Superior Chain Performance

RENOLD
Superior Chain Technology

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Which do you think is most important, breaking load or performance?

Think about how you use chain. It is expected to run day in day out around sprockets, transmitting power or conveying a payload from A to B. Why would you specify a chain based on its breaking load when it should never be operating at a load close to its maximum physical capability?

A chain is like a tyre on a car, eventually you will expect it to wear and need replacing. A high breaking load, rather like a high rubber hardness on your car tyre is no guarantee of long life!

As Figure 1 below shows, a chain should run well below the load at which it could break. In fact permanent damage will quickly occur if the chain loads are greater than the elastic limit of the steel parts (Approx 65% of breaking load).

Zone C below shows the load range in which a chain should run to avoid problems with unwanted fatigue failures. By clever chain design we are continuously pushing this line higher making the need to specify breaking load obsolete.

This means that breaking load is not a reliable indicator of working load, another common misconception.

With the basic assumption that a chain is manufactured in line with the relevant ISO or ANSI standard, we therefore quote the relevant breaking load figure which has been declared by chain experts all over the world to be the ideal minimum basis on which to build a performance product. You can then focus on the key factors that affect a chain running in its normal operation conditions, its care and maintenance.

Selecting a Renold chain will ensure that you will achieve the longest working life available because Renold designs chain to resist fatigue and wear for longer than any competitor products.

Choose the best, choose Renold!