

DUAL-RANGE HYDRA-MATIC BAND ADJUSTMENT

- ▶ **1953 CADILLAC REAR BAND SLIPPAGE CORRECTION:** See "Overhaul" following.
- ▶ **BAND ADJUSTMENT NOTE:** Internal Band Adjustments must be made on the following models: 1954-55 Cadillac; 1953-55 Oldsmobile; 1955 Pontiac. External Adjustments may be made on all other models.
- ▶ **1953 BAND ADJUSTMENT SPECIFICATION PRODUCTION CHANGE:** Front band adjustment specifications have been changed from 6.5 tight to 7.7 turns tight. *This change applies to all previous models except Oldsmobile.*

EXTERNAL ADJUSTMENT

- ▶ **ADJUSTING TOOL NOTE:** DO NOT make an external adjustment if Adjusting Tool J-2681, J-2861-A or Kaiser-Frazer Tool No. KF-96, and an accurate tachometer are not available.
- 1) Block front wheels securely and set hand brake firmly to prevent car moving while adjusting.
- 2) Remove front floor mat and adjusting hole cover over adjusting screws on left side of transmission.
- 3) Run engine until temperature is normal and engine idles at hot or slow idle speed of 375-400 RPM.
- 4) Connect and adjust tachometer for accurate recording of engine speed.
- 5) Place selector lever in "Dr" position ("Dr. 4") except 1952 Oldsmobile (lever in "Lo" position).
- 6) Adjust carburetor throttle stopscrew so that engine idles at exactly 700 RPM. Then adjust bands:

Front Band (After steps 1 through 6):

- 7F) Install the adjusting tool on front band adjusting screw, loosen adjusting screw locknut (turn long handle while holding short handle stationary).
- 8F) Loosen band adjusting screw (turn short handle) until engine speed increases to 900-1000 RPM., (800-900 Hudson. This makes it unnecessary to back adjusting screw all the way out).

- ▶ **NOTE—**If no increase in engine speed noted when adjusting screw loosened, band has probably been slipping in service. Remove oil pan and inspect band and drum. With pan off, adjust bands as directed in ADJUSTMENT—WITH PAN OFF below and disregard following steps.

- 9F) Tighten band adjusting screw slowly until engine speed drops to 700 RPM., loosen adjusting screw until engine speed increases, then tighten adjusting screw until engine speed again drops to exactly 700 RPM., watch tachometer for 30 seconds to note any increase in engine speed. If increase noted, tighten adjusting screw 1/10 turn. Repeat this procedure until engine speed remains at 700 RPM. for at least 30 seconds.

- 10F) Set counter on adjusting tool to "OO". Hold locknut stationary and tighten adjusting screw exactly 7.7 turns (6.5 turns Chev. Truck). Hold adjusting screw from turning and tighten locknut.

Rear Band (After steps 1 through 6):

- 7R) Install the adjusting tool on rear band adjusting screw, loosen adjusting screw locknut (turn long handle while holding short handle stationary).
- 8R) Loosen band adjusting screw (turn short handle) until engine speed increases to 900-1000 RPM., (800-900 Hudson. This makes it unnecessary to back adjusting screw all the way out).

- ▶ **NOTE—**If no increase in engine speed noted when adjusting screw loosened, band has probably been

slipping in service. Remove oil pan and inspect band and drum. With pan off, adjust bands as directed in ADJUSTMENT—WITH PAN OFF below and disregard following steps.

- 9R) Tighten band adjusting screw slowly until engine speed drops to 700 RPM., loosen adjusting screw until engine speed increases, then tighten adjusting screw until engine speed again drops to exactly 700 RPM., watch tachometer for 30 seconds to note any increase in engine speed. If increase noted, tighten adjusting screw 1/10 turn. Repeat this procedure until engine speed remains at 700 RPM. for at least 30 seconds.

- 10R) Place selector lever in "N" position.

- 11R) Set counter on adjusting tool to 00. Hold locknut stationary, tighten band adjusting screw exactly 2 turns until tool counter reads 2.0

- 12R) Return selector lever to "Dr" position. Hold band adjusting screw from turning, tighten locknut securely.

Idle Speed Adjustment (After Bands Adjusted): See Car Model pages for settings and procedure.

INTERNAL ADJUSTMENT

- ▶ **ADJUSTING TOOL NOTE:** DO NOT make an internal adjustment if Front Servo Adjusting Gauges J-1693, J-1693A or Kaiser-Frazer Tool KF-92; Rear Band Adjusting Tool J-1460-A, J-5071 or Kaiser-Frazer Tool KF-77 is not available.

Front Band Adjustment (With Gauge J-1693, J-1693-A or KF-92):

- 1) Loosen locknut and back off front band adjusting screw approximately 5 turns. Make certain that

band is centered on drum.

- 2) Remove pipe plug from bottom of front servo.
- 3) Loosen hexagonal headed adjusting screw on gauge by hand until approximately 1/8" of adjusting screw threads are exposed above gauge body. Screw gauge into pipe plug hole in front servo by hand.
- 4) Tighten hexagonal adjusting screw on gauge by hand until gauge stem is felt to just touch piston in servo, then continue to tighten adjusting screw with a wrench exactly five full turns from point where stem first contacted piston.
- 5) Tighten front band adjusting screw until knurled washer on gauge (at upper end of hexagonal adjusting screw) is just free to turn. Hold band adjusting screw from turning and securely tighten adjusting screw locknut.
- 6) Loosen gauge adjusting screw at least six turns, remove gauge from servo. Install pipe plug in servo and tighten securely.

Rear Band Adjustment (With Gauge J-5071, J-1470-A or KF-77):

- 1) Place the gauge on the finished surface of the Accumulator body with leg of gauge resting on rear servo stem.
- 2) Loosen locknut and back off rear band adjusting screw until face of actuating lever (which contacts servo stem) is well away from the face of the gauge.
- 3) Tighten band adjusting screw until face of band actuating lever just contacts gauge.

- ▶ **CAUTION—**If adjusting screw turned too far when making this adjustment, back screw off SEVERAL TURNS and repeat adjustment.

- 4) Hold band adjusting screw from turning and tighten adjusting screw locknut securely. Remove gauge.

DUAL-RANGE HYDRA-MATIC TESTING

- ▶ **"DUAL-RANGE" HYDRA-MATIC TESTING NOTE:** These transmissions have MODULATED PRESSURE and HYDRAULIC REVERSE and following test procedure will apply to all transmissions:

ROAD TEST: Operate the car over a test route and note performance and shift speeds. Select a test route that will provide for all types of operation: Hilly section to check full-throttle upshifts, slippage, and throttle downshifts; a level section to check closed throttle upshifts; and a quiet section to check for noise. See Hydra-Matic Shift Point table for correct shift speeds.

STALL TEST: Can be used to check engine and transmission performance. Connect accurate electric tachometer to check engine speed. Start engine and warm up engine and transmission to operating temperature. Apply foot brake firmly and set hand brake tight. Set selector lever in "Dr. 4" position. Depress accelerator pedal to the floor and NOTE ENGINE RPM. If engine speed not within limits shown in table, make further tests as indicated below.

- ▶ **CAUTION—**Use extreme care in making this test and NEVER HOLD THROTTLE OPEN MORE THAN ONE MINUTE (15-20 seconds preferably). If engine speed exceeds maximum figure shown in table, CLOSE THROTTLE IMMEDIATELY to avoid possible damage to transmission.

STALL TEST LIMITS

Model	Min. RPM	Max. RPM
1952-55 Cadillac	1700	1900
1954-55 Chevrolet Truck	1400	1600
1952-54 Hudson Jet	1600	1900
1952-54 Hudson Six Ⓒ	1300	1600
1952-54 Hudson Six Ⓒ	1450	1750
1952-54 Hudson Six Ⓓ	1600	1900
1955 Hudson Wasp.	1600	1800
1955 Hudson Hornet	1700	1900
1952-55 Kaiser	1450	1650
1952-54 Lincoln	1350	1600
1952-54 Nash Ambassador	1600	1800
1955 Nash Ambassador	1550	1650
1952-55 Nash Statesman	1600	1800
1952-53 Oldsmobile	1750	1850
1954-55 Oldsmobile	1750	1875
1952-54 Pontiac	1400	1600
1955 Pontiac	1600	1800
1952-55 Rambler	1600	1800

Ⓒ—232" Engine. Ⓒ—262" Engine.

Ⓓ—308" Engine.

If engine speed below minimum—Engine requires tune-up, or front unit is locked up.

CONTINUED ON NEXT PAGE