



OWNER'S / OPERATOR'S
MANUAL

G-MAX 4-STROKE
GOLF CAR G22A

INTRODUCTION

Congratulations on your purchase of a Yamaha golf car. This manual contains information you will need for proper operation, maintenance, and care of your golf car. A thorough understanding of these simple instructions will help you to obtain maximum enjoyment from your new Yamaha.

If you have any questions about the operation or maintenance of your golf car, please consult a Yamaha dealer.

**YAMAHA MOTOR MANUFACTURING
CORP OF AMERICA**

**G22A
OWNER'S/OPERATOR'S
MANUAL**

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Manufacturing Corporation
of America
2nd edition**

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P/N LIT-19626-16-03**

IMPORTANT MANUAL INFORMATION

Particularly important information is distinguished in this manual by the following notations:



The Safety Alert Symbol means **ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED!**

WARNING

Failure to follow WARNING instructions could result in severe injury or death to the golf car occupants, a bystander, or a person inspecting or repairing the golf car.

CAUTION

This message describes special precautions that must be taken to avoid damage to the golf car.

NOTE:

This message provides additional key information.

NOTE:

- Yamaha continually seeks advancements in product design and quality; therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your golf car and this manual. If you have any questions concerning this manual, please consult your Yamaha dealer.
- This manual should be considered a permanent part of your golf car and should remain with the car when resold.

WARNING

Read and understand this manual completely before operating your golf car.

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WARRANTY

YAMAHA MOTOR MANUFACTURING CORPORATION OF AMERICA LIMITED 3-YEAR GOLF CAR WARRANTY

Yamaha Motor Manufacturing of America hereby warrants that any new Yamaha Golf Car (gas and electric models) purchased from an authorized Yamaha dealer in the United States will be free from defects in material and workmanship for THREE years from date of purchase, subject to the stated limitations.

DURING THE PERIOD OF WARRANTY any authorized Yamaha Golf Car Dealer will, free of charge, repair or replace, at Yamaha's option, any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the machine's warranty period. All parts replaced under warranty become property of Yamaha Motor Manufacturing Corporation of America.

GENERAL EXCLUSIONS from this warranty shall include any failures caused by:

- Abnormal strain, neglect, or abuse, including lack of proper maintenance, and use contrary to the Owner's/Operator's Manual instructions.
- Accident or collision damage.
- Installation of parts or accessories that are not original equipment.
- Fading, rust, or deterioration due to exposure or ordinary wear and tear.
- Modifications or alteration that affects the car's condition, operation, performance, or durability, or which makes the car serve a purpose other than use as a two-person, golf course vehicle.
- Damage due to improper transportation.
- Acts of God, ie: lightning, hail damage, flooding, fire, etc.

SPECIFIC EXCLUSIONS: The first year of warranty shall cover the entire car except for batteries, battery chargers, tires and rims, which are warranted by their respective manufacturers. Parts excluded from the second year of warranty include the body parts, seats, mats, bumper assembly, bag carrier, scorecard holder, and the trim. Parts excluded from the third year of warranty include the second year exclusions, the electrical system (except electronic speed controller and electric motor) and control cables. Other specific exclusions from this warranty shall include any parts replaced due to normal wear or routine maintenance, including oil, air filter elements, brake shoes, spark plugs, starter and clutch drive belts. Any charges incurred in transporting a golf car to and from an authorized Yamaha Golf Car Dealer for service or in performing field service are also excluded from this warranty.

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

- Operate and maintain the golf car as specified in the appropriate Owner's/Operator's Manual;
- Give notice to an authorized Yamaha dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs by the dealer's authorized representative.

WARRANTY TRANSFER: To transfer any remaining warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized Yamaha Golf Car Dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service.

YAMAHA MOTOR MANUFACTURING CORPORATION OF AMERICA MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR MANUFACTURING CORPORATION OF AMERICA AND EXCLUDED FROM THIS WARRANTY.

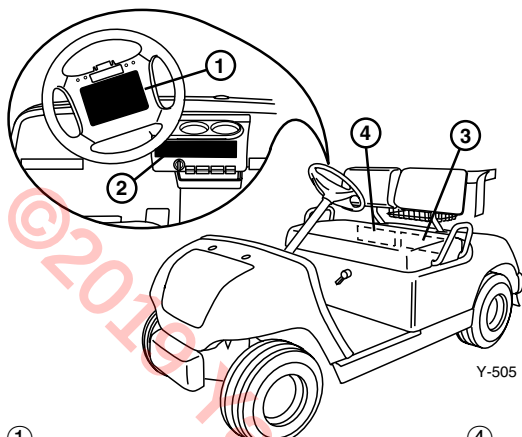
SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

YAMAHA MOTOR MANUFACTURING CORP.,
NEWNAN, GEORGIA 30265-1320

EFFECTIVE DATE: 06/01/02
LIT-13710-03-02

IMPORTANT LABELS



Y-505

⚠ SAFETY AND INSTRUCTION LABELS

⚠ WARNING

Please read the following labels carefully before operating your golf car, and promptly replace any labels which become damaged or removed.

2

OPERATING INSTRUCTIONS

- Read the warning label on the beverage holder panel before operating.
- Be sure occupants are seated.
- Select "FORWARD" or "REVERSE" then turn main switch to "ON".
- Press the accelerator pedal to start moving. The motor will start and the parking brake will release automatically.
- To stop, release the accelerator pedal and press the brake pedal.
- Never travel at speeds too fast for the terrain, visibility conditions, or your experience.
- Drive with extra caution in congested areas, when operating in reverse, and when driving on wet, rough, or loose surfaces.
- Come to a complete stop before reversing direction.
- Press the parking brake pedal until it locks, and turn the main switch to "OFF" before leaving the vehicle.
- Read the Owner's/Operator's Manual for more information.

ATTENTION

- This vehicle was not manufactured for use on public streets and does not comply with federal motor vehicle safety standards applicable to passenger cars.

YAMAHA

JU0-K7762-00

Y-500



WARNING AVERTISSEMENT

Do not tamper with governor to increase speed. Operation at higher speeds can cause loss of control that can result in severe injury or death.

Ne pas toucher au régulateur afin d'augmenter la vitesse. Un fonctionnement des vitesses supérieures au réglage initial peut causer une perte de contrôle qui peut mener à une blessure grave, voire fatale.

YAMAHA

JN3-KC295-10

⚠ WARNING

DEATH OR SEVERE PERSONAL INJURY CAN RESULT FROM FAILURE TO FOLLOW THESE INSTRUCTIONS.

- Read Operating Instructions on steering wheel before operation.
- Operate only when authorized and only in designated areas.

OFF



- Operate from driver's side only.
- Do not allow more than two occupants in vehicle.
- Do not start vehicle until all occupants are seated.
- Remain seated and hold on when in motion.
- Keep entire body inside vehicle.
- Drive slowly in turns.
- Drive slowly straight up and down slopes.
- Set parking brake before leaving vehicle.
- Turn main switch to "OFF" and remove key when not in use.
- Do not operate while under the influence of alcohol or drugs.

YAMAHA

JN3-K7761-01

Y-502

⚠ WARNING/AVERTISSEMENT



- Gasoline is extremely flammable.
- Keep heat, sparks and open flame away from fuel tank and fuel lines.
- Do not add fuel while engine is running or hot.
- Do not modify fuel system. Service should be performed by dealer or qualified personnel.
- L'essence est extrêmement inflammable.
- Garder étincelles, flammes et chaleur loin du réservoir à essence et des tuyaux à carburant.
- Ne pas ajouter d'essence pendant que le moteur est en marche ou quand le moteur est chaud.
- Ne pas modifier le système d'alimentation. Toute révision doit être faite chez le fournisseur ou par du personnel qualifié.

USE REGULAR UNLEADED GASOLINE ONLY

Motor Oil Requirements:

- Use only SAE 10W-30, API service SE or SF.
- Maintain oil level between dipstick "MIN" and "MAX" marks.

YAMAHA

UTILISER UNIQUEMENT DE L'ESSENCE SANS PLOMB

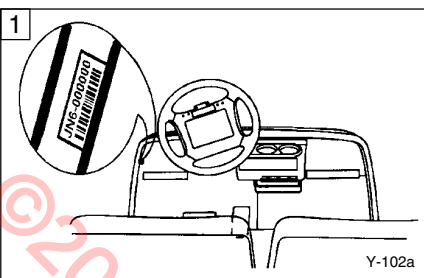
Pour l'huile du moteur, il faut:

- Utiliser uniquement SAE 10W-30, API service SE ou SF.
- Garder le niveau d'huile entre les marques "MIN" et "MAX" indiquées sur la jauge de niveau d'huile.

JN3-KA297-10

Y-767

IMPORTANT LABELS

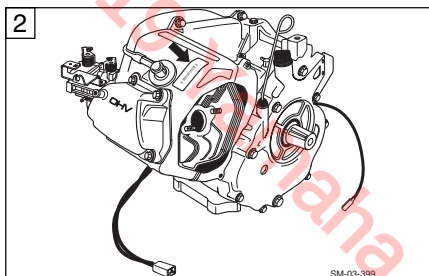


GOLF CAR SERIAL NUMBER

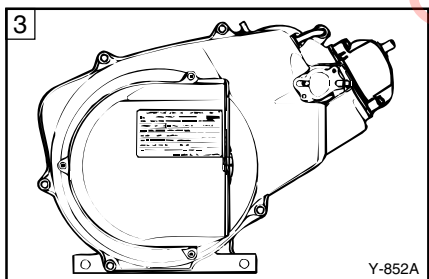
The golf car serial number ① is stamped in the location shown.

NOTE:

The first three digits of the serial number are for model identification; the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer.



The engine serial number ② is affixed in the location shown.



③ Engine Information

IMPORTANT ENGINE INFORMATION				YAMAHA
ENGINE FAMILY : *****				
E M REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.				
DISPLACEMENT:	*** cm ³	VALVE LASH(mm)	IN: **..**	EX: **..**
IGNITION TIMING & IDLE MIXTURE		NO OTHER ADJUSTMENTS NEEDED.		
IDLE SPEED:	**** rpm	AT NO LOAD		
FUEL: THIS ENGINE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE.				
ENGINE OIL:	SAE 10W-30	TYPE	SD	
THIS ENGINE MEETS ***** CALIFORNIA EMISSION REGULATIONS FOR OFF-ROAD ENGINES. THIS ENGINE CONFORMS TO ***** U.S. EPA REGULATIONS FOR SMALL HORIZONTAL ENGINES.				
YAMAHA MOTOR CO.,LTD.				

Y-851

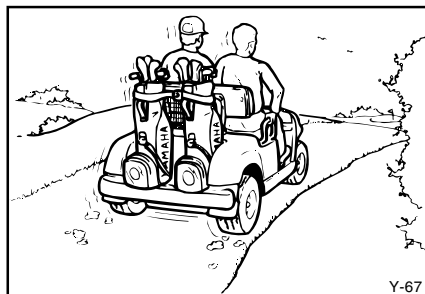


OPERATOR SAFETY

Yamaha golf cars are designed to be simple to operate. However, be sure to observe the following:

BEFORE OPERATING THE GOLF CAR

- Read this Owner's/Operator's manual and all safety and instruction labels on the golf car before operating.
- Perform the pre-operation checks found in Section 6 of this manual.
- Only authorized people should drive the golf car, from the driver's side only, and only in designated areas.
- Do not allow more than two people to ride in the golf car. This golf car is restricted to two occupants.
- Do not operate the golf car while under the influence of alcohol or drugs; their affect on vision and judgment make operating a golf car dangerous.
- Do not operate the golf car on public streets, roads or highways. Such use is prohibited by law, and dangerous. Operation on public roads can result in collision with other vehicles.



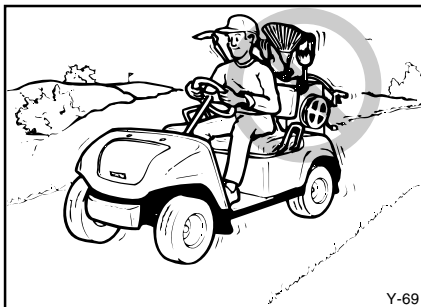
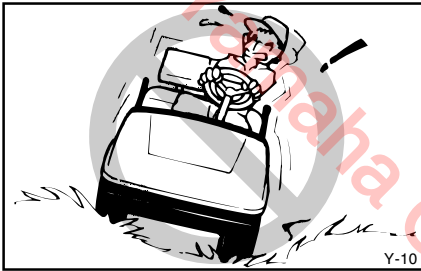
WHILE OPERATING THE GOLF CAR

- Keep your entire body inside the golf car, remain seated, and hold on when the car is in motion.
- Do not start the golf car until all occupants are seated.



OPERATOR SAFETY

3



- Keep your hands on the steering wheel and your eyes on the path ahead.
- Use extra care in congested areas or when backing up. Always back up slowly, and watch carefully.
- Avoid starting or stopping abruptly.
- Vary the speed of the golf car to match the terrain of the course.
- Avoid turning the steering wheel too sharply at higher speeds.
- Always drive slowly straight up or straight down slopes – never at an angle.
- Do not run the engine indoors. Exhaust gas is poisonous.
- Do not make any modification or addition which affects capacity or safe operation, or make any changes not in accordance with the owner's/operator's manual.



GOLF COURSE SAFETY PROGRAM

Like all machines, golf cars can cause injury if improperly used or maintained. This section contains broad safety practices required for safe golf car operation. Before golf cars are operated, golf course personnel should establish any additional safety practices that may be required for safe operation.

Experience has shown that golf cars are safe when operated in accordance with the safety warnings affixed to every golf car. This safe operation is enhanced when golf cars are used according to the safety rules and practices established to meet the terrain and conditions of the course they are used on.

The information contained here is intended for golf course personnel responsible for golf car safety. If you are responsible for the operation and maintenance of this golf car, we encourage you to implement this golf car safety program.

DRIVER QUALIFICATIONS

Allow only authorized people to operate golf cars. It is recommended that only people who possess a valid motor vehicle driver's license be allowed to operate golf cars.

Place operation and safety instructions recommended by the golf car manufacturer, along with the golf course safety rules, in a conspicuous place near the golf car rental area or golf car pick-up area. It is also recommended that the following warning be posted in a conspicuous location:

Do Not Operate Golf Cars When Under The Influence Of Alcohol Or Drugs

GOLF COURSE SAFETY SURVEY

Perform safety surveys regularly to identify hazardous areas where golf cars should not be operated.

GOLF COURSE HAZARD PREVENTION

The following golf course hazards must be made safe:

- **Steep Grades.** Where steep grades exist, restrict golf cars to designated golf car pathways where possible. In addition, identify steep grades with a suitable warning like:

Warning: Steep Grade, Descend Slowly With Foot On Brake

- **Sharp Turns, Blind Corners, Bridge Approaches.** Chain or rope off these potentially hazardous areas or identify them with a suitable warning describing the nature of the hazard and the proper precautions to be taken to avoid the hazard.
- **Wet Areas.** Wet grass may cause a golf car to lose traction and may affect stability. Chain or rope off wet areas or identify wet areas with a suitable warning.



GOLF COURSE SAFETY PROGRAM

- **Loose Terrain.** Loose terrain may cause a golf car to lose traction and may affect stability. Repair loose terrain, chain or rope off these areas, or identify loose terrain with a suitable warning.
- **Golf Car and Pedestrian Interference.** Reroute golf car traffic or pedestrian traffic in congested areas wherever possible to prevent accidents. If it is impractical to reroute traffic, erect warning signs to warn pedestrians of golf car traffic, and to warn golf car operators to drive slowly, use caution, and watch for pedestrians.
- **Parts and Materials.** Use only replacement parts and materials recommended by the manufacturer.
- **Ventilation.** Properly ventilate all maintenance and storage areas in accordance with applicable fire codes and ordinances to avoid fire hazards. Ventilation is required to remove flammable vapors and fumes from gasoline powered car storage areas. Ventilation is also required to remove hydrogen gas from the car storage areas during the battery charging process.

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MAINTENANCE REQUIRED FOR GOLF CAR SAFETY

Practice the following to help ensure the safety of golf car operators:

- **Preventative Maintenance.** Perform all scheduled maintenance in accordance with manufacturer's recommendations to provide the golfing patron with a safe, properly operating golf car.
- **Personnel.** Allow only qualified, trained, and authorized personnel to inspect, adjust, and maintain golf cars.



GOLF COURSE SAFETY PROGRAM

SAFETY PRECAUTIONS DURING MAINTENANCE

When performing maintenance, follow all safety instructions contained in the manufacturer's operation and service manuals, as well as the following safety procedures:

- Properly immobilize golf car before beginning any maintenance.
- Properly block chassis before working underneath golf car.
- Before disconnecting any part of the fuel system, drain the applicable part of the system to prevent fuel leaks.
- Avoid fire hazards, and have appropriate fire protection equipment available.
- Before working on an electric golf car, disable the car's electrical system in accordance with the manufacturer's instructions.
- Use only properly insulated tools when working on electrically powered golf cars or around batteries.
- Maintain all safety devices including brakes, steering mechanisms, warning devices, and governors, in a safe operating condition. Do not modify these safety devices as supplied by the manufacturer.
- After each maintenance or repair, the car must be driven by a qualified, trained, and authorized person – in an area free of pedestrian traffic – to ensure proper operation and adjustment.

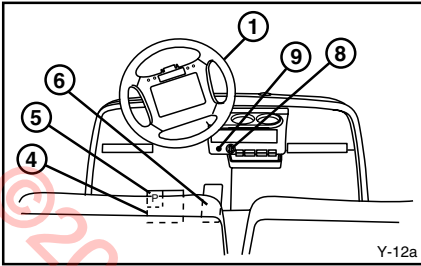
- Record all maintenance performed in a maintenance record log by date, name of person performing maintenance, and type of maintenance. Periodically inspect maintenance log to ensure accurate and complete entries.
- Provide operator comment cards to assist in identifying non-periodic maintenance needs for specific golf cars.
- Maintain in a legible condition all nameplates, warnings, and instructions provided by the manufacturer.
- If new nameplates, warnings, or instructions are needed, contact your Yamaha dealer.

FUEL HANDLING/STORAGE AND BATTERY CHARGING

Take the following precautions to ensure maintenance worker safety:

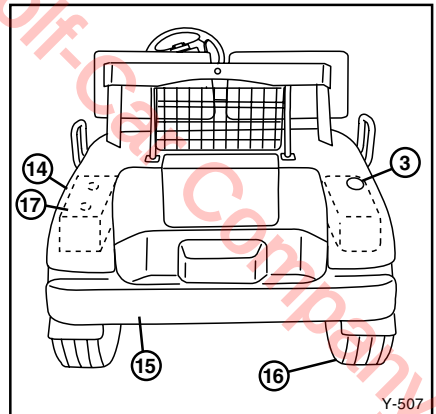
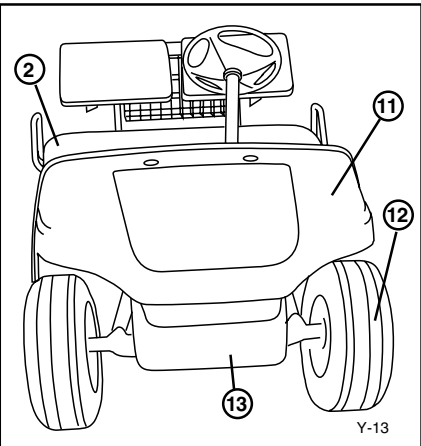
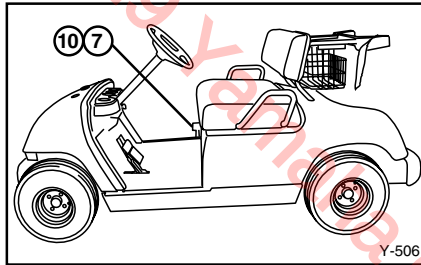
- Supervise the storage and handling of liquid fuels in accordance with applicable fire and safety requirements.
- Only use battery charging and charging facilities and procedures that are in accordance with applicable ordinances and regulations.
- Periodically inspect fueling and charging facilities and procedures to be certain that applicable safety codes, regulations, and procedures are being followed.

CONTROLS



FEATURES

- ① Steering wheel
- ② Seat
- ③ Fuel cap
- ④ Brake pedal
- ⑤ Parking brake pedal
- ⑥ Accelerator pedal
- ⑦ Drive selector lever
- ⑧ Main switch
- ⑨ Oil warning light
- ⑩ Choke knob
- ⑪ Front cowl
- ⑫ Front tire
- ⑬ Front bumper
- ⑭ Rear cowl
- ⑮ Rear bumper
- ⑯ Rear tire
- ⑰ Battery



CONTROLS

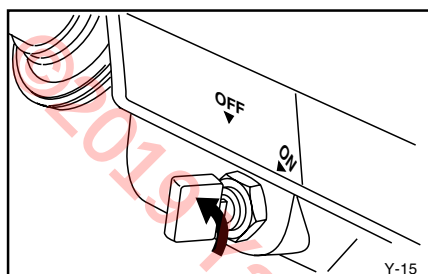
MAIN SWITCH

The main switch controls the following items:

OFF

Ignition circuit is switched off.

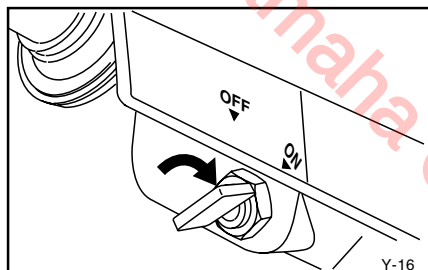
The key can be removed only in this position.



ON

Electrical circuits are switched on.

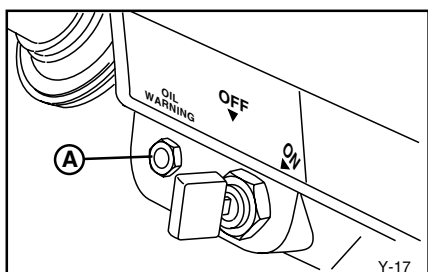
The golf car can be driven.



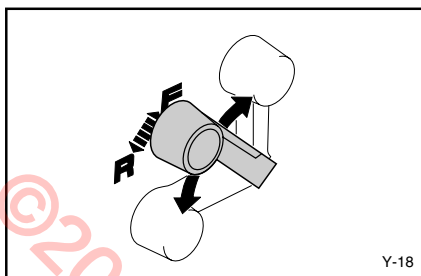
OIL WARNING LIGHT

When the engine oil level falls below an acceptable level, this light comes on. **If the light comes on, stop the engine, check the engine oil level, and add oil as necessary. (See page 6-3).**

(A) Oil warning light



CONTROLS



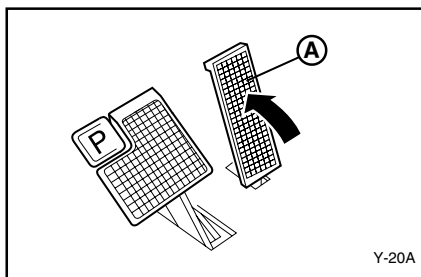
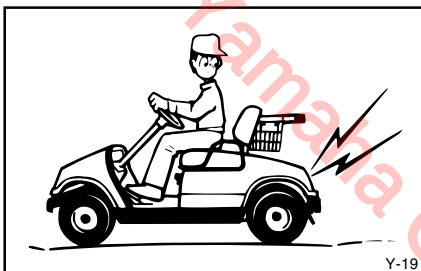
DRIVE SELECT LEVER

The drive select lever is used to shift the golf car into forward or reverse. After coming to a complete stop, move the lever to the desired position.

Lever Position	Car Movement
F	FORWARD
R	REVERSE

NOTE:

The back-up buzzer will beep when the drive select lever is turned to "R."

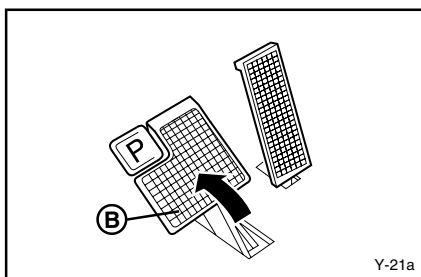


ACCELERATOR PEDAL

The accelerator pedal controls the golf car's speed.

Action	Car Speed
Depress pedal	Increase
Release pedal	Decrease

(A) Accelerator pedal

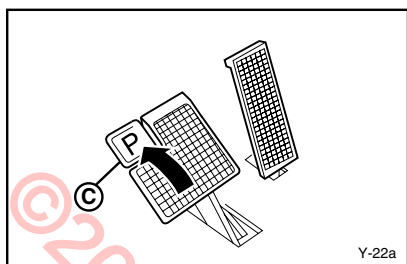


BRAKE PEDAL

Press down on the brake pedal to stop the golf car.

(B) Brake pedal

CONTROLS



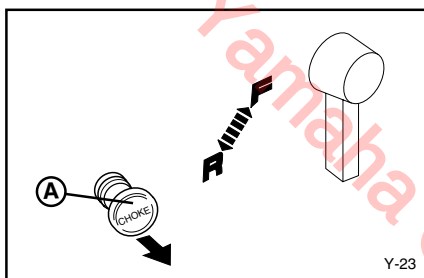
PARKING BRAKE PEDAL

Press down on the parking brake pedal whenever parking the golf car.

© Parking brake pedal

NOTE:

Release the parking brake by depressing the accelerator pedal.



⚠ WARNING

The parking brake will automatically release when the accelerator pedal is depressed. If the main switch is in the "ON" position, depressing the accelerator may suddenly cause the golf car to move.

5

CHOKE KNOB

Pull and hold out choke knob when starting a cold engine. Release the knob after the engine starts.

Ⓐ Choke knob

PRE-OPERATION CHECKS

Pre-operation checks should be made each time you use your golf car. Get in the habit of performing the following checks in the same way so that they become second nature.

⚠ WARNING

- Be sure the main switch key is removed before performing the pre-operation checks to prevent accidental starting, and apply the parking brake to keep the car from moving.

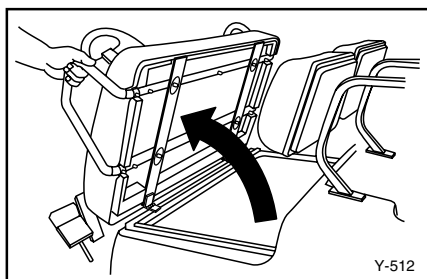
PRE-OPERATION CHECKLIST

Before each use check the following:

- ✓ Fuel system
- ✓ Engine oil level
- ✓ Battery
- ✓ Tire condition
- ✓ Steering system
- ✓ Back-up buzzer
- ✓ Pedal operation
- ✓ Body and chassis

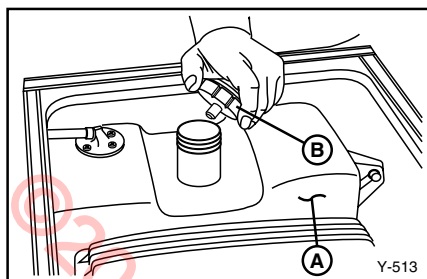
SEAT

Open the seat for checking and servicing.



Y-512

PRE-OPERATION CHECKS



FUEL SYSTEM

Make sure there is sufficient fuel in the tank, and check fuel line and connections for leakage.

- Ⓐ Fuel tank
- Ⓑ Fuel cap

⚠ WARNING

Gasoline and its vapors are highly flammable and explosive.

- Do not smoke when refueling and keep away from sparks, flames, or other sources of ignition.
- Stop engine and allow it to cool for several minutes before refueling.
- Refuel in a well-ventilated area.
- Take care not to spill gasoline. If gasoline spills, wipe it up immediately with dry rags. Always dispose of gasoline-soaked rags properly.
- Tighten the filler cap securely after refueling.
- If you swallow gasoline, inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.
- If any gasoline gets on your skin, immediately wash with soap and water. Change clothing if gasoline spills on it.

6

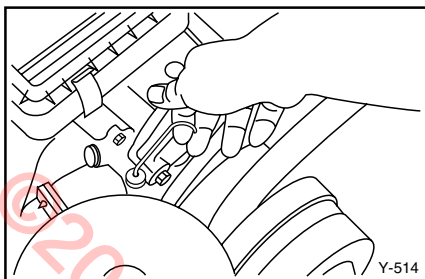
Recommended fuel:
Unleaded gasoline

Fuel tank capacity:
6.1 US gal
(23.0 L)

CAUTION

Avoid using gasoline blended with methyl alcohol which can damage fuel system parts.

PRE-OPERATION CHECKS

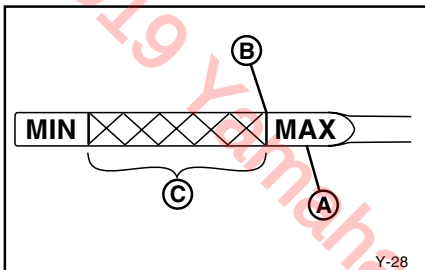


ENGINE OIL

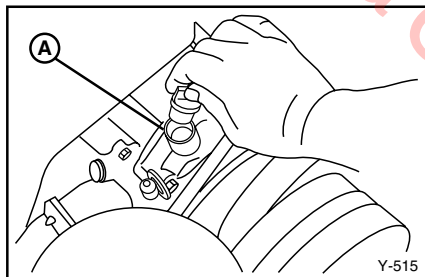
With the golf car parked on level ground, remove the dipstick and make sure the engine oil is between the MIN and MAX marks (the cross-hatched area on the end of the dipstick).

- (A) Oil level dipstick
- (B) Maximum oil level
- (C) Safe operating range

If the oil level is **below** the MIN mark on the dipstick, add oil through the oil filler hole until the oil level is between the MIN and MAX marks.



6



- (A) Oil filler hole

CAUTION

- Use care not to fill past the MAX dipstick mark, and be sure no foreign material enters the crankcase.
- Use care not to get oil on the starter belt.

Recommended oil:
YAMALUBE 4-cycle oil or
SAE 10W-30

Engine oil capacity:
1.16 US qt
(1.1 L, 1100 cc)

Oil change quantity:
1.0 US qt
(0.9 L, 900 cc)

NOTE: _____

The distance between the dipstick marks represents approx. 1/2 US qt (1/2 L) of oil.

NOTE: _____

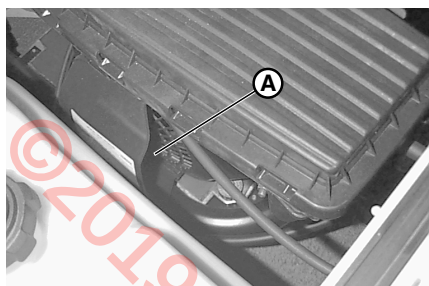
Recommended engine oil classification: API Service SE, SF, or SG. Engine oils labeled "Energy Conserving II" are recommended.

PRE-OPERATION CHECKS

Engine Cooling Inlet Duct

Check the engine cooling inlet duct for debris. Remove any debris present.

Ⓐ Engine cooling inlet duct



G22A1

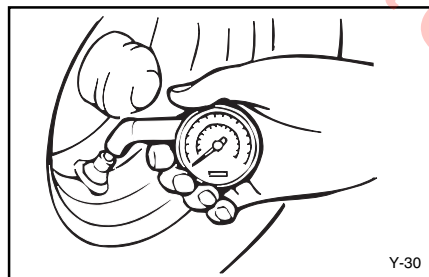
BATTERY

Check that the battery is held securely in place to prevent the battery from being damaged from vibration or jarring. Also check that no battery caps are missing to prevent battery acid from spilling from the battery. Check the battery terminals for corrosion.

TIRE CONDITION

Tire Air Pressure

Check the tire air pressure before operating the golf car.



Y-30

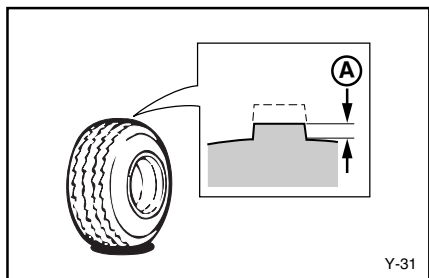
Tire pressure:

For G22A: 16 psi
(110 kPa, 1.1 kgf/cm²)

Tire Wear Limit

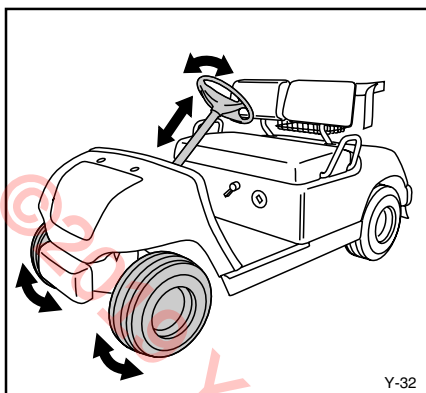
Check the tire surface for damage, cracks or embedded objects. When tire tread wears down to 0.04 in. (1 mm), replace the tire.

Ⓐ Wear limit



Y-31

PRE-OPERATION CHECKS



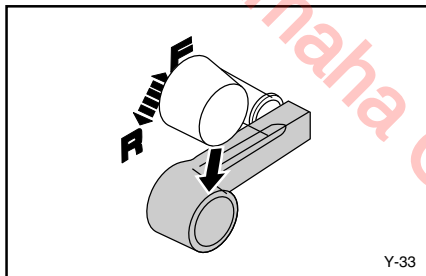
STEERING SYSTEM

Check the steering system for excessive freeplay by:

- moving the steering wheel up and down, and back and forth.
- turning the steering wheel slightly to the right and left.

If you feel excessive freeplay, or hear rattling sounds which may indicate loose steering components, consult a Yamaha dealer.

6



BACK-UP BUZZER

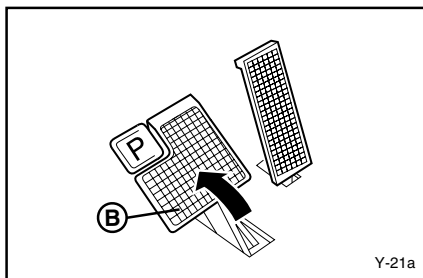
Check the back up buzzer by moving the drive select lever to "R" for reverse. The buzzer should sound.

PEDAL OPERATION

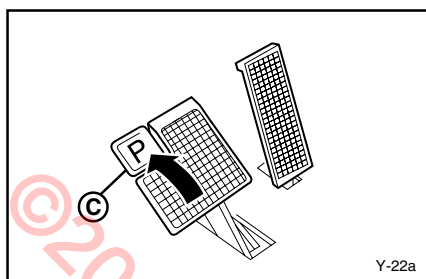
Check the following pedal controls for proper operation. If a pedal does not work properly, consult a Yamaha dealer.

Brake Pedal

Make sure the brake pedal feels firm when pressed and returns to its original position when released.



PRE-OPERATION CHECKS



Parking Brake Pedal

Make sure the parking brake pedal locks in place with a positive click, and releases when the accelerator pedal is pressed.

Ⓒ Parking brake pedal

NOTE:

Release the parking brake by depressing the accelerator pedal.

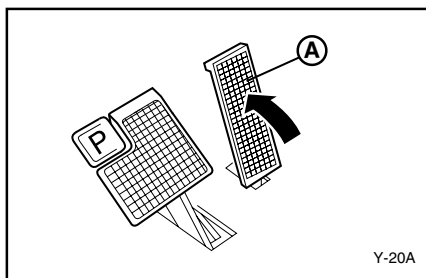
Accelerator Pedal

⚠ WARNING

Before checking operation of the accelerator pedal, be sure the main switch is in the "OFF" position.

Make sure the accelerator pedal operates smoothly.

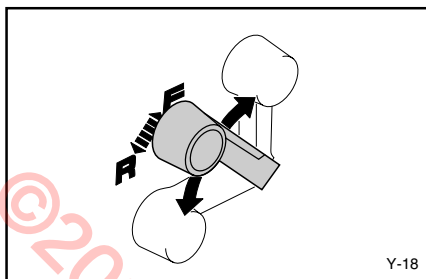
Ⓐ Accelerator pedal



BODY AND CHASSIS

Before each use, visually inspect the golf car body and chassis for damage and/or missing parts.

OPERATION

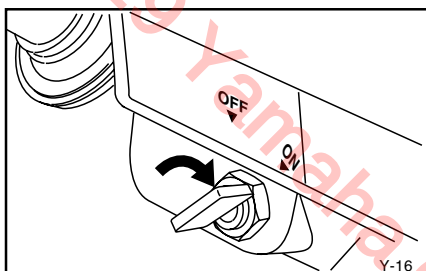


STARTING

1. With the parking brake applied, turn the drive select lever to “F” for forward, or “R” for reverse.

CAUTION

Do not shift from “F” forward to “R” reverse while the golf car is moving.

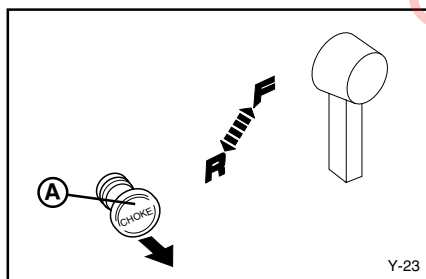


2. Turn the main switch to “ON.”

WARNING

Do not depress the accelerator pedal when turning on the main switch or the golf car may suddenly start moving.

7

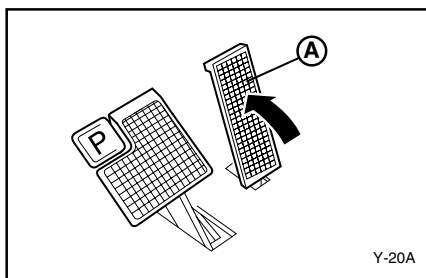


3. Pull the choke knob out and hold it while starting. Release the choke knob after the engine starts.

(A) Choke knob

NOTE:

The choke is not required when the engine is warm.



4. Check that your path is clear in the direction you plan to go, and slowly depress the accelerator pedal. The golf car will start to move.

(A) Accelerator pedal

NOTE:

The parking brake automatically releases when the accelerator pedal is depressed.

OPERATION

STOPPING

To stop the golf car, gradually press down on the brake pedal.

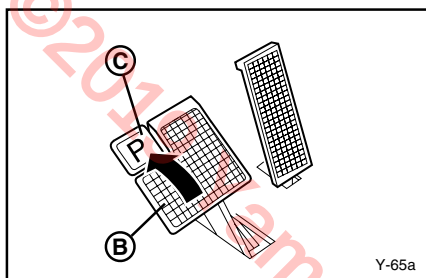
Ⓑ Brake pedal

When the car has come to a stop, apply the parking brake pedal and turn the main switch to "OFF."

Ⓒ Parking brake pedal

CAUTION

Do not hold the golf car on an incline with the accelerator – use the brake.



TROUBLESHOOTING

If the vehicle's engine won't start, use the following chart:

Cause	Remedy
Fuel System	
No fuel in tank	Fill fuel tank
Clogged fuel line	Clean fuel line – Consult Yamaha dealer
Foreign matter in fuel filter	Clean fuel filter – Consult Yamaha dealer
Clogged carburetor	Clean carburetor – Consult Yamaha dealer
Electrical System	
Spark plug dirty with carbon, or wet	Clean carbon or wipe spark plug dry
Faulty ignition system	Consult Yamaha dealer

MAINTENANCE

PERIODIC MAINTENANCE CHARTS

Regular maintenance is required for the best performance and safe operation of your golf car.

⚠ WARNING

Be sure to turn off the main switch and apply the parking brake when you perform maintenance unless otherwise specified. If the owner is not familiar with machine servicing, this work should be done by a Yamaha dealer or other qualified mechanic.

FOR G22A

C - CHECK CA - CHECK AND ADJUST R - REPLACE S - SERVICE CL - CLEAN AND LUBRICATE L - LUBRICATE

	Remarks	Pre-Operation	20 Rounds 20 hours 100 miles 160 kms (Every month)	125 rds 125 hrs 600 kms 1000 kms (Every 6 months)	250 rds 250 hrs 1200 kms 2000 kms (Every year)	500 rds 500 hrs 2500 kms 4000 kms (Every 2 years)	1000 rds 1000 hrs 5000 kms 8000 kms (Every 4 years)	Page
PRE-OPERATION CHECKS	Check engine oil	C	C	C				6-3
	Check air cooling duct	C	C	C	C	C	C	*
	Check fuel lines for leakage	C	C	C	C	C	C	6-2
	Check fuel level	C	C	C	C	C	C	6-2
	Check for looseness and corrosion of battery terminals and hold downs	C	C	C	C	C	C	6-4
	Check brake pedal freeplay and adjust if necessary	C	CA	CA	CA	CA	CA	8-12
	Check steering operation	C	C	C	C	C		6-5
	Check tire pressure, tread depth, tire surface for damage	C	CA	CA	CA	CA	CA	6-4
	Check body and chassis for damage	C	C	C	C	C	C	6-6
	Check tightness of all bolts, nuts, and screws	C	C	C	C	C	C	*
EVERY MONTH	Check reverse buzzer operation	C	C	C	C	C	C	6-5
	Check fuel filter for clogging		C	C	C	C	C	*
	Check wear of drive belt		C	C	C	C	C	8-8
	Check operation of Forward / Reverse shifting		C	C	C	C	C	6-5
	Clean / Lube pedal control area		CL					-
EVERY 6 MONTHS	Wash pre-filter, check air cleaner element			S	S	S	S	8-7
	Check spark plug and plug cap condition** / Check compression			C	C	C	C	8-4
	Check shock absorbers for oil leaks and damaged springs			C	C	C		*

* Items with out a page number reference should be serviced by a Yamaha dealer or other qualified mechanic. This manual does not contain these procedures. They are contained in the Service Manual.

** Related to emission control system.

MAINTENANCE

FOR G22A

C - CHECK CA - CHECK AND ADJUST R - REPLACE S - SERVICE CL - CLEAN AND LUBRICATE L - LUBRICATE

	Remarks	Pre-Operation	20 Rounds 20 hours 100 miles 160 kms (Every month)	125 rds 125 hrs 600 mls 1000 kms (Every 6 months)	250 rds 250 hrs 1200 mls 2000 kms (Every year)	500 rds 500 hrs 2500 mls 4000 kms (Every 2 years)	1000 rds 1000 hrs 5000mls 8000 kms (Every 4 years)	Page
EVERY YEAR	Replace engine oil				R	R	R	8-5
	Adjust throttle cables,** choke cable, check carburetor throttle shaft for wear**				CA	CA	CA	*
	Check starter V-belt for damage and tension				C	C	C	*
	Check drive belt for slippage, wear or scratches				C	C	C	8-8
	Check sliding sheave and ramp shoes; Grease secondary sheave bearing				CL	CL	CL	*
	Grease primary sheave				L	L	L	*
	Check operation of speed limiter				C	C	C	*
	Apply battery terminal protectant				S	S	S	—
	Check wiring connections and insulation				C	C	C	—
	Check shoe lining thickness and rear axle bearing play				C	C	C	*
	Check steering knuckle bushing freeplay / Adjust wheel alignment				CA	CA	CA	*
	Check wheel nut tightness, front wheel bearing play				C	C	C	*
	Check gear box oil level and leakage				C	C	C	8-10
	Check operation and adjust pedal stop if necessary				CA	CA	CA	*
EVERY 2 YEARS	Check brushes for wear and commutator for dirt					C	S	*
EVERY 4 YEARS	Replace fuel filter and fuel hoses						R	*
	Check tightness of cylinder head / Adjust valves						CA	*
	Replace gear box oil						R	*
	Check for grease leakage; adjust gearbox if necessary						CA	*

* Items with out a page number reference should be serviced by a Yamaha dealer or other qualified mechanic. This manual does not contain these procedures. They are contained in the Service Manual.

**Related to emission control system.

MAINTENANCE

EXHAUST EMISSION CONTROL SYSTEM AND COMPONENTS

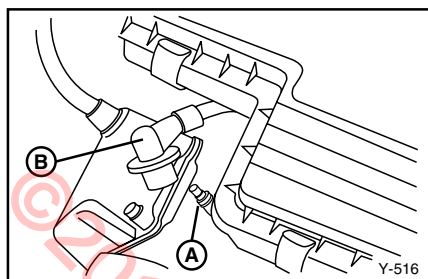
Item	Acronym
CARB. ASSY., LH., JT., CARBURETOR 2 & JT., CARBURETOR 1	CARB (Carburetor)
T.C.I. MAGNETO ASSY. & PLUG, SPARK	EI (Electronic Ignition)
CRANKCASE 1 & HEAD, CYLINDER 1	PCV (Positive Crankcase Ventilation)
AIR FILTER ASSY.	ACL (Air Cleaner)
MUFF., 2	

The above items and the corresponding acronyms are provided in accordance with U.S. EPA REGULATIONS FOR SMALL NONROAD ENGINES and the CALIFORNIA REGULATIONS FOR NEW 1995 AND LATER OFF-HIGHWAY RECREATIONAL VEHICLES AND ENGINES.

The acronyms conform to the latest version of the SAE's recommended practice document J1930, "Diagnostic Acronyms, Terms, and Definitions For Electrical/Electronic System".

It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

MAINTENANCE



Spark Plug Inspection

You should periodically remove and inspect the spark plug. Dirty or worn spark plugs can cause poor performance.

- Ⓐ Spark plug
- Ⓑ Spark plug cap

1. Check for discoloration and remove carbon deposits with a spark plug cleaner or wire brush. The normal electrode color will be tan.
2. Check the spark plug type, and check the spark plug gap with a feeler gauge.

Standard spark plug:
BPR2ES

Spark plug gap:
0.028 ~ 0.031 in (0.7 ~ 0.8 mm)

- Ⓐ Gap
3. Clean the gasket and plug surfaces and install the spark plug finger tight before tightening to the following torque:

Spark plug torque:
14.5 ft·lb
(20 Nm, 2.0 m·kg)

⚠ WARNING

When removing or installing the spark plug, be careful not to damage the insulator. A damaged insulator could allow external sparks, which could lead to explosion or fire.

MAINTENANCE

Engine Oil Replacement

1. Warm up the engine for several minutes, place the golf car on a level surface, then stop the engine.

⚠ WARNING

Use caution not to touch hot engine oil or hot engine parts, during the following procedure.

2. Place an oil pan under the engine drain plug.
3. Remove the oil drain plug and let the oil drain completely.

NOTE:

Dispose of used oil in an environmentally safe way, such as taking oil to an oil collection station.

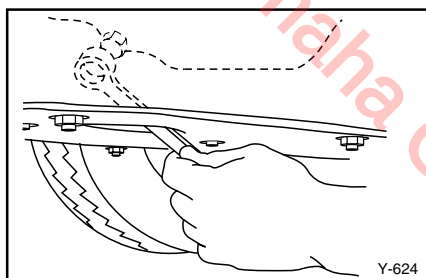
4. Install the drain plug, along with a new drain plug gasket, finger tight before tightening to the following torque:

Drain plug torque:
23 ft·lb
(31 Nm, 3.1 m·kg)

5. Add the correct quantity of oil through the oil filler hole.

NOTE:

Recommended engine oil classification: API Service SE, SF, or SG. Engine oils labeled "Energy Conserving II" are recommended.

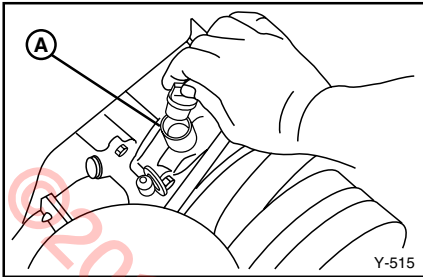


Recommended oil:
YAMALUBE 4-cycle oil or
SAE 10W-30

Engine oil capacity:
1.16 US qt
(1.1 L, 1100 cc)

Oil change quantity:
1.0 US qt
(0.9 L, 900 cc)

MAINTENANCE



(A) Oil filler hole

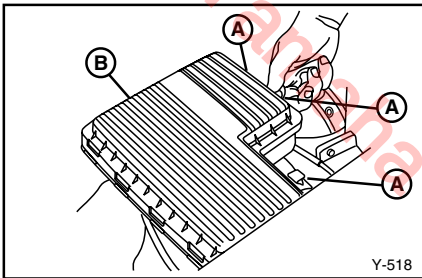
CAUTION

Use care not to fill past the MAX dipstick mark, and be sure no foreign material enters the crankcase. After replacing engine oil, check for oil leaks around the drain plug. If oil leaks are found, consult a Yamaha dealer.

Air Filter

To remove the air filter elements:

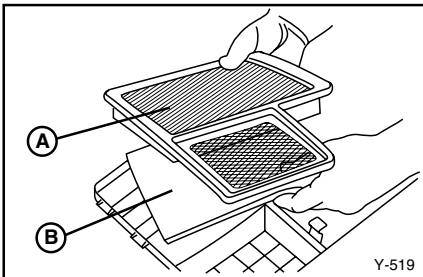
1. Unlatch the air filter cover clips and remove cover.



- (A) Air filter cover clips
- (B) Air filter cover

2. Lift the air filter and pre-filter out of the air filter case.

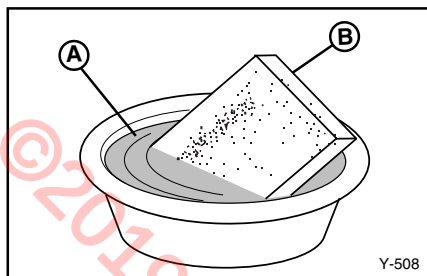
- (A) Air filter
- (B) Pre-filter



CAUTION

Be careful not to drop anything into the air inlet.

MAINTENANCE



Inspection and cleaning:

3. Wash the foam pre-filter in soap and water. Allow it to dry.

- (A) Soap and water
- (B) Foam element

4. Check the filter element. If damaged or dirty, replace it.

CAUTION

Do not wring out the foam pre-filter, this could cause it to tear.

5. To replace the elements, reverse the above steps.

CAUTION

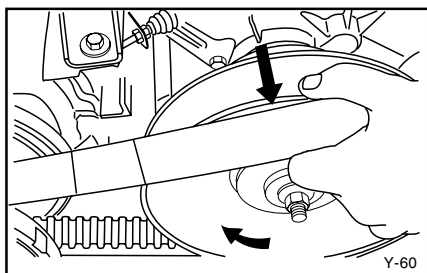
The pre-filter has a notch on one side. It will only fit in the case one way.

8

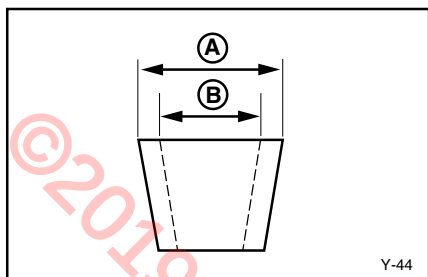
Drive Belt

To remove the drive belt:

1. Set the drive select lever halfway between forward and reverse.
2. Pull up on the drive belt and push it outward over the edge of the secondary sheave.
3. Turn the secondary sheave clockwise and the drive belt will roll off the sheave.
4. Remove the drive belt from the primary sheave.



MAINTENANCE



Inspection:

To inspect the drive belt, check for frayed edges or tears, and measure drive belt against the following specification. If the belt shows excessive wear or damage, replace the belt with a new one.

- Ⓐ New: 1.22 in. (31.0 mm)
- Ⓑ Replace when belt reaches: 1.06 in. (27 mm)

5. To install the drive belt, reverse the above steps, rolling the belt back over the secondary sheave.

Battery

⚠ WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes, or clothing.

Antidote:

EXTERNAL: Flush with water.

INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call physician immediately.

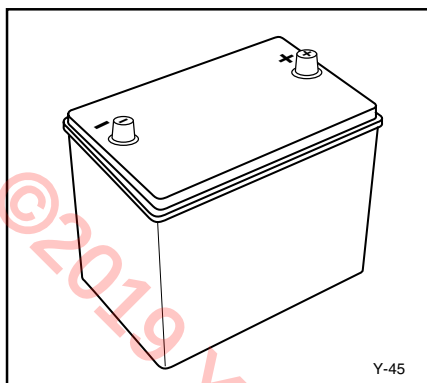
EYES: Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc., away.

Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN.

MAINTENANCE



The 12-volt battery that provides starting power to your gas car normally doesn't require the addition of water during the one year period provided by the battery manufacturer. If the battery loses its charge, have an experienced mechanic charge it.

Fuse Replacement

⚠ WARNING

Be sure to use the specified fuse. Using a wrong fuse can cause electrical system damage and create a fire hazard.

CAUTION

When replacing a fuse be sure the main switch is turned off to prevent accidental short circuiting.

1. Remove cap screw on cover. Pull fuse case cover forward.

- Ⓐ Cap screw
- Ⓑ Fuse case cover

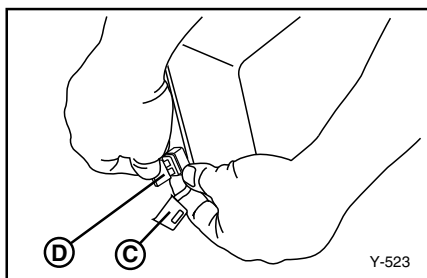
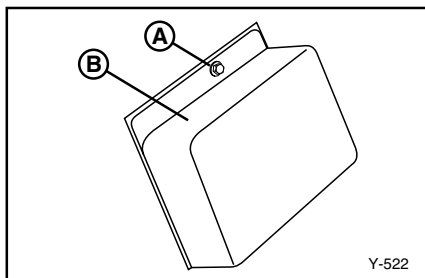
NOTE:

You do not have to remove the cover.

2. Pull cap off fuse. Pull fuse out and replace if necessary.

- Ⓒ Fuse cap
- Ⓓ Fuse

Replacement Fuse:
10 Amp, Blade Style

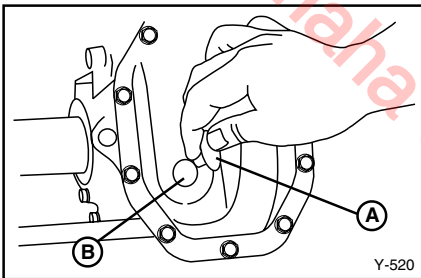
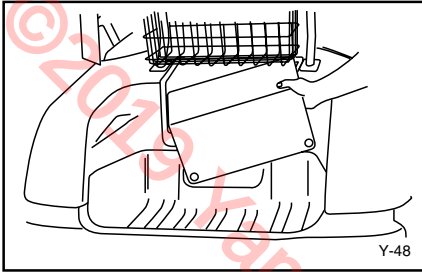


MAINTENANCE

Gear Box Oil

To check gear box oil level:

1. Place the golf car on a level surface.
2. Remove the access panel by removing the screws in the two lower corners of the panel and pulling the panel from the car.
3. Remove the oil level plug (A).
4. Add gear oil little by little until oil flows from the level plug hole (B).
5. Allow excess gear oil to flow out until it stops.



Recommended oil:
SAE 90 gear oil

Gearcase capacity:
G22A: 0.44 US qt
(415 mL, 415 cc)

CAUTION

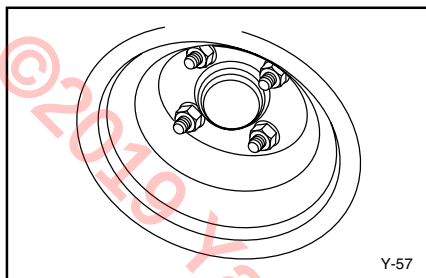
Do not allow foreign material to enter the gear box.

6. Reinstall the oil level plug.

NOTE:

For gear oil replacement, consult a Yamaha dealer or other qualified mechanic.

MAINTENANCE



CAUTION

Before performing wheel or brake maintenance, verify that the main switch is in the "OFF" position.

Wheel Replacement

To remove and install a wheel on your golf car:

1. With the wheels blocked to prevent the golf car from moving, loosen the wheel nuts.
2. Elevate the golf car with a jack and remove the wheel nuts and the wheel.
3. Reverse the removal steps when installing the wheel.

Wheel nut tightening torque:
58 ft·lb (80 Nm, 8.0 m·kg)

Brake Adjustment

The brakes on your golf car are self-adjusting.

Before you operate the car, press down on the brake pedal several times to make sure the brakes are functioning properly.

⚠ WARNING

Consult your Yamaha dealer before using your golf car if you suspect brake problems. Brake failure could result in a serious accident.

MAINTENANCE

Brake Pedal Free Play Adjustment

CAUTION

Before adjusting brake pedal free play, pump the brake pedal several times to self-adjust the brakes.

To adjust the brake pedal free play:

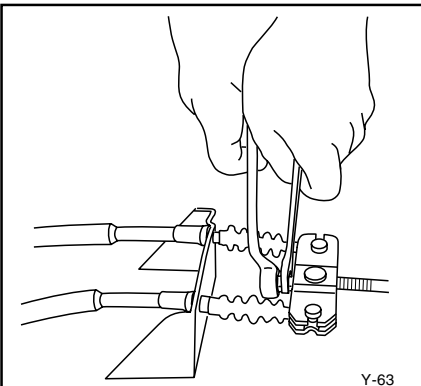
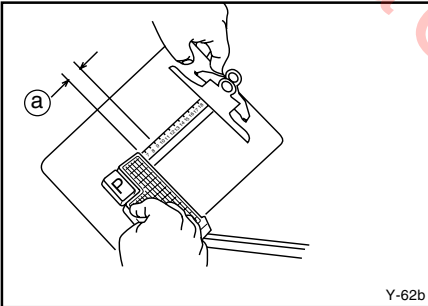
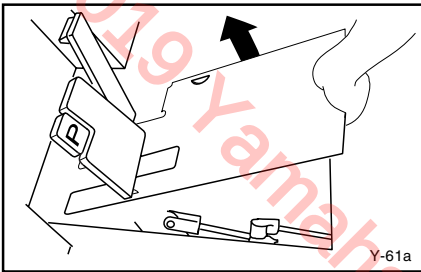
1. Remove the service lid from the floor of the golf car.
2. Check the brake pedal free play by pressing against the pedal with two fingers (using light force) and measuring the distance the pedal travels before resistance is felt.

Brake pedal free play (a):
20-25 mm (0.79-0.98 in.)

3. If the free play distance needs adjusting, loosen the lock nut and turn the adjusting nut in or out until the free play specification is met. Then tighten the lock nut in place.

⚠ WARNING

Do not overtighten the brake cables. The self adjusters may not operate properly, reducing braking performance.



STORAGE

Perform the following preparations when storing your golf car for extended periods of time:

NOTE:

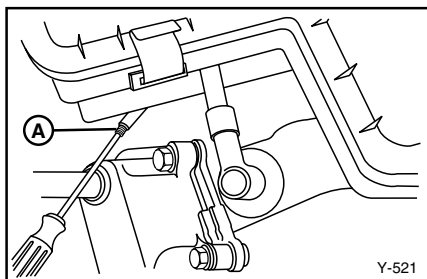
Turn main switch key to "OFF" position, remove key, and store key in a safe place.

DRAINING FUEL

⚠ WARNING

Gasoline and its vapors are highly flammable and explosive.

- Do not smoke when draining fuel and keep away from sparks, flames, or other sources of ignition.
- Stop engine and allow it to cool for several minutes before draining fuel.
- Drain fuel in a well-ventilated area.
- Take care not to spill gasoline. If gasoline spills, wipe it up immediately with dry rags. Always dispose of gasoline-soaked rags properly.
- Tighten the filler cap securely after checking fuel level.
- If you inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.
- If any gasoline gets on your skin, immediately wash with soap and water. Change clothing if gasoline spills on it.



1. Fill the fuel tank.
- Ⓐ Float bowl drain screw
2. Drain the carburetor float bowl into a suitable container by turning the screw located on the bottom of the carburetor.

STORAGE

ENGINE PREPARATION

With the key removed and the spark plug lead disconnected, turn the clutch by hand until compression is felt. This puts the valves in the closed position.

CHASSIS PREPARATION

1. Increase the tire pressure to 20 psi (137 kPa, 1.4 kgf/cm²).
2. Clean exterior of the golf car and apply a rust inhibitor.
3. Cover the golf car with a breathable cover and store it in a dry, well-ventilated area.

BATTERY PREPARATION

1. Remove the battery from the golf car and store it in a cool, dry place that stays between 32°F (0°C) and 90°F (30°C).

2. Have the battery recharged every 60-90 days to keep it fully charged. The battery must be kept fully charged to avoid damage.

NOTE: _____

Batteries like the one supplied with your car normally do not require you to check the water level inside the battery for the one year warranty period provided by the manufacturer.

3. Clean the top of the battery with a solution of baking soda and water, as necessary, to remove corrosion.

CAUTION _____

Do not allow cleaning solution to enter battery cells.

SPECIFICATIONS

GENERAL SPECIFICATIONS

Items	G22A
Dimensions: Overall length Overall width Overall height (steering height) Height of floor Wheelbase Tread: Front Rear Min. ground clearance	93.9 in. (2385 mm) 47.2 in. (1200 mm) 46.8 in. (1190 mm) 11.8 in. (300 mm) 64.3 in. (1632 mm) 34.3 in. (870 mm) 38.6 in. (980 mm) 3.8 in. (97 mm)
Weight: Dry weight (without battery)	670 lb (304 kg)
Performance: Maximum speed Minimum turning radius Seating capacity Hill climbing ability	12 mph (19 km/h) 114.2 in. (2.9 m) 2 persons 27° (50% grade) on pavement

SPECIFICATIONS

ENGINE

Items	G22A
Description:	
Engine type	4-stroke, Gasoline, OHV
Number of cylinders	Single
Displacement	357 cm ³
Bore x stroke	3.30 x 2.48 in. (85 x 63 mm)
Compression ratio	8.1:1
Rated output	11.4 hp (8.5 kw)/3500 rpm
Cooling system	Forced air cooled
Starting system	Starter
Ignition system	TCI Magneto
Spark plug type	BPR2ES
Spark plug gap	0.028-0.031 in. (0.7-0.8 mm)
Lubrication system	Splash
Engine oil type	YAMALUBE 4 cycle oil or SAE 10W30
Engine oil capacity	1.16 US qt (1.1 L, 1100 cc)
Oil change quantity	1.0 US qt (0.9 L, 900 cc)

TRANSMISSION

Items	G22A
Transmission:	
Type	V-belt automatic centrifugal engagement
V-belt width and outer line length	1.22 x 39.76 in. (31 x 1010 mm)
V-belt wear limit	1.06 in. (27 mm)
Governor:	
Type	Oil bath flyweight
Factory speed setting	12 mph (19 km/h)
Differential/reduction gear:	G22A
Differential type	Bevel gear
Lubricant/capacity	SAE 90 gear oil/ 0.44 US qt (415 mL, 415 cc)

BATTERIES

Items	G22A
Battery:	BCI group 24, RC: minimum 75 min CCA: minimum 400A

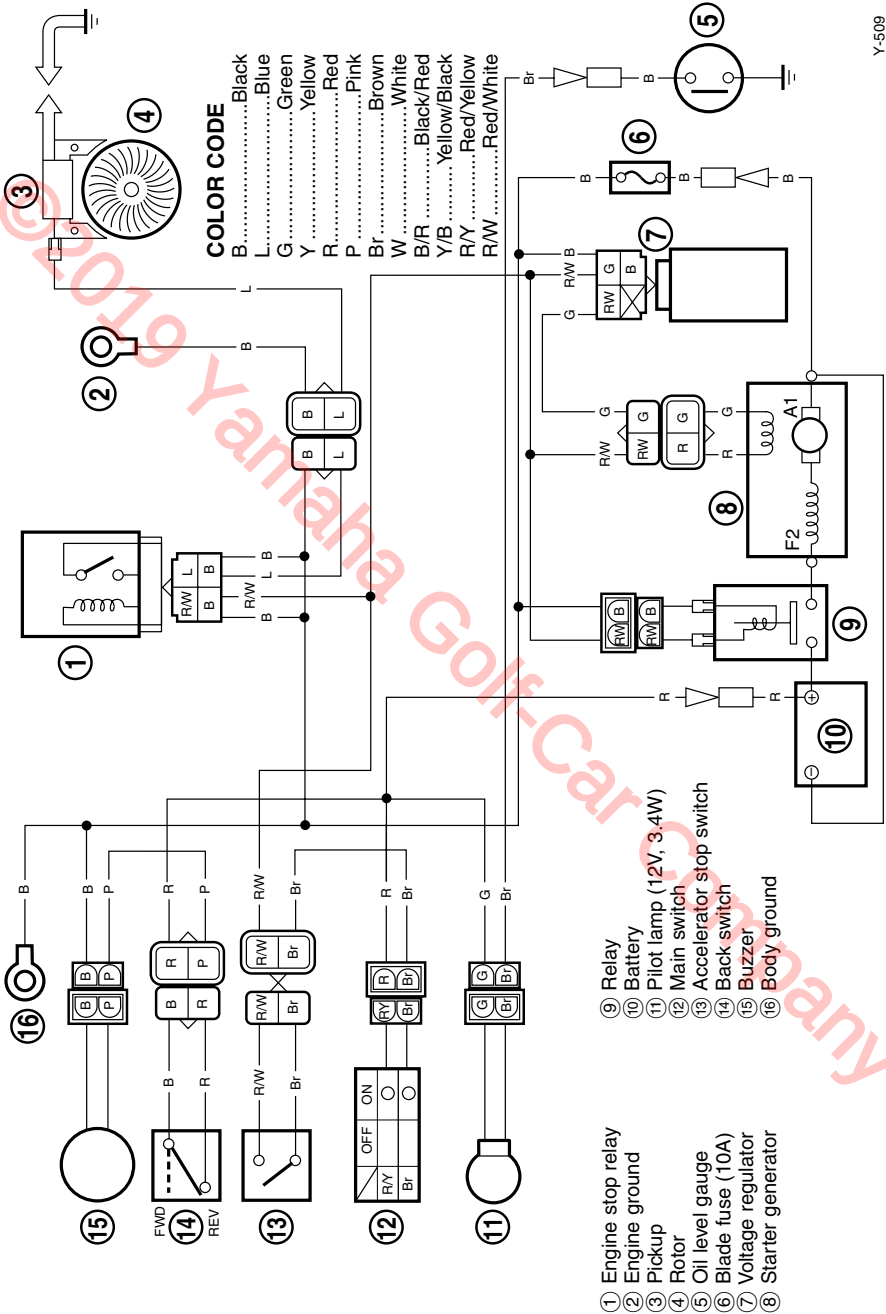
SPECIFICATIONS

CHASSIS

Items	G22A
Steering system: Type Steering angle (L.H.) Steering angle (R.H.)	Rack and Pinion 1.55 turn 1.55 turn
Brakes: Brake system Type of brake Brake pedal freeplay linkage adjustment (Brake cable end play)	Mechanical drum brake on each rear wheel with self-adjusters. Dual internal expanding shoe. Leading/trailing shoes (self-adjusting) 20-25 mm 0.004-0.02 in. (0.1-0.5 mm)
Parking brake: Type	Foot type; parking brake with automatic release.
Release timing (With pedal segment in second notch) (Bolt heads round parallel to arm)	0.000 ~ 0.001 in. (0.0 ~ 0.3 mm)
Wheel: Tire size: Front Rear Rim size: Tire pressure:	18 x 8.50-8.00/4 PR 18 x 8.50-8.00/4 PR 7.00-1-8.00 For G16A: 16 psi (110 kPa, 1.1 kgf/cm ²)

G22A WIRING DIAGRAM

WIRING



Y-509

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