

| <b>Lone Star</b>                            |  | <b>RM1280D-427-192</b>                             |  | straight crank arm                                 | <b>COA= 9</b> | <b>SU = -1450</b> |
|---|--|--|--|--|---------------|-------------------|
| <b>Qty of Cwts</b>                          | <b>Cwt position *<br/>on crank arm</b> | <b>ECB, lbs.<br/>@192" stroke,<br/>at position</b> | <b>ECB, lbs.<br/>@159" stroke,<br/>at position</b> | <b>ECB, lbs.<br/>@127" stroke,<br/>at position</b> |               |                   |
| <b>Counterweight No.: 0 (3 bolts)</b>       |  |  |  |  |               |                   |
| cranks only                                 |  | 5,946  | 7,281  | 9,227  |               |                   |
| 4   | 10.7                                   | 9,028  | 10,951   | 13,754   |               |                   |
| 4   | 20                                     | 11,707   | 14,141   | 17,689   |               |                   |
| 4   | 30                                     | 14,588   | 17,570   | 21,920   |               |                   |
| 4   | 40                                     | 17,468   | 21,000   | 26,150   |               |                   |
| 4   | 50                                     | 20,349   | 24,430   | 30,381   |               |                   |
| 4   | 60                                     | 23,230   | 27,860   | 34,612   |               |                   |
| 4   | 70                                     | 26,110   | 31,290   | 38,842   |               |                   |
| 4   | max 75                                 | 27,551   | 33,005   | 40,958   |               |                   |
| 2   | 10.7                                   | 7,487  | 9,116  | 11,491   |               |                   |
| 2   | 20                                     | 8,827  | 10,711   | 13,458   |               |                   |
| 2   | 30                                     | 10,267   | 12,426   | 15,573   |               |                   |
| 2   | 40                                     | 11,707   | 14,141   | 17,689   |               |                   |
| 2   | 50                                     | 13,148   | 15,856   | 19,804   |               |                   |
| 2   | 60                                     | 14,588   | 17,570   | 21,920   |               |                   |
| 2   | 70                                     | 16,028   | 19,285   | 24,035   |               |                   |
| 2   | max 75                                 | 16,748   | 20,143   | 25,093   |               |                   |
| <b>Counterweight No.: 2#0+2#1 (3 bolts)</b> |  |  |  |  |               |                   |
| 2+2   | 10.7                                   | 8,759  | 10,630   | 13,358   |               |                   |
| 2+2   | 20                                     | 11,203   | 13,540   | 16,948   |               |                   |
| 2+2   | 30                                     | 13,832   | 16,670   | 20,809   |               |                   |
| 2+2   | 40                                     | 16,460   | 19,800   | 24,669   |               |                   |
| 2+2   | 50                                     | 19,089   | 22,929   | 28,530   |               |                   |
| 2+2   | 60                                     | 21,717   | 26,059   | 32,391   |               |                   |
| 2+2   | 70                                     | 24,346   | 29,189   | 36,251   |               |                   |
| 2+2   | max 75\78                              | 26,017   | 31,178   | 38,705   |               |                   |
| <b>Counterweight No.: 2#0+2#2 (3 bolts)</b> |  |  |  |  |               |                   |
| 2+2   | 10.7                                   | 8,501  | 10,323   | 12,980   |               |                   |
| 2+2   | 20                                     | 10,721   | 12,967   | 16,241   |               |                   |
| 2+2   | 30                                     | 13,109   | 15,810   | 19,748   |               |                   |
| 2+2   | 40                                     | 15,497   | 18,653   | 23,255   |               |                   |
| 2+2   | 50                                     | 17,885   | 21,496   | 26,762   |               |                   |
| 2+2   | 60                                     | 20,273   | 24,339   | 30,269   |               |                   |
| 2+2   | 70                                     | 22,660   | 27,182   | 33,775   |               |                   |
| 2+2   | max 75\80.5                            | 25,465   | 30,314   | 37,384   |               |                   |
| <b>Counterweight No.: 1 (3 bolts)</b>       |  |  |  |  |               |                   |

|                                       |          |        |        |        |
|---------------------------------------|----------|--------|--------|--------|
| cranks only                           |          | 5,946  | 7,281  | 9,227  |
| 4                                     | 10.7     | 8,489  | 10,309 | 12,962 |
| 4                                     | 20       | 10,699 | 12,940 | 16,208 |
| 4                                     | 30       | 13,075 | 15,770 | 19,698 |
| 4                                     | 40       | 15,452 | 18,599 | 23,189 |
| 4                                     | 50       | 17,829 | 21,429 | 26,679 |
| 4                                     | 60       | 20,205 | 24,259 | 30,169 |
| 4                                     | 70       | 22,582 | 27,088 | 33,660 |
| 4                                     | max 78   | 24,483 | 29,352 | 36,452 |
| 2                                     | 10.7     | 7,217  | 8,795  | 11,095 |
| 2                                     | 20       | 8,322  | 10,111 | 12,718 |
| 2                                     | 30       | 9,511  | 11,525 | 14,463 |
| 2                                     | 40       | 10,699 | 12,940 | 16,208 |
| 2                                     | 50       | 11,887 | 14,355 | 17,953 |
| 2                                     | 60       | 13,075 | 15,770 | 19,698 |
| 2                                     | 70       | 14,264 | 17,185 | 21,444 |
| 2                                     | max 78   | 15,214 | 18,316 | 22,840 |
| <b>Counterweight No.: 2 (3 bolts)</b> |          |        |        |        |
| cranks only                           |          | 5,946  | 7,281  | 9,227  |
| 4                                     | 10       | 7,841  | 9,537  | 12,010 |
| 4                                     | 20       | 9,736  | 11,793 | 14,793 |
| 4                                     | 30       | 11,631 | 14,050 | 17,576 |
| 4                                     | 40       | 13,526 | 16,306 | 20,359 |
| 4                                     | 50       | 15,420 | 18,562 | 23,142 |
| 4                                     | 60       | 17,315 | 20,818 | 25,925 |
| 4                                     | 70       | 19,210 | 23,074 | 28,708 |
| 4                                     | max 80.5 | 21,200 | 25,443 | 31,631 |
| 2                                     | 10       | 6,893  | 8,409  | 10,619 |
| 2                                     | 20       | 7,841  | 9,537  | 12,010 |
| 2                                     | 30       | 8,788  | 10,665 | 13,402 |
| 2                                     | 40       | 9,736  | 11,793 | 14,793 |
| 2                                     | 50       | 10,683 | 12,921 | 16,185 |
| 2                                     | 60       | 11,631 | 14,050 | 17,576 |
| 2                                     | 70       | 12,578 | 15,178 | 18,968 |
| 2                                     | max 80.5 | 13,573 | 16,362 | 20,429 |
| <b>Counterweight No.: 3 (3 bolts)</b> |          |        |        |        |
| cranks only                           |          | 5,946  | 7,281  | 9,227  |
| 4                                     | 10       | 7,558  | 9,201  | 11,595 |
| 4                                     | 20       | 9,170  | 11,120 | 13,963 |
| 4                                     | 30       | 10,783 | 13,040 | 16,331 |
| 4                                     | 40       | 12,395 | 14,959 | 18,699 |
| 4                                     | 50       | 14,007 | 16,879 | 21,067 |
| 4                                     | 60       | 15,619 | 18,799 | 23,435 |
| 4                                     | 70       | 17,232 | 20,718 | 25,803 |
| 4                                     | 80       | 18,844 | 22,638 | 28,170 |
| 4                                     | max 83.5 | 19,408 | 23,310 | 28,999 |

|                                       |          |        |        |        |
|---------------------------------------|----------|--------|--------|--------|
| 2                                     | 10       | 6,752  | 8,241  | 10,411 |
| 2                                     | 20       | 7,558  | 9,201  | 11,595 |
| 2                                     | 30       | 8,364  | 10,160 | 12,779 |
| 2                                     | 40       | 9,170  | 11,120 | 13,963 |
| 2                                     | 50       | 9,977  | 12,080 | 15,147 |
| 2                                     | 60       | 10,783 | 13,040 | 16,331 |
| 2                                     | 70       | 11,589 | 14,000 | 17,515 |
| 2                                     | 80       | 12,395 | 14,959 | 18,699 |
| 2                                     | max 83.5 | 12,677 | 15,295 | 19,113 |
| <b>Counterweight No.: 4 (3 bolts)</b> |          |        |        |        |
| cranks only                           |          | 5,946  | 7,281  | 9,227  |
| 4                                     | 10       | 7,407  | 9,021  | 11,374 |
| 4                                     | 20       | 8,869  | 10,761 | 13,520 |
| 4                                     | 30       | 10,330 | 12,501 | 15,667 |
| 4                                     | 40       | 11,792 | 14,241 | 17,813 |
| 4                                     | 50       | 13,253 | 15,981 | 19,960 |
| 4                                     | 60       | 14,715 | 17,722 | 22,106 |
| 4                                     | 70       | 16,176 | 19,462 | 24,252 |
| 4                                     | 80       | 17,638 | 21,202 | 26,399 |
| 4                                     | max 83.5 | 18,149 | 21,811 | 27,150 |
| 2                                     | 10       | 6,677  | 8,151  | 10,301 |
| 2                                     | 20       | 7,407  | 9,021  | 11,374 |
| 2                                     | 30       | 8,138  | 9,891  | 12,447 |
| 2                                     | 40       | 8,869  | 10,761 | 13,520 |
| 2                                     | 50       | 9,600  | 11,631 | 14,593 |
| 2                                     | 60       | 10,330 | 12,501 | 15,667 |
| 2                                     | 70       | 11,061 | 13,371 | 16,740 |
| 2                                     | 80       | 11,792 | 14,241 | 17,813 |
| 2                                     | max 83.5 | 12,048 | 14,546 | 18,189 |
| <b>Counterweight No.: 5 (2 bolts)</b> |          |        |        |        |
| cranks only                           |          | 5,946  | 7,281  | 9,227  |
| 4                                     | 10       | 7,186  | 8,757  | 11,049 |
| 4                                     | 20       | 8,426  | 10,234 | 12,870 |
| 4                                     | 30       | 9,666  | 11,710 | 14,691 |
| 4                                     | 40       | 10,906 | 13,187 | 16,512 |
| 4                                     | 50       | 12,146 | 14,663 | 18,333 |
| 4                                     | 60       | 13,386 | 16,140 | 20,155 |
| 4                                     | 70       | 14,626 | 17,616 | 21,976 |
| 4                                     | 80       | 15,866 | 19,092 | 23,797 |
| 4                                     | max 83.5 | 16,300 | 19,609 | 24,434 |
| 2                                     | 10       | 6,566  | 8,019  | 10,138 |
| 2                                     | 20       | 7,186  | 8,757  | 11,049 |
| 2                                     | 30       | 7,806  | 9,496  | 11,959 |
| 2                                     | 40       | 8,426  | 10,234 | 12,870 |