

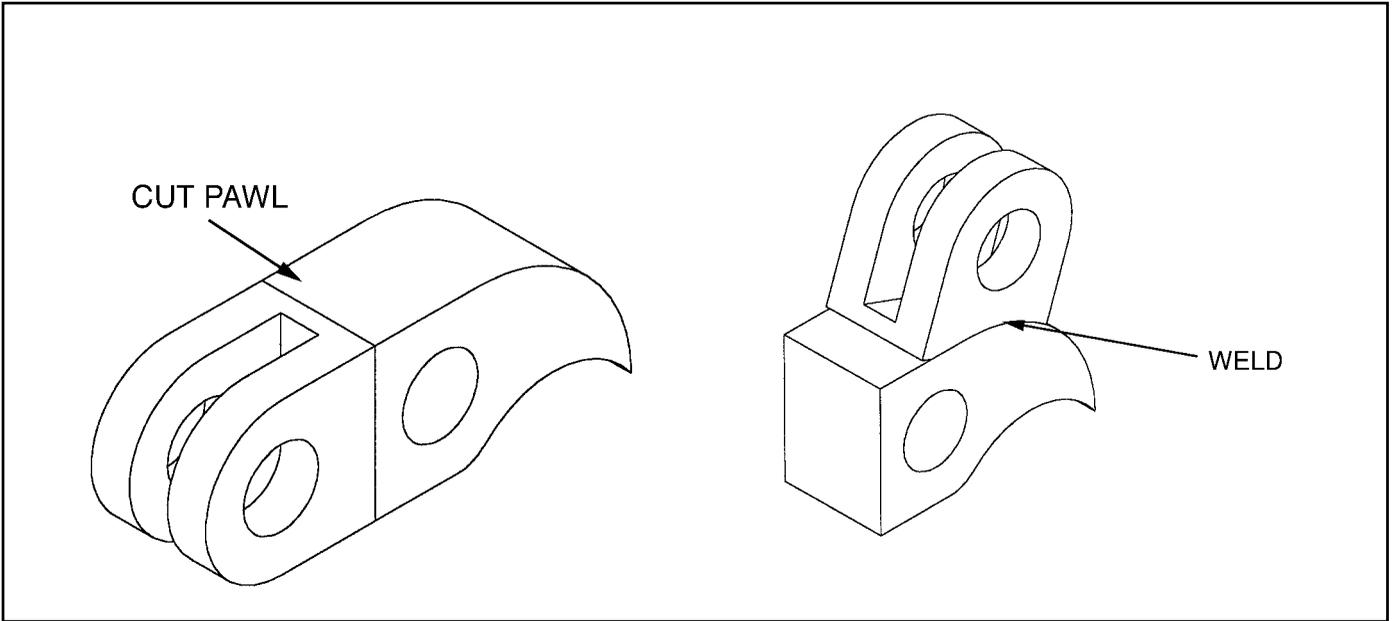


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Anatomy of the Works Minis





Stages one (left) and two in conversion of handbrake to 'Fly-off' operation.



The accelerator pedal with its extension for ease of 'toe and heel' simultaneous brake and throttle operation.

Anatomy of the Works Minis



Engine tuning ace Cliff Humphreys assembling a Mini engine.

for a lot of modification (again, where permitted). The rockers are the levers that the pushrods from the camshaft act upon to open the valves. It had been found that removing .055" from the height of the pillars which carried the rockers brought about greater opening of the valves.

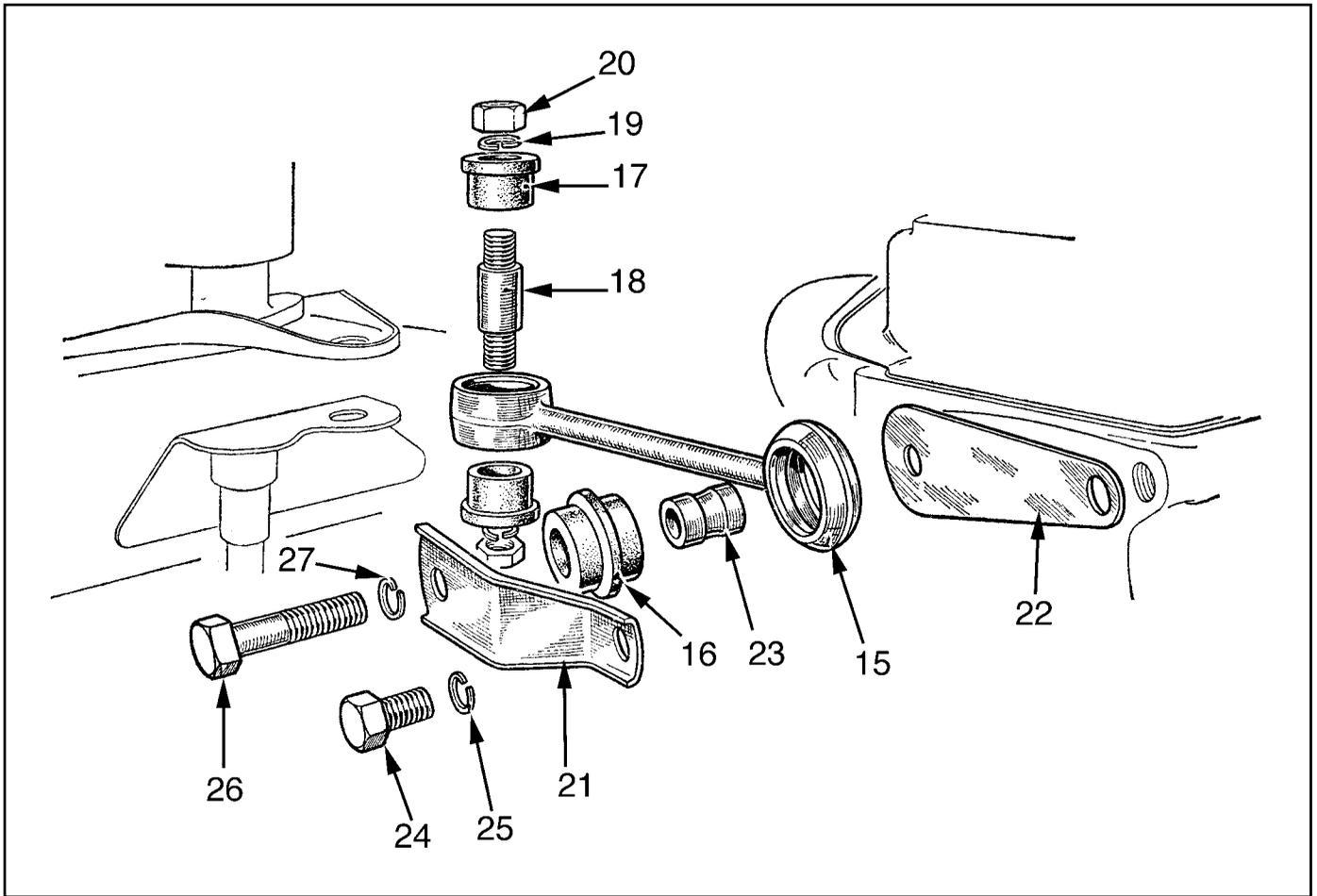
The rockers themselves were drastically lightened and polished too, with the pad that acted on the valve being narrowed to the

same width as the diameter of the valve stem. For standard engines the rockers were spaced on a shaft with a light spring between them to keep them in place. However, the amount of movement allowed by the spring could mean that the narrowed rocker might not sit squarely on the end of the valve. Also, the springs acting on the side of the rockers were a source of unnecessary friction. These

springs were replaced by steel spacers, which we dubbed 'cotton reels' because of their shape. They were made by Fred Berry and were fitted over the shaft between each rocker.

The shaft carrying the rockers was supported by four pillars. Rockers number one and eight were on the ends of the shaft beyond the last supporting pillar. The pillar by number one rocker was drilled to allow oil to

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Item 18 replaced by a nut and bolt.

place to conform to the regulations, but it was made inoperative and a hole was cut in the hose to allow the pressure to be released to the atmosphere. The oil filler cap was also drilled to relieve the pressure from inside the rocker cover.

The engine steady bar that restricted the torque movement of the engine, went from the engine to the bulkhead. The bulkhead end of the bar was secured by a bolt made from a short piece of bar with a thread

sticking out of either end. This bolt was placed into a bracket welded to the bulkhead, then the rubber bush and steady bar dropped on to it with another bracket on top to make a sandwich of the steady bar. This upper bracket was fixed by the same bolts that secured the master cylinders, so it was not possible to remove the steady bar or the fixing bolt without first removing the master cylinders. Unfortunately, the rubber bush came in for a lot of punishment

due to the fierce braking and acceleration in competition, causing the engine to lurch back and forth, and frequently had to be replaced. The solution that was adopted was to do away with the fixing bolt with its thread at either end and replace it with a straightforward bolt and nut with a spacer in the rubber bush.

The gearbox remote control mounting was a straightforward round rubber, 2 inch in diameter, with a plate with a threaded stud protruding from its centre bonded