R.V.C.R TECHNOLOGY

ADVANTAGES OF THE INVENTION

1. Elimination of reversal of stroke. Eliminates reversal of inertia forces and mass

2. Conventional engines are either 2 & 4 stroke ENGINES. With RVCR mechanism the equivalents are single and dual stroke. Thus halving the strokes required.

3. Variable compression ratio,

i.e. every specimen engine adaptable to perform according to desired/varying thermodynamic cycle (namely Otto, diesel, dual).

Thus the engine burns fuel of choice.

4. This variation in compression Ratio can be brought about while the engine is in Operation by shifting of a set of cams followers.

5. Variable compression ratio also means better thermal efficiency.

6. No crosshead, gudgeon and the piston equivalents are hinged (and not floating on a gudgeon or a crosshead) thence no slapping of piston /elimination of associated vibrations i.e. vibration of second and higher order.

7. Size to power ratio to reduce to near half . Engine will be smaller for a particular out put than conventional engines.

8. The third element by the way of radius along with stroke and bore available for designers. (To cater to space, size constraints).

9. OTHER advantages like elimination of crankcase. Obvious advantages W.R.T …lubricating oil deterioration and safety hazards like Crank Case explosion.

10. External bearings (thus obvious advantages. Wrt…monitoring, maintenance etc)

11. Vane (piston) position dependent Cylinder lubrication (thru vanes). Thus piston Lubrication not just load or speed based but injection Control as a function of piston position also.

12. Large flywheel is eliminated as the heat addition process and compression of fresh charge occurs on opposite sides of vane piston and this occurs simultaneously

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