Model T Transmission Lever

Craig Renneker
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Fundamental Planetary Lever

1/\(N_{\text{pinion}}\)

1/\(N_{\text{sun}}\)

Model T used no ring gears
Model T Planetary Lever

Scaling factors used to get Carrier-Pinion lengths to match $1/N_{p1}$
# Model T Planetary Lever

<table>
<thead>
<tr>
<th></th>
<th>Gearset 1</th>
<th>Gearset 2</th>
<th>Gearset 3</th>
</tr>
</thead>
<tbody>
<tr>
<td># Sun teeth</td>
<td>30</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td># Pinion teeth</td>
<td>24</td>
<td>33</td>
<td>27</td>
</tr>
</tbody>
</table>

![Model T Planetary Lever Diagram]
Let $K=1$, calculate lengths:

$\frac{1}{21} \times \frac{33}{24} = 0.0655$

$\frac{1}{27} \times \frac{27}{24} = 0.0417$
Model T Planetary Lever

Input

C

S1

S2

S3

Direct Clutch

Reverse Band

Brake Band

Slow Band

Output
Model T Planetary Lever

Input

C

Direct Clutch

S1

Reverse Band

S3

Brake Band

S2

Slow Band

Output

Direct Clutch

S1

Reverse Band

S3

Brake Band

S2

Slow Band
Slow Gear

Slow Ratio
0.0655/0.0238 = 2.75

Input

Direct Clutch

Output

Reverse Band

Brake Band

Slow Band

S1

S2

S3
Reverse Gear

Input

Reverse Band

Brake Band

Slow Band

Direct Clutch

Output

Reverse Ratio

\(-0.0333/0.0084 = 3.96\)