

**TITLE OF PROJ.**

PROJ. NO.

**SUBJECT.**

## RELATIVE STRENGTHS OF HP POWER C.F. RIFLES

5

COMPUTER

DATE \_\_\_\_\_

**-19-**

| Model No | Rein Area in. | Bolt Area in. | Bolt Dia in. | Expanded Dia in. | Steel Yield Point | Nonmin Yield Point | Load When Bolt Shown Held Tight | Mean Pressure Possible in 30.06 Case = Max. Proof Tension | Mean Pressure Possible in 30.06 Case = Max. Proof Tension | Barrel Size or Weight | Steel Yield Point | Mean Pressure Possible in 30.06 Case = Max. Proof Tension |
|----------|---------------|---------------|--------------|------------------|-------------------|--------------------|---------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------|-------------------|-----------------------------------------------------------|
| 720      | .443          | .577          | .109         | .0015            | 2340              | 190                | 20750                           | 83,000                                                    | 64,000                                                    | 1.081                 | X-4130            | 58,000                                                    |
| 721      | .480          | .429          | .141         | .0013            | 1335              | 75                 | 10,600                          | 42,000                                                    | 33,000                                                    | 1.071                 | X-4130            | 53,000                                                    |
| X-760    | .303          | .206          | .114         | .0014            | 1335              | 75                 | 8,600                           | 34,000                                                    | 27,000                                                    | .897                  | X-4130            | 48,000                                                    |
| X-760    | .355          | .071          | .0150        | .0150            | 1315              | 75                 | 5,350                           | 21,000                                                    | 17,000                                                    | .892                  | X-4130            | 43,000                                                    |
| 703-43   | .470          | .329          | .084         | .0020            | 2340              | 190                | 13,500                          | 53,000                                                    | 42,000                                                    | 1.011                 | 1350              | 34,000                                                    |
| 704W     | .537          | .400          | .086         | .0020            | 45                | 190                | 16,400                          | 65,000                                                    | 51,000                                                    | .959                  | X-4130            | 52,000                                                    |

\* THE BARREL EXTENSION IS THE RESIDUE IN THE 1X71

NOTE: THE ABOVE FORCE AND PRESSURE FIGURES ARE THEORETICAL AND SHOULD BE USED FOR COMPARISON

\* THE BARREL EXTENSION IS THE RECEIVER IN THE INITIAL

NOTE: THE ABOVE EDGE AND PRESSURE FINISHES ARE

|     |          |      |     |      |
|-----|----------|------|-----|------|
| 115 | 8 Nov 09 | 1150 | 800 | 1000 |
| 116 | 8 Nov 09 | 1150 | 800 | 1000 |
| 117 | 8 Nov 09 | 1150 | 800 | 1000 |
| 118 | 8 Nov 09 | 1150 | 800 | 1000 |
| 119 | 8 Nov 09 | 1150 | 800 | 1000 |
| 120 | 8 Nov 09 | 1150 | 800 | 1000 |
| 121 | 8 Nov 09 | 1150 | 800 | 1000 |
| 122 | 8 Nov 09 | 1150 | 800 | 1000 |
| 123 | 8 Nov 09 | 1150 | 800 | 1000 |
| 124 | 8 Nov 09 | 1150 | 800 | 1000 |
| 125 | 8 Nov 09 | 1150 | 800 | 1000 |
| 126 | 8 Nov 09 | 1150 | 800 | 1000 |
| 127 | 8 Nov 09 | 1150 | 800 | 1000 |
| 128 | 8 Nov 09 | 1150 | 800 | 1000 |
| 129 | 8 Nov 09 | 1150 | 800 | 1000 |
| 130 | 8 Nov 09 | 1150 | 800 | 1000 |
| 131 | 8 Nov 09 | 1150 | 800 | 1000 |
| 132 | 8 Nov 09 | 1150 | 800 | 1000 |
| 133 | 8 Nov 09 | 1150 | 800 | 1000 |
| 134 | 8 Nov 09 | 1150 | 800 | 1000 |
| 135 | 8 Nov 09 | 1150 | 800 | 1000 |
| 136 | 8 Nov 09 | 1150 | 800 | 1000 |
| 137 | 8 Nov 09 | 1150 | 800 | 1000 |
| 138 | 8 Nov 09 | 1150 | 800 | 1000 |
| 139 | 8 Nov 09 | 1150 | 800 | 1000 |
| 140 | 8 Nov 09 | 1150 | 800 | 1000 |
| 141 | 8 Nov 09 | 1150 | 800 | 1000 |
| 142 | 8 Nov 09 | 1150 | 800 | 1000 |
| 143 | 8 Nov 09 | 1150 | 800 | 1000 |
| 144 | 8 Nov 09 | 1150 | 800 | 1000 |
| 145 | 8 Nov 09 | 1150 | 800 | 1000 |
| 146 | 8 Nov 09 | 1150 | 800 | 1000 |
| 147 | 8 Nov 09 | 1150 | 800 | 1000 |
| 148 | 8 Nov 09 | 1150 | 800 | 1000 |
| 149 | 8 Nov 09 | 1150 | 800 | 1000 |
| 150 | 8 Nov 09 | 1150 | 800 | 1000 |
| 151 | 8 Nov 09 | 1150 | 800 | 1000 |
| 152 | 8 Nov 09 | 1150 | 800 | 1000 |
| 153 | 8 Nov 09 | 1150 | 800 | 1000 |
| 154 | 8 Nov 09 | 1150 | 800 | 1000 |
| 155 | 8 Nov 09 | 1150 | 800 | 1000 |
| 156 | 8 Nov 09 | 1150 | 800 | 1000 |
| 157 | 8 Nov 09 | 1150 | 800 | 1000 |
| 158 | 8 Nov 09 | 1150 | 800 | 1000 |
| 159 | 8 Nov 09 | 1150 | 800 | 1000 |
| 160 | 8 Nov 09 | 1150 | 800 | 1000 |
| 161 | 8 Nov 09 | 1150 | 800 | 1000 |
| 162 | 8 Nov 09 | 1150 | 800 | 1000 |
| 163 | 8 Nov 09 | 1150 | 800 | 1000 |
| 164 | 8 Nov 09 | 1150 | 800 | 1000 |
| 165 | 8 Nov 09 | 1150 | 800 | 1000 |
| 166 | 8 Nov 09 | 1150 | 800 | 1000 |
| 167 | 8 Nov 09 | 1150 | 800 | 1000 |
| 168 | 8 Nov 09 | 1150 | 800 | 1000 |
| 169 | 8 Nov 09 | 1150 | 800 | 1000 |
| 170 | 8 Nov 09 | 1150 | 800 | 1000 |
| 171 | 8 Nov 09 | 1150 | 800 | 1000 |
| 172 | 8 Nov 09 | 1150 | 800 | 1000 |
| 173 | 8 Nov 09 | 1150 | 800 | 1000 |
| 174 | 8 Nov 09 | 1150 | 800 | 1000 |
| 175 | 8 Nov 09 | 1150 | 800 | 1000 |
| 176 | 8 Nov 09 | 1150 | 800 | 1000 |
| 177 | 8 Nov 09 | 1150 | 800 | 1000 |
| 178 | 8 Nov 09 | 1150 | 800 | 1000 |
| 179 | 8 Nov 09 | 1150 | 800 | 1000 |
| 180 | 8 Nov 09 | 1150 | 800 | 1000 |
| 181 | 8 Nov 09 | 1150 | 800 | 1000 |
| 182 | 8 Nov 09 | 1150 | 800 | 1000 |
| 183 | 8 Nov 09 | 1150 | 800 | 1000 |
| 184 | 8 Nov 09 | 1150 | 800 | 1000 |
| 185 | 8 Nov 09 | 1150 | 800 | 1000 |
| 186 | 8 Nov 09 | 1150 | 800 | 1000 |
| 187 | 8 Nov 09 | 1150 | 800 | 1000 |
|     |          |      |     |      |

|        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| HEBREW | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

**TITLE OF PROJ.**

PROJ. No.

**SUBJECT.**

### LIMITING LOADS ON VARIOUS BELTS

## WORKS.

COMPUTER

DATE \_\_\_\_\_

**-19-**

[illegible]

REMINGTON ARMS COMPANY, INC.

ENGINEERING DEPARTMENT



COMPUTATION SHEET

SHEET No. \_\_\_\_\_

TITLE OF PROJ.

PROJ. No. \_\_\_\_\_

SUBJECT

RECEIVER AND BOLT STRENGTH

WORKS

COMPUTER

DATE

2-25-1944

| MODEL No | AREA IN<br>SHEAR | AREA IN<br>COMPRESS. | REQUIRED<br>STRENGTH<br>MIN. | REQUIRED<br>STRENGTH<br>MAX. | DEFLEC.<br>E = 3 x 10 <sup>7</sup> | DEFLEC.<br>E = 3 x 10 <sup>7</sup> | AREA<br>IN | DEFLEC.<br>E = 3 x 10 <sup>7</sup> | RECEIVER |
|----------|------------------|----------------------|------------------------------|------------------------------|------------------------------------|------------------------------------|------------|------------------------------------|----------|
|          | sq. in.          | sq. in.              | sq. in.                      | sq. in.                      | sq. in.                            | sq. in.                            | sq. in.    | sq. in.                            |          |
| M-720    | .397             | .1097                | 116,000                      | 159,000                      | 11.40                              | 17.40                              | .443       |                                    |          |
| M-721    | .429             | .1410                | 99,000                       | 128,000                      |                                    |                                    | .480       |                                    |          |
| M-760-1X | .206             | .1144                | 111,000                      | 154,000                      |                                    |                                    | .303       |                                    |          |
| M-760-2X |                  | .0713                | 178,000                      | 244,000                      | .017                               | .009                               | .555       | .005                               | .004     |
| M-03-S   | .329             | .0947                | 134,000                      | 184,000                      |                                    |                                    | .470       |                                    |          |
|          |                  | <u>.0116</u>         |                              |                              |                                    |                                    |            |                                    |          |
|          |                  | .0837                | 132,000                      | 208,000                      |                                    |                                    |            |                                    |          |
| M-70-W   | .400             | .1053                | 121,000                      | 165,000                      |                                    |                                    | .527       |                                    |          |
|          |                  | <u>.0191</u>         |                              |                              |                                    |                                    |            |                                    |          |
|          |                  | .0862                | 147,000                      | 202,000                      |                                    |                                    |            |                                    |          |