

## Albion Model H 4 Speed Gear Ratios.

Albions heavy weight Model H 4 speed gearbox appeared in the early 1930s and remained basically unchanged internally up to the late 1950s. Its variations included 3 speed, 3 speed with reverse, and 4 speed. The 3 speed with reverse was fitted to the likes of delivery carts and motorised railway velocipedes (commonly referred to as 'railway jiggers'). Smaller motorcycle manufacturers like Excelsior (including the Manxman) utilised Albions model H but one of the major users was Royal Enfield. They used them in their heavy weight models from the 1930s 350 and 500 singles up to the postwar 500, and 700 twins, only changing to the HG model around 1958.

Given the versatile nature of the Model H a selection of gear ratios were also available ranging from wide ratio for commercial applications (and motorcycle trials machines) to close ratio (for racing).

This is a list of the more common ratios (wide and close) that were used in different applications for motorcycles.

Ref No.	Number of Teeth on Gear Pinions							Internal Ratios				Remarks
	Mainshaft			Layshaft								
	1st	Slider	Top	1st	2 <sup>nd</sup>	3 <sup>rd</sup>	Top	1st	2nd	3rd	Top	
<b>STD</b>	30	25 x 21	18	18	23	27	30	2.78	1.8	1.3	1	<b>Standard (including Scrambles)</b>
<b>1</b>	27	24 x 22	21	21	24	26	27	1.65	1.28	1.09	1	Very Close Ratio - No Kick Starter.
<b>2</b>	28	24 x 22	21	20	24	26	27	1.8	1.28	1.09	1	Close Ratio - No Kick Starter.
<b>3</b>	27	24 x 22	20	21	24	26	28	1.8	1.4	1.18	1	Close Ratio No Kick Starter.
<b>5</b>	29	24 x 22	20	19	24	26	28	2.13	1.4	1.18	1	No Kick Starter.
<b>12</b>	31	26 x 21	17	17	22	27	31	3.3	2.15	1.14	1	Wide Ratios
<b>13</b>	30	26 x 21	17	18	22	27	31	3	2.15	1.4	1	Standard on Trial Models
<b>14</b>	31	25 x 21	17	17	23	27	31	3.3	1.98	1.4	1	As 12 but higher 2nd
<b>16</b>	27	24 x 21	18	21	24	27	30	2.14	1.67	1.3	1	Close Ratio with kick starter
	<b>H12/</b>	<b>H11/</b>	<b>H9/</b>	<b>H17/</b>	<b>H18/</b>	<b>H19/</b>	<b>H20/</b>	<b>Refer to the Parts illustrations of the gears - Part Number plus No. of Teeth eg - H12/27 (27 teeth)</b>				

Refer to the **Albion 4 Speed Parts List** for the illustrations of the above gears.