THE Indian MOTORCYCLE COMPANY

FACTORY SERVICE BULLETIN

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Number SVB - 193

Model All m/c equipped with "Feathaire" suspension

Subject Air Fork Information

I.M.C. "Feathaire" front forks are infinitely adjustable to suit the individual rider's preference. There are three main points to remember about air forks:

1) The AMOUNT of oil used is the SPRING RATE.
2) The AIR PRESSURE is the "spring" PRELOAD.
3) The OIL VISCOSITY is the DAMPING RATE.

On the Indian MI-MT-MS motorcycles we suggest that for the "average" rider, the forks should use 30 wt. hydraulic oil, adjusted to 69mm from the top of the fork legs (FORKS FULLY COMPRESSED) and 35 to 37 P.S.I. in each fork leg.

If the forks are too "soft" add 6mm more oil in each leg. Go up in 6mm steps until the right spring rate is found for that particular rider.
If the forks are too "hard" decrease the oil level in each leg in 6mm steps. Do not exceed the minimum oil level of 44mm or the maximum oil level of 83mm.

The air pressure in each leg should be within 1/2 lb of each other. The ACTUAL air pressure will drop approximately 2 P.S.I. when the air pressure gauge is removed from the air valve.
The air pressure is very sensitive to temperature. For example, on a cold morning the forks may be collapsed somewhat, but after riding a few minutes the forks will "pump" up as they warm up from riding.
Do not exceed the minimum of 32 P.S.I. or the maximum of 40 P.S.I.

It may be necessary to change from the standard 30 wt. fork oil for different riders or climate conditions. In the winter or for a very light rider it may be necessary to use 20 wt. oil. In the hot summer time or extreme competition it may be necessary to use 40 wt. hydraulic oil.

If the forks lose air pressure or oil there are several places to check for leaks. The following is a list of places to check for leaks (Listed in order of probability) Check for leaks with 100 P.S.I.
1) Oil drain screw and "O" ring at the bottom of each fork leg.
2) "O" ring on the fork cap.
3) Scratched surface on the "back" side of the main fork seal or a scratch in the seal nut itself.
4) "O" ring in the seal nut.
5) Main fork seal "lips".
6) Air valve in fork cap nut.
If ANY of these parts are removed for servicing you MUST use gasket-cinch or equivalent to seal these parts upon re-assembly.

How to determine the quantity of oil needed for a particular compression ratio:

1) Drain out all the oil from the fork leg, then fully compress the leg. Pour some light oil or solvent into a measuring device like a graduated cylinder and carefully pour the liquid into the fully-compressed leg until the level is two or three inches from the top. Pump the leg several times to remove any trapped air, fully compress the leg again and fill it to the very top without spilling any fluid. Record the amount of fluid the fully-compressed leg holds.
2) Extend the fork leg to its limit and add enough fluid from the measuring device to completely fill the fully-extended leg. Record the amount of fluid the fully extended leg holds.


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