



RECOVERYGEAR+



2 0 1 2 W I N C H E S R E C O V E R Y G E A R H U B S



FROM THE BATTLEFIELD, TO THE BACK 40

Mile Marker designs and manufactures innovative, high quality and highly durable products for your off-road vehicle. Our products include locking hubs, conversion kits, electric winches and our legendary hydraulic winch system. We are an ISO certified organization and a TACOM approved supplier to the US Military. For thirty years, Mile Marker has been manufacturing and supplying parts for a number of major OEM's.

Mile Marker products are available in many 4x4 retail shops in the US, and there are dealers in 46 countries throughout the world. Mile Marker is also an innovator. Our legendary, patented hydraulic winch is the only approved winch for the US Military's HMMWV (Humvee). This winch is powered by the power steering pump, allowing uninterrupted pulls for hours on end and operating in all climatic conditions. This is not only a great winch for the military, but for any serious off-roader.

When you need high quality, highly reliable, well-tested products for your ATV or 4x4, you can count on Mile Marker and our team of professionals to help you out.

The **Mile Marker** Mission:

“To provide our customers with the best possible product that has been *Tested to the Extreme* as established by their needs.”



MILE MARKER AND THE MILITARY



As an approved supplier of winches for the U.S. Military's HMMWV (Hummer), all Mile Marker Military Hydraulic Winch systems must meet or exceed the following list of Testing, Quality Assurance, and Military Standard Requirements for the U.S. Government. This is only a partial listing of the requirements met or exceeded by Mile Marker Hydraulic Winches.

Specifications

- Cable, Type I, Class 2, Construction 4, extra improved plowsteel, galvanized, minimum .375-inch diameter, IAW RR-W-410, 100 feet minimum, lubricated with Amsoil MP/HD (heavy duty metal protector) and installed on winch drum.
- Cable, hook, fasteners and swaged sleeve assembled shall withstand a minimum pull of 14,400 lbs. without separation of assembly or deformation of hook.
- The winch assembly shall be compatible with hydraulic fluid IAW GM-6297M
- Hydraulic motor shall be compatible with and function when subjected to fluid temperatures of -40 to +250 degrees Fahrenheit (-40.0 to +121.1 degrees Celsius) without leakage.

Performance requirements

All performance requirements shall be initiated with winch assembly sealed to prevent contamination from dust, oil and water and start with five wraps of wire rope on the bare drum. Rated layer load requirements shall start on the third wrap of the tested layer. Also, the timing of the winch shall not be affected if the wire cable becomes crossed wrapped. At that time, the winch shall be stopped and the cable shall be adjusted before continuing with remaining time.

A: Hot Temperature Requirements

The winch assembly shall be capable of pulling a minimum load of 9,000 lbs. on first layer for a minimum distance of 12 feet. Without stopping, the winch shall be capable of pulling a minimum load of 4,000 lbs. for 55 feet at a minimum ambient temperature of 125 degrees Fahrenheit (51.7 degrees Celsius) during test. Oil Temperature may be cooled to 200 degrees Fahrenheit (93.3 degrees Celsius) if required.

B: Cold Temperature Requirement (low gear)

The winch assembly shall be capable of pulling a minimum load of 9,000 lbs. on the first layer for a minimum distance of 12 feet. Then, without stopping, the winch shall be capable of pulling a minimum load of 4,000 lbs. for 55 feet at a maximum ambient temperature of -40 degrees Fahrenheit (40 degrees Celsius).

THE U.S. MILITARY TRUSTS ONLY MILE MARKER HYDRAULIC WINCHES FOR THEIR HUMVEES (HMMWVS) - YOU CAN TOO.

C: Functional Requirement (low gear)

The winch assembly shall be operated with a 24-28 VDC electrical power source and a 1.5 GPM 1300 PSI minimum to 4 GPM 1500 PSI maximum hydraulic power source. Winch shall be capable of continuously pulling a minimum line load of 4,000 lbs. for a minimum distance of 55 feet, within a maximum time period of 28 minutes at an ambient temperature of 60 to 90 degrees Fahrenheit (15.6 to 32.2 degrees Celsius).

D: Rated Layer Load Requirements

The winch assembly shall be capable of continuously pulling each layer of wire rope at the rated layer line load as specified in the following:

LOW GEAR					High GEAR				
Layer number	1	2	3	4	Layer number	1	2	3	4
Min. rated line load (lb.)	9000	7500	6100	5000	Min. rated line load (lb.)	1200	1100	1000	800
Rope capacity (ft.)	17	20	24	28	Rope capacity (ft.)	17	20	24	28
Max load/stall (lb.)	10500	9200	7900	6500	Max load/stall (lb.)	1700	1600	1450	1400
Max amp draw	2	2	2	2	Max amp draw	2	2	2	2

E: Durability Requirements (low gear)

The winch assembly shall be capable of completing a minimum of 50 durability cycles, one cycle shall be capable defined as follows: The winch assembly shall pull a minimum load of 4,000 lbs. a minimum distance of 60 feet within a maximum time period of 28 minutes, at an ambient temperature between 60 and 90 degrees Fahrenheit (15.6 to 32.2 degrees Celsius). At the start and every 10 cycles, check cable for wear.

F: Functional Requirement (high gear)

The winch assembly system shall be operated with a 24-28 VDC electrical power source and a 1.5 GPM 1300 PSI minimum to 4 GPM 1500 PSI maximum hydraulic power source, Winch shall be capable of continuously pulling a minimum line load of 600 lbs. for a minimum distance of 55 feet within a maximum time period of five minutes, at ambient temperatures between 60 and 90 degrees Fahrenheit (15.6 to 32.2 degrees Celsius).

G: Durability Requirements (high gear)

The winch assembly shall be capable of completing a minimum 50 durability cycles. One cycle means the winch assembly shall pull a minimum load of 600 lbs. a minimum distance of 55 feet within a maximum time period of five minutes, at an ambient temperature between 60 and 90 degrees Fahrenheit (15.6 to 32.2 degrees Celsius). At the start of each cycle and every 10 cycles, check cable for wear.

- The winch shall be equipped with two speed (gearing) settings (low and high). the winch shall also be equipped with a locking and free spool setting.
- The handles which engage and disengage the winch settings shall be permanently stamped IAW MIL-STD-130, with the words low, high and free. When levers are engaged in positions, as noted in the table below, the winch shall operate as indicated in mode columns below:

Lever #1	Lever #2	Position
Free	Free	Free spool
Low	High	Lock
Low	Free	Low gear
Free	High	High gear

Submergence Requirement:

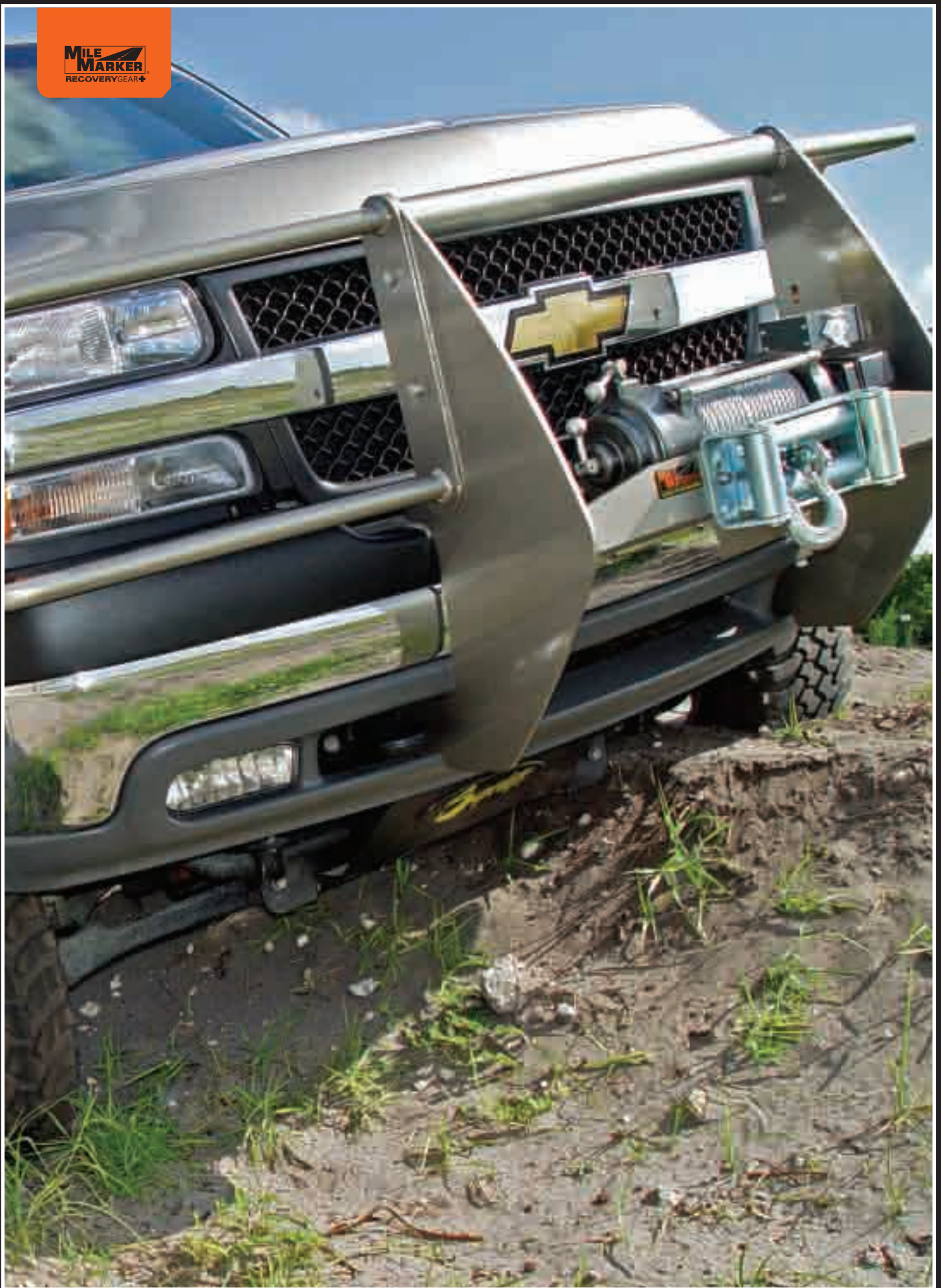
- The winch solenoid assembly shall meet the requirements of MIL-STD-1184, type II, class II, test method 100.
- The winch solenoids shall be powered by a 24-28 VDC power source. A hydraulic pump shall provide 1300 PSI minimum pressure at 1.5 GPM minimum flow to the hydraulic motor, and a maximum of 3.5 GPM and at 1500 PSI.

Initial Production Inspection (IPI)

- Complete dimensional and tolerance verification. Complete performance verification of noted test requirements. Material/finish certification verification.

<ul style="list-style-type: none"> - UNLIMITED DUTY CYCLE - PULLS ALL DAY AND ALL NIGHT - POWERFUL - RUGGED AND RELIABLE AS A HUMVEE - THOUSANDS IN USE IN THE DESERTS, JUNGLES, FORESTS AND ANYWHERE THERE ARE HUMVEES - THOROUGHLY TESTED BY TACOM 	<ul style="list-style-type: none"> - WATERPROOF - FAST WITH 2 SPEEDS - EASILY CONNECTS TO THE POWER STEERING PUMP - NO PTO REQUIRED. - ALLOWS YOU TO USE THE VEHICLE'S DRIVE TRAIN IN THE RECOVERY.
---	---

**MILE
MARKER**
RECOVERYGEAR





HYDRAULIC WINCHES

LEGENDARY POWER...
TRUE CONTINUOUS DUTY CYCLE...

TWO SPEED Spool Cable and light loads quick and effortlessly in high gear; drop into low gear for serious pulling power.

SMOOTH OPERATION Planetary Gear Train is the smoothest running self-recovery system available.

BUILT TO LAST Heavy Duty Aluminum & Ductile Iron Bodies and Stainless Steel Hardware provide a lifetime of abuse.

SUBMERSIBLE Completely sealed from the elements; Can operate under water.

The Mile Marker Hydraulic Winch System has been a self-recovery icon for over 15 years. This legendary system utilizes the vehicle's OEM power steering pump as its power source. Everyday, more than 200 million power steering pumps operate flawlessly. Used in all types of vehicles, under every condition, from 50 below to 135 degrees above, the pump must perform for years without service or adjustment. It has to withstand every type of abuse without failure. Having a built-in governor (the pressure relief valve), it is impossible to overload or overwork the pump.

Steering is arguably the most important function while driving, so the power steering pump has evolved into the most reliable system on vehicles today. Mile Marker chose to design a winch to use this continuous reliable power supply over the battery power used by competitors. After rigorous testing, we learned it was the right choice. The Mile Marker Hydraulic Winch can run continuously under load without any battery drain. This Hydraulic Winch System is the choice of the U.S Army, as Mile Marker became the primary self-recovery outfitter for the HMMWV (Hummer) as well as many other tactical vehicles around the globe.






H18K HYDRAULIC WINCH

NEW!

18,000 LB Capacity
(8,165 kg) @ 1100 PSI
PN: 70-58000C

DESIGNED FOR HEAVY DUTY COMMERCIAL, UTILITY, AND WRECKER APPLICATIONS. COMPLETE UNIT



Mile Marker introduces its largest winch to date: the H18K. With 18,000 pounds (scalable to 24,000 pounds) of pulling and recovery power, this hydraulic winch can be utilized in many applications due to its relatively light weight and wide range of flow accommodations. Requiring only a hydraulic flow of 4 gpm at 1500 psi, this winch can be powered by either stock power steering pumps, or PTO systems. 



34 SERIES ADAPTER KIT REQUIRED. SEE APPLICATION CHART ON PAGE 9.

PRODUCT SPECIFICATIONS:

Part Number	75-58000C
Rated line pull	18000 lbs (8164 Kg)
Gear Train	Planetary, Hardened Steel Gear
Gear Ratio	18:1 Low Gear, 6:1 High Gear
Motor	11.9 C.I (195 CC)
Dimensions (LxWxH)	24.01" X 9.99" X 9.96" Long Drum (610 mm X 254 mm X 253 mm)
Recommended Cable	0.5" Galvanized Aircraft Cable Nominal Breaking Strength = 26,600 lbs
Drum Size: Diameter/Length	4.0" X 10" (101.6 mm X 254 mm) - Short Drum
Flange Diameter	9" (228.6 mm)
Net Weight	157 lbs (57.6 Kgs) with out cable - Long Drum
Bolt Pattern	11.48" X 8" (164.6 mm X 291.6 mm) - Long Drum 8 bolts, 5/8"-11
Complying Standards	SAE J706

Short Drum Available Upon Special Order

PRODUCT FEATURES:

- 2 Speed winch
- Free Spooling
- Mechanical Lock
- Heavy Duty Disc Brake
- Heavy Duty Engagement Clutch
- Sealed Against Elements
- Can Use Underwater
- Corrosion Resistant Aluminum Body
- Stainless Steel Tie Bars
- 96' of 1/2" Cable Capacity on Short Drum (29.2 m of 12.7 mm cable)
- 168' of 1/2" (12.7 mm) Cable Capacity on Long Drum (56.4 m of 12.7 mm cable)

PERFORMANCE:

High Speed Performance Specification (max. 1500 PSI) (max 103.4 bars)

LAYER	Rated Line Pull		Line Speed						Cable Capacity			
			At 4 GPM (15.1 L/m)		At 10 GPM (38 L/m)		At 15 GPM (56.8.1 L/m)		Short Drum		Long Drum	
	Lbs	Kgs	fpm	mpm	fpm	mpm	fpm	mpm	ft	m	ft	m
1	6000	2722	11.8	3.6	29.5	9.0	51.1	15.6	10.6	3.1	20.6	6.3
2	4917	2230	14.4	4.4	36.0	11.0	62.4	19.0	23.3	7.0	45.0	13.7
3	4167	1890	17.0	5.2	42.5	13.0	73.7	22.5	37.6	11.5	74.0	22.6
4	3600	1633	19.6	6.0	49.1	15.0	85.1	25.9	54.7	16.7	106.0	32.3
5	3183	1444	22.3	6.8	55.6	17.0	96.4	29.4	74.0	22.6	144.0	43.9
6	2850	1293	24.9	7.6	62.2	19.0	107.8	32.9	96.0	29.3	185.0	56.4

* Layers 5 and 6 do not comply with SAE J706 Standard

Low Speed Performance Specification (max. 1500 PSI) (max 103.4 bars)

LAYER	Rated Line Pull		Line Speed						Cable Capacity			
			At 4 GPM (15.1 L/m)		At 10 GPM (38 L/m)		At 15 GPM (56.8.1 L/m)		Short Drum		Long Drum	
	Lbs	Kgs	fpm	mpm	fpm	mpm	fpm	mpm	ft	m	ft	m
1	18000	8165	3.9	1.2	9.8	3.0	17.0	5.2	10.6	3.1	20.6	6.3
2	14750	6690	4.8	1.5	12.0	3.7	20.8	6.3	23.3	7.0	45.0	13.7
3	12500	5670	5.7	1.7	14.2	4.3	24.6	7.5	37.6	11.5	74.0	22.6
4	10800	4899	6.5	2.0	16.4	5.0	28.4	8.6	54.7	16.7	106.0	32.3
5	9550	4332	7.4	2.3	18.5	5.7	32.1	9.8	74.0	22.6	144.0	43.9
6	8550	3878	8.3	2.5	20.7	6.3	35.9	11.0	96.0	29.3	185.0	56.4

* Layers 5 and 6 do not comply with SAE J706 Standard




LOW-PRESSURE HYDRAULIC WINCH

NEW!

9,000 LB Capacity
(4082 kg) @ 1100 PSI
PN: 75-50058C



**FOR JEEPS, LIGHT DUTY TRUCKS,
& SUVs WITH AN OEM POWER-
STEERING PUMP PRODUCING LESS
THAN 1500 P.S.I.**

Many of today's mid-sized trucks, Jeeps, and Sport-Utility-Vehicles do not produce the 1500 PSI necessary to reach the specifications of the hydraulic winches in the standard product line up. For those looking to harness the legendary power of the Mile Marker hydraulic winch, but do not plan on upgrading any power-steering equipment, this is the model for you. The low-pressure hydraulic winch will pull 9,100 pounds at only 1100 PSI; a perfect combination for Jeep, Nissan, and Toyota applications. 



35 SERIES ADAPTER KIT REQUIRED.
SEE APPLICATION CHART ON PAGE 7.



Illuminated Joystick
Remote Control

PRODUCT FEATURES:

- 2 Speed
- Mechanical Lock
- Freespooling
- Integrated Solenoid Valve
- Can Use Underwater
- Corrosion Resistant
- Stainless Steel Tie Bars and Fasteners
- 100 Feet Galvanized Aircraft Cable
- Aluminum Body

PRODUCT SPECIFICATIONS:

Part Number	75-50058C
Rated line pull	9000 lbs (4082 Kg) @ 1100 PSI
Gear Train	Planetary
Gear Ratio	6:1
Motor	19.5 cubic inch
Control Pendant	Illuminated Joystick Remote, 12'
Cable	3/8" X 100' (nominal 14,400 lbs) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	103 lbs (47 kgs)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

PERFORMANCE:

LAYER	LOAD	PSI	GPM
1	6700	900	3
1	7800	1000	3
1	9100	1100	3
1	10100	1200	3
1	11000	1300	3
1	12000	1400	3



H SERIES HYDRAULIC WINCH

- POWER STEERING PUMP POWERED
- 100% DUTY CYCLE
- SUBMERSIBLE

H9000

9,000 LB (4082 kg) Capacity
PN: 70-50080C

H10500

10,500 LB (4763 kg) Capacity
PN: 70-50050C

H12000

12,000 LB (5443 kg) Capacity
PN: 70-52000C



The Mile Marker H Series Hydraulic

Winch can be mounted to the front or rear of the vehicle as a permanent or detachable recovery system. This system is independent from its solenoid control valve to give more freedom in mounting options and vehicle application. The installation of one of the H Series models (H9000, H10500, and H12000) requires a vehicle specific 34-Series valve adapter kit (see application chart on page 7).



PRODUCT FEATURES:

- 2 Speed
- Freespooling
- Mechanical Lock
- Can Use Underwater
- Corrosion Resistant
- Stainless Steel Tie Bars and Fasteners
- 100 Feet Galvanized Aircraft Cable
- Reversible Mounting on 3 Sides (H12000 Only)
- Ductile Iron Body (H12000 Only)

PRODUCT SPECIFICATIONS:

Gear Train	Planetary
Gear Ratio	6:1
Motor	9k: 14 cubic inch 10.5k: 17.9 cubic inch 12k: 19.5 cubic inch
Control Pendant	Not Included, Requires 34 Series Kit
Cable	3/8" X 100' (nominal 14,400 lbs) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	H9000, H10500: 93 lbs (42.2 kgs) H12000: 101 lbs (45.8 kgs)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)
Power Steering	3.5 GPM @ 1500 psi
Min. Requirements:	(13.25 L/m @ 103.4 bars)



34 SERIES ADAPTER KIT REQUIRED.
SEE APPLICATION CHART ON PAGE 9.

PERFORMANCE:

H9000

3.5 GPM @ 1500 PSI (13.25 L/m @ 103.4 bars)

Layer of Cable	1	2	3	4
Line speed-low gear (FPM)	6.16	7.48	8.8	10.5
Rated pull (lbs.)	9,000	7,300	6,200	5,400
Line speed-high gear (FPM)	33.6	38.4	48	57
Rated pull (lbs.)	1,500	1,200	1,000	900

H10500

3.5 GPM @ 1500 PSI (13.25 L/m @ 103.4 bars)

Layer of Cable	1	2	3	4
Line speed-low gear (FPM)	5.65	6.43	7.41	8.58
Rated pull (lbs.)	10,500	8,500	7,400	6,400
Line speed-high gear (FPM)	31	36	42	48
Rated pull (lbs.)	1,600	1,300	1,200	1,000

H12000

3.5 GPM @ 1500 PSI (13.25 L/m @ 103.4 bars)

Layer of Cable	1	2	3	4
Line speed-low gear (FPM)	5.65	6.43	7.41	8.58
Rated pull (lbs.)	12,000	9,400	8,200	7,000
Line speed-high gear (FPM)	31	36	42	48
Rated pull (lbs.)	2,000	1,550	1,350	1,150





HI SERIES HYDRAULIC WINCH

- POWER STEERING PUMP POWERED
- 100% DUTY CYCLE
- INTEGRATED SOLENOID VALVE
- SUBMERSIBLE



HI9000

9,000 LB (4082 kg) Capacity
PN: 75-50085C

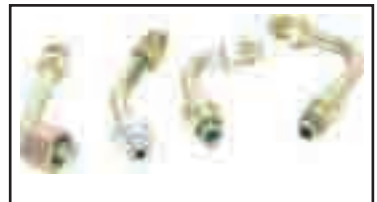
HI10500

10,500 LB (4763 kg) Capacity
PN: 75-50050C

HI12000

12,000 LB (5443 kg) Capacity
PN: 75-52000C

The Mile Marker HI Series Hydraulic Winch was intended for permanent mounting in the front or rear of a vehicle. The solenoid control valve is integrated into the winch body, and therefore always remains in the same location as the winch itself. These systems include all necessary hoses, solenoid control valve, remote control, roller fairlead with fasteners, and winch cable. To adapt to your vehicle's power steering pump, the HI Series winches (HI9000, HI10500, and HI12000) require a vehicle specific 35-series vehicle adapter kit (see page 7).



35 SERIES ADAPTER KIT REQUIRED.
SEE APPLICATION CHART ON PAGE 9.

PRODUCT FEATURES:

- 2 Speed
- Mechanical Lock
- Freespooling
- Integrated Solenoid Valve
- Can Use Underwater
- Corrosion Resistant
- Stainless Steel Tie Bars and Fasteners
- 100 Feet Galvanized Aircraft Cable
- Reversible Mounting on 3 Sides (HI2000 Only)
- Ductile Iron Body (HI2000 Only)

PRODUCT SPECIFICATIONS:

Gear Train	Planetary
Gear Ratio	6:1
Motor	9k: 14 cubic inch 10.5k: 17.9 cubic inch 12k: 19.5 cubic inch
Control Pendant	Illuminated Joystick Remote, 12'
Cable	3/8" X 100' (nominal 14,400 lbs) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	HI9000, HI10500: 103 lbs (47 kgs) HI12000: 110 lbs (50 kgs)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)
Power Steering	3.5 GPM @ 1500 psi
Min. Requirements:	(13.25 L/m @ 103.4 bars)

PERFORMANCE:

HI9000

3.5 GPM @ 1500 PSI (13.25 L/m @ 103.4 bars)

Layer of Cable	1	2	3	4
Line speed-low gear (FPM)	6.16	7.48	8.8	10.5
Rated pull (lbs.)	9,000	7,300	6,200	5,400
Line speed-high gear (FPM)	33.6	38.4	48	57
Rated pull (lbs.)	1,500	1,200	1,000	900

HI10500

3.5 GPM @ 1500 PSI (13.25 L/m @ 103.4 bars)

Layer of Cable	1	2	3	4
Line speed-low gear (FPM)	5.65	6.43	7.41	8.58
Rated pull (lbs.)	10,500	8,500	7,400	6,400
Line speed-high gear (FPM)	31	36	42	48
Rated pull (lbs.)	1,600	1,300	1,200	1,000

HI12000

3.5 GPM @ 1500 PSI (13.25 L/m @ 103.4 bars)

Layer of Cable	1	2	3	4
Line speed-low gear (FPM)	5.65	6.43	7.41	8.58
Rated pull (lbs.)	12,000	9,400	8,200	7,000
Line speed-high gear (FPM)	31	36	42	48
Rated pull (lbs.)	2,000	1,550	1,350	1,150



Illuminated Joystick Remote Control





HYDRAULIC WINCH ADAPTER KITS

VEHICLE
SPECIFIC
APPLICATIONS

H SERIES REMOTE SOLENOID VALVE



34KIT

Included in Kit: 12 ft. lead remote control, All hoses and fittings included, Power in and Power out, Remote Solenoid-activated control valve (draws only 2 amps), Adapter for vehicle specific power steering pump. Rated to 7 gpm. Required for H Series Winches.

PART NUMBER:	APPLICATION
CHEVY/GMC	
34-5020-16	GM 2012 2500 and 3500 HD
34-5010-15	88+ GM C/K,99+ Tahoe/Suburban, Silverado
34-5020-14	72-87 GM C/K, 88-91 RV series
34-5010-12	GM S-series
34-5010-13	GM S-series w/4.3L Vortec
FORD	
34-5020-38	Ford 2012 Superduty
34-5010-09	1997+ ford F-150, Expedition
34-5020-07	78-96 Ford full size. 97-98 F250, F350
34-5010-07H	78-98 Ford full size (with hydroboost)
34-5020-06	72-77 Ford full size
34-5020-04	83-92 Ford Ranger, 90-94 Explorer
34-5020-05	92-96 Ford Ranger, 95-96 Explorer
34-5010-34	99-04 Ford 250, 350, 450, 550, Excursion
34-5020-35	2005-2010 Ford 250, 350,450, 550, Excursion
34-5020-10	02+ Ford Ranger/Sport Trac
34-5020-37	2011 Ford SuperDuty
DODGE	
34-5010-24	Dodge 94+full size
34-5020-23	Dodge 72-93 full size
34-5010-20	Dodge Dakota 4 cylinder
34-5020-22	Dodge Dakota 6 & 8 cylinder
INTERNATIONAL	
34-5010-18	Truck & Scout
JEEP	
34-5010-50	Jeep Cherokee
34-5020-51	Jeep CJ, Scrambler
34-5020-55	Jeep YJ, TJ, JK & Rubicon
NISSAN	
34-5010-30	Nissan 86-93 except Pathfinder 91-95, 94-96 truck
34-5010-31	91-95 Nissan Pathfinder, 94-96 truck
TOYOTA	
34-5020-41	Toyota All
LAND ROVER	
34-5010-45	Land Rover Discovery
AM GENERAL	
34-5010-17	HI (Civilian)
34-5010-15	H2
GENERAL KIT	
34-5010-01	General kit; does not include PS pump
34-5011-00	Valve only; 24-volt system (No hose, fittings)
MEDIUM DUTY TRUCKS	
34-5010-80	(International 7400)

H SERIES INTEGRATED SOLENOID VALVE



35KIT

To be used to adapt power steering pump to HI Series Winch System. Includes vehicle specific power steering pump fittings and adapters.

PART NUMBER:	APPLICATION:
35-5020-15	GM 2012 2500 and 3500 HD
35-5020-15	GM, Dodge, International, Chevrolet, H2
35-5020-22	2003 & up Durango
35-5020-07	Ford, up to 1998
35-5020-34	Ford 1999 to 04; F-150 1997 to 04
35-5020-10	Ford SportTrac/Ranger
35-5020-51	Jeep
35-5020-31	Nissan
35-5020-41	Toyota
35-5020-45	Land Rover
35-5020-17	AM General-Hummer H1
35-5020-35	2005-2010 Ford Super Duty
35-5020-36	2007 Ford F-550 Only
35-5020-37	2011 Ford SuperDuty
35-5020-38	2012 Ford SuperDuty
35-5020-81	Chevy 5500



34KIT



35KIT







ELECTRIC WINCHES

PERFORMANCE.
POWER.
VALUE.




SEC15

15,000 (6803 kg) LB Capacity
PN: 76-50260

The Mile Marker Electric Winch Line offers the off-road enthusiast a traditional alternative to our legendary Hydraulic System.

These units were designed and constructed to define value: best performance per pound than any unit in their price range. Our dependable full size winches range from 8,000 pounds to 15,000 pounds in capacity, meaning we have the right winch for your vehicle.

All full size Mile Marker winches feature high output Series Wound motors, 500 AMP solenoids, required mounting hardware, a fairlead, and a wired remote control—all that you need is a suitable place to mount the winch and you will be ready for recovery. 



SCOUT

8,000 LB (3629 kg) Capacity
PN: 77-53141






TOUGH SERIES ELECTRIC WINCH

- LIGHTEST, MOST COMPACT 15K WINCH IN THE INDUSTRY
- 5.5 HORSEPOWER MOTOR
- IDEAL FOR FULL SIZE TRUCKS
- INCLUDES 15' RECOVERY STRAP



NEW! SEC15

15,000 LB Capacity
(6803 kg)
PN: 76-50260

Introducing the lightest 15,000 pound winch in the industry! Weighing in at only 101 pounds, the SEC15 packs heavy duty power in its compact design. Featuring compact dimensions and 25% less weight than other winches in its class, the SEC15 mounts easily and is a great choice for full size trucks that are looking for big winch power without adding big winch weight to the vehicle's front end. 

Power-In, Power-Out
Remote Control



Includes 15' Recovery
Strap



PRODUCT FEATURES:

- 5.5 HP Series Wound Motor
- Rugged Planetary Gear Sets
- Automatic Load Holding Brake
- Stainless Steel Hardware
- 79' of 10mm Steel Cable
- Integrated Kill Switch
- Clockable Gear Side
- Includes 15' Recovery Strap

PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT	
lb	kg	fpm	mpm	amps @ 12 V	
0	0	15.8	4.8	74	
5000	2270	7.6	2.3	202	
9000	4086	5.9	1.8	290	
12000	5448	4.6	1.4	335	
15000	6810	3.3	1	420	

PRODUCT SPECIFICATIONS:

Part Number	76-50260
Rated line pull	15,000 lbs (6810 kgs), Single line
Gear Train	3 Stage Planetary
Gear Ratio	295.75 : 1
Motor	Series Wound, 7.3 hp (5.5 kw), 12 Volt, 24 volt available
Control Pendant	Power-In, Power-Out Remote, 12' (3.7 m)
Dimensions (LxWxH)	22.44" X 6.29" X 11.00" (570 mm X 160 mm X 280 mm)
Cable	(Aircraft Cable) 0.39" X 78.7" (10 mm X 24 m)
Drum Size: Diameter/Length	2.9" X 8.9" (75 mm X 228 mm)
Net weight	101 lbs (46 kg)
Bolt Pattern	4 Bolt Pattern, 10" x4.5" (254 mm X 114.3 mm)







SEC8 SCOUT

- FASTEST 8K IN ITS CLASS
- SYNTHETIC ROPE
- ANODIZED ALUMINUM HAUSE
- INTEGRATED KILL SWITCH



NEW!

8,000 LB Capacity
(3629 kg)
PN: 77-53141



Power-In, Power-Out
Remote Control

From the foundation of the popular 8,000 pound SEC8 model comes the competition ready, expedition willing SCOUT feature set: 100' of Dyneema Synthetic Rope, a rugged, black anodized aluminum hawse fairlead, and a durable powder coated clevis hook. For those willing to go, let the SCOUT lead the way. 

PRODUCT FEATURES:

- 4.8 HP Series Wound Motor
- Rugged Planetary Gear Sets
- Automatic Load Holding Brake
- Anodized Aluminum Hawse Fairlead
- 100' of 5/16" Synthetic Rope with Ballistic Sheathing on Drum and Outer Layer
- Integrated Kill Switch
- Clockable Gear Side

PRODUCT SPECIFICATIONS:

Part Number	77-53141
Rated line pull	8000 lbs (3629 Kg)
Gear Train	3 Stage Planetary
Gear Ratio	152:1
Motor	Series Wound, 4.8 hp (3.6 KW), 12 V
Control Pendant	Power-In, Power-Out Remote, 12' (3.7 m)
Dimensions (LxWxH)	21.50" X 6.25" X 8.00" (546.1 mm X 158.8 mm X 203.2 mm)
Synthetic Rope	5/16" X 100' (nominal 15,000 lbs, 6804 kg) (7.94 mm X 28.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	57.5 lbs (26.1 kg)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	26	7.9	95
2000	907	20	6	175
4000	1814	14	4.3	240
6000	2722	12	3.8	295
8000	3629	10.8	3.3	370





TOUGH SERIES ELECTRIC WINCH

- NEW PLATFORM
 - SERIES WOUND MOTOR
 - INTEGRATED KILL SWITCH
 - BEST WORKING RANGE
- PERFORMANCE IN THE INDUSTRY**




NEW! SEC8

8,000 LB Capacity
(3629 kg)
PN: 77-50141



Power-In, Power-Out
Remote Control

Mile Marker launches their newest winch platform, the SEC8. This no frills, down to business, 8,000 pound (3629 kg) winch features a series-wound motor, and the best in class performance in the 2,000 pound to 6,000 pound load range. With a two year warranty (one year on the solenoid), and an attractive price, this winch will redefine value and performance in the 8,000 pound winch class. 

PRODUCT FEATURES:

- 4.8 HP Series Wound Motor
- Rugged Planetary Gear Sets
- Automatic Load Holding Brake
- Galvanized Roller Fairlead
- 100 Feet Galvanized Aircraft Cable
- Integrated Kill Switch
- Clockable Gear Side

PRODUCT SPECIFICATIONS:

Part Number	77-50141
Rated line pull	8000 lbs (3629 Kg)
Gear Train	3 Stage Planetary
Gear Ratio	152:1
Motor	Series Wound, 4.8 hp (3.6 KW), 12 V
Control Pendant	Power-In, Power-Out Remote, 12' (3.7 m)
Dimensions (LxWxH)	21.50" X 6.25" X 8.00" (546.1 mm X 158.8 mm X 203.2 mm)
Cable	5/16" X 100' (nominal 9,800 lbs, 4445 kg) (7.94 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	81 lbs (37 kg)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	26	7.9	95
2000	907	20	6	175
4000	1814	14	4.3	240
6000	2722	12	3.8	295
8000	3629	10.8	3.3	370





TOUGH SERIES ELECTRIC WINCH

- PROVEN WINCH DESIGN
- INTEGRATED KILL SWITCH
- POWERFUL SERIES WOUND MOTORS
- AUTOMATIC LOAD HOLDING BRAKE




SEC12

12,000 LB Capacity
PN: 76-50251B



SEC9.5

9,500 LB Capacity
PN: 76-50246B

Heavy Duty Series Wound Motors and rugged planetary gear sets are the backbone of this expedition grade winch series. With robust controls, sealed solenoids, and an integrated kill switch, the SEC series is a proven winch design at an unmatched value. 

PRODUCT FEATURES:

- Powerful Series Wound Motors
- Rugged Planetary Gear Sets
- Power In, Power Out Controls
- Automatic Load Holding Brake
- Galvanized Roller Fairlead
- 100 Feet Galvanized Aircraft Cable
- Integrated Kill Switch



Power-In, Power-Out
Remote Control

SEC12 PRODUCT SPECIFICATIONS:

Part Number	76-50251B
Rated line pull	12000 lbs (5443 Kgs)
Gear Train	3 Stage Planetary
Gear Ratio	296:1
Motor	Series Wound, 4.8 hp (3.6 KW), 12 / 24 V
Control Pendant	Power In, Power Out Remote, 12'
Dimensions (LxWxH)	22.25" X 6.25" X 8.00" (565.2 mm X 158.8 mm X 203.2 mm)
Cable	3/8" X 100' (nominal 14,400 lbs, 6531 kg) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	92 lbs (42 Kg)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

SEC 9.5 PRODUCT SPECIFICATIONS:

Part Number	76-50246B
Rated line pull	9500 lbs (4309 Kgs)
Gear Train	3 Stage Planetary
Gear Ratio	212:1
Motor	Series Wound, 4.8 hp (3.6 KW), 12 / 24 V
Control Pendant	Power In, Power Out Remote, 12'
Dimensions (LxWxH)	22.25" X 6.25" X 8.00" (565.2 mm X 158.8 mm X 203.2 mm)
Cable	3/8" X 100' (nominal 14,400 lbs, 6531 kg) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	92 lbs (42 Kg)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

SEC 12 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	23	7	90
2000	907	12.8	3.9	145
4000	1814	9.7	3.0	185
6000	2722	7.9	2.4	230
8000	3629	7.1	2.2	270
10000	4536	5.1	1.6	315
12000	5443	4.5	1.4	370

SEC 9.5 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	25.7	7.8	85
2000	907	15.1	4.6	150
4000	1814	10.5	3.2	210
6000	2722	7.9	2.4	270
8000	3629	5.9	1.8	320
9500	4309	4.3	1.3	375



TOUGH SERIES

INTEGRATED SOLENOID

- FIXED SOLENOID DESIGN
- EASY INSTALLATION, FINISHED LOOK
- POWERFUL SERIES WOUND MOTOR
- AUTOMATIC LOAD HOLDING BRAKE



SI12000

12,000 LB Capacity
PN: 76-50152

Sharing the same Heavy Duty Series Wound Motors and rugged planetary gear sets of the SEC series, the SI Series is a one piece winch and solenoid combination for a finished look and simplified installation. 

PRODUCT FEATURES:

- Powerful Series Wound Motor
- Rugged Planetary Gear Sets
- Integrated Solenoid Housing
- Power In, Power Out Remote
- Automatic Load Holding Brake
- Galvanized Roller Fairlead
- 100 Feet Galvanized Aircraft able

SI9500

9,500 LB Capacity
PN: 76-50147



Power-In, Power-Out Remote Control

SI 12000 PRODUCT SPECIFICATIONS:

Part Number	76-50152
Rated line pull	12000 lbs (5443 kg)
Gear Train	3 Stage Planetary
Gear Ratio	296:1
Motor	Series Wound, 4.8 hp (3.6 KW), 12 / 24 V
Control Pendant	Power In, Power Out Remote, 12'
Dimensions (LxWxH)	22.25" X 6.25" X 8.00" (565.2 mm X 158.8 mm X 203.2 mm)
Cable	3/8" X 100' (nominal 14,400 lbs, 6531 kg) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	92 lbs (42 kg)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

SI 9500 PRODUCT SPECIFICATIONS:

Part Number	76-50147
Rated line pull	9500 lbs (4309 kg)
Gear Train	3 Stage Planetary
Gear Ratio	212:1
Motor	Series Wound, 4.8 hp (3.6 KW), 12 / 24 V
Control Pendant	Power In, Power Out Remote, 12'
Dimensions (LxWxH)	22.25" X 6.25" X 8.00" (565.2 mm X 158.8 mm X 203.2 mm)
Cable	3/8" X 100' (nominal 14,400 lbs, 6531 kg) (9.53 mm X 30.5 m)
Drum Size:	2.5" X 9" (63.5 mm X 228.6 mm)
Net weight	92 lbs (42 kg)
Bolt Pattern	4 Bolt Pattern, 4.5" X 10", (114.3 mm X 254 mm)

SI 12000 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT	
lb	kg	fpm	mpm	amps @ 12 V	
0	0	23	7	90	
2000	907	12.8	3.9	145	
4000	1814	9.7	3.0	185	
6000	2722	7.9	2.4	230	
8000	3629	7.1	2.2	270	
10000	4536	5.1	1.6	315	
12000	5443	4.5	1.4	370	

SI 9500 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT	
lb	kg	fpm	mpm	amps @ 12 V	
0	0	25.7	7.8	85	
2000	907	15.1	4.6	150	
4000	1814	10.5	3.2	210	
6000	2722	7.9	2.4	270	
8000	3629	5.9	1.8	320	
9500	4309	4.3	1.3	375	





ATV/UTV WINCHES

COMPACT
PERFORMANCE

- INNOVATIVE CONTROLS
- FULL LINEUP OF MODELS
- LOW AMPERAGE DRAW
- UNMATCHED VALUE

PE4500

4,500 LB Capacity
(2041 kg)
PN: 76-50115B



PE3.5

3,500 LB Capacity
(1586 kg)
PN: 77-50112B




The Mile Marker ATV and UTV winch line combines the powerful recovery power of their full size brothers in a rugged compact size. These mini-monsters combine all metal, planetary gear systems for unmatched reliability in an ATV recovery system.



PE2.5

2,500 LB Capacity
(1134 kg)
PN: 77-53105B

The performance of the smaller Mile Marker winch line has allowed them to also function very well in trailer and utility applications. These winches pack enough punch to take on the most daunting task. Our PE4500 happens be the champion of Utility, and is now packaged with a mounting plate and a tow strap so that it is ready out of the box to go to work wherever it is needed. 





TOUGH SERIES ATV/UTV WINCH

- OUR FASTEST ATV/UTV WINCHES EVER!
- 300 AMP RATED SOLENOID
- REDESIGNED BRAKE SYSTEM
- BOTH HANDHELD AND HANDLEBAR REMOTE INCLUDED!




PE3.5

3,500 LB Capacity
(1588 kg)
PN: 77-50112B



PE2.5

2,500 LB Capacity
(1134 kg)
PN: 77-50105B

Mile Marker's new lineup ATV and UTV winches have been totally redesigned and now boast top-of-the-line recovery speeds and a new braking system. These winches include both a handheld remote control, as well as a handlebar mounted remote control providing "power in" and "power out" functions. Mile Marker has also developed a new 300 amp rated solenoid giving maximum duty cycle to these bantam size power houses. 

PRODUCT FEATURES:

- Fast Line Speeds
- Redesigned Braking System
- All Metal Planetary Gearing
- Includes Both Handheld and Handlebar Controls
- 300 Amp Rated Solenoid
- Center Focused Drum
- Free Spooling
- Roller Fairlead



Power-In, Power-Out Remote Control



Mountable Handlebar Remote Control

PE 3.5 PRODUCT SPECIFICATIONS:

Part Number	77-50112B
Rated line pull	3500 lbs (1588 kg) Single Line
Gear Train	3 Stage Planetary
Gear Ratio	153:1
Motor	Permanent Magnet, 2 hp (1.5kw), 12 V DC
Control Pendant	Illuminated Joystick Remote, 12' (3.7 m)
Dimensions (LxWxH)	13.0" X 4.1" X 4.2" (330 mm X 105 mm X 108 mm)
Cable	7/32" X 50' (nominal 5,600 lbs, 2540 kg) (5.45 mm X 45.2 m)
Drum Size:	1.5" X 3.15" (38.1 mm X 80 mm)
Net weight	25 lbs (11.3 kg)
Bolt Pattern	4 Bolt Pattern, 4.88" X 3", (124 mm X 76.2 mm)

PE 2.5 PRODUCT SPECIFICATIONS:

Part Number	77-50105B
Rated line pull	2500 lbs (1134 kg) Single Line
Gear Train	3 Stage Planetary
Gear Ratio	241:1
Motor	Permanent Magnet, 2 hp (1.5kw), 12 VDC
Control Pendant	Illuminated Joystick Remote, 12' (3.7 m)
Dimensions (LxWxH)	13.0" X 4.18" X 4.3" (330 mm X 106.2 mm X 109.2 mm)
Cable	3/16" X 50' (nominal 4200 lbs, 1905 kg) (4.8 mm X 15.2 m)
Drum Size:	2" X 3.15" (50.8 mm X 80 mm)
Net weight	24.2 lbs (11 kg)
Bolt Pattern	4 Bolt Pattern, 4.88" X 3", (124 mm X 76.2 mm)

PE 3.5 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT	
lb	kg	fpm	mpm	amps @ 12 V	
0	0	19	5.8	43	
500	227	16.2	4.9	62	
1000	454	14.4	4.4	95	
1500	680	13	3.9	110	
2000	907	11.7	3.6	130	
2500	1134	10.8	3.3	140	
3000	1360	10.2	3.1	152	
3500	1588	9.8	2.9	160	

PE 2.5 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT	
lb	kg	fpm	mpm	amps @ 12 V	
0	0	24	7.3	41	
500	227	21.8	6.64	70	
1000	454	17.1	5.2	100	
2000	907	10.9	3.32	175	
2500	1134	7.5	2.28	212	



TOUGH SERIES

ATV/UTV WINCH
WITH SYNTHETIC ROPE

- INCLUDES SYNTHETIC ROPE
- 300 AMP RATED SOLENOID
- REDESIGNED BRAKE SYSTEM
- BOTH HANDHELD AND HANDLEBAR REMOTE INCLUDED!




PE3.5

WITH SYNTHETIC ROPE
3,500 LB Capacity
(1588 kg)
PN: 77-53112B

PE2.5

WITH SYNTHETIC ROPE
2,500 LB Capacity
(1134 kg)
PN: 77-53105B

Mile Marker's lineup of ATV and UTV winches have been totally redesigned and now boast top-of-the-line recovery speeds, a new braking system, and now feature Synthetic Rope as an option. These winches include both a handheld remote control, as well as a handlebar mounted remote control providing "power in" and "power out" functions. Mile Marker has also developed a new 300 amp rated solenoid giving maximum duty cycle to these bantam size power houses. 

PRODUCT FEATURES:

- Fast Line Speeds
- 50' of Synthetic Rope
- Aluminum Hawse Fairlead
- Redesigned Braking System
- All Metal Planetary Gearing
- Includes Both Handheld and Handlebar Controls
- 300 Amp Rated Solenoid
- Center Focused Drum
- Free Spooling



Power-In, Power-Out
Remote Control



Mountable Handlebar
Remote Control

PE 3.5 PRODUCT SPECIFICATIONS:

Part Number	77-53112B
Rated line pull	3500 lbs (1588 kg) Single Line
Gear Train	3 Stage Planetary
Gear Ratio	153:1
Motor	Permanent Magnet, 2 hp (1.5kw), 12 V DC
Control Pendant	Illuminated Joystick Remote, 12' (3.7 m)
Dimensions (LxWxH)	13.0" X 4.1" X 4.2" (330 mm X 105 mm X 108 mm)
Synthetic Rope	3/16" X 50' (nominal 5440 lbs, 2468 kg) (4.8 mm X 45.2 m)
Drum Size:	1.5" X 3.15" (38.1 mm X 80 mm)
Net weight	25 lbs (11.3 kg)
Bolt Pattern	4 Bolt Pattern, 4.88" X 3", (124 mm X 76.2 mm)

PE 3.5 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	19	5.8	43
500	227	16.2	4.9	62
1000	454	14.4	4.4	95
1500	680	13	3.9	110
2000	907	11.7	3.6	130
2500	1134	10.8	3.3	140
3000	1360	10.2	3.1	152
3500	1588	9.8	2.9	160

PE 2.5 PRODUCT SPECIFICATIONS:

Part Number	77-53105B
Rated line pull	2500 lbs (1134 kg) Single Line
Gear Train	3 Stage Planetary
Gear Ratio	241:1
Motor	Permanent Magnet, 2 hp (1.5kw), 12 VDC
Control Pendant	Illuminated Joystick Remote, 12' (3.7 m)
Dimensions (LxWxH)	13.0" X 4.18" X 4.3" (330 mm X 106.2 mm X 109.2 mm)
Synthetic Rope	3/16" X 50' (nominal 5540 lbs, 2468 kg) (4.8 mm X 15.2 m)
Drum Size:	2" X 3.15" (50.8 mm X 80 mm)
Net weight	24.2 lbs (11 kg)
Bolt Pattern	4 Bolt Pattern, 4.88" X 3", (124 mm X 76.2 mm)

PE 2.5 PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	24	7.3	41
500	227	21.8	6.64	70
1000	454	17.1	5.2	100
2000	907	10.9	3.32	175
2500	1134	7.5	2.28	212



TOUGH SERIES TRAILER/UTILITY WINCH

- VERSATILE DESIGN
- LOW AMPERAGE DRAW
- INCLUDES MOUNTING PLATE
- INCLUDES TOW STRAP FOR CAR HAULERS



The PE4500 is a versatile, utility recovery tool that serves large side by side units just as well as trailer duty. Mile Marker's PE 4500 winch has been updated to include a mounting plate, as well as an 8' Tow Strap for protecting valuable cargo from cable damage.



PE4500

4,500 LB Capacity
(2041 KG)
PN: 76-50115B



Power-In, Power-Out
Remote Control



Mounting Plate Included



Tow Strap Included

PRODUCT FEATURES:

- 1.9 HP Permanent Magnet Motor
- Rugged Planetary Gear Sets
- Automatic Load Holding Brake
- Galvanized Roller Fairlead
- 80 Feet Galvanized Aircraft Cable
- Integrated Kill Switch

PRODUCT SPECIFICATIONS:

Part Number	76-50115B
Rated line pull	4500 lbs (2041 kg)
Gear Train	3 Stage Planetary
Gear Ratio	294:1
Motor	Permanent Magnet, 1.9 hp (1.4 KW), 12 V
Control Pendant	Illuminated Joystick Remote, 12' (3.7 m)
Dimensions (LxWxH)	17.2" X 6.2" X 7.3" (436 mm X 152 mm X 185 mm)
Cable	1/4" X 80" (nominal 7,000 lbs, 3175 kg) (5.45 mm X 25.9 m)
Drum Size:	2.5" X 5.5" (63.5 mm X 140 mm)
Net weight	51 lbs (23 Kg)
Bolt Pattern	6.535" X 4.5" (4 bolts), (165.9 mm X 114.3 mm)

PERFORMANCE:

LINE PULL		LINE SPEED		MOTOR CURRENT
lb	kg	fpm	mpm	amps @ 12 V
0	0	14	4.3	35
1500	380	6.6	2	80
2200	998	5.2	1.6	100
3000	1361	4.6	1.4	145
4500	2041	3.3	1	170

Layer	RATED LINE PULL		CABLE CAPACITY	
	lb	kg	ft	meters
1	4500	2041	15	4.6
2	3880	1760	31.5	9.6
3	3420	1551	50	15.2
4	3050	1383	70	21.3
5	2750	1247	80	24.4





**MILE
MARKER**

RECOVERY GEAR





MOUNTING SYSTEMS

TRUCK MOUNTS

Mile Marker's Truck Mounting Systems are available in bumper/grill-guard styles (Xtreme II), as well as Channel mounting options.

Each mount is a fully welded steel product with a black powder-coat or chrome finish. Winch plates are 1/4" thick.

RECEIVER MOUNTS

The Detachable Winch Mounting system is designed to work in conjunction with a properly rated 2" receiver hitch. These mounting systems give you the freedom of switching your recovery outfit from front to rear or vehicle to vehicle.

The Detachable Mounting system is fully welded steel and finished in a black powder coat. For fast and easy removal, add one of our Quick Disconnect Kits, available for both Hydraulic and Electric Winches.

ATV/UTV MOUNTS

Mile Marker's New ATV Mounting Systems offer winch mounting options for a wide range of ATV and UTV applications.

Finished in High-Gloss, baked on powder coat, these high-quality steel mounts will provide the best way to incorporate your new winch to your quad.






TRUCK/SUV MOUNTING SYSTEMS



XTREME II MOUNTS

All Extreme II mounts incorporate a 1/4" thick mounting steel plate. These mounts can accommodate up to a 15,000 lb. Mile Marker winch. Optional "wrap-a-round" headlight hoops can be ordered and added to the Grill Guard. This mount is a favorite on fleet and utility vehicles. 



Grille Guard: 12000 lbs. max	Grille Guard: 15000 lbs. max	Brush Guard	Color	Make	Model	
TOYOTA						
50-34608C	50-35608C	50-26608C	Chrome	Toyota	Tundra	2007-2009
50-34608	50-35608	50-26608	Black	Toyota	Tundra	2007-2009
50-34609C	50-35609C	50-26608C	Chrome	Toyota	Tundra	2010-2012
50-34609	50-35609	50-26608	Black	Toyota	Tundra	2010-2012
FORD						
50-34619	50-35619		Black	Ford	Expedition	2010-2012
50-34637C	50-35637C	50-26637C	Chrome	Ford	F-150 (Will not fit Harley or FX2)	2006-2008
50-34637	50-35637	50-26637	Black	Ford	F-150 (Will not fit Harley or FX2)	2006-2008
50-34639C	50-35639C	50-26639C	Chrome	Ford	F-150	2009-2012
50-34639	50-35639	50-26639	Black	Ford	F-150	2009-2012
50-34640C	50-35640C	50-26641C	Chrome	Ford	Super Duty F-250/350/450	1999-2004
50-34640	50-35640	50-26641	Black	Ford	Super Duty F-250/350/450	1999-2004
50-34640C	50-35640C	50-26641C	Chrome	Ford	Excursion	2000-2004
50-34640	50-35640	50-26641	Black	Ford	Excursion	2000-2004
50-34641C	50-35641C	50-26641C	Chrome	Ford	Super Duty F-250/350/450/550	2005-2007
50-34641	50-35641	50-26641	Black	Ford	Super Duty F-250/350/450	2005-2007
50-34642C	50-35642C	50-26642C	Chrome	Ford	Super Duty F-250/350/450/550	2008-2010
50-34642	50-35642	50-26642	Black	Ford	Super Duty F-250/350/450/550	2008-2010
50-34644C	50-35644C	50-26644C	Chrome	Ford	Super Duty F-250/350/450/550	2011-2012
50-34644	50-35644	50-26644	Black	Ford	Super Duty F-250/350/450/550	2011-2012
DODGE						
50-34652	50-35652	50-26652	Black	Dodge	Durango	2006-2008
50-34663C	50-35663C	50-26663C	Chrome	Dodge	Ram 2500/3500	2003-2009
50-34663	50-35663	50-26663	Black	Dodge	Ram 2500/3500	2003-2009
50-34663C	50-35663C	50-26663C	Chrome	Dodge	Ram 3500 Cab & Chassis	2010-2012
50-34663	50-35663	50-26663	Black	Dodge	Ram 3500 Cab & Chassis	2010-2012
50-34665C	50-35665C	50-26663C	Chrome	Dodge	Ram 4500/5500	2008-2012
50-34665	50-35665	50-26663	Black	Dodge	Ram 4500/5500	2008-2012
50-34666C	50-35666C	50-26669C	Chrome	Dodge	1500	2009-2012
50-34666	50-35666	50-26669	Black	Dodge	1500	2009-2012
50-34669C	50-35669C	50-26669C	Chrome	Dodge	2500/3500	2010-2012
50-34669	50-35669	50-26669	Black	Dodge	2500/3500	2010-2012
CHEVROLET						
50-34731C	50-35731C	50-26732C	Chrome	Chevrolet	Avalanche without factory cladding	2003-2006
50-34731	50-35731	50-26732	Black	Chevrolet	Avalanche without factory cladding	2003-2006
50-34731C	50-35731C	50-26732C	Chrome	Chevrolet	Silverado Classic 1500	2003-2007
50-34731	50-35731	50-26732	Black	Chevrolet	Silverado Classic 1500	2003-2007
50-34732C	50-35732C	50-26732C	Chrome	Chevrolet	Silverado/Classic 2500 HD/3500	2003-2007
50-34732	50-35732	50-26732	Black	Chevrolet	Silverado/Classic 2500 HD/3500	2003-2007
50-34735C	50-35735C	50-26735C	Chrome	Chevrolet	Silverado 1500	2007-2012
50-34735	50-35735	50-26735	Black	Chevrolet	Silverado 1500	2007-2012
50-34738C	50-35738C	50-26738	Chrome	Chevrolet	Silverado 2500HD/3500	2007-2010
50-34738	50-35738	50-26738	Black	Chevrolet	Silverado 2500HD/3500	2007-2010
50-34751	50-35751	50-26751	Black	Chevrolet	2500HD/3500	2011-2012
50-34751C	50-35751C	50-26751C	Chrome	Chevrolet	2500HD/3500	2011-2012
GMC						
50-34738C	50-35738C		Chrome	GMC	Sierra 2500HD/3500	2007-2010
50-34738	50-35738		Black	GMC	Sierra 2500HD/3500	2007-2010
50-34745C	50-35745C		Chrome	GMC	Sierra 1500	2007-2012
50-34745	50-35745		Black	GMC	Sierra 1500	2007-2012
50-34751C	50-35751C		Chrome	GMC	Sierra 2500HD/3500	2011-2012
50-34751	50-35751		Black	GMC	Sierra 2500HD/3500	2011-2012



TRUCK/SUV MOUNTING SYSTEMS

CHANNEL MOUNTS

Uses the simplicity of a one piece mount for your Utility Vehicle or Pick-up. These mounts are made from 1/4" high quality steel, and finished with a baked on black powder coat. The Universal Mount can be welded or bolted to adapt to any application. The Jeep mount is a ready bolt-on application for all Wrangler models.



UNIVERSAL CHANNEL MOUNT PN:50-87283



JEEP WRANGLER: TJ/YJ PN:60-50059






RECEIVER MOUNTING SYSTEMS



RECEIVER MOUNTING

Versatility, that's what Mile Marker's detachable winch mounts provide. Move your winch from front to back or to another vehicle. Simply add Quick Disconnect wiring and you're ready to work. The Mile Marker SUV/TRUCK Cradle Mount fits a 2" receiver hitch. The Mile Marker ATV/UTV Receiver Mount fits a 1 1/4" receiver hitch. Quick Disconnect kits are available for all models. Please see page 35. 

Cradle Mount
PN: 60-06495



UTV RECEIVER MOUNT
PN: 51-06496



ATV RECEIVER MOUNT
PN: 51-4677



ATV/UTV MOUNTING SYSTEMS



ATV/UTV MOUNTS



Mile Marker's ATV Winch Mounts are constructed of heavy duty steel and are finished in a gloss black, baked-on powder coat to endure years of abuse. These mounts are designed to incorporate a Mile Marker winch system to your ATV with no change in the vehicle's handling. Each of our bolt-on ATV Winch Mounts includes all necessary hardware and mounting instructions for efficient installation.

Each part number was designed for specific vehicle application; please see chart on opposite page for application guide. 



Yamaha Grizzly 660 (04)

PN: 51-1610



ATV/UTV MOUNT APPLICATION GUIDE

Application	Year(s)	MM Part #
ARCTIC CAT		
250/300	98-05	51-1005
400/454 4x4/500	96-01	51-1005
500 AUTO	00-01	51-1005
500CC	96-01	51-1005
300/375/400	02-04	51-1010
400i/400 ACT/400 Auto	02-04	51-1010
500i	02 & up	51-1010
400/500/550	05-09	51-1015
650	04-11	51-1015
700/700 MUD PRO	06-11	51-1015
1000 TRV	08-11	51-1015
550 Prowler	09-11	51-1860
Prowler 700	08-11	51-1860
650 H1 Prowler	06-09	51-1860
Prowler H1 XTX	08	51-1860
Prowler 1000	10-11	51-1860
BOMBARDIER/CAN-AM		
Traxter	99-05	51-1105
Quest	02-05	51-1105
Outlander 330/400	03-06	51-1110
Outlander 400	07-09	51-1112
V-Twin 500/600/650/800	06-11	51-1112
Renegade 800R	07-09	51-1115
Commander 800R,1000,1000X	2011	51-1811
CUB CADET		
C466 20HP Kohler 4x4	07-09	51-1822
JOHN DEERE		
Buck/Ext	04-05	51-1105
Trail Buck	04-05	51-1105
Gator XUV	07-10	51-1831
Gator HPX	04-06	51-1831
Gator XUV 625i,825i,855D 4x4	2011	51-1832
HONDA		
Rubicon 500	01-04	51-1210
Foreman 400/450	95-04	51-1215
Rancher 350/400	00-07	51-1220
Rancher 420	07-11	51-1225A
Rubicon 500	05-06	51-1230A
680 Rincon 650 TRX	03-11	51-1230A
Foreman 500	05-06	51-1230A
Foreman 500 S/ES/FPE	07-11	51-1235
Rubicon 500	07-11	51-1235A
TRX 300	93-00	51-1240
Big Red675	09-11	51-1815
KAWASAKI		
650 Prairie	02-04	51-1305
400 Prairie	97-02	51-1310
650 Brute Force	05-11	51-1315
360 Prairie	02-08	51-1320
300 Bayou	89-03	51-1330
700 Prairie	04-06	51-1335
750 Brute Force	05-07	51-1340
650i Brute Force	06 & up	51-1340
750 Brute Force	08-11	51-1341
750i Brute Force w/Power Steering	2012	51-1341
610 Mule UTV	05-11	51-1840
Teryx RUV	08-11	51-1842
4010 Mule (2 Door and 4 Door)	09-11	52-1508
KUBOTA		
900 RTV 4X4	08-11	52-1624
900 RTV 4X4	04-09	51-1812
1100 RTV 4X4	08-09	51-1812
500 RTV	08-11	51-1814


Application	Year(s)	MM Part #
POLARIS		
Magnum	95-98	51-1400
6x6	91-99	51-1400
Sportsman	Pre 95	51-1400
400 Sportsman	96-98	51-1400
500 Sportsman	04 & up	51-1407
600/700 Sportsman	02-04	51-1407
Explorer	96-01	51-1410
330 Magnum	99-06	51-1410
6x6	00-06	51-1410
ATP 330/500	04-05	51-1410
400 Sportsman	01-04	51-1410
500 Sportsman	96-03	51-1410
400/500/800 Sportsman	2011	51-1413
550 Sportsman	2011	51-1414
850 X2	2011	51-1414
550/850 Sportsman Touring	10-11	51-1414
550 X2 Sportsman	10-11	51-1414
550/850 XP Sportsman	09-11	51-1414
400/600/700Sportsman	05-07	51-1415
800 Sportsman	05-09	51-1415
450 Sportsman	05-06	51-1415
500 Sportsman	05-10	51-1415
500 X2	06-09	51-1415
700 X2	08 & up	51-1415
800 X2	07-09	51-1415
500 Sportsman Touring	08-09	51-1415
800 Sportsman Touring	08-09	51-1415
Hawkeye	06 & up	51-1425
300 Sportsman	08 & up	51-1425
400 Sportsman	08-09	51-1425
Ranger 400 4x4 midsize	10-11	51-1847
Ranger 500 4x4 midsize	2011	51-1847
Ranger EV	2011	51-1847
Ranger 6x6	98-01	51-1848
Ranger 4x4	01-04	51-1849
Ranger Crew	08-09	51-1850
Ranger XP	09-11	51-1851
RZR 800 / RZR-S (including 4 seater)	08-11	51-1852
XP900 RZR	2011	51-1853
SUZUKI		
Eiger 400	02-07	51-1505
Vinson	02 & up	51-1505
King Quad 400	08-11	51-1510
LTF 300 King Quad	01-02	51-1515
LTF 300 King Quad	99-00	51-1520
King Quad 450	07-09	51-1530
King Quad 500	09-11	51-1530
King Quad 700	05-11	51-1530
King Quad 750	08-11	51-1530
Twin Peaks 700	04-06	51-1335
YAMAHA		
Grizzly 660	02-08	51-1605
Grizzly 600	98-01	51-1610
Bruin 350	04-06	51-1615
Grizzly 350	07-08	51-1615
Grizzly 450	07-08	51-1615
Kodiak 400/450	03-06	51-1615
Kodiak 400 Ultramatic	00-02	51-1620
Grizzly 700	07-11	51-1625
Grizzly 550	09-11	51-1625
Rhino 450	06-09	51-1635
Rhino 660	04-08	51-1635
Rhino 700	06-09	51-1635
Rhino 700	2011	51-1635
Big Bear 400	07 & up	51-1640
Wolverine 350	Thru 05	51-1655
Wolverine 450 4x4	06-08	51-1660



RECOVERY GEAR



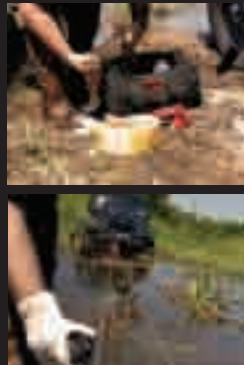
DON'T GET STUCK WITHOUT THEM

Conquering the off-road paths of the world can prove to be a tough adventure. Count on Mile Marker's new line of gear and accessories to level the playing field. 



Off Road Recovery Kit PN: 19-00100

This "Recovery In A Bag" winch kit includes everything you need to get you out of a pinch. The reflective Winch Dampener is the first of its kind to double as a self contained recovery kit. Integrated pockets on the inside house all of the essential gear: snatch block with grease fitting, powder coated shackles, a 15' recovery strap, and a pair of gloves.



Heavy Duty Recovery Kit PN: 19-00150

Mile Marker's new Heavy Duty Winch Accessory Kit designed for the heaviest of tasks in recovery. This kit includes a 30K Snatch Block, a 10' Choker Chain, a 30' Recovery Strap, 2 3/4" alloy shackles, and a pair of leather gloves. These components are housed in a weather proof bag with removable work tray to keep everything in order.



ATV/UTV Recovery Kit PN: 19-00105

New ATV/UTV Recovery Kit includes everything that you need to push your trail blazing ATV/UTV to the limits: 2 powder coated shackles, two 1" X 8' Straps, a snatch block, and a pair of gloves all packaged in a durable carrying case that can be strapped virtually anywhere on your rig.

RECOVERY GEAR



Recovery/Tree Strap 15' AND 30'

These straps have built in blue lines that appear over time indicating that the strap is no longer safe to use, & needs to be replaced. 30,000 Pound Rating.

3" X 15' PN: 19315

3" X 30' PN: 19330



Powder Coated Shackles

Our orange powder coated shackles. Working load limit of 4.75 tons for the 3/4 inch shackles and 3.25 tons for the 5/8 inch shackles.

3/4 Shackle PN: 60-50134

5/8 Shackle PN: 60-50158



Heavy Duty 3/4 Shackle PN: 60-50086

Our alloy shackles. Working load limit of 4.75 tons.



Industrial Snatch Block 30K PN: 60-50185

Enables you to retrieve loads that are double a winch's capacity by reducing the load on the winch by half. It also facilitates winching from varying angles when straight ahead isn't the best option. 30,000 Pound capacity.



Heavy Duty Snatch Block 20K PN: 60-50083

Enables you to retrieve loads that are double a winch's capacity by reducing the load on the winch by half. It also facilitates winching from varying angles when straight ahead isn't the best option. The Mile Marker 20K Snatch Block is a serviceable assembly featuring a grease fitting and brass bushing for years of trouble free duty.



Recovery Gloves

Mile Marker's Recovery Gloves feature cow-hide palms with SBR padding to combat your hands from cable burrs and rope burns, while a combination of synthetic leather and neoprene lines the glove allowing excellent breathability and functional dexterity.

Extra-Large (XL) PN: 30-19-G2

Large (L) PN: 30-19-G4



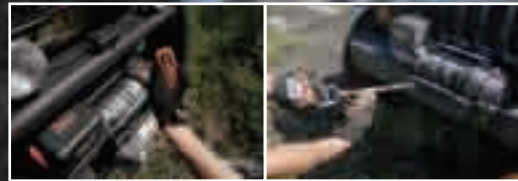
Heavy Duty Gloves PN: 30-19-G1

Standard leather recovery gloves. One size fits all.



ACCESSORIES & COMPONENTS

WINCH WITHOUT WIRES!



NEW! Plug & Play Wireless Remote

The industry's first truly wireless remote! Add a little convenience to your vehicle recovery: No more cutting and splicing, Mile Marker's new "Plug and Play" Wireless Remote Control is an effortless way to operate your winch. Simply plug the receiver in to your control box, and you are ready for wireless operation up to 50' away. The system includes a weatherproof, shock-resistant transmitter with dual-color operator feedback, and magnet-mounted receiver to get you up and running quickly. Part Number 7076 can adapt to any electric winch, regardless of manufacturer.

For All Electric Winches (Mile Marker winches and all other brands): **PN 7076**

For All Hydraulic Winches: **PN 7077**

QUICK DISCONNECT KITS

This kit will enable you to utilize the Mile Marker winch as a portable system. Quick disconnect kits will allow for easy removal if used in conjunction with a receiver mount, and can be added to the front, rear, or both ends of the vehicle.



Electric Front Quick Disconnect Kit

PN: 76-93-54000



Electric Rear Quick Disconnect Kit

PN: 76-93-53000



Hydraulic Rear Quick Disconnect Kit

PN: 70-53000



ATV/UTV Quick Disconnects

PN: 93-53105



ATV/UTV Quick Disconnects, Plugs Only

PN: 93-53106

Hydraulic Front Quick Disconnect Kit
PN: 70-54000



ACCESSORIES & COMPONENTS



Standard Solenoid **FULL SIZE WINCHES**

PN: 76-50140-06 For Permanent Magnet Motors

PN: 76-50151-06 For Series Wound Motors



Roller Fairlead Cover **PN: 8402**

This impact resistant cover protects your Mile Marker WH-9 and Wh-10 roller fairlead from weather and debris while adding a finished look to the front of your vehicle.



Neoprene Winch Covers

PN: 8505 FITS ATV WINCHES

PN: 8506 FITS FULL SIZE WINCHES

Wraps snugly around your winch for All weather protection.



Small Winch Rollers

PN: WH4 For winches 4500-6000 Pounds

PN: WH2 For winches 2000-2500 Pounds



WH-10 Roller Fairlead

Universal Roller Fairlead works with 8000-12000 lb. Mile Marker, Warn, Ramsey or Superwinch winches. Also fits winch mount bumpers.



Aluminum Hauler Fairlead

PN: 19-52000 (ATV)

PN: 19-52001 (Full Size)

For Use With Synthetic Rope



Replacement Cable

5/16" X 100' **PN: 19-50010C**

3/8" X 100' **PN: 19-50020C**

Galvanized aircraft cable with replaceable hook.



Synthetic Rope

Now Available in New Color Options.
3/8" X 100' Assembly (16,200 lbs. Min Break Force)

PN: 19-52038-100

11/32" X 96' Assembly (15,000 lbs. Min Break Force)

PN: 19-52132-96

1/4" X 50' Assembly (7,740 lbs. Min Break Force)

PN: 19-52014-50

3/16" X 50' Assembly (5,440 lbs. Min Break Force)

PN: 19-52316-50



Winch Isolator **PN: 1903931**

Polyurethane isolator provides a clean and easy way to store the winch hook when not in use. Installed over the winch cable, the Winch Isolator nests with a roller and provides a convenient rest for the winch hook that also prevents it from rattling.



Hydraulic Remote **PN: 93-50057**

For use with all Mile Marker Solenoid Controlled Electric and Hydraulic winches except for the SEC8 and SI Models.



Handlebar Remote **PN: 93-50106B**

For use with all Mile Marker ATV/UTV winches. Adjustable mount provides accessible control to your trail blazing quad.



Electric Remote **PN: 76-50140-05B**

For use with all Electric Winches with Standard Solenoids.




DRIVETRAIN SYSTEMS

For 30 years, Mile Marker has been designing and manufacturing drivetrain components that were built for abuse. From Lock Out Hubs, to Conversion Kits and Transfer Case Accessories, these products and Accessories are reliable options for extreme traction.



DRIVETRAIN SYSTEMS

CONVERSIONS AND ACCESSORIES

For owners of full time 4WD vehicles, here is a selection of products that allow for a variety of conversions. Count on these kits to reduce wear and tear on your drivetrain as well as saving at the gas pump. In some cases, these are the only kits available for your vehicle. In all cases, each kit has been carefully designed to provide years of trouble free service. 



FOUR WHEEL DRIVE CHAIN

NP203 '73-'79, 1/2 x 2 x 72	8009
NP208 Borg Warner 1356 '80-'88, 1/2 x 11/4 x 84	8012
NP208 '80-'90, 1/2 x 11/4 x 72	8014
NP219, 228, 229 '80-'93, 3/8 x 13/4 x 98	8015
Borg Warner 1350, NP 207, NP 231C, 233C '84-'95, 1/2 x 11/4 x 62	8022
NP231C '89-'95, 1/2 x 1 x 62	8027
NP242 '89-'95, 1/2 x 1 x 72	8028



FORD & GM 203 N.P.

203 Transfer case without hubs	501
With premium 1/2 Ton hubs (also fits '78-'79 3/4 Ton)	502
With premium hubs fits '73-'77 3/4 Ton	503
With premium hubs 1 Ton GM, Ford Bearing Kit	505 701



JEEP MANUAL HUB CONVERSION

Replace those non-serviceable parts found on 1984 and newer XJ, YJ and TJ Jeeps with Mile Marker's premium front hub conversion kit. "Does no fit 2007 + [JK] models."

PN: 33-50010	Wrangler/Cherokee with 260X, U-joint 27-spline, 1984-1994
PN: 33-50020	Wrangler/Cherokee with 297X, U-joint 27-spline, 1995+hub conversion kit.



AMC QUADRA-TRAC

BORG WARNER 1339 TRANSFER CASE. FITS '73-'79 VEHICLES ONLY.

Part-time conversion	
No hubs or chain (uses stock chain)	95-91204
Same as above w/ premium 1/2 Ton hubs	95-12204
Same as above with CJ hubs	95-15204



LOCK OUT HUBS

Mile Marker Hubs are designed to exceed industry standard. For the extreme off-roader expecting the best performance.



HUB SPECIFICATION GUIDE

Selectro PN	MM PN	Bolt Circle	# of Bolts	# of Splines	Axle O.D.
11001			Internal	19	1.250
	104		Internal	19	1.250
	423	3.750	6	19	1.250
	437	3.543	6	29	1.187
	430	3.260	6	27	1.094
	410	3.543	6	6	1.156
	435	3.260	6	28	1.143
11016		2.844	8	16	1.250
11017		3.968	8	21	1.375
11018		3.750	6	10	1.125
	420	3.750	6	10	1.125
11021		4.375	6	21	1.375
11022		4.000	6	16	1.437
	470	3.440	5	27	1.187
	481	3.437	6	10	1.125
	427	4.500	5	23	1.016
	436	3.543	6	26	1.080

Selectro PN	MM PN	Bolt Circle	# of Bolts	# of Splines	Axle O.D.
11025		3.875	6	16	1.250
11026		3.125	8	16	1.250
11027		4.000	6	16	1.250
	457	3.437	6	27	1.187
	432	3.750	6	24	1.250
11034		3.960	8	30	1.312
11035		4.375	6	21	1.375
11038		5.563	8	30	1.594
	466	3.543	6	30	1.300
	490	3.543	6	26	1.100
	449SS		Internal	30	1.312
	459SS		Internal	35	1.500
11162		5.563	8	34	1.750
11165		5.563	16	34	1.750
11166		5.375	8	34	1.750
11167		5.080	8	16	1.580
95-37044		4.500	5	19	1.250
	428	4.50	5	27	1.206