

I believe your gearbox internals are fine because you DO GET a smooth change when cold and also when warm but only under full throttle.

Hence I think that your rough change when warm and under partial throttle comes from how the power flow happens during a 1-2 shift. The wordings below is a copy/paste from the workshop manual and I made the relevant words **bold**. One really needs to read this slowly, and many times, and read it as you would read some philosophy essay from the 18th century.

In essence, 1-2 shift happens when the intermediate clutch is applied.

Now, there is a clever, build-in mechanism to control the apply pressure of the intermediate clutch. This all happens in the rear servo: the piston is pushed by the

From the workshop manual, page T1-6:

	First gear	Second gear
Forward clutch	applied	applied
Direct clutch	released	released
<b>Intermediate clutch</b>	<b>released</b>	<b>applied</b>
Roller clutch	effective	ineffective
Front band	released	released
Intermediate sprag clutch	ineffective	effective
Rear band	released	released

From T12-1:

To initiate the change from first to second, governor pressure is directed to the end of the 1-2 shift valve. **As the car speed increases, governor pressure moves the valve to allow drive oil to apply the intermediate clutch.** This makes the intermediate clutch effective and the transmission changes into second gear.

Now here it comes (still on T12-1):

Clutch application control : To introduce **gearchange feel**, and to ensure long clutch plate life, the clutch apply pressure is regulated to suit throttle application (see fig. T12-2)

The intermediate clutch is controlled according to the throttle opening as follows: Line pressure is varied by the modulator.

A 1-2 accumulator valve train provides a variable accumulator pressure **to cushion the clutch application**. The 1-2 accumulator valve train is supplied with drive oil and is controlled by modulator pressure. **During light throttle application, drive oil is reduced to a low accumulator pressure. During heavy throttle applications, accumulator pressure approaches full main pressure. Accumulator pressure is made to act on one side of the rear accumulator piston in the rear servo** (see Section T13). In first gear, the accumulator piston is stroked to its lower position to prepare it for the change to second gear.

When the 1-2 shift valve opens, **intermediate clutch apply oil is also directed to the rear servo accumulator piston**, stroking the piston **against** the 1-2 accumulator oil and the accumulator spring (see fig. T12-3). **This action absorbs a small amount of the intermediate clutch apply oil and permits the clutch apply time and pressure to be controlled for the correct gear change feel.**

Now, because your 1-2 shift is good when cold, and good when warm but only when under full throttle, I believe to think that there is some issue within the valve body and my main suspect would be the rear servo. Either this action of "**intermediate clutch apply oil is also directed to the rear servo accumulator piston**"

is not happening, or the rear servo simply does not respond well to it.

What I would do in your place is to remove the valve body again (fluid drained of course and transmission still installed) - well, the checkballs will fall into your face - and verify all fluid passages free of debris and lint, and re-open the rear servo to verify proper action of the piston. My belief is that some foreign matter has impeded the proper functioning of the gearchange feel which happens on both sides on that rear servo piston.

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