TITAN INDUSTRIAL

P.O.Box 791, Travelers Rest, S.C. 29690
Phone 864-834-7212 Toll Free 888-828-8126
www.titanindustrial.net

OWNER'S MANUAL
MODEL TG-5400 Industrial Generator

The Emission Control System for this generator is warranted for standards set by the Environment Protection Agency.

IMPORTANT!

It is extremely important to read and understand the entire contents of this Owner's Manual for the Titan Industrial Model TG-5400 before attempting to operate the generator. This is a gasoline engine powered, industrial strength generating unit of electrical power. The gasoline engine and the generator are both potentially extremely hazardous and could cause physical injury or even death if improperly used.

WARNING!

Do Not Operate Equipment until reading & understanding Owner's Manual!
Disconnect all loads before starting or stopping generator.
Allow to run for a few minutes with no load before stopping.

IMPORTANT !

READ FIRST

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MODEL TG-5400
Industrial Generator

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TITAN INDUSTRIAL shall not be responsible for any consequences resulting from improper use of this equipment. The operator is required to read the entire contents of this manual before attempting to operate the unit. If the operator does not completely understand the instructions and all of the hazards of operating this unit after reading this manual, he must call the factory or an authorized service center to answer these questions to his complete satisfaction before proceeding.

READ AND COMPLETELY UNDERSTAND entire contents of this Owner's Manual and become familiar with the unit before attempting to start using this equipment! It is your responsibility to know its applications, limitations, and hazards! Call the factory or an authorized service center with any questions.

FOR OUTDOOR USE ONLY! Never use this unit inside any enclosure including the generator compartment of a recreation vehicle (RV) or inside any building. No modifications will eliminate the danger of possible carbon monoxide poisoning, fire, or explosion.

TWO (2) FEET CLEARANCE on all sides is required even while using outdoors.

GENERATOR MUST BE ISOLATED FROM ELECTRIC UTILITY by opening the electrical systems main circuit breaker or main switch if the generator is used for backup power. FAILURE TO ISOLATE THIS GENERATOR FROM THE POWER UTILITY MAY RESULT IN INJURY OR DEATH TO ELECTRIC UTILITY WORKERS AND CAUSE DAMAGE TO THE GENERATOR

This Manual contains information to protect your safety and to prevent equipment problems. Various terms such as 'WARNING', 'CAUTION', 'DANGER', 'IMPORTANT', and the SYMBOL ➵ are all used to signify information that is essential for the operator of this equipment to understand and to practice!

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MODEL TG-5400
GAS POWERED
ELECTRIC GENERATOR

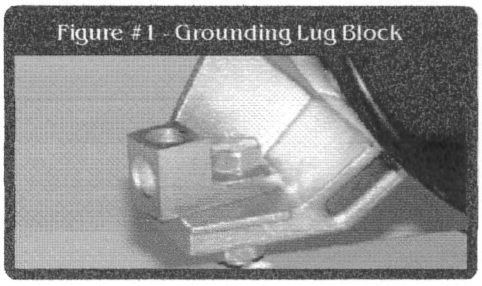
Maximum Surge Watts	5400
Continuous Wattage Capacity	4800
Power Factor	1.0
Voltage	120 Volt
Amperage	38 Amps
Phase	Single
Engine Speed	3600 rpm
Horespower	8.0
Rated Frequency	60 Hz
Fuel Tank Capacity	5 Gallon
Run Time Hours	6 Hours

DESCRIPTION

THE TITAN INDUSTRIAL INC. MODEL TG-5400 is a gasoline engine driven, revolving field, alternating current (AC) generator designed to supply electrical power for compatible electrical tools, motors, appliances, and lighting.

The Model TG-5400 operates at 120 volt and/or 240 volt, single phase, 60 Hz and will operate devices that require up to 4800 watts (3.8 KW) up to 38 Amps at 120 Volts or 19.0 Amps at 240 Volts.

Figure #1 - Grounding Lug Block



CONNECTING LOADS

The Model TG-5400 operates at 120 volt and/or 240 volt, single phase, 60 Hz and will operate devices that require up to 3800 watts (3.8 KW) up to 38 Amps at 120 Volts or 17.0 Amps at 240 Volts.

Add up the Watts of all devices you connect to the TITAN INDUSTRIAL GENERATOR at one time. Do not exceed 3800 Watts on TITAN INDUSTRIAL Generator Model TG-5400.

The rated Watts of most electrical devices can be found its nameplate. The rated Watts of lights can be taken from the light bulbs. In cases where only Volts and Amps are shown on the nameplate, simply multiply Volts by the Amps to get Watts (Volts X Amps = Watts).

Some electric motors require about three times the rated Watts of power for start-up. This surge of power is required for only a few seconds. Be sure to allow for this high starting wattage when selecting electrical devices to connect to the generator.

First figure the watts needed to start the largest motor. Add to that figure the running watts of all other connected loads.

Please see the Wattage Reference Guide (Figure #10) which provides an estimated approximation of running watts to help determine which devices to select to connect to the generator.

CAUTION! Do not tamper with engine governed speed. The TITAN INDUSTRIAL GENERATOR supplies correct rated frequency and voltage when running at the proper governed speed. Incorrect frequency and/or voltage could damage connected electrical devices.

GROUNDING THE GENERATOR

It is required by The National Electrical Code to have the frame and all external conductive parts of the generator connected to an earth ground. Proper grounding also satisfies local electrical codes.

Connect a No. 12 AWG standard copper wire to the Grounding Lug Block (See Figure 1). Connect the other end of the wire to an earth driven copper or brass grounding rod (electrode).

Consult with an electrician in your area because local codes vary. Properly grounding the generator helps prevent electrical shock if a ground fault condition exists in the generator or in connected electrical devices. This will also help to dissipate static electricity resulting from ungrounded devices.

SAFETY

This generator was designed for specific applications. DO NOT attempt to modify the unit in any way or use it for any application that it was not designed to do. Ask the dealer or contact the factory if you have any questions concerning the generator's application.

Warnings and cautions in this manual and on decals and tags on the unit are not all inclusive. It would be impossible to anticipate every circumstance that might involve a hazard. Handling, operating, or servicing this unit by any procedure not recommended by the manufacturer may render this equipment unsafe and may pose a threat to you or to others.

- The generator produces a very powerful voltage that can cause extremely dangerous electrical shock. Avoid contact with bare wires, terminals, etc. never permit an unqualified person to operate or service the generator.
- Never handle any kind of electrical cord or device while standing in water, while barefoot or with wet hands or when feet are wet. Dangerous electrical shock could result.
- The National Electric Code requires that the frame and external conductive parts be properly connected to an approved earth ground. Local electrical codes may vary. Check with an electrician for local grounding requirements.
- Use a ground fault circuit interrupter in any damp or highly conductive area such as metal decking or steel work.
- Do not use worn, bare, frayed or otherwise damaged electrical cords or wiring with the generator. A defective cord may result in electrical shock or may cause damage to equipment.
- Do not expose unit to excessive moisture or dirt or corrosive vapors. Unit must be operated on a level surface.
- Comply with all laws regulating the storage and handling of gasoline. Gasoline is highly flammable and explosive. Avoid spilling gasoline on a hot engine. Do not allow smoking, open flames, sparks or heat in the vicinity while handling gasoline.
- Do not overfill the fuel tank. Always allow room for fuel expansion. Gasoline could overflow and cause fire or explosion if tank is overfilled.
- Only operate this unit outside with adequate ventilation. This generator's gasoline engine exhaust produces carbon monoxide gas that can cause unconsciousness or even death.
- Never store a generator with fuel in the tank where gasoline vapors could be ignited by a flame, spark, or pilot light from an appliance such as a furnace, water heater, or clothes dryer.
- The engine on the generator is air cooled which requires an adequate flow of air for proper operation. Never operate under conditions where air flow is obstructed because unit may overheat and damage the generator or nearby property.
- Always allow a minimum of 2 feet clearance on all sides for ventilation while unit is operating.
- Generator must always be stopped or started with all loads unconnected. Start the engine and let it stabilize before connecting any loads. Disconnect all loads before shutting down the generator.
- Never insert any object through the cooling slots of the engine. You could damage the unit or cause injury.
- NEVER OPERATE THE GENERATOR:
  - In rain
  - In an enclosed compartment
  - If connected devices overheat
  - If electrical output is lost
  - If engine or generator sparks
  - If flame or smoke is observed
  - If unit vibrates excessively

CAUTION! The engine exhaust contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

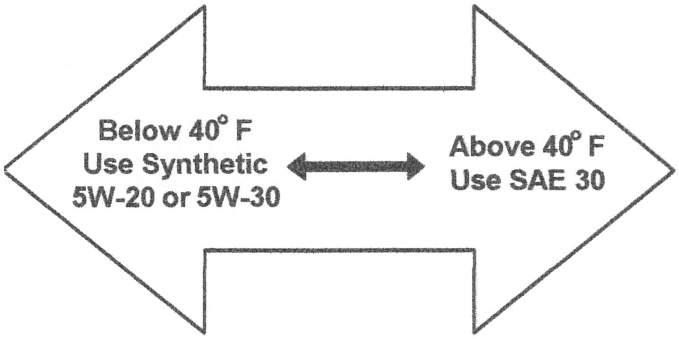
IMPORTANT ! IMPORTANT ! IMPORTANT ! IMPORTANT ! IMPORTANT

BEFORE STARTING THE ENGINE

FILL OIL

WARNING!
DO NOT ATTEMPT TO START THE ENGINE BEFORE FILLING WITH OIL!

Select Oil grade according to operating temperature



Fill with selected oil grade

- Place generator on a level surface.
- Clean area around oil fill opening.
- Remove the dipstick.
- Wipe the dipstick clean.
- Pour oil in until it reaches the FULL mark on dipstick.
- **DO NOT OVERFILL!**

Note:
The generator's revolving field rides on a sealed ball bearing that requires no additional lubrication for the life of the bearing.

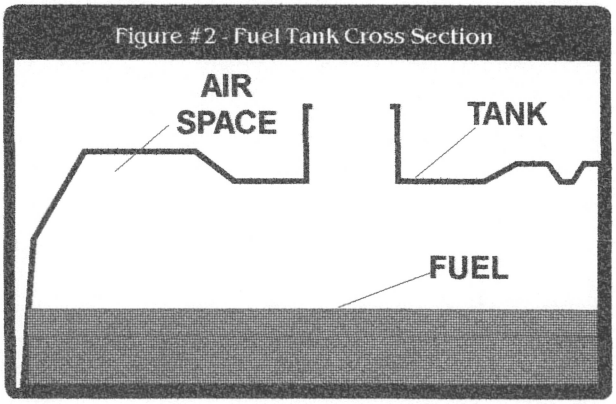
FILL GASOLINE

WARNING!
Do not overfill! Leave room for fuel expansion. Never fill fuel indoors. Never fill fuel when engine is hot or running. Do not smoke or fill fuel near an open flame or sparks.

Fill with regular unleaded gasoline

- Use only regular unleaded gasoline.
- DO NOT USE premium gasoline.
- DO NOT mix oil with gasoline.
- Clean area around fuel cap.
- Remove fuel cap.
- Add gasoline to fuel tank.
- DO NOT overfill. Allow 1/2 inch for fuel expansion.
- Replace fuel cap.
- Wipe up any spilled gasoline.

Figure #2 - Fuel Tank Cross Section



IMPORTANT ! IMPORTANT ! IMPORTANT ! IMPORTANT ! IMPORTANT

OPERATION OF THE GENERATOR

CAUTION!
DO NOT start or stop the engine with electrical loads connected to the receptacles. Be certain connected devices are OFF before connecting or unconnecting.

DANGER!
DO NOT run generator indoors or in poorly ventilated areas. Engine exhaust contains carbon monoxide which is an odorless, deadly gas.

WARNING!
To avoid burns, avoid muffler and nearby areas.

Starting the Engine

- Be Sure all loads are unplugged from the generator before attempting to start it.
- Place unit in a level position.
- Turn Engine Control Switch to the 'ON' position.
- Move the 'Choke' lever to the 'Full Choke' position. Or depress the fuel primer bulb if unit does not have a mechanical choke.
- Pull Starter Handle slowly until you feel some resistance. Then, pull cord out with a rapid, full arm stroke. Always let the rope return slowly. Never allow the rope to 'snap back' against the starter.

COLD WEATHER OPERATION

- Temperatures below 40° F and a high dew point may cause icing of the carburetor and/or the crankcase breather system.
- A shelter can be used when temperatures drop below 40° F. (See Figure #4)
- A simple shelter will hold enough heat that has been created by the generator to prevent icing.
- Build a structure that encloses three sides and the top of the generator.
- The entire muffler side of the generator must be fully exposed as shown in Figure #4.
- Provide a minimum of two feet clearance between the open side and the nearest object.
- Turn shelter so the open side is opposite the wind.

IMPORTANT:
Remove shelter when temperature is above 40° F (4°C).

DANGER:
Shelter increases the local presence of carbon monoxide gas. Do NOT breath fumes from the exhaust.

IMPORTANT:
Do NOT enclose generator any more than is shown in Figure #4.

Figure #4 - Cold Weather Shelter

OPERATION OF THE GENERATOR

Starting the engine

- When the engine starts, move the Choke Lever to the '1/2 Choke' position until the engine begins to run smooth. Once the engine is running smooth, move the Choke Lever to the 'No Choke' position. or depress the fuel primer bulb twice if unit does not have a mechanical choke

- NOTE:
  If the engine fails to start after 3 pulls, move the Choke Lever to the 'No Choke' position and pull the starter rope again.

- NOTE:
  If the engine fails to start after 3 pulls, check the oil level in the crankcase because the unit is equipped with a low oil shutdown system.

- NOTE:
  If the engine fires, but does not continue to run, move the Choke Lever to the 'Full Choke' position.

Connecting electrical loads

- Let engine stabilize and warm up for a few minutes.

- Make sure devices to be connected are in the 'Off' position before connecting to the generator.

- Make sure to plug in desired devices into the correct receptacle.

- DO NOT connect 240 Volt loads to the 120 Volt duplex receptacles.

- DO NOT connect 3 phase loads to the generator.

- DO NOT connect 50 Hz loads to the generator.

- DO NOT overload the generator. Add up the rated Watts of all loads to be connected. This total should not exceed

Stopping the engine

- Turn off all electrical devices connected to the generator.

- Unplug all devices from the generator.

- WARNING:
  DO NOT start or stop generator with electrical devices plugged in.

- Allow the generator engine to run at a 'No Load' condition for several minutes to stabilize internal engine temperature before stopping.

- Move Engine Control Switch to the OFF position.

-

Generator maintenance

- Keep the generator clean and dry. Use a damp cloth to clean exterior surfaces. Remove caked on dirt with a soft brush.

- Never spray with water. Water can contaminate the engine fuel system and cause serious problems in the generator.

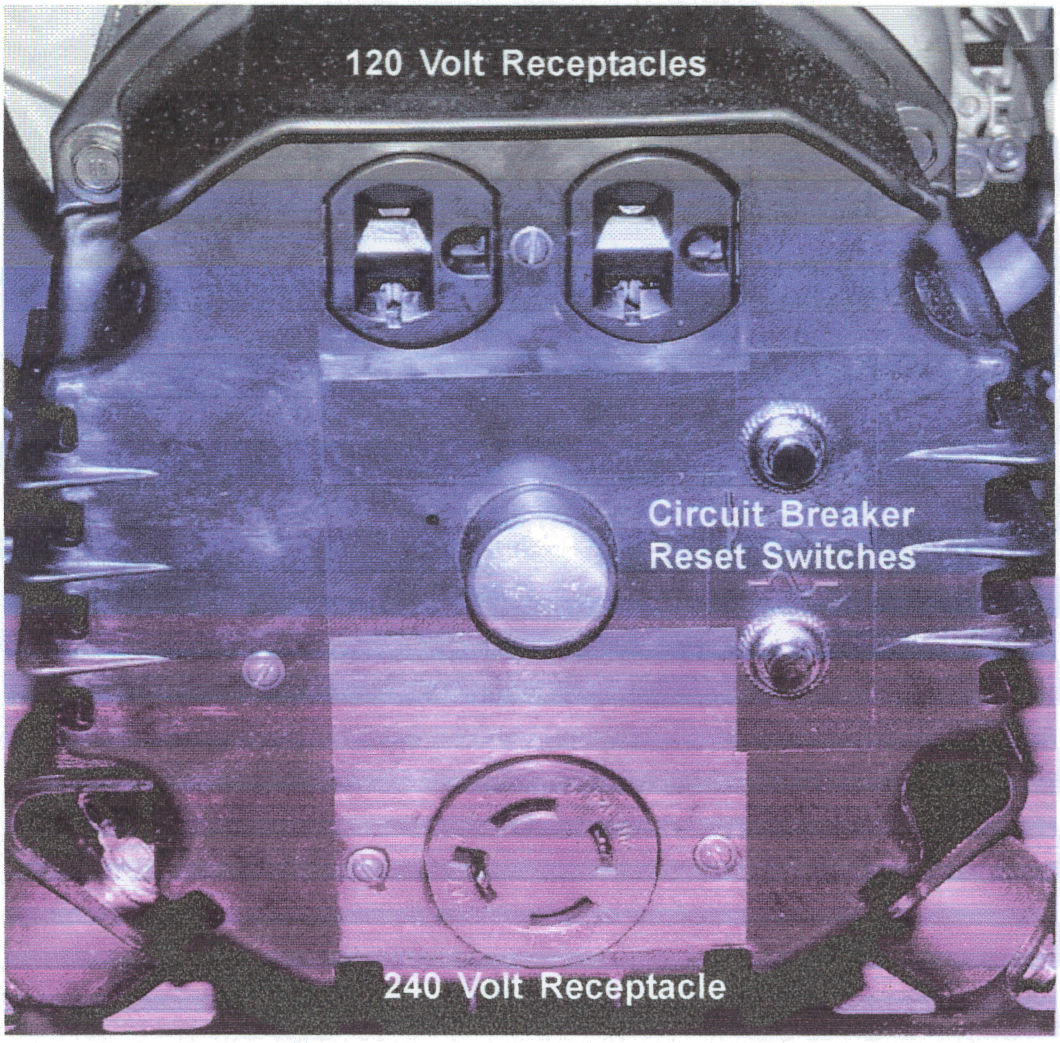
- Never use alcohol blended fuel (gasohol, ethanol, or methanol). They tend to draw moisture and separate and form acids which could damage the fuel system while in storage.

- Damage may occur if engine or carburetor cleaning products are used.

Storage

- **IMPORTANT:**
  Empty fuel system if unit is to be stored for 30 days or more. This will help prevent gum deposits from forming in fuel system such as the carburetor, fuel filter, fuel hose, and fuel tank during storage.

RECEPTACLES



Wattage Reference Guide			
Device	**Running Watts**	**Device**	**Running Watts**
*Air Conditioner (12,000 BTU)	1700	Impact Wrench	500
Battery Charger (20 Amp)	500	*Jet Pump	800
Belt Sander (3")	1000	Lawn Mower	1200
Chain Saw	1200	Light Bulb	100
Circular Saw (6-1/2")	800 to 1000	Microwave Oven	700
Coffee Maker	1000	*Milk Cooler	1100
Compressor (1 HP)	2000	Oil Burner on Furnace	300
Compressor (3/4 HP)	1800	Oil Fired Space Heater (140,000 BTU)	400
Compressor (1/2 HP)	1400	Oil Fired Space Heater (85,000 BTU)	225
Curling Iron	700	Oil Fired Space Heater (30,000 BTU)	150
*Freezer	500	*Airless Paint Sprayer (1/3 HP)	600
Disc Sander (9")	1200	Handheld Airless Paint Sprayer	150
Edge Trimmer	500	Radio	50 to 200
Electric Nail Gun	1200	*Refrigerator	600
Electric Range (one element)	1500	Slow Cooker	200
Electric Skillet	1250	*Submersible Pump (1-1/2 HP)	2800
*Furnace Fan (1/3 HP)	1200	*Submersible Pump (1 HP)	2000
Hair Dryer	1200	*Submersible Pump (1/2 HP)	1500
Hand Drill (1")	1100	Sump Pump	600
Hand Drill (1/2")	750 to 1000	*Table Saw (10")	1750 to 2000
Hand Drill (3/8")	500	Television	200 to 500
Hand Drill (1/4")	250	Weed Trimmer	500
***Allow 3 times the listed Watts for starting these devices** **These wattages shown are approximate and may vary with each specific device**			

Notes:

TROUBLESHOOTING

Problem	Cause	Solution
Engine is running but no poweroutput is available.	1. Circuit breaker is open. 2. Poor connection or defective cord set. 3.Connected device is bad. 4. Fault in generator.	1. Reset the circuit breaker 2. Check & repair. 3. Connect another device that is in good condition. 4. Contact service center.
Engine runs good until loads are connected, then bogs down.	1. Short circuit in a connected load. 2. Overloaded generator. 3. Engine speed is too slow. 4. Short in generator circuit.	1. Disconnect shorted load. 2. See 'Connecting Electrical Loads' section of manual. 3. Contact service center. 4. Contact service center.
Engine will not start or engine starts but runs rough.	1.On/Off Switch is turned 'OFF'. 2. Dirty air cleaner. 3. Out of gasoline 4. Stale gasoline. 5. Spark plug wire not connected. 6. Bad spark plug. 7. Water in gasoline. 8. Overchoking or flooded. 9. Low oil level. 10. Fuel mixture too rich. 11. Intake valve stuck open or closed. 12. Engine has lost compression.	1. Turn On/Off Switch to 'ON'. 2. Clean or replace air cleaner. 3. Fill fuel tank. 4. Drain fuel tank and refill. 5. Connect spark plug wire. 6. Replace spark plug. 7. Drain fuel tank and refill. 8. Move choke lever to 'No Choke' positin. 9. Fill crankcase with oil. 10. Contact service center. 11. Contact service center. 12. Contact service center.
Engine shuts down during operation.	1. Out of gasoline 2. Low oil level. 3. Fault in engine.	1. Fill fuel tank. 2. Fill crankcase with oil. 3. Contact service center
Engine lacks power	1. Load is too high 2. Dirty oil filter. 3. Engine needs to be serviced	1. See 'Connecting Electriical Loads' section of manual. 2. Replace the air filter. 3. Contact sevice center.
Engine 'hunts' or falters.	1. Choke is opened too soon. 2. Carburetor is set too rich or too lean.	1. Adjust choke until engine runs smoothly. 2. Contact service center.

SERVICE
864-834-8550

TITAN INDUSTRIAL

Toll Free 1-888-828-8126
www.titanindustrial.com

FAX
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Titan Industrial

TG 5400

Generator

Type	Voltage Regulation
Wound Stator and Rotor	Load Control System

120 Volts AC

Frequency	Rated Power	Voltage	Rated Current
60Hz	4800 W/5400 SW	120V	38/42A

240 Volts AC

Frequency	Rated Power	Voltage	Rated Current
60Hz	4800 W/5400 SW	240V	19/21R

Engine

Type	Air Cooled Gas
Model	TG 5400
Horse Power	8 HP
Fuel	Unleaded Gasoline
Fuel Capacity	5 Gallons
Ignition System	Recoil Start
Hours of Operation @ Full Load	6 Hours
Dimensions (inches)	L-28" W-23" H-20"
Net Weight	130 LBS
RPM	3600

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Service/Replacement Parts 800-845-4141