1934 HUPMOBILE

Hupmobile were built in USA from 1908 to 1942. (abbreviation **HUPP**)
Australia was their greatest export destination for many years.

Model designation K421 the 4 is for 193**4**, the 21 is for 1**21**" wheel base, while K was their 6 cyl. model that year

Owner and restorer (over 20 years), Graham Hutchinson, (with help from some specialist tradesmen).

Often referred to as Hutchie's Hupp.

Price new in USA was $995. It is 6 volt, positive earth. Has 18mm spark plugs Champion D16. .032"- .034" gap. Distributor points gap .015" - .018" Tyer size is 6.00 X 17" balloon.

Engine No. K 9885 **Chassis No.** K 10015. (The original eng. no. was also K10015, but had to be replaced.)
Engine size 6 cylinder side valve, made by Hupmobile 90 BHP (67 KW) at 3800 revs.
Bore 3 3/8" stroke 4 ¼" = 228 cubic inch (3.75 Litre approx.) currently 3.8 Litre, as bore is .030" o/size.
Lubrication of the engine is by force feed to main and big end bearings, and via rifle drilled connecting rods to gudgeon pins and cylinder walls. There is a bi-pass oil filter. Initially I used Penrite running in oil, now use Mobil Delvac 1340 which is a light Diesel type oil. Oil level needle indicator is on N/side, there is no dip stick.

Compression Ratio originally was 5.25 : 1, with an optional high compression head 5.75 : 1 available in USA.
I believe all Hupp's came here with the low compression head. Perhaps they were unaware that "Ethel" petrol was available here? The high compression head was the same one, but an extra 0.100"was machined off the joint face, giving a smaller combustion chamber.
Compression ratio on Hutchie's Hupp is 5.837 : 1, It runs happily on standard unleaded petrol. The increase was due to amount machined off deck of block and head joint faces, .030" o/size bore, and pistons .040" above deck.

DID YOU KNOW ?

Increase in compression ratio due to engine reconditioning. These calculations apply to Hutchie's Hupp, but would be close enough for any 6 cylinder engine of from 3 to 4 litres. If your engine is a 4 or 8 cyl., is larger or smaller, you will just have to work these figures out for yourself.

Machining .010" off block deck will increase compression ratio by 0.1 : 1
Machining .010" off head joint face will increase compression ratio by 0.1 : 1
For every .010" piston is above deck at TDC, C/R is increased by 0.1 : 1
Re-boring the 6 cylinders .030" oversize will also increase C/R by 0.1 : 1

Engine Reconditioning Hardened seats were used for the exhaust valves only. Modern Ford valves were modified to suit, and they were hard faced on poppet faces & stem ends by Vern Stephens. Piston rings used were the multi-segment type, with their gaps staggered to eliminate ring gap

Gearbox is Borg Warner 3 speed, with synchromesh on second and third. There is also a "free wheel" device at the back of the gearbox, which allows gear changing without using the clutch, when the knob below the dash is operated. (Some parts are interchangeable with the gear box in the early Ford V8's, which I found handy).

Differential is Spicer, 52teeth to 11 teeth, giving a ratio of 4.721 : 1 which is good for going up hills, but leaves one looking for another gear on the open road.

Bearings Main and big end bearings are white metal, while camshaft runs in bronze liners.

Camshaft was reground to 135 profile, to give better response to modern fuels etc.

	New grind	Original
Intake timing	opens 12Ú. BTDC	opens 2 Ú. BTDC
	closes 52 Ú. ABDC	closes 51 Ú. ABDC