Temperature ✓
Pulse ✓
Sys. pressure ✓
Pulse pressure ✓
Dyn. Rt. ✓
" Lt. ✓
Hb. ✓
Pb in faeces ✓
" " " mg per gm ash ✓
" " urine ✓
" " " " " liter ✓

KE 0019640

Garage Mechanics Exposure
1929

1929

Weight ✓
Height ✓
Age ✓

Coast angle ✓

70 - 79	6	6
80 - 89	1	7
90 -	2	8
	184	

No information 17.

$$Nu_1 = \frac{559}{184} = 3.038043$$

$$Nu_2 = \frac{2175}{184} = 11.820652$$

$$(Nu_1)^2 = 9.229705$$

$$Pi_2 = 2.590947$$

$$Sigma = 1.6096418 \times 10 =$$

$$P.E._{sig.} = \frac{.67449 \times 16.0964}{\sqrt{368}}$$

$$= \frac{10.856873}{19.183326}$$

$$= \pm .565950$$

$$mean = 3.038043 \times 10 +$$

$$= 45.380430 \text{ degrees}$$

$$P.E._m = \frac{10.856873}{\sqrt{184}}$$

$$= \frac{10.856873}{13.564659}$$

$$= \pm .800379$$

$$mean = 45.380 \pm .800 \text{ deg}$$

$$S.D. = 16.096 \pm .566 \text{ deg}$$

51 - 56	7	6
57 - 62	5	7
	201	

$$Nu_1 = \frac{547}{201} = 2.721393$$

$$Nu_2 = \frac{2031}{201} = 10.104479$$

$$(Nu_1)^2 = 7.405979$$

$$Pi_2 = 10.104479 - 7.405$$

$$= 2.698500$$

$$\text{Sigma} = 1.642711 \times 6 = 9.$$

$$P.E._{sig.} = \frac{.67449 \times 9.856266}{\sqrt{402}}$$

$$= \frac{6.647953}{20.049937}$$

$$= \pm .3315697$$

$$\text{mean} = 2.721393 \times 6 + 18$$

$$= 34.328358 \text{ years}$$

$$P.E._m = \frac{6.647953}{\sqrt{201}}$$

$$= \frac{6.647953}{14.177446}$$

$$= \pm .468910$$

$$\text{mean} = 34.328 \pm .469 \text{ yea}$$

$$\text{S.D.} = 9.856 \pm .332 \text{ year}$$

190 - 204	13	6
205 - 219	5	7
220 - 234	0	8
235 - 249	1	9
250 - 264	0	10
265 - 279	1	11
	191	

No information 10

$$Nu_1 = \frac{675}{191} = 3.534031$$

$$Nu_2 = \frac{2847}{191} = 14.905759$$

$$(Nu_1)^2 = 12.489375$$

$$Pi_2 = 14.905759 - 12.48$$

$$= 2.416384$$

$$Sigma = 1.554472 \times 15$$

$$= 23.317080 \text{ pounds}$$

$$P.E._{sig.} = \frac{.67449 \times 23.31708}{\sqrt{382}}$$

$$= \frac{15.727137}{19.544820}$$

$$= \pm .805$$

$$mean = 3.534031 \times 15 + 1$$

$$= 53.010465 + 107.5$$

$$= 160.510465 \text{ pounds}$$

$$P.E._m = \frac{.67449 \times 23.31708}{\sqrt{191}}$$

$$= \frac{15.727137}{13.820274}$$

$$= \pm 1.137970 \ldots.$$

$$mean = 160.510 \pm 1.138 \text{ p}$$

68 - 68.9	30	8
69 - 69.9	18	9
70 - 70.9	26	10
71 - 71.9	20	11
72 - 72.9	14	12
73 - 73.9	1	13
74 - 74.9	4	14
75 -	1	15
	189	

No information 12

$$Nu_1 = \frac{1562}{189} = 8.264550$$

$$Nu_2 = \frac{14244}{189} = 75.36507$$

$$(Nu_1)^2 = 68.302787$$

$$Pi_2 = 75.365070 - 68.3$$

$$= 7.062283$$

$$Sigma = 2.657496 \times 1 = 2$$

$$P.E._{sig.} = \frac{.67449 \times 2.657}{\sqrt{378}} =$$

$$mean = 8.264550 \times 1 + 6$$

$$P.E._m = \frac{.67449 \times 2.657}{\sqrt{189}}$$

$$= \frac{.1792112}{13.747727}$$

$$= \pm .013$$

$$mean = 68.765 \pm .013 \text{ in}$$

$$S.D. = 2.657 \pm .009 \text{ inc}$$

.24 - .279	3	6
.28 - .319	3	7
.32 - .359	1	8
.36 - .399	1	9
.40 - .439	1	10
.44 - .479	1	11
.48 - .519	1	12
.52 -	3	13
	193	

No information 8.

$$Nu_1 = \frac{355}{193} = 1.839378$$

$$Nu_2 = \frac{1783}{193} = 9.238341$$

$$(Nu_1)^2 = 3.383311$$

$$Pi_2 = 9.238341 - 3.383$$

$$= 5.855030$$

$$Sigma = \sqrt{5.855030} = 2.41$$

$$= 2.419717 \times .04 =$$

$$= .097 \text{ mgs.}$$

Wide variability indicated by S.D. being larger than the mean.

$$P.E._{sig.} = \frac{.67449 \times .097}{\sqrt{386}} =$$

$$= \pm .003$$

$$mean = 1.839378 \times .04 +$$

$$= .093575 \text{ mgs.}$$

$$P.E._m = \frac{.67449 \times .097}{\sqrt{193}} =$$

$$= \pm .005$$

$$mean = .093575 \pm .005 \text{ m}$$

$$S.D. = .097 \pm .003 \text{ mgs.}$$

.24 - .279	7	6
.28 - .319	5	7
.32 - .359	2	8
.36 - .399	3	9
.40 - .439	0	10
.44 - .479	2	11
.48 - .519	0	12
.52 -	5	13
	193	

No information 8.

$$Nu_1 = \frac{583}{193} = 3.020725$$

$$Nu_2 = \frac{3109}{193} = 16.108808$$

$$(Nu_1)^2 = 9.124780$$

$$Pi_2 = 16.108808 - 9.12$$

$$Sigma = 2.642731 \times .04 =$$

$$P.E._{sig.} = \frac{.67449 \times .105709}{\sqrt{386}}$$

$$= \frac{.071300}{19.646883}$$

$$= \pm .003629$$

$$mean = 3.020725 \times .04 +$$

$$= .140829$$

$$P.E._{m} = \frac{.67449 \times .105709}{\sqrt{193}}$$

$$= \frac{.071300}{13.892443}$$

$$= \pm .005132$$

mean = .141 ± .005 mgrs

S.D. = .106 ± .004 mgrs

.24 - .279	4	6
.28 - .319	4	7
.32 - .359	1	8
.36 - .399	0	9
.40 - .439	0	10
.44 - .479	3	11
.48 - .519	0	12
.52 -	4	13
	188	

No information 13.

$$Nu_1 = \frac{524}{188} = 2.787234$$

$$Nu_2 = \frac{2522}{188} = 13.41489$$

$$(Nu_1)^2 = 7.768673$$

$$Pi_2 = 13.414893 - 7.7$$

$$\sqrt{Pi_2} = \text{Sigma} = 2.37617$$

$$P.E._{sig.} = \frac{.67449 \times .095}{\sqrt{376}}$$

$$= \frac{.064}{19.39} = \pm .003$$

$$\text{mean} = Nu_1 \times .04 + .02$$

$$= 2.787234 \times .04$$

$$= .111489 + .02 =$$

$$P.E._m = \frac{.67449 \times .095}{\sqrt{188}} =$$

$$= \pm .005$$

$$\text{mean} = .131489 \pm .005$$

$$\text{S.D.} = .095 \pm .003 \text{ mgs}$$

.32 - .399	28	4
.40 - .479	17	5
.48 - .559	13	6
.56 - .639	8	7
.64 - .719	7	8
.72 - .799	7	9
.80 - .879	3	10
.88 - .959	1	11
.96 -1.039	2	12
1.04 -1.119	3	13
1.12 -	10	14
	188	

No information 13

$$Nu_1 = \frac{861}{188} = 4.579789$$

$$Nu_2 = \frac{6307}{188} = 33.547872$$

$$(Nu_1)^2 = 20.974449$$

$$Pi_2 = 33.547872 - 20.9$$

$$Sigma = 3.545902 \times .08 =$$

$$P.E._{sig.} = \frac{.67449 \times .283672}{\sqrt{376}}$$

$$= \pm .0098672$$

High frequency in last group increases mean value considerably.

$$mean = 4.579789 \times .08 +$$

$$P.E._{m} = \frac{.67449 \times .283672}{\sqrt{188}}$$

$$= \pm .013954$$

$$mean = .406 \pm .014 \text{ mgrs}$$

$$S.D. = .284 \pm .010 \text{ mgrs}$$

82 - 83.9	20	6
84 - 85.9	40	7
86 - 87.9	13	8
88 - 89.9	15	9
90 - 91.9	24	10
92 -	15	11
	197	

No information 4.

$$Nu_1 = \frac{1328}{197} = 6.741117$$

$$Nu_2 = \frac{10230}{197} = 51.92893$$

$$(Nu_1)^2 = 45.442658$$

$$Pi_2 = 6.486276$$

$$Sigma = 2.546817 \times 2 = 5$$

$$P.E._{sig.} = \frac{.67449 \times 5.09363}{\sqrt{394}}$$

$$mean = 6.741117 \times 2 + 7$$

$$= 76.593634\% \text{ DARE}$$

Note tendency of readings to be grouped at 80, 85 and 90.

$$P.E._m = \frac{3.435605}{\sqrt{197}}$$

$$= \frac{3.435605}{14.035668}$$

$$= \pm .244776$$

$$mean = 76.594 \pm .245\% \text{ D}$$

$$S.D. = 5.094 \pm .002\% \text{ DA}$$

110 - 119	20	6
120 - 129	25	7
130 - 139	5	8
140 - 149	5	9
150 - 159	1	10
160 -	2	11
	192	

No information 9

$$Nu_1 = \frac{919}{192} = 4.786458$$

$$Nu_2 = \frac{5119}{192} = 26.661458$$

$$(Nu_1)^2 = 22.910180$$

$$Pi_2 = 3.751278$$

Sigma = 1.936822 x 10 =

$$P.E._{sig.} = \frac{.67449 \times 19.3682}{19.595915}$$

$$= \pm .666653$$

mean = 4.786458 x 10 +

= 102.864580 degre

$$P.E._m = \frac{.67449 \times 19.3682}{13.856407}$$

$$= \frac{13.063671}{13.856407}$$

$$= \pm .942789$$

mean = 102.865 ± .943 d

S.D. = 19.368 ± .667 de

120 - 129	33	6
130 - 139	22	7
140 - 149	19	8
150 - 159	7	9
160 -	1	10
	192	

No information 9

$$Nu_1 = \frac{985}{192} = 5.130208$$

$$Nu_2 = \frac{5789}{192} = 30.151041$$

$$(Nu_1)^2 = 26.319034$$

$$Pi_2 = 3.832007$$

$$Sigma = 1.957550 \times 10 =$$

$$P.E._{sig.} = \frac{.67449 \times 19.5755}{\sqrt{384}}$$

$$= \frac{13.203479}{19.595915}$$

$$= \pm .673787$$

$$mean = 5.130208 \times 10 +$$

$$= 116.30208 \text{ degre}$$

$$P.E._{m} = \frac{13.203479}{\sqrt{192}}$$

$$= \frac{13.203479}{13.856407}$$

$$= \pm .952879$$

$$mean = 116.302 \pm .953$$

$$S.D. = 19.576 \pm .674 \text{ d}$$

50 - 54	30	6
55 - 59	18	7
60 - 64	18	8
65 - 69	7	9
70 - 74	6	10
75 - 79	6	11
80 -	2	12
	199	

No information 2.

$$Nu_1 = \frac{1067}{199} = 5.361809$$

$$Nu_2 = \frac{6923}{199} = 34.788944$$

$$(Nu_1)^2 = 28.748996$$

$$Pi_2 = 6.039948$$

$$Sigma = 2.457631 \times 5 = 1$$

$$P.E._{sig.} = \frac{.67449 \times 12.2881}{\sqrt{398}}$$

$$= \frac{8.288238}{19.949937}$$

$$= \pm .415452$$

$$mean = 5.361809 \times 5 + 2$$

$$= 49.309045 \text{ mms. } H$$

$$P.E._m = \frac{8.288238}{\sqrt{199}}$$

$$= \frac{8.288238}{14.106735}$$

$$= \pm .587538$$

$$mean = 49.309 \pm .588 \text{ mm}$$

$$S.D. = 12.288 \pm .415 \text{ mm}$$

130 - 139	36	5
140 - 149	18	6
150 - 159	5	7
160 - 169	4	8
170 - 179	0	9
180 -	2	10
	200	

No information 1

$$Nu_1 = \frac{815}{200} = 4.075000$$

$$Nu_2 = \frac{3777}{200} = 18.885000$$

$$(Nu_1)^2 = 16.605625$$

$$Pi_2 = 18.885000 - 16.6$$

$$\text{Sigma} = 1.509760 \times 10 =$$

$$\text{P.E.}_{\text{sig.}} = \frac{.67449 \times 15.0976}{\sqrt{400}}$$

$$= \pm .509159$$

$$\text{mean} = 4.075000 \times 10 +$$

$$= 125.750 \text{ mm Hg.}$$

$$\text{P.E.}_m = \frac{.67449 \times 15.0976}{\sqrt{200}}$$

$$= \frac{10.183180}{14.142135}$$

$$= \pm .720059$$

$$\text{mean} = 125.750 \pm .720 \text{ m}$$

$$\text{S.D.} = 15.098 \pm .509 \text{ mm}$$

90 - 99	24	5
100 - 109	9	6
110 - 119	1	7
120 - 129	2	8
	200	

No information 1

$$Nu_1 = \frac{709}{200} = 3.045000$$

$$Nu_2 = \frac{2813}{200} = 14.065000$$

$$(Nu_1)^2 = 9.272025$$

$$Pi_2 = 14.065000 - 9.27$$

$$= 4.792975$$

$$Sigma = 2.189286 \times 10$$

$$= 21.892860 \text{ beats}$$

$$P.E._{sigma} = \frac{.67449 \times 21.8928}{20}$$

$$= \frac{14.766515}{20}$$

$$= \pm .7383257$$

$$mean = 3.045000 \times 10 +$$

$$= 75.450000$$

$$P.E._m = \frac{.67449 \times 21.8928}{\sqrt{200}}$$

$$= \frac{14.766515}{14.142135}$$

$$= \pm 1.044150$$

$$mean = 75.450 \pm 1.044 \text{ b}$$

$$S.D. = 21.893 \pm .738 \text{ be}$$

99	- 99.49	32	6
99.5	- 99.99	6	7
100	-	1	8
		198	

No information 3

$$Nu_1 = \frac{890}{198} = 4.494949$$

$$Nu_2 = \frac{4318}{198} = 21.80808$$

$$(Nu_1)^2 = 20.204567$$

$$Pi_2 = 21.808080 - 20.$$

$$= 1.603513$$

$$Sigma = 1.268298 \times .5$$

$$= .634149^{\circ} \text{ F.}$$

$$P.E._{sig.} = \frac{.67449 \times .63414}{\sqrt{396}}$$

$$= \frac{.427727}{19.899748}$$

$$= \pm .021$$

$$mean = 4.494949 \times .5 +$$

$$= 2.247474 + 96.2$$

$$= 98.497494^{\circ} \text{ F.}$$

$$P.E._{m} = \frac{.67449 \times .63414}{\sqrt{198}}$$

$$= \frac{.427727}{14.071247}$$

$$= \pm .030$$

mean = 98.497 ± .030 d

S.D. = .634 ± .021 deg