

SERVICE

SHOP DOPE

No. 313

January 17, 1951

REGULATOR SERVICE INFORMATION

With this bulletin we are sending you Delco-Remy Service bulletins 1R115 and 1R116, containing service information on regulators used on Harley-Davidson motorcycles from later 1938 to date.

Bulletin 1R115 applies to regulators with Delco-Remy numbers ending in "200" group. Bulletin 1R116 applies to regulators with Delco-Remy numbers ending in "300" group.

Delco-Remy bulletins illustrate and describe method of adjusting air gaps, point settings, current and voltage settings, but do not give any specifications. Refer to specifications in this bulletin.

Before making any adjustments, identify regulator by Delco-Remy number stamped on regulator base or regulator mounting bracket; then refer to specifications shown for that particular regulator, and make adjustments accordingly.

SPECIFICATIONS FOR SETTING DELCO-REMY REGULATORS USED ON HARLEY-DAVIDSON MOTORCYCLES

All electrical checks and adjustments must be made with regulator at operating temperature. This requires about 15 minutes operation with generator charging approximately 5 amperes.

Delco-Remy number 1118224 Harley-Davidson part number 8375-41 current and voltage regulator - original equipment up to 1948 with 2-brush radio generators, not fan-cooled. (Regulator 1118224 no longer available on parts order. Superseded by 1118327.)

| | |
|----------------------------|----------|
| Voltage regulator air gap | .070 in. |
| Current regulator air gap | .080 in. |
| Cutout relay air gap | .020 in. |
| Cutout relay point opening | .020 in. |

| | | |
|------------------------------|-----------------------------------|----------------------------------|
| Cutout relay closing voltage | Voltage regulator setting (volts) | Current regulator setting (amp.) |
| 6.6 | 7.5 | 13.0 |

Delco-Remy number 1118327 Harley-Davidson part number 8375-41 current and voltage regulator - this regulator was never used as original equipment but supersedes Delco-Remy regulator 1118224 for replacement requirements.

| | |
|----------------------------|----------|
| Voltage regulator air gap | .075 in. |
| Current regulator air gap | .075 in. |
| Cutout relay air gap | .020 in. |
| Cutout relay point opening | .020 in. |

| | | |
|------------------------------|-----------------------------------|----------------------------------|
| Cutout relay closing voltage | Voltage regulator setting (volts) | Current regulator setting (amp.) |
| 6.6 | 7.5 | 13.0 |

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Delco-Remy number 1118388 Harley-Davidson part number 74511-51 current and voltage regulator - used with 2-brush fan-cooled radio generator equipped 1951 model motorcycles.

| | |
|----------------------------|----------|
| Voltage regulator air gap | .075 in. |
| Current regulator air gap | .075 in. |
| Cutout relay air gap | .020 in. |
| Cutout relay point opening | .020 in. |

| | | | | | |
|------------------------------|-----|-----------------------------------|-----|----------------------------------|------|
| Cutout relay closing voltage | 6.6 | Voltage regulator setting (volts) | 7.5 | Current regulator setting (amp.) | 18.0 |
|------------------------------|-----|-----------------------------------|-----|----------------------------------|------|

20 (AMP)

Delco-Remy number 283 Harley-Davidson part number 31700-47 Voltage regulator only - used with all model 125; 1949 - 3-brush fan-cooled radio generator; and 1950 2-brush fan-cooled radio generator. Regulator No. 283 no longer available on parts order. Superseded by regulator No. 307

| | |
|----------------------------|----------|
| Voltage regulator air gap | .070 in. |
| Cutout relay air gap | .020 in. |
| Cutout relay point opening | .020 in. |

| | | | |
|------------------------------|-----|-----------------------------------|-----------|
| Cutout relay closing voltage | 6.5 | Voltage regulator setting (volts) | 7.0 - 7.7 |
|------------------------------|-----|-----------------------------------|-----------|

When used on model 125 set for 7.0 volts. When used with fan-cooled generator set for 7.7 volts.

Delco-Remy number 307 Harley-Davidson part number 74510-47 - voltage regulator only - this regulator supersedes, and is interchangeable with Delco-Remy regulator No. 283.

| | |
|----------------------------|----------|
| Voltage regulator air gap | .075 in. |
| Cutout relay air gap | .020 in. |
| Cutout relay point opening | .020 in. |

| | | | |
|------------------------------|-----|-----------------------------------|-----------|
| Cutout relay closing voltage | 6.5 | Voltage regulator setting (volts) | 7.0 - 7.7 |
|------------------------------|-----|-----------------------------------|-----------|

When used on model 125 set regulator for 7.0 volts. When used with fan-cooled radio generator set for 7.7 volts.

CAUTION - Refer to page 4 of Delco-Remy bulletin, either 1R115 or 1R116, and carefully read information under "Regulator Maintenance", particularly with regard to "Repolarizing Generator". This is a must.

Applying to 2-brush fan-cooled radio generator on 1950 model motorcycles; also applying to 1949 model motorcycles where original 3-brush fan-cooled radio generator has been converted to 2-brush generator, it is recommended that when replacement of original equipment voltage regulator Delco-Remy No. 283 or No. 307 may be required, current and voltage regulator Delco-Remy No. 1118388, Harley-Davidson part number 74511-51 be installed.

WARNING

Delco-Remy makes many different regulators, each carrying a different number stamped on regulator base or regulator mounting bracket. Many of these regulators look identical in size, shape, etc., but each different model number means there is some difference in construction or a difference in setting specifications.

It is not unusual to find that someone has replaced an original equipment regulator with one that looks like the original, but has a different number and entirely different setting that are not at all suited to a Harley-Davidson generator.

This usually results in one of two things. Either the generator output is controlled so low that battery doesn't stay charged, or generator is overheated and damaged from not enough control, and resultant excessively high output.

Go by regulator numbers yourself -- and warn your trade that may go elsewhere for electrical service not to accept any other replacement regulators than those listed in this bulletin. To do otherwise, is to invite trouble.

HARLEY-DAVIDSON MOTOR CO.
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