

# Powered Hoists

## Warranty - Material

Hubbell Power Systems, Inc. warrants all products sold by it to be merchantable (as such term is defined in the Uniform Commercial Code) and to be free from defects in material and workmanship. Buyer must notify the Company promptly of any claim under this warranty. The Buyer's exclusive remedy for breach of this warranty shall be the repair or replacement, F.O.B. factory, at the Company's option, of any product defective under the warranty which is returned to the Company within one year from the date of shipment. NO OTHER WARRANTY, WHETHER EXPRESS OR ARISING BY OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE IMPLIED, SHALL EXIST IN CONNECTION WITH THE COMPANY'S PRODUCTS OR ANY SALE OR USE THEREOF. The Company shall in no event be liable for any loss of profits or any consequential or special damages incurred by Buyer. The Company's warranty shall run only to the first Buyer of a product from the Company, from the Company's distributor, or from an original equipment manufacturer reselling the Company's product, and is non-assignable and non-transferable and shall be of no force and effect if asserted by any person other than such first Buyer. This warranty applies only to the use of the product as intended by Seller and does not cover any misapplication or misuse of said product.

## Warranty - Application

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Responsibility for selection of the proper product or application rests solely with the purchaser. In the event of errors or inaccuracies determined to be caused by Hubbell Power Systems, Inc., its liability will be limited to the re-performance of any such analysis or study.

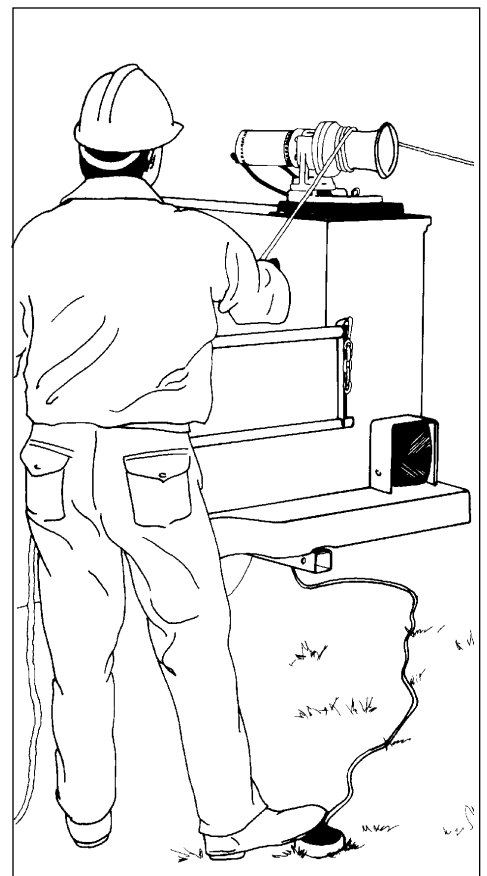
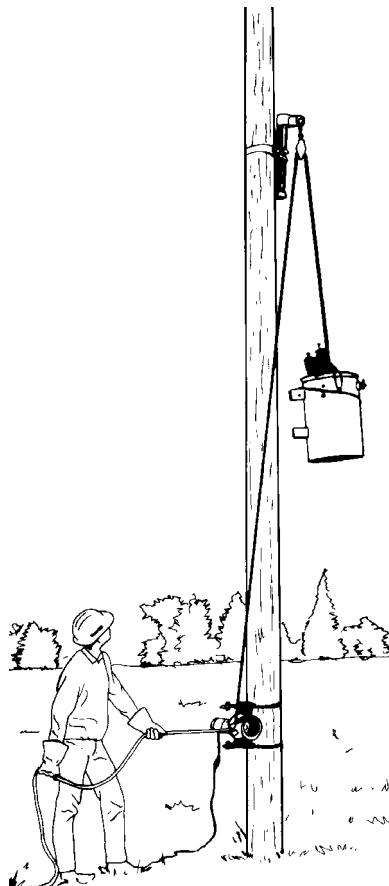
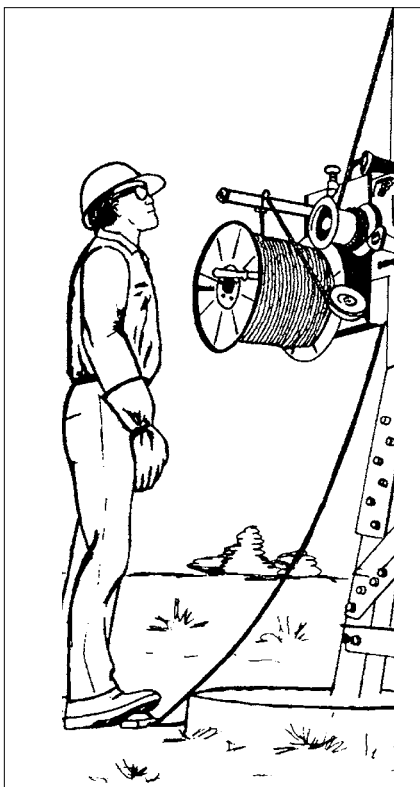
## WARNING: Do not use a capstan hoist to lift persons or loads over persons.

To avoid getting caught in the rope around the capstan drum, keep hands, other body parts and equipment away from the capstan.

Before attempting to lower a load, be certain the rope is wrapped around the capstan drum at least the same number of times as required to lift the load to prevent uncontrollable lowering.

Mount the capstan hoist securely before attempting to use it to move any load.

The equipment covered in this catalog section should be installed, used and serviced only by competent personnel familiar with and following good work and safety practices. This equipment is for use by such personnel and is not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.



**NOTICE: For latest revision of our Catalog and Literature, please visit our web site: [www.hubbellpowersystems.com](http://www.hubbellpowersystems.com)**

NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

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- 1,000-lb. and 3,000-lb. load ratings
- 12V, 115V, 230V, Hydraulic, Gasoline

## Powerful new design for tough jobs

Improved design features a multiple-planetary drive/back-stop-clutch assembled on the center shaft of a steel gearcase with full-length internal teeth. This design handles more rugged jobs, extends service life and reduces maintenance.



**Optional Rope Lock** – At left: Automatically supports load when fall line is released, until operator resumes hoisting. At right: The release lanyard permits lowering or lifting load with precise control over speed and distance.

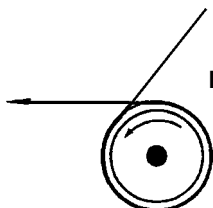
For improved load control, steel capstan drum features nickel-plated rope surface, larger radius at load-line wrap and rope hook/handle. Position fall line so it will not pullover end of drum. If rope comes off end of drum and hook catches it, stop hoist, secure load and correct rope position on drum.

## Versatile to various applications

Lightweight yet powerful, these portable hoists move many heavyweight tasks and can get into remote or difficult-access sites. Examples: Setting utility poles, pulling wheeled equipment over obstacles, raising transformers (even over fences in back lots), hoisting heavy insulators, stringing and tensioning conductors, pulling cable (indoors and underground), cell tower erection.

## Simple technique eases all loads

Graph at right and diagram below show capstan principle in action. Operator effort remains low for typical loads simply by adding wraps on the capstan drum. So little effort is required, any crew member can run the hoist. Control is so

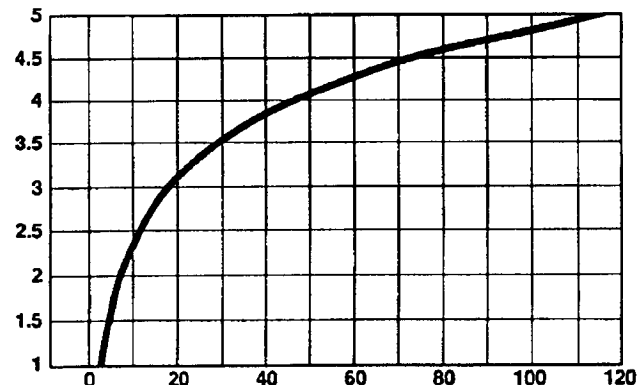


**Example:** 4 wraps of rope = 1:44 ratio. That is, 1 lb. pull on Fall Line develops 44 lb. on Load Line. Therefore, 20 lb. of pull develops 880 lb. of lift.

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3,000-lb. Hoists and Accessories ...	Pages 1157 - 1158

accurate, loads can be moved fractions of an inch. **Note:** Always use at least as many wraps of rope on the drum to lower a load as required to lift that load.

Mechanical Advantage of Series 90 Hoists





# Series 90 Capstan Hoists

# CHANCE®

1153

## • 1,000-lb. load rating

### Electric Drive

#### 12-Volt DC Power Hoist

with 25' #2 Cu Cable, four Terminals, Relay, Foot Switch

Catalog No.	Weight, each
C3081172	56½ lb. (25.7 kg.)

#### 115-Volt AC

includes Power Hoist and Foot Control Switch only

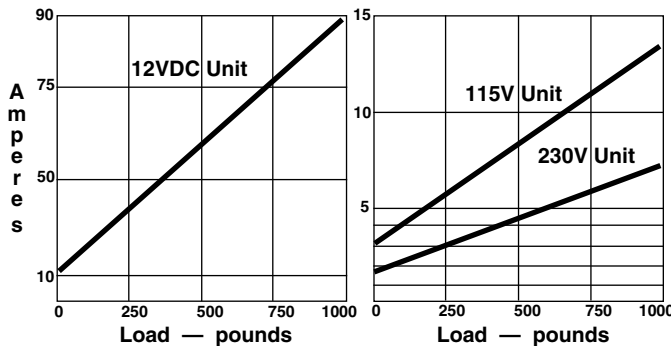
C3081170	49 lb. (22.2 kg.)
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#### 230-Volt AC

includes Power Hoist and Foot Control

C3081171	49½ lb. (22.5 kg.)
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### Electrical source requirements



### Hydraulic Drive

includes Power Hoist only;

To order Foot Control Switch, see next page.

Catalog No.	Weight, each
C3081180	28½ lb. (12.9 kg.)

### Gasoline Drive

includes Power Hoist and Foot Throttle Control only

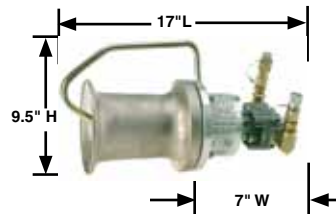
Recommended bracket: C3080925, see next page.

Catalog No.	Weight, each
C3081190	46 lb. (20.9 kg.)

Series 90 Hoist	Rope Speed for 1,000 lb. load	Source Required to meet Rope Speed Rate
12-Volt DC	22 feet per minute	90 amperes motor current
115-Volt AC	40 feet per minute	14 amperes motor current
230-Volt AC	21 feet per minute	7 amperes motor current
Hydraulic	93 feet per minute	8 gal. per min. & 1,000psi
Gasoline	40 feet per minute	Engine speed: 7,000rpm



Four 3/8" mounting bolts furnished with each unit. Mounting flange provides eight 3/8" tapped holes on 5/8" bolt circle.



Hydraulic-drive hoist does not include foot control switch.

Gasoline unit features 35 cubic-centimeter 4-cycle engine.



### Operating speed at full rating

For continuous direct lift or pull at maximum rating (1,000 lb.) with a 20% duty cycle, table at left gives for each power-drive type:

1. Rate of lift or pull (Rope Speed)
2. Power output needed (Source, minimum).

### Recommended rope for capstan hoists

Poly-Dacron or Composite Fiber Braided (consists of polyester fibers) as shown in Chance Catalog Section 1250.

Hoists - Powered - 1150



**Options and Components  
for 1,000-lb.-rated hoists****All-Purpose Bracket** for 1,000-lb. Series 90 hoists

Includes 2 Chain Clamps for poles, angles, beams  
Recommend Universal Bracket below for Gasoline hoist

Catalog No.	Weight, each
C3081335	26.5 lb. (12 kg.)

**Bolt-Down Bracket** for 1,000-lb. Series 90 hoists\*

Same as above, except does not include Chain Clamps

E3081321P	9 lb. (4.09 kg.)
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**Capstan Drum** for 1,000-lb. Series 90 hoists

Replacement, does not include mounting bolt or washer

E3081327P	7 lb. (3.18 kg.)
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**Universal Bracket** recommended for Gasoline 1,000-lb. hoist. Also fits other 1,000-lb. Series 90 and earlier 750-lb. Chance hoists. Bolts down or uses two C4170346 Chain Clamps below for mounting on poles, angles, beams.

C3080925	13 lb. (5.9 kg.)
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**Chain Clamp** for Universal Bracket only

One per Cat. No.; two required for C3080925 Bracket

C4170346	7 <sup>1</sup> / <sub>8</sub> lb. (3.2 kg.)
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1,000-lb. Bolt-Down  
Bracket E3081321P



Chain Clamp  
C4170346  
(Chains are 85" long.)



Universal Bracket  
C3080925  
Recommended  
for Gasoline hoist

**Rope Lock Device C3080856**

Must be ordered as a separate item.

Includes 2 mounting bolts,  
washers & release lanyard. Ac-  
cepts 1/2", 5/8" and 3/4" rope.



Hydraulic  
Foot Control  
C3080685



Chain Clamp E3081334P  
(Chains are 72" long.)

**Chain Clamp**

for Series 90 hoists

One per Cat. No.; for All-Purpose or Bolt-Down Brackets

E3081334P	6 lb. (2.7 kg.)
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**Rope Lock Device**

for Series 90 hoists

Includes mounting bolts and washers

C3080856	2 lb. (0.9 kg.)
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**Foot Controls**

for Series 90 hoists

for 12-Volt DC drive

C4176145	3 <sup>1</sup> / <sub>2</sub> lb. (1.59 kg.)
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for 115- and 230-Volt AC drive

C4170337	4 lb. (1.81 kg.)
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for Hydraulic drive

C3080685	24 lb. (10.9 kg.)
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# Swivel-Base Truck Mount

for 12V, 115V & Hydraulic 1,000-lb. Series 90 Capstan Hoists

## Sets at angles needed for variety of jobs

Turntable design permits proper alignment without repositioning service vehicle. Heavy-gauge steel base bolts direct to truck body wherever convenient.

Bracket can be pinned at every 15° interval around circular base for stringing, tensioning, sagging conductors; pulling in cable; hoisting equipment; setting poles; pulling vehicles.



**Hoists - Powered - 1150**

**⚠ WARNING**

This is not a personnel lifting device. A label on the unit warns against lifting people or loads directly above people.

To store hoist on C-bracket, simply remove four bolts. The C-bracket also can be bolted down for fixed-angle.

## Utilize truck as portable power source

Only 12V, 115V, 230V and Hydraulic 1,000-lb.-rated hoists are recommended for truck mounting. See page 1153 to order.

For transport, hoist can remain mounted.

**Swivel-Base Truck Mount**  
T3081506



**Swivel Base Truck Mount**  
(Assembled Swivel Bracket and C-Bracket at right)

Catalog No.	Weight, each
T3081506	23 lb. (10.35 kg.)

**Swivel Bracket C3080903**



**Swivel Bracket only**

Catalog No.	Weight, each
C3080903	18 lb. (8.1 kg.)

**C-Bracket C3080890**



**C-Bracket only — complete with mounting bolts**

C3080890	5 lb. (2.25 kg.)
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**Weather Shield for 12-Volt DC hoist only**  
complete with band clamp

Catalog No.	Weight, each
C3080909	1 lb. (0.45 kg.)



# Hitch-Receiver Mount for Swivel-Base Mount

for 12V, 115V, 230V & Hydraulic  
1,000-lb. Series 90 Capstan Hoists

**Quick and convenient,  
fits 2"-square towing receivers**

Faster than any other method, this job-ready mount puts a capstan hoist in the right position for pulling, stringing and lifting jobs. With the hoist stored on it, the mount's square tube simply inserts and pins in any 2"-square receiver of a Class III or IV towing hitch. Now capstan hoists can be as universal as this type trailer hitch is to most service vehicles.

## Specially designed for swivel-base mount

The T3080999 Hitch-Receiver Mount features a hole pattern specifically designed to fit Swivel-Base Mount T3081506. For more details, see Catalog page 1155.

The swivel mount's turntable design permits proper alignment without repositioning service vehicle. The swivel mount permits pinning the bracket at every 15° interval around the circular base for stringing, tensioning, sagging conductors; pulling in cable; hoisting equipment; setting poles; pulling vehicles.

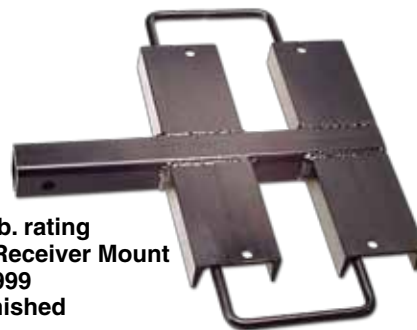
## Rated for truck as portable power source

The Hitch-Receiver Mount is rated at 1,000 lb. to correspond with the ratings of capstan hoists for which it is intended. Only 12V, 115V and Hydraulic 1,000-lb.-rated hoists are recommended for truck mounting; see Catalog page 1153.



All-steel construction features hole pattern to fit Chance Swivel Base Mount as shown above.

For transport and storage, simply remove the Hitch Mount from the receiver, with mounting brackets and hoist attached.



**1,000 lb. rating  
Hitch-Receiver Mount  
T3080999  
as furnished**

Catalog No.	Description	Weight
T3080999	Hitch Mount for Capstan Hoist	21 lb./9.56 kg.

# Material Handler Special-Application Mount

for AC, Hydraulic & Gasoline 1,000-lb. Series 90 Capstan Hoists (order hoists, page 1153)

Where large vehicle-mounted equipment is impractical or cannot go, portable system sets up fast. Lifts tools, apparatus, sets poles, moves materials in warehouse or store yard. Automatically takes up rope on reel, keeps line out of dirt.

Mounts to wood, concrete or steel poles and angle-member structures with one bracket and two chain clamps. Operator can keep all activity in view while controlling lift with tension-adjustment knob and hoist's foot control.

Capstan  
Drum

Snatch  
Block

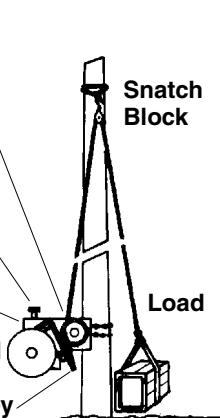
Tension  
Control  
Knob

Level  
Wind  
Guide

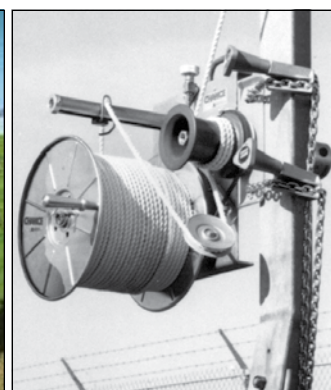
Load

Rope Reel

Idler Pulley



Idler arm stores simply by moving wingbolt to another hole.



## Material Handler chassis only

Catalog No.	Weight, each
C3160760	38 lb. (17.2 kg.)

### Must order separately:

- C3080925 Bracket, for poles, beams or angles (page 1154);
- Two C4170346 Chain Clamps (page 1154);
- Poly-dacron or Polyester Braided Rope (Cat. Sect. 1250);
- C4170343H Take-Up Reel with handle (shown above; Capacity: 600 ft. x 1/2" rope or 1,500 ft. x 3/8"; Weight: 20 lb. / 9 kg.)





# Series 90 Capstan Hoists

• **3,000-lb. load rating**

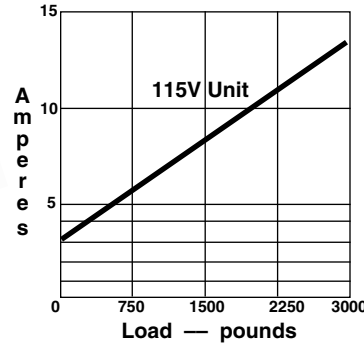


### Electric Drive

#### 115-Volt AC

includes Power Hoist and Foot Control Switch only

Catalog No.	Weight, each
C3081370	58 lb. (26 kg.)



Four 1/2" mounting bolts furnished with each unit. Mounting flange provides eight 1/2" tapped holes on 5/8" bolt circle. Recommended rope for use with capstan hoists are Poly-Dacron or Composite Fiber Braided (consists of polyester fibers) as shown in Chance Catalog Section 1250.

### Hydraulic Drive

includes Power Hoist only;  
To order Foot Control Switch, see page 1158.



Catalog No.	Weight, each
C3081380	44 lb. (20 kg.)

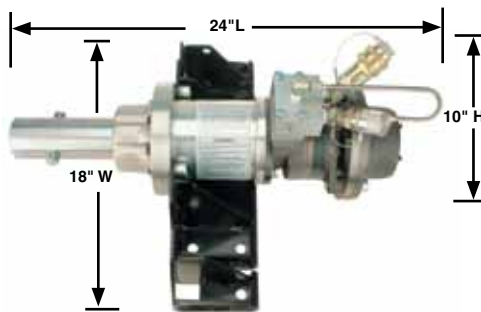
Series 90 3,000-lb. Hoist	Rope Speed for 3,000 lb. load	Source Required to meet Rope Speed Rate
115-Volt AC	40 feet per minute	14 amperes motor current
Hydraulic	30 feet per minute	8 gal. per min. & 1,000psi
Gasoline	11 feet per minute	Engine speed: 7,000rpm

with Bayonet for Collapsible Reel by others or Removable Capstan Drum C4170341 ordered separately, page 1158. Includes Power Hoist only. To order Foot Control Switch, see page 1158.



C3080900	36 lb. (16.4 kg.)
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Reversible with Bayonet for Collapsible Reel by others or Removable Capstan Drum C4170341 ordered separately, page 1158. Includes Power Hoist and Bolt-Down Bracket. To order Foot Control Switch, see page 1158.



C3080940	60 lb. (27.2 kg.)
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### Operating speed at full rating

For continuous direct lift or pull at maximum rating (3,000 lb.) with a 20% duty cycle, table above gives for each power-drive type:

1. Rate of lift or pull (Rope Speed)
2. Power output needed (Source, minimum).

### Recommended rope for capstan hoists

Poly-Dacron or Composite Fiber Braided (consists of polyester fibers) as shown in Chance Catalog Section 1250.

Gasoline unit features 35 cubic-centimeter 4-cycle engine.



### Gasoline Drive

includes Power Hoist and Foot Throttle Control only

Catalog No.	Weight, each
C3081390	58 lb. (26.3 kg.)

**Options and Components  
for 3,000-lb.-rated hoists****All-Purpose Bracket** for 3,000-lb. Series 90 hoists

Includes 2 Chain Clamps for poles, angles, beams

Catalog No.	Weight, each
C3081443	32 lb. (14.5 kg.)

**Bolt-Down Bracket** for 3,000-lb. Series 90 hoists

Same as above, except does not include Chain Clamps

E3081434	14 lb. (6.36 kg.)
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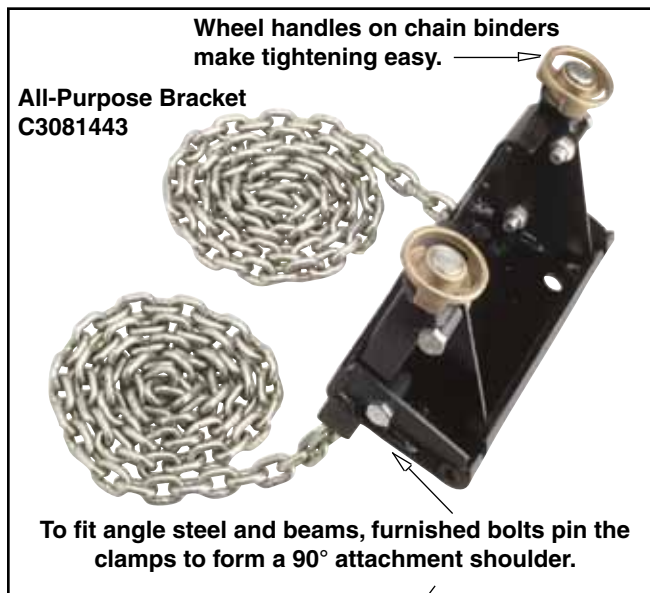
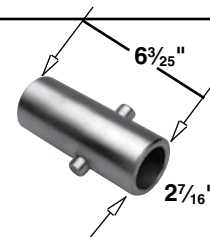
**Capstan Drum** for 3,000-lb. Series 90 hoists

Replacement, does not include mounting bolt or washer

E3081362P	11 lb. (5 kg.)
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3,000-lb.  
Bolt-Down Bracket  
E3081434PRemovable  
Capstan Drum C4170341Chain Clamp E3081334P  
(Chains are 72" long.)**Rope Lock Device C3080856**

Must be ordered as a separate item.

Includes 2 mounting bolts,  
washers & release lanyard.  
Accepts 1/2", 5/8" and 3/4" rope.Hydraulic  
Foot Control  
C3080685**All-Purpose Bracket**  
C3081443**Bayonet Adapter**  
C3080820**Bayonet Adapter** retrofits on 3,000-lb. standard  
Hydraulic hoist for collapsible reel or C4170341 drum

Catalog No.	Weight, each
C3080820	5 lb. (2.2 kg.)

**Capstan Drum** Removable for 3,000-lb. hoist  
w/bayonet; 8 1/2" dia. x 8 1/2" length; on and off w/out tools

C4170341	12 lb. (5.4 kg.)
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**Chain Clamp** for Series 90 hoists

One per Cat. No.; for All-Purpose or Bolt-Down Brackets

E3081334P	6 lb. (2.7 kg.)
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**Rope Lock Device** for Series 90 hoists

Includes mounting bolts and washers

C3080856	2 lb. (0.9 kg.)
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**Foot Controls** for Series 90 hoists  
for 115-Volt AC drive

C4170337	4 lb. (1.81 kg.)
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for Hydraulic drive

C3080685	24 lb. (10.9 kg.)
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