

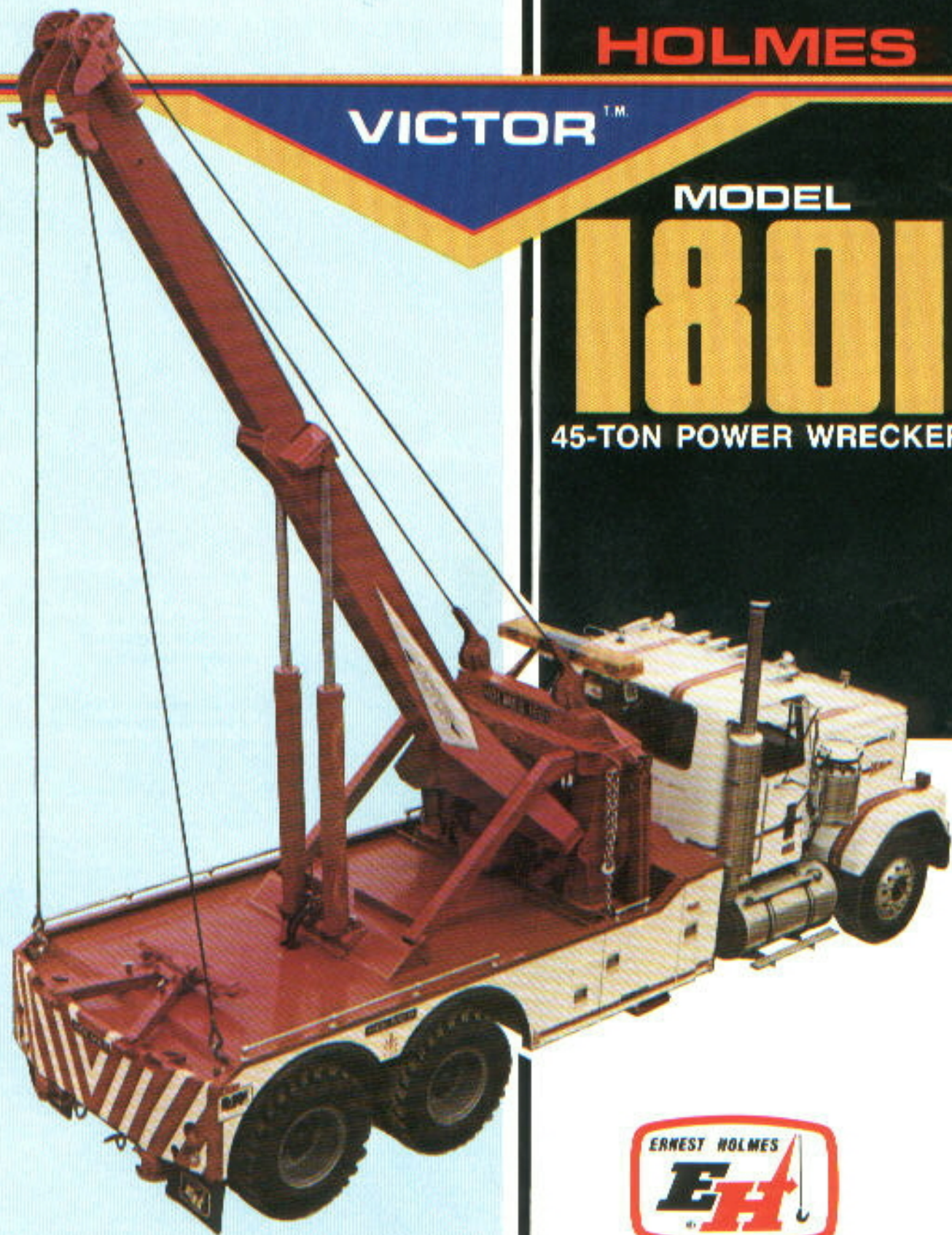
HOLMES

VICTOR™

MODEL

1801

45-TON POWER WRECKER



Our most powerful wrecker. Top of the line. Recovers and tows the largest trucks operating on today's highways. Hydraulically powered. A true recovery wrecker. Has extraordinary strength and power without excessive weight. Employs new designs extensively. Quality construction throughout. The Holmes 1801 is the finest heavy-duty wrecker available today!



DOVER CORPORATION
ERNEST HOLMES DIVISION

WHY IT'S SUPERIOR The Holmes Victor Wrecker model 1801 is superior because it keeps essential capabilities of past designs, while adding substantial improvements. It retains essential features of the Holmes 850, a 40-ton wrecker whose capability has been proved by many years of service. Like the 850, the 1801 can make full-capacity rear and side pulls due to its upright mast. It adds significant improvements, consisting mainly of a power-operated boom and power-assisted outboard legs and rear jacks. And there's more!

Boom Extension Handles Heavy Loads

Wrecker recovery work frequently requires lifting loads at fairly low heights. The exceptionally high ratings of the 1801's boom make it highly suited for such work, even when extended its full 100 inches of travel. Of great importance, the boom can be extended, retracted, raised and lowered *with any load within the structural rating* for the extension. Its structural rating is an impressive 15 tons (30,000 lbs.) when fully extended. At shorter extensions the ratings are proportionally greater, reaching a colossal 45 tons (90,000 lbs.) when fully retracted.

The 1801 does not sacrifice performance to gain unneeded extra boom extension.

1801 Hydraulics Give Superior Performance

The 1801 has high-performance hydraulics throughout. For example, its 3-stage hydraulic pump provides 85 + 85 = 15 gpm (gallons per minute). One 85 gpm stage of the 1801's pump operates one winch motor and the boom extension cylinder. The other 85 gpm stage operates the other winch motor and the boom lift cylinders. The 15 gpm stage operates the outboard legs and rear jacks. Each of the pump's 3 stages is independent so that operation of one component will not "starve" hydraulic power from other components. Hence, both winches can be operated simultaneously with full power! Winches can also be operated simultaneously with boom movements. The hydraulic motors, valves, reservoir and cylinders all have the capacity needed for high performance.

Because of the 1801's high-performance hydraulics, no special operating sequences are required. It is not necessary to pre-set boom extension by trial and error in order to manipulate large loads. The 1801 lifts and maneuvers large loads with unprecedented ease and precision.

Smooth Controls Avoid Shock Loads Controls of the 1801 wrecker employ flexible, sheathed cables for extreme smoothness and precision of operation. As a result, it's easy to avoid producing shock loads. Shock loads are



produced by jerking or bouncing loads and may damage both wrecker and load. The flexible cables eliminate a profusion of rods, tubes, brackets, bellcranks, etc. and minimize slack in the control system.

Upright Mast Is Essential What's the advantage of the large, upright mast of the 1801? It provides an ideal mounting base for sheaves from which direct pulls can be made. It provides a wide, stable base for mounting the boom and outriggers. It makes possible the use of cable winding mechanisms. It permits using winch drums (which incorporate large ring gears) mounted separately from the winch gear box. (Such ring gears provide extra gear reduction.) No heavy-duty wrecker is complete without a large upright mast!

Mast Pulls vs Boom End Pulls Pulling with cables over boom end sheaves is highly satisfactory for most wrecker work. However, side pulls and heavy rear pulls are best made by removing the cables from the boom and pulling directly from the mast sheaves. This avoids subjecting the boom to side loads.

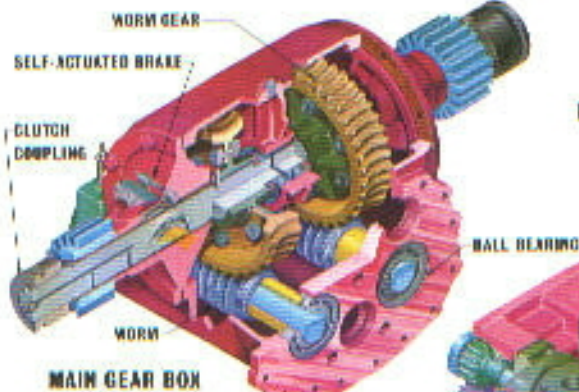
1. The wrecker has ultimate stability when side pulls are made as shown here. The central location of mast and outrigger provides most favorable distribution of load forces on wrecker components.
2. The upright mast of the 1801 is new. It has greater strength than any previous mast used on a Holmes wrecker.
3. The low, horizontal position of the boom is an advantage when working in trailers or other low-overhead areas.
4. The cutaway drawing reveals the "guts" of the 1801's winch. It is driven by two reversible hydraulic motors. Reversing hydraulic flow to a motor reverses the motor and reverses rotation of the cable drum. Operation is smooth and quiet. Speed is varied either by "feathering" the control or by adjusting engine throttle.
5. Key controls are grouped. Shown are controls for boom elevation and extension, for winch drums, for rear jack extension, and for engine throttle. Except for the throttle control, a duplicate set of controls is provided on the opposite side of the body.
6. This control disengages cable drum to permit pulling out cable by hand and manual rewind. Both operations save much time.
7. Handcrank rapidly rewinds cable onto drum to avoid wasting time and eliminate abnormal wear on winch from high-speed operation.
8. This device brakes the cable drum when the cable is slackened. It releases automatically when cable is tightened. Prevents snarled cable on drum when pulling it out manually.

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1801 Winch is New, Improved The 1801 winch is an improved version of the one used in the 850 wrecker. It has a new housing, new band-type brakes and is designed to accept hydraulic drive motors. It has an unusually high gear reduction of 485 to 1, due mainly to its large external ring gears. This gear reduction decreases stress on winch components for long life and safety...far beyond that achieved by other winches. Remember, this winch was designed for wrecker use and nothing else. That's why it performs better than any other winch used in wreckers today.

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DUAL WINCH POWER UNIT

Holmes VICTOR Wrecker
1800 Series

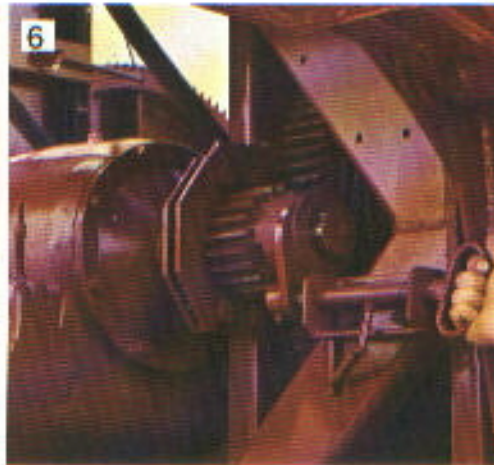


Importance of Manual Rewind Holmes long ago recognized the importance of manually rewinding cables on large wreckers. Consequently, we kept this feature on the 1801. Pulling out long lengths of cable by hand and rewinding it manually saves considerable time. That's especially important during recovery work. And it saves time when pulling out and inspecting cables after returning to station from tough jobs. Winches without manual rewind must be operated under power for re-winding. This is slow and tiresome. And speeding up the truck's engine doesn't help very much. Unfortunately, it subjects the winches to extra wear.

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Appreciating Other Features The 1801 has numerous other features that may not be fully appreciated unless examined closely or compared with other wreckers. Consider, for example, construction of the 1801's upright mast and boom. Their design takes advantage of geometric forms that give extra strength without increased weight. Similarly, the outer boom attains maximum strength with minimum weight by use of T-1 steel, which has twice the strength of some steels. High-strength steel center cable is still another bonus you get with 1801. The cable used is $\frac{3}{4}$ inch diameter 6 x 25 Dylform 5 IWRC. It has an "independent wire rope center" and a rated breaking strength of 64,600 lbs., considerably more than that of cable normally used on wreckers. Although these features cost more to produce and require sound engineering, they pay off by giving you maximum performance at minimum weight.

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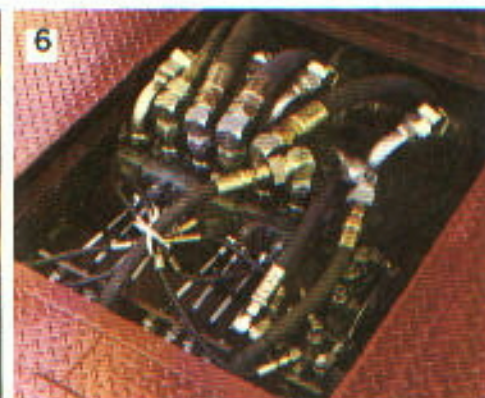
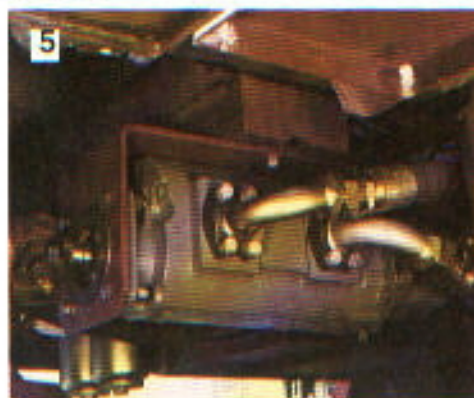
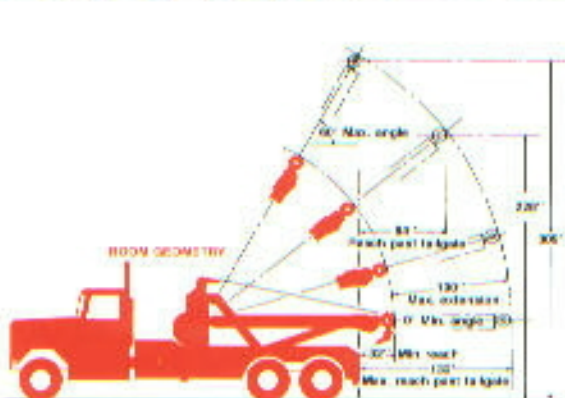


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Win New Customers With the Holmes 1801

No wrecker fleet is complete without at least one 1801. This is the wrecker that can convince customers you can serve them in any situation. So, the 1801 not only performs on the job, it can help you sell your services. Why not contact your Holmes distributor today?



SPECIFICATIONS

Basic Wrecker Rating	45 Tons (90,000 lbs.)
Boom Structural Ratings	
Fully Retracted	45 Tons (90,000 lbs.)
Fully Extended	15 Tons (30,000 lbs.)
Boom Elevation System	
Method	2 Hyd. Cylinders (6" dia.)
Safety Provision for Holding Load	Counterbalance Valve
Boom Extensior System	
Method	One Hyd. Cylinder (5.5" dia.)
Max. Extension Force	29.5 Tons (59,000 lbs.)
Safety Provision for Holding Load	Counterbalance Valve
Winch Characteristics, Each Drum	
Load Rating, First Layer of Cable	26 Tons (52,000 lbs.)
Drum Diameter	20 Inches
Line Speed	20 fpm
Maximum Length of Cable	310 Feet
Gear Reduction (Gear Box/Cable Drum)	485 to 1
Winch Cable Furnished (Two)	
Type	6 x 25, Dyform-8 IWRC
Diameter	3 1/2 Inch
Length, Each Drum	300 Feet
Working Load Limit, Single Line	9.2 Tons (18,400 lbs.)
Breaking Strength, Single Line	32.3 Tons (64,600 lbs.)
Wrecker Height Above Truck Frame	82 Inches
Width of Wrecker Body (Max.)	96 Inches
Weight, Wrecker with Body, Incl. Fluids	Approx. 17,250 Lbs.
Weight, Wrecker w/o Body	Approx. 14,350 Lbs.

IMPORTANT NOTICE!

Wrecker and boom ratings are based on structural limits of wrecker components. The wrecker may actually be subjected to loads equal to these ratings in recovery work when the wrecker is properly stabilized. However, the lift/tow capacity of a unit is usually somewhat less than those ratings, depending mainly on truck chassis weight, wheelbase, etc. It is also important to note that single line cable ratings are lower than wrecker structural ratings. Accordingly, snatch blocks should always be used so as to connect additional line parts to loads that exceed single line ratings.

1. Cables can be quickly removed from the boom for pulling directly from the mast. No tools required.
2. An electric switch provides fingertip control of the hydraulic cylinder inside the outrigger for extension and retraction of the telescoping leg. A spring-loaded pin locks the outrigger. The large, cam-action hand makes retracting and setting the pin easy.
3. The hydraulic reservoir of the 1801 holds 95 gallons of oil. It is isolated from the wrecker structure and cannot be ruptured by stresses imposed on the wrecker structure. Its forward location permits it to function as a ballast for increased lift/tow capacity.
4. Each rear jack incorporates a hydraulic cylinder for extension and retraction. Each jack is locked by a conventional lock pin.
5. Hydraulic power for the 1801 comes from this hydraulic pump with 3 independent stages. The pump is driven by a single input shaft.
6. Control valves of the 1801 are easily accessible from atop the wrecker body. Valves for the outriggers and jacks are controlled electrically, but have manual back-up controls in case of electrical failure. All other valves are controlled via flexible control cables.

ORDERING INFORMATION

- VIC-2 Model 1801 Victor wrecker with single extendible boom and dual winch, all hydraulically powered. Includes two hydraulically powered rear jacks for installation on wrecker body. Includes two SB-21 snatch blocks. Without outboard legs, PTO or wrecker body
- VIC-3 hydraulically powered outboard leg kit for 1801 wrecker. Includes two outboard legs, two leg extension cylinders, two leg chains, hydraulic hoses, electric controls and related parts.
- VIC-6 VIC-2 with Deluxe Heavy-Duty Body - 96 inches wide. For trucks with CB's of 138 inches minimum. With tenderettes. Has cutouts for hydraulic rear jacks.

CHASSIS RECOMMENDATIONS

CB's listed above apply to clear area behind the cab. Accordingly, the area should be free of exhaust stacks, battery boxes and other auxiliary equipment. If truck has vertical exhaust stacks, use distance from back of stacks to bogie. Wrecker bodies for longer CB's can be adapted (within limits) by using door spacers (up to 9 inches) and door feet compartments, either 10 inches or 22 inches wide. Chassis should have minimum RBM of 3,500,000 inch-pounds, each frame rail. Front axle GAWR, minimum is 14,000 lbs. Rear axle GAWR, minimum is 44,000 lbs.

ZIPS TRUCK EQUIPMENT INC.

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