

# Owner's Manual

## Parts Manual

**Yamaha**  
Overhead

**READ THIS MANUAL CAREFULLY,  
IT CONTAINS IMPORTANT SAFETY INFORMATION.**



**MINIMUM  
RECOMMENDED  
OPERATOR AGE: 16**



## **UM250IIR Limited Warranty**

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This warranty policy only applies to go-karts unloaded from their shipping containers, set up and delivered by an authorized dealer, and that under normal use and service is found to have defects in parts or workmanship under the following terms and conditions. This warranty covers the kart and engine related components for a period of 90 days.

This warranty does not apply to any part, which in opinion of seller was defective because of improper maintenance, improper assembly, alterations, abuse, negligence or accident.

Should warranty service be required on your UM250IIR during the 90 days warranty period, please contact your nearest authorized dealer for repairs.

### **What is not covered under this warranty**

Damage or faults caused by misuse, negligence, alterations, accidents or any abnormal use including the use of non genuine parts, renting or leasing, competition or racing. This warranty does not cover loss of use of the unit or loss of time, or inconvenience or normal wear and deterioration of consumable items such as spark plugs, chain, brake shoes, fuses, clutch plates, sprockets, light bulbs, battery and tires.

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## PARTS MANUAL

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# FOREWORD

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Thank you for purchasing our kart. We hope you will enjoy it. Before you start to operate the kart, please read through this Owner's Manual carefully as it contains important safety and maintenance information. Failure to follow the warnings contained in this manual can result in serious injuries or death.

Be sure to follow the recommended maintenance schedule and service your kart accordingly. Preventive maintenance is extremely important to the longevity of your kart.

Beginners should seek instruction from their dealer or qualified instructors before and during initial use of the kart. It is also recommended to practice in a large flat open area to familiarise yourself with operations of this kart.

We hope you will have a pleasant experience with our products and thank you again for choosing our kart.

# A FEW WORDS ABOUT SAFETY

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In order to keep everyone safe, you must take responsibility for the safe operation of your kart.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

It is not practical or possible to warn you about all hazards associated with operating or maintaining a kart. You must use your own good judgment.

You will find important safety information in a variety of forms, including:

**Safety Labels** – On the kart.

**Safety Messages** – Preceded by a safety alert symbol  and one of two signal words: **WARNING**, or **CAUTION**.

**These signal words mean:**



Physical harm may result from failure to adhere to the instructions that are described within the **WARNING** labels.

**Safety Headings** — such as Important Safety Reminders or Important Safety Precautions.

**Safety Section** — such as kart safety.

**Instructions** — how to use this kart correctly and safely.

This entire manual is filled with important safety information—please read it all carefully.

# IMPORTANT SAFETY INFORMATION

Your kart will provide you with many years of use and pleasure. Providing you take responsibility for your own safety and that of any one else using your kart or near to the kart when it is being used and understand the challenges you can meet while driving.

There is much that you can do to protect yourself while operating your kart. You will find many helpful recommendations throughout this manual. The following are a few that we consider to be the most important.

## **Follow the Age Recommendation**

The kart should not be driven by anyone under the age of 16.

## **Always Wear a Helmet**

It's a proven fact: helmets significantly reduce the number and severity of head injuries. Always wear an approved motorcycle helmet. We also recommend that you wear eye protection, sturdy boots, gloves, and other protective gear.

## **Drive Off-Road Only**

Your kart is designed and manufactured for off-road use only. The tires are not made for use on pavements, and the kart does not have turn signals and other features required for use on public roads. If you need to cross a paved or public road, get off and walk your kart across.

## **Take Time to Learn & Practice**

Even if you have driven other karts, take time to become familiar with how this kart works and handles. Practice in a safe area until you build your skills and get accustomed to this kart's size and weight.

Because many accidents involve inexperienced or untrained drivers, we urge all drivers to take a training course. Check with your dealer for more information on training courses.

## **Be Alert for Off-Road Hazards**

The terrain can present a variety of challenges when you drive off-road. Continually "read" the terrain for unexpected turns, drop-offs, rocks, ruts, and other hazards. Always keep your speed low enough to allow time to see and react to hazards.

# IMPORTANT SAFETY INFORMATION

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## **Drive within Your Limits**

Pushing limits is another major cause of kart accidents. Never drive beyond your personal abilities or faster than conditions warrant. Remember that alcohol, drugs, fatigue, and inattention can significantly reduce your ability to make good judgments and drive safely.

## **Don't Drink and drive**

Alcohol and driving don't mix. Even one drink can reduce your ability to respond to changing conditions, and your reaction time gets worse with every additional drink. So don't drink and drive, and don't let your friends drink and drive either.

## **Do not operate this kart at night.**

Operating in the dark vision can greatly reduce a driver's visibility and judgment. So driving at night is dangerous and can increase the possibility for an accident.

## **Never run your kart indoors.**

The exhaust from the engine contains a tasteless, odorless and poisonous gas called carbon monoxide.

## **Keep away from moving parts of the kart**

The operator of the kart should never place their hands or other parts of their body near any moving part of the kart. Failure to adhere to this warning will cause physical harm to your body.

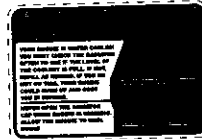
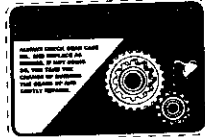
## **Skidding or Sliding**

The terrain surface can be a major factor affecting turns. Skidding in a turn is more likely to occur on slippery surfaces such as snow, ice, mud and loose gravel. If you skid on ice, you may lose all directional control. To avoid skidding on slippery terrain, keep your speed low and drive carefully.

# SAFETY LABELS

This section presents some of the most important information and recommendations to help you drive your kart safely. Please take a few moments to read these pages.

The labels should be considered permanent parts of the kart. If a label comes off or becomes hard to read, contact your dealer for a replacement.



**NO LONG**

**HAIR**

ALL HAIR MUST BE TIED UP AND SECURED AT OR ABOVE SHOULDER LENGTH. ALL LOOSE CLOTHING MUST BE SECURED. ALL NECKLACES AND SCARVES MUST BE SECURED.

THIS GO-KART CAN BE HAZARDOUS TO OPERATE if driven carelessly.

INJURIES can result if you do not follow these instructions:

- READ OWNER'S MANUAL AND ALL LABELS BEFORE YOU OPERATE THIS GO-KART.
- NEVER OPERATE THIS GO-KART WITHOUT PROPER INSTRUCTIONS. Beginners require adult supervision.
- NEVER OPERATE THIS GO-KART ON PUBLIC ROADS. It is intended for off-road use only.
- ALWAYS WEAR AN APPROVED MOTORCYCLE HELMET, eye protection and protective clothing.
- NEVER OPERATE THIS GO-KART AT EXCESSIVE SPEEDS. You increase your risk of losing control if you operate it at speeds too fast for the terrain, visibility conditions or your experience.
- NEVER ATTEMPT WHEELIES, JUMPS, OR OTHER STUNTS.

303115

**NO RIDING**

**Loss of control, collision, or getting caught in moving parts can result in serious injuries.**

Not to be operated by person under 16 years old  
Wear a D.O.T. approved motorcycle helmet  
Secure long hair and loose clothing  
Wear protective eye wear and clothing  
Keep arms, legs and feet inside kart  
Do not use alcohol or drugs

THIS VEHICLE MANUFACTURED FOR OFF-ROAD USE ONLY. DO NOT OPERATE ON PUBLIC STREETS, ROADS OR HIGHWAYS.

Seat Belt Must Be Worn At All Times

303105

# ARE YOU READY TO DRIVE ?

Before each drive, you need to make sure that you and your kart are both ready to drive. To help get you prepared, this section discusses how to evaluate your driving readiness, what items you should check on your kart, and adjustments to make for your comfort, convenience, or safety.

Before you drive your kart for the first time, we urge you to:

- Read this owner's manual and the labels on your kart carefully.
- Make sure you understand all the safety messages.
- Know how to operate all the controls.

Before each drive, be sure:

- You wear your seat belt at all times while driving your kart.
- You feel well and are in good physical and mental condition.
- You are wearing an approved motorcycle helmet (with chin strap tightened securely), eye protection, and other protective clothing.
- You don't have any alcohol or drugs in your system.

## Protective Clothing

For your safety, we strongly recommend that you always wear an D.O.T. approved motorcycle helmet, eye protection, boots, gloves, long pants, and long-sleeved shirt or jacket whenever you drive.

Although complete protection is not possible, wearing proper gear can reduce the chance of injury should you have an accident.

The following suggestions will help you choose the proper protective gear.

## Helmets and Eyes Protection

Your helmet is your most important piece of protective gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely.

An open-face helmet offers some protection, but a full-face helmet offers more. Regardless of the style, look for a D.O.T. (Department of Transportation) sticker on any helmet you buy. Always wear a face shield or goggles to protect your eyes and help your vision.

### **WARNING**

Operating this kart without wearing an approved motorcycle helmet, eye protection, and protective clothing could increase your chances of head and/or eye injury, and the possibility of death in the event of a severe accident.

Always wear an approved motorcycle helmet that fits properly and wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket and long pants.

# ARE YOU READY TO DRIVE ?

## Additional Driving Gear

In addition to a helmet and eye protection, we also recommend:

- Sturdy off-road motorcycle boots to help protect your feet, ankles, and lower legs.
- Off-road motorcycle gloves to help protect your hands.
- Driving pants with knee and hip pads, a driving jersey with padded elbows, and a chest/shoulder protector.

## Driver Training

Developing your driving skill is an on-going process. Even if you have driven other karts, before take time to become familiar with how this kart works and handles. Practice driving the kart in a safe area to develop your skills. Do not drive on rough terrain until you get accustomed to the kart's controls, and feel comfortable with its size and weight.



Operating this kart without your seat belt could cause you to be thrown from the kart, causing serious injury or death.

## No Alcohol or Drugs

Alcohol, drugs and karts don't mix. Even a small amount of alcohol can impair your ability to operate a kart safely. Likewise, drugs—even if prescribed by a physician—can be dangerous while operating a kart. Consult your doctor to be sure it is safe to operate a vehicle after taking medication.



Operating this kart after consuming alcohol or drugs can seriously affect your judgment, cause you to react more slowly, affect your balance and perception, and could result in serious injury or death.

Never consume alcohol or drugs before or while operating this kart.

# IS YOUR VEHICLE READY TO DRIVE?

Before each drive, it is important to inspect your kart and make sure any problems you find are corrected. A pre-drive inspection is a must, not only for safety, but because having a breakdown, or even a flat tire, can be a major inconvenience.

If your kart has overturned or has been involved in a collision, do not drive it until your kart has been inspected by your dealer. There may be damage or other problems that you can not see.



Improperly maintaining this kart or failing to correct a problem before driving can cause a crash in which you can be seriously hurt or killed.

Always perform a pre-drive inspection before every drive and correct any problems.

## Pre-Drive Inspection

Always carry out the Pre-Drive Inspection detailed on Page 16 before getting in your kart.



# SAFE DRIVING PRECAUTIONS

## Use Kart on Unfamiliar or Rough Terrain

Before driving in a new area, always check the terrain thoroughly. Don't drive fast on unfamiliar terrain or when visibility is limited (it's sometimes difficult to see obstructions like hidden rocks, bumps, or holes in time to react).

### **WARNING**

**Failure to use extra care when operating this kart on unfamiliar terrain could result in the kart overturning or going out of control.**

**Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the kart.**

Never drive past the limit of visibility. Maintain a safe distance between your kart and other off-road vehicles. Always exercise caution and use extra care on rough, slippery and loose terrain.

### **WARNING**

**Failure to use extra care when operating on excessively rough, slippery or loose terrain could cause loss of traction or vehicle control, which could result in an accident, including an overturn.**

**Do not operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control the kart on such terrain. Always be especially cautious on these kinds of terrain.**

## Do Not Perform Stunts

You should always operate your kart in a safe and reasonable manner. When driving, always keep all four wheels on the ground.

### **WARNING**

**Attempting wheelies, jumps, and other stunts increases the chance of an accident, including an overturn.**

**Never attempt stunts, such as wheelies or jumps. Don't try to show off.**

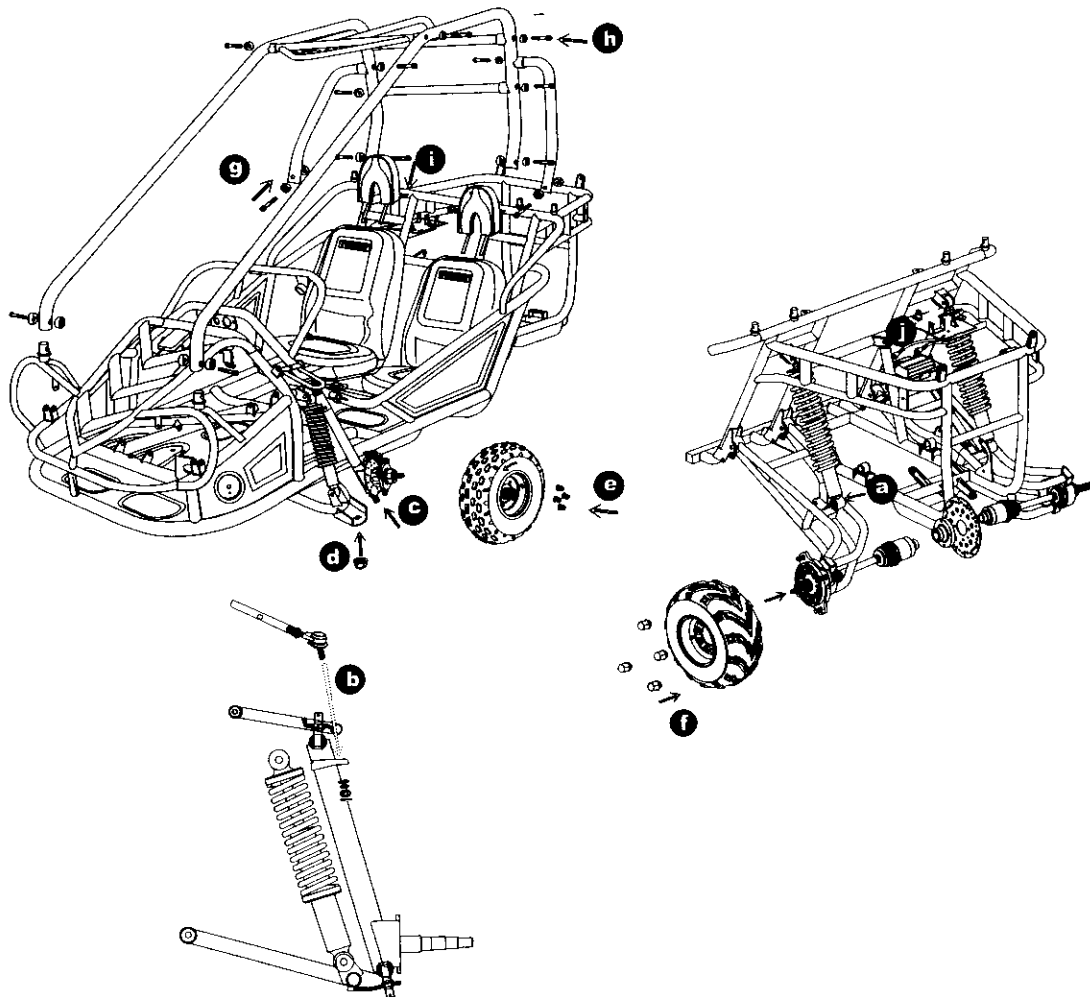
## Radiator Indicator Lamp

During the driving, you should always keep close contact with this red indicator lamp. This indicator lamp will tell you when your engine coolant system is getting too hot. To keep from causing any damage, you should stop the kart and turn the key off. Check if there is any leak. At this time do not open the radiator cap, allow your coolant system and engine to cool down before opening the radiator cap.

If you find the coolant completely gone, you should check if the radiator, hoses or engine has such leaks.

# P.D.I.

- a. Install RR. Shocks and tighten the nuts.
- b. Install Ball Head, Tie Rod, tighten the Castle Nut and insert the cotter Pin.
- c. Install Dust Seals, align the Ball Head Bolt, Knuckle Support to the square hole on the Lower A-Arm.
- d. Install Flange Nut and tighten it (> 88.9 foot lbs).
- e. Install Front Tires and tighten the nuts.
- f. Install Rear Tires, tighten the nuts, insert cotter Pin and put on the Rubber Cover.
- g. Raise the C.B.C. bar as the picture shows.
- h. Install C.B.C. bar RR., put on R-Washer.
- i. Install Head-Rest.
- j. Check all nuts and bolts, wiring, cables, fuel line, switches and tire pressure.
- k. Fill battery with Acid and charge, check and fill the engine with the recommended oil.
- l. Fill fuel tank with Unleaded Gasoline, and turn on the ignition switch to start the engine.



# SPECIFICATIONS

## DIMENSIONS

Overall Length	87 in. (2210mm)
Overall Width	53.5 in. (1346mm)
Overall Height	56.6 in. (1438mm)
Wheelbase	66.1 in. (1680mm)
Front Track	45.7 in. (1160mm)
Rear Track	42.7 in. (1085mm)
Ground Clearance	8.5 in. (215mm)

## ENGINE

Type	Water cooled. 4-Stroke
Engine capacity	250cc
Bore / Stroke	72mm x 60mm
Displacement	244ml
Corrected compression ratio	10:1
Carburator	VEKS4 & CV30
Output Power	10.5Kw/7000rpm
Maximum Torque	17.6N.m/5500rpm
Starting	Electric
Ignition	C.D.I.
Lubrication	Force & Splash
Transmission	Automatic (C.V.T system)
Spark plug	DPRSEA-9(NGK)
Plug gap	0.6-0.7mm
Fuel Type	RQ90 (unleaded)
Lubricate oil	SAE 15W-40/SF

## DRIVE COMPONENTS

Gear box oil	MoS <sub>2</sub> & W-2DW-4D
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## CAPACITIES

Maximum load	Double Seats/400lbs
Fuel tank	2.25 Gal
Engine oil	30 Oz
Starting	<5s
Climbing	20° -25°
Battery	12V 10Ah
Head Light	12V 35W/35W
Tail Light	12V 21W/5W
Fuse	10A

# SPECIFICATIONS

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Brake Track ----- < 7 m@20miles/h  
Top speed ----- 75 km/h(or limited as customers require)

## CHASSIS

Front, Rear brake ----- Hydraulic disc, left foot control  
Front tire ----- 20 x 7-8  
Rear tire ----- 22 x 10 -10  
Front Suspension ----- Independent Dual A-Arm  
Rear Suspension ----- Full Independent Rear Suspension/Oil Damped Shocks  
Restraint System ----- Dual 4-point Harness  
Final Drive ----- CV-Shafts

## TIRE PRESSURE

Front -----150kPa 1.5kg/cm<sup>2</sup> 21.3psi  
Rear -----200kPa 2.0kg/cm<sup>2</sup> 28.4psi

## WEIGHT

Net Weight ----- 280 kg  
Gross Wight ----- 326 kg

## A. Operation controls

**WARNING** - Do not attempt to start or operate the engine until complete familiar with the location and use of each control necessary to operate this vehicle. The operator must know how to stop this machine before starting and driving it.

### a. Throttle

The right foot pedal is the throttle that controls the kart speed. As the engine speed increases above idle, the clutch automatically engages and moves the vehicle forward. (See Fig. 1)

### ! WARNING

Each time prior to starting the engine, check the throttle assembly to ensure that when the pedal is pushed all the way forward the assembly is working smoothly and returns to idle when released. Do not operate if pedal or engine throttle linkage fail to return to idle. If unable to correct the problem through lubrication, adjustment or replacement of worn parts, contact your dealer for assistance.

### b. Brake

The brake is the left foot pedal (See Fig.1). Applying pressure to the pedal slows or stops the kart.

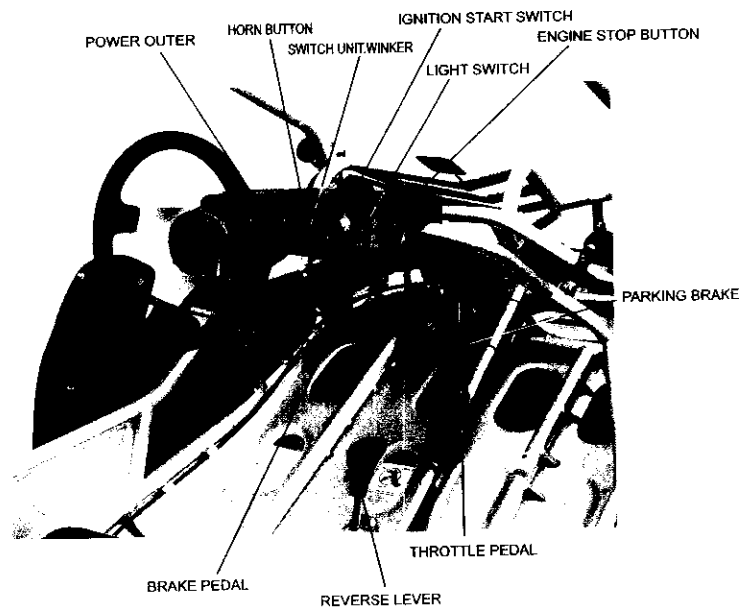
### c. Start engine

Insert the key into key-switch, turn the key clockwise, release the key when the engine starts. The engine will warm up within 5 minutes and the choke will close automatically allowing operation at normal RPM (Warning: Don't crank the starter for more than 5 seconds at one time).

### d. Engine stop button

Important-stop button test.

Before driving this vehicle, test the Engine Stop Button to ensure that it is operating properly. With the engine running, push and hold the Engine Stop Button for two seconds for the engine to shut down.



**Figure 1**

## B. Pre-Drive Inspection



### **WARNING**

**Perform this pre-drive inspection everyday before driving the vehicle. If not performed, serious damage to the vehicle or personal injury may result.**

- a. Check the engine oil level is between the bottom of the dipstick and the "0" mark. Check for leaks. Add oil if required.
- b. Check the Fuel Level. Add fuel as necessary and do not overfill. Check for leaks. Ensure the fuel filler cap is securely fastened.
- c. Check the Brakes. Depress the left brake pedal several times, and check for adequate brake pedal freeplay. Make sure there is no brake fluid leakage.
- d. Check the tires. Check their condition for damage or excessive wear and pressure.
- e. Check the Throttle Cable. Check for smooth operation. Ensure the throttle snaps back to idle when released and moves smoothly without sticking.
- f. Check the Engine Stop Button. While the engine is running press and hold the engine stop button for 2 seconds. Make sure the engine stops.
- g. Check all Nuts, Bolts, and Fasteners. Check the wheels to see that all axle nuts and lug nuts are tightened properly. Check and tighten as necessary all other nuts, bolts and fasteners.
- h. Check the C.B.C. Bar. Ensure all C.B.C. bars are in place before operating the kart.
- i. Check the Lights. Check the headlights, brake light and tail light are all working.
- j. Check the Steering. Check that the steering wheel moves freely in both directions but without any unusual looseness.
- k. Check all Cable Housings. Check these for wear and the fitting for any looseness.
- l. Check the underbody and exhaust system. Remove all dirt, vegetation and mud and check for any damage due to impact with rocks or uneven terrain.
- m. Check the Air Cleaner Housing Drain Tube. Check the deposits in the drain tube. If necessary, check the tube and air cleaner housing.
- n. Check Leaks and Loose Parts. Walk around your kart and look for anything that appears unusual, such as a leak or loose cable.
- o. Check the Parking Brake. Make sure the kart does not move forward or backward when the parking brake is applied.
- p. Check the Radiator. Make sure there is no leak of radiator or hoses before you start the engine. Check the water level.
- q. Check the radiator to see if the level of the coolant is full. Refill the coolant as needed or your engine would burn up and cost you in repairs. Never open the radiator cap when engine is running. Allow the engine to cool down, and then refill the coolant.

Component locations

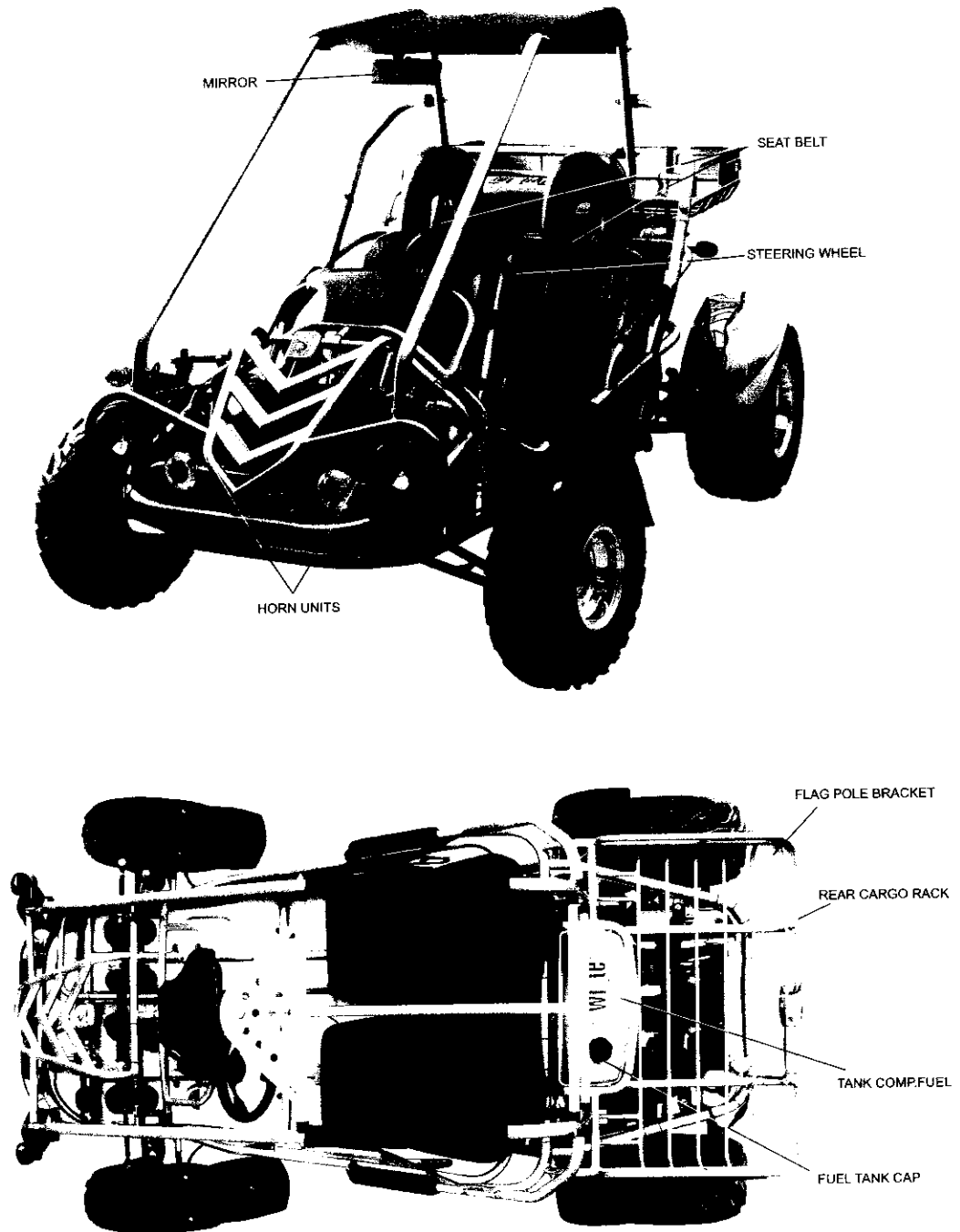


Figure 2

# OPERATION

## C. Passengers

The vehicle is designed for two people only. The combined maximum weight of the driver and the passenger should not exceed 200kg or 440lbs.

## D. Seat Adjustment

The seat should be securely fastened in the position which gives the operator best control of the foot pedals, steering wheel, and the remote stop button.

- Pull the seat adjustment handle upward to disengage the seat slide.
- Move the seat to the desired position.
- Be sure that the seat adjustment handle snaps back into place and that seat is locked into position.

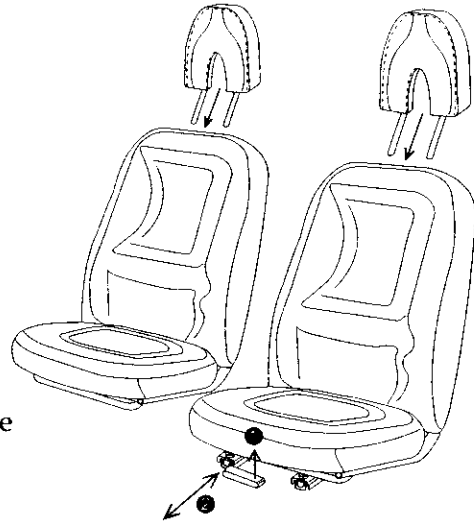


Figure 3

### **WARNING**

Before attempting to adjust the seat, ensure that engine is stopped.

### **WARNING**

Never operate this kart when the seat is not securely in place, to do so could result in personal injury or loss of life.

## E. Forward and Reverse Gear

a. Push the brake pedal down. The brake pedal must be pushed in to change the gear settings.

b. Push the lever forward to the "D" position for the kart to move forward.

c. Each time you need to apply the brake to change the setting to go backwards apply the brake and move the lever to the "R" for the kart to go backwards note!

Your kart is set up with 3 settings (See Fig.4):

"D" Forward

"N" Nutraul

"R" Revears

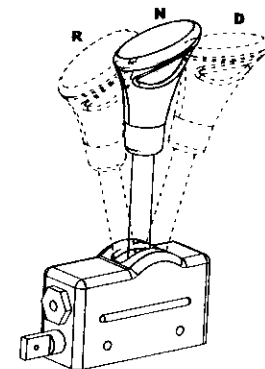


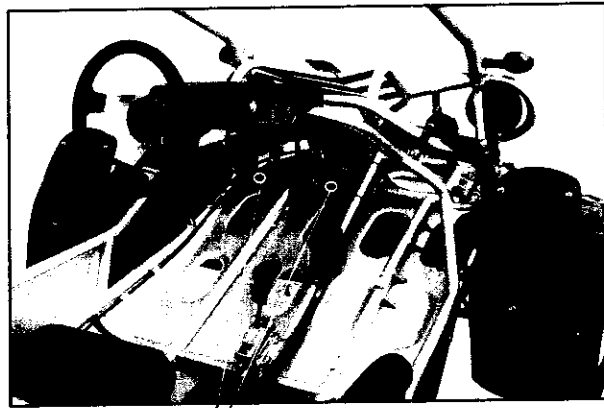
Figure 4

### **WARNING**

Always stop the kart before changing gears. Your kart shifter will only change after the kart is stoped and not moving!

## F. Starting and Operating Instructions

- a. Before starting the engine, the driver must be seated properly in the kart with the seat belt on.
- b. Practice in the kart in an open space at the beginning to learn how to start, turn and stop the vehicle.
- c. Drive slowly until you are familiar with the operation of the kart.
- d. The turning radius of this kart is small and agile, so the centrifugal force is very high when turning at high speed. Slow down to a more controllable speed when turning to prevent the kart from rolling over. The driver should keep their heels on the ramp of the main board when turning. (See Fig.5) Keeping their leg on the foot pedal, the driver can feel that the kart is stable and won't roll over.



POSITION FOR HEEL **Figure 5**

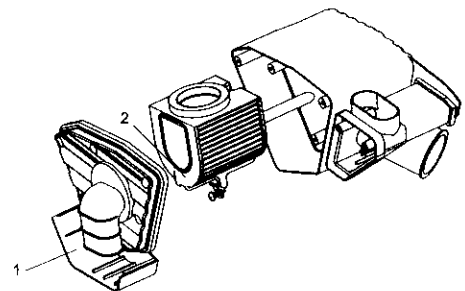
## SERVICE INSTRUCTIONS

### A. Air Cleaner

Service the air cleaner every 20 hours

NOTE: Service is required more often in dusty conditions.

- a. Remove cleaner cover 1.
- b. Remove air cleaner element 2 (See Fig.6)
- c. Fill the non-flammable cleaning agent into a basin and dip the element in it.
- d. Dry it after cleaning. Replace check for cracks or holes. It needs to be replaced with new filter.

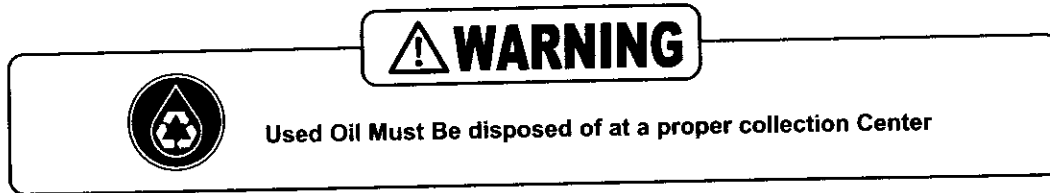


**Figure 6**

# SERVICE INSTRUCTIONS

## B. Engine Lubrication

You must change the oil in the crankcase after the first 5 hours of operating (See Fig. 7) and after every 10 hours of use thereafter. This will insure proper lubrication of the internal parts and prevent costly repairs due to excessive wear.



- Remove the drain plug located on the right rear side of the engine. Tip the kart backwards slightly by blocking up the front end and drain the oil into suitable container.
- Remove and clean the oil filter.
- Replace the drain plug and tighten securely. Place the kart in a level position.
- Refill the crankcase (approximately 1 1/4 pint) to the top of the filler neck with SAE 10W40 oil.
- Check the oil level before each use of the kart or after each 10 hours of operation. Add oil when necessary to keep the level between the bottom of the dipstick and the "0" mark. Do not mix various grades of oil.

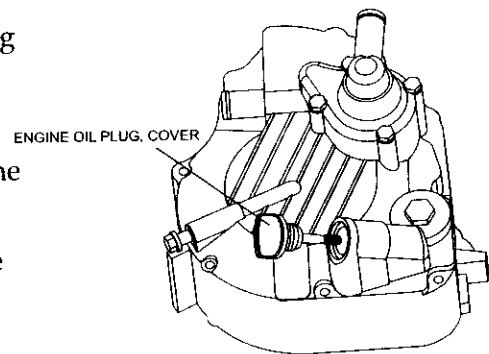


Figure 7

## C. Spark Plug

- Remove the spark plug and inspect it each time you change the oil (Use a spark plug wrench). The electrodes should be kept clean and free of carbon. The presence of carbon or excess oil will greatly reduce engine performance. If possible, check the spark plug gap (area between electrodes) using a wire feeler gauge. This specification is 0.6-0.7mm.
- Before installing the spark plug coat the threads lightly with graphite grease if possible, to ensure easy removal next time the spark plug needs inspection.
- It is advisable to replace the spark plug at least once a year to ensure easy starting and good engine performance.

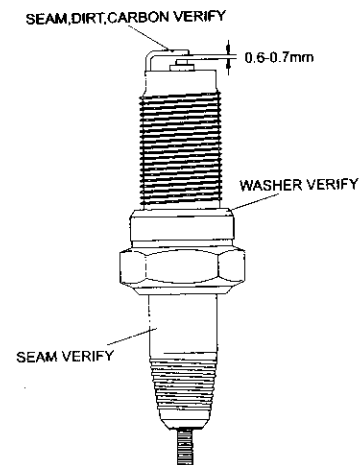
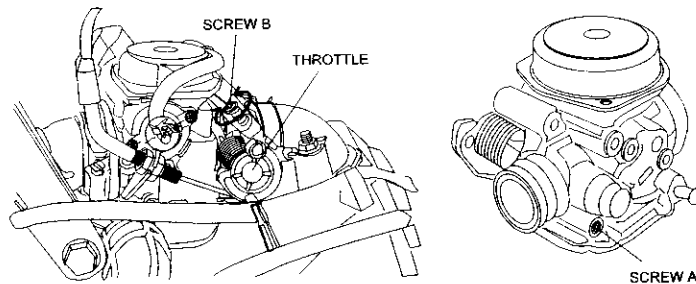


Figure 8

## D. Carburetor Adjustment

Never make unnecessary adjustments. The factory recommended settings are correct for most applications.

- a. Warm up the engine (5~10min)
- b. Tighten the air screw gently. Backout 2-3/8 turns counter clockwise.
- c. Connect the tachometer, adjust the throttle to limit the idle speed. The standard value is 1400RPM.
- d. Turn the air screw counter clockwise slowly and observe the RPM of the engine, stop adjusting as the RPM reaches the top speed.
- e. Adjust the screw and adjust the idle speed to an ideal value.
- f. Recheck and readjust the idle speed if necessary.



**Figure 9**

## E. Cleaning Instructions

Keep your kart clean. With a clean rag, wipe off all dirt and oil from around the controls. Wipe off any spilled fuel and oil. Keep the engine clean of foreign objects, and be sure to check that the air intake fan is free of debris for proper cooling.

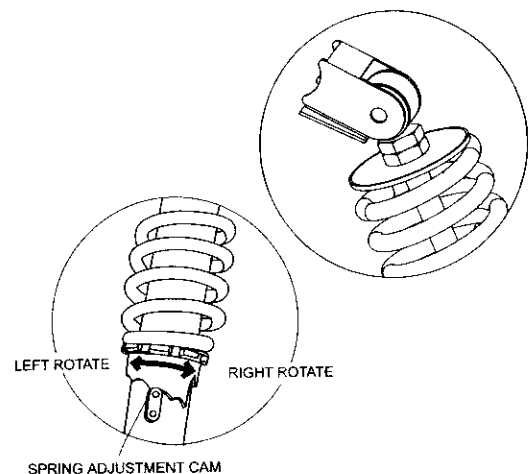
## F. Kart Lubrication

Lubricate the vehicle every 90 days of use. Lubrication should be done more often, if the kart is used everyday.

## G. Adjustment of Front And Rear Shock

There are five positions on each shock. The default position is in the middle set by the manufacturer (See Fig. 10)

Use a round nut wrench as you adjust the shock, the tension of shock spring will increase as you screw to the left, decrease as you screw to the right. Adjust according to the weight of the riders.



**Figure 10**

# SERVICE INSTRUCTIONS

## H. Storage Instruction

In the event your kart is not to be operated for a period in excess of 30 days or at the end of each driving season prepare for storage as follows:

- a. Drain the fuel tank and carburetor by allowing the engine to run out of fuel.
- b. Lubricate engine cylinder by removing the air spark plug and pouring a small amount of oil into the plug hole, then re-fit the plug.
- c. Do not save or store gasoline over winter. Using old gasoline, which has deteriorated from storage, will make the engine difficult to start and affect engine performance.

### **WARNING**

**Do not drain fuel while engine is hot. Be sure to move the kart outside before draining fuel.**

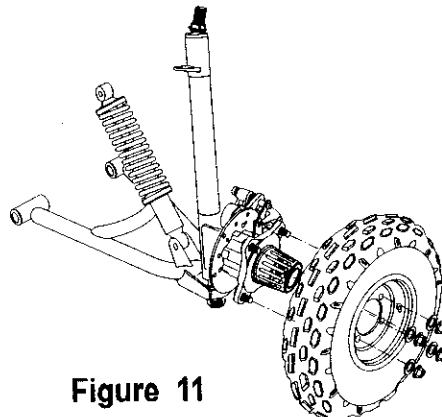
## REPAIR

### A. Front Wheel Replacement

**Do not disassemble the castle nuts when you replace the front wheels.**

It is only necessary to remove the 4 lug nuts to remove the wheel. (See Fig. 11)

Tighten the nuts after replacing the wheels.



**Figure 11**

## B. Rear Wheel Replacement

Do not disassemble the castle nuts when you replace the rear wheels and hub assembly. Remove the cotter pin and then 24mm nut. Then slide off the wheel and hub assembly. It is only necessary to remove the 4 lug nuts to remove the wheel. Tighten the nuts after replacing the wheels.

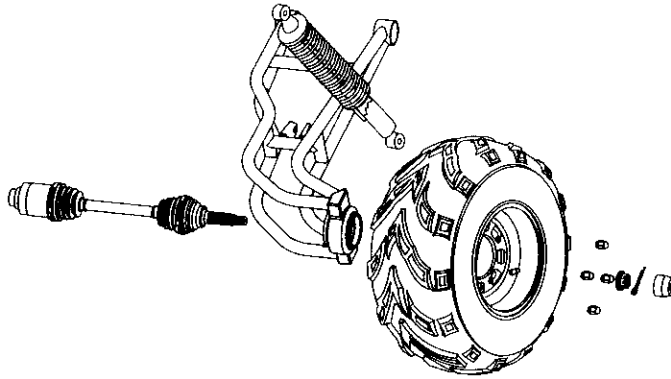


Figure 12

## C. Front Wheel Alignment

- a. The front wheels should toe-in from 1/8 to 1/4 inch. To check for alignment, measure distance A and B between the centerline (CL) of the wheels. The proper toe-in dimension A should be 1/8 to 1/4 inch greater than dimension B.
- b. To adjust the alignments, loosen the lock nuts on both sides of Front Tie Rods. To make Dimension B smaller, turn the rod to left. Adjust the rod to right direction to make Dimension B larger. After adjusting to the desired length, tighten the lock nut against the rod end. Recheck the dimensions for proper alignment.

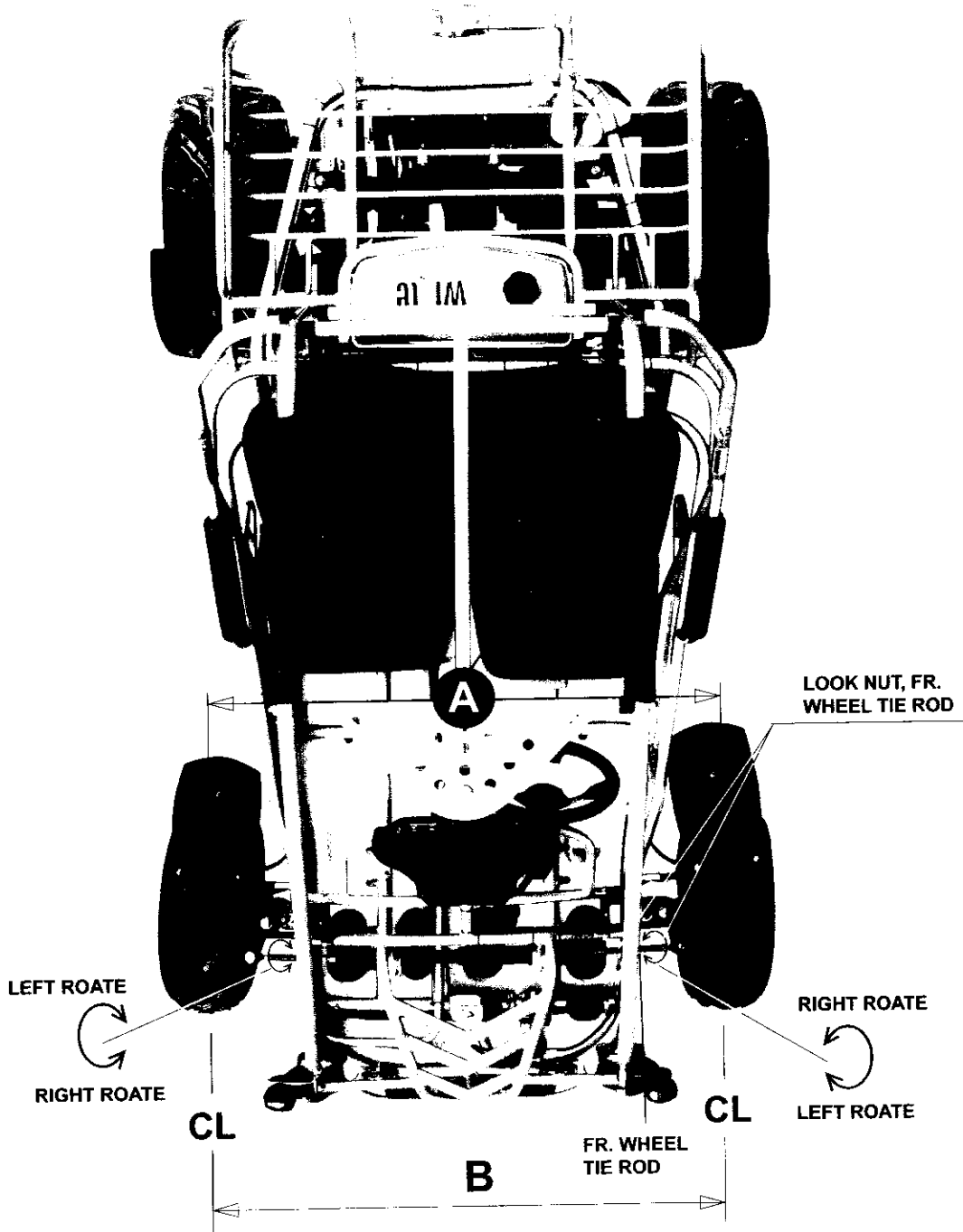


Figure 13

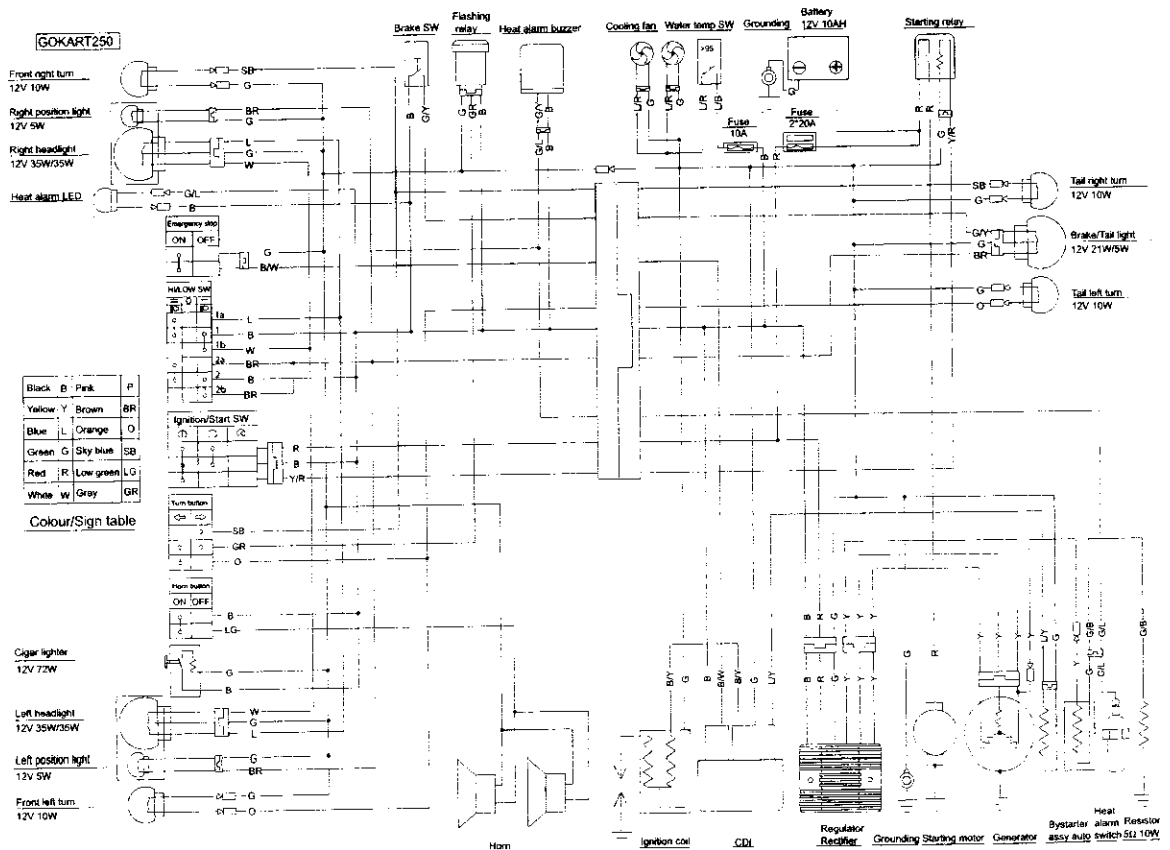
# PERIODICAL CHECK AND SERVICES

The maintenance intervals in the following table are based upon average driving conditions. Driving in unusually dusty areas, require more frequent servicing.

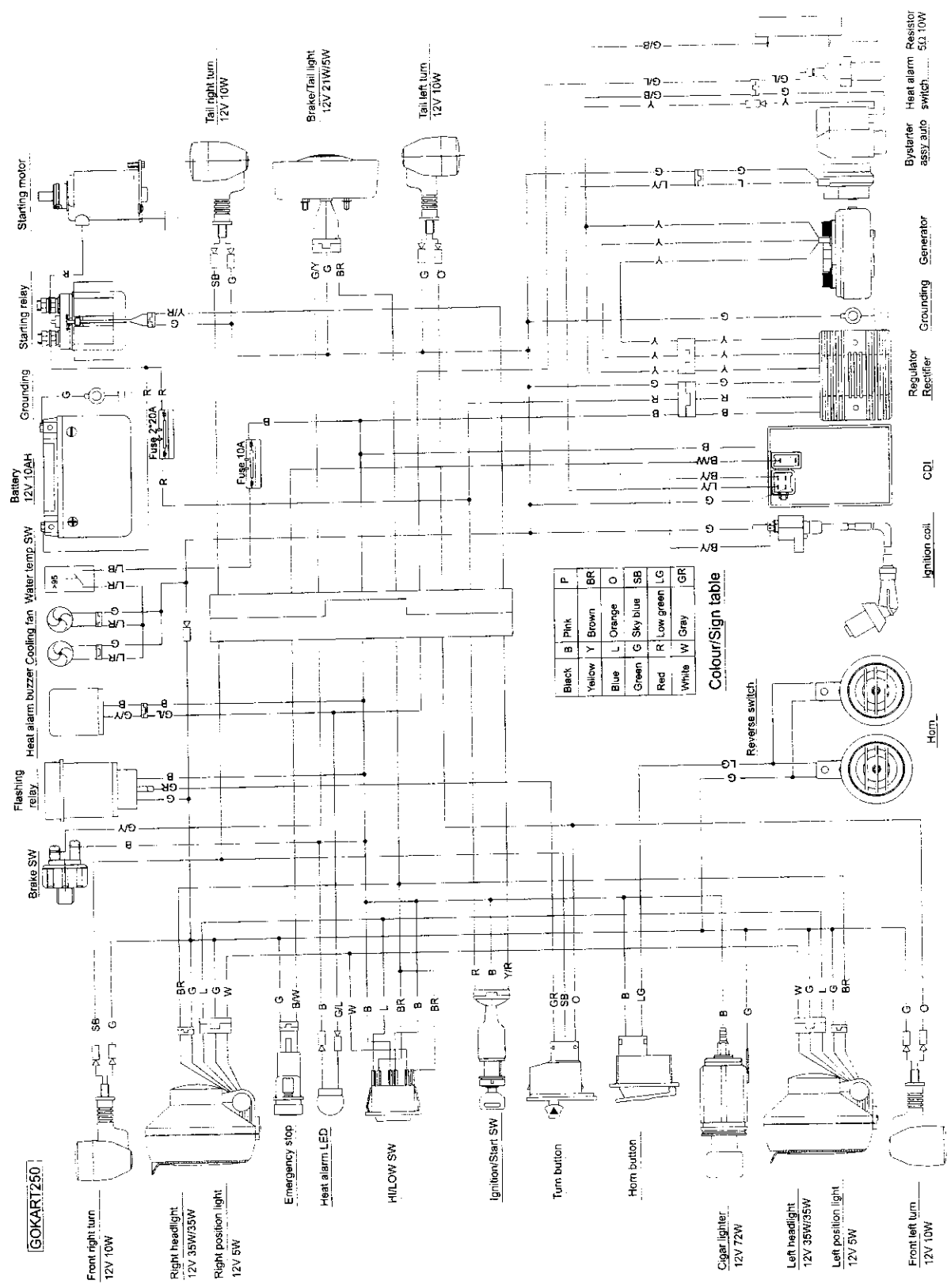
Items	Time of service	Initial service (first week)	Monthly	Quarterly	Yearly
Tire pressure/wear		I	I		
Brake performance		I	I		
Tightness of screws		I	I		
Air cleaner			C		R
Carburetor		I			C
Spark plug				C, A	
Coolent					
Brake oil		I	I	I	
Replace gearbox oil			C, I	R	
Chassis		I	I	L	
Fuel switch/fuel tank			I		C
Battery				I	
Valve clearance of engine				A	

A: adjust C: clean I: inspect, clean or replace if necessary. L: lubricate R: replace

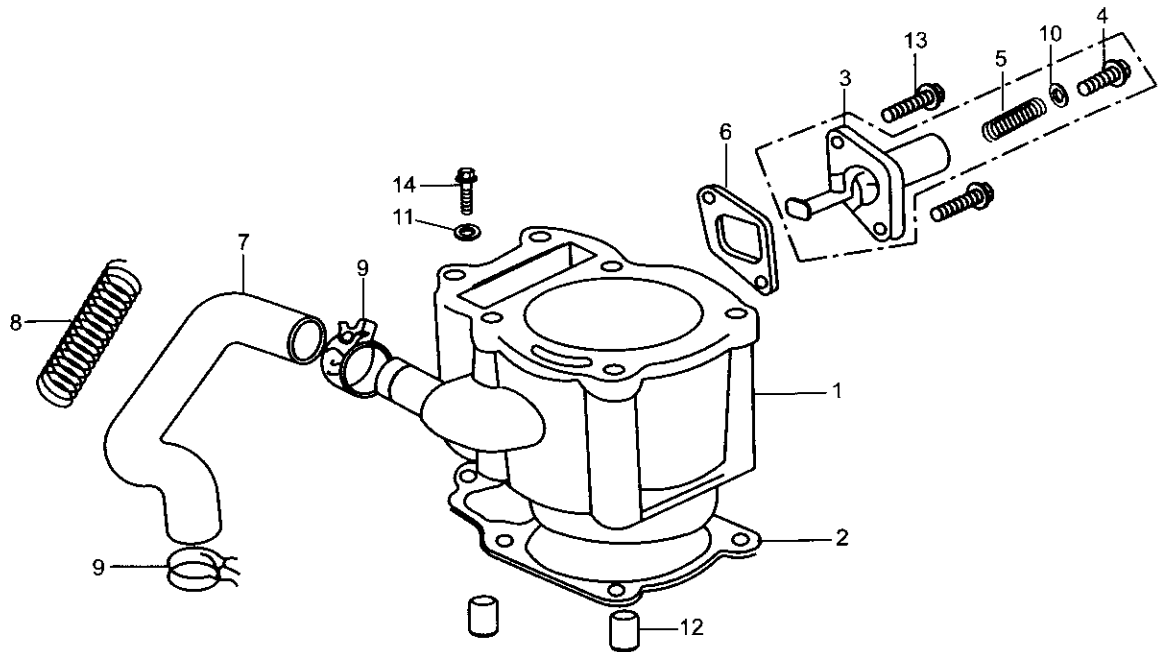
## WIRING DIAGRAM



# WIRING DIAGRAM



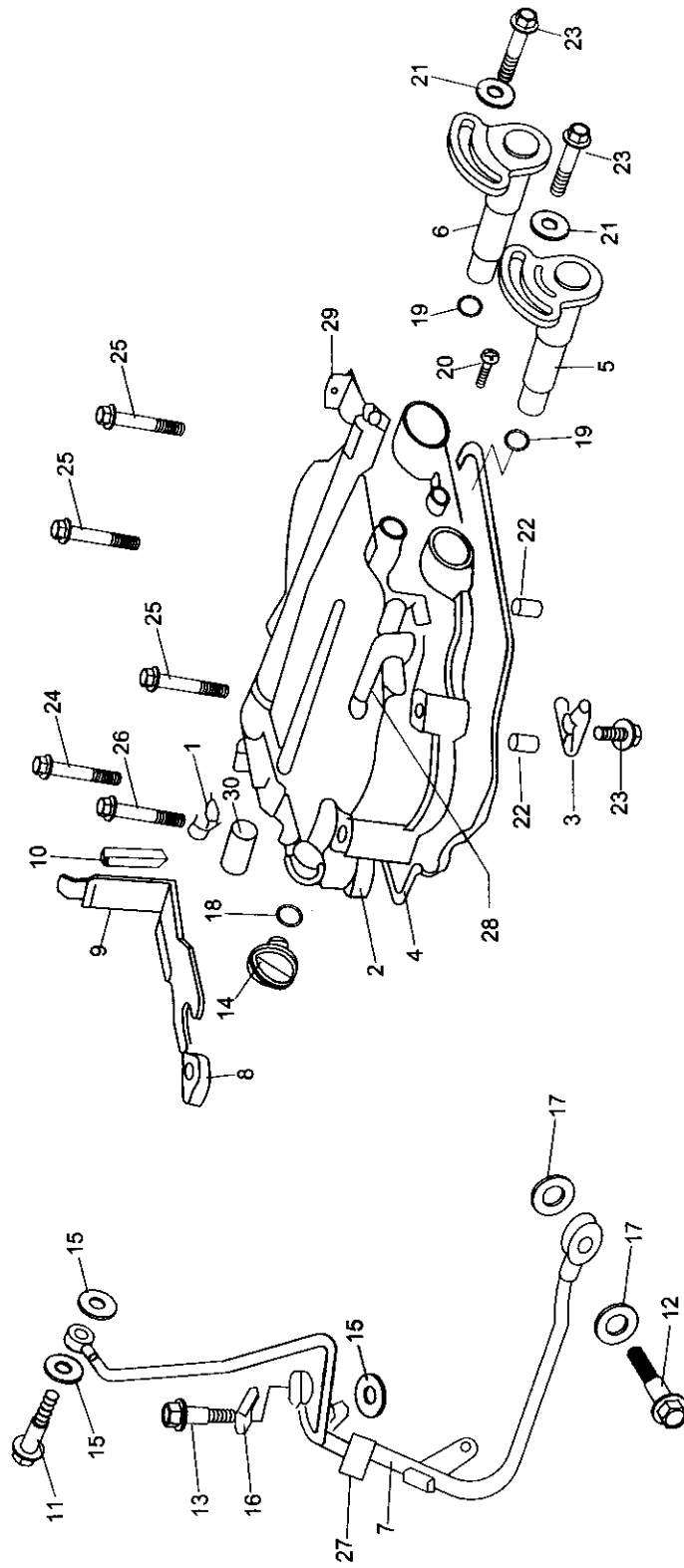
**CYLINDER COMP.**



<b>CYLINDER COMP.</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	172MM-023100	CYLINDER COMP	1	
2	172MM-023002	CYLINDER SEAL	1	
3	152MI-023300	TENSIONER	1	
4	152MI-023003	SPRING SEAT FLANGE BOLT	1	
5	152MI-023002	SPRING	1	
6	152MI-023004	TENSIONER SEAL	1	
7	172MM-023007	WATER INFLOW RUBBER TUBE	1	
8	172MM-023009	WATER TUBE SHEATH	1	
9	QC/T621-1999-B24	WIRE CLAMP	2	
10	152MI-023009	WASHER 8.5	1	
11	GB/T848-85-6-D	SMALL WASHER	1	
12	152MI-021005	DOWEL PIN 10 X 14	2	
13	152MI-023008	FLANGE BOLT M6 X 18	2	
14	152MI-080013	FLANGE BOLT M6 X 22	1	

# FIG.2

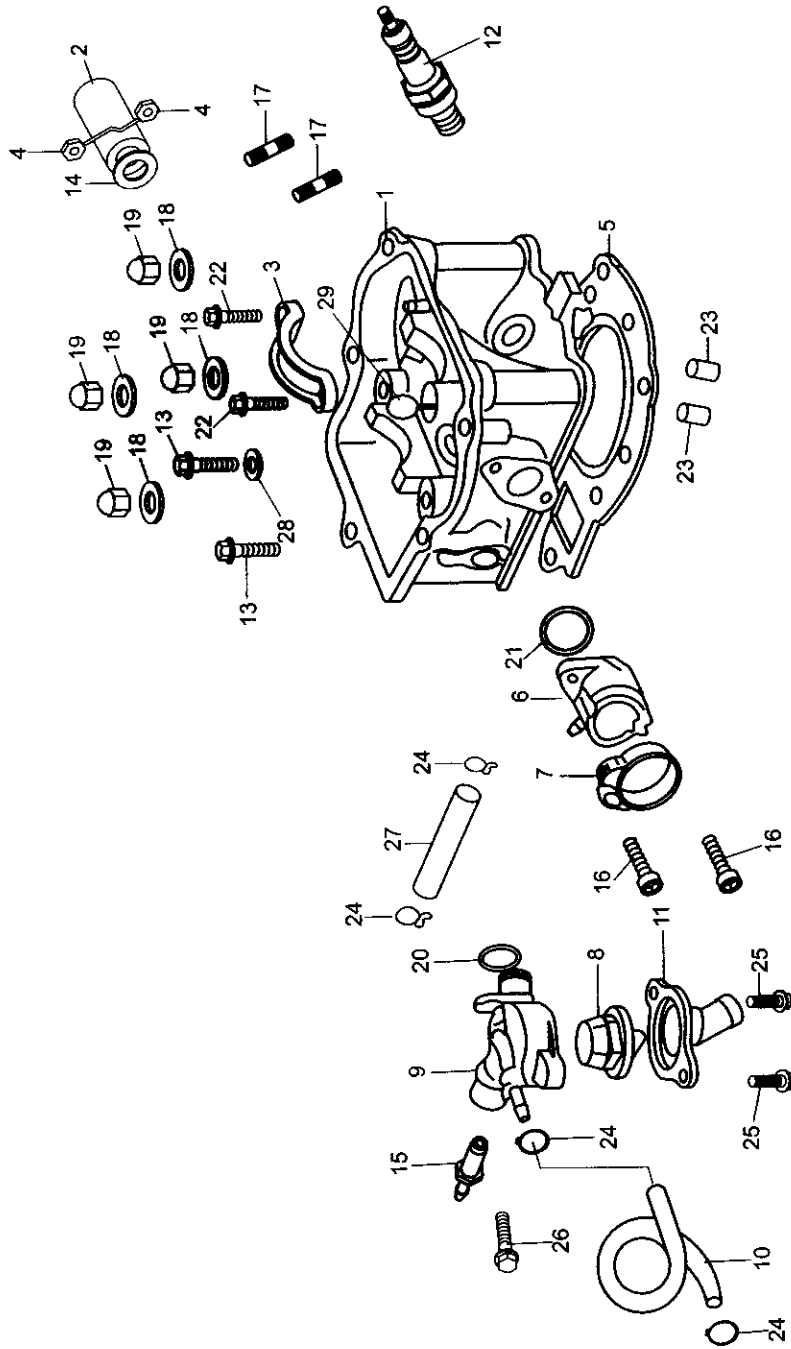
## CYLINDER COVER ASSY.(1)





# FIG.3

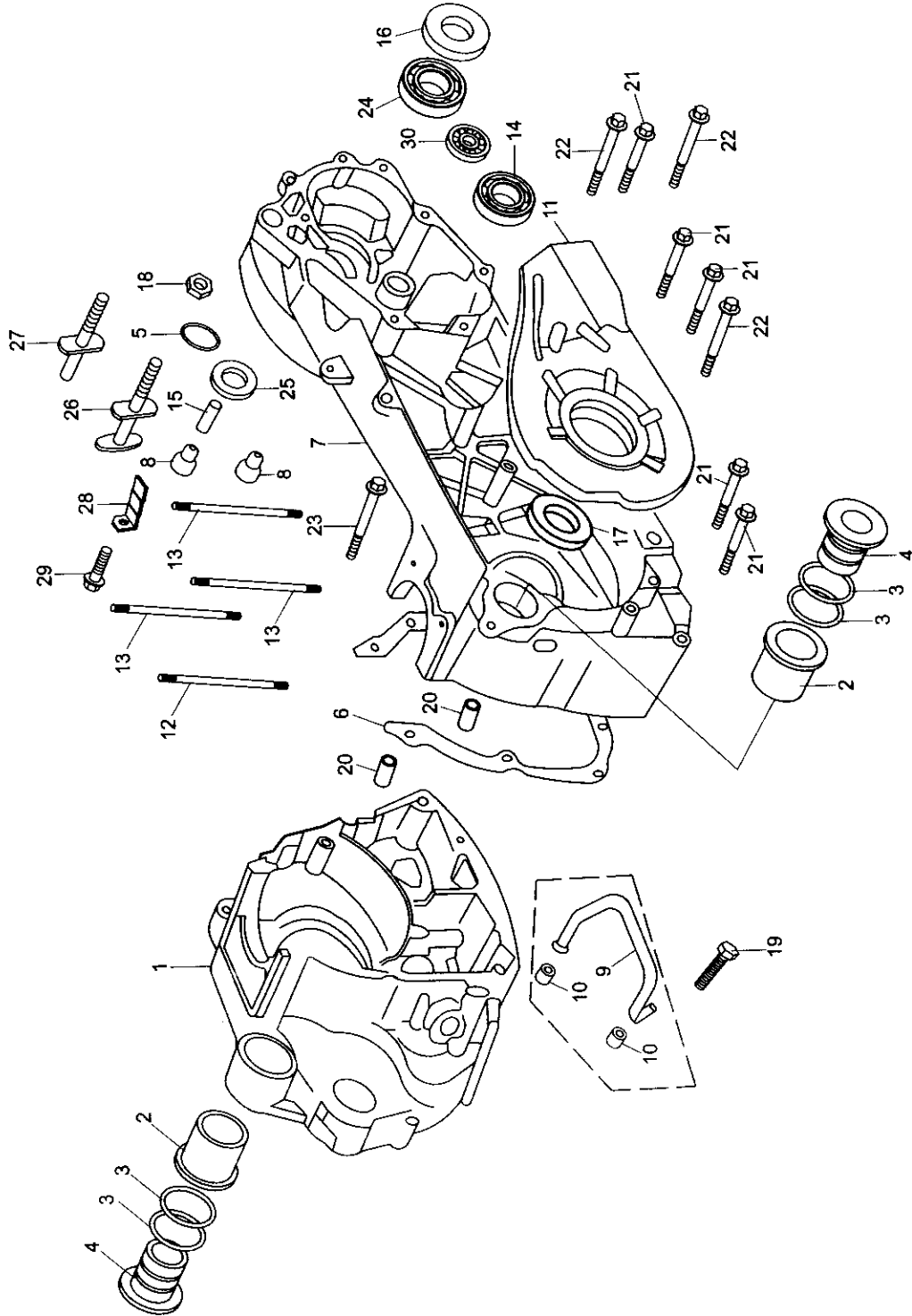
## CYLINDER COVER ASSY.(2)





# FIG.4

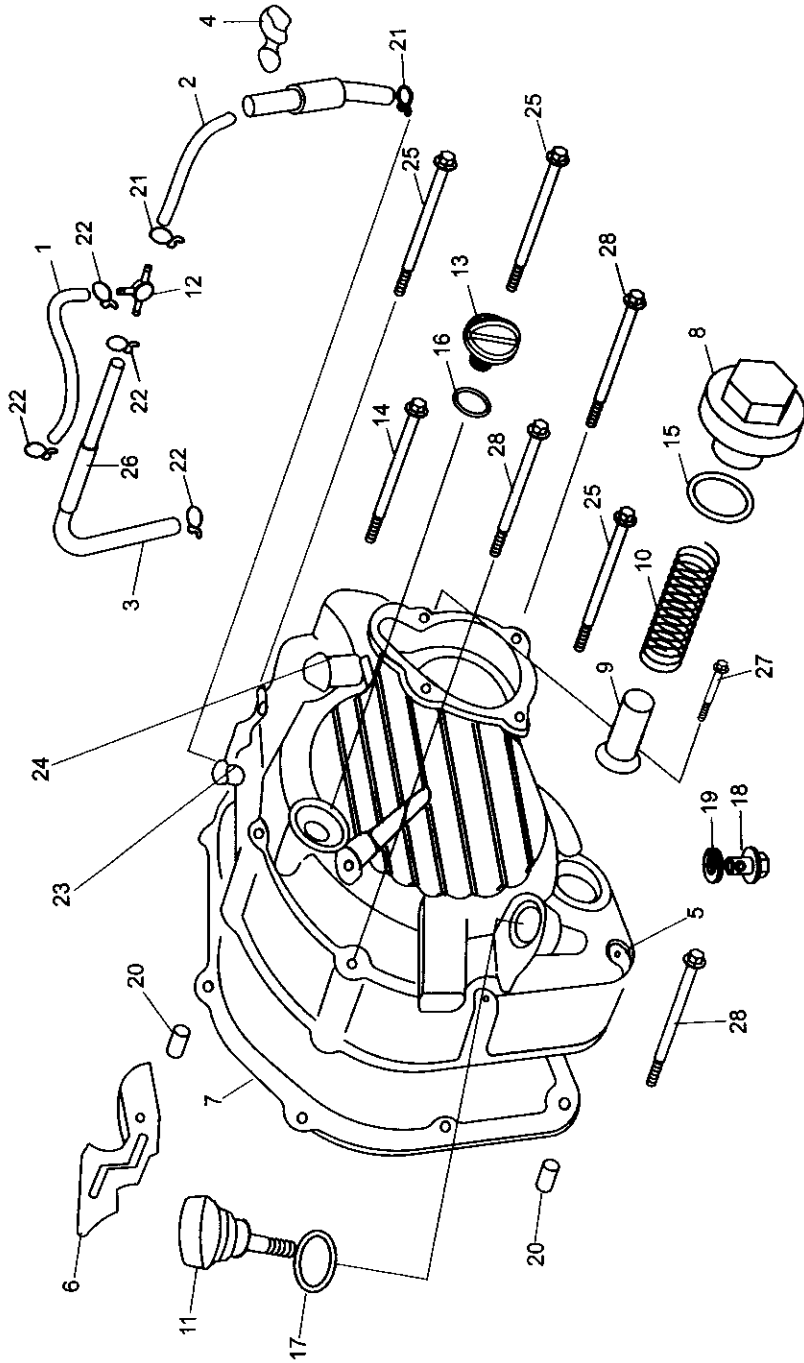
## CRANKCASE ASSY.





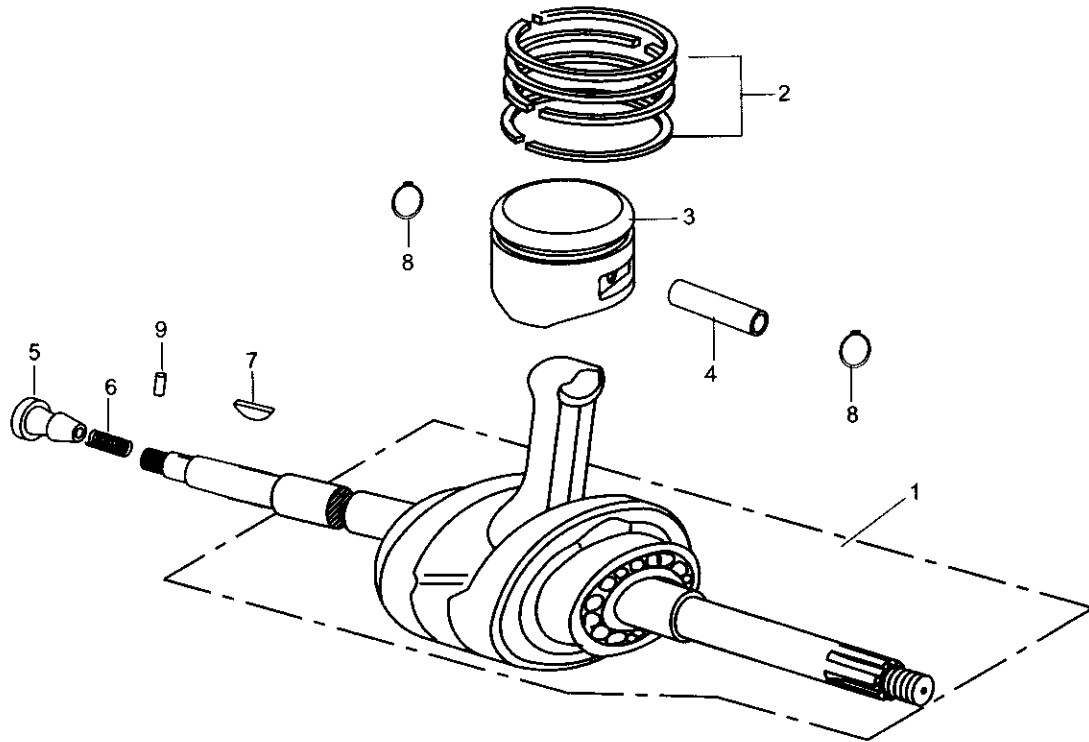
# FIG.5

## RIGHT SIDE COVER ASSY.



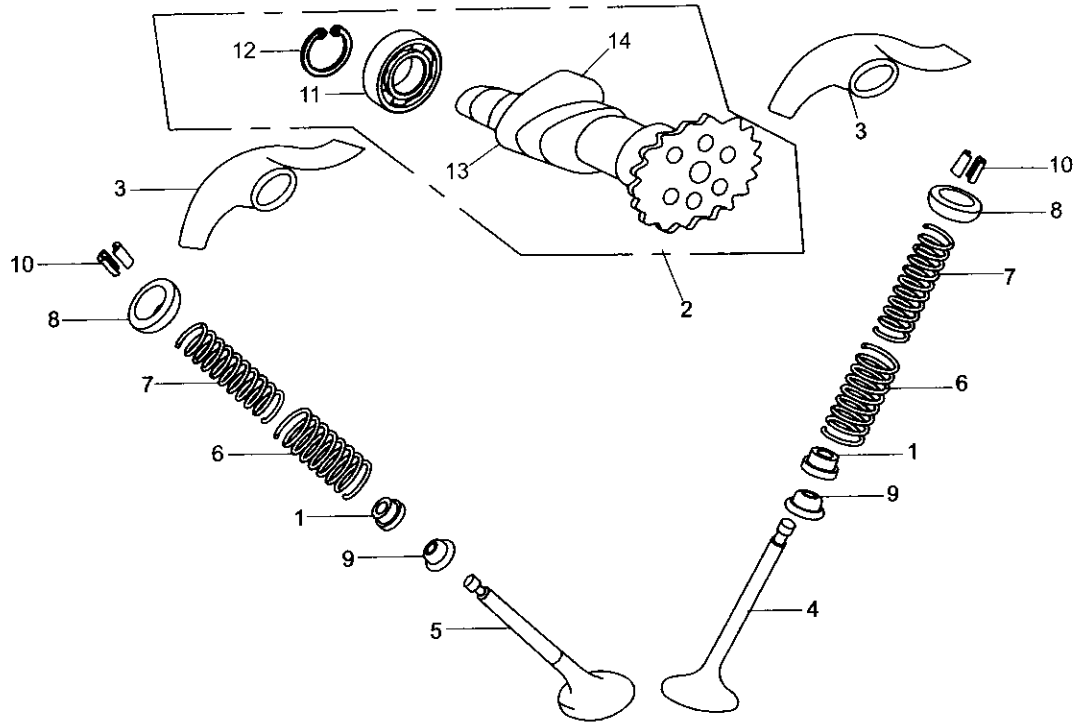


**CRANKSHAFT CON'ROD & PISTON ASSY.**



<b>CRANKSHAFT CON'ROD &amp; PISTON ASSY.</b>			
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>
1	172MM-041000	CON'ROD ASSY.	1
	172MM-040008	THE FIRST PISTON RING	1
	172MM-040009	THE SECOND PISTON RING	1
2	172MM-042000	OIL RING ASSY.	1
3	172MM-040005	PISTON	1
4	172MM-040007	PISTON PIN	1
5	152MI-040011	OIL TUBE JOINT	1
6	152MI-040010	OIL TUBE JOINT SPRING	1
7	152MI-040006	WOODRUFF KEY	1
8	172MM-040006	PISTON PIN CIRCLIP	2
9	GB/T119-2000	COLUMN PIN 2 x 14	1

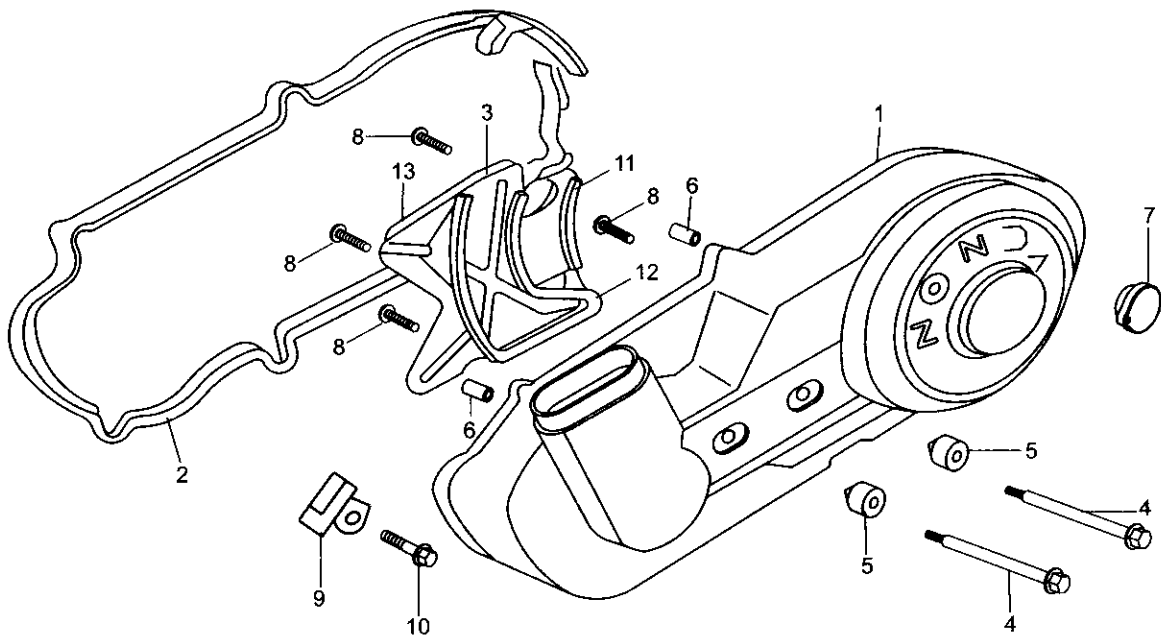
**VALVE TRANNY ASSY.(1)**



<b>VALVE TRANNY ASSY.(1)</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	152MI-022500	VALVE TAPPET SEAL	2	
2	172MM-022300	VALVE CAM	1	
3	152MI-021007	ROCKER	2	
4	172MM-022001	INLET VALVE	1	
5	172MM-022005	EX. VALVE	1	
6	172MM-022002	OUTER VALVE SPRING	2	
7	172MM-022003	INNER VALVE SPRING	2	
8	152MI-022005	SPRING VALVE DISC	2	
9	152MI-022001	SPRING VALVE SEAT	2	
10	152MI-022006	VALVE CLIP LOCK	4	
11	NTN: 16002	ROLL BEARING	2	
12	GB894 1-86-15	BEARING CIRCLIP	1	
13	172MM-022310	CHAIN WHEEL	1	
14	172MM-022301	CAMSHAFT	1	

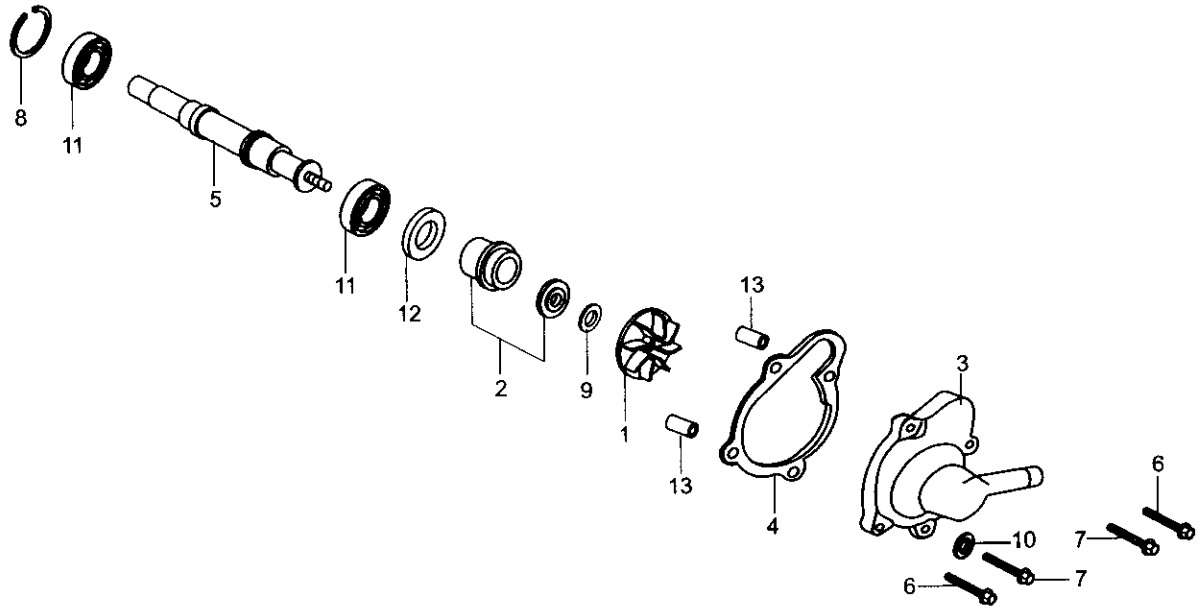


**LEFT SIDE COVER ASSY.**



<b>LEFT SIDE COVER ASSY.</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	172MM-012001	LEFT SIDE COVER	1	
2	172MM-012007	LEFT SIDE COVER SEAL	1	
3	172MM-012004	PLATE	1	
4	172MM-012003	FLANGE BOLT	2	
5	152MI-012200	SHOCK ABSORPTION BLOCK ASSY.	2	
6	152MI-011007	DOWEL PIN $\Phi 10 \times 16$	2	
7	172MM-012008	OIL DISCHARGE BOLT VISION HOLE CAP	1	
8	GBT818-2000-M5X8	CROSS FLANGE BOLT	4	
9	172MM-012100	WIRE CLAMP	1	
10	152MI-090005	FLANGE BOLT M6 x 16	1	
11	172MM-012002	DUST-PROOF BAR 1	1	
12	172MM-012006	DUST-PROOF BAR 2	1	
13	172MM-012005	WOOL MAT	1	

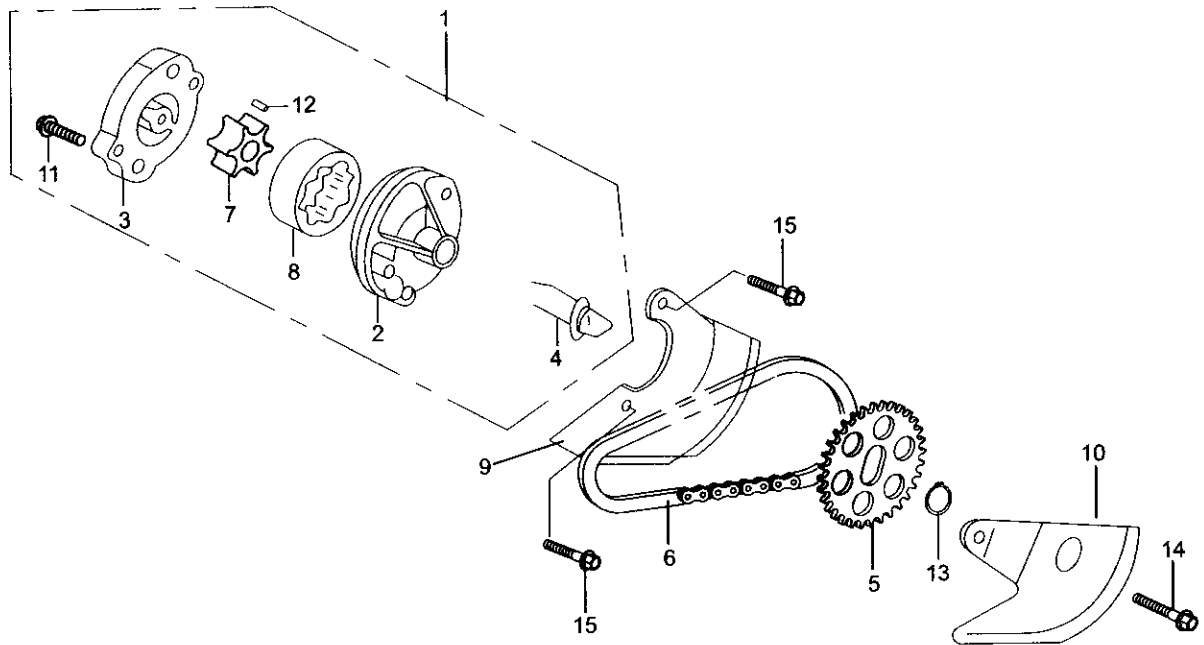
**WATER PUMP ASSY.**



<b>WATER PUMP ASSY.</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	172MM-080004	WATER PUMP IMPELLER	1	
2	152MI-081000	WATER SEAL	1	
3	172MM-080003	WATER PUMP HOUSING	1	
4	172MM-080002	WATER PUMP HOUSING SEAL	1	
5	172MM-080001	WATER PUMP SHAFT	1	
6	152MI-013009	FLANGE BOLT M6 x 40	2	
7	152MI-02017	FLANGE BOLT M6 x 25	2	
8	GBT893 1-86-19	CIRCLIP	1	
9	152MI-080007	WASHER 7.5 x 13 x 1.2	1	
10	152MI-080011	WASHER 6 x 12 x 1	1	
11	NTN:6800	ROLL BEARING	2	
12	172MM-080005	OIL SEAL 10 x 20 x 5	1	
13	152MI-080008	DOWEL PIN 8 x 14	2	

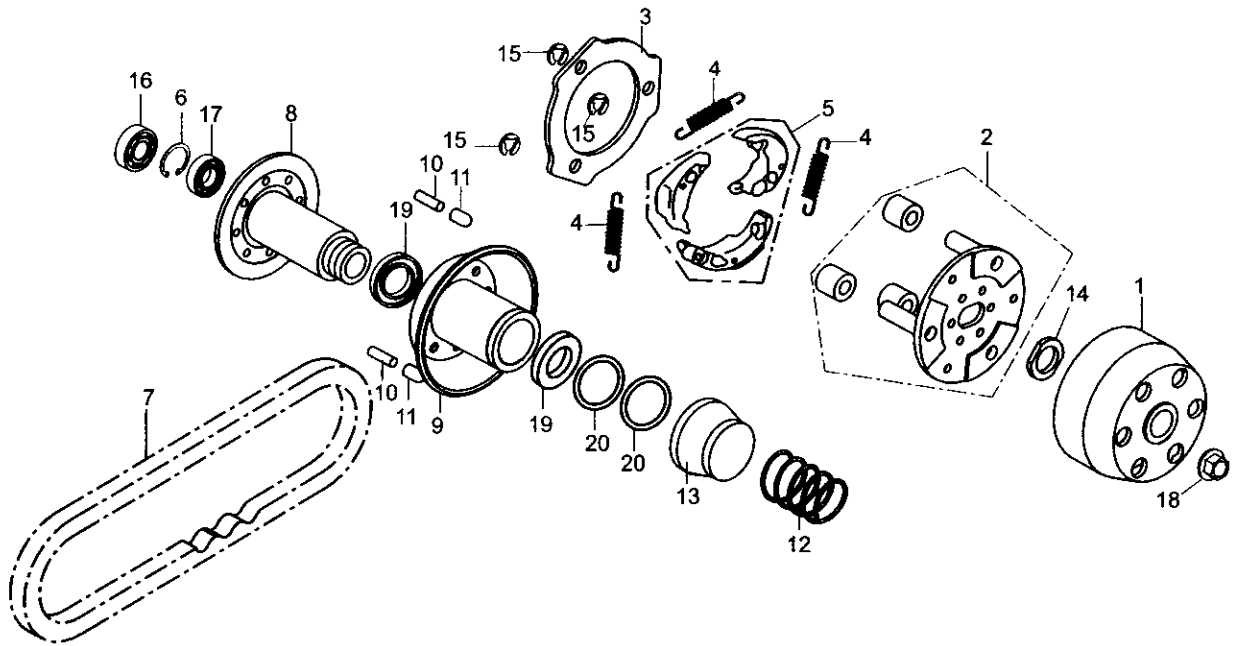


**OIL PUMP ASSY.**



<b>OIL PUMP ASSY.</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	152MI-071000	OIL PUMP ASSY.	1	
2	152MI-071002	OIL PUMP	1	
3	152MI-071003	OIL PUMP COVER PLATE	1	
4	152MI-071001	OIL PUMP SHAFT	1	
5	152MI-070001	OIL PUMP SPROCKET	1	
6	152MI-073000	OIL PUMP CHAIN	1	
7	152MI-071004	INNER OIL PUMP ROTOR	1	
8	152MI-071005	OUTER OIL PUMP ROTOR	1	
9	152MI-070002	OIL PUMP DIVISION PLATE A	1	
10	152MI-072000	OIL PUMP DIVISION PLATE B	1	
11	GB878-85	FLANGE BOLT M3 x 12	1	
12	152MI-0710006	DOWEL PIN 4 x 6.5	1	
13	GB897 1-86-10	CIRCLIP	1	
14	152MI-021019	FLANGE BOLT M6 x 12	1	
15	152MI-071007	FLANGE BOLT M6 x 28	2	

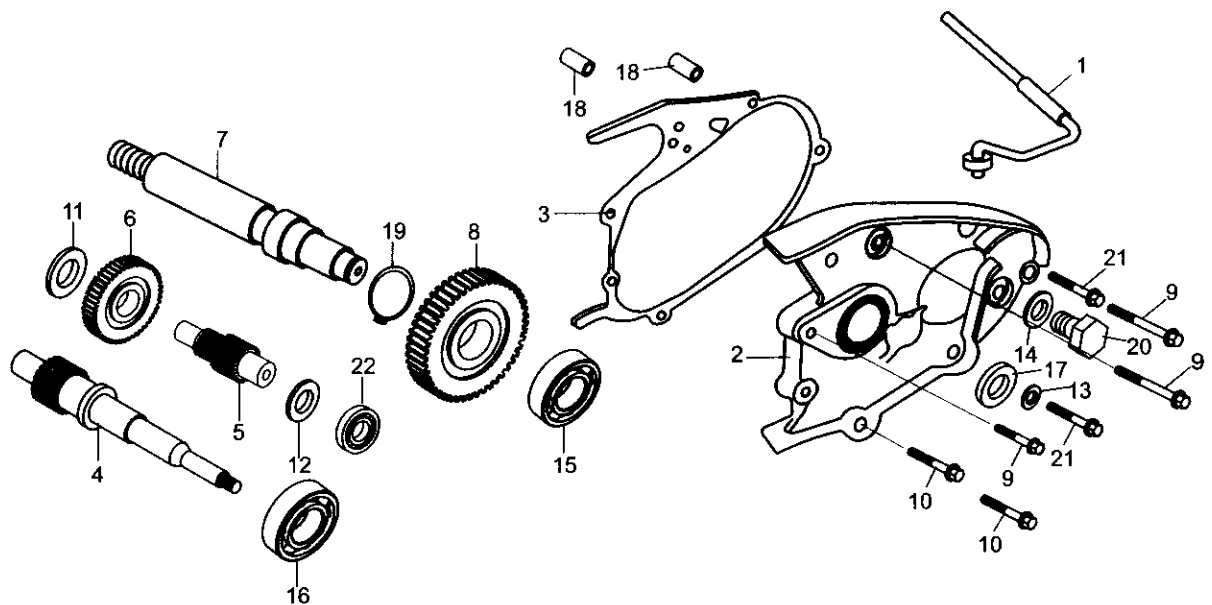
**CLUTCH ASSY.**



<b>CLUTCH ASSY.</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	172MM-052500	OUTER WHEEL CLUTCH	1	
2	172MM-052400	DRIVEN DISC	1	
3	172MM-052003	SIDE DISC	1	
4	172MM-052006	CLUTCH RETURN SPRING	3	
5	172MM-052600	CENTRIFUGAL BLOCK	3	
6	GB/T8931-86-28	CIRCLIP	1	
7	172MM-052700	DRIVE BELT	1	
8	172MM-052300	DRIVEN WHEEL	1	
9	172MM-052100	MOVABLE DRIVEN WHEEL	1	
10	172MM-052002	GUIDE COLUMN PIN	4	
11	172MM-052001	GUIDE ROLLER	4	
12	172MM-052004	CLUTCH SPRING	1	
13	172MM-052200	SEAL BUSH	1	
14	172MM-052005	FLAT NUT M30 x 1	1	
15	GB/T896-86-6	CIRCLIP	3	
16	GB278-89-1060902	ROLL BEARING	1	
17	172MM-052310	NEEDLE BEARING 22 x 29 x 18	1	
18	172MM-052008	NUT M12 x 1.25	1	
19	172MM-052104	DRIVEN WHEEL OIL SEAL	2	
20	GB3452.1-82	O-RING 46.2 x 1.8	2	

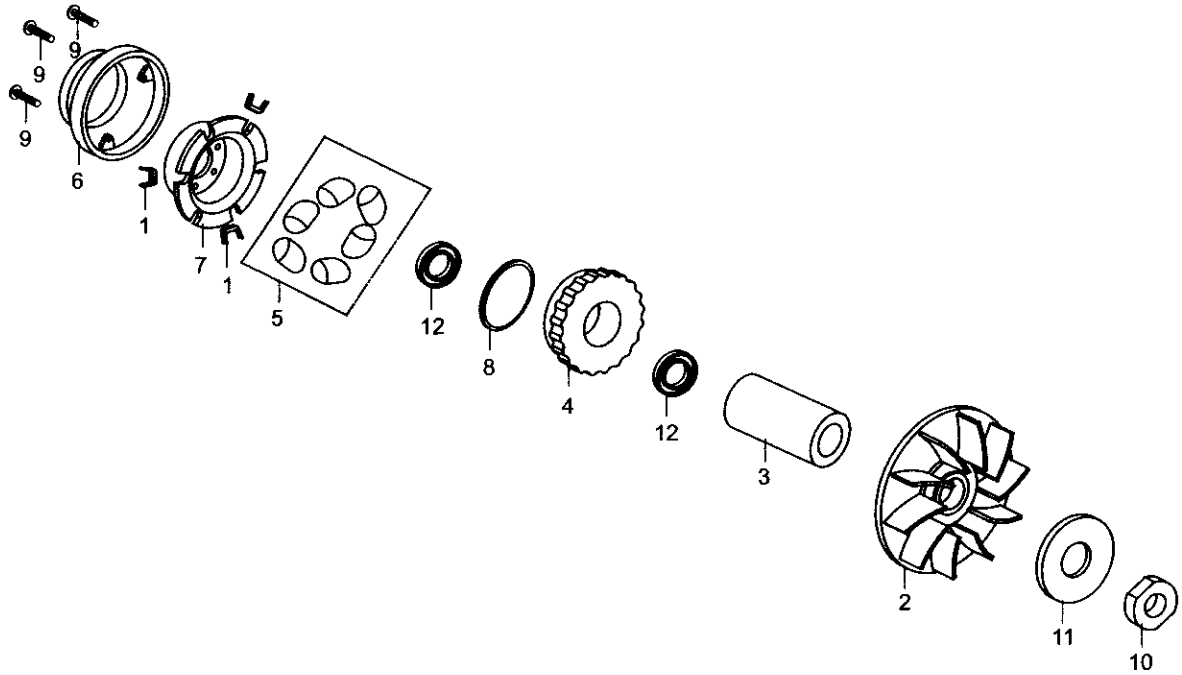


**REDUCTION BOX ASSY.**



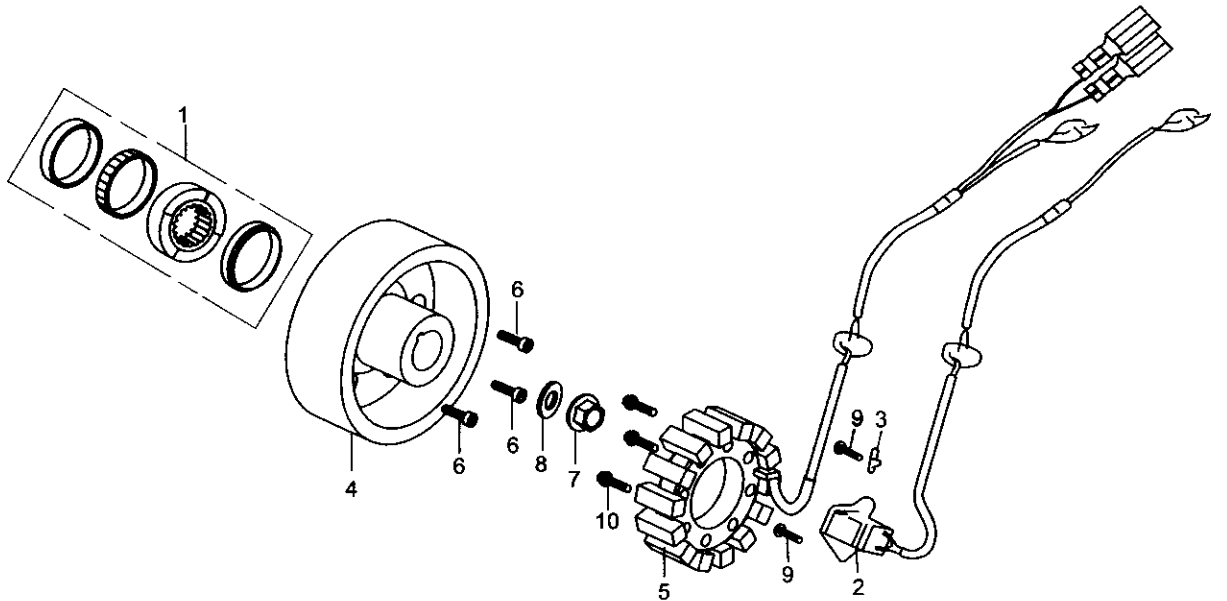
<b>REDUCTION BOX ASSY.</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	172MM-062000	VENTILATION PIPE	1	
2	172MM-060009	REDUCTION BOX CAP	1	
3	172MM-061000	REDUCTION CASE CAP SEAL	1	
4	172MM-060001	CHIEF SHAFT	1	
5	172MM-060003	SECONDARY SHAFT	1	
6	172MM-060006	SECONDARY GEAR SHAFT	1	
7	172MM-060007	OUTPUT SHAFT	1	
8	172MM-060008	OUTPUT GEAR	1	
9	172MM-060010	FLANGE BOLT M8 x 38	3	
10	172MM-060011	FLANGE BOLT M8 x 28	2	
11	152MI-060003	STOP GASKET 14	1	
12	172MM-060004	STOP GASKET 14	1	
13	152MI-060009	WASHER 6	1	
14	152MI-060010	WASHER 10	1	
15	NTN: 6304	ROLL BEARING	1	
16	172MM-060002	ROLL BEARING 22 x 50 x 14	1	
17	GB9877.1-88	OIL SEAL 22 x 35 x 5	1	
18	152MI-021005	DOWEL PIN 10 x 14	2	
19	GB/T894.1-86-24	CIRCLIP	1	
20	152MI-060011	FLANGE BOLT M10 x 1.25 OIL DISCHARGE	1	
21	152MI-080012	FLANGE BOLT M6 x 32	2	
22	NTN: HMK1416	NEEDLE BEARING	1	

**GEARBOX ASSY.**



<b>GEARBOX ASSY.</b>			
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>
1	172MM-051004	SLIDE BLOCK	3
2	172MM-051005	DRIVE WHEEL	1
3	172MM-051003	DRIVE WHEEL BUSH	1
4	172MM-051100	MOVABLE DRIVE WHEEL	1
5	172MM-051200	CENTRIFUGAL ROLLER	6
6	172MM-051001	DRIVE WHEEL CAP	1
7	172MM-051002	SLOPE PLATE	1
8	GB3452 1-82	O-RING	1
9	GB9074 14-88	FLANGE BOLT	3
10	172MM-051007	NUT M14 x 1.5	1
11	172MM-051006	WASHER 14.5 x 30 x 2	1
12	152MI-051103	OIL SEAL 27 x 34 x 3.5	2

**MAGNETO COMP.**



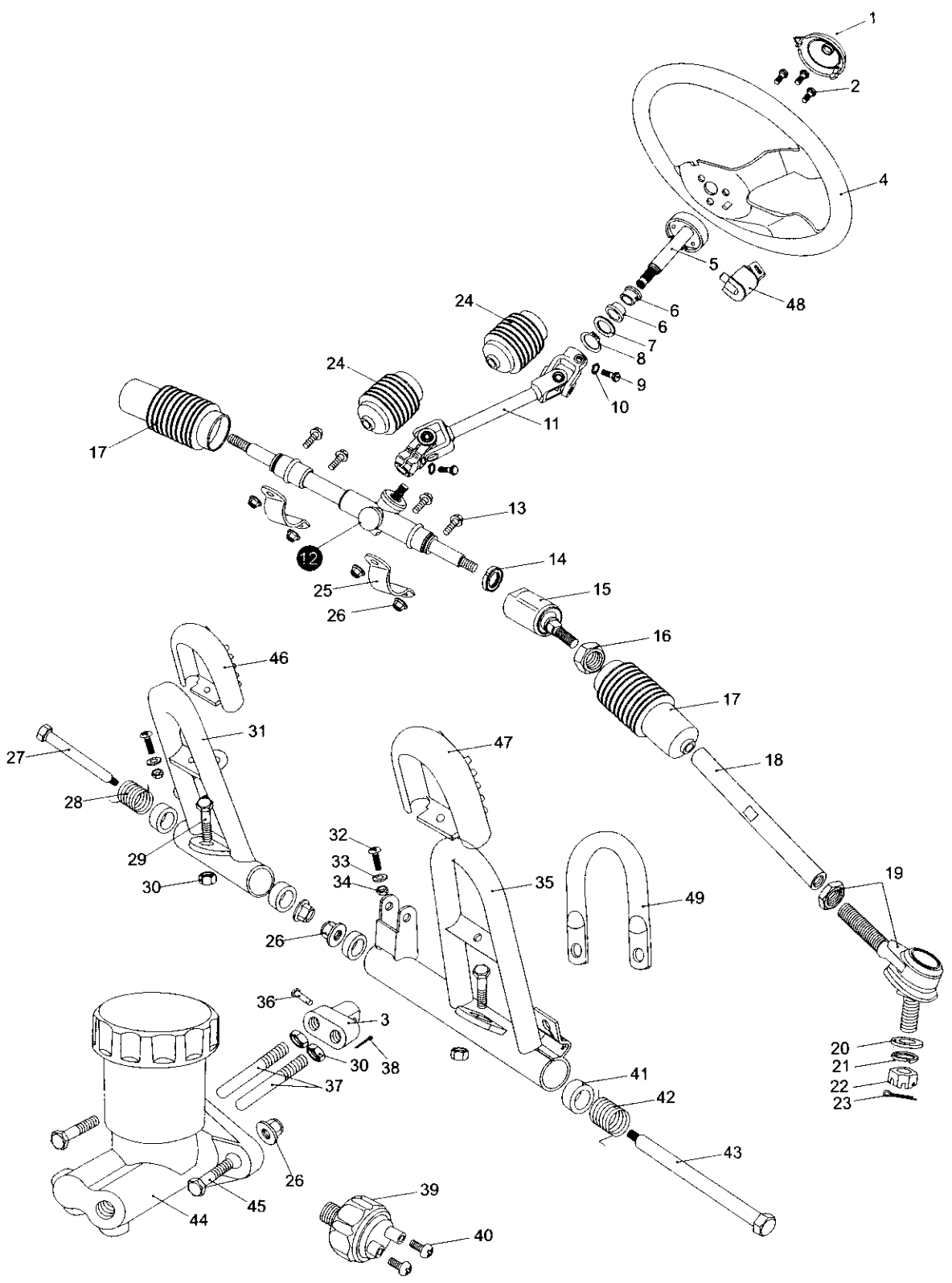
<b>MAGNETO COMP.</b>			
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>
1	172MM-094000	CLUTCH	1
2	172MM-033000	IGNITION COIL	1
3	172MM-013008	WIRE PLATE	1
4	172MM-031000	FLYWHEEL	1
5	172MM-032000	STATOR	1
6	GB/T70 1-2000	INNER HEX FLANGE BOLT M8 X 18	3
7	172MM-040001	NUT M16 x 1	1
8	172MM-040002	WASHER 16.3 x 30 x 2	1
9	152MI-030002	FLANGE BOLT M5 x 16	2
10	152MI-060012	FLANGE BOLT M6 x 30	3



<b>FRAME GROUP</b>				
<b>REF NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>REGD NO.</b>	
1	6.000.061	C.B.C. CROSS BAR, FR (B.R.S.)	1	
2	8.070.034	C.B.C. BAR CAGE (B.R.S.)	2	
3	8.080.033	C.B.C. CROSS BAR, RR (B.R.S.)	1	
4	8.070.035	C.B.C. BAR, L./R. SIDE (B.R.S.)	2	
5	2.000.045	FRAME COMP. (B.R.S.)	1	
6	8.010.047	R-WASHER	18	
7	9.908.050N	SOCKET BOLT M8 x 1.25 x 50	6	
8	9.908.055N	SOCKET BOLT M8 x 1.25 x 55	10	
9	9.300.016	WASHER $\Phi$ 16	1	
10	2.200.001	TOW BALL	1	
11	9.400.016	LOCK WASHER $\Phi$ 16	1	
12	9.101.625	BOLT M16 x 25	1	
13	9.112.025	BOLT-WASHER M12 x 1.25 x 25	4	
14	9.220.012	LOCKING FLANGE NUT M12	4	
15	7.020.012	RUBER FOOT PLATE	2	
16	6.000.104	HEADLIGHT UNIT	2	
17	9.108.050	BOLT-WASHER M8 x 1.25 x 50	2	
18	6.000.155	WINKER LIGHT ASSY. L. FR./R.RR.	2	
19	6.000.156	WINKER LIGHT ASSY. R. FR./L.RR.	2	
20	9.700.004	BANJO BOLT M10x24	6	
21	6.000.089	BRAKE HOSE ASSY. L. 34"	1	
22	6.000.090	BRAKE HOSE ASSY. R. 43"	1	
23	6.000.230	BRAKE HOSE ASSY. RR. 80"	1	
24	6.000.232	THROTTLE CABLE COMP.	1	
25	9.106.012	BOLT M6 x 12	2	
26	6.000.231	PARKING BRAKE CABLE COMP.	1	
27	7.010.017	TUBE SEAT $\Phi$ 25	6	
28	7.010.016	TUBE SEAT $\Phi$ 32	2	
29	9.090.003	HEADLIGHT BULB 35W/35W/ 12V	2	
30	7.010.034	FENDER, FR.	2	
31	6.000.067	FRONT FENDER BRACKET, L.	1	
32	9.100.640	BOLT M6 x 40	2	
33	9.210.008	LOCKING FLANGE NUT M6	10	
34	7.020.049	HEADLIGHT RUBBER MOUNT	4	
35	9.106.014	BOLT-WASHER M6 x 14	6	
36	6.000.135	HORN, H.	1	
37	6.000.136	HORN, L.	1	
38	9.100.525	BOLT M5 x 25	1	
39	8.010.086	REAR MIRROR MOUNT	1	
40	8.040.005	REAR VIEW MIRROR SPRING	1	
41	6.000.084	REAR MIRROR ASSY.	1	
42	6.000.102	FRONT FENDER BRACKET, R.	1	
43	6.000.083	FOAM PADDING-1	2	
44	6.000.116	FOAM PADDING-2	2	
45	9.000.004	POSITION LIGHT BULB 3W 12V	2	
46	6.000.114	FRONT REFLECTOR	2	
47	9.090.006	WINKER BULB 10W 12V	4	
48	9.220.008	LOCKING FLANGE NUT M8	2	
49	9.110.110	BOLT M10 x 1.25 x 110	2	
50	9.220.010	LOCKING NUT M10 x 1.25	2	
51	2.100.001	SWAY BAR BRACE BUSHING	1	
52	2.100.002	SWAY BAR BRACE	1	
53	9.106.012	BOLT M6 x 12	2	

# FIG. 19

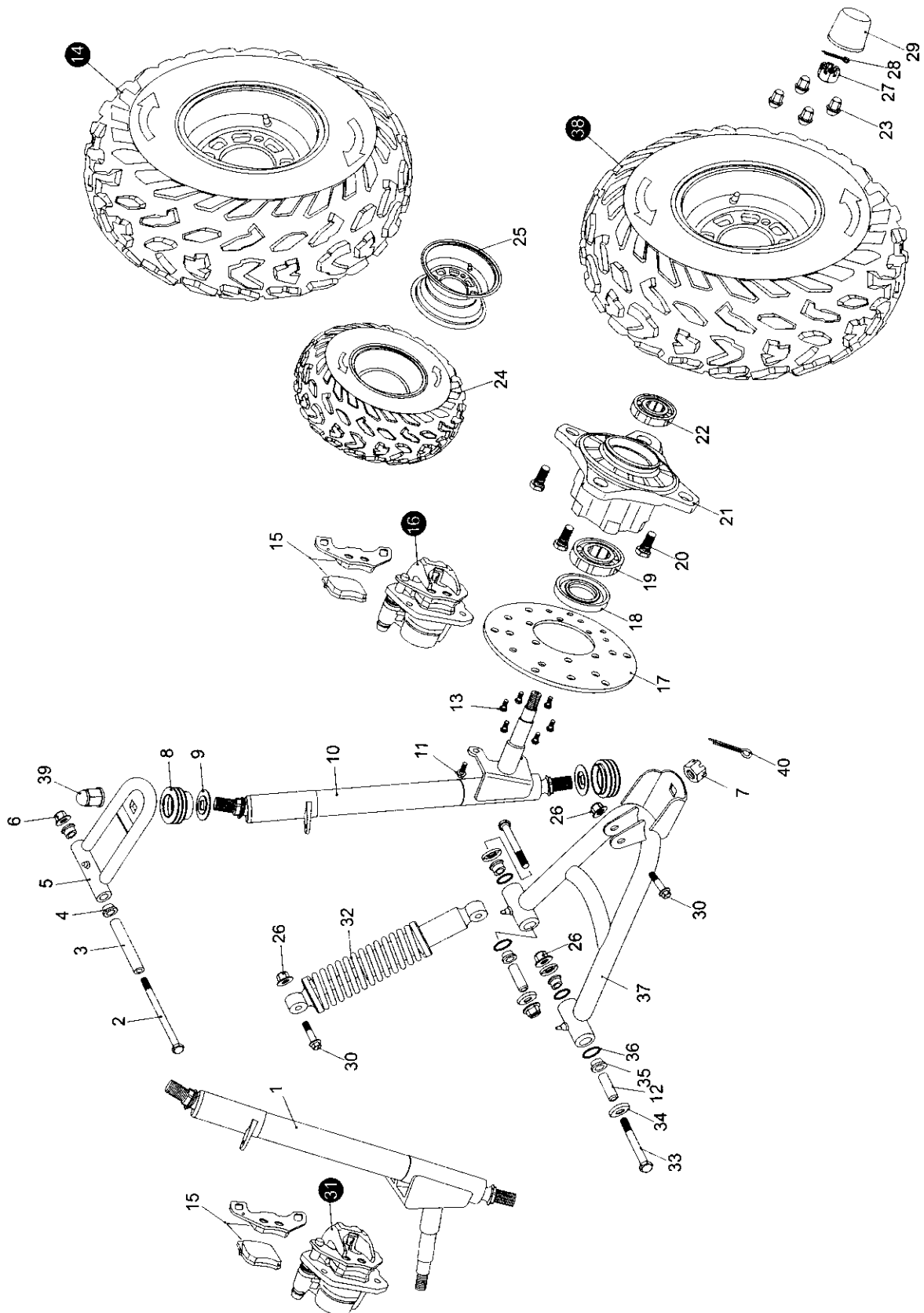
## STEERING SHAFT ASSY.





# FIG.20

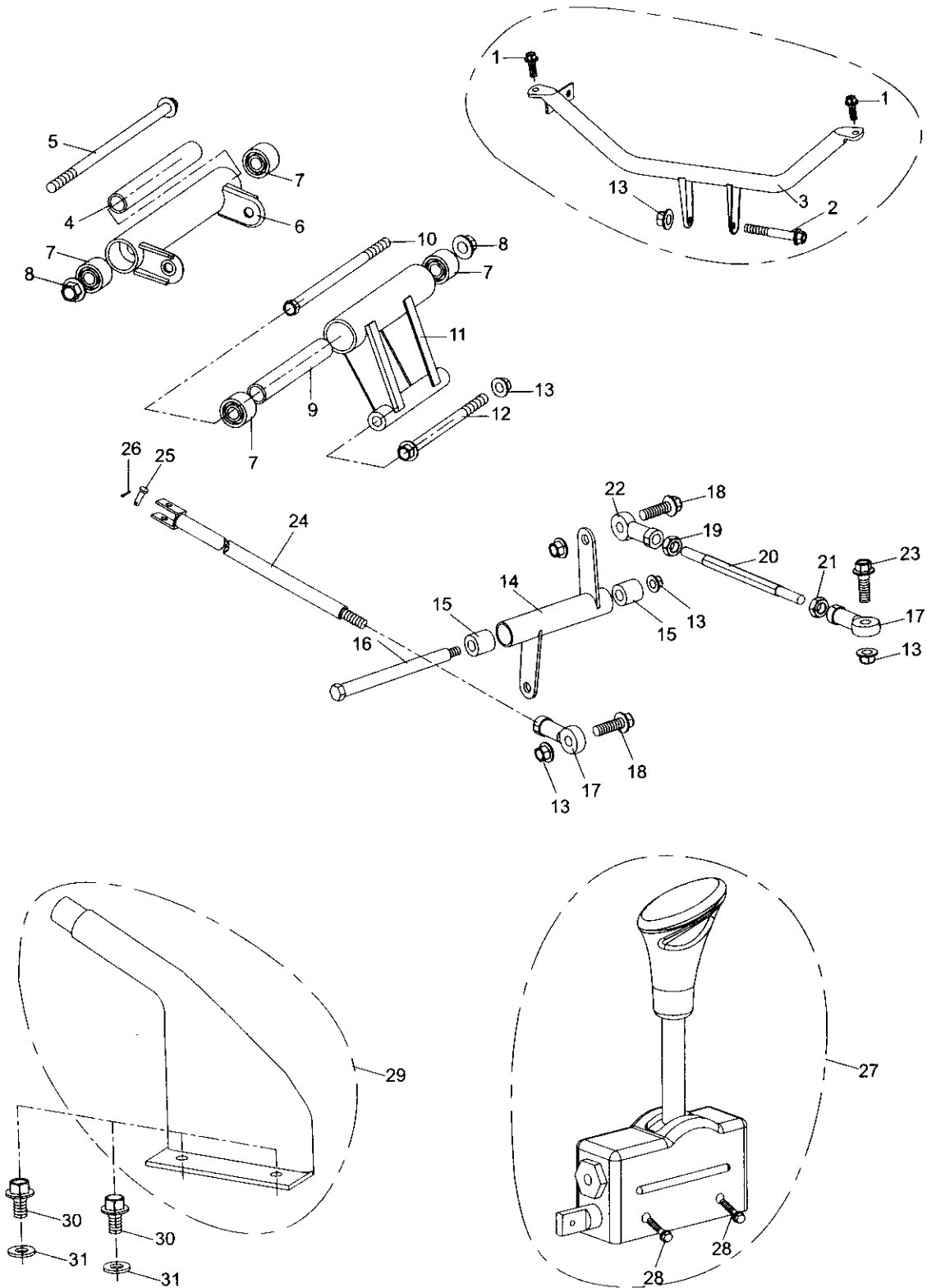
## FRONT SUSPENSION ARM ASSY.





# FIG. 21

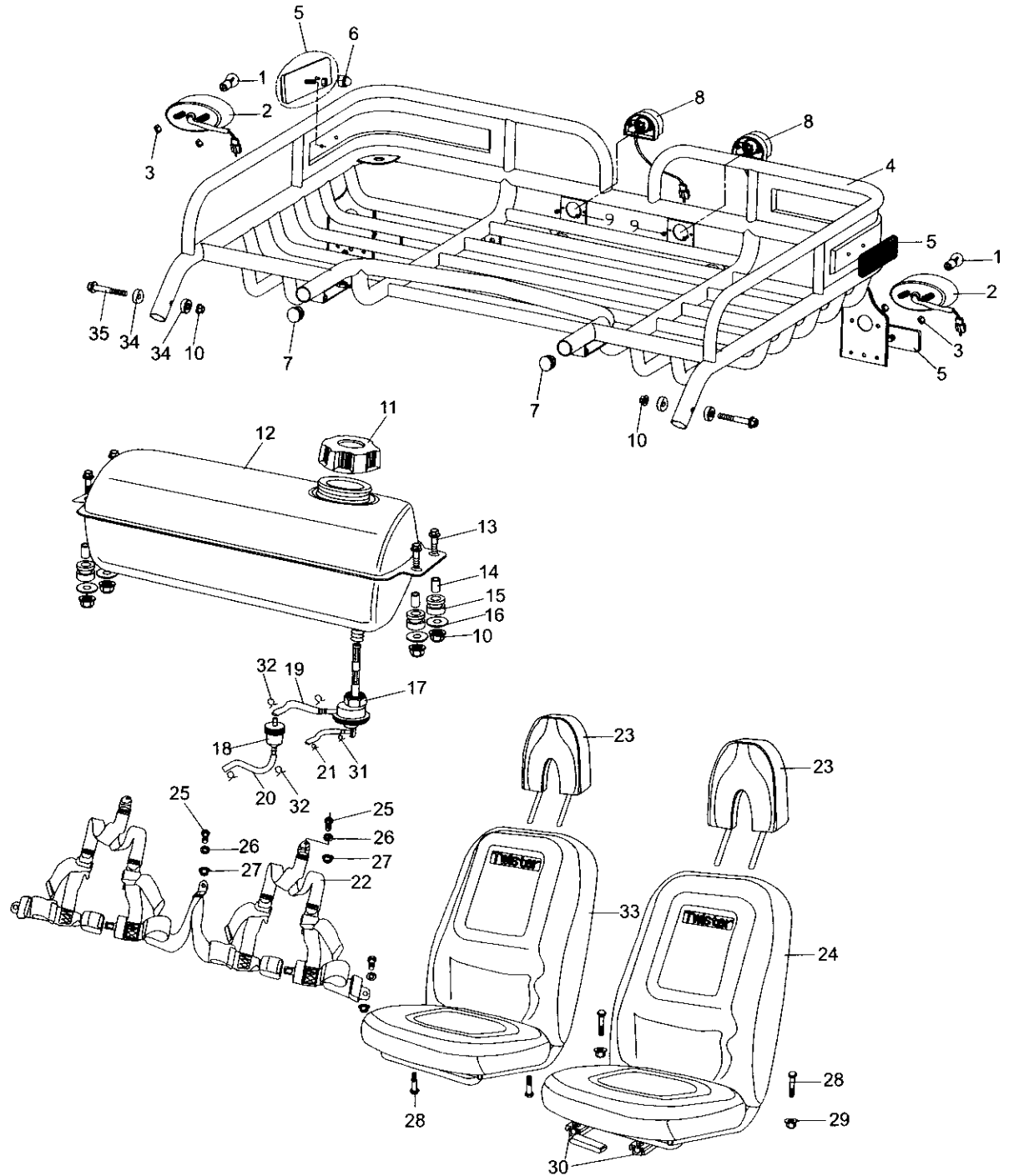
## FULL SHIFTING ASSY.





# FIG.22

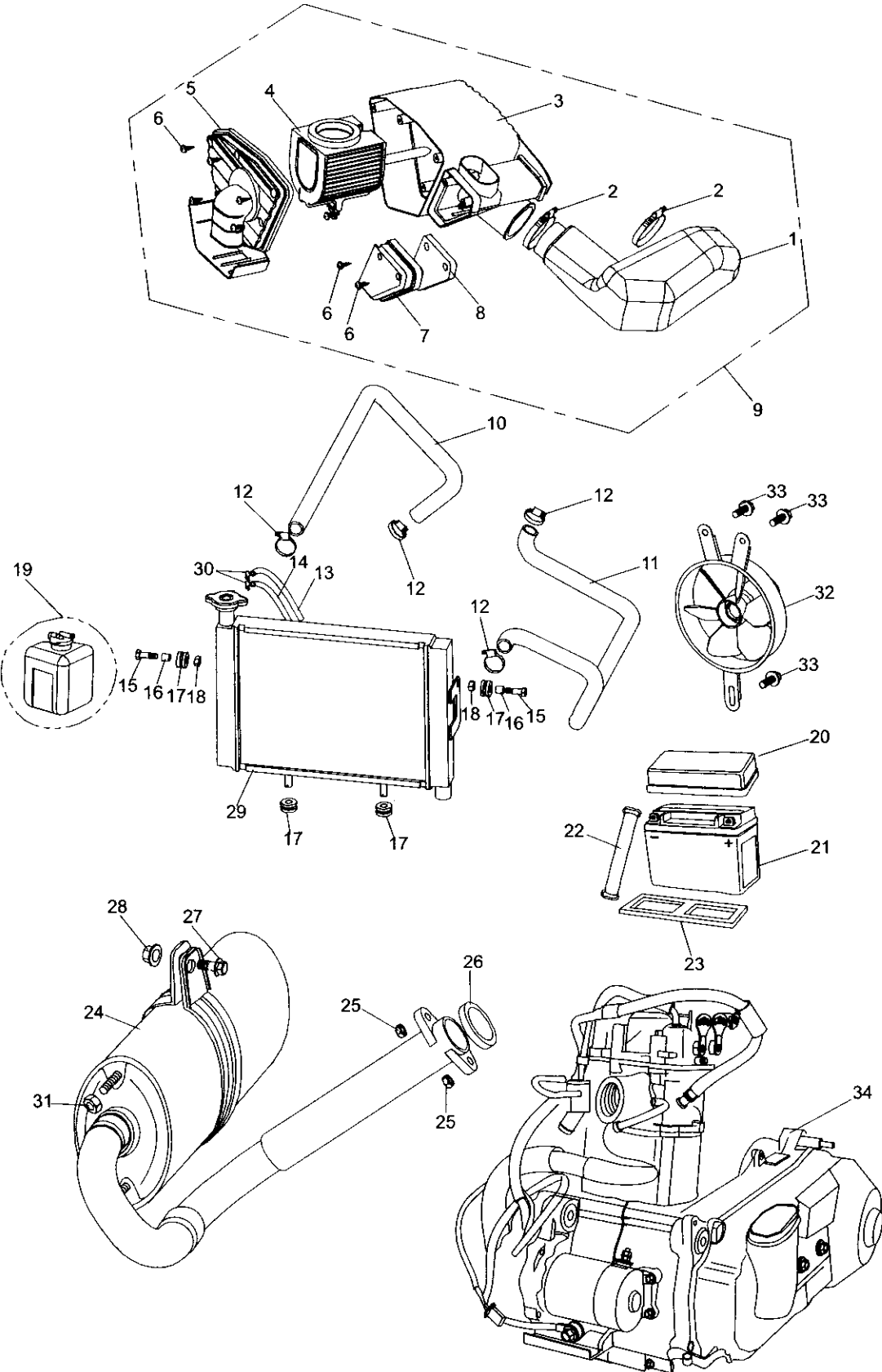
## REAR CARGO RACK/ SEAT/ BELT





# FIG.23

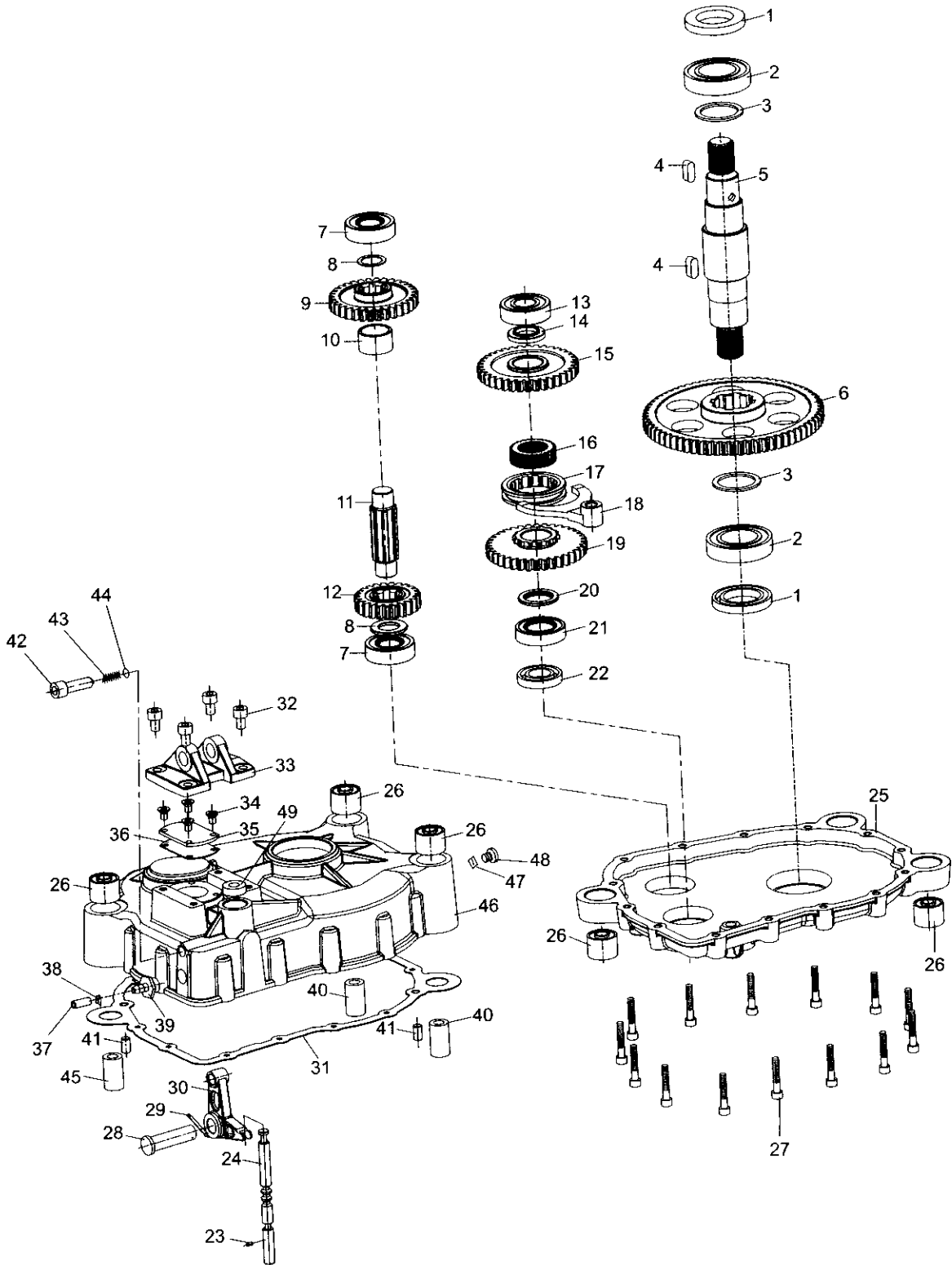
## AIR CLEANER/ RADIATOR/ BATTERY/ MUFFLER ASSY.





# FIG.24

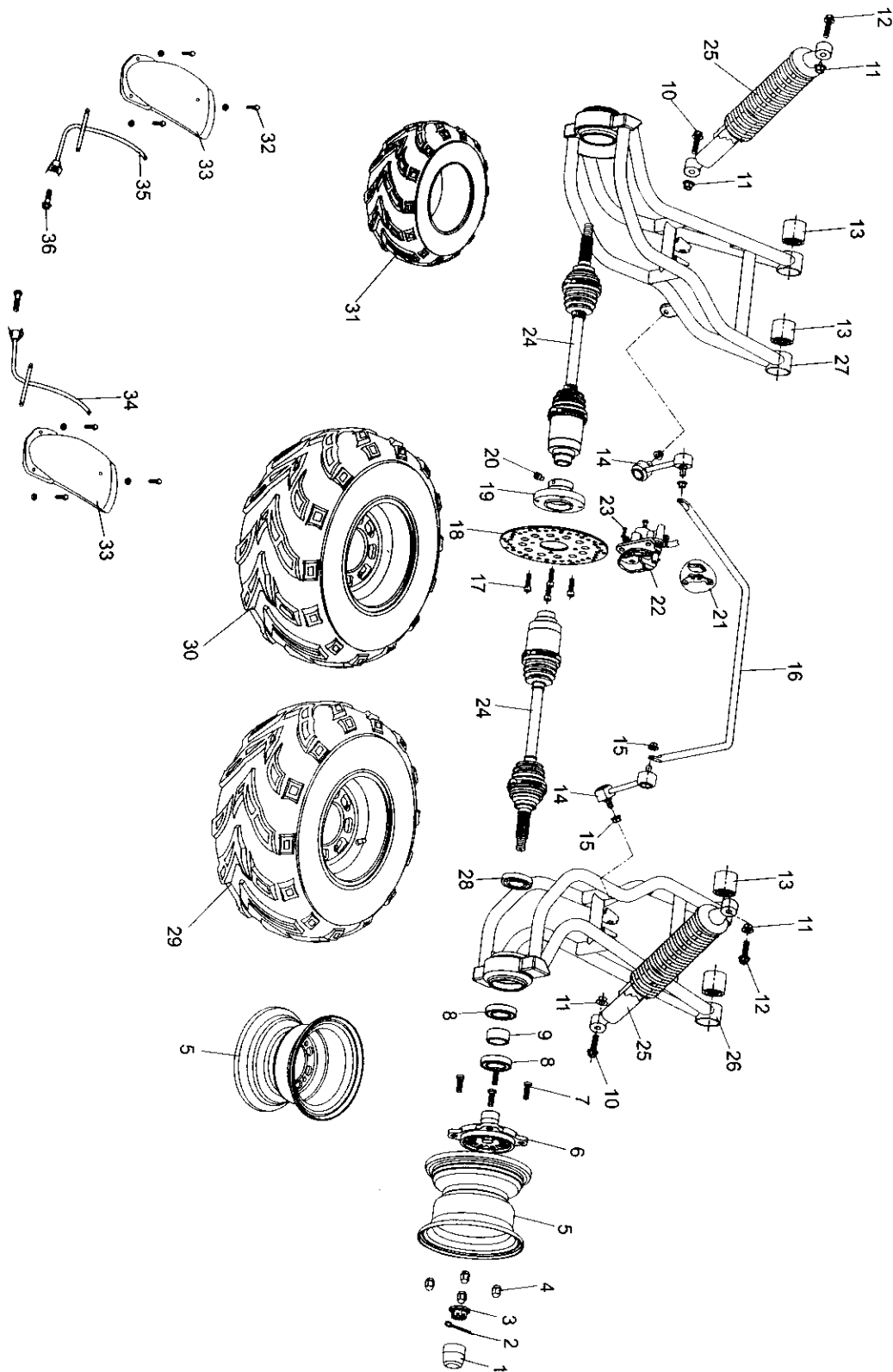
## GEAR BOX ASSY.





# FIG.25

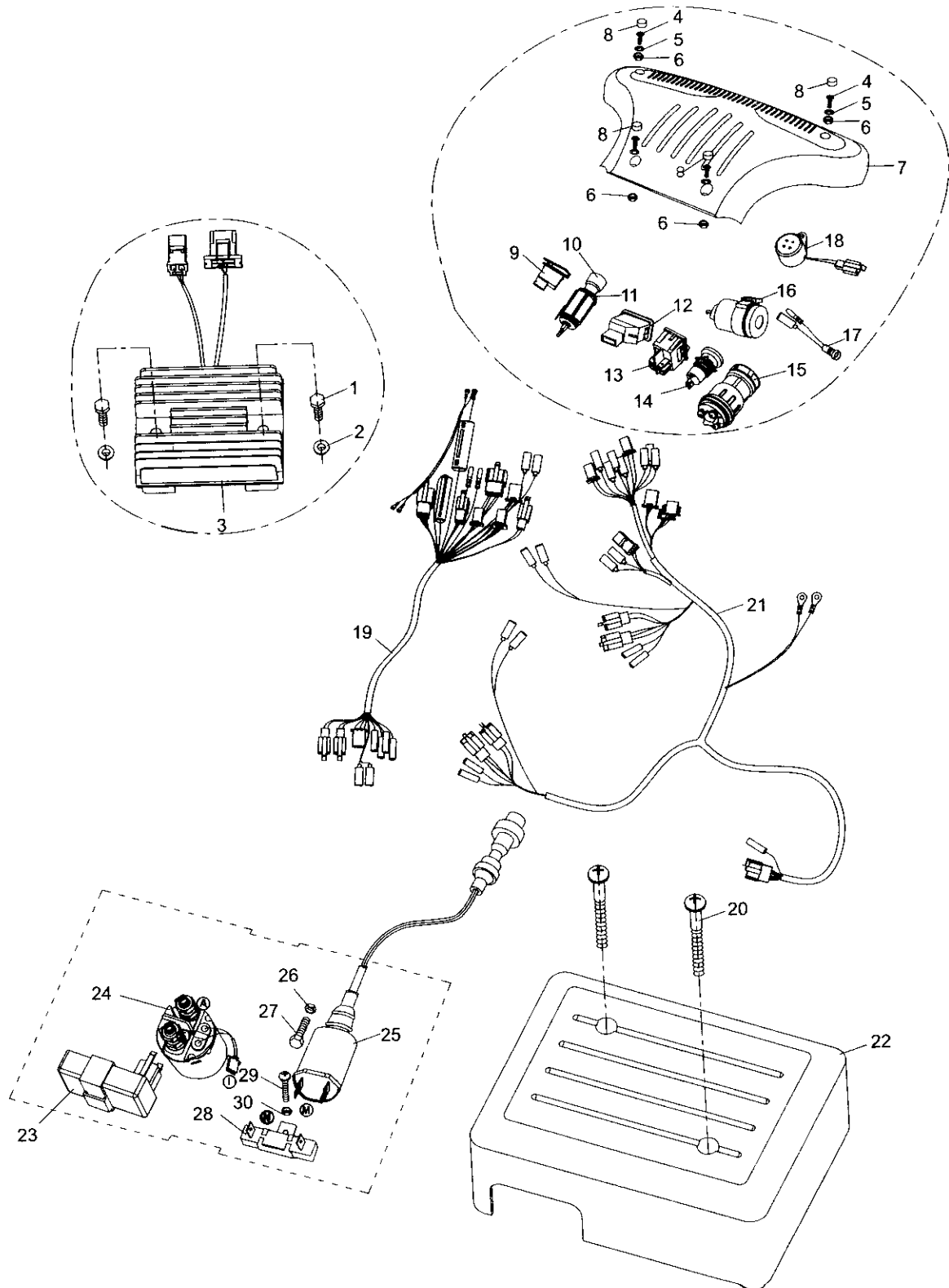
## REAR SUSPENSION ASSY.





# FIG.26

## WIRE HARNESS/ELECTRICAL





**WARNING STICKERS**



WARNING STICKERS				
REF NO.	PART NO.	DESCRIPTION	REGD NO.	
1	9.090.007	LABEL. PARKING BRAKE	1	
2	9.090.008	LABEL. REVERSE LEVER	1	
3	9.090.023	LABEL. GEAR CASE	1	
4	9.090.010	LABEL. NO LONG HAIR	1	
5	9.090.011	LABEL. WARNING	1	
6	9.090.012	LABEL. NO CLIMBING	1	
7	9.090.013	LABEL. WARNING	1	
8	9.090.014	LABEL. SEAT BELT	1	
9	9.090.024	LABEL. RADIATOR	1	
10	9.090.016	LABEL. TWISTER	3	
11	9.090.017	LABEL. WARNING	1	
12	9.090.025	LABEL. HAMMERHEAD 250	1	
13	9.090.026	LABEL. HAMMERHEAD 250 R. SIDE	1	
14	9.090.027	LABEL. HAMMERHEAD 250 L. SIDE	1	