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HORSE-POWER FACTS.

Firm Shows Interesting Tables Tell- ing Timely Comparisons.

Interesting comparison of horse-power has is made possible through a table recently by the Pierce-Arrow Motor company of Buffalo, showing the horse-

power given to its motors by the formula by the Association of Licensed Automobile Manufacturers, the Royal Automobile Club of Great Britain and by the method used by Beaumont, the well-known Eng- engineer, which has considerable popu- larit. The A. L. A. M. formula is the used in this country by most of the ed manufacturers, and in its operation are that the square of the bore shall multiplied by the number of cylinders

be divided by 2.5 to give the horse-power. This formula is based on a mean speed of 1,000 feet a minute.

The following horse-powers by the A. L. A. M. standard, would be 1.12 for 100 cc and 1.12 for 100 cc and 1.12 for 100 cc.

Cylinder	Bore	Stroke	Horse Power
4	3.15	3.15	1.12
4	3.5	3.5	1.56
4	3.8	3.8	2.0
4	4.1	4.1	2.5
4	4.4	4.4	3.0
4	4.7	4.7	3.5
4	5.0	5.0	4.0
4	5.3	5.3	4.5
4	5.6	5.6	5.0
4	5.9	5.9	5.5
4	6.2	6.2	6.0
4	6.5	6.5	6.5
4	6.8	6.8	7.0
4	7.1	7.1	7.5
4	7.4	7.4	8.0
4	7.7	7.7	8.5
4	8.0	8.0	9.0
4	8.3	8.3	9.5
4	8.6	8.6	10.0
4	8.9	8.9	10.5
4	9.2	9.2	11.0
4	9.5	9.5	11.5
4	9.8	9.8	12.0
4	10.1	10.1	12.5
4	10.4	10.4	13.0
4	10.7	10.7	13.5
4	11.0	11.0	14.0
4	11.3	11.3	14.5
4	11.6	11.6	15.0
4	11.9	11.9	15.5
4	12.2	12.2	16.0
4	12.5	12.5	16.5
4	12.8	12.8	17.0
4	13.1	13.1	17.5
4	13.4	13.4	18.0
4	13.7	13.7	18.5
4	14.0	14.0	19.0
4	14.3	14.3	19.5
4	14.6	14.6	20.0
4	14.9	14.9	20.5
4	15.2	15.2	21.0
4	15.5	15.5	21.5
4	15.8	15.8	22.0
4	16.1	16.1	22.5
4	16.4	16.4	23.0
4	16.7	16.7	23.5
4	17.0	17.0	24.0
4	17.3	17.3	24.5
4	17.6	17.6	25.0
4	17.9	17.9	25.5
4	18.2	18.2	26.0
4	18.5	18.5	26.5
4	18.8	18.8	27.0
4	19.1	19.1	27.5
4	19.4	19.4	28.0
4	19.7	19.7	28.5
4	20.0	20.0	29.0
4	20.3	20.3	29.5
4	20.6	20.6	30.0
4	20.9	20.9	30.5
4	21.2	21.2	31.0
4	21.5	21.5	31.5
4	21.8	21.8	32.0
4	22.1	22.1	32.5
4	22.4	22.4	33.0
4	22.7	22.7	33.5
4	23.0	23.0	34.0
4	23.3	23.3	34.5
4	23.6	23.6	35.0
4	23.9	23.9	35.5
4	24.2	24.2	36.0
4	24.5	24.5	36.5
4	24.8	24.8	37.0
4	25.1	25.1	37.5
4	25.4	25.4	38.0
4	25.7	25.7	38.5
4	26.0	26.0	39.0
4	26.3	26.3	39.5
4	26.6	26.6	40.0
4	26.9	26.9	40.5
4	27.2	27.2	41.0
4	27.5	27.5	41.5
4	27.8	27.8	42.0
4	28.1	28.1	42.5
4	28.4	28.4	43.0
4	28.7	28.7	43.5
4	29.0	29.0	44.0
4	29.3	29.3	44.5
4	29.6	29.6	45.0
4	29.9	29.9	45.5
4	30.2	30.2	46.0
4	30.5	30.5	46.5
4	30.8	30.8	47.0
4	31.1	31.1	47.5
4	31.4	31.4	48.0
4	31.7	31.7	48.5
4	32.0	32.0	49.0
4	32.3	32.3	49.5
4	32.6	32.6	50.0
4	32.9	32.9	50.5
4	33.2	33.2	51.0
4	33.5	33.5	51.5
4	33.8	33.8	52.0
4	34.1	34.1	52.5
4	34.4	34.4	53.0
4	34.7	34.7	53.5
4	35.0	35.0	54.0
4	35.3	35.3	54.5
4	35.6	35.6	55.0
4	35.9	35.9	55.5
4	36.2	36.2	56.0
4	36.5	36.5	56.5
4	36.8	36.8	57.0
4	37.1	37.1	57.5
4	37.4	37.4	58.0
4	37.7	37.7	58.5
4	38.0	38.0	59.0
4	38.3	38.3	59.5
4	38.6	38.6	60.0
4	38.9	38.9	60.5
4	39.2	39.2	61.0
4	39.5	39.5	61.5
4	39.8	39.8	62.0
4	40.1	40.1	62.5
4	40.4	40.4	63.0
4	40.7	40.7	63.5
4	41.0	41.0	64.0
4	41.3	41.3	64.5
4	41.6	41.6	65.0
4	41.9	41.9	65.5
4	42.2	42.2	66.0
4	42.5	42.5	66.5
4	42.8	42.8	67.0
4	43.1	43.1	67.5
4	43.4	43.4	68.0
4	43.7	43.7	68.5
4	44.0	44.0	69.0
4	44.3	44.3	69.5
4	44.6	44.6	70.0
4	44.9	44.9	70.5
4	45.2	45.2	71.0
4	45.5	45.5	71.5
4	45.8	45.8	72.0
4	46.1	46.1	72.5
4	46.4	46.4	73.0
4	46.7	46.7	73.5
4	47.0	47.0	74.0
4	47.3	47.3	74.5
4	47.6	47.6	75.0
4	47.9	47.9	75.5
4	48.2	48.2	76.0
4	48.5	48.5	76.5
4	48.8	48.8	77.0
4	49.1	49.1	77.5
4	49.4	49.4	78.0
4	49.7	49.7	78.5
4	50.0	50.0	79.0
4	50.3	50.3	79.5
4	50.6	50.6	80.0
4	50.9	50.9	80.5
4	51.2	51.2	81.0
4	51.5	51.5	81.5
4	51.8	51.8	82.0
4	52.1	52.1	82.5
4	52.4	52.4	83.0
4	52.7	52.7	83.5
4	53.0	53.0	84.0
4	53.3	53.3	84.5
4	53.6	53.6	85.0
4	53.9	53.9	85.5
4	54.2	54.2	86.0
4	54.5	54.5	86.5
4	54.8	54.8	87.0
4	55.1	55.1	87.5
4	55.4	55.4	88.0
4	55.7	55.7	88.5
4	56.0	56.0	89.0
4	56.3	56.3	89.5
4	56.6	56.6	90.0
4	56.9	56.9	90.5
4	57.2	57.2	91.0
4	57.5	57.5	91.5
4	57.8	57.8	92.0
4	58.1	58.1	92.5
4	58.4	58.4	93.0
4	58.7	58.7	93.5
4	59.0	59.0	94.0
4	59.3	59.3	94.5
4	59.6	59.6	95.0
4	59.9	59.9	95.5
4	60.2	60.2	96.0
4	60.5	60.5	96.5
4	60.8	60.8	97.0
4	61.1	61.1	97.5
4	61.4	61.4	98.0
4	61.7	61.7	98.5
4	62.0	62.0	99.0
4	62.3	62.3	99.5
4	62.6	62.6	100.0

White Steamer Hearsby-Wills Co., 118-117 W. Mkt. St.

Can Races Be Made Safe? Is Live Query

Auto Topics.

Can racing ever be made safe enough to make the sport a game worth the candle? That is really the question that must be answered if speed contests are to continue with the sanction and approval of representative bodies and without incurring the ban of the authorities. The proper conduct of racing is a prime requisite, of course; indeed, it is put forth as panacea for all the ills that afflict the sport. But will even perfection in the conduct of races change the present condition—a condition which requires a driver or mechanic to take his life in his hands every time he opens wide his throttle and feels his car bound forward under him? In a sense, every sportsman risks life, but in any sport the chances of fatality are infinitely smaller than in automobile races. Unless the ratio can be brought somewhere nearer together, automobile racing on tracks must again pass under a cloud and become a fly-by-night, barnstorming affair that can do credit to no one.

STODDARD ABANDONS RACING.

Prominent Auto Builder Believes Events Are Very Hazardous.

"We have decided, after careful consideration, to abandon automobile racing entirely for the present, or until such time as the conditions generally governing automobile racing are so changed and bettered as to remove to the greatest extent possible the present dangers, both to spectators and to drivers and mechanics operating the motor cars."—W. Stoddard of the Stoddard Motor Car Company. "We believe that automobile contests, as now conducted, are so hazardous that they are a danger to the industry. It is our policy to do nothing to encourage the present state of affairs. The danger attending the use of automobiles is being increased at an alarming rate. Speed contests, both on tracks and on public roads, are a menace to the lives of the spectators and to the property of the owners. We have decided to withdraw entirely from all such contests in the future."

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 on a piston speed of 1,000 feet a minute.
 The following horse-powers by various
 formulas as the number of cylinders varies:

Cylinders	A. L. A. M. standard		Beaumont's		Royal Automobile Club	
	Horse Power	Percentage	Horse Power	Percentage	Horse Power	Percentage
4	10.00	100.00	10.00	100.00	10.00	100.00
6	22.50	100.00	22.50	100.00	22.50	100.00
8	40.00	100.00	40.00	100.00	40.00	100.00
10	62.50	100.00	62.50	100.00	62.50	100.00
12	90.00	100.00	90.00	100.00	90.00	100.00
14	122.50	100.00	122.50	100.00	122.50	100.00
16	160.00	100.00	160.00	100.00	160.00	100.00
18	202.50	100.00	202.50	100.00	202.50	100.00
20	250.00	100.00	250.00	100.00	250.00	100.00
22	302.50	100.00	302.50	100.00	302.50	100.00
24	360.00	100.00	360.00	100.00	360.00	100.00
26	422.50	100.00	422.50	100.00	422.50	100.00
28	490.00	100.00	490.00	100.00	490.00	100.00
30	562.50	100.00	562.50	100.00	562.50	100.00
32	640.00	100.00	640.00	100.00	640.00	100.00
34	722.50	100.00	722.50	100.00	722.50	100.00
36	810.00	100.00	810.00	100.00	810.00	100.00
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10	62.50	100.00	62.50	100.00	62.50	100.00
12	90.00	100.00	90.00	100.00	90.00	100.00
14	122.50	100.00	122.50	100.00	122.50	100.00
16	160.00	100.00	160.00	100.00	160.00	100.00
18	202.50	100.00	202.50	100.00	202.50	100.00
20	250.00	100.00	250.00	100.00	250.00	100.00
22	302.50	100.00	302.50	100.00	302.50	100.00
24	360.00	100.00	360.00	100.00	360.00	100.00
26	422.50	100.00	422.50	100.00	422.50	100.00
28	490.00	100.00	490.00	100.00	490.00	100.00
30	562.50	100.00	562.50	100.00	562.50	100.00
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