



It is extremely important to read and understand the entire contents of this Owner's Manual for the Titan Industrial- Model TTP300 before attempting to operate the Trash Pump. This is a gas engine powered, industrial strength trash pump. The gas engine and the pump are both potentially hazardous and could cause physical injury or even death if improperly used.

TITAN INDUSTRIAL shall not be responsible for any consequences resulting from improper application of this equipment. The operator is required to read and understand 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 potential hazards of operating this unit after reading this manual, he must call the factory at 1-800-845-4141 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 at 1-800-845-4141 with any questions.

FOR OUTDOOR USE ONLY! Never use this unit inside any enclosure including or inside any building. No modifications will eliminate the danger of possible carbon monoxide poisoning, fire, or explosion.

This Manual contains information to ensure your safety and to prevent any equipment problems. Various terms such as 'WARNING', 'CAUTION', 'DANGER', 'IMPOR-TANT', and the SYMBOL  $\Rightarrow$  are all used to signify information that is essential for the operator of this equipment to understand and to practice!

# This pump 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 pump's application. If factory settings are altered or the application is misapplied, the warranty is void.

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.

- Do not operate the pump without water. Permanent damage will occur to the ceramic seals and impellor.
- This pump is designed to handle nonvolatile, nonflammable liquids containing specified entrained solids and non-corrosive liquids.
- Never attempt to pump volatile, flammable, or corrosive liquids. This could cause damage to the pump and its operator(s).
- Make certain that all hose connections and piping are secure and properly supported before operation.
- Do not operate the pump for extended periods of time with the discharge valve closed. It will cause pump parts to deteriorate, and may cause explosion due to high internal pressure and heat. It can also cause damage to the pumps ceramic seals
- Do not remove covers, plates, gauges, pipe plugs or fittings from an overheated pump. Internal pressure could cause the parts to be ejected at high velocities. Allow the pump to completely cool before servicing. If over heating occurs:
  - 1. Stop pump immediately
  - 2. Ventilate the area
  - 3. Allow the pump to cool completely
  - 4. Check the temperature before opening any covers, plates, plugs, or gauges.
  - 5. Vent pump slowly and cautiously
  - 6. Refer to manual before restarting pump

Do not operate internal combustion engine in an explosive atmosphere.

- Only operate this unit outside with adequate ventilation. This pump's gas engine exhaust produces carbon monoxide gas that can cause unconsciousness and death.
- Operate this equipment at a true horizontial position.
- ➤Never store pump with fuel in the tank where gas fuel vapors could be ignited by a flame, spark, or pilot light from an appliance such as a furnace, water heater, or clothes dryer.
- ➤ Never tamper with the governor to gain more power. The maximum continuous pump speed of 3500 RPM is set at the factory and / not be exceeded or altered.
- Never insert any object through the cooling slots of the engine. You will damage the unit or cause injury.
- Never refuel a hot or running engine. Avoid overfilling the fuel tank. Always use the correct type of fuel. Leave 1/2" between top of fuel and bottom of tank neck.
- This pump 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 pumps 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 other proce -dure not mentioned will void the warranty.

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

### SETTING UP TRASH PUMP

#### WARNING!

Never operate an internal combustion engine in an explosive atmosphere. Do not operate engine in enclosed areas without proper ventalation

#### **CAUTION!**

Pumps and related equipment must be installed and operated accoring to all national, local, and industry standards.

#### WARNING!

Never tamper with governor to gain power. The maximum continuous operating speed of 3500 RPM is set at the factory.

### Inspection

This pump assembly was inspected and tested before shipment from the factory. Inspect the pump for any damage that may have occurred during shipping. Check as follows:

**A**. Inspect the pump and engine for cracks, dents, damaged threads and other obvious damage.

**B**. Check for loose hardware, tighten if necessary. Gaskets tend to shrink, check for loose hardware at mating surfaces.

**C**. Carefully read all tags, decals, on the pump assembly. Follow all directions.

**D**. Damage to equipment created by the carrier must be claimed against the carrier.

### **Positioning Pump**

#### LIFTING

The pump is designed to be lightweight and portable. Pump is protected by a rollover base that also serves as a two man carry handle. Customer installed equipment, such as the suction hose, must be removed before attempting to lift.

#### ▲ MOUNTING

Place the pump as close as possible to the liquid being pumped. A level mounting position is required for proper operation.

To ensure sufficient fuel and lubrication, DO NOT position the pump at more than a 15 degree angle off the horizontal.

### **Suction and Discharge Piping**

- ➤ Pump performance is adversely effected by increased suction lift, discharge elevation, and friction losses.
- ★ Keep discharge line as straight as possible to minimize friction loss. Minimize the use of elbows and fittings which increase friction loss.Do not reduce the discharge hole to induce water pressure.
- → Before tightening a connection flange, align it exactly with the pump port. Never align the hose by tightening the flange bolts.
- ➤ Lines near the pump must be independently supported to minimize strain on the pump. Pump strain can lead to a decreased pump life.
- To avoid air pockets when priming, the suction line must be as short and direct as possible, but at least 8 feet long, and not to exceed 12 feet in length.
- Suction lines must be the same size as the pump inlet.
- A strainer must be used at all times with no greater than 3\4inch openings.
- Slight leaks will affect priming, especially when operating with a high suction lift. All suction line connections should be sealed with pipe dope. The pipe dope should be compatible with liquid being pumped.

### **OPERATION OF THE TRASH PUMP**

#### WARNING!

This pump is designed to pump non-volitile, nonflammable liquids containing specified entrained solids. Do not attempt to pump volitile, flammable, or corrosive liquids.

#### **CAUTION!**

Never operate pump unless there is liquid in the pump casing. The pump will not prime when dry. Extended operation of dry pump will destroy the seal assembly.

#### WARNING!

Never tamper with governor to gain power. The maximum continuous operating speed of 3500 RPM is set at the factory.

### Priming

Never operate pump unless there is water in the pump housing.

Add liquid to the pump casing when:

→ 1. The pump is being put into service for the first time.

**2**. The pump has not been used for a considerable length of time.

3. The liquid in the pump casing has evaporated.

To fill the pump, remove the pump fill plug at the top of the pump casing. Add clean liquid until the casing is filled past the flapper on the suction valve of the pump and replace the cover or plug. Insure the flapper seals and water remains in the pump.

Run the engine at maximum governed speed during the priming cycle. With a suction lift of 5 to 10 feet the pump should prime within 1 minute. The maximum suction lift of 15 feet (at sea level) should require no more than 2 minutes for the initial prime. If the pump does not prime within five minutes, shut off the engine and trouble shoot.

The suction hose should be a minimum of 8 feet
 long and have a wire filter screen, to prevent hard solid objects from entering the pump and damaging the impellor and seals.

### Starting the Engine

(See page 6)

Always check oil before starting use.

### Operation

Priming is indicated by quieter operation. The pump may not prime immediately because the suction line must first fill with liquid. If the pump fails to prime in five minutes check the suction hose for leaks.

### ▲ LEAKING

No leakage should be visible at pump mating surfaces, or at pump connections and fittings. Keep all connections and fittings tight to ensure maximum pump efficiency. Use a lubricant on suction hose threads to assist in sealing suction hose.

#### → LIQUID TEMPERATURE

The maximum liquid temperature of the pump is 110 degrees F. Overheating can occur if the pump is operated with the suction or discharge valves closed. If overheating occurs allow for the pump to cool before servicing it. Refill the pump case with cool liquid.

### 

If a strainer has been shipped or installed by the user, check it regularly and clean it when necessary. Do not run the pump without a strainer.(See previous notes.)

#### **STOPPING**

Never halt the flow of liquid suddenly. Reduce the throttle speed slowly and allow the engine to idle briefly before stopping.

### 

Drain the pump to prevent freezing damage. Clean out any solid by flushing with a hose. Review the instructions provided with the equipment powered by this engine for any safety precautions that should be observed in conjunction with engine startup, shutdown, or operation.

### STARTING THE ENGINE

1. Move the fuel valve lever to the ON position.



To start a cold engine, move the choke lever or choke rod (applicable types) to the CLOSED position.

To restart a warm engine, leave the choke lever in the OPEN position.

Some engine applications use a remote-mounted choke control rather than the engine-mounted choke lever shown here.



3. Move the throttle lever away from the SLOW position, about 1/3 of the way toward the FAST position.

Some engine applications use a remote-mounted throttle control rather than the engine-mounted throttle lever shown here.



4. Turn the engine switch to the ON position.



5. Operate the starter.

RECOIL STARTER (all engine types):

Pull the starter grip lightly until you feel resistance, then pull briskly. Return the starter grip gently.



6. If the choke lever or choke rod (applicable types) has been moved to the CLOSED position to start the engine, gradually move it to the OPEN position as the engine warms up.



### ENGINE OIL LEVEL CHECK

Check the engine oil level with the engine stopped and in a level position.

- 1. Remove the filler cap/dipstick and wipe it clean.
- 2. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
- 3. If the oil level is low, fill to the edge of the oil filler hole with the recommended oil
- 4. Screw in the filler cap/dipstick securely.



#### NOTICE

Running the engine with a low oil level can cause engine damage.

The Oil Alert<sup>®</sup> system (applicable engine types) will automatically stop the engine before the oil level falls below safe limit. However, to avoid the inconvenience of an unexpected shutdown, always check the engine oil level before startup.

### ENGINE OIL CHANGE

Drain the used oil while the engine is warm. Warm oil drains quickly and completely.

- 1. Place a suitable container below the engine to catch the used oil, then remove the filler cap/dipstick, drain plug, and washer.
- Allow the used oil to drain completely, then reinstall the drain plug, washer, and tighten drain plug securely.
- 3. Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take used oil in a sealed container to your local recycling center or service station for reclamation. Do not throw it in the trash, pour it on the ground, or down a drain.
- 4. With the engine in a level position, fill to the outer edge of the oil filler hole with the recommended oil

NOTICE

Running the engine with a low oil level can cause engine damage.

The Oil Alert<sup>®</sup> system (applicable engine types) will automatically stop the engine before the oil level falls below the safe limit. However, to avoid the inconvenience of an unexpected shutdown, fill to the upper limit, and check the oil level regularly.

5. Screw in the filler cap/dipstick securely.



#### ENGINE OIL RECOMMENDATIONS

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil.

SAE 10W-30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is within the recommended range.



AMBIENT TEMPERATURE

The SAE oil viscosity and service classification are in the API label on the oil container.

#### QUICK REFERENCE INFORMATION

Fuel	Туре	Unleaded gasoline with a pump octane rating of 86 or higher
Engine Oil	Туре	SAE 10W-30, API SJ or SL, for general use
Spark Plug	Туре	NGK: BPR6ES , DENSO: W20EPR-U
	Gap	0.028-0.031 in (0.70-0.80 mm)
Carburetor	Idle speed	1,400 ± 150 rpm
Maintenance	Before each use	Check engine oil level. Check transmission oil level if applicable. Check air filter.
	First 20 hours	Change engine oil. Change transmission oil if applicable.
	Subsequent	Refer to the maintenance schedule

### TROUBLESHOOTING

Problem	Cause		Solutio	n
Pump Fails To Prime.	<ol> <li>Not Enough liquid in casing.</li> <li>Suction valve contaminated or damaged.</li> <li>Air leak in suction line.</li> <li>Lining of suction hose collapsed.</li> <li>Leaking or worn seal or pump gasket.</li> <li>Pump speed to slow</li> <li>Strainer clogged</li> <li>Suction lift too high</li> </ol>		<ol> <li>Add liquid to</li> <li>Clean or replation</li> <li>Correct leak</li> <li>Replace Suction</li> <li>Check pumping</li> <li>Check engine</li> <li>Check engine</li> <li>Clean straine</li> <li>Measure lift wigauge. Reduce</li> <li>losses in suction</li> </ol>	ace. ion hose. vacuum, replace e. r. vith vacuum lift or friction
Engine will not start or engine starts but runs rough and lacks power.	<ol> <li>1.On/Off Switch is turned 'OFF'.</li> <li>2.Dirty air cleaner.</li> <li>3. Out of fuel.</li> <li>4. Stale fuel.</li> <li>5.Not enough speed or force is used for recoil start.</li> <li>6.Water in fuel.</li> <li>7.Low oil level.</li> <li>8.Engine has lost compression.</li> </ol>		<ol> <li>Turn On/Off Sv</li> <li>Clean air filter</li> <li>Fill fuel tank.</li> <li>Drain fuel tank</li> <li>Read and follow</li> <li>Drain and refill</li> <li>Add oil to prop</li> <li>Contact service</li> </ol>	and refill. w directions. tank. per level.
Engine shuts down during operation.	1.Dirty air filter.		1.Replace the ai 2.Contact service	
	MAINTENANC	E SCHEDULE		
	Daily	Weekly	Manthly	3Manth
Check Oil Levels				
Drain Tanks				
Check Safety Valve				
CheckBelts				

The engine requires 16oz. of oil (see page 9)

\*\*Change oil in engine every (30) hours of use. \*\*



- 1. Exhaust
- 2. Air Filter
- 3. Throttle Lever
- 4. Choke Lever
- 5. Fuel Valve (on/off)
- 6. Oil Fill
- 7. Oil Drain
- 8. Serial Number
- 9. Pull Start (Recoil)
- 10. Fuel Cap

- 11. On/Off Switch
- 12. Oil Sensor
- 13. Oil Fill
- 14. Oil Drain
- 15. Primer Fill Cap
- 16. Discharge Elbow Adaptor
- 17. Suction Adaptor
- 18. Pump Drain Plug
- 19. Strainer





*Parts* Catalog

P.O. Box 791 • Travelers Rest, SC 29690 • Phone: (864) 834-7212 • Fax: (864) 834-5127 Service/Replacement Parts: (800) 845-4141 • www.titanindustrial.net



## **Trash Pump Part Numbers**

Part			Titan Part
Number	Qty	Part Description	Number
1	2	Prime/Drain Plug	TP-106
2	2	O-Ring Seal	TP-106
3	1	Anti-Siphon Valve/Gasket	TP-107
4	12	M10 x 28 Hex Cap Screw	N/A
5	1	Keeper Bracket	TP-107
6	1	Nut	TP-107
7	2	Rubber Seal Gasket	TP-107
8	2	Hose Barb Connector	TP-107
9	1	Flat Rubber Gasket	TP-105
10	1	Discharge Elbow	TP-105
11	1	Pump Case O-Ring	TP-108
12	1	Pump Case	TP-101
13	3	Stud	N/A
14	1	Pump Case Cover	TP-102
15	1	Acorn Nut	TP-104
16	1	5/16-24 x 1 5/8 Hex Bolt	N/A
17	1	5/16 x .083 Washer	N/A
18	1	Rubber O-Ring	TP-108
19	1	Carbon Seal Assembly	TP-108
20	1	Suction Strainer	TP-110
21	1	Impeller	TP-103
22	1	Diffuser	TP-104

### 1. Cylinder Head



Part Name	Titan Part #	
1. Intake Valve Guide Seal	TI 5.5-17	
2. Exhaust Valve Guide Sea	TI 5.5-17	
3. Complete Head Assembly	TI 5.5-17	
4. Valve Guide Clip	TI 5.5-17	
5. Cylinder Head Gasket	TI 5.5-17A	
6. Valve Cover	TI 5.5-16B	
7. Valve Cover Gasket	TI 5.5-16A	
8. Breather Pipe	TI 5.5-28	

Part Name	Titan Part #
9. Exhaust Gasket	TI 5.5-21A
10. Flange Bolt M6 x 12	N/A
11. Stud M6 x 94	N/A
12. Stuc M6 x 32	N/A
13. Dowel Pin 10 x 16	N/A
14. Flange Bolt M8 x 60	N/A
15. Spark Plug	TI 5.5-29

### 2. Crankcase Assembly



Part Name Titan Part # Pa	art Name
1. Complete Governor Gear Assy TI 5.5-14 11	. Thrust
2. Engine Block TI 5.5-25 12	2. Drain B
3. Oil Sensor TI 5.5-08 13	B. Govern
4. Governor Gear Assy TI 5.5-14 14	. Crank S
5. Governor Weight TI 5.5-14 15	5. Main Se
6. Slave Gear Governor TI 5.5-14 16	6. O-Ring
7. Governor Pin Weight TI 5.5-14 17	7. Flange
8. Governor Slider TI 5.5-14 18	8. Washe
9. Governor Arm TI 5.5-08 19	. Lock Pi
10. Drain Bolt TI 5.5-09A 20	). Flange

Part Name	Titan Part #
11. Thrust Washer 6mm	TI 5.5-14
12. Drain Bolt Washer 10.2mm	TI 5.5-09A
13. Governor Holder Kit	TI 5.5-14
14. Crank Shaft Bearing	TI 5.5-30
15. Main Seal	TI 5.5-31
16. O-Ring	TI 5.5-08
17. Flange Nut 10mm	N/A
18. Washer 6mm	TI 5.5-15
19. Lock Pin 8mm	TI 5.5-15
20. Flange Bolt M6 x 12M	N/A

### 3. Crankcase Cover - PTO Side



Part Name	Titan Part #
1. Crank Case Cover	TI 5.5-12
2. Crank Case Cover Gasket	TI 5.5-13
<ol><li>Oil Fill Plug w/Dipstick</li></ol>	TI 5.5-09A
4. Oil Fill Plug Gasket	TI 5.5-09A
5. PTO Seal	TI 5.5-32
6. Dowel Pin 8 x 14	N/A
7. Flange Bolt M8 x 32	N/A
8. Bearing	TI 5.5-30
9. Oil Fill Plug	TI 5.5-09A

4. Recoil Starter



Part Name	Titan Part #
1. Recoil Starter Assy	TI 5.5-05
2. Recoil Starter Case Comp	TI 5.5-05
3. Recoil Starter Reel	TI 5.5-05
4. Starter Ratchet	TI 5.5-05
5. Ratchet Guide	TI 5.5-05
6. Friction Spring	TI 5.5-05
7. Recoil Starter Spring	TI 5.5-05
8. Return Spring	TI 5.5-05
9. Recoil Starter Knob	TI 5.5-05
10. Recoil Starter Rope	TI 5.5-05
11. Setting Screw	TI 5.5-05
12. Flange Bolt M6 x 6	TI 5.5-05

### 5. Muffler Component





Part Name	Titan Part #
1. Muffler Component	TI 5.5-23
3. Muffler Protector	TI 5.5-23
4. Spark Arrestor	TI 5.5-23
<ol><li>Tapping Screw M5 x 8</li></ol>	TI 5.5-23
<ol><li>Tapping Screw M4 x 6</li></ol>	TI 5.5-23
8. Hex Nut 8mm	TI 5.5-23

### 6. Camshaft





Part Name	Titan Part #
1. Cam Shaft Assembly	TI 5.5-20
2. Push Rod	TI 5.5-19
3. Valve Rocker Arms	TI 5.5-18A
4. Valve Lifter	TI 5.5-19
5. Rocker Pivot	TI 5.5-18A
6. Weight Return Spring	TI 5.5-20
7. Intake Valve	TI 5.5-16
8. Exhaust Valve	TI 5.5-16
9. Valve Spring	TI 5.5-16
10. Intake Keeper	TI 5.5-16
11. Exhaust Keeper	TI 5.5-16
12. Valve Rotator	TI 5.5-16
13. Push Rod Guide Plate	TI 5.5-21
14. Pivot Bolt M8 x 1	TI 5.5-18A
15. Pivot Adjusting Nut	TI 5.5-18A





Part Name	Titan Part #
1. Blower Housing	TI 5.5-06
2. Side Plate	N/A
3. Cord Clamp	N/A
<ol><li>Heat Shroud Component</li></ol>	N/A
5. On/Off Switch Wires	TI 5.5-07
6. On/Off Switch	TI 5.5-07
7. Ignition Ground Wire	TI 5.5-26
8. Replacement Grommet	N/A
9. Flange Bolt M6 x 12	N/A
10. Flange Bolt M 6 x 20	N/A
11. Wire Harness Tie	N/A

### 8. Carburetor



Part Name	Titan Part #	Part Name	Titan Part #
1. Gaskets	TI 5.5-03	14. Insulator Packing	TI 5.5-03
2. Float Valve Set	TI 5.5-03	15. Carburetor Spacer Comp.	TI 5.5-03
3. Float Set	TI 5.5-03	16. Carburetor Packing	TI 5.5-03
4. Float Chamber Set	TI 5.5-03	17. Choke Lever	TI 5.5-03
5. Pilot Screw Set	TI 5.5-03	18. Cock Lever	TI 5.5-03
6. Drain Screw Set	TI 5.5-03	19. Lever Setting Plate	TI 5.5-03
7. Screw Set	TI 5.5-03	20. Choke Lever	TI 5.5-03
8. Choke Set	TI 5.5-03	21. Fuel Cock Packing	TI 5.5-03
9. Carburetor Assembly	TI 5.5-03	22. Fuel Strainer Cup	TI 5.5-03
10. Throttle Adjusting Screw	TI 5.5-03	23. span Screw M3 x 8	TI 5.5-03
11. Main Nozzle	TI 5.5-03	24. Spring Pin M2 x 12	TI 5.5-03
12. Fuel Strainer Cup Packing	<sub>1</sub> TI 5.5-03	25. Main Jet #65, 68, 70	TI 5.5-03
13. Carburetor Insulator	´ TI 5.5-03	26. Pilot Jet #38	TI 5.5-03

9. Air Cleaner



Part Name	Titan Part #	Part Name	Titan Part #
1. Gasket	TI 5.5-24	10. Wing Nut	TI 5.5-24
2. Air Filter	TI 5.5-23A	11. Flange Nut M6	TI 5.5-24
3. Pre Filter	TI 5.5-23A	12. Flange Nut M6 x 20	TI 5.5-24
4. Air Filter Cover	TI 5.5-24	13. Washers	TI 5.5-24
5. Grommet	TI 5.5-24	14. Wing Nut	TI 5.5-24
6. Air Filter Plate	TI 5.5-24	15. Air Filter Cover	TI 5.5-24
7. Air Filter Collar	TI 5.5-24	16. Air Filter	TI 5.5-23A
8. Air Filter Collar (b)	TI 5.5-24	17. Air Filter Plate	TI 5.5-24
9. Air Filter Elbow Component	TI 5.5-24	18. Air Filter Assembly	TI 5.5-24

### 10. Fuel Tank



Part Name	Titan Part #
1. Protective Rubber Hose	TI 5.5-04
2. Fuel Filter	TI 5.5-02A
3. Fuel Tank	TI 5.5-02
4. Fuel Cap	TI 5.5-02B
5. Fuel Cap Gasket	TI 5.5-02B
6. Fuel Cap Screen	TI 5.5-02C
7. Fuel Filter O-Ring	TI 5.5-02B
8. Flange Nut M6	N/A
9. Flange Nut M4.5 x 140	N/A
10. Clamp	TI 5.5-04
11. Flange Bolt M6 x 25	N/A

### 11. Flywheel



Part Name	Titan Part #
1. Woodruff Key	N/A
2. Cooling Fan	TI 5.5-27
3. Recoil Cup	TI 5.5-05A
4. Ignition Coil	TI 5.5-26
5. Spark Plug Cap	TI 5.5-26
6. Flywheel	TI 5.5-27
7. Flange Bolt M6 x 25	N/A
8. Special Nut M14	N/A



Part Name	Titan Part #
1. Governor Arm	TI 5.5-15
2. Governor Rod	TI 5.5-15
3. Governor Spring	TI 5.5-15
4. Throttle Return Spring	TI 5.5-15
5. Control Assembly	TI 5.5-33
6. Spring	TI 5.5-33
7. Flange Bolt M6 x 12	N/A
8. Governor Arm Bolt	N/A
9. Control Bolt	TI 5.5-33
10. Flange Bolt M6	N/A

### 13. Crankshaft - Piston



Part Name	Titan Part #
1. First, Second, Third Ring Set, Piston	TI 5.5-18
2. Piston	TI 5.5-18
3. Piston Pin	TI 5.5-18
<ol><li>Connecting Rod Assembly</li></ol>	TI 5.5-18
5. Crankshaft Comp	TI 5.5-10
6. Connecting Rod Bolt	TI 5.5-18
7. Piston Pin Clip 18mm	TI 5.5-18
8. Timing Master Gear	TI 5.5-10
9. Speed Regulating Drive Gear	TI 5.5-10

### The list of control torque on the 5.5hp engine assembling line

Gap/Torque SAE			
Item	Torque(N.M)	Lower/Upper	
Drain bolt	15~18	11-13	lbf-ft
Oil sensor	5~8	44-71	lbf-in
The bolt fix wire of oil sensor	5~8	44-71	lbf-in
Oil level cap ass	6~8	53-71	lbf-in
Spark plug	20~25	15-18	lbf-ft
Stud A of inlet air admission	9.8~12	87-106	lbf-in
Stud B of exhaust gas	12~15	106-133	lbf-in
Pivot bolt M8	22~25	16-18	lbf-ft
Connecting rod bolt	12~14	106-124	lbf-in
Flange bolt	18~24	13-18	lbf-ft
Distributor M6*27	9.8~12	87-106	lbf-in
Flange bolt of cylinder head M8*55	22~25	16-18	lbf-ft
Pivot adjusting nut for inlet, exhaust	valve 9.8~10	87-89	lbf-in
Flange bolt for head cover	9.8~12	87-106	lbf-in
The bolt for crankcase cover M6*14	9.8~12	87-106	lbf-in
Side plate M6*12	9.8~12	87-106	lbf-in
Support of governor	9.8~12	87-106	lbf-in
Nut for carburetor M6	9.8~12	87-106	lbf-in
Nut for muffler M8	13~15	115-133	lbf-in
Spark plug	20~25	15-18	lbf-ft
Rocker bolt	20~25	15-18	lbf-ft
Connecting rod bolt	15~20	11-15	lbf-ft
Cover bolt	20~26	15-19	lbf-ft
Cylinder head bolt	26~35	19-26	lbf-ft
Flywheel nut	60~74	44-55	lbf-ft
Spark plug electrode gap	0.7~0.8mm	0.028-0.03	32 in
Ignition gap	0.4~0.6mm	0.016-0.02	24 in
Inlet valve gap	0.15±0.02mm	0.005-0.0	07 in
Exhaust valve gap	0.20±0.02mm	0.007-0.0	09 in

### Titan Industrial Commercial 3 X 3 Trash Pump TTP 300



### Engi ne

Engine Type	Titan	
Horse Power	5.5 HP	
Fuel	Low Octane Gas	
Fuel Capacity	2.3 Gallons	
Ignition System	Pull Start	
Dimensions (inches)	L-36" W-21 1/2" H-25"	
Net Weight	84 LBS	
Warranty	1 Year	
Gallons per minute	264 gpm	
Titan Industrial PO Box 791 Travelers Rest, SC 29690 Phone: (864) 834-7212 Toll Free: 888-828-8126 www.titanindustrial.net		

