



Industry Winch

Infinite Hook Up



Hydraulic Recovery Winch
Worm Gear Winch
Electric Recovery Winch
Heavy Duty Hoist
Accessories
Engineering Data

Hydraulic Recovery Winch

HV-8000SP

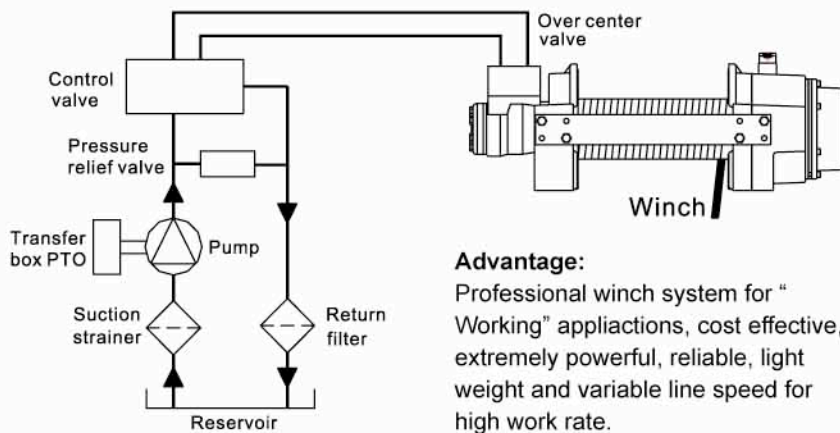
- Robust and compact design long life under extreme operating condition
- Smooth running over the entire speed range
- Highly efficient, constant operating torque motor
- High efficiency 2-stage planetary gear train for greater pulling force
- Rotating ring gear free-spool is a pull and turn design for rapid wire rope payout
- Spring applied drag brake with one-way freespool
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter, wrecker, tractor, lorry and fire / rescue engine



Note:
Roller fairlead does not mount to winch

Hydraulic System Installation

(Powered by a PTO / power take off unit driven pump)



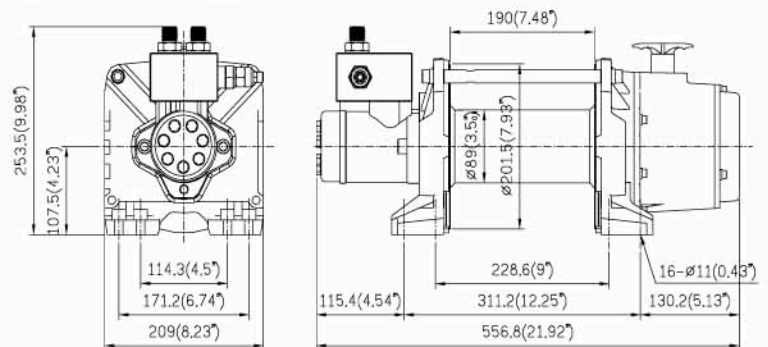
Advantage:
Professional winch system for "Working" applications, cost effective, extremely powerful, reliable, light weight and variable line speed for high work rate.



SPECIFICATION

- Line Pull3,629 kg / 8,000 lb
- Line Speed15 mpm / 49 fpm
- Operation Pressure140 bar / 2,030 psi
- Max Oil Flow.....15.9 g / min (60 ℓ / min)
- Motor Displacement77.8 cm³ / rev (4.7 in³ / rev)
- Motor Rotation.....anti-clockwise
- Gear Train.....2 stage planetary gears
- Gear Ratio16 : 1
- Free-spoolrotating ring gear
- Brakespring applied drag brake
- Drum Sizeø 89 mm x 190 mm (ø 3.5" x 7.48")
- Mounting bolt pattern228.6 mm x 114.3 mm (9" x 4.5")
311.2 mm x 171.2 mm (12.25" x 6.74")

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Line Speed at 15.9 g / min (60 ℓ / min) mpm / fpm	Total Rope on the Drum m / ft
1st Layer	3,629 / 8,000	15 / 49	5.6 / 18
2nd Layer	3,019 / 6,655	18 / 59	12.3 / 40
3rd Layer	2,585 / 5,698	21 / 69	20.2 / 66
4th Layer	2,259 / 4,981	24.1 / 79	29.2 / 96
5th Layer	2,007 / 4,425	27.1 / 90	30 / 100

A ø 9.5 mm x 30 m (ø3/8" x 100') galvanized aircraft wire rope recommended

PACKAGE

- Winch Weight35.5 kg / 78.1 lb
- Gross Weight43.3 kg / 95.3 lb
- Box Dimension600 x 345 x 260 mm (23.6" x 13.6" x 10.2")

STANDARD ACCESSORIES

- Roller fairlead WA-0503
- Over center valve WA-1301

OPTION ACCESSORIES

- Cable tensioner w/flat bar WA-0907
- Mounting channel WA-0706
- Air free-spool WA-1001

WARNING

Winches are not to be used for the lifting or moving of persons

WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

Hydraulic Recovery Winch

HV-10000SP

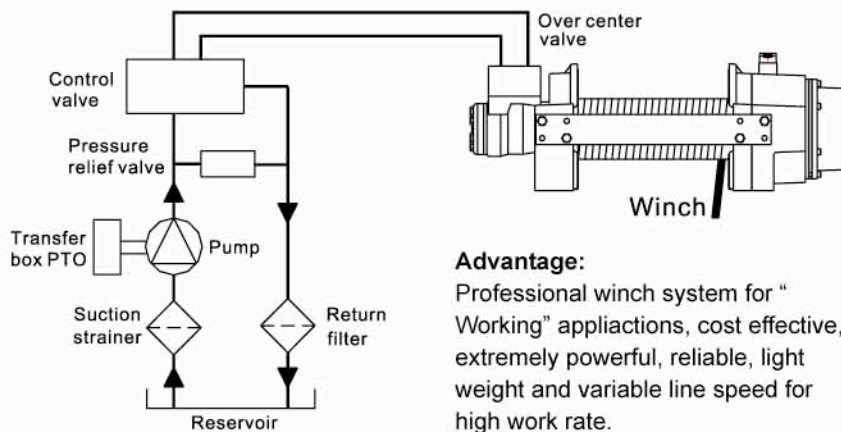
- Robust and compact design long life under extreme operating condition
- Smooth running over the entire speed range
- Highly efficient, constant operating torque motor
- High efficiency 2-stage planetary gear train for greater pulling force
- Rotating ring gear free-spool clutch is a pull and turn design for rapid wire rope payout
- Spring applied drag brake with one-way freespool
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter, wrecker, tractor, lorry and fire / rescue engine



Note:
Roller fairlead does not mount to winch

Hydraulic System Installation

(Powered by a PTO / power take off unit driven pump)



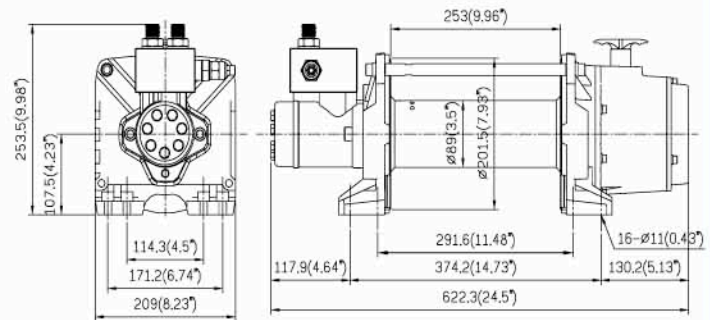
Advantage:
Professional winch system for "Working" applications, cost effective, extremely powerful, reliable, light weight and variable line speed for high work rate.



SPECIFICATION

Line Pull	4,535 kg / 10,000 lb
Line Speed	12 mpm / 39.5 fpm
Operation Pressure	140 bar / 2,030 psi
Max Oil Flow.....	15.9 g / min (60 ℓ / min)
Motor Displacement	97.3 cm ³ / rev (5.9 in ³ / rev)
Motor Rotation.....	anti-clockwise
Gear Train.....	2 stage planetary gears
Gear Ratio	16 : 1
Free-spool	rotating ring gear
Brake	spring applied drag brake
Drum Size	ø 89 mm x 253 mm (ø 3.5" x 9.96")
Mounting bolt pattern	291.6 mm x 114.3 mm (11.48" x 4.5") 374.2 mm x 171.2 mm (14.73" x 6.74")

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Line Speed at 15.9 g / min (60 ℓ / min) mpm / fpm	Total Rope on the Drum m / ft
1st Layer	4,535 / 10,000	12 / 39.5	7.5 / 25
2nd Layer	3,770 / 8,320	14.6 / 47.9	16.4 / 54
3rd Layer	3,330 / 7,120	17.1 / 56.1	26.9 / 88
4th Layer	2,820 / 6,225	19.7 / 64.6	38.9 / 128
5th Layer	2,505 / 5,530	22.2 / 72.8	40 / 131

A ø 9.5 mm x 40 m (ø3/8" x 131') galvanized aircraft wire rope recommended

PACKAGE

Winch Weight	37 kg / 81.4 lb
Gross Weight	46.6 kg / 102.5 lb
Box Dimension	665 x 345 x 260mm (26.2" x 13.6" x 10.2")

STANDARD ACCESSORIES

- Roller fairlead WA-0504
- Over center valve WA-1301

OPTION ACCESSORIES

- Cable tensioner w/flat bar WA-0908
- Mounting channel WA-0705
- Air free-spool WA-1001

WARNING

Winches are not to be used for the lifting or moving of persons

WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

Hydraulic Recovery Winch

HV-12000P

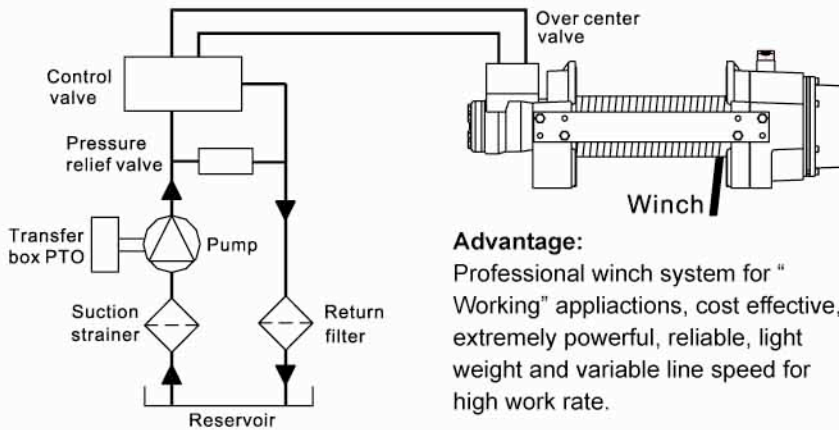
- Robust and compact design long life under extreme operating condition
- Smooth running over the entire speed range
- Highly efficient, constant operating torque motor
- High efficiency 2-stage planetary gear train for greater pulling force
- Spring applied drag brake with one-way freespool
- Rotating ring gear free-spool is a pull and turn design for rapid wire rope payout
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter wrecker, tractor, lorry and fire / rescue engine.



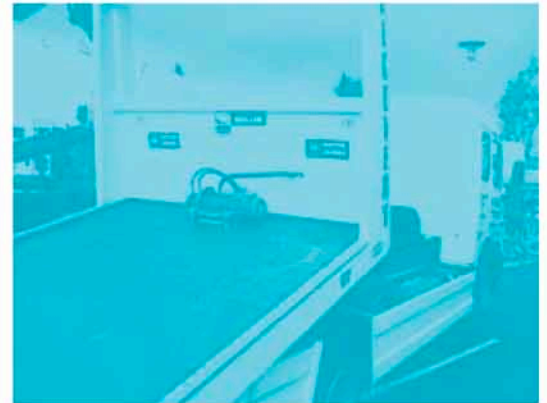
Note:
Roller fairlead does not mount to winch

Hydraulic System Installation

(Powered by a PTO / power take off unit driven pump)



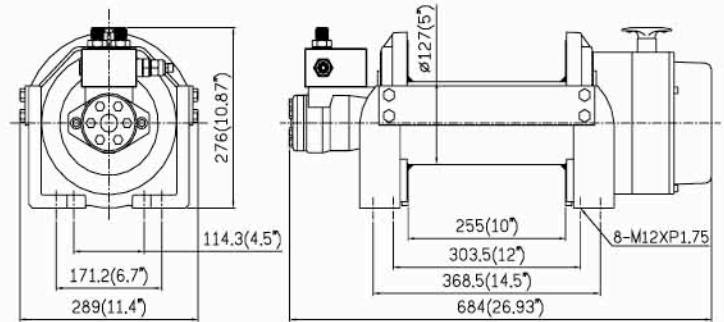
Advantage:
Professional winch system for "Working" applications, cost effective, extremely powerful, reliable, light weight and variable line speed for high work rate.



SPECIFICATION

- Line Pull 5,443 kg / 12,000 lb
- Line Speed 11 mpm / 35.4 fpm
- Operation Pressure 140 bar / 2,030 psi
- Max Oil Flow 15.9 g / min (60 ℓ / min)
- Motor Displacement 125 cm³ / rev (7.6 in³ / rev)
- Motor Rotation anti-clockwise
- Gear Train 2 stage planetary gears
- Gear Ratio 19.4 : 1
- Free-spool rotating ring gear
- Brake spring applied drag brake
- Drum Size ø 127 mm x 255 mm (ø 5" x 10")
- Mounting bolt pattern 303.5 mm x 114.3 mm (12" x 4.5")
368.5 mm x 171.2 mm (14.5" x 6.7")

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Line Speed at 15.9 g / min (60 ℓ / min) mpm / fpm	Total Rope on the Drum m / ft
1st layer	5,443 / 12,000	11.0 / 35.4	8.8 / 28.8
2nd layer	4,641 / 10,232	12.6 / 41.3	19.2 / 63
3rd layer	4,045 / 8,919	14.5 / 47.6	31.3 / 102
4th layer	3,585 / 7,905	16.4 / 53.8	40 / 131

A ø 12 mm x 40 m (ø 1/2" x 131') 6 x W (19) + IWRC, wire rope recommended

PACKAGE

- Winch Weight 71 kg / 156.5 lb
- Gross Weight 87 kg / 191.8 lb
- Box Dimension 762 x 415 x 311 mm (30" x 16.3" x 12.2")

STANDARD ACCESSORIES

- Roller fairlead WA-0504
- Cable tensioner WA-0902
- Air free-spool WA-1001
- Over center valve WA-1301

WARNING

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WARRANTY

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Hydraulic Recovery Winch

HV-15000P

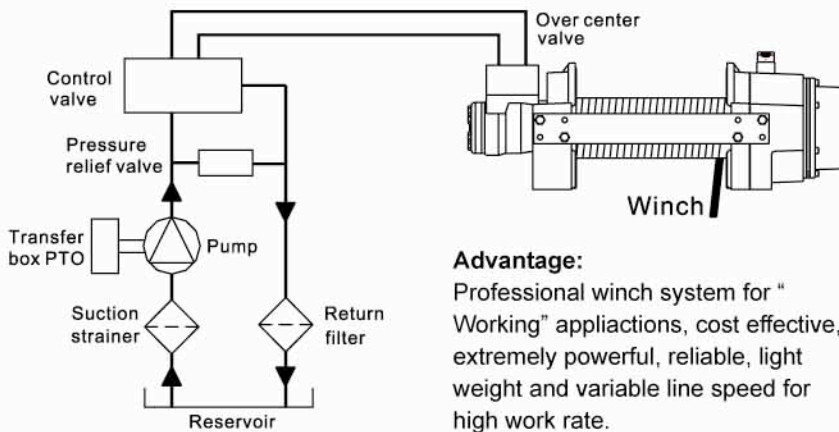
- Robust and compact design long life under extreme operating condition
- Smooth running over the entire speed range
- Highly efficient, constant operating torque motor
- High efficiency 2-stage planetary gear train for greater pulling force
- Spring applied drag brake with one-way freespool
- Rotating ring gear free-spool is a pull and turn design for rapid wire rope payout
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter wrecker, tractor, lorry and fire / rescue engine.



Note: Roller fairlead does not mount to winch

Hydraulic System Installation

(Powered by a PTO / power take off unit driven pump)



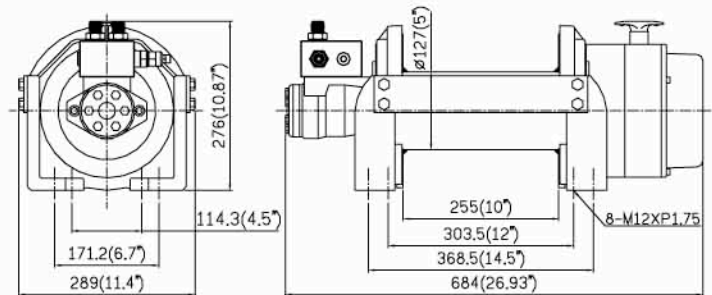
Advantage:
Professional winch system for "Working" applications, cost effective, extremely powerful, reliable, light weight and variable line speed for high work rate.



SPECIFICATION

Line Pull	6,803 kg / 15,000 lb
Line Speed	9 mpm / 28.8 fpm
Operation Pressure	140 bar / 2,030 psi
Max Oil Flow.....	15.9 g / min (60 ℓ / min)
Motor Displacement	156 cm ³ / rev (9.5 in ³ / rev)
Motor Rotation.....	anti-clockwise
Gear Train.....	2 stage planetary gears
Gear Ratio	19.4 : 1
Free-spool	rotating ring gear
Brake	spring applied drag brake
Drum Size.....	∅ 127 mm x 255 mm (∅ 5" x 10")
Mounting bolt pattern	303.5 mm x 114.3 mm (12" x 4.5") 368.5 mm x 171.2 mm (14.5" x 6.7")

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Line Speed at 15.9 g / min (60 ℓ / min) mpm / fpm	Total Rope on the Drum m / ft
1st layer	6,803 / 15,000	9.0 / 28.8	7.6 / 25
2nd layer	5,677 / 12,516	10.5 / 34.4	16.8 / 55.1
3rd layer	4,869 / 10,736	12.3 / 40.4	27 / 89

A ∅ 14 mm x 27 m (∅ 9/16" x 89') 6 x W (19) + IWRC, wire rope recommended

PACKAGE

Winch Weight	72 kg / 158.7 lb
Gross Weight	88 kg / 194 lb
Box Dimension	715 x 415 x 311 mm (28.2" x 16.3" x 12.2")

STANDARD ACCESSORIES

- Roller fairlead WA-0504
- Cable tensioner WA-0902
- Air free-spool WA-1001
- Over center valve WA-1301

WARNING

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WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

Hydraulic Recovery Winch

HV-20000

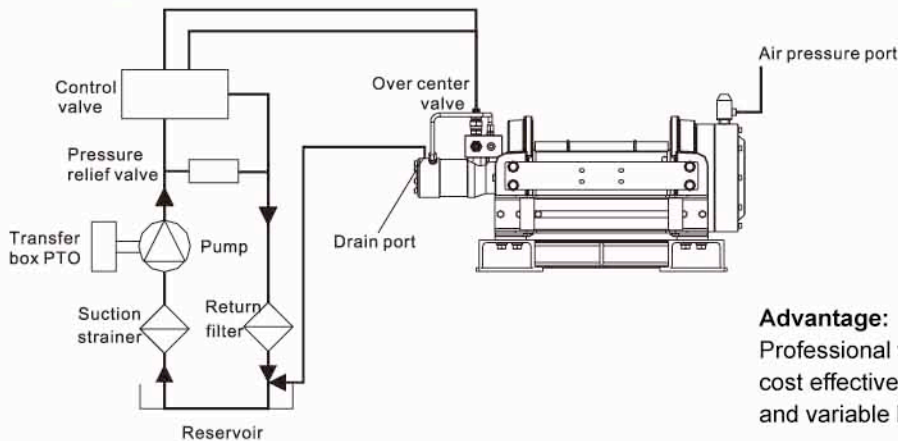
- Hydraulic motor with negative brake and needle bearings for high holding torque and minimum servicing.
- Compact unit with maximum brake/motor integration.
- High efficiency 2-stage planetary gear train for greater pulling force.
- Spring applied drag brake with one-way freespool
- Rotating ring gear free-spool is a pull and turn design for rapid wire rope payout.
- 10:1 D/d ratio allows for heavy duty applications on car transporter wreck-er, tractor, lorry and fire/rescue engine.



Note:
Roller fairlead does
not mount to winch

Hydraulic System Installation

(Powered by a PTO / power take off unit driven pump)



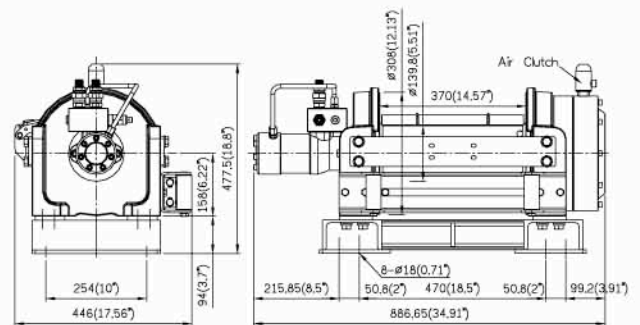
Advantage:

Professional winch system for "Working" applications, cost effective, extremely powerful, reliable, light weight and variable line speed for high work rate.

SPECIFICATION

Line Pull.....	9,090 kg / 20,000 lb
Line Speed	7.2mpm / 23.6 fpm
Operation Pressure	172 bar / 2,500 psi
Max Oil Flow.....	15.9 g / min (60 ℓ / min)
Motor Displacement.....	125 cm ³ / rev (7.6 in ³ / rev)
Motor Rotation	anti-clockwise
Gear Train.....	2 stage planetary gears
Gear Ratio	32 : 1
Free-spool	rotating ring gear
Brake	spring-applied, multi-disc brake integrated in motor
Drum Size.....	ø140 mm x 370 mm (ø5.51" x 14.57")
Mounting bolt pattern	470 mm x 254 mm (18.5" x 10")
	571.6 mm x 254 mm (22.5" x 10")

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Line Speed at 15.9 g / min (60 ℓ / min) mpm / fpm	Total Rope on the Drum m / ft
1st Layer	9,090 / 20,000	7.2 / 23.6	12.3 / 40.4
2nd Layer	7,691 / 16,956	8.5 / 27.9	26.8 / 87.9
3rd Layer	6,664 / 14,692	9.8 / 32.2	43.6 / 143
4th Layer	5,880 / 12,963	11.1 / 36.4	62.6 / 205.4
5th Layer	5,260 / 11,596	12.4 / 40.7	80 / 265

A ø14 mm x 80 m (ø9/16" x 265') x W (19) + 1WRC, wire rope recommended

PACKAGE

Winch Weight	200 kg / 440 lb
Gross Weight.....	230 kg / 506 lb
Box Dimension	940 x 500 x 670 mm (37" x 19.7" x 26.4")

STANDARD ACCESSORIES

- Roller fairlead WA-0513
- Cable tensioner WA-0904
- Air free-spool WA-1001
- Over center valve WA-1302
- Base plate

WARNING

Winches are not to be used for the lifting or moving of persons

WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

Hydraulic Recovery Winch

HV-30000

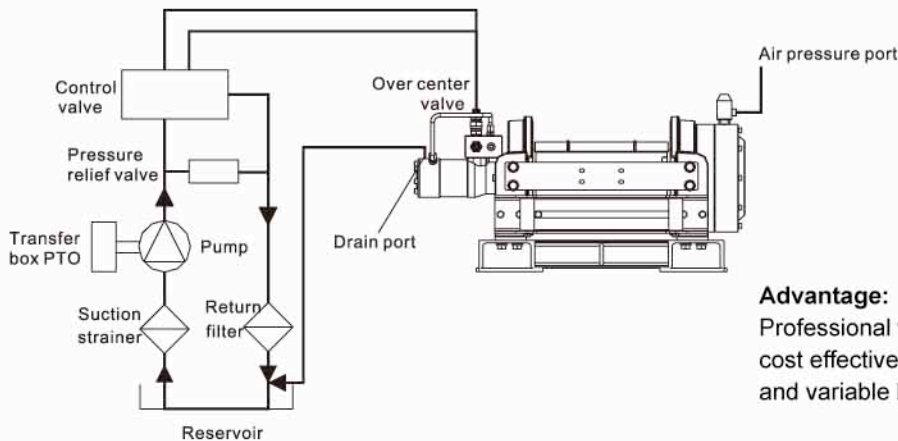
- Hydraulic motor with negative brake and needle bearings for high holding torque and minimum servicing.
- Compact unit with maximum brake/motor integration.
- High efficiency 2-stage planetary gear train for greater pulling force.
- The brake is a spring-applied, multi-disc type which is released by hydraulic pressure.
- Rotating ring gear free-spool is a pull and turn design for rapid wire rope payout.
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter wreck-er, tractor, lorry and fire/rescue engine.



Note:
Roller fairlead does not mount to winch

Hydraulic System Installation

(Powered by a PTO / power take off unit driven pump)



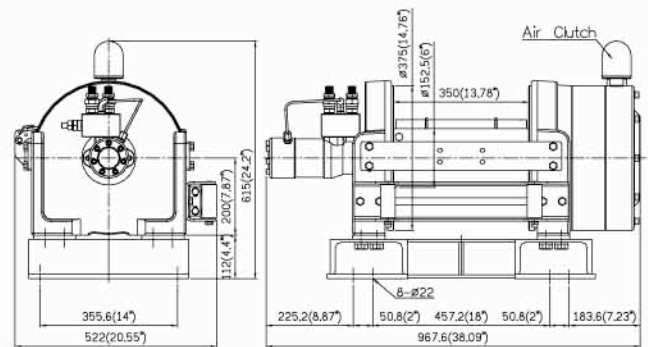
Advantage:

Professional winch system for "Working" applications, cost effective, extremely powerful, reliable, light weight and variable line speed for high work rate.

SPECIFICATION

- Line Pull..... 13,636 kg / 30,000 lb
- Line Speed 4.6 mpm / 15.1 fpm
- Operation Pressure 150 bar / 2,175 psi
- Max Oil Flow..... 15.9 g / min (60 ℓ / min)
- Motor Displacement..... 160 cm³ / rev (9.7 in³ / rev)
- Motor Rotation anti-clockwise
- Gear Train..... 2 stage planetary gears
- Gear Ratio 43.1 : 1
- Free-spoolrotating ring gear
- Brake spring-applied, multi-disc brake integrated in motor
- Drum Size..... ø152.5 mm x 350 mm (ø6" x 13.78")
- Mounting bolt pattern457.2 mm x 317.5 mm (18" x 12.5")
558.8 mm x 317.5 mm (22" x 12.5")

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Line Speed at 15.9 g / min (60 ℓ / min) mpm / fpm	Total Rope on the Drum m / ft
1st Layer	13,636 / 30,000	4.6 / 15.1	11.1 / 36
2nd Layer	11,473 / 25,271	5.5 / 18	24.4 / 80
3rd Layer	9,902 / 21,811	6.3 / 20.7	39.7 / 130
4th Layer	8,709 / 19,183	7.2 / 23.6	57.1 / 187
5th Layer	7,773 / 17,121	8.1 / 26.6	76.7 / 252
6th Layer	7,019 / 15,460	9 / 29.5	91 / 300

A ø16 mm x 91 m (ø5/8" x 300') x W (19) + 1WRC, wire rope recommended

PACKAGE

- Winch Weight 360 kg / 792 lb
- Gross Weight..... 390 kg / 858 lb
- Box Dimension 980 x 560 x 750 mm (38.6" x 22" x 29.5")

STANDARD ACCESSORIES

- Roller fairlead WA-0514
- Cable tensioner WA-0906
- Air free-spool WA-1003
- Over center valve WA-1303
- Base plate

WARNING

Winches are not to be used for the lifting or moving of persons

WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

Electric Recovery Winch

DP-10000ES

- heavy duty series wound motor gives high torque and fast line speed
- High efficiency 4 stage planetary gear train for greater pulling force
- The U.S. Germany, U.K., France, etc patents automatic, full-load cone brake holds full load brake
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter wrecker, tractor, lorry and fire / rescue engine
- Auxiliary magnet brake performs instant braking
- Rotating ring gear free-spool is a pull and turn design for rapid wire rope payout
- Heavy duty sealed solenoid gives better water resistance and lower amp. draw

SPECIFICATION

Line Pull.....	4,535 kg / 10,000 lb
Motor 12V.....	3,430 w / 4.6 hp
24V.....	2,237 w / 3.0 hp
Control.....	detachable solenoid pack
Gear Train.....	4 stage planetary gears
Gear Ratio.....	277 : 1
Free-spool.....	rotating ring gear
Brake.....	automatic, full load cone brake & auxiliary magnet brake
Drum Size.....	ø89 mm x 253 mm (ø3.5" x 9.96")
Mounting bolt pattern.....	291.6 mm x 114.3 mm (11.48" x 4.5") 374.2 mm x 171.2 mm (14.73" x 6.74")

LINE SPEED AND AMP. DRAW (1 st layer of wire rope on the drum)

Voltage	12V			24V			
	Line Pull	Line Speed	Amp. Draw	Line Speed	Amp. Draw		
	kg/lb	mpm	fpm	A	mpm	fpm	A
No Load		6.2	20.3	60	8.0	26.2	40
907 / 2,000		4.3	14.1	120	6.5	21.3	80
1,814 / 4,000		2.3	7.5	170	5.1	16.7	105
2,722 / 6,000		1.6	5.2	250	3.8	12.5	135
3,629 / 8,000		1.1	3.6	300	3.1	10.2	165
4,535 / 10,000		0.9	3.0	400	2.4	7.9	210

A ø 9.5 mm x 40 m (ø3/8" x 131') galvanized aircraft A7 x 19 wire rope recommended

LINE PULL AND ROPE CAPACITY

(1 st layer of wire rope on the drum)

Layer of Wire Rope	Line Pull kg / lb	Total Rope on the Drum m / ft
1st Layer	4,535 / 10,000	7.5 / 25
2nd Layer	3,772 / 8,315	16.4 / 54
3rd Layer	3,230 / 7,120	26.9 / 88
4th Layer	2,824 / 6,225	38.9 / 128
5th Layer	2,508 / 5,530	40 / 131

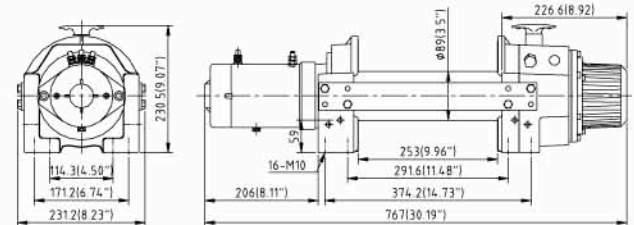
PACKAGE

Winch Weight	44 kg / 97 lb
Gross Weight	60 kg / 132 lb
Box Dimension	800 x 370 x 290 mm (31.5" x 14.6" x 11.4")



Note:
Roller fairlead does not mount to winch

DIMENSION mm / in



STANDARD ACCESSORIES

- Detachable solenoid pack WA-0815
- Remote control WA-0310
- Roller fairlead WA-0504
- 1.8 m (6') 2 gauge cable with connections

OPTION ACCESSORY

- Cable tensioner WA-0902

WARNING

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WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

Electric Recovery Winch

DP-12.5

Available Soon

- heavy duty series wound motor gives high torque and fast line speed
- High efficiency 3 stage planetary gear train for greater pulling force
- The U.S. Germany, U.K., France, etc patents automatic, full-load cone brake holds full load brake
- 10 : 1 D/d ratio allows for heavy duty applications on car transporter wrecker, tractor, lorry and fire / rescue engine
- Auxiliary magnet brake performs instant braking
- Rotating ring gear freespool is a pull and turn design for rapid wire rope payout
- Heavy duty sealed solenoid gives better water resistance and lower amp. draw

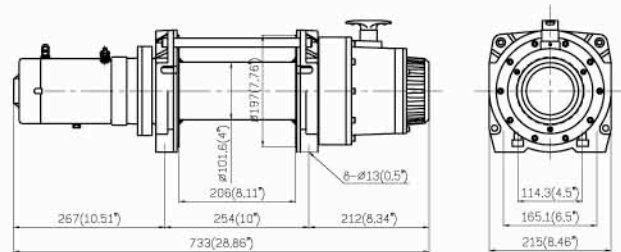


Note:
Roller fairlead does not mount to winch

SPECIFICATION

Line Pull.....	5,675 kg / 12,500 lb
Motor 12V.....	4,175 w / 5.6 hp
24V.....	2,684 w / 3.6 hp
Control.....	detachable solenoid pack
Gear Train.....	3 stage planetary gears
Gear Ratio.....	315 : 1
Free-spool.....	rotating ring gear
Brake.....	automatic, full load cone brake & auxiliary magnet brake
Drum Size.....	ø101.6 mm x 206 mm (ø4" x 8.1")
Mounting bolt pattern.....	254 mm x 114.3 mm (10" x 4.5") 254 mm x 165.1 mm (10" x 6.5")

DIMENSION mm / in



LINE SPEED AND AMP. DRAW (1 st layer of wire rope on the drum)

Voltage			12V	24V
	Line Pull	Line Speed	Amp. Draw	Amp. Draw
	kg/lb	mpm fpm	A	A
No Load		6.9 22.0	60	50
907 / 2,000		3.5 11.5	120	70
1,814 / 4,000		2.7 8.9	180	90
2,722 / 6,000		2.2 7.2	230	140
3,629 / 8,000		1.7 5.6	280	190
4,535 / 10,000		1.1 3.6	330	220
5,675 / 12,500		0.9 2.9	385	260

A ø 11 mm x 27 m (ø7/16" x 90') galvanized aircraft A7 x 19 wire rope recommended



LINE PULL AND ROPE CAPACITY

(1 st layer of wire rope on the drum)

Layer of Wire Rope	Line Pull kg / lb	Total Rope on the Drum m / ft
1st Layer	5,675 / 12,500	6.0 / 19.7
2nd Layer	4,750 / 10,470	13.2 / 43.3
3rd Layer	4,080 / 8,995	21.6 / 70.9
4th Layer	3,580 / 7,890	27.0 / 90

PACKAGE

Winch Weight	42 kg / 92 lb
Gross Weight	69 kg / 152 lb
Box Dimension	770 x 430 x 270 mm (30.3" x 16.9" x 10.6")

STANDARD ACCESSORIES

- Detachable solenoid pack WA-0815
- Remote control WA-0310
- Roller fairlead WA-0502
- 1.8 m (6') 2 gauge cable with connections

OPTION ACCESSORY

- Cable tensioner WA-0902

WARNING

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WARRANTY

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Worm Gear Winch



Wolf 8.5

- Robust, extreme heavy duty worm drive
- Heavy duty series wound motor for high torque output and fast line speed under extreme operating condition
- Detachable weather-resistant solenoid pack mounted elsewhere on the vehicle
- 2 stages spur gears plus 1 exceptionally strong worm gear for reversing protection
- Irreversible worm gear brake as well as an auxiliary mechanism ratchet wheel brake performs instant braking and free slip
- Mechanism lever free-spool for rapid wire rope pay-out.
- Heavy duty sealed solenoid gives better water resistance and lower amp. draw
- Higher D/d ratio (Drum dia. / rope dia.) allows light commercial applications of car transporter, wrecker, tractor, lorry and fire / rescue engine.



SPECIFICATION

Line Pull.....	3,856 kg / 8,500 lb
Motor 12V.....	3,430 w / 4.6 hp
24V.....	1,940 w / 2.6 hp
Gear Train.....	2 stages spur gears PLUS worm gear
Gear Ratio.....	225.4 : 1
Free-spool.....	mechanism lever
Brake.....	Irreversible worm gear brake PLUS mechanism ratchet wheel brake
Wire Rope Size.....	8 mm X 45 m (5/16" X 150')
Wire Rope Type.....	galvanized aircraft A7 X 19
Drum Size.....	82 mm X 229 mm (3.2" X 9")
Mounting bolt pattern	125 mm x 276 mm (4.92" x 10.87")

LINE PULL AND AMP. DRAW

(1st layer of wire rope on the drum)

Line Pull kg / lb	Line Speed mpm / fpm	Amp. Draw	
		12V	24V
No Load	10.6 / 3.5	55	40
907 / 2,000	4.3 / 14.1	120	70
1,814 / 4,000	3.0 / 9.8	200	100
2,722 / 6,000	2.4 / 7.9	255	130
3,629 / 8,000	2.0 / 6.6	320	160
3,856 / 8,500	1.8 / 5.7	350	170

PACKAGE

Winch Weight	40 kg / 88.2 lb
Gross Weight.....	51 kg / 112.5 lb
Box Dimension	610 x 427 x 350 mm (24" x 16.8" x 13.8")

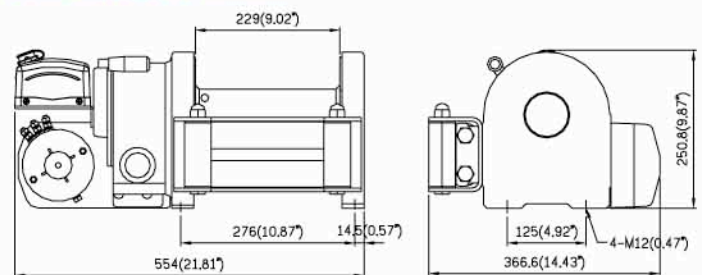
WARNING

Winches are not to be used for the lifting or moving of persons

WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Total Rope on the Drum m / ft
1 st	3,856 / 8,500	7.6 / 25
2 nd	3,280 / 7,230	16.6 / 54
3 rd	2,853 / 6,289	26.9 / 88
4 th	2,525 / 5,566	38.5 / 127
5 th	2,264 / 4,991	45 / 150

STANDARD ACCESSORIES

- Detachable solenoid pack WA-0818
- Remote control WA-0310
- Wire rope with hook
- Roller fairlead WA-0510
- 1.8 m (6') 2 gauge battery lead
- Cable tensioner WA-0905
- Snatch block WA-0401



Worm Gear Winch

Wolf 12.0

- Robust, extreme heavy duty worm drive
- Heavy duty series wound motor for high torque output and fast line speed under extreme operating condition
- Detachable weather-resistant solenoid pack mounted elsewhere on the vehicle
- 2 stages gear plus 1 exceptionally strong worm gear for reversing protection
- Irreversible worm gear brake as well as an auxiliary mechanism ratchet wheel brake performs instant braking and free slip
- Mechanism lever free-spool for rapid wire rope pay-out
- Heavy duty sealed solenoid gives better water resistance and lower amp. draw
- Higher D/d ratio (Drum dia. / rope dia.) allows light commercial applications of car transporter, wrecker, tractor, lorry and fire / rescue engine.



SPECIFICATION

Line Pull.....	5,443 kg / 12,000 lb
Motor 12V.....	3,430 w / 4.6 hp
24V.....	2,238 w / 3.0 hp
Gear Train.....	2 stages spur gears PLUS worm gear
Gear Ratio.....	424 : 1
Free- spool.....	mechanism lever
Brake.....	Irreversible worm gear brake PLUS mechanism ratchet wheel brake
Wire Rope Size.....	9.5 mm X 30 m (3/8" X 100')
Wire Rope Type.....	galvanized aircraft A7 X 19
Drum Size.....	89 mm X 229 mm (3.5" X 9")
Mounting bolt pattern	125 mm x 276 mm (4.92" x 10.87")

LINE PULL AND AMP. DRAW

(1st layer of wire rope on the drum)

Line Pull kg / lb	Line Speed mpm / fpm	Amp. Draw	
		12V	24V
No Load	6.2 / 20.6	70	40
2,722 / 6,000	1.7 / 5.7	180	85
3,629 / 8,000	1.2 / 3.9	270	120
4,535 / 10,000	1.1 / 3.6	310	150
5,443 / 12,000	1 / 3.4	350	190

PACKAGE

Winch Weight	40 kg / 88.2 lb
Gross Weight.....	51 kg / 112.5 lb
Box Dimension	610 x 427 x 350 mm (24" x 16.8" x 13.8")

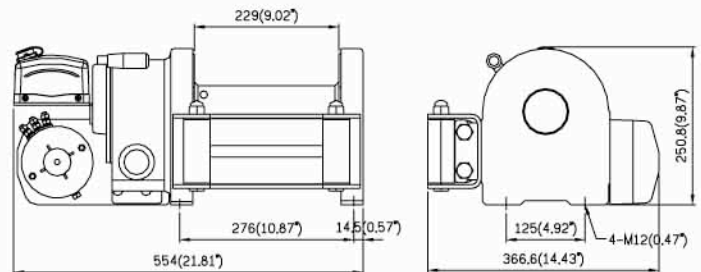
WARNING

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WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

DIMENSION mm / in



LINE PULL AND ROPE CAPACITY

Layer of Wire Rope	Line Pull kg / lb	Total Rope on the Drum m / ft
1st layer	5,443 / 12,000	7.1 / 24
2nd layer	4,563 / 10,058	15.6 / 52
3rd layer	3,928 / 8,658	25.5 / 85
4th layer	3,448 / 7,600	30 / 100

STANDARD ACCESSORIES

- Detachable solenoid pack WA-0818
- Remote control WA-0310
- Wire rope with hook
- Roller fairlead WA-0510
- 1.8 m (6') 2 gauge battery lead
- Cable tensioner WA-0905
- Snatch block WA-0404



Accessories

Remote Control

WA-0310 Switch W/5 m (17') cord



DC SOLENOID

WA-0201 12 V for WA-0812 / 0817
 WA-0202 24 V for WA-0812 / 0817
 WA-0203 12 V for WA-0815 / 0818
 WA-0204 24 V for WA-0815 / 0818
 WA-0205 12 V for WA-0817
 WA-0206 24 V for WA-0817



WA-0201 WA-0202 WA-0203 WA-0204 WA-0205 WA-0206

Snatch Block

WA-0401 10,000kg / 22,000lb
 WA-0404 13,610kg / 30,000lb



WA-0401 WA-0404

Roller Fairlead

WA-0502 DP-12.5
 WA-0503 HV-8000SP
 WA-0504 HV-10000SP / 12000P / 15000P / DP-10000SP
 WA-0510 Wolf 8.5 / 12.0
 WA-0513 HV-20000
 WA-0514 HV-30000



Mounting Channel

WA-0705 HV-10000SP
 WA-0706 HV-8000SP



Detachable Solenoid Pack

WA-0812 for DH-1200
 WA-0815 for DP-10000ES / DP-12.5
 WA-0817 for DHC-1600 / 2000 / 3000
 WA-0818 for Wolf 8.5 / Wolf 12.0



WA-0817 WA-0812 WA-0815 WA-0818
 (Including each one pce WA-0201 / 0202 & WA-0205 / 0206)

Cable Tensioner

WA-0902 HV-12000P, HV-15000P, DP-10000ES / DP-12.5
 WA-0904 HV-20000
 WA-0905 Wolf 8.5, Wolf 12.0
 WA-0906 HV-30000
 WA-0907 HV-8000SP w/flat bar
 WA-0908 HV-10000SP w/flat bar



Air Free-Spool

WA-1001 HV-8000SP ~ HV-20000
 WA-1003 HV-30000



Over Center Valve

WA-1301 HV-8000SP ~ HV-15000P
 WA-1302 HV-20000
 WA-1303 HV-30000



Engineering Data

Maximum Line Pull

This is the maximum dead-weight the winch could lift off the ground with a single line on the first layer of wire rope on the drum. They are not suitable for vertical lifting.

Winching Principles

You need a winch to be powerful enough to pull your vehicle while overcome the added resistance caused by the obstacle, moving water, mud, snow, sand or on a steep hill.

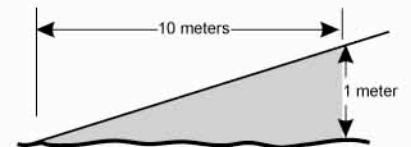
As a general guide you need a winch with a maximum line pull of at least 1.5 times greater than the gross vehicle weight. There are three factors have influenced with the line pull effect required to recover the vehicle. The values and calculations in this section are approximate and are for reference only.

- 1). Gross Vehicle Weight (Wt) :** Contains the vehicle weight and the weight of the supplies and equipments carried.
- 2). Surface Drag (S) :** The characteristics of the terrains or surface to be traversed

Surface Type	Metal	Sand	Gravel	Soft Sand	Mud	Marsh
Surface Drag (S)	0.15	0.18	0.20	0.22	0.32	0.52

- 3). Gradient Resistance :** The incline of grade or slope on which the vehicle is being moved.

Gradient	5 %	10%	20%	30%	50%	70%	100%
Angle (ref.)	3°	6°	11°	17°	26°	35°	45°
Gradient (G)	0.06	0.11	0.2	0.3	0.44	0.58	0.71



A gradient of 10% is a rise of one meter in ten meters

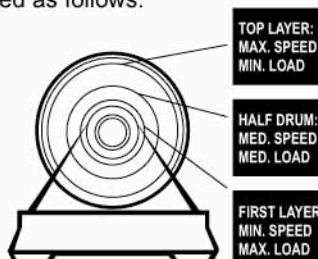
Rolling Pull Effect Required = (Wt X S) + (Wt X G)

For example, if a vehicle weighing 3,000 kg is winched up an incline by 100% on the marsh road, the above formula would be used as follows:

Where

Wt : 3,000 kg (gross vehicle weight)
 S : 0.52 (co-efficient for marsh)
 G : 0.71 (gradient value of 100%)

$$\begin{aligned} & (Wt \times S) + (Wt \times G) \\ & = (3,000 \text{ kg} \times 0.52) + (3,000 \text{ kg} \times 0.71) \\ & = 1,560 \text{ kg} + 2,130 \text{ kg} \\ & = 3,690 \text{ kg of effect required to recover the vehicle} \end{aligned}$$



Winches have been awarded the following patents

U.S.A.	US6,520,486B2	USD438,358S	USD439,722S
Germany	Nr.20217439.5		
U.K.	GB2387368		
France	REG.0301991		
Taiwan	076737 076815 079943 139158 180221 180547 181473 186419 188404 190951		
China	ZL01204721.X ZL01229143.9 ZL01300166.3 ZL01300167.1 ZL02241429.0 ZL02338450.6		

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