

**KIT KT 410046**

**INTRODUCTION**

This kit is required for actuator conversion on Cummins K38 and K50 engines.

**DESCRIPTION**

The AGD 200 actuator has twice the torque output of the AGD 130. This provides a stiffer displacement driver which is better able to overcome the high flow forces of the larger Cummins engines.

For generator sets using Cummins K38 and K50 engines, it is recommended that AGD 200 actuators be used. On existing installations where increased stability margin is desired, this kit (KT 410046) enables the AGD 130 actuator to be converted to an AGD 200 actuator.

**INSTALLATION**

Note, actuator mounting bolts have different spacings and a modified mounting bracket will be needed.

The existing AGD-130 actuator can be replaced as follows:

- 1) Disconnect the electrical connector.
- 2) Remove the 4 capscrews mounting the flow valve to the actuator plate.
- 3) Remove the 2 actuator mounting capscrews.
- 4) Remove the actuator.
- 5) Modify or replace the actuator mounting bracket.
- 6) Mount actuator Kit (KT 410046) to the bracket with 2 capscrews.
- 7) Mount the flow valve to the actuator plate.
- 8) Remove the lever assembly from the AGD 130 actuator.
- 9) Fit the lever assembly to the AGD 200 actuator.
- 10) Align the lever with the flow valve and tighten in place such that there is no free play and no pre-load on the lever.
- 11) Reconnect the electrical connector.

After the engine has been started and is under governor control, the internal actuator springs can be evaluated. It is desirable to have an appreciable current difference indicating satisfactory actuator movement. Suggested values are shown below:

	<u>12 Volt</u>	<u>24 Volt</u>
No Load	2.5 Amps 4.5 Volts	1.25 Amps 9 Volts
Full Load	5 Amps 9 Volts	2.50 Amps 18 Volts

# ENGINE GOVERNING SYSTEMS



KT 410046

IF 410050

Alternative actuator springs are:

<u>Part #</u>	<u>Rate</u>	<u>Color Code</u>
SP 675-1	4.8	Blue
SP 675-2	4.2	Red
SP 675-3	3.6	White
SP 675-4	3.2	Yellow
SP 675-5	3.0	Green
SP 675-6	2.5	Black

To increase the current flow install a stronger spring and vice-versa.

Note: The actuator operation is sensitive to control lever linkage pre-load or free play.

- Free play will increase current flow and may result in low engine power.
- Pre-load will reduce current flow and may prevent engine low idle and shut down. Speed overshoot may also occur during generator load dumps.