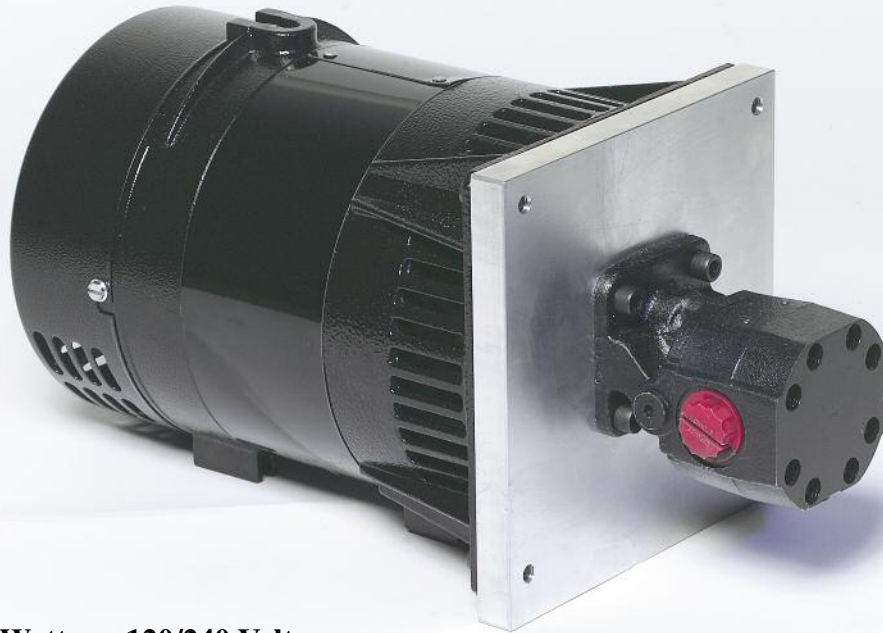


Fabco Power

Setting the Standard in Mobile Power

HYDRO - 300C/300CX[®] **HYDRAULIC DRIVEN A.C. GENERATOR**



3000 Watts • 120/240 Volts

Electrical AC Tools, Electric Motors, Night-Time Paving, Fusion of Plastic Pipe, ETC...

Industries Served

- Telephone & Utilities
- Fire & Rescue
- Construction & Public Works
- Airline Maintenance
- Mining and More!!!

Outstanding Features

- **Lightweight Only 40 lbs. (300C) / 42 lbs. (300CX)**
- **Compact Size Requires One Third the Space of an Engine Generator Set**
- **Generator is Environmentally Clean and Non-Polluting**
- **Complete Unit is Maintenance Free**
- **Generator is Completely Brushless (no AC or DC brushes)**
- **Automatic Current Overload Protection Device**
- **Easily Re-connectable for 120/240 volts**
- **Regulation +/-3% (automatic, no voltage regulator) Excellent Surge Capacity**
- **Hydraulic Motor Requires only 8 GPM at 1500 PSI for 3000 Watt Output**
- **Pressure Compensating Flow Control (300CX model only)**

Fabco is a global supplier of mobile power. Our generators have been used by the U.S. Military in both war and peace time for the past 40 years. It is our experience in building generators to military specifications that sets Fabco apart from all others. Our commercial units are built to those same standards.

Specifications

The Hydro 300C/300CX® is made from high-grade aluminum to ensure longevity under the most stressful conditions. This unit was designed to withstand the rigors of heavy use and inclement weather.

| | | |
|-------------------------|---|---|
| MODEL | – | HYDRO-300C/300CX |
| VOLTS | – | 120 or 120/240 |
| AMPS | – | 26/13 |
| WATTS | – | 3000 CONTINUOUS (3500 PEAK) |
| RPM | – | 3600 |
| HZ | – | 60 |
| INSULATION CLASS | – | F&H |
| PHASE | – | SINGLE |
| POWER FACTOR | – | 1.0 |
| RATED AMP TEMP. | – | 40°C |
| GPM | – | 8 TO 25 (8 IDEAL) |
| PSI | – | 1500 |
| WEIGHT | – | 40 LBS.(C model) |
| MOTOR | – | GEAR TYPE |
| DIMENSIONS | – | 16"L x 8"W x 7 ¹ / ₂ "H |

Will Operate on any 2000 to 2500 PSI Open Circuit or Closed Loop System

Note: All ratings taken at 100°F oil temperature (Do not exceed 170°F)

Optional Equipment



- **Control Panel**
 Volt Meter
 120V. Duplex Receptacle
 Water Proof Cover
 Automatic Overload Protection Device

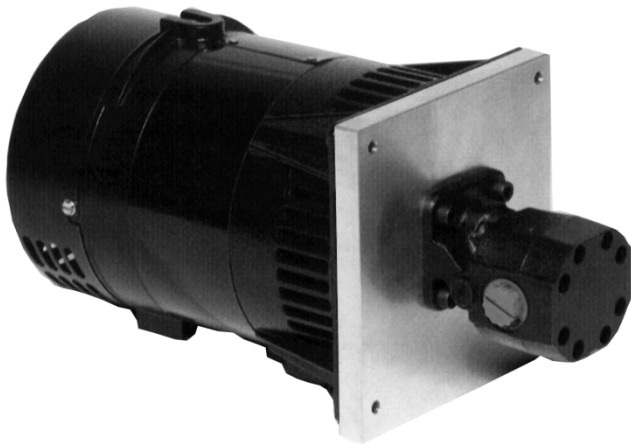
SOLD – INSTALLED – SERVICED BY:

Warranty: One year parts and labor

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Fabco Power

Setting the Standard in Mobile Power



Instruction Manual for Model

HYDRO - 300CX - 4.5 - 60HZ-G

HYDRAULIC GENERATOR

Manufacturing of: Vehicle Mounted Generators • Hydraulic Generators

P.O. Box 582 • Chester, NY 10918 • 845-469-9151 • Fax: 845-469-7871 • Web Site/E-mail: www.fabcopower.com

GENERAL INFORMATION

MODEL: HYDRO 300CX – 4.5 – 60HZ-G

GENERATOR..... BRUSHLESS

GENERATOR..... 3600 (50 Hz)

GENERATOR VOLTAGE..... 120 or 120/240

MOTOR STARTING..... 300% SURGE

VOLTAGE REGULATOR..... INHERENT

OUTPUT..... 3000 WATTS CONTINUOUS
3500 WATTS PEAK AT
100°F OIL TEMPERATURE

HYDRAULIC MOTOR..... GEAR TYPE

MAXIMUM SPEED..... 4200RPM
(3000 RPM IDEAL)

MOTOR SHAFT..... ½ inch

PORT SIZE

INLET..... S.A.E. # 8

RETURN..... S.A.E. # 10

CASE DRAIN PORT..... S.A.E. # 4

RECOMMENDATIONS

MODEL: HYDRO 300CX-4.5-60HZ-G

HIGH PRESSURE LINE ½ inch

LOW PRESSURE LINE..... ¾ inch

FLOW RATE 4.5 GPM

*FOR BEST RESULTS KEEP HYDRAULIC OIL
TEMPERATURE BETWEEN 80°F AND 120°F.
DO NOT EXCEED 175°F.*

AN OIL COOLER IS RECOMMENDED.

MAXIMUM BACK PRESSURE 150 PSI

*WILL OPERATE ON ANY 2500 PSI OPEN CIRCUIT
OR CLOSED LOOP SYSTEMS.*

RECOMMEND FILTER 10m

RECOMMEND HYDRAULIC OIL DEXTRON III A.T.F.

INSTALLATION TIPS

Excessive pressure in your return line will damage the hydraulic motor seal. High back pressure can be caused by “spikes” sent back through the return from other equipment on a common return line. Another potential problem can develop if several pieces of equipment are connected to one “common” return line causing a high back pressure (150 PSI is the maximum). We recommend you run the return line from the generator back to the cooling tank with a separate line.

You can either run the 3/4 inch return line back to the tank or leave the 3/4 inch line connected to a common return and run a separate 3/8 inch line from the case drain (located at the bottom of the hydraulic motor) directly back to the tank. Either way you completely eliminate any problem of excessive return line pressure damaging your hydraulic motor.

Initial Installation and Start-Up

Be sure you set the hydraulic flow (GPM) to the generator at Approximately 62.5 HZ or 3750 RPM with NO electrical load on the generator.

By using this setting you will have approximately 60HZ (cycles) or 3600 RPM when you are running at full rated load.

One way this can be accomplished is by using a Photo Tachometer on our generator coupling or generator cooling fan.

A Photo Tachometer is an inexpensive tool that can be purchased at McMasters, Grainger, Sears or any other electrical supplier.

TECHNICAL INFORMATION

These self-excited and self-regulating generators, although overall dimensions have been reduced to a minimum, are designed for high-level electrical performance and the maximum in operating reliability.

PRELIMINARY CHECKS:

Before touching the machines, perform a thorough and in depth visual inspection, checking that components are correctly connected up and that no cables or terminals are broken or loose.

STARTING UP:

Make sure, when starting up, that cooling air intake and discharge openings are free and unblocked. We also recommend (when the machine operates in a dusty environment) do periodic checks to make sure it is properly ventilated

THE IMPORTANCE OF SPEED:

Frequency and voltage depend directly on rotation speed. This must be kept as constantly as possible on its nominal value no matter what the load. Drive motor speed control systems generally have a small drop in speed between no load and loaded conditions. We therefore recommend setting no load speed 3÷4% above nominal speed.

CHECKING VOLTAGE:

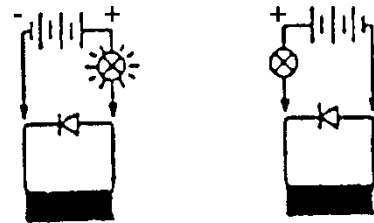
All the machines are regulated during factory testing. If voltage readings differ from the value indicated on the name plate, this maybe caused by a mistaken reading or by a different rotation speed and we recommend regulating motor speed in order to have nominal RPM under loaded conditions.

CHECKING THE DIODES:

For the ohmmeter test it is best to disconnect the diode from its circuit. Measure continuity in one direction only. The test can also be made without disconnecting the diode from the circuit, using a 12V battery and a 45 watt light bulb (automobile light) as shown in the illustration. The light should turn totally on only in one direction, as shown below.

**WINDING RESISTANCE AT 20° C
ROOM TEMPERATURE**

| <u>Size</u> | <u>Stator Ω</u> | <u>Rotor Ω</u> | <u>Exciter Ω</u> |
|-------------|-----------------|----------------|------------------|
| 3.5 | 0.7 | 9.22 | 4.0 |
| 4.0 | 0.7 | 9.28 | 4.0 |
| 5.0 | 0.54 | 2.97 | 2.24 |
| 6.0 | 0.54 | 2.97 | 2.24 |
| 8.0 | 0.49 | 2.85 | 4.41 |
| 12.0 | 0.250 | 5.65 | 0.60 |
| 2.0 50 HZ | 0.733 | 3.51 | 4.60 |
| 2.0 | 0.570 | 3.51 | 3.129 |

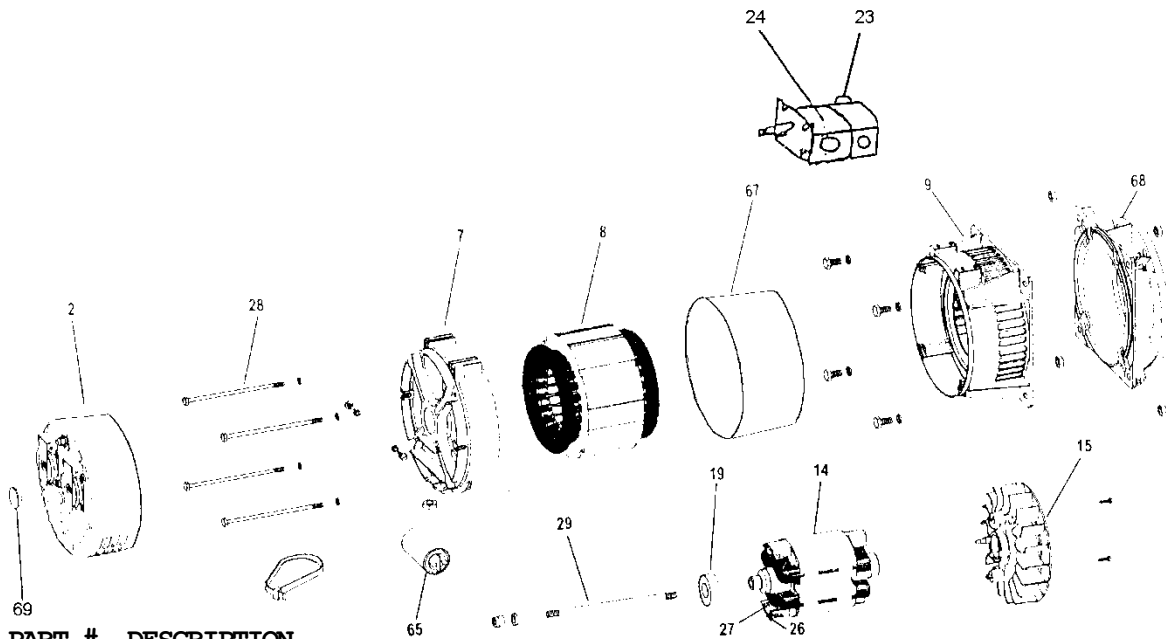


TROUBLE SHOOTING

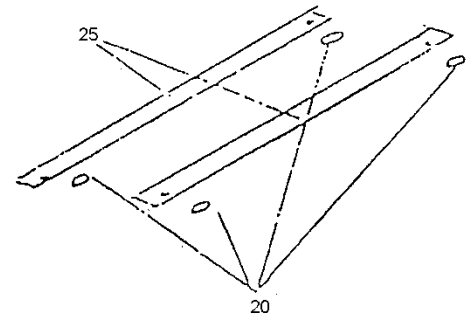
| PROBLEMS | CAUSES | REMEDIES |
|--|--|--|
| ALTERNATOR EXCITATION FAILURE | <ol style="list-style-type: none"> 1. Low Speed 2. Faulty capacitor 3. Faulty winding | <ol style="list-style-type: none"> 1. Check RPM and set at nominal value. 2. Check and replace. 3. Check that winding resistance is as shown in the tables. |
| HIGH NO-LOAD VOLTAGE | <ol style="list-style-type: none"> 1. Speed too high. 2. Capacitor with high capacity. | <ol style="list-style-type: none"> 1. Check and adjust RPM's 2. Check and replace |
| LOW NO-LOAD VOLTAGE | <ol style="list-style-type: none"> 1. Speed too low. 2. Faulty rotary diodes. 3. Breakdown in windings. 4. Capacitor with high capacity. | <ol style="list-style-type: none"> 1. Check and adjust RPM's 2. Check and replace. 3. Check winding resistance, as per tables. 4. Check and replace. |
| PROPER NO-LOAD BUT LOW LOADED VOLTAGE | <ol style="list-style-type: none"> 1. Low loaded speed. 2. Load too large. 3. Rotary diodes short-circuited | <ol style="list-style-type: none"> 1. Check and regulate RPM. 2. Check and change. 3. Check and replace. |
| UNSTABLE VOLTAGE | <ol style="list-style-type: none"> 1. Loose contacts. 2. Uneven rotation. | <ol style="list-style-type: none"> 1. Check connections. 2. Check for uniform rotation speed. |
| NOISY GENERATOR | <ol style="list-style-type: none"> 1. Broken bearings. 2. Poor couplings. | <ol style="list-style-type: none"> 1. Replace. 2. Check and repair. |

PARTS BREAKDOWN

HYDO 300CX-45-60HZ-G

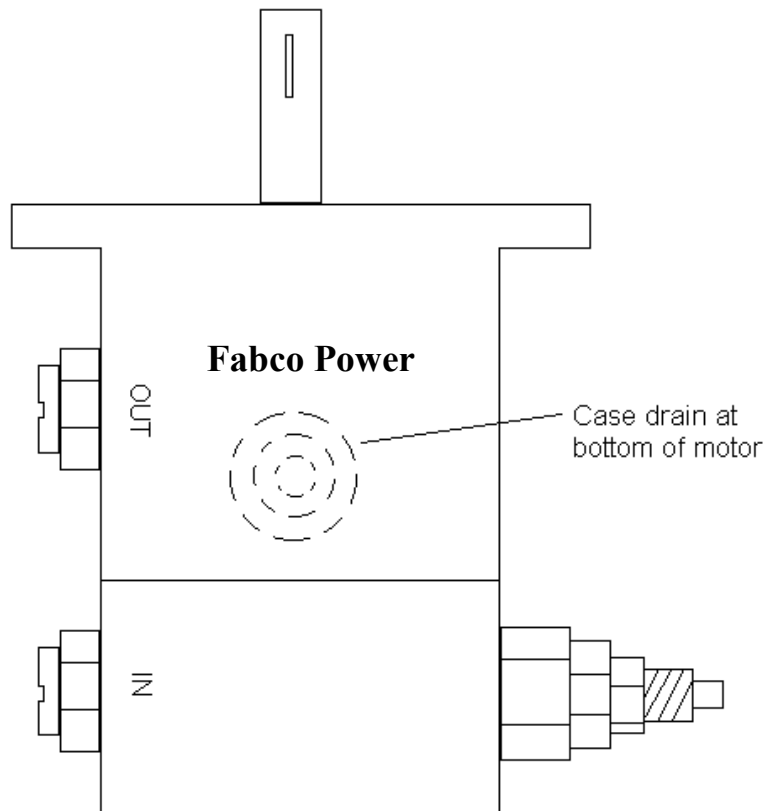


| No. | PART # | DESCRIPTION |
|-----|--------|-----------------------------|
| 2 | 572325 | Rear End Cover |
| 7 | 572326 | Rear End Casting |
| 8 | 572586 | Stator |
| 9 | 572238 | Drive End Casting |
| 14 | 572585 | Rotor |
| 15 | 572330 | Fan |
| 19 | 572064 | Rear Bearing |
| 20 | 572154 | Rubber Mounts |
| 23 | 572206 | Flow Control Cartridge 6gpm |
| 24 | 572583 | Hyd. Motor |
| 25 | 572128 | Mounting Rails |
| 26 | 572331 | Diodes |
| 27 | 572332 | Varister |
| 28 | 572333 | Studs |
| 29 | 572334 | Thru Bolt |
| 65 | 572062 | Capacitor (20 MFD) |
| 67 | 572335 | Band |
| 68 | 572309 | Alum Mounting Plate |
| 69 | 572053 | Power cord |
| | 572590 | G.F.I. |
| | 572591 | Connector Female |
| | 572310 | Stub Shaft |
| | 572318 | Complete Generator |
| | 572581 | 16 Amp Circuit Breaker |
| | 572580 | 8 Amp Circuit Breaker |
| | 572363 | Seal Kit |



HYDRAULIC MOTOR

HOSE HOOK-UP



200CX 4.5 60HZ G

Wiring

BRUSH LESS GENERATOR

**INSTRUCTION
MANUAL**

**WITH OUT
RECEPTACLES**

