



To Whom It May Concern

Tractel UK Ltd has been asked on many occasions to confirm that its range of Tirfor machines have a higher **Pulling Capacity** than that shown on the Working Load Limit (Safe Working Load) label and stated in the machine handbook.

This question arises because the original leaflets/brochures we supplied with the Tirfor range of machines showed two different capacities, one for **LIFTING** and one for **PULLING**. Because the GENUINE TIRFOR machine is the market leader and recognised as such within many industries, manufacturers/suppliers of copies of the Tirfor machine followed suite. The original differentiation between the two operations was made because the statutory C. o U. (Coefficient of Utilisation/Safety Factor) on the wire rope is different for the two operations.

However when working with the Health and Safety Executive quite some time ago on a particular project, we were asked to define the difference between a **LIFTING** and a **PULLING** operation. The following conclusion was reached: -

"If ANY piece of equipment is being used to move a load and the result of any malfunction (such as the failure of the rope, chain, attachment, accessory or anchor point) the load would descend/move, then this operation is regarded as **LIFTING** operation".

Or: -

"If such a failure described above should occur and the load remained IN EXACTLY the same place as it was prior to the failure, then this operation could be said to be a **PULLING** operation."

This to Tractel UK Ltd meant (from our knowledge of the work undertaken using Tirfor machines) that in practice most applications where, in fact, **LIFTING** operations. Therefore to avoid operatives being confused by two different loads being stated on labels and in handbooks etc Tractel UK Ltd decided to show only the **LIFTING** WLL on all documentation. This, after all, is the operation, which demands the higher C. o U. on the wire rope. If users operate within the W.L.L. set by the statutory regulations for **LIFTING** they would always be working within the law, even if by chance they were actually carrying out a **PULLING** operation.

The link and jaw mechanism of the Tirfor machine has not been changed or down graded in any way and therefore Tractel UK Ltd know that the **GENUINE**

TIRFOR machine will operate comfortably within the C. of U. required for **PULLING** operations.

Therefore the employer of an operative who will be using a Tirfor machine can, if required, set a higher W.L.L. for a genuine **PULLING** operation.

If this is to be done, then the following actions should be taken: -

- 1) A competent person should carry out and record a Risk Analysis.
- 2) A written Method Statement should be issued to the user, prior to the operation being undertaken.

As stated above the C. of U. of the wire rope for **PULLING** operations is lower than that of **LIFTING** and information for comparison is listed below.

WLL Comparison for LIFTING and PULLING Operations

Machine	T508	Tu 8	T 516	Tu 16	T 532	Tu 32
WLL Lifting kg	800	800	1600	1600	3200	3200
Rope Dia. mm	8.3	8.3	11.5	11.5	16.3	16.3
Min Break Load kg	4590	4590	8100	8100	16800	16800
Wire Rope C. o U.	5.74	5.74	5.06	5.06	5.25	5.25

WLL Pulling kg	1200	1200	2500	2500	5000	5000
Rope Dia. mm	8.3	8.3	11.5	11.5	16.3	16.3
Min Break Load kg	4590	4590	8100	8100	16800	16800
Wire Rope C. o U.	3.83	3.83	3.24	3.24	3.36	3.36

Effort at WLL	32 kg	31 kg	40 kg	42.5 kg	45 kg	45kg
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We trust the above information is of value and sufficient at this time for your needs however if we can be of further assistance please do not hesitate to contact us at Tractel UK Ltd.