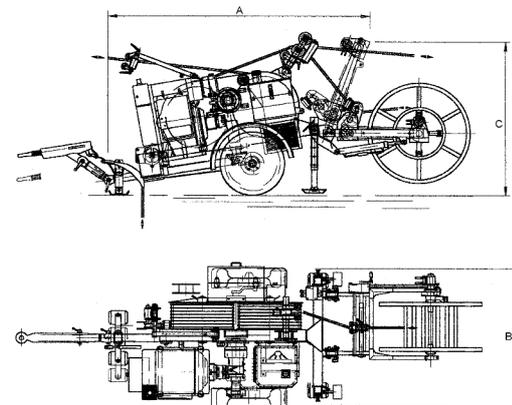


3

HYDRAULIC PULLER-TENSIONERS

Mod. **F104.AF.30**



$\frac{C}{A} \times B$

A x B x C = 2,95 x 1,80 x 1,80 m
Weight = 1900 kg

Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one rope or conductor.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

In puller use, one close hydraulic circuit lets to vary continuously the speed in both directions.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring and for lifting the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reel-stand or reel-winder).

OPTIONAL DEVICES

- 007 - Amortised axle, overrun braking system, drawbar and lights for towing on road (homologation excluded).
- 014 - Reel-winder arms fit for a 1400-mm-dia. reel (1 or 2).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for rope/conductor.
- 045.3 Manual clamp for rope/conductor.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES

Capstans	2 x Ø 700 mm
Max wire diameter	24 mm
Max steel rope diameter	13 mm

ENGINE

Feeding	Diesel
Power	36 hp / 27 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

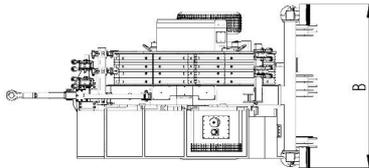
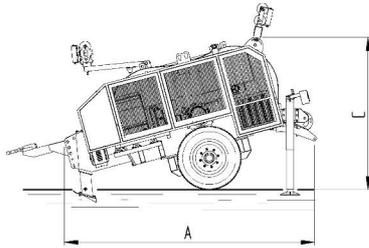
Max pull	30 kN
Speed at max pull	1,5 km/h
Max speed	4,0 km/h
Pull at max speed	12 kN

TENSION PERFORMANCES

Max tension	30 kN
Max speed	5 km/h

700 mm capstan diameter	24 mm max. cond. diameter	13 mm max rope diameter	27 kW engine power	30 kN max pull force

Mod. **F120.AF.30**



$\frac{C}{A/B}$

A x B x C = 3,90 x 1,95 x 2,35 m
Weight = 2900 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one rope or conductor.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (150-1000 daN), fit for OPGW.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Back fix conductor-driver with nylon rollers.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reel-stand or reel-winder).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for rope/conductor.
- 045.3 Manual clamp for rope/conductor.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES

Capstans	2 x Ø 1500 mm
Max conductor diameter	34 mm
Max rope diameter	16 mm

ENGINE

Feeding	Diesel
Power	40,8 hp / 30 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

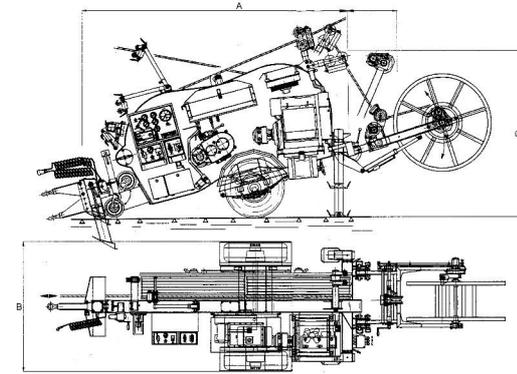
Max pull	30 kN
Speed at max pull	1,9 km/h
Max speed	5 km/h
Pull at max speed	10 kN

TENSION PERFORMANCES

Max tension	30 kN
Max speed	5 km/h

1500 mm capstan diameter	34 mm max. cond. diameter	16 mm max rope diameter	30 kW engine power	30 kN max pull force
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Mod. **F200.AF.35**



$\frac{C}{A} \times B$
 A x B x C = 3,20 x 1,90 x 2,20 m
 Weight = 2200 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one rope or conductor.
 One hydraulic circuit lets to tension at constant force even varying the speed of stringing.
 In puller use, one close hydraulic circuit lets to vary continuously the speed in both directions.
 The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with electronic device operating as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (1-15 kN), fit for OPGW cables, with idle position.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers.
- Rigid axle, tires, hand brake and drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Auxiliary hydraulic circuit for additional equipment (one reel-stand or reel-winder).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 037- Cable control with 10 m of cable.
- 038 - Radiocontrol.
- 045.2 Automatic clamp for the conductor.
- 045.3 Manual clamp for the conductor.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer with accessories, complete with case.
- 119 - Capstans with steel grooves chemically treated.

FEATURES

Capstans	2 x Ø 1200 mm
Max conductor diameter	34 mm
Max rope diameter	16 mm

ENGINE

Feeding	Diesel
Power	62 hp / 46 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	35 kN
Speed at max pull	2,5 km/h
Max speed	4,5 km/h
Pull at max speed	20 kN

TENSION PERFORMANCES

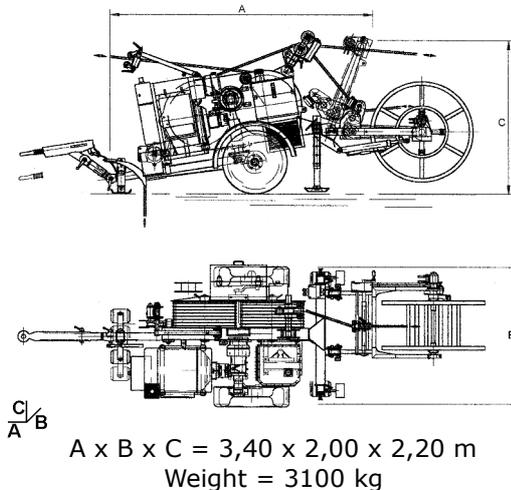
Max tension	35 kN
Max speed	5 km/h



opt.014

1200 mm capstan diameter	34 mm max. cond. diameter	16 mm max rope diameter	46 kW engine power	35 kN max pull force
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Mod. **F200.AF.45.2**



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (2-20 kN), fit for OPGW.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers for 2 cond.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic controlled back stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.

FEATURES

Capstans	2 x Ø 1200 mm
No. of grooves	10 + 10
Max wire diameter	36 mm
Max rope diameter	16 mm

ENGINE

Feeding	Diesel
Power	88 HP / 65 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	45 kN
Speed at max pull	2,7 km/h
Max	5,0 km/h
Pull at max speed	26 kN

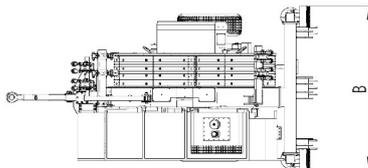
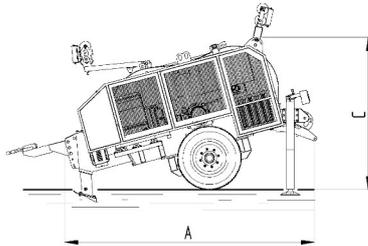
TENSION PERFORMANCES

Max tension	45 kN
Max speed	5 km/h



1200 mm capstan diameter	2 x 36 mm max. cond. diameter	16 mm max rope diameter	65 kW engine power	45 kN max pull force

Mod. **F120.AF.45.2**



C/B
A

A x B x C = 3,70 x 2,00 x 2,60 m
Weight = 3100 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. In puller use, one close hydraulic circuit lets to vary continuously the speed in both directions. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (2-20 kN), fit for OPGW.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers for 2 cond.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic controlled back stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.

FEATURES

Capstans	2 x Ø 1500 mm
No. of grooves	10 + 10
Max wire diameter	36 mm
Max rope diameter	16 mm

ENGINE

Feeding	Diesel
Power	88 HP / 65 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	45 kN
Speed at max pull	2,7 km/h
Max	5,0 km/h
Pull at max speed	26 kN

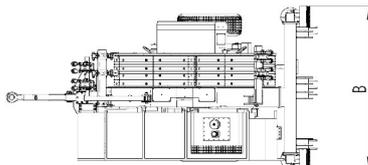
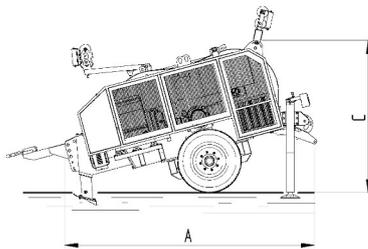
TENSION PERFORMANCES

Max tension	45 kN
Max speed	5 km/h



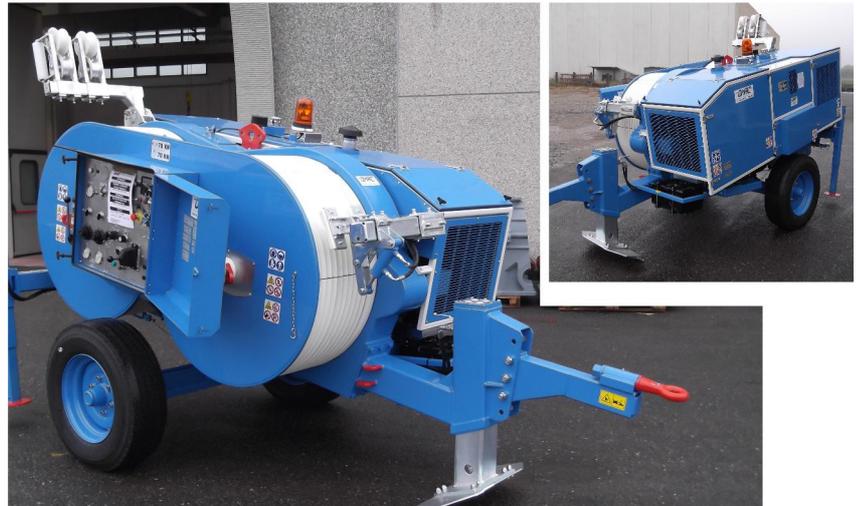
1500 mm capstan diameter	2 x 36 mm max. cond. diameter	16 mm max rope diameter	65 kW engine power	45 kN max pull force

Mod. **F200.AF.60.2**



C/A/B

A x B x C = 3,20 x 1,95 x 2,30 m
Weight = 3200 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1200 mm
No. of grooves	10 + 10
Max wire diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE

Feeding	Diesel
Power	88,5 HP / 65 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	60 kN
Speed at max pull	2 km/h
Max	5 km/h
Pull at max speed	27 kN

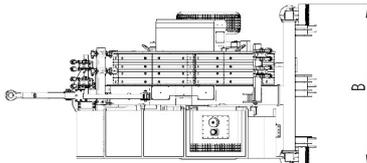
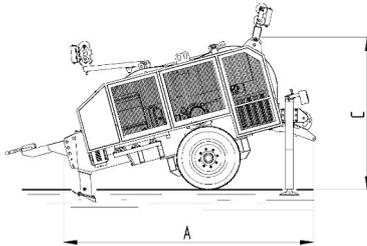
TENSION PERFORMANCES

Max tension	60 kN
Max speed	5 km/h



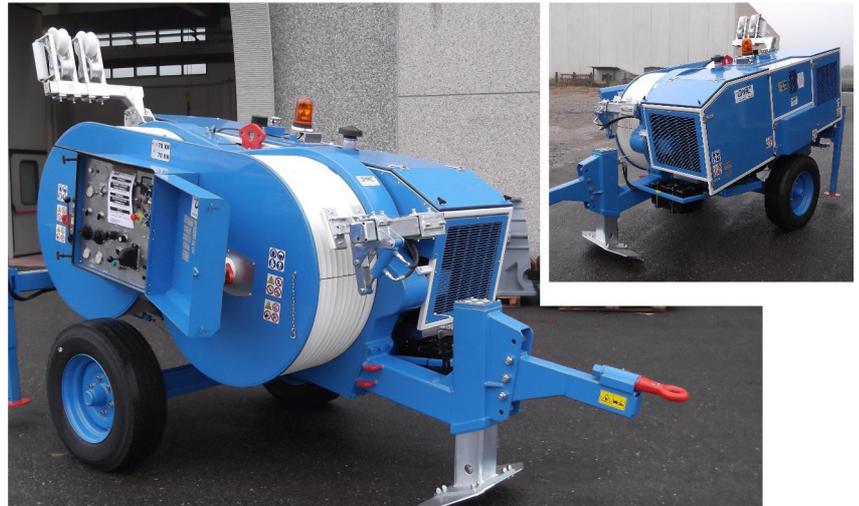
1200 mm capstan diameter	2 x 40 mm max. cond. diameter	18 mm max rope diameter	65 kW engine power	60 kN max pull force
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Mod. **F200.AF.75.2**



C/B
A

A x B x C = 3,40 x 2,00 x 2,30 m
Weight = 3500 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1200 mm
No. of grooves	10 + 10
Max wire diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE

Feeding	Diesel
Power	105 HP / 77 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	75 kN
Speed at max pull	2 km/h
Max	5 km/h
Pull at max speed	35 kN

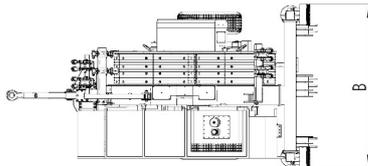
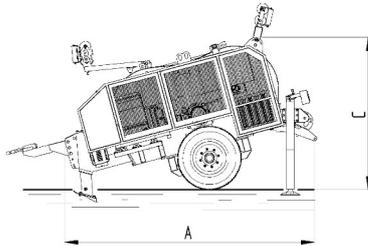
TENSION PERFORMANCES

Max tension	75 kN
Max speed	5 km/h



1200 mm capstan diameter	2 x 40 mm max. cond. diameter	18 mm max rope diameter	77 kW engine power	75 kN max pull force
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Mod. **F120.AF.60.2**



$\frac{C}{A/B}$

A x B x C = 3,20 x 1,95 x 2,30 m
Weight = 3200 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1500 mm
No. of grooves	10 + 10
Max wire diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE

Feeding	Diesel
Power	88,5 HP / 65 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	60 kN
Speed at max pull	2 km/h
Max	5 km/h
Pull at max speed	27 kN

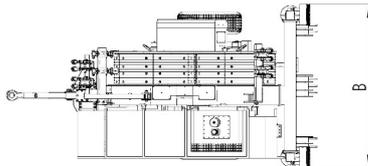
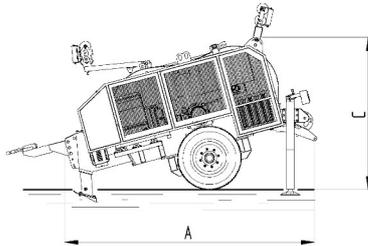
TENSION PERFORMANCES

Max tension	60 kN
Max speed	5 km/h



1500 mm capstan diameter	2 x 40 mm max. cond. diameter	18 mm max rope diameter	65 kW engine power	60 kN max pull force
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Mod. **F120.AF.75.2**



C/B
A

A x B x C = 4,00 x 2,10 x 2,40 m
Weight = 4450 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic stabilisers and share.
- Attachments for anchoring and lifting the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1500 mm
No. of grooves	10 + 10
Max wire diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE

Feeding	Diesel
Power	105 HP / 77 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	75 kN
Speed at max pull	2 km/h
Max	5 km/h
Pull at max speed	35 kN

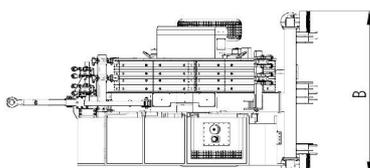
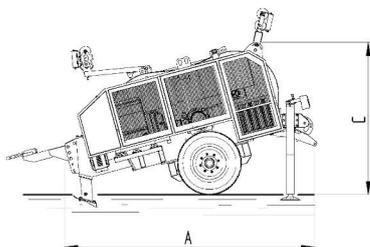
TENSION PERFORMANCES

Max tension	75 kN
Max speed	5 km/h



1500 mm capstan diameter	2 x 40 mm max. cond. diameter	18 mm max rope diameter	77 kW engine power	75 kN max pull force
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Mod. **F200.AF.90.2**



C/B
A

A x B x C = 3,25 x 2,10 x 2,30 m
Weight = 4500 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic stabilisers and share.
- Attachments for anchoring and lifting the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1200 mm
No. of grooves	10 + 10
Max conductor diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE

Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	90 kN
Speed at max pull	2,0 km/h
Max	5,0 km/h
Pull at max speed	30 kN

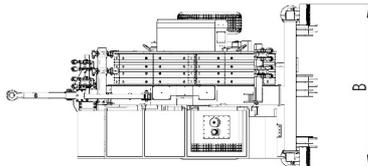
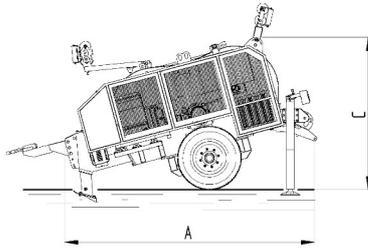
TENSION PERFORMANCES

Max tension	90 kN
Max speed	5 km/h



1200 mm capstan diameter	2 x 40 mm max. cond. diameter	18 mm max rope diameter	86 kW engine power	90 kN max pull force
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Mod. **F120.AF.90.2**



C/B
A

A x B x C = 3,80 x 2,10 x 2,40 m
Weight = 4200 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors.

One hydraulic circuit lets to tension at constant force even varying the speed of stringing.

The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Safety negative hydraulic brake.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic stabilisers and share.
- Attachments for anchoring and lifting the machine.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment (1 or 2 reel-winders or reel-stands).

OPTIONAL DEVICES

- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arm fit for a 1400-mm-dia. reel.
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1500 mm
No. of grooves	10 + 10
Max conductor diameter	2 x 40 mm
Max rope diameter	18 mm

ENGINE

Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	90 kN
Speed at max pull	2,4 km/h
Max	5,0 km/h
Pull at max speed	45 kN

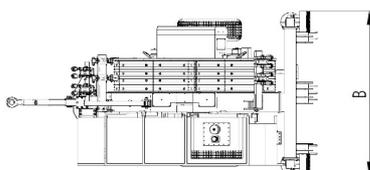
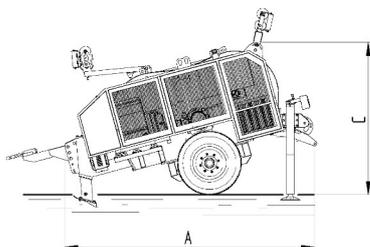
TENSION PERFORMANCES

Max tension	90 kN
Max speed	5 km/h



1500 mm capstan diameter	2 x 40 mm max. cond. diameter	18 mm max rope diameter	105 kW engine power	90 kN max pull force
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Mod. **F200.AF.90.22**



C/A/B

A x B x C = 3,70 x 2,30 x 2,35 m
Weight = 6000 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces. In puller use, 2 close hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 electronic instruments that operate as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Two safety negative hydraulic brakes.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic-control stabilisers and share, and attachments to anchor the machine.
- Oil cooling system.
- Mechanism to synchronise the motion of the capstans.
- Two auxiliary hydraulic circuits for additional equipment.
- Fittings for earthing devices.

OPTIONAL DEVICES

- 005.1 Chassis with 2 dumped axles (tandem), air braking system and lights.
- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arms fit for a 1400-mm-dia. reel (1 or 2)
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Two electronic devices with USB port, to save the data of the pull (n.1 each circuit).
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	4 x Ø 1200 mm
Max wire diameter	2 x 42 mm
Max rope diameter	18 mm

ENGINE

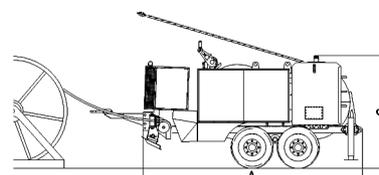
Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	1 x 90 kN 2 x 45 kN
Speed at max pull	2,5 km/h
Max	5 km/h
Pull at max speed	1 x 45 kN 2 x 22,5 kN

TENSION PERFORMANCES

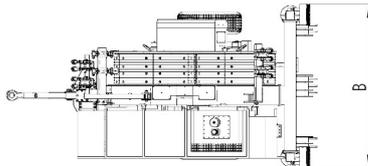
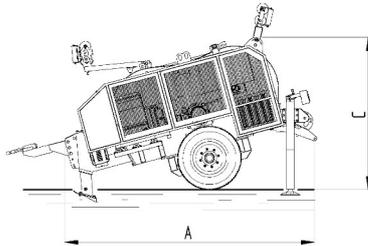
Max tension	1 x 90 kN 2 x 45 kN
Max speed	5 km/h



con opt.005.1

1200 mm capstan diameter	2 x 42 mm max. cond. diameter	18 mm max rope diameter	105 kW engine power	90 kN max pull force

Mod. **F120.AF.90.22**



C/A/B

A x B x C = 4,50 x 2,40 x 2,80 m
Weight = 6200 kg



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string one or two ropes or conductors. Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces. In puller use, 2 close hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 electronic instruments that operate as dynamometer, preselector of max pull force, metercounter and speedometer.
- Device to control low-force tensions (3-25 kN), fit for OPGW cables, with idle position.
- Freewheeling disconnection (neutral) of capstans.
- Two safety negative hydraulic brakes.
- Back fix conductor-driver with nylon rollers for 2 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Hydraulic-control stabilisers and share, and attachments to anchor the machine.
- Oil cooling system.
- Mechanism to synchronise the motion of the capstans.
- Two auxiliary hydraulic circuits for additional equipment.
- Fittings for earthing devices.

OPTIONAL DEVICES

- 005.1 Chassis with 2 dumped axles (tandem), air braking system and lights.
- 008 - Amortised axle, air braking system, drawbar and lights for towing on road (homologation excluded).
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 014 - Reel-winder arms fit for a 1400-mm-dia. reel (1 or 2)
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 2 ropes/conductors.
- 045.3 Manual clamp for 2 ropes/conductors.
- 069.2 Two electronic devices with USB port, to save the data of the pull (n.1 each circuit).
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	4 x Ø 1500 mm
Max wire diameter	2 x 42 mm
Max rope diameter	18 mm

ENGINE

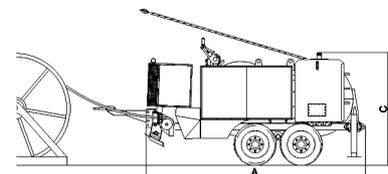
Feeding	Diesel
Power	142 hp / 105 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	1 x 90 kN 2 x 45 kN
Speed at max pull	2,5 km/h
Max	5 km/h
Pull at max speed	1 x 45 kN 2 x 22,5 kN

TENSION PERFORMANCES

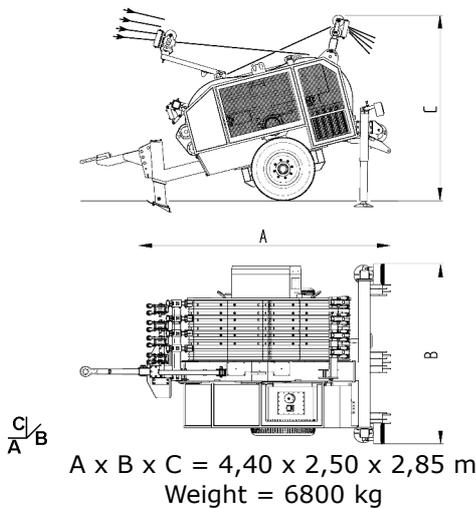
Max tension	1 x 90 kN 2 x 45 kN
Max speed	5 km/h



con opt.005.1

1500 mm capstan diameter	2 x 42 mm max. cond. diameter	18 mm max rope diameter	105 kW engine power	90 kN max pull force
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Mod. **F120.AF.140.4**



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors. One hydraulic circuit lets to tension at constant force even varying the speed of stringing. In puller use, one close hydraulic circuit lets to vary continuously the speed in both directions. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed).

- One pair of steel capstans lined with multi-grooved nylon sectors (optional: steel-grooves, see opt.119).
- Machine control panel equipped with electronic instrument that operates as dynamometer, preselector of max pull force, metercounter and speedometer.
- Safety negative hydraulic brake.
- Front oscillating conductor-driver with nylon rollers for 4 cond.
- Back fix conductor-drivers with nylon rollers for 4 cond.
- Chassis with rigid axle, manual brake and detachable drawbar for towing at low speed in workplace.
- Stabilisers, share and attachments for anchoring the machine.
- Oil cooling system.
- Four auxiliary hydraulic circuits for additional equipment (reel-winders or reel-stands).

OPTIONAL DEVICES

- 005.4 Chassis with 2 rigid axles (tandem).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.2 Electronic device with USB port, to save the data of the pull.
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	2 x Ø 1500 mm
Max wire diameter	4 x 42 mm
Max rope diameter	24 mm

ENGINE

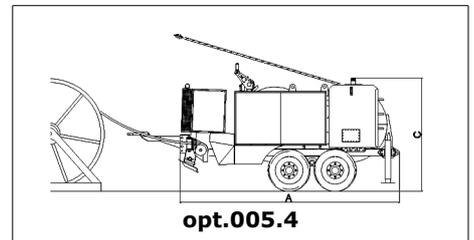
Feeding	Diesel
Power	177 hp / 130 kW
Cooling system	water
Electric system	12 V

PULL PERFORMANCES

Max pull	140 kN
Speed at max pull	1,8 km/h
Max	4,0 km/h
Pull at max speed	60 kN

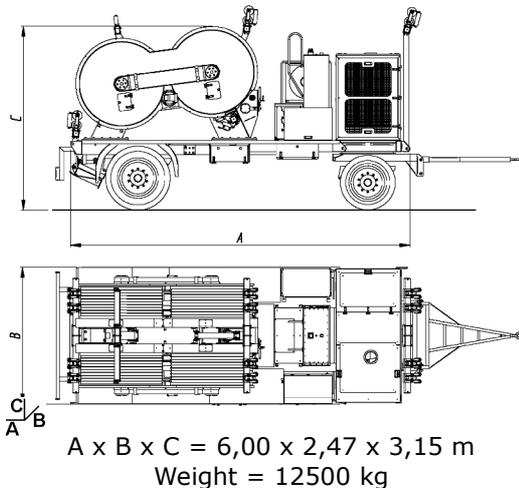
TENSION PERFORMANCES

Max tension	140 kN
Max speed	4,5 km/h



1500 mm capstan diameter	4 x 42 mm max. cond. diameter	24 mm max rope diameter	130 kW engine power	140 kN max pull force
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Mod. **F120.AF.150.42**



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors.

Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces.

In puller use, 2 close hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled.

- Two pairs of steel capstans lined with multi-grooved nylon sectors.
- Machine control panel equipped with 2 electronic instruments that operate as dynamometer, preselector of max pull force, metercounter and speedometer.
- Two safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers for 4 cond.
- Frame with two axles, steering-one with drawbar, leaf spring suspensions and tires, fits for towing on the road at 60 km/h (homologation excluded).
- Hydraulic back stabilisers and hydraulic share on front side.
- Oil cooling system.
- Mechanism to synchronise the motion of the capstans in tensioner use.
- Four auxiliary hydraulic circuits for additional equipment (i.e. motorised reel-stands).

OPTIONAL DEVICES

- 005.1 Chassis with 2 dumped axles (tandem), air braking system and lights.
- 006.3 Pneumatic braking plant with ABS.
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.2 Two electronic devices with USB port, to save the data of the pull (n.1 each circuit).
- 069.5 Printer for the electronic recorder, with accessories.
- 119 - Capstans with steel grooves chemically treated.
- 174.2 Synchroniser device for matching 2 machines to tension more conductors simultaneously, complete with cable-control (20 m) for controlling the 2 machines.

FEATURES

Capstans	4 x Ø 1500 mm
Grooves per capstan	10 (tot.40)
Max conductor diameter	4 x 45 mm
Max wire rope diameter	4 x 32 mm

TENSION PERFORMANCES

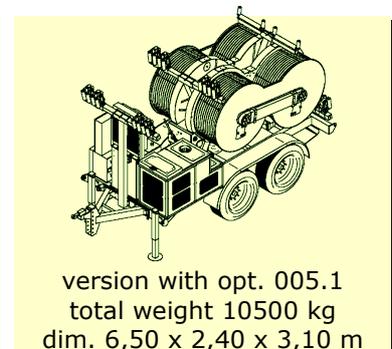
Max tension	1 x 150 kN or 2 x 75 kN
Max tension per conductor	37,5 kN
Max speed	5 km/h

ENGINE

Feeding	Diesel
Power	295 hp / 175 kW
Cooling system	water
Electric system	24 V

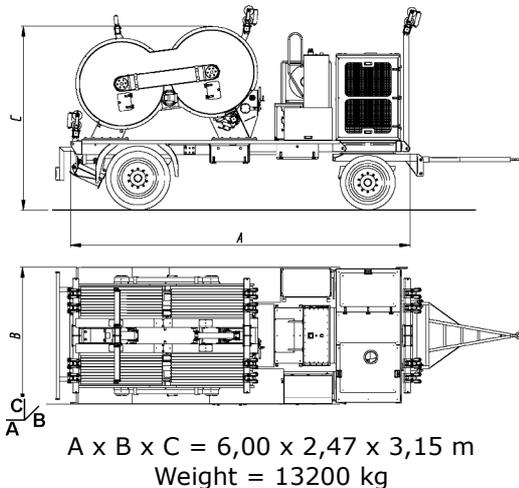
PULL PERFORMANCES

Max pull	1 x 150 kN or 2 x 75 kN
Speed at max pull	2 km/h
Max speed	5 km/h
Pull at max speed	1 x 55 kN or 2x 27,5 kN



1500 mm capstan diameter	4 x 45 mm conductor max diam.	175 kW engine power	150 kN max tension

Mod. **F120.AF.180.42**



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors. Two hydraulic circuits let to tension at constant force even varying the speed of stringing. The two circuits can be used independently or simultaneously, with automatic partition of the forces. In puller use, 2 close hydraulic circuits let to vary in continuous the speed in both directions, allowing to use one of the hydraulic circuits or both coupled. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed), on both the circuits.

- Two pairs of capstans with steel grooves lined thermally and chemically, high resistance, fit for steel wire ropes.
- Machine control panel equipped with 2 electronic instruments that operate as dynamometer, preselector of max pull force, metercounter and speedometer.
- Two safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers for 4 cond.
- Frame with two axles, steering-one with drawbar, leaf spring suspensions and tires, fits for towing on the road at 60 km/h (homologation excluded).
- Hydraulic-controlled back-stabilisers and share on pull side.
- Oil cooling system.
- Two auxiliary hydraulic circuits for additional equipment.

OPTIONAL DEVICES

- 005.1 Chassis with 2 dumped axles (tandem), air braking system and lights.
- 006.3 Pneumatic braking plant with ABS.
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.2 Two electronic devices with USB port, to save the data of the pull (n.1 each circuit).
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES

Capstans	4 x Ø 1500 mm
Grooves per capstan	10 (tot.40)
Max conductor diameter	4 x 50 mm
Max rope diameter	32 mm

TENSION PERFORMANCES

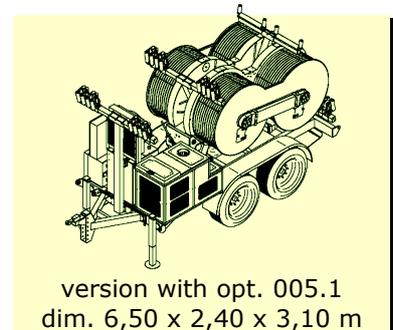
Max tension	1 x 180 kN or 2 x 90 kN
Max tension per conductor	45 kN
Max speed	5 km/h

ENGINE

Feeding	Diesel
Power	299 hp / 220 kW
Cooling system	water
Electric system	24 V

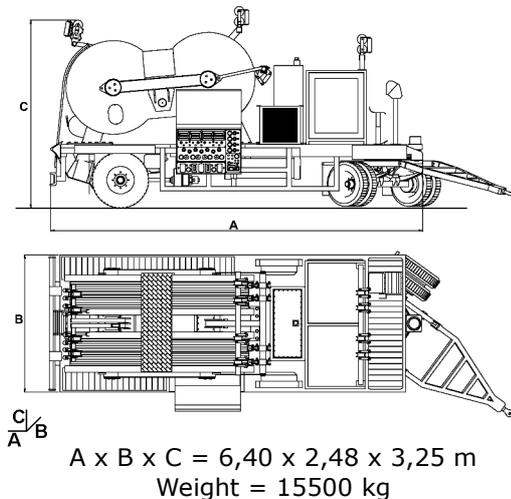
PULL PERFORMANCES

Max pull	1 x 180 kN or 2 x 90 kN
Speed at max pull	2,1 km/h
Max speed	5 km/h
Pull at max speed	1 x 70 kN or 2 x 35 kN



1500 mm capstan diameter	4 x 50 mm conductor max diam.	220 kW engine power	180 kN max tension

Mod. **F120.AF.180.44**



Hydraulic machine designed to operate either as a tensioner and a puller, fit to string 1, 2, 3 or 4 ropes or conductors. Four hydraulic circuits let to tension at constant force even varying the speed of stringing. The four circuits can be used independently or simultaneously, with automatic partition of the forces. In puller use, the hydraulic circuits (close) let to vary in continuous the speed in both directions operating four control levers, allowing to use the circuits independently or simultaneously. The machine has a system that lets to maintain the pull force programmed by automatically adapting the speed in compliance with the load (even at null speed), on all the four circuits.

- Four pairs of capstans with steel grooves lined thermally and chemically, high resistance, fit for steel wire ropes or conductors.
- Machine control panel equipped with 4 electronic instruments that operate as dynamometer, preselector of max pull force, metercounter and speedometer.
- Four safety negative hydraulic brakes.
- Front and back conductor-drivers with nylon rollers for 4 cond.
- Frame with two axles, steering-one with drawbar, leaf spring suspensions and tires, fits for towing on the road at 60 km/h (homologation excluded).
- Hydraulic-controlled back-stabilisers and share on pull side.
- Oil cooling system.
- Four auxiliary hydraulic circuits for additional equipment (i.e. motorised reel-stands).

OPTIONAL DEVICES

- 006.3 Pneumatic braking plant with ABS.
- 012 - Hydraulic circuit to feed a press for high pressure joints (max. 700 bar).
- 028.7 Device to start the diesel engine and the hydraulic circuit at low temperatures (up to -30°C).
- 037 - Remote control by cable, with 10 m of cable.
- 038 - Radiocontrol, max distance 50 m.
- 045.2 Automatic clamp for 4 ropes/conductors.
- 045.3 Manual clamp for 4 ropes/conductors.
- 069.2 Four electronic devices with USB port, to save the data of the pull (n.1 each circuit).
- 069.5 Printer for the electronic recorder, with accessories.

FEATURES

Capstans	8 x Ø 1500 mm
Grooves per capstan	5 (tot.40 grooves)
Max conductor diameter	4 x 50 mm
Max rope diameter	38 mm

TENSION PERFORMANCES

Max tension	1 x 180 kN or 2 x 90 kN or 4 x 45 kN
Max speed	5 km/h

ENGINE

Feeding	Diesel
Power	299 hp /220 kW
Cooling system	water
Electric system	24 V

PULL PERFORMANCES

Max pull	1 x 180 kN or 2 x 90 kN or 4 x 45 kN
Speed at max pull	1,9 km/h
Max speed	5 km/h
Pull at max speed	1 x 60 kN or 2 x 30 kN or 4 x 15 kN



1500 mm capstan diameter	4 x 50 mm conductor max diam.	299 kW engine power	180 kN max tension

electronic instrument for governing the machine



*powerful, reliable
and user-friendly*

DEG

Electronic digital instrument for governing the machine. Fit for pullers, tensioners and puller-tensioners OMAC.

Two versions available: DEG-V and DEG-M

DEG-V displays in real time the pull force, the speed and length of cable. Also, it permits to set a max pull-force limit.

DEG-M, other than the DEG-V functions, it permits to store the data monitored, and to copy them to a USB memory stick for transfer them to a personal computer.

Instrument dimensions: 19 x 9,5 cm
Display dimensions: 10 x 3,7 cm

FEATURES

- Big-dimension keys.
- Multi-row display (8 rows x 24 chars) with big dimensions (100 x 37 mm) and back-light for good readability.
- Electric feeding supplied by the machine .
- Safe battery with 5 years of life.

Functions of both versions **DEG-V** and **DEG-M**

- Monitoring and visualization of the pull force, speed and length of cable.
- Max pull alarm setting.
- Hour and date.
- Easy setting.

Functions of version **DEG-M** only

- High-capacity internal memory: up to 240.000 samples, that is about 200 km of line stringed.
- Automatic restart in case of temporary stop.
- Data managing: the stored data can be displayed, saved on a USB memory stick, and deleted.

OPTIONAL

DEG-VAL The instrument DEG-M can also be equipped with a portable thermal printer for printing the stored data. The printer is supplied with cable for connection to the plug on the puller, 3 reels of paper, and an aluminium case 37x25x10 cm for transport.



electronic instrument for governing the machine

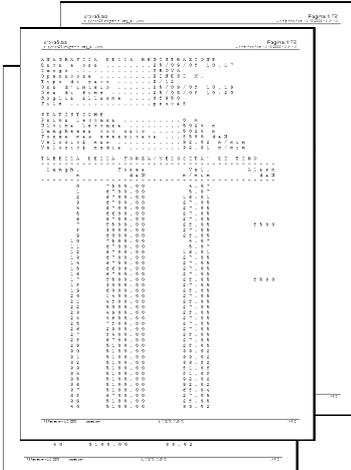
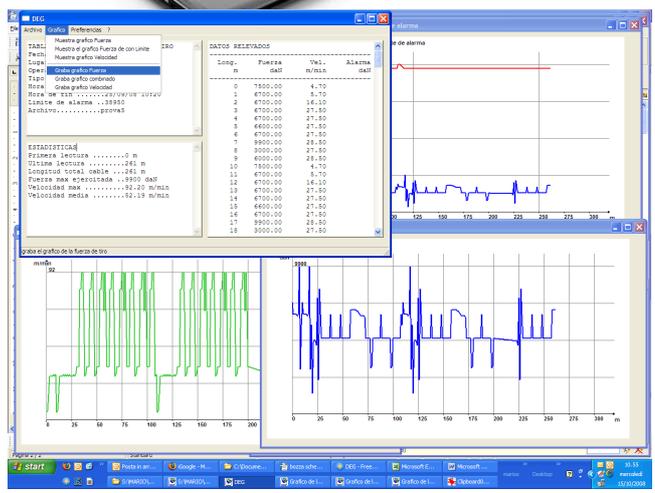
DEG-M



**high-capacity
internal memory
(200 km of line)**



**Through the USB port,
the data can be
transferred to a
personal computer**



**Our software aids to
analyse and page the
data monitored**