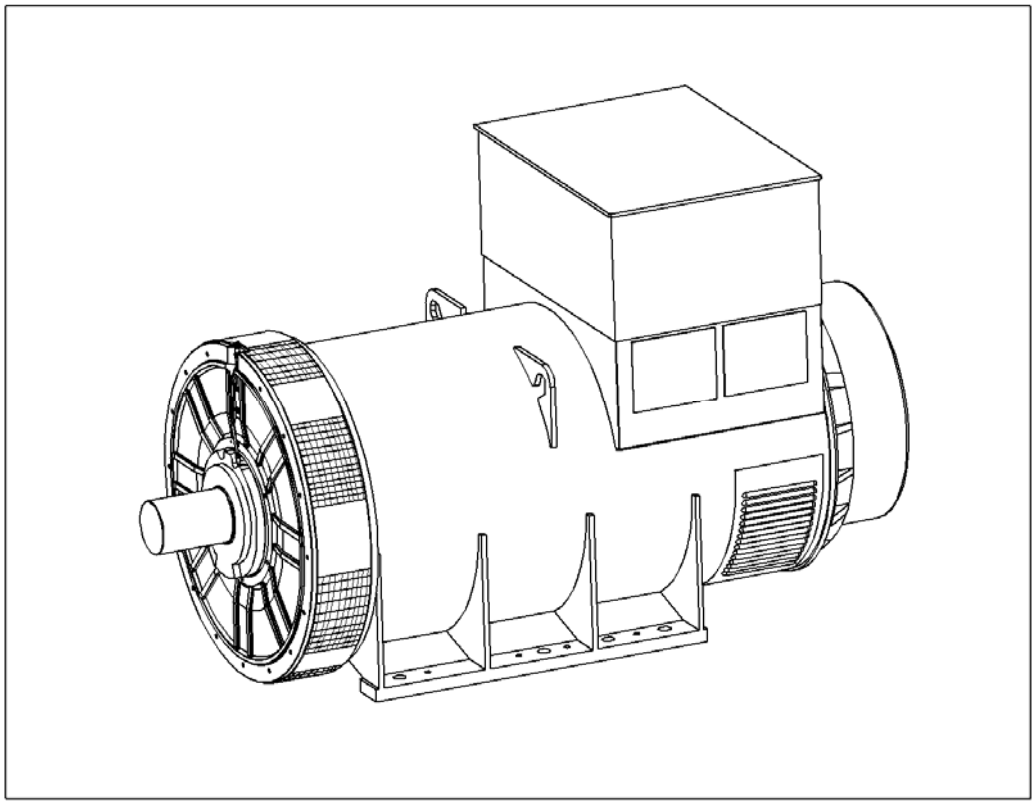
STAMFORD®

Installation, Service & Maintenance Manual for P7 Range of AC Generators



Safety Precautions

First Steps to Safe Operation
Read this manual, obey all Warnings and Cautions, and become familiar with the product.

Warnings & Notices used in this manual
The various warnings are out lined below and appear in the text in this format. Warnings and Cautions appear at the appropriate position in the, to which they refer.

> **Warning: Information that draws attention to the risk of injury or death.**

> **Caution: Information that draws attention to the risk of damage to the product, process or surroundings.**

> **Note: Used to convey or draw attention to, additional information or explanations.**

Notes appear after the text to which they refer.

Skill requirements of personnel
Service and maintenance procedures should only be carried out by experienced, qualified engineers, familiar with the procedures and the equipment. Before any intrusive procedures are carried out, ensure that the engine is inhibited and the generator is electrically isolated.

Electrical Equipment
All electrical equipment can be dangerous if not operated correctly. Always service and maintain the generator in accordance with this manual. Always use genuine 'STAMFORD' replacement parts.

> **Warning: Electrical shock can cause injury or death. Ensure that all personnel operating, servicing, maintaining or working near this equipment are fully aware of the emergency procedures in case of accidents.**

Before removing the protective covers to carry out service maintenance or repair, ensure that the engine is inhibited and the generator is electrically isolated. The AVR access covers are designed to be removed while the generator is on load.

Lifting
Lift the generator using the points provided with the aid of a spreader and chains. The angle on the chains must be vertical during the lift. Do not lift single bearing generators without the, securely fitted, transit bar. When removing the transit bar just prior to offering the generator up to the engine, be aware that the rotor is not securely held in the generator. Keep the generator in the horizontal plane to when the transit bar is not fitted.

> **Warning: The lifting points provided are designed for lifting the generator only. Do not lift the Generating Set by the generator's lifting points.**

Note: Due to our policy of continuous improvement, details in this manual which were correct at time of going to print and may now be due for amendment. Information included must therefore not be regarded as binding.

Note: The Front Cover drawing is representative of the range of generators. Several variations are available within this range that, are covered by this manual.

Foreword

The Manual

Before operating, the generating set read this manual and all additional documentation supplied with it. Great care has been taken with the design of this product to ensure that it is safe to operate. Misuse and the failure to follow the safety precautions contained in the manual are potential causes of accidents.

Read the manual and make sure that all personnel who work on the equipment have access to the manual. The manual should be considered as part of the product and should remain with the product. Make sure that the manual is available to all users throughout the life of the product.

Scope

This manual contains guidance and instructions for the Installation, Servicing and Maintenance of the generator.
It is not possible, within the scope of the manual, to teach the basic electrical and mechanical skills required to safely carry out the procedures enclosed. The manual is written for skilled electrical and mechanical technicians and engineers, who have prior knowledge and experience of generating equipment of this type.
We offer a range of training courses that cover all aspects of STAMFORD generators.

Generator Designation

P	I	7	3	4	C	2	(example)

P	-	Generator type
I	-	Applications, I = Industrial, M = Marine.
7	-	Frame size
3	-	Separate excitation, PMG
4	-	Number of poles, 4 or 6
C	-	Core Size
2	-	Number of bearings, 1 or 2

The Product

The product is an AVR controlled, separately excited (by a shaft driven pilot exciter) synchronous ‘ac generator’. Designed for incorporation into a generating-set. (A generating-set is defined as ‘machinery’ in European directives).

Serial Number Location

Each generator has a unique serial number stamped into the upper section of the drive end of the frame.
The serial number is also shown on the nameplate.

Two other labels are located inside the terminal box, both fixed inside of the terminal box, one on the sheet metal-work and the other on the main frame of the generator. Neither of these two labels is considered to be permanently fixed.

Rating Plate

The generator has been supplied with a self-adhesive rating plate label to enable fitting after final assembly and painting. Stick the nameplate to the outside of the non-drive end of the terminal box. The surface in the area where a label is to be stuck must be flat, clean, and any paint finish must be fully dry before attempting to attach label. Recommended method for attaching label is peel and fold back sufficient of the backing paper to expose some 20 mm of label adhesive along the edge which is to be located against the sheet metal protrusions. Once this first section of label has been carefully located and stuck into position progressively peel off the backing paper and smooth down with a clean cloth. The adhesive will achieve a permanent bond in 24 hours.
A factory fitted metal nameplate is available for some applications.

Caution. Do not exceed the parameters marked on the rating plate.

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