget to lock the screw with the lock washer B.
For assembling or for spare parts orders see fig. 24.

6.4 Reduction Unit

To disassemble the reduction unit, it is necessary to remove the rear wheel (sec. 6.2) and then to extract the reduction unit oscillating support from the rear axle.
For assembling or for spare parts orders see fig. 25.

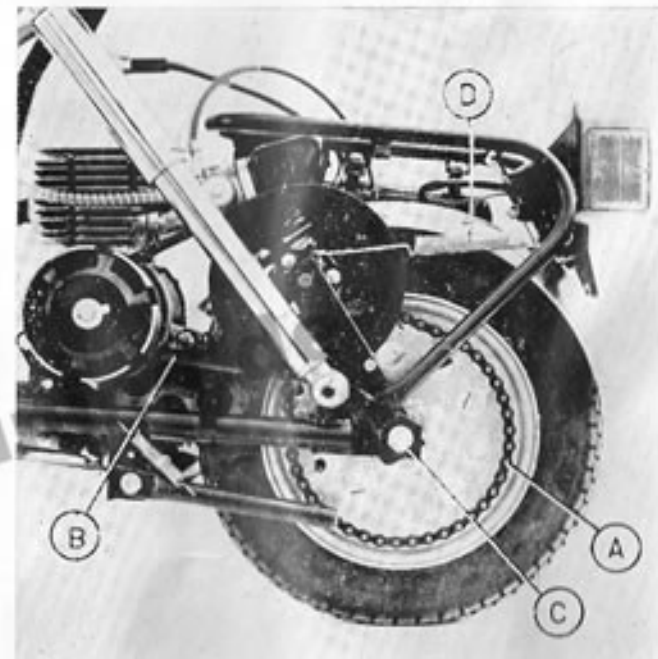


fig. 20

fig. 19

7 - SERVICING

- 7.1 Clean and lubricate the Drive Chain often (fig. 21-A).
- 7.2 Every 1000 - 1500 km or 650 - 1000 miles replace the V-Belt (A worn V-Belt causes only a starting in jerks).
- 7.3 Every 2500 km or 1500 miles
- Ask to a competent mechanic to disassemble the reduction unit (sec. 6.4) and:
 - to fill the little tank (C) fig. 23 with soap grease;
 - to fill the little tank (D) fig. 23 with lithium grease.
 - Lubricate the speedometer transmission device, located at the front hub, with grease (lubricating nipple (B) fig. 19; only for the models equipped with speedometer).
 - Clean the air filter and the carburetor with suitable cleaner.
 - Disassemble the expanding pulley (sec. 6.3) clean with benzine, reassemble without greasing.
- 7.4 Periodically
- Lubricate with a drop of oil the cables (brakes, throttle, speedometer) and the frame articulations.
 - Clean with benzine the starting gears (fig. 24-B) and lubricate with grease.

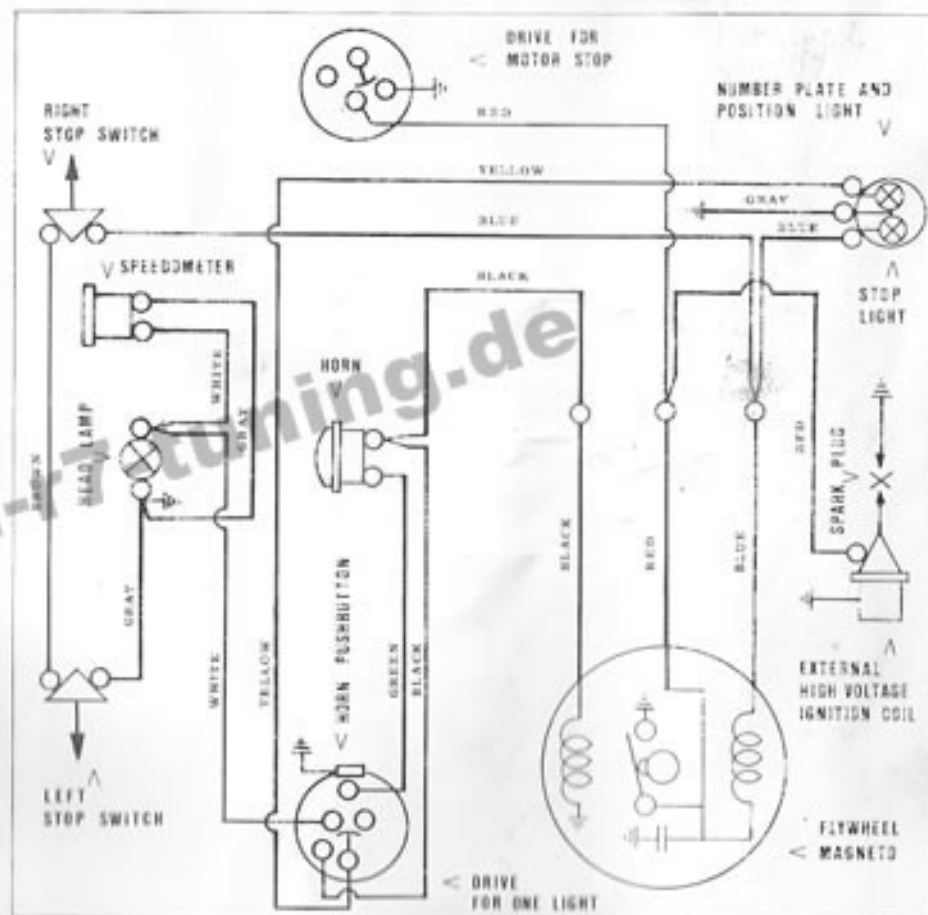


Fig. 18c

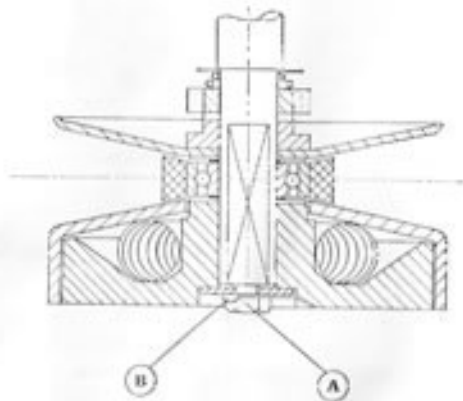


Fig. 22

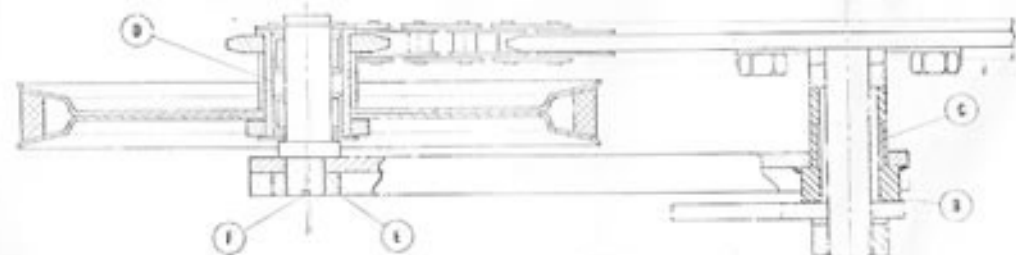


Fig. 27

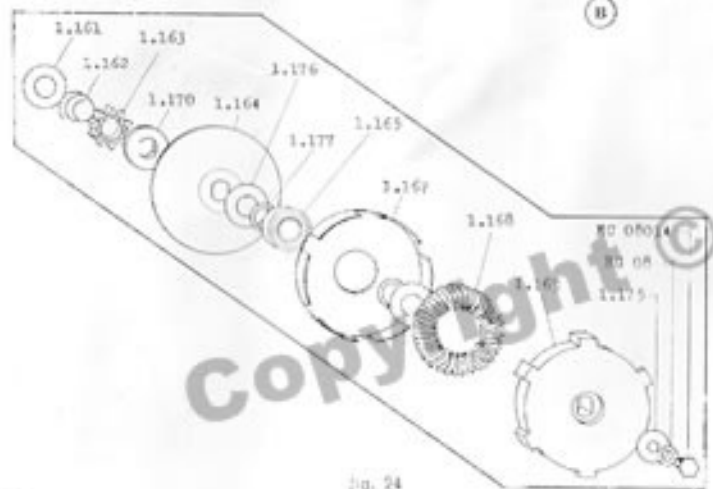


Fig. 24

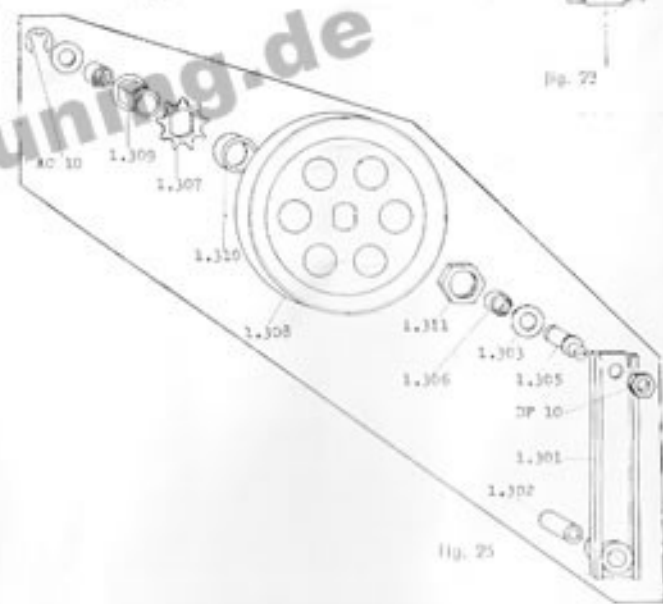


Fig. 25

8 - DIAGNOSIS

- 8.1 **The engine does not start:**
- a) Check if the fuel is not reaching the carburetor because:
- The tank is empty: pace fuel tap in reserve position (level pointing up) and then refuel.
 - The fuel tap is closed.
 - The air vent hole in the tank cap is closed (knurled nut screwed) or clogged with dirt.
 - The fuel tap filter is clogged.
 - The fuel line is clogged (by an air bubble for instance).
 - The carburetor or air filter is dirty.
- b) Check the ignition:
- With the spark plug removed and resting with its metal portion lying on the fins of the cylinder, check whether there is a spark between the electrodes by depressing the kick starter manually.
 - Check whether the spark plug is dirty (in which case clean it thoroughly), and check whether the gap of the electrodes is correct (0,3 ÷ 0,4 mm or 0.012 ÷ 0.016 in).
 - Check the spark plug cable and replace it if it is broken or poorly insulated.
 - Check whether the contacts of the magneto are dirty, damaged or the gap is not correct (sec. 5.9).
 - Check the electric system (see wiring diagram). Make sure that the ground connection between the engine and the frame is efficient.
- 8.2 **The engine does not run normally**
The reason can be:
- a) One of the reasons listed on sec. 8.1.
- b) Carbon deposit at the piston and cylinder head, at the cylinder exhaust port, at the exhaust pipe.
- c) The spark plug or the cylinder head or the induction manifold are not tightened.
- 8.3 **Fouling at the electrodes**
The reason can be a too poor carburation:
- Clean the carburetor, the cylinder exhaust port, the exhaust pipe.
 - Tighten the sparking plug, the cylinder head, the induction manifold.
 - Make sure that fuel is a mixture of regular fuel with 2% oil.
- 8.4 **Jamming of the expanding pulley** (fig. 22)
Disassemble and clean, if necessary replace parts 1.167 and 1.169 (fig. 24).
- 8.5 **Jamming of the reduction unit oscillating support** (fig. 23)
Disassemble as in sec. 6.4 and check if the bushings (fig. 23-B) is lubricated.

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The DI BIASI vehicles are exported all over the world and their characteristics and accessories are different in the various Countries.

For this reason the pictures of this manual could not represent exactly Your vehicle.