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**Op. 55 301**  
**ALTERNATOR**  
**CHARGING SYSTEM**

**Introduction**

The LS180 and LS190 skid steers are equipped with Magnetti Marelli (Lucas) A127-type alternators. This alternator is rated at 45 amps, has an integral regulator, and is driven by a single V-belt from the engine crankshaft.

Four cables from the wire harness connect with the alternator:

1. A heavy-gauge wire, red with a dark blue tracer, is the main power cable from the alternator. It connects to the "B+" (output) terminal.
2. A light-gauge wire, yellow with dark blue tracer, connects to the field excitation terminal. This circuit provides initial voltage to energize the field at startup.
3. A wire, purple with red tracer, connects to the "W" terminal. This circuit provides an engine speed signal to the Electronic Instrument Cluster.
4. The fourth wire, black, connects to one of the alternator housing bolts and functions as the ground circuit.