FOREWORD

This Service manual, edited by Taiwan Jet Power Industrial Ltd., is designed primarily for its distributors and trained mechanics. This service manual provides tables containing the structure and maintenance parameters of JP-502 ATVs with illustrations and descriptions. It strives to be a concise and easy reference for mechanics when maintaining JP-502 ATV. 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.

Taiwan Jet Power Industrial 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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Taiwan Jet Power Industrial Ltd.,
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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<td>Fuel Line</td>
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<td>Brake Shoe Wear</td>
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<td>Brake System</td>
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<td>Battery</td>
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<tr>
<td>C.V.T, Air Filter</td>
<td>C</td>
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<td>I</td>
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</tbody>
</table>

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

MECHANISM INSPECTION AND ADJUSTMENT

1. Place your vehicle on a wheel stand to raise the front wheel.
2. Hold the handlebar and front wheel with your both hands, and shake left and right to check the lock part of steering shaft, handlebar clamp, and ball joint.

- Steering lock nut: 40 - 85N·m
- Lock nut: 25 - 50N·m
- Lock nut: 8 - 15N·m
- Lock nut: 40 - 85N·m

If it is hard to move, remove the parts and lubricate the joint parts of the mechanism.
Install the tie-rod and tighten the castle nuts to the specified torque while holding the ball joint.
TORQUE: 40 - 55 N • 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 ~ 40 N • m

ENGINE DISASSEMBLY

CARBURETOR

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

PIPES, CABLES AND WIRES

Remove:
   -high-tension wire (1)
ENGINE SEPARATION
COVER. GEAR

Remove:
-Nut ①
-Screw ②

-Gear assembly ①
-Gasket ③

-Screw ①
CYLINDER HEAD, CYLINDER AND PISTON

Remove:
- mudguard

Remove:
- cylinder baffle shroud

Remove:
- intake elbow
- reed valve
- spacer

Remove:
- cylinder
- spacer (cylinder)

Remove:
- spark plug
- cylinder head
- spacer

Remove:
- circlip of piston pin

NOTE
Remove:
- O-ring (1)
- nut (clutch hub) (2)

NOTE

Remove:
- rear belt pulley assembly (1)
- toothed belt (3)
- gasket (5)

NOTE

Remove:
- fan (1)
- O-ring (2)

STARTER CLUTCH

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

Remove:
- bush (1)
- starter wheel (3)
- washer (1)
- idle gear (4)
- washer (2)
MAGNETO

Remove:
- needle bearing 1
- washer 2

OIL PUMP

NOTE

Remove:
- oil pump 1

Remove:
- washer 1
- worm 2
Remove:
- dowel pin ①
- washer 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

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

TOOTHED BELT

Check:
- toothed belt ①
Cracked/abraded/thread separation/breach → replace
Adhered by oil → replace
**REAR BELT PULLEY**

Check:
- rear belt pulley (fixed) ①
- rear belt pulley (slide) ②
- oil seal ③

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 idle gear ②
  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 ③
- driven worm of oil pump ④
  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)

NOTE

STARTER CLUTCH
Install:
- Washer (1)
- Bearing (2)

NOTE

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

NOTE

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

Clean:
- side surface (front belt pulley)

Install:
- roller (1) to roller path (2)

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

NOTE

Install:
- O-ring (1)
- Fan (2)

WARNING

Install:
- sector gear assembly (1)
- return spring (2)
- bush (3)
- plate washer (4)
- circlip (5)
Hook:
- return spring

NOTE

Install:
- spring clip ①
- starter pinion ②

NOTE

Install:
- dust cover

Install:
- dowel pin
- left crankcase cover ①

Install:
- shock absorber pad
- kick lever

NOTE

CAUTION

CYLINDER HEAD, CYLINDER AND PISTON

Install:
- spacer (cylinder) ①
- cylinder ②

Install:
- spacer (cylinder head)
- cylinder head ①
- spark plug ②

- Use a new spacer.
- The inner side of spacer should be installed toward the cylinder head.
- Fasten the nut securely.
Nut (cylinder head): 1.4kg.m (14N.m)
Spark plug: 2.0kgf/m (20Nm)

Install:
- spacer
- reed valve
- intake elbow

CAUTION

ENGINE ASSEMBLY

Install:
- drive sprocket (1)
- exhaust muffler (2)

CARBURETOR REMOVAL

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

Remove:
- air cleaner (1)

Remove:
- gasoline pipe (1)
- vacuum pipe (2)
- oil drain pipe (of oil pump) (3)
- carburetor cover (4)
- screw (carburetor body) (5)

Remove:
- enriching valve plug (1)

NOTE
ASSEMBLY
Apart from assembling the carburetor according to the reverse order of removal, note the following.

Install:
- carburetor body

REED VALVE
REMOVAL
Remove:
- carburetor
  See CARBURETOR REMOVAL Section
Remove:
- muffler guard (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 (1)
- muffler guard (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

WARNING

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.

NOTE

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.

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.

**NOTE**

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

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**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.
13. Same as 12.

14. Same as 12.

WIRING DIAGRAM
1. Regulator/Rectifier
2. Air Shroud
3. Battery (Never interfere its sealed state)
4. Fuse box