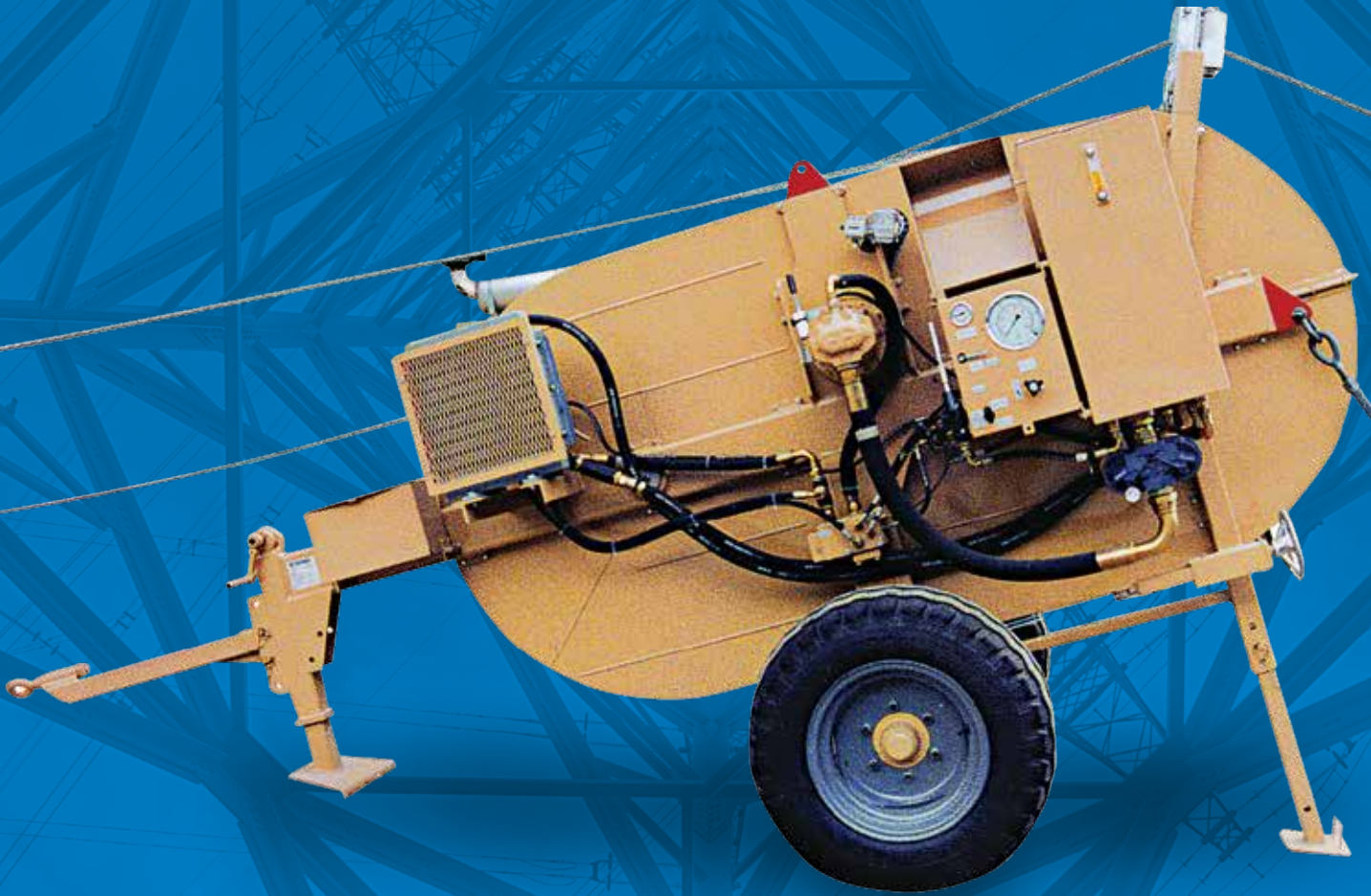


# ESSENTIAL MACHINES





# INDEX

## ESSENTIAL MACHINES

CODE	PULL RANGE (KN)	LAYOUT	BULL WHEEL DIAMETER (mm)	GROOVES NUMBER(kN)	ENGINE POWER (kW)	
<b>ARS522</b>	50	Single	400	7	60	<b>5.10</b>
<b>ARS519</b>	70	Single	400	7	60	<b>5.15</b>
<b>ARS500</b>	90	Single	450	10	104	<b>5.20</b>
<b>ARS612</b>	140	Single	600	10	129	<b>5.25</b>
<b>ARS700/701</b>	160/180	Single	600	10	209	<b>5.30</b>
<b>FRS404</b>	40	Single	1500	8	25	<b>5.35</b>
<b>FRS531</b>	75	Single	1500	10	25	<b>5.40</b>
<b>FRS615</b>	140	Single	1500	16	48	<b>5.45</b>
<b>FRB600</b>	2x75	Twin	1500	20	48	<b>5.50</b>

## ESSENTIAL MACHINES

# The basic solutions

The essential machines are one of the solutions supplied by Tesmec for new line constructions.

This is the most basic and light solution, with few or no electronic components at all.

The quality of these machines is tested by several years of employment on different jobsites, in every weather condition from Russia to Saudi Arabia.

The machines are extra CE/EPA, except for the pullers ARS500 and ARS700 available also in CE/EPA version.





## THE STANDARD RANGE

### Basic machines for line construction

Besides the technological improvements developed to reach the top quality level of Stringing Machines 4.0, Tesmec keeps a light range of machines, mainly for extra CE & EPA Countries. These machines are the example of a reliable evergreen design.

## TRADITIONAL USE & MAINTENANCE

### Mechanical machines

The main feature of these machines is the absence or a limited use of electronic components. This means a traditional use and maintenance of the machines: a basic and light range, simple and user friendly.

# ARS522

## HYDRAULIC PULLER



MAX PULL  
50 kN



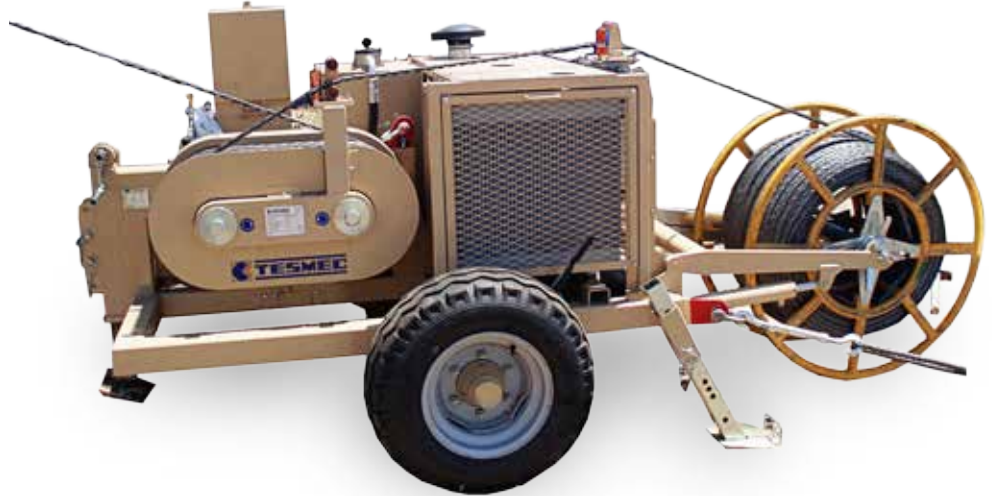
MAX SPEED  
5 km/h



ROPE DIAMETER  
16 mm

EXTRA CE/EPA

LIGHT & SIMPLE



### PERFORMANCE\*

Max pull	50 kN
Speed at max pull	2.5 km/h
Max speed	5 km/h
Pull at max speed	25 kN

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	400 mm
Bull-wheel material	STEEL
Max rope diameter	16 mm
Weight	2050 kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

### ENGINE

Diesel	60 kW (81 hp)
Cooling system	water
Electrical system	12 V

### HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating directions.

### CONFIGURATION

Negative self-acting hydraulic brake  
Hydraulic dynamometer with set-point and automatic control of maximum pull  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 and BOF020 (AXR001 included)  
Electronic pull and speed recorder kit (instrument not included)  
Pull pre-setting system  
Mechanical front stabiliser  
Grounding connection point

### AVAILABLE DEVICES

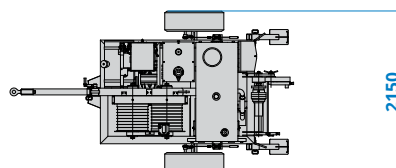
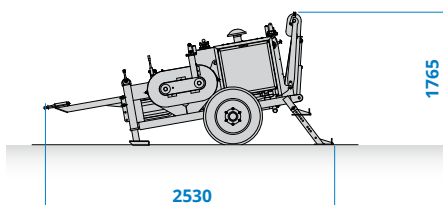
- ALL037** Preheating device for use up to -30°C
- ALL071** Hydraulic rope clamp for reel change operations
- ALL111** Swivel guide rope roller
- AXR001** Extra shaft
- DLR300** Electronic pull and speed recorder



ALL111



DLR300



Pictures & drawings can be different according to technical specifications - updating programme variations without notice are possible.

# ARS519

## HYDRAULIC PULLER



MAX  
PULL  
70 kN



MAX  
SPEED  
4 km/h



ROPE  
DIAMETER  
16 mm

EXTRA CE/EPA

LIGHT & SIMPLE

COMPLETELY ELECTRONICALLY CONTROLLED

### PERFORMANCE\*

Max pull	70 kN
Speed at max pull	1.8 km/h
Max speed	4 km/h
Pull at max speed	32 kN

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	400 mm
Bull-wheel material	STEEL
Max rope diameter	16 mm
Weight	2100 kg
Number of grooves	7
Suitable for	1 rope
Layout	Single

### ENGINE

Diesel	60 kW (81 hp)
Cooling system	water
Electrical system	12 V

### HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating directions. This machine is provided with a pull pre-setting system that maintains the pre-set pulling value (also when the speed is reduced to "0") by automatically adjusting the operation speed according to the friction and unexpected loads which may occur.

### CONFIGURATION

Negative self-acting hydraulic brake  
Hydraulic dynamometer with set-point and automatic control of maximum pull  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 and BOF020 (AXR001 included)  
Electronic pull and speed recorder kit (instrument not included)  
Pull pre-setting system  
Mechanical front stabiliser  
Grounding connection point

### AVAILABLE DEVICES

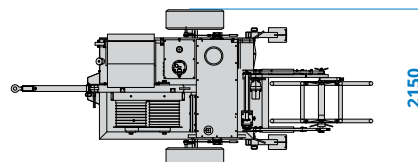
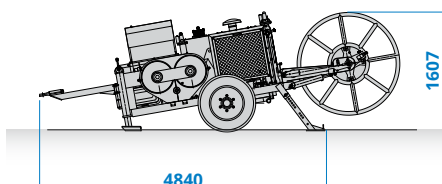
<b>ALL037</b>	Preheating device for use up to -30°C
<b>ALL051</b>	Cable remote control kit (instrument not included)
<b>AXC005</b>	Cable remote control (15 m range)
<b>ALL059</b>	Radio remote control kit (instrument not included)
<b>AXH007</b>	Radio remote control (150 m range)
<b>ALL071</b>	Hydraulic rope clamp for reel change operations
<b>ALL111</b>	Swivel guide rope roller
<b>AXR001</b>	Extra shaft
<b>DLR300</b>	Electronic pull and speed recorder



ALL111



DLR300



# ARS500

## HYDRAULIC PULLER



MAX PULL  
**90 kN**



MAX SPEED  
**5 km/h**



ROPE DIAMETER  
**18 mm**

AVAILABLE ALSO FOR CE/EPA

HIGH PERFORMANCE

COMPLETELY ELECTRONICALLY CONTROLLED



### PERFORMANCE\*

Max pull	90 kN
Speed at max pull	2.4 km/h
Max speed	5 km/h
Pull at max speed	44 kN

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	450 mm
Bull-wheel material	STEEL
Max rope diameter	18 mm
Weight	3800 kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

### ENGINE

Diesel	104 kW (140 hp)
Cooling system	water
Electrical system	12 V

### HYDRAULIC TRANSMISSION

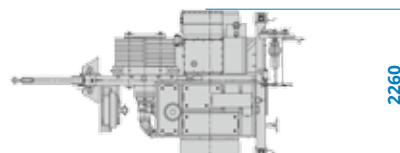
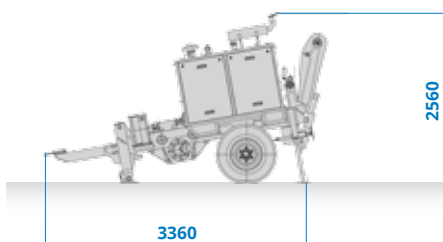
Closed hydraulic circuit for stepless speed variation in both rotating directions. This machine is provided with a pull pre-setting system that maintains the pre-set pulling value (also when the speed is reduced to "0") by automatically adjusting the operation speed according to the friction and unexpected loads which may occur.

### CONFIGURATION

Negative self-acting hydraulic brake  
Hydraulic dynamometer with set-point and automatic control of maximum pull  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 and BOF020 (AXR001 included)  
Mechanical front stabiliser  
Grounding connection point

### AVAILABLE DEVICES

<b>ALL037</b>	Preheating device for use up to -30°C
<b>ALL051</b>	Cable remote control kit (instrument not included)
<b>AXC005</b>	Cable remote control (15 m range)
<b>ALL053</b>	Electronic pull and speed recorder kit (instrument not included)
<b>ALL059</b>	Radio remote control kit (instrument not included)
<b>AXH007</b>	Radio remote control (150 m range)
<b>ALL071</b>	Hydraulic rope clamp for reel change operations
<b>ALL089</b>	Electronic arrangement for connection of multiple machines and for stringing synchronization
<b>AXR001</b>	Extra shaft
<b>DLR300</b>	Electronic pull and speed recorder



DLR300

Pictures & drawings can be different according to technical specifications - updating programme variations without notice are possible.



# ARS612

## HYDRAULIC PULLER



MAX  
PULL

140 kN



MAX  
SPEED

4,5 km/h



ROPE  
DIAMETER

24 mm

EXTRA CE/EPA

LIGHT & SIMPLE

COMPLETELY ELECTRONICALLY CONTROLLED

### PERFORMANCE\*

Max pull	140 kN
Speed at max pull	2 km/h
Max speed	4.5 km/h
Pull at max speed	60 kN

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	600 mm
Bull-wheel material	STEEL
Max rope diameter	24 mm
Weight	4800 kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

### ENGINE

Diesel	129 kW (173 hp)
Cooling system	water
Electrical system	12 V

### HYDRAULIC TRANSMISSION

Closed hydraulic circuit for stepless speed variation in both rotating directions. This machine is provided with a pull pre-setting system that maintains the pre-set pulling value (also when the speed is reduced to "0") by automatically adjusting the operation speed according to the friction and unexpected loads which may occur.

### CONFIGURATION

Negative self-acting hydraulic brake  
Hydraulic dynamometer with set-point and automatic control of maximum pull  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 BOF020 (AXR001 included)  
Electronic pull and speed recorder kit (instrument not included)  
Pull pre-setting system  
Hydraulic front stabiliser  
Grounding connection point

### AVAILABLE DEVICES

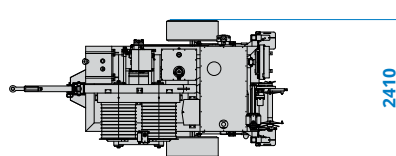
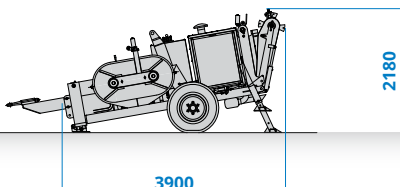
<b>ALL037</b>	Preheating device for use up to -30°C
<b>ALL051</b>	Cable remote control kit (instrument not included)
<b>AXC005</b>	Cable remote control (15 m range)
<b>ALL059</b>	Radio remote control kit (instrument not included)
<b>AXH007</b>	Radio remote control (150 m range)
<b>ALL071</b>	Hydraulic rope clamp for reel change operations
<b>ALL111</b>	Swivel guide rope roller
<b>AXR001</b>	Extra shaft
<b>DLR300</b>	Electronic pull and speed recorder



ALL111



DLR300



# ARS700/701

## HYDRAULIC PULLER


**MAX PULL**
**160/180 kN**

**MAX SPEED**
**5 km/h**

**ROPE DIAMETER**
**24 mm**

AVAILABLE ALSO FOR CE/EPA

HIGH PERFORMANCE

COMPLETELY ELECTRONICALLY CONTROLLED



### PERFORMANCE\*

Max pull	160/180 kN
Speed at max pull	2.5/2.2 km/h
Max speed	5 km/h
Pull at max speed	80 kN

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	600 mm
Bull-wheel material	STEEL
Max rope diameter	24 mm
Weight	6000 kg
Number of grooves	10
Suitable for	1 rope
Layout	Single

### ENGINE

Diesel	209 kW (280 hp)
Cooling system	water
Electrical system	24 V

### HYDRAULIC TRANSMISSION

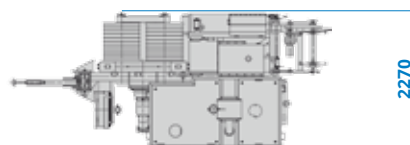
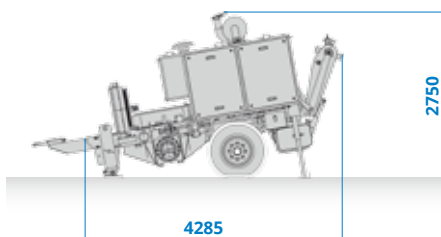
Closed hydraulic circuit for stepless speed variation in both rotating directions. This machine is provided with a pull pre-setting system that maintains the pre-set pulling value (also when the speed is reduced to "0") by automatically adjusting the operation speed according to the friction and unexpected loads which may occur.

### CONFIGURATION

Negative self-acting hydraulic brake  
 Hydraulic dynamometer with set-point and automatic control of maximum pull  
 Control instruments for hydraulic system and Diesel engine  
 Rigid axle 30 km/h  
 On board reel winder with automatic level wind, suitable for standard reel mod. BOF010 and BOF020 (AXR001 included)  
 Mechanical front stabiliser  
 Grounding connection point

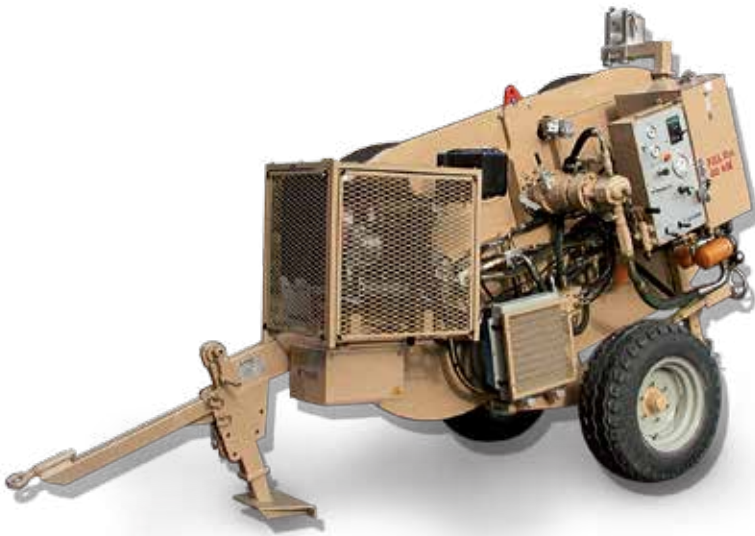
### AVAILABLE DEVICES

- ALL001** Lighting system for the trailer
- ALL002** Air brake system for the trailer
- ALL010** Hydraulic power pack to control a separate reel winder
- ALL022** Hydraulic quick connectors to control a separate reel winder instead of the built-in one
- ALL037** Preheating device for use up to -30°C
- ALL051** Cable remote control kit (instrument not included)
- AXC005** Cable remote control (15 m range)
- ALL053** Electronic pull and speed recorder kit (instrument not included)
- ALL059** Radio remote control kit (instrument not included)
- AXH007** Radio remote control (150 m range)
- ALL070** Extra rollers for an additional pilot rope
- ALL071** Hydraulic rope clamp for reel change operations
- ALL089** Electronic arrangement for connection of multiple machines and for stringing synchronization
- ALL111** Swivel guide rope roller
- AXR001** Extra shaft
- DLR300** Electronic pull and speed recorder



## FRS404

### HYDRAULIC TENSIONER



MAX  
PULL/TENSION  
**40 kN**



MAX  
SPEED  
**5 km/h**



CONDUCTOR  
DIAMETER  
**34 mm**

AVAILABLE ALSO FOR CE/EPA

LIGHT & SIMPLE

AVAILABLE PURE HYDRAULIC VERSION FRS403

#### PERFORMANCE\*

Max tension	40 kN
Max speed	5 km/h
Max pull back	40 kN
Speed at max pull back	0.8 km/h

\* at 20°C and at sea level

#### CHARACTERISTICS

Bull-wheel diameter	1500 mm
Bull-wheel material	NYLON
Max conductor diameter	34 mm
Weight	2700 kg
Number of grooves	8
Suitable for	1 or 2 ropes or bundled conductor
Layout	Single

#### ENGINE

Diesel	25 kW (34 hp)
Cooling system	water
Electrical system	12 V

#### HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change.

#### CONFIGURATION

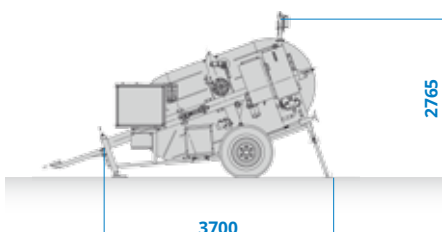
Negative self-acting hydraulic brake  
Hydraulic dynamometer  
Mechanical meter counter  
Rigid axle 30 km/h  
Gearbox with 3 operating positions:

- neutral position (with free bull-wheels for conductor loading and unloading)
- low tension position (2 ÷ 6 kN)
- nominal tension position

Hydraulic power pack to control up to 2 separate drum stands with hydraulic motor, not independent control  
Mechanical front stabiliser  
Grounding connection point

#### AVAILABLE DEVICES

<b>ALL037</b>	Preheating device for use up to -30°C
<b>ALL071</b>	Hydraulic conductor clamp for drum change operations
<b>ALL080</b>	Special nylon sectors kit



# FRS531

## HYDRAULIC TENSIONER



MAX PULL/TENSION  
**75 kN**



MAX SPEED  
**5 km/h**



CONDUCTOR DIAMETER  
**34 mm**

EXTRA CE/EPA

COMPLETELY ELECTRONICALLY CONTROLLED



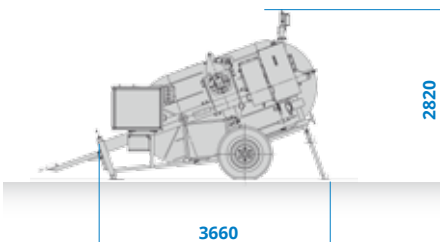
### PERFORMANCE\*

Max tension	75 kN
Max speed	5 km/h
Max pull back	75 kN
Speed at max pull back	0,7 km/h

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	1500 mm
Bull-wheel material	NYLON
Max conductor diameter	34 mm
Weight	3400 kg
Number of grooves	10
Suitable for	1 or 2 ropes or bundled conductors
Layout	Single



### ENGINE

Diesel	25 kW (34 hp)
Cooling system	water
Electrical system	12 V

### HYDRAULIC TRANSMISSION

Hydraulic open circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change.

### CONFIGURATION

Negative self-acting hydraulic brake  
Hydraulic dynamometer with set-point and automatic control of maximum pull  
Mechanical meter counter  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
Gearbox with 3 operating positions:

- neutral position (with free bull-wheels for conductor loading and unloading)
- low tension position (5 ÷ 20 kN)
- nominal tension position

Hydraulic power pack to control up to 2 reel stands with hydraulic head, not independent control  
Mechanical front stabiliser  
Grounding connection point



### AVAILABLE DEVICES

<b>ALL005</b>	Hydraulic power for an external compressor
<b>ALL037</b>	Preheating device for use up to -30°C
<b>ALL051</b>	Cable remote control kit (instrument not included)
<b>AXC005</b>	Cable remote control (15 m range)
<b>ALL059</b>	Radio remote control kit (instrument not included)
<b>AXH007</b>	Radio remote control (150 m range)
<b>ALL071</b>	Hydraulic rope clamp for reel change operations
<b>ALL080</b>	Special nylon sectors kit
<b>ALL089</b>	Electronic arrangement for connection of multiple machines and for stringing synchronization

## FRS615

### HYDRAULIC TENSIONER



MAX  
PULL/TENSION  
**140 kN**



MAX  
SPEED  
**5 km/h**



CONDUCTOR  
DIAMETER  
**40 mm**

EXTRA CE/EPA

COMPLETELY ELECTRONICALLY CONTROLLED

#### PERFORMANCE\*

Max tension	140 kN
Max speed	5 km/h
Max pull back	140 kN
Max speed at pull back	1.8 km/h

\* at 20°C and at sea level

#### CHARACTERISTICS

Bull-wheel diameter	1500 mm
Bull-wheel material	NYLON
Max conductor diameter	40 mm
Weight	6200 kg
Number of grooves	16
Suitable for	1, 2, 3 or 4 conductors
Layout	Single

#### ENGINE

Diesel	48 kW (64 hp)
Cooling system	water
Electrical system	24 V

#### HYDRAULIC TRANSMISSION

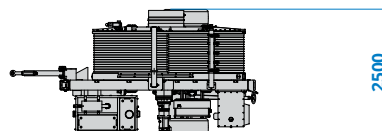
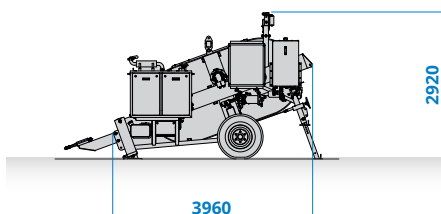
Hydraulic circuit that provides very sensitive tensioning control and negligible deviations of tension in case of speed change.

#### CONFIGURATION

Negative self-acting hydraulic brake  
Hydraulic dynamometer with set-point and automatic control of maximum pull  
Digital meter counter  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
Hydraulic power pack to control up to 4 reel stands with hydraulic head, not independent control  
Hydraulic front stabiliser  
Grounding connection point

#### AVAILABLE DEVICES

<b>ALL001</b>	Lighting system for the trailer
<b>ALL002</b>	Air brake system for the trailer
<b>ALL005</b>	Hydraulic power for an external compressor
<b>ALL037</b>	Preheating device for use up to -30°C
<b>AXC005</b>	Cable remote control (15 m range)
<b>ALL059</b>	Radio remote control kit (instrument not included)
<b>AXH007</b>	Radio remote control (150 m range)
<b>ALL071</b>	Hydraulic rope clamp for reel change operations
<b>ALL071</b>	4 hydraulic conductor clamps for drum change operations
<b>ALL080</b>	Special nylon sectors kit
<b>ALL081</b>	same as ALL080 but in addition instead of as an alternative
<b>ALL089</b>	Electronic arrangement for connection of multiple machines and for stringing synchronization



# FRB600

## HYDRAULIC TENSIONER



MAX PULL/TENSION  
**2x75 kN**



MAX SPEED  
**5 km/h**



CONDUCTOR DIAMETER  
**38 mm**

EXTRA CE/EPA

COMPLETELY ELECTRONICALLY CONTROLLED



### PERFORMANCE\*

Max tension	2x75 kN
Max speed	5 km/h
Max pull back	2x75 kN
Speed at max pull back	0,6 km/h

\* at 20°C and at sea level

### CHARACTERISTICS

Bull-wheel diameter	1500 mm
Bull-wheel material	NYLON
Max conductor diameter	38 mm
Weight	7500 kg
Number of grooves	20
Suitable for	1, 2, 3 or 4 conductors
Layout	Twin

### ENGINE

Diesel	48 kW (64 hp)
Cooling system	water
Electrical system	24 V

### HYDRAULIC TRANSMISSION

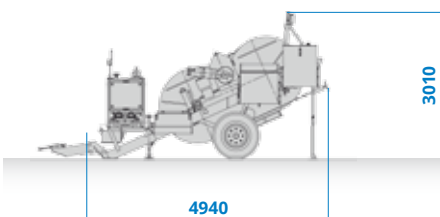
2 hydraulic half-closed circuits that allow very sensitive tensioning control and negligible deviations of tension in case of speed change. The machine is provided with tension pre-setting system.

### CONFIGURATION

2 negative self-acting hydraulic brakes  
2 hydraulic dynamometers  
2 digital meter counters  
2 digital speed-meters  
Control instruments for hydraulic system and Diesel engine  
Rigid axle 30 km/h  
Hydraulic power pack to control up to 4 separate drum stands with hydraulic motor with 2 independent controls  
Hydraulic front stabiliser  
Grounding connection point

### AVAILABLE DEVICES

<b>ALL001</b>	Lighting system for the trailer
<b>ALL002</b>	Air brake system for the trailer
<b>ALL005</b>	Hydraulic power for an external compressor
<b>ALL037</b>	Preheating device for use up to -30°C
<b>ALL071</b>	4 hydraulic conductor clamps for drum change operations
<b>ALL080</b>	Special nylon sectors kit
<b>ALL089</b>	Electronic arrangement for connection of multiple machines and for stringing synchronization



Pictures & drawings can be different according to technical specifications - updating programme variations without notice are possible.



