

A successful ascent of a notoriously severe hill possesses a charm of its own. A feat of this kind fosters complete confidence in one's car and driving capabilities, whilst the experience necessarily acquired during a tough climb will, without doubt, prove of considerable assistance in the emergency that comes, sooner or later, to every driver of a mechanically-propelled vehicle. Constantly we are asked by correspondents for the gradients of noted acclivities, and for general guidance we give a list of famous British hills, their locality, maximum gradient, and outstanding features.

IT is interesting to compare the drivers of motor cars of some twenty years ago with those of to-day. In earlier times, when performances on the road were limited by the capabilities of cars such as the old Benz, Panhard, and De Dion, drivers were quite satisfied if they were able successfully to surmount the very ordinary gradients to be found on main road routes. Some of even those proved too much for these staunch but lamentably low-powered vehicles. Certainly owners of those pioneer cars did not seek fame by attempting the ascent of freak hills; the gradients ordinarily met with proved sufficiently formidable.

As automobilism developed, attention was concentrated on improving the internal combustion engine, and the transmission system was not neglected, the inevitable result being that the great increase of power delivered at the road wheels enabled cars to climb hills hitherto considered impossible, so that cars are now driven up the most severe gradients that can be found in this country. The data obtained from these tests have proved invaluable to manufacturers of such components as brake linings, etc., and many weak spots in design were revealed, especially in cases where the choice of material had been incorrect. A strenuous hill-climbing test has now become a recognised feature of the ordeal through which all British-made cars are put before being marketed. A list of the most severe gradients used for this purpose in Great Britain appears Wherever possible the later on in this article. condition of the surface of the hills is given, though this necessarily varies from time to time, in some

cases owing to the attention or the neglect of the road authorities concerned.

Car owners themselves very often take a sporting interest in the hill-climbing ability of their cars, as is witnessed by the many competitions of this kind that take place during the summer months. But quite apart from the pride of knowing that one's car has satisfactorily climbed one or other of the notorious single-figure gradients, the motorist cannot but enjoy the pleasing prospect spread out to view from the summits of these hills.

Owners of cars who live in flat districts, and who are unused to severe gradients, should exercise great care in their first attempts at climbing really steep hills. In all cases the complete brake mechanism should be carefully examined, and each brake should be tested separately to ascertain that it is in perfect working order. It is as well to remember that even in these days there are cars which, on gradients of the kind under notice, fail to maintain a constant supply of petrol to the carburetter, especially as the main tank becomes depleted of its contents. On older cars it was often necessary to climb severe hills backwards, as when the gravity petrol tank was located under the seat the level of the carburetter rose above the level of the petrol in the tank. With the introduction of lower bodies, however, tanks became gradually displaced from this position, and in the majority of cases were put at the rear of the chassis. In this position, and with pressure or vacuum feed, there is very little risk of a failure in the fuel supply.

Some Noted British Test Hills.

		Max.				Max.	13	-	Ė
100	ALMS HILL, near Henley-on-Thames. Bad surface, two	Gradient.		Length.	MOORSHOP and MERIVALE, Tavistock-Two-Bridges.	Gradient	•	Length.	
	bends. Includes 600 yards of 1-51. Very greasy in wet weather	7-2		1,200 yds.	Both hills have long pulls of single-figure gradients. Surface usually good			ij :	U
	ASTON CLINTON, near Tring. A long rise, which in-	1-3			MUSWELL HILL, Crouch End, New Southgate. Aver-		•		
0,70	cludes a right-angle corner and severe left-hand curve ALDERWASLEY, near Wirksworth	1-8½ 1-5		1,400 yds.	age gradient 1-12. Surface fair. A convenient hill for Metropolitan riders	1-91	-1.	7931 yds.	
7	BARBROOK MILL HILL (Beggar's Roost), near Lyn-	1 7 - 1		3. 5.50	MAM RATACHAN, near Glenelg. Average gradient	Approx.			
**	mouth. Fairly straight, bad surface; rises 343 feet BIRDLIP, near Gloucester. No sharp corners, 3 curves.	1-3.04	••	900 yards	MYTHOLM RISE, near Todmorden. Includes several	Approx.		350	
Š	Treacherous surface after rain. Easiest gradient is		1	nl. yds.	matlock bank, near Matlock Bath. Fair surface	1-5 1-5		440 yards	
	BRASTED. Two bends, between which lie the steepest	1-5		Approx.	MONUMENT HILL, Taunton. On Blackdown Hills	1-5		app. 1 ml.	
	portion. Surface good, neither of the bends severe BWLCH-Y-GROES , near Pont-y-Pennant. Dinas Mawd-	I-51	•••	½-mile	NETHERHALL GARDENS, Hampstead. Average gradi- ent 1-18. Worst portion is just before the left-	THE		1.5	- 1
	dwy side. Average gradient 1-7. Rises 1,250 feet BLAKE ST., Sheffield. Rough cobbled surface. Com-	1-41		2,660 yds.	hand turn NEWNHAM HILL, near Daventry. Surface usually	1-74		760 yards	
Š	mences with acute right-angle bend	1-5		a-mile	bumpy. Hill commences just outside Newnham	305 4		Approx.	
	mences with acute right-angle bend	Approx	1	A. O.	Village. Steepest portion near summit	1-6	••	a-mile	
X	portion of 1-8	1-41		- N	ent 1-31. First portion very steep. Bad sur-	7		Approx.	
	BUTTERMERE HAUSE, near Crummock Water, Kes- wick. Includes several corners with gradients of			Approx.	NAZE HILL, near Todmorden. Very bad surface, with	1-21	••	300 yds.	-
	1-42. Rises 700 feet			11 miles	deep ruts. First bend is a severe hairpin. A	1-21			
	BAKEWELL LANE, near Bakewell		•••	1-mile	old wyche, near Malvern. The old road leading up	1-48			
1	One of the most severe hills near London, Good surface			233 yards	to the Wyche Cutting. A sharp bend to the right at the top	1-3		Approx. 880 yds.	
	CUDHAM CHURCH HILL. Average gradient about		100		OXENFELL, Coniston Valley. Includes two hidden	1177	3	Approx.	
3	I-8. Includes one nasty bend on steepest portion. COUNTISBURY, Lynmouth. Rises 900 feet; no danger-	1-5.34	•••	416% yds.	OLD HORSE SHOE FALLS PASS, N. Wales. Average	1-5		½-mile	
	ous corners. Surface usually bad. Steepest near			Approx.	gradient 1-10. Numerous cross gulleys, Bad			r mile	Į.
6	bottom	1-52	••	2 miles	PETERSHAM HILL, Richmond. Average gradient	1-4.1		I_mile	
	age gradient, 1-8.6	1-6.2		1,194 yds. Approx.	I-15. Good surface, easy bends PORLOCK, Somerset. Road rises 1,200 feet. Surface	1-91		600 yds.	
į	hill with good surface	1-7		-mile	very bad. Includes two bad corners and one			Approx.	
	CROSSDALE, near Ennerdale. Includes four bends	1-4	*:	r mile	PINK HILL, near Kop, Chiltern Range	1-4	::	2½ miles ¾-mile	
40	CRAWLEYSIDE, near Stanhope	1-8			PINK HILL, near Kop, Chiltern Range PEN-Y-BALL, Holywell, Flintshire. Average gradient	- 1		4-mile	
18.0	COLLIER'S HILL, near Broomfield (Taunton)	1-51		400 yards	PEAT HILL, Westgate-in-Weardale. Hill is 27 miles			3-mile	
4	CARMICHAEL CHURCH HILL CHEW HILL, near Bristol	1-6	••	7-mile	from Durham. Excellent surface; no really bad bends	1-4		_	
3	CLAPTON-IN-GORDANO (Bristol Club). A fairly			Approx.	PARK HEAD, near Kendal. Rises 500 feet. Average			Approx.	
	straight hill with an average gradient of 1-7.22 COLD FELL, near Gosforth (Lake District). Good sur-	Approx.		3-mile	about I-Io	100	••	1 mile	
	face, but about fifty gulleys cut across the road	1-5		-	Good road. Easy curves	1-9.8	••	1,444 yds.	
	CROSSDALE HILL, near Ennerdale. Includes five turns COWDALE LANE, near Buxton. Treacherous surface	1-4			RED BANK, near Ambleside. Good surface and easy corners. Steepest on the middle section	1-33		880 yards	
í	after rain. Two bad corners	1-5	••	I mile	RANZE HILL, near Dore. Includes an S-bend, with steepest portion near top	Approx.		~	
	rough surface	_		4-mile	RISING SUN (Gambles Lane), near Cheltenham. Steepest				
	DASHWOOD (High Wycombe). Average gradient 1-16. Good surface, and quite straight; 352 yards of max.				portion at top. Surface poor, several gulleys running across road	1-41		480 yds.	
1	gradient	1-10.9		1,180 yds.	SAINTBURY, Broadway. Average gradient 1-11.9. Moderate surface	40.00			
4	hill, with good surface DACRE BANK, Ullswater. Rises 400 feet, with steepest	1-7		r mile	STONELEIGH (Motslow Hill), Coventry. Approached			2,341 gyds.	٠
	DACRE BANK, Ullswater. Rises 400 feet, with steepest portion at top. Good surface	1-4		3-mile	by right-angle turn. A Coventry test hill SUDELEY, near Winchcombe. Surface poor and often	1-9.34	••	452½ yds.	
300	EDGE HILL, Kineton. Rises 300 feet. Three bends,	- 31		App.ox.	greasy. A long hill, starting with an easy' gradient.		11	- ann mile	
	the first being the most severe. Good surface FARLOW BANK. One hairpin corner to left; two bad		1	Approx.	No serious corners SUNRISING, Stratford-on-Avon—Banbury. Two sharp	1-5	•••	1,200 yds.	1
	corners. Road surface usually loose	1-5		-mile	corners and a curve. Surface good. Steepest	r-6.42	1	,093} yds.	
3	sharp double turn near top, which is the steepest		123		SUTTON BANK, Thirsk. One sharp-bend. A famous	100	- 7		
0	portion GREENHOW HILL, Pateley Bridge, Yorks, Rises	1-31		220 yds.	Yorkshire test hill	1-63	::	1,600 yds. 8731 yds.	
4	1,000 feet. Two bad corners on steep part. Sur-	700		Approx.	SUNDON HILL, near Barton-in-the-Clay	1-8	٠.	-	
6	face good when dry GREEN HILL, near Wirksworth (Sheffield). Bad surface			2½ miles	STANTAFORD'S HILL, Torquay			Approx.	
	when wet GUMMER'S HOW, near Windermere. A straightfor-	1-4	•••	Approx.	bends STONEY BROW, Manchester	1-6	• •	ı mile	
	ward hill. Rises 550 feet. Lumpy surface	1-41		r mile	STATION HILL, Coniston. Includes many corners.		**	100	
	HOLNE CHASE, Dartmoor. Road rises 850 feet. Surface fairly good; near Holne Bridge an acute right-				SIR WILLIAM, near Grindleford, Sheffield. A tricky	1-32			
	handed turn with max. gradient	1-33		2 miles	ascent. Surface rough. Two hundred yards of	Track.		Approx. 2 miles	
	HIGH FELL, near Carlisle HOLMSIDE HILL, Durham. Includes several bad corners. Rough surface. Steepest at bottom	Approx.		Approx.	maximum gradient	Approx.	1	1	3
	HONISTER PASS, Lake District. Buttermere side.	1-33	••	I mile Approx.	SNAKE HILL, Glossop. Includes every variety of	1-8	•••	Approx.	
	HARD KNOTT PASS Lake District Includes twelve	1-34	••	r‡ miles	surface, and a hairpin bend	Approx		r mile	
	hairpin bends. Very bad surface	1-31	••	- ·	fair surface, but greasy in bad weather	1-7		Approx.	
	HIGHER LATH HILL, near Ulverston. Road twists considerably, and includes a difficult left turn.	5-7-1	1		TROW HILL, Sidford. Average gradient 1-8 TOWTOP. Includes a series of 12 sharp corners and	1-52	• •	1 mile	
	Middle portion is steepest	1-32			several portions of 1-3\frac{3}{4}; 9th corner is worst	1-34		1,160 yds.	
	JAWBONES, Dartmouth. Starts with a right-angle turn and a gradient of 1-8, increasing to maximum,			2 2 2	TRESCOMBE HILL, near Taunton. Road rises 450 feet. On the Quantock Range	1-6		1,000 yds.	
1	and finishing with another sharp turn to right JACOB'S LADDER, near Hathersage. A narrow wind-	1-4		-	TELEGRAPH HILL, on Teignmouth Road	1-71	::	Z = 7 1	
	ing climb with moderate surface	I-4.5		350 yards	THWAITE HEAD, near Windermere UNDERWOOD HILL, Lake District. Includes three	- 1-41		1-2	
1	KOP HILL, Princes Risboro'. No bad corners, surface fair, but rather loose. Steepest part near summit	Approx.		Approx.	sharp turns	1-43		11 miles	
	KILN PARK BROW, near Broughton-in-Furness. A			. X - !=!	UP-PACK HILL, near S. Harting (Sussex)	1-6			
	long climb, which includes many turns with 1-4½ gradient. Good surface	1-41		Y	VALE ST., Bristol. A side street near the river. Includes two bends	I-2.44	٠.	480 yards	
	stretches of 1-4½ and 1-5 gradients. Rises nearly	130	-	Approx	WESTERHAM HILL. Average gradient 1-13.4. One sharp bend to left. Good surface			1,7641 yds.	1
	900 feet. Good surface	1-43		Approx. 2 miles	WILLERSEY HILL, Broadway. Road rises 406.3 feet.	1.5		-,, v43 yus.	
	KIRKSTONE PASS, near Ambleside. Ullswater side. A long steady climb. Steepest portion near-the top	1-42		r miles	One abrupt corner. Very greasy in wet weather. Surface usually poor	1-5.0		1,206% yds.	1
,	KIRKSTONE PASS, near Ambleside. Ambleside side.				Surface usually poor WATERMILLOCK, near Penrith. Three sharp turns on			Approx.	
	Rises 1,300 feet. Surface usually good LYNTON HILL, Lynmouth. Average gradient 1-6. One	1-41	.,	2ml. 7fur.	upper portion WEST HILL, Highgate WESTON LANE, near Bath. Includes an S-bend	1-41		ri miles.	
25, 15/4	LYNTON HILL, Lynmouth. Average gradient r-6. One of the steepest hills in England. One bad corner near bottom. Surface usually bad	1-41		Approx.	WESTON LANE, near Bath. Includes an S-bend WRYNOSE PASS, Lake District. Includes portions of	1-4.75	1.5	7-mile Approx.	
	LITTONSTACK. Surface very bad. Starts with acute	Approx.	12		1-4. Bad surface: twisty route	1-32		2 miles	-
	hairpin. Steepest portion at top. Narrow road LOWER BRADFIELD, near Sheffield. Includes several	1-3	••	420 yards	WATTY SCOUT HILL, near Todmorden	1-3		T	
	stretches of 1-5 LITTEN HILL, near Bakewell. A narrow road, but good	I-5		-	Has two steep patches in the lower part YEW TREE HILL, near Coniston Water. Includes	1-51		2 miles	
132	surface. Mostly 1-6 gradient, but steeper at top	1-3		74	portions of 1-4½ and 1-4½	1-32		·	
		100					100	10 10	