

# TECHNICAL TIPS

## CRANES

Type of Tip:

### Engine Does Not Start

Necessary Tools:

**Personal Observation**  
**Multimeter as needed**

Applicable Models:

**HC50 / HC60 / HC80 / HC110**  
**HC165 / HC230 / HC275**

*My Terex*  
CRANES

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### Basic Safety Rules



#### Danger

Failure to follow the instructions and safety rules in the Operator's Manual and Service Manual appropriate to your machine will result in death or serious injury. Many of the risks identified in the operator's manual are also safety risks when maintenance and repair procedures are performed.

Do not perform maintenance unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - The manufacturer's instructions and safety rules
  - Employer safety rules and workplace regulations
  - Applicable government regulations
  
- You have the appropriate tools, lifting equipment and a suitable location.

The information contained in this technical tip is a supplement to the service manual. Consult the appropriate service manual for your machine for safety rules and risks.

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## CRANES



### Winch Free Fall Mode Key Switch is ON

- Insert ignition key switch and turn to the ON position. WTS (Wait to Start) light will illuminate.
- When WTS light goes off turn the key switch to the START position.
- If the engine does turn over at all, check to see if the Engine Start Interlock Pilot Lamp is lit on the right control stand.
- If lit when the key switch is held in the START position, this indicates that one of the winch mode key switches is in the Freefall mode.
- Place the respective winch key switch in Automatic mode and attempt to restart. The engine should start normally.



Engine Start Interlock Pilot Lamp



Winch Mode Key Switches

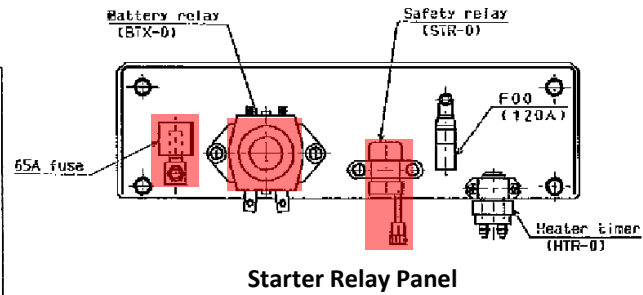
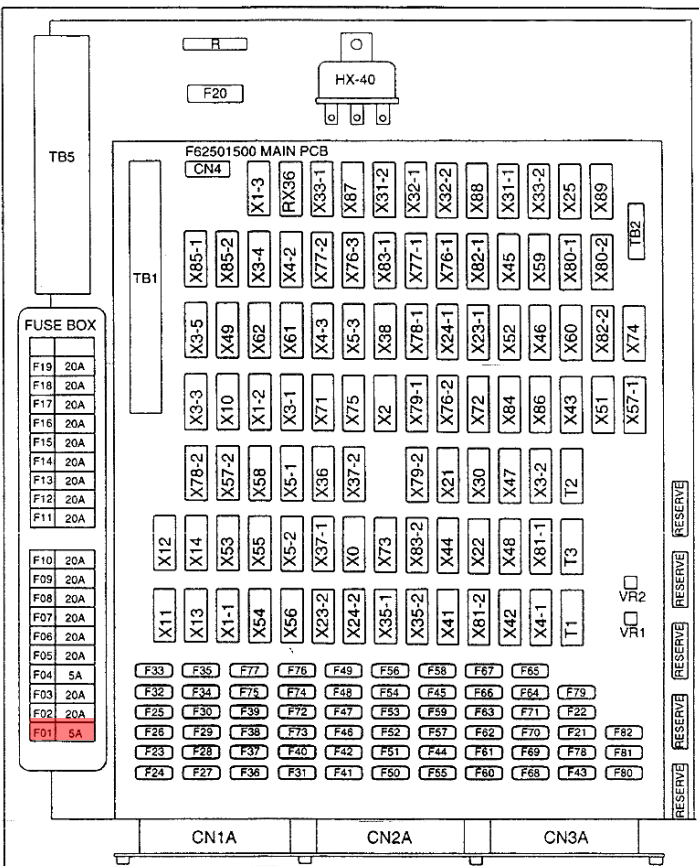
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### Other Possible Causes (Consult crane electrical schematics)

- Relay X91 / T94 / T4 not energized.
- Battery relay BTX-0 not energized or coil bad.
- Fuse F0 65A main fuse blown.
- Fuse F1 5A blown.
- Safety relay SFR-0 is bad.



T4 / X91 / X94 Relay Location  
Behind Seat Under Panel

Main Electrical Panel  
Control Relays & Fuses