FOREWORD

This Service manual, edited by Dinli Metal Industrial Co., Ltd., Taichung, Taiwan, is designed primarily for its distributors and trained mechanics. This service manual provides tables containing the structure and maintenance parameters of Dinli ATVs with illustrations and descriptions. It strives to be a concise and easy reference for mechanics when maintaining Dinli ATVs. In the case where the owner has insufficient experience to do the work, it is recommended that a qualified mechanics carry out all adjustments, maintenance, and repair.

Dinli Metal Industrial Co., Ltd. is permanently making improvement on the design of its model. Whenever there are changes in product specification, they will be included in a reprinted service manual.

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Dinli Metal Industrial Co., Taiwan
Fuel tank cap

Oil tank cap

REAR BRAKE INSPECTION AND ADJUSTMENT

1. Check

(1) Brake disc
   Worn/damaged ➔ replace
   Not as specified ➔ replace
   Min. Thickness limit : 3.0 mm
MAINTENANCE SCHEDULE
The maintenance intervals in the following table are based upon average riding and conditions. Riding in unusually dusty areas require more frequent servicing.

<table>
<thead>
<tr>
<th>Item</th>
<th>INITIAL SERVICE (First week)</th>
<th>INITIAL SERVICE (First week)</th>
<th>Every year</th>
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<tr>
<td>Fuel Line</td>
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<tr>
<td>Throttle Opertion</td>
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<tr>
<td>Air Cleaner</td>
<td>C</td>
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<tr>
<td>Spark Plug</td>
<td>I</td>
<td>I</td>
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<td>Carburetor Adjustment</td>
<td>I</td>
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<td>Idle Speed Adjustment</td>
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<tr>
<td>Drive Chain</td>
<td>I, L</td>
<td>I, L</td>
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<tr>
<td>Throttle Cable</td>
<td>I</td>
<td>I</td>
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<tr>
<td>Brake Shoe Wear</td>
<td>I</td>
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<tr>
<td>Brake System</td>
<td>I</td>
<td>I</td>
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<tr>
<td>Nut, Bolt, Fastener</td>
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<tr>
<td>Wheel</td>
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<td>Steering System</td>
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<tr>
<td>Suspension System</td>
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<tr>
<td>Battery</td>
<td>I</td>
<td>I</td>
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<tr>
<td>C.V.T. Air Filter</td>
<td>C</td>
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</tbody>
</table>

Note: I: Inspect and Clean, Adjust, Lubricate or Replace, if necessary. C: Clean L: Lubricate

STEERING MECHANISM INSPECTION AND ADJUSTMENT

1. Place the ATV on a level surface.
2. Support the vehicle body with a work stand to raise the front wheel off the ground.
3. Check for
   (1) Slack
      Hold the handlebar and front wheel with your both hands, and shake left and right.
      If slack, tighten the lock nuts of steering shaft, handlebar clamp, and ball joint arm.

- Torque:
  Steering shaft lock nut: 80 - 95N • m
  Steering shaft holder lock nut: 25 - 40N • m
  Handlebar clamp lock nut: 8 - 14N • m
  Ball joint arm lock nut: 40 - 55N • m

4. Turn the handlebar left and right. If it is hard to move, remove the steering shaft assembly. Check the sleeve and lubricate the joint parts of the handlebar.
Install the tie-rod and tighten the castle nuts to the specified torque while holding the ball joint.
TORQUE: 40 - 55N • m

Install the cotter pins.

TRANSMISSION INSPECTION

1. Check
   (1) Drive chain
   • Check the drive chain for slack or dryness.
     Slack/damaged ➞ replace
     Worn/damaged ➞ replace
   
   (2) Sprocket
   • Check the sprocket
     Worn/deformed ➞ replace
   • If dry, apply grease or lubricant to the sprocket or drive chain.

   Torque:
   Axle bearing seat lock nut: 25 - 40N • m

ENGINE DISASSEMBLY

CARBURETOR

Remove:
- oil pump drain pipe (1)
- carburetor assembly (2)

PIPS, CABLES AND WIRES

Remove:
- high-tension wire (1)
ENGINE SEPARATION

COVER, GEAR

Remove:
-Nut ①
-Screw ②
-Gear assembly ①
-Gasket ②
-Screw ①
CYLINDER HEAD, CYLINDER AND PISTON

Do not dismantle the engine. To repair cylinder head, cylinder and piston, only the following parts are to be removed:

- Fenders
- Footrest
- Carburetor

Remove:
- Mudguard (1)

Remove:
- Cylinder baffle shroud (1)

- Pull out the flange (1) of the cylinder baffle shroud from the sunken hole (2) of the left crankcase.

Remove:
- Intake elbow (1)
- Reed valve
- Spacer

Remove:
- Cylinder (1)
- Spacer (cylinder) (2)

Remove:
- Spark plug (1)
- Cylinder head (2)
- Spacer

- Block the open end of the crankcase with clean cloth to prevent the circlip (1) dropping into the crankcase.

- Loosen nuts by crossing them.
- Loosen every nut for 1/4 turn. Only take nuts down after all nuts are loosened.
Remove:
- O-ring (1)
- nut (clutch hub) (2)

• Fix clutch hub with clutch holder to facilitate loosening nuts.

Remove:
- rear belt pulley assembly (1)
- toothed belt (2)
- gasket (3)

• As illustrated by the figure, press the rear belt pulley assembly by hands to remove the toothed belt and rear belt pulley assembly at the same time.

Remove:
- fan (1)
- O-ring (3)

STARTER CLUTCH

To inspect and repair the clutch, only the following parts are to be removed. It is not necessary to dismantle the engine.
• left crankcase cover
• front and rear belt pulleys
• V belt

Remove:
- fixed plate (1)
- starter clutch (2)

Remove:
- bush (1)
- starter wheel (2)
- washer (3)
- idle gear (4)
- washer (5)
Remove:
- needle bearing (1)
- washer (2)

MAGNETO

Remove:
- stator assembly (1)
- woodruff key (2)

OIL PUMP

To inspect and repair the oil pump, only the following parts are to be removed. It is not necessary to dismantle the engine
* fenders
* air cleaner
* fan baffle shroud
* oil pump cable

Remove:
- oil pump (1)

Remove:
- washer (1)
- worm (2)
**STARTER MOTOR**

To check and repair the starter motor, only the following parts are to be removed. It is not necessary to dismantle the engine.

* muffler assembly

Remove:
- starter motor ①

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**CRANKCASE (RIGHT)**

Remove:
- screws
- fixed plate ①

Remove:
- crankcase (right) ②

Crankcase separating procedures:

Check:
- cam plate (front belt pulley) ①
- buffer block ②
- Abraded / damaged — replace

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**TOOTHED BELT**

Check:
- toothed belt ①
- Cracked / abraded / thread
- separation / breach — replace
- Adhered by oil — replace
REAR BELT PULLEY
Check:
- rear belt pulley (fixed) ②
- rear belt pulley (slide) ③
- oil seal ①
Scraped/cracked/damaged ➔ replace the whole set

STARTER CLUTCH AND GEAR
Check:
- starter clutch
  Install the dowel pin
  into the slot, and turn it in the slot
  in the arrowhead direction.
  Not smooth ➔ replace starter clutch assembly

Check:
- teeth of starter gear ①
- teeth of idler gear ③
Deformed/Ablated/Abraded/breach ➔ replace

OIL PUMP
Inside abrasion of pump or breakdown of inside mechanism may lead to a
different output of lubricant than that designed by the factory. However, this
situation is rare. If the output of the pump is abnormal, check the following
item.

Check:
- oil inlet and drain pipes ①
  Stuffed/ruptured ➔ blow through or replace
- O-ring ②
Check:
- drive worm of oil pump ④
- driven worm of oil pump ①
Depressed/abraded/damaged ➔ replace

BEARING AND OIL SEAL
Check:
- bearings (all parts of engine)
  After cleaning and lubricating, race inside race of the bearings.
  Bad movement ➔ replace
Check
- Bearing (all parts of engine)
  Damaged/abraded -> replace

Install:
- Bearing ①

* Apply lithium grease to the oil seal lip.

Install:
- Breather ①
- Hose ②
- Flange ③

* Apply gear oil to the middle shaft and rear shaft.

STARTER CLUTCH

Install:
- Washer ①
- Bearing ②

* Apply molybdenum disulfide engine oil to the gear hub.

Install:
- Washer ①
- Idle gear ②
- Washer ③
- Starter gear ④
- Bush ⑤
Install:
- starter clutch ①
- fixed plate ②

- Apply grease to the idle gear axle.
- Apply molybdenum disulfide engine oil to the rollers in the starter clutch

TOOTHED BELT, FRONT AND REAR BELT PULLEYS, AND KICK-START MECHANISM

Clean:
- side surface (front belt pulley)
Install:
- roller①to roller path②

Install:
- collar ①
- whole set of slide disk ②

- Hold the cam plate and slide disk together with hands to avoid roller falling off.

Install:
- O-ring①
- Fan②

- Make sure the O-ring is set into the fan slot.
- Use a new O-ring.

Install:
- sector gear assembly①
- return spring②
- bush③
- plate washer④
- circlip⑤
Hook:
- return spring

* As shown in the figure, hook one end (1) of the spring on the flange (2) and the other end (3) into the slot (4) of the sector gear.

Install:
- spring clip (5)
- starter pinion (6)

* Install the spring clip as shown in the figure.

Install:
- dust cover

Install:
- dowel pin
- left crankcase cover (7)

* Fasten crosswise.

Install:
- shock absorber pad
- kick lever

* Make the kick lever parallel to the edge of the crankcase.

CYLINDER HEAD, CYLINDER AND PISTON

Install:
- spacer (cylinder head)
- cylinder head (8)
- spark plug (9)

* Use a new spacer.
* The hump side of spacer should be installed toward the cylinder head.

Install:
- spacer (cylinder) (10)
- cylinder (11)

* Use a new spacer.
Nut (cylinder head): 1.4kg.m (14N.m)
Spark plug: 2.0kgf.m (20Nm)

Install:
- spacer
- reed valve
- intake elbow

* Use a new spacer.

ENGINE ASSEMBLY

Install:
- drive sprocket
- exhaust muffler

CARBURETOR REMOVAL

Remove:
- engine oil tank cover
- engine oil tank protect cap

Remove:
- air cleaner

Remove:
- gasoline pipe
- vacuum pipe
- oil drain pipe (of oil pump)
- carburetor cover
- screw (carburetor body)

* Block the open end of the oil drain pipe to prevent the lubricant from flowing off.
ASSEMBLY
Apart from assembling the carburetor according to the reverse order of removal, note the following.

Install:
- carburetor body

- Be sure to fit the collar (9) of the carburetor into the slot (8) of the intake elbow.

REED VALVE
ERMOVAL
Remove:
- carburetor
See CARBURETOR REMOVAL Section.
Remove:
- mudguard (1)
Remove:
- intake elbow (2)
- reed valve
- gasket

INSTALLATION
Apart from installing according to the reverse order of removal, note the following.

Install:
- gasket
- reed valve
- intake elbow (7)
- mudguard (2)

- Use a new gasket.

Bolt (of intake elbow): 9N • m

HANDLEBAR
REMOVAL
• Remove the throttle housing cover screws and the housing.
• Remove the handlebar grip from the handlebar.
• Disconnect the throttle cable and remove the throttle lever if necessary.
• Remove the rear brake lever and disconnect the rear brake cable.
• Disconnect the handlebar switch wire from the handlebar by removing the wire bands.
• Remove the left handlebar switch holder by removing the two screws.
• Remove the handlebar grip.

• Remove the screws attached to it.

• Remove the handlebar clamp by removing the clamp bolts.
• Remove the handlebar.

REAR BRAKE REMOVAL

• Grease on the brake linings reduces stopping power. Keep grease off the linings.

Remove the left rear wheel.
Remove the axle collar.
Remove the rear brake cable nuts.
Remove the rear brake set plate.
Remove the rear brake.
Remove the brake lining lock pins.
Remove the brake linings.

• If the lining wear indicator nearly touches the brake disc, replace.

Remove the brake disc assembly.
Check the brake disc.
If worn, damaged or deformed, replace the brake disc.
Not as specified—replace.
Min. Thickness Limit: 3.0 mm
BRAKE DISC HOLDER INSPECTION
Measure the key slot for damage, and the engagement with rear axle.
If faulty, replace.

DRIVE MECHANISM
REMOVAL
Remove the right rear wheel, safety cover, and axle collar.

Remove the NUT.
Remove the drive chain.

Remove the driven sprocket and axle

• Remove the axle before removing the brake disc.

INSPECTION
Inspect the driven sprocket for wear, or damage.
Replace if necessary.

Inspect the sprocket holder spline slot for wear or damage.
Replace if necessary.
Turn the inner race of each bearing with your finger. The bearings should turn smoothly and quietly. Also check that the bearing outer race fits tightly in axle holder.

- Replace the bearings in pairs.
  For replacement of bearings, refer to the previous contents.

INSTALLATION
Apply grease to the dust seal lips and install dust seals.
Apply the rear axle, driven sprocket and the axle collar.

REAR WHEEL INSTALLATION
Install the rear wheel.
Install the gasket.
Install the rear axle nut and tighten it to the specified torque.
TORQUE: 80 - 95 N • M

CLEAN CARBURETOR

1. Take off four screws of the carburetor.
2. Take off the cover.
3. Take off the screw of jet.
4. Take off another screw of jet.
5. Take off two jet.

6. Use a thin wire to clean every little hole. Then blow it by air compressor.

7. Same as 6.

8. Same as 6.

9. Same as 6.

10. Blow this hole by air compressor.

11. Clean the little hole of jet by thin wire.

12. Blow this hole cleanly by air compressor.
(1) Regulator/Rectifier
(2) Magneto
(3) Battery
(4) Fuse box