

PARTS LIST SECTION

CARCO MODEL 80-PS, PSM AND PSC WINCH WITH INTERNAL HYDRAULICS FOR KOMATSU D85A-18 AND D85E-18

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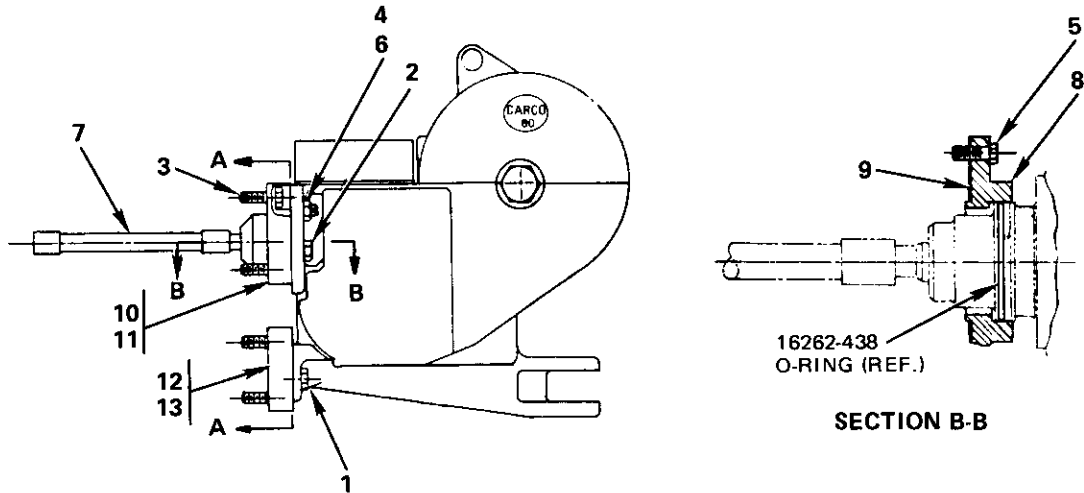
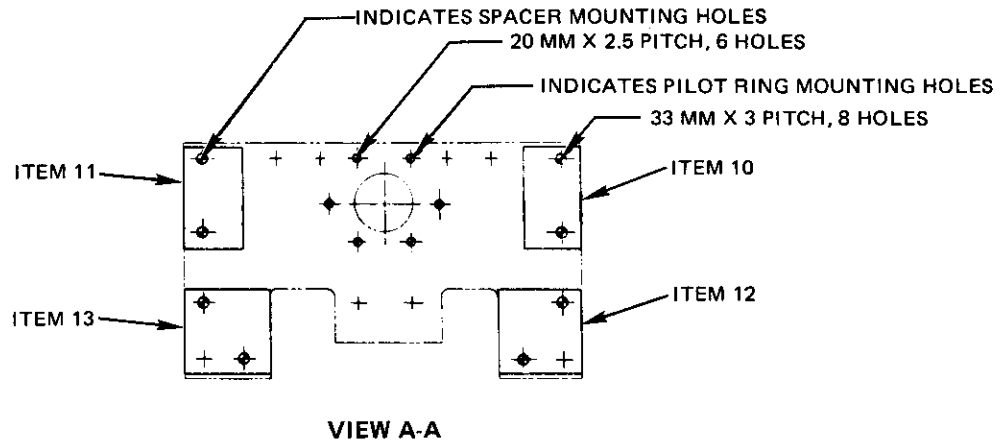
Note: Purchased parts, such as bearings and oil seals may be substituted with parts of equal quality on the manufacturer's recommendation, and with the approval of Pacific Car and Foundry Company.

ATTENTION: Be sure to give correct part number, part name and complete serial number of winch when ordering. Also name and model of the tractor on which the winch is mounted

CARCO
WINCH PRODUCTS

PACIFIC CAR AND FOUNDRY COMPANY • A DIVISION OF **PACCAR**
1400 NORTH FOURTH STREET, RENTON, WASHINGTON 98055 U.S.A.
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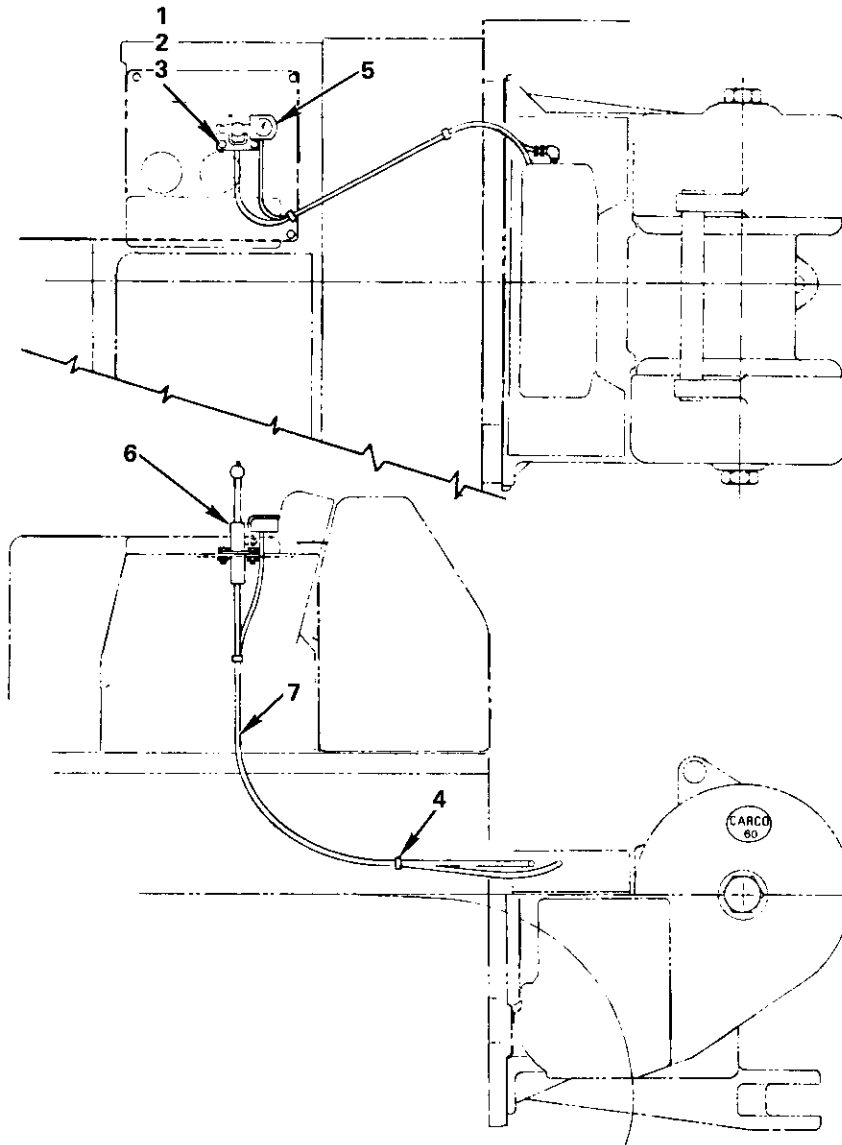
CARCO MODEL 80-PS, PSM & PSC WINCH
 MOUNTING GROUP PARTS LIST—PAGE 3
 KOMATSU D85A-18 AND D85E-18



MOUNTING GROUP NO. 52434

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---------------------------------------|----------------|
| 1 | 16047-2018 | Cap Screw, 1-1/4 UNC x 2-1/4 H.H. | 4 |
| 2 | 16047-2022 | Cap Screw, 1-1/4 UNC x 2-3/4 H.H. | 2 |
| 3 | 16275-15 | Bolt, KOMATSU 01010-63370 | 8 |
| 4 | 16400-20 | Nut, 1-1/4 UNC Hex | 2 |
| 5 | 16425-9 | Cap Screw, METRIC M20 x 2.5 x 50 H.H. | 6 |
| 6 | 45050-2032 | Stud | 2 |
| 7 | 45764-4 | PTO Shaft Assembly | 1 |
| 8 | 47732 | Pilot Ring | 1 |
| 9 | 47744 | Pilot Ring Gasket | 1 |
| 10 | 50641 | Upper Right Hand Spacer | 1 |
| 11 | 50642 | Upper Left Hand Spacer | 1 |
| 12 | 50643 | Lower Right Hand Spacer | 1 |
| 13 | 50644 | Lower Left Hand Spacer | 1 |

CARCO MODEL 80-PS WINCH
 CONTROL GROUP PARTS LIST—PAGE 4
 KOMATSU D85A-18 AND D85E-18

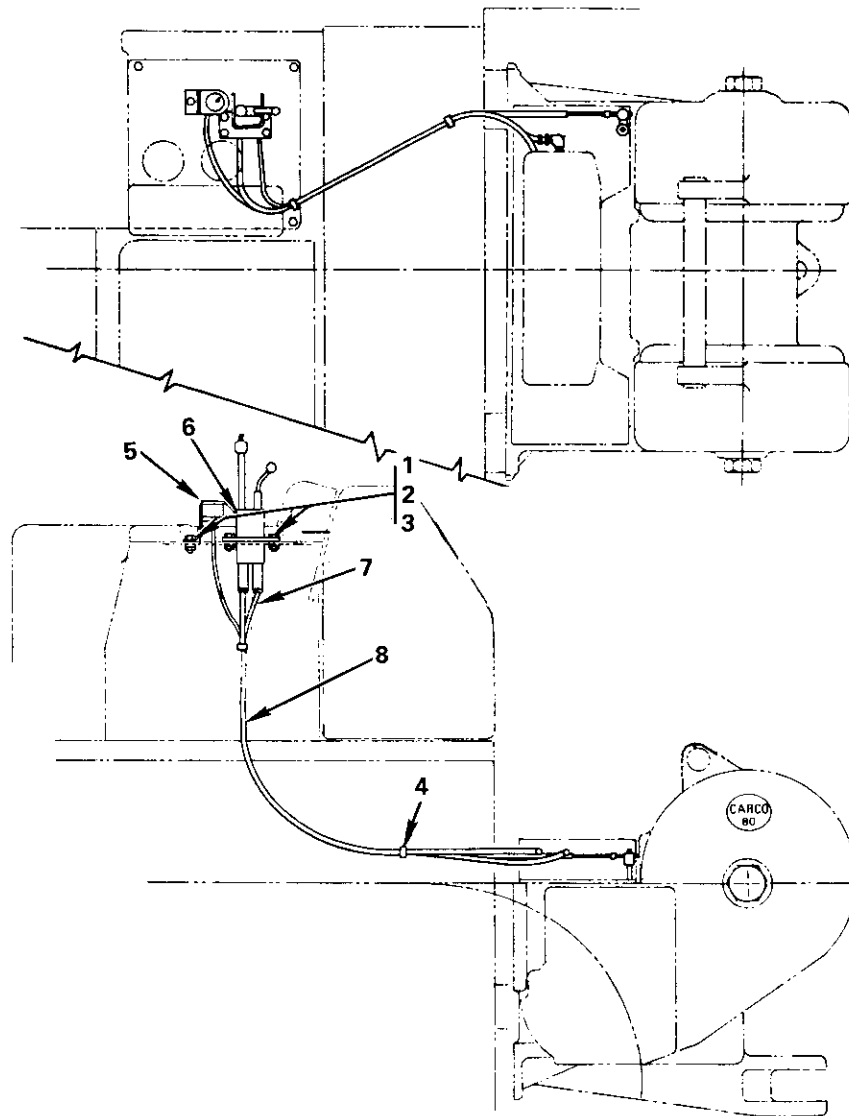


CONTROL GROUP (P.S. WITHOUT FREE SPOOL) NO. 52753

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|----------------------------------|----------------|
| 1 | 16033-6 | Nut, 3/8 UNC Hex | 4 |
| 2 | 16047-610 | Cap Screw, 3/8 UNC x 1-1/4 H.H. | 4 |
| 3 | 16067-6 | Lock Washer, 3/8 | 4 |
| 4 | 16459-1 | Retaining Strap, ADEL 668-4-8-DR | 2 |
| 5 | 48700-120 | Pressure Gauge Kit | 1 |
| 6 | 49001-3 | Control Stand, Power Shift | 1 |
| 7 | 52000-078 | Control Cable, Power Shift | 1 |

NOTE See page 28 for brake control group.

CARCO MODEL 80-PS WINCH
 CONTROL GROUP PARTS LIST—PAGE 5
 KOMATSU D85A-18 AND D85E-18

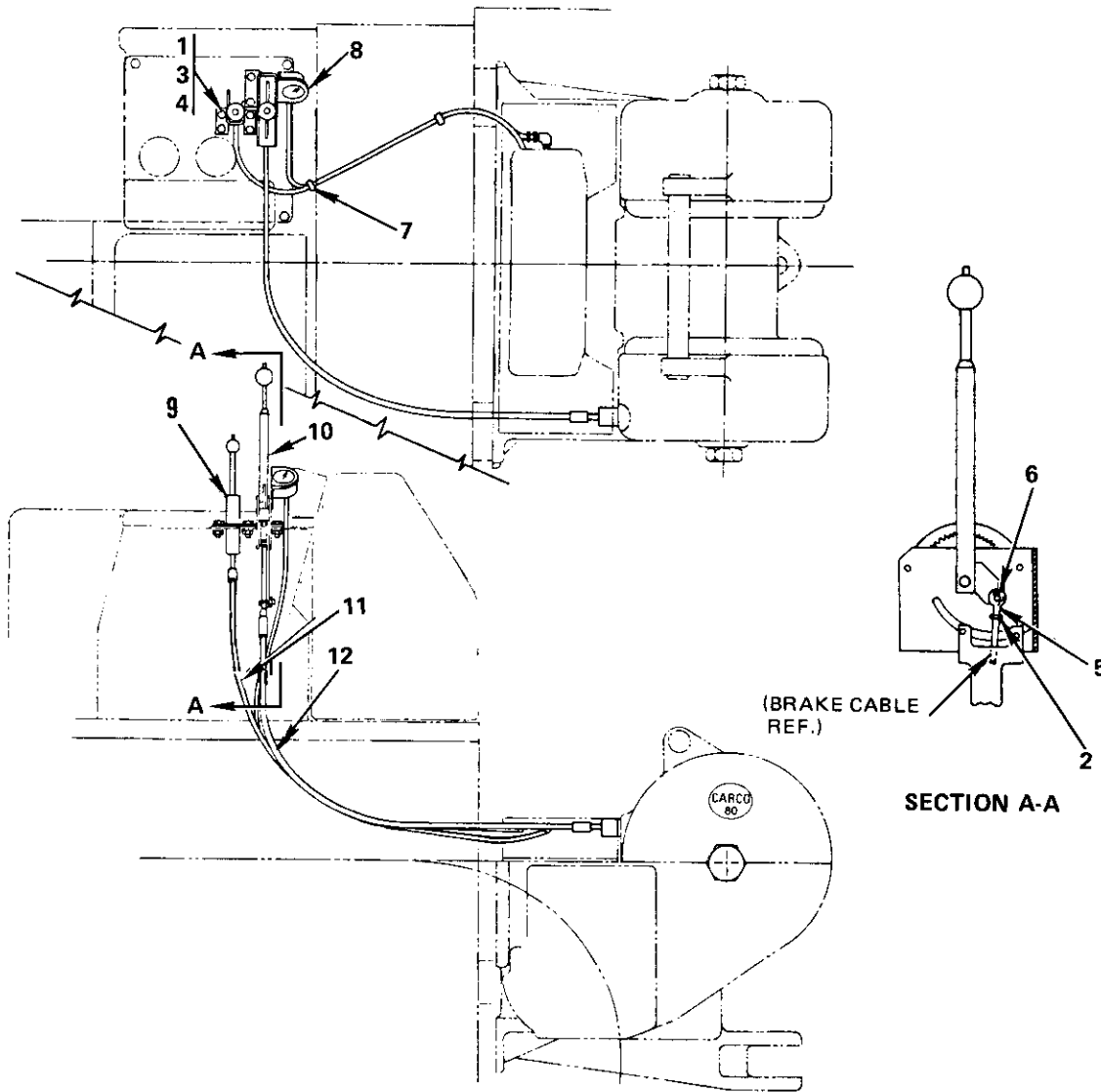


CONTROL GROUP (P.S. WITH FREE SPOOL) NO. 52754

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---|----------------------|
| 1 | 16033-6 | Nut, 3/8 UNC Hex | 5 |
| 2 | 16047-610 | Cap Screw, 3/8 UNC x 1-1/4 H.H. | 5 |
| 3 | 16067-6 | Lock Washer, 3/8 | 5 |
| 4 | 16459-1 | Retaining Strap, ADEL 4-8-DR | 2 |
| 5 | 48944-120 | Pressure Gauge Kit | 1 |
| 6 | 49805-6 | Control Stand, Power Shift and Free Spool | 1 |
| 7 | 52000-084 | Control Cable, Free Spool | 1 |
| 8 | 52000-078 | Control Cable, Power Shift | 1 |

NOTE: See page 28 for brake control group.

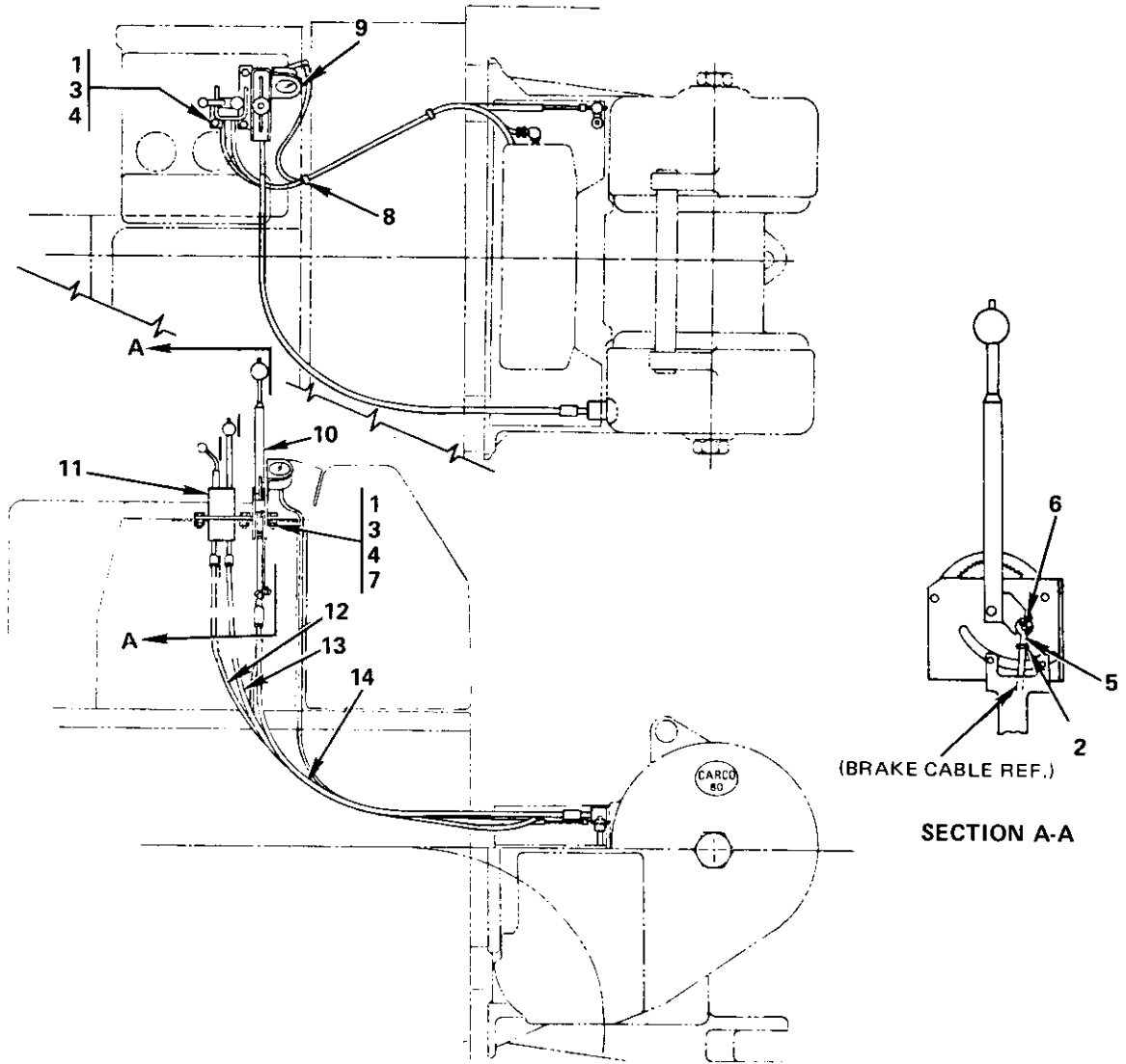
CARCO MODEL 80-PSM & PSC WINCH
 CONTROL GROUP PARTS LIST—PAGE 6
 KOMATSU D85A-18 AND D85E-18



CONTROL GROUP (PSM AND PSC WITHOUT FREE SPOOL) NO. 52755

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|-------------------------------------|----------------|
| 1 | 16033-6 | Nut, 3/8 UNC Hex | 8 |
| 2 | 16044-6 | Jam Nut, 3/8 UNF Hex | 1 |
| 3 | 16047-610 | Cap Screw, 3/8 UNC x 1-1/4 H.H. | 8 |
| 4 | 16067-6 | Lock Washer, 3/8 | 8 |
| 5 | 16245-6 | Yoke, CLEVELAND 2708-4A | 1 |
| 6 | 16246-6 | Pin Assembly, CLEVELAND 2708-1/2-4A | 1 |
| 7 | 16459-1 | Retaining Strap, ADEL 668-4-8-DR | 1 |
| 8 | 48700-120 | Pressure Gauge Kit | 1 |
| 9 | 49001-3 | Control Stand, Power Shift | 1 |
| 10 | 49434-7 | Control Stand, Brake | 1 |
| 11 | 52000-078 | Control Cable, Power Shift | 1 |
| 12 | 48850-102 | Control Cable, Brake | 1 |

NOTE: See page 29 for brake control group.



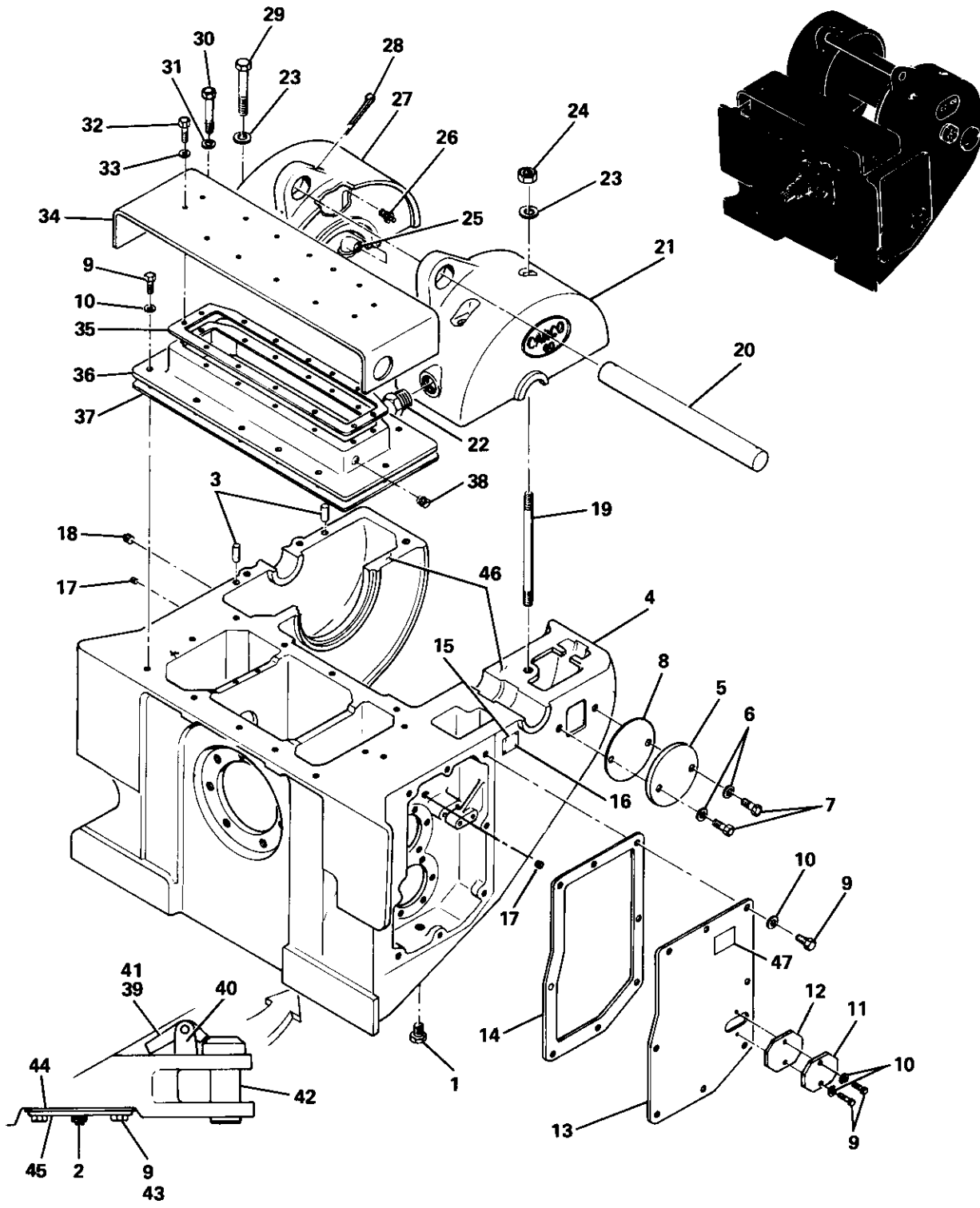
CONTROL GROUP (PSM & PSC WITH FREE SPOOL) NO. 52756

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---|----------------|
| 1 | 16033-6 | Nut, 3/8 UNC Hex | 8 |
| 2 | 16044-6 | Jam Nut, 3/8 UNF Hex | 1 |
| 3 | 16047-610 | Cap Screw, 3/8 UNC x 1-1/4 H.H. | 8 |
| 4 | 16067-6 | Lock Washer, 3/8 | 8 |
| 5 | 16245-6 | Yoke, CLEVELAND 2708-4A | 1 |
| 6 | 16246-6 | Pin Assembly, CLEVELAND 2708-1/2-4A | 1 |
| 7 | 16348-9 | Washer, CARRLANE CL-9-FW | 4 |
| 8 | 16459-1 | Retaining Strap, ADEL 668-4-8-DR | 1 |
| 9 | 48700-120 | Pressure Gauge Kit | 1 |
| 10 | 49434-7 | Control Stand, Brake | 1 |
| 11 | 49805-5 | Control Stand, Power Shift and Free Spool | 1 |
| 12 | 52000-084 | Control Cable, Free Spool | 1 |
| 13 | 52000-078 | Control Cable, Power Shift | 1 |
| 14 | 48850-102 | Control Cable, Brake | 1 |

NOTE: See page 29 for brake control group.

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 8
 WINCH CASE

1



WINCH CASE

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 9
 WINCH CASE

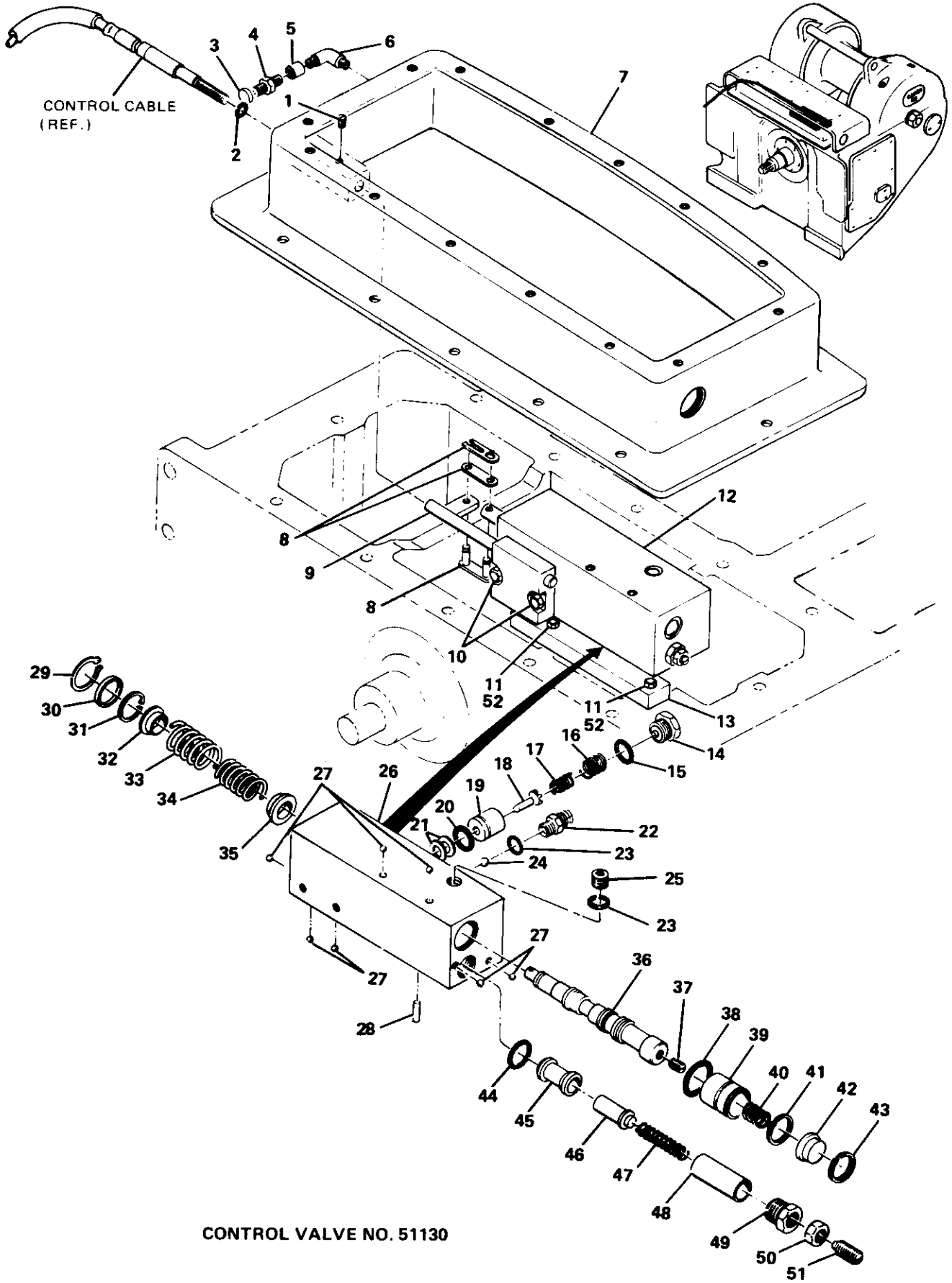
| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|--------|----------------|--|----------------------|
| 1 | 16169-8 | Plug, 1/2 NPT Sq. Hd. | 1 |
| 2 | 16168-16 | Plug, 1 NPTF Mag. Sq. Hd. | 1 |
| 3 | 16290-2016 | Dowel Pin, 5/8 x 1 | 2 |
| * 4 | 51902 | Case Complete (includes items 12 and 14) | 1 |
| 5 | 42048 | Cover | 1 |
| 6 | 16064-10 | Washer, 5/8 | 1 |
| 7 | 16047-1008 | Cap Screw, 5/8 UNC x 1 H.H. | 2 |
| 8 | 44833 | Gasket | 1 |
| 9 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 25 |
| 10 | 16064-8 | Washer, 1/2" | 25 |
| 11 | 44810 | Cover | 1 |
| 12 | 44814 | Gasket | 1 |
| 13 | 52686-1 | Brake Side Cover | 1 |
| ** 14 | See Below | Gasket (See note below) | 1 |
| 15 | 52126 | Name Plate | 1 |
| 16 | 16055-5 | Drive Screw, #10 x 3/8 Type U | 1 |
| 17 | 16167-6 | Plug, 3/8 NPT Hex Soc. | 2 |
| 18 | 16169-20 | Plug, 1-1/4 NPT Sq. Hd. | 1 |
| 19 | 45050-1856 | Stud | 2 |
| 20 | 49043-2 | Cable Guard (includes item 28) | 1 |
| * 21 | 44148 | Brake Case Cover | 1 |
| 22 | 16220-38 | Plug, WHITE 1604-136-Y | 1 |
| 23 | 16064-18 | Washer, 1-1/8 | 4 |
| 24 | 16033-18 | Nut, 1-1/8 UNC Hex | 1 |
| 25 | 16150-2 | Elbow, 1/8 NPT 90° Street | 1 |
| 26 | 16249-1 | Relief Plug, ALEMITE 317400 | 1 |
| * 27 | 44147 | Gear Case Cover | 1 |
| 28 | 16288-1272 | Cotter Pin, 3/8 x 4-1/2 | 1 |
| 29 | 16047-1834 | Cap Screw, 1-1/8 UNC x 4-1/2 H.H. | 2 |
| 30 | 16047-1232 | Cap Screw, 3/4 UNC x 4 H.H. | 4 |
| 31 | 16064-12 | Washer, 3/4 | 4 |
| 32 | 16047-608 | Cap Screw, 3/8 UNC x 1 H.H. | 14 |
| 33 | 16064-6 | Washer, 3/8 | 14 |
| 34 | 51166 | Valve Housing Cover | 1 |
| 35 | 51535 | Gasket | 1 |
| 36 | Ref. Only | Housing (see page 10 item 7) | 1 |
| 37 | 51145 | Gasket | 1 |
| 38 | 16525-0024 | Pipe Plug, HITACHI, 81-40576 Sq. Hd. Slotted | 1 |
| 39 | 16246-8 | Yoke Pin Assembly, CLEVELAND 2708½-6A | 1 |
| 40 | 52084 | Support Bracket | 1 |
| 41 | 52085 | Latch | 1 |
| 42 | 52037 | Drawbar Pin | 1 |
| 43 | 16067-8 | Lock Washer, 1/2 | 14 |
| 44 | 51949 | Filter Cover Gasket | 1 |
| 45 | 51950 | Filter Cover | 1 |
| ** 46 | 16453-5 | Sealant (not shown) DOW-CORNING Silastic No. 732 RTV 5 oz. tube | 1 |
| *** 47 | See Below | Name Plate | 1 |

* Items 4, 21 and 27 cannot be ordered separately

** Model 80 winches do not use a gasket. Use Silastic Sealer, Item 46 or equivalent to seal items 13, 21 and 27 to case.

*** { 49044 Instruction Plate for PS Winch.
 48684 Instruction Plate for PSM & PSC Winch.

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 10
 CONTROL VALVE



2690-B-8-1-79
 SUPERSEDES
 2690-B-6-1-79

CARCO MODEL 80-PS, PSM & PSC WINCH
PARTS LIST SECTION—PAGE 11
CONTROL VALVE

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---|----------------------|
| 1 | 16056-612 | Set Screw, 3/8 UNC x 3/4 Hex Soc. Cup Pt. | 1 |
| 2 | 16262-115 | O-Ring, NAT'L. 622713 | 1 |
| 3 | 16445-4 | Cap Nut, AEROQUIP 21029-4 | 1 |
| 4 | 16129-44 | Connector, WTHRD. C5205 x 4 x 4 | 1 |
| 5 | 16362-44 | Snubber, CHEMIQUIP 25B-D | 1 |
| 6 | 16171-44 | Elbow, WTHRD. 3400 x 4 | 1 |
| 7 | 51125-080 | Valve Housing | 1 |
| 8 | 16364-2040 | Connecting Link, ANSI 2040 | 1 |
| 9 | 51865 | Cable Guide | 1 |
| 10 | 16047-610 | Cap Screw, 3/8 UNC x 1-1/4 H.H. | 2 |
| 11 | 16047-612 | Cap Screw, 3/8 UNC x 1-1/2 H.H. | 2 |
| 12 | 51130 | Control Valve | 1 |
| 13 | 51698-1 | Support Assembly | 1 |
| 14 | 51883-1 | Retainer Assembly | 1 |
| 15 | 16262-912 | O-Ring, NAT'L. 600501 | 1 |
| 16 | 51894 | Spring | 1 |
| 17 | 52392 | Spring | 1 |
| 18 | 51164 | Accumulator Check Piston | 1 |
| 19 | 51886 | Seat | 1 |
| 20 | 16262-116 | O-Ring, NAT'L. 622714 | 1 |
| 21 | 51881-10 | Shim Set | 1 |
| 22 | 52289 | Connector (Also shown on page 13) | 1 |
| 23 | 16262-908 | O-Ring, NAT'L. 600503 (Also shown on page 13) | 2 |
| 24 | 16471-8 | Ball Check, Nylon Type 101 (Shown on page 13) | 1 |
| 25 | 16496-8 | Plug, PARKER 8HP50N-2 | 1 |
| * | 26 | Valve Body | 1 |
| | 27 | Steel Ball, 1/2 | 7 |
| | 28 | Dowel Pin, 1/4 x 7/8 | 1 |
| | 29 | Retaining Ring, TRUARC N5000-150 | 1 |
| | 30 | Washer | 1 |
| | 31 | Retaining Ring, TRUARC 5100-75 | 1 |
| | 32 | Spring Stop | 1 |
| | 33 | Outer Spring | 1 |
| | 34 | Inner Spring | 1 |
| | 35 | Spring Stop | 1 |
| * | 36 | Valve Spool (See note and kit No. below) | 1 |
| | 37 | Set Screw, 3/8 UNF x 1/2 Hex Soc. Cup Pt. | 1 |
| | 38 | O-Ring, NAT'L. 622720 | 1 |
| * | 39 | Piston (See note and kit No. below) | 1 |
| | 40 | Spring | 1 |
| | 41 | Retaining Ring, SPIROLOX RS-131 | 1 |
| | 42 | Spring Stop | 1 |
| | 43 | Retaining Ring, SPIROLOX RR-157 | 1 |
| | 44 | O-Ring, NAT'L. 622715 | 1 |
| ** | 45 | Relief Valve Seat | 1 |
| ** | 46 | Relief Valve Piston | 1 |
| | 47 | Spring, LEMPCO 9-1016-2 | 1 |
| ** | 48 | Relief Valve Tube | 1 |
| | 49 | Retaining Screw | 1 |
| | 50 | Jam Nut, 3/4 UNF Hex | 1 |
| | 51 | Adjusting Screw | 1 |
| | 52 | Washer, 3/8 | 2 |

*Items 26, 36 and 39 not serviced separately. Order 51130 Control Valve.

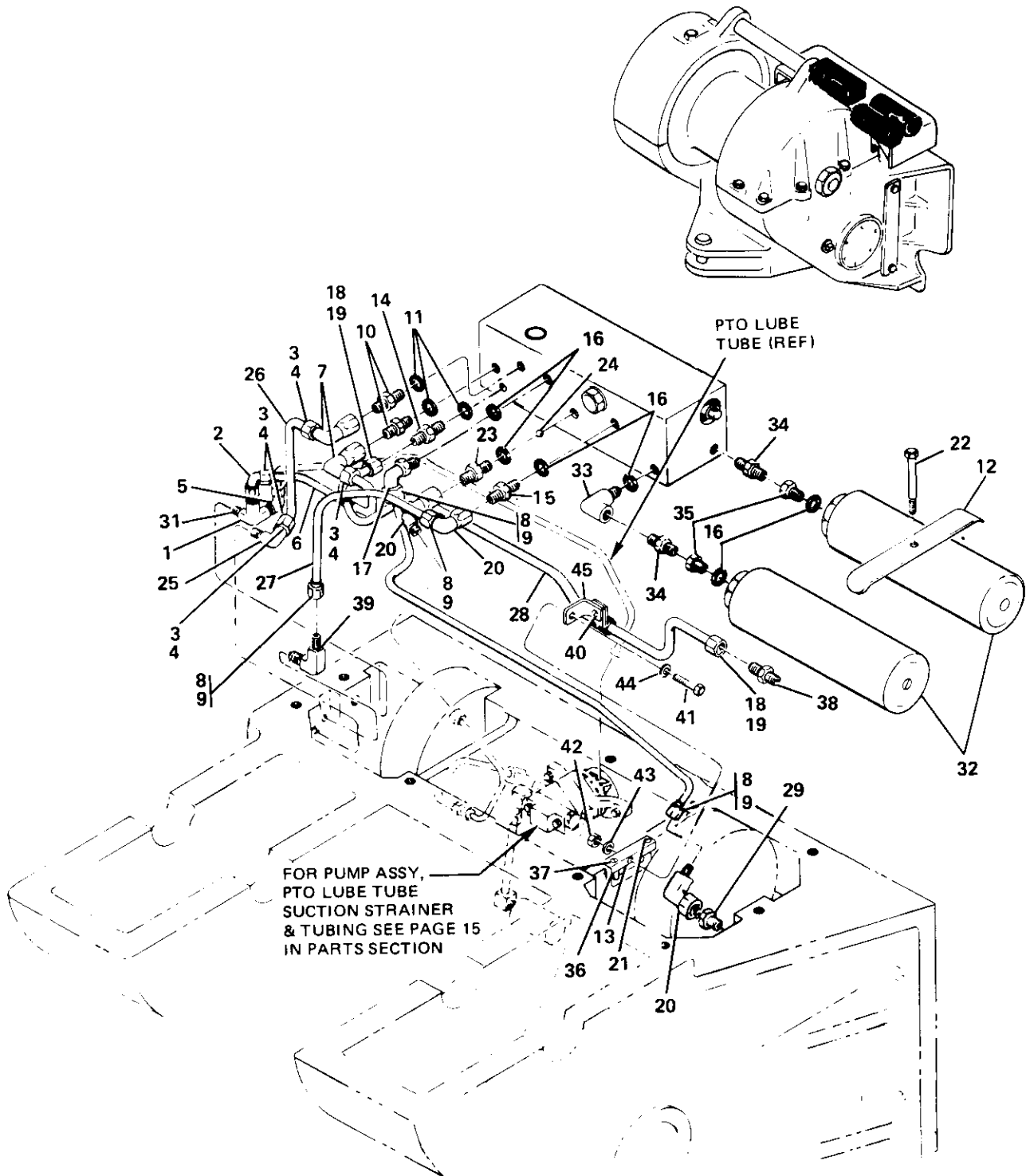
**Available in kit only. See No. 52652 kit below.

NOTE: To service valve spool, order repair kit No. 52651 consisting of items 24, 29, 31, 33, 34, 37, 38, 40, 41 and 43.

To service relief valve, order repair kit No. 52652 consisting of items 44, 45, 46, 47 and 48.

To service accumulator check valve, order repair kit No. 52653 consisting of items 15, 16, 17, 18, 19, 20 and 21.

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 12
 HYDRAULIC TUBING & FITTINGS



NOTE: PUMP MOUNTED ON BRAKE SIDE, NO. 51926-3.
 BEVEL GEAR INSTALLED ON GEAR SIDE OF BEVEL PINION.
 BEVEL PINION ROTATION IS C.C.W. AS VIEWED FROM REAR
 OF TRACTOR.

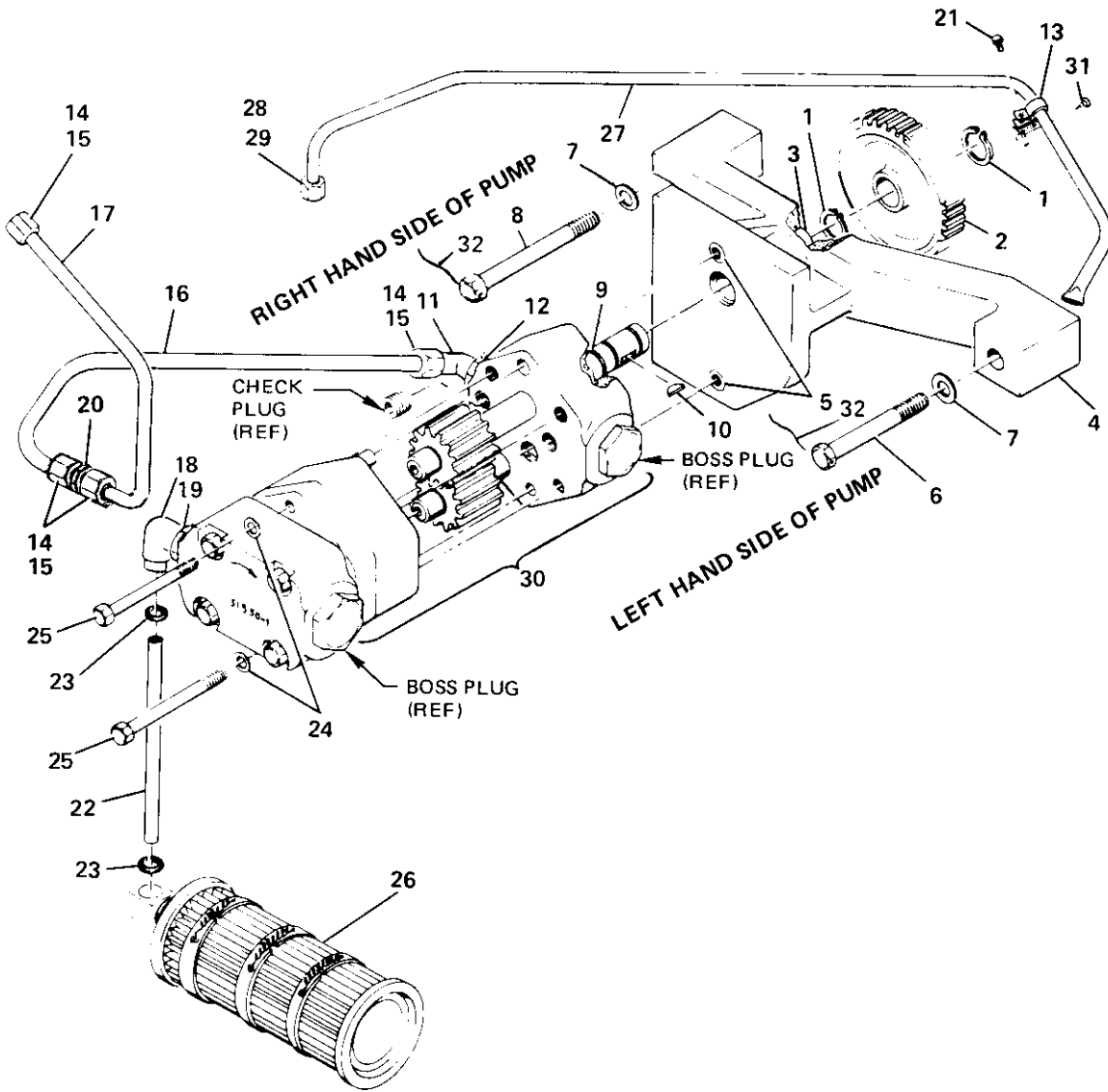
HYDRAULIC TUBING AND FITTINGS NO. 51336

CARCO MODEL 80-PS, PSM & PSC WINCH
PARTS LIST SECTION—PAGE 13
HYDRAULIC TUBING & FITTINGS

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|--|----------------------|
| 1 | 16497-0004 | Elbow, GRINELL 1109 | 1 |
| 2 | 16137-0064 | Elbow, WTHRD. 7405 x 6 | 1 |
| 3 | 16521-6 | Nut, PARKER BU6 | 4 |
| 4 | 16522-6 | Sleeve, PARKER TU6 | 4 |
| 5 | 16137-44 | Elbow, WTHRD. 7405 x 4 x 4 | 1 |
| 6 | 51957-05 | Brake Return Tube | 1 |
| 7 | 16485-0006 | Elbow, WTHRD. 7506 x 6 | 2 |
| 8 | 16521-8 | Nut, PARKER BU8 | 4 |
| 9 | 16522-8 | Sleeve, PARKER TU8 | 4 |
| 10 | 16481-0006 | Connector, WTHRD. 7315 x 6 | 2 |
| 11 | 16262-906 | O-Rings, NAT'L. 600593 | 3 |
| 12 | 51869 | Clamp | 1 |
| 13 | 51868 | Plate | 1 |
| 14 | 16481-0046 | Connector, WTHRD. 7315 x 4 x 6 | 1 |
| 15 | 16481-8 | Connector, WTHRD. 7315 x 8 | 1 |
| * 16 | 16262-908 | O-Ring, NAT'L. 600503 | 6 |
| 17 | 16476-8 | Elbow, 7515 x 8 | 1 |
| 18 | 16521-4 | Nut, PARKER BU4 | 2 |
| 19 | 16522-4 | Sleeve, PARKER TU4 | 2 |
| 20 | 16485-0008 | Elbow, WTHRD. 7506 x 8 | 3 |
| 21 | 16047-407 | Cap Screw, 1/4 UNC x 7/8 H.H. | 1 |
| 22 | 16357-0820 | Shoulder Screw, 3/8 UNC x 2-1/2 Hex Soc. Hd. | 1 |
| * 23 | 52289 | Connector | 1 |
| * 24 | 16471-8 | Ball Check, Nylon Type 101 | 1 |
| 25 | 16137-0066 | Elbow, WTHRD. 7405 x 6 x 6 | 1 |
| 26 | 51957-02 | Brake Pressure Tube | 1 |
| 27 | 51958-08 | Forward Clutch Tube | 1 |
| 28 | 51956-01 | Pressure Gauge Tube | 1 |
| 29 | 16482-0086 | Connector, WTHRD. 7205 x 8 | 1 |
| 30 | 51958-11 | Reverse Clutch Tube | 1 |
| 31 | 16158-412 | Nipple, 1/4 NPT x 1-1/2 | 1 |
| 32 | 16475-2 | Accumulator, GREER 5-30RSC-S-1/2 | 2 |
| 33 | 16498-0086 | Elbow, WTHRD. C3459 x 8 | 1 |
| 34 | 16160-06 | Nipple, WTHRD. C3069 x 6 | 2 |
| 35 | 16114-0086 | Adapter, WTHRD. C3269 x 8 x 6 | 2 |
| 36 | 46126-407 | Spacer | 1 |
| 37 | 16047-414 | Cap Screw, 1/4 UNC x 1-3/4 H.H. | 1 |
| 38 | 16482-0044 | Connector, WTHRD. 7205 x 4 x 4 | 1 |
| 39 | 16137-0086 | Elbow, WTHRD. 7405 x 8 | 1 |
| 40 | 16021-3 | Machine Screw, 10-24 UNC x 5/8 Rd. Hd. | 1 |
| 41 | 16021-12 | Machine Screw, 10-24 UNC x 1-1/2 Rd. Hd. | 1 |
| 42 | 16033-1024 | Nut, 10-24 UNC Hex | 1 |
| 43 | 16069-3 | Star Washer, #10 Ext. Tooth | 1 |
| 44 | 16077-3 | Washer, 3/16 | 1 |
| 45 | 16520-01 | Swivel Clamp, ADEL 1789-X44 | 1 |

*These items also shown with control valve, page 11.

CARCO MODEL 80-PS, PSM & PSC WINCH
PARTS LIST SECTION—PAGE 14
PUMP GROUP



NOTE: ROTATION C.C.W. AS VIEWED FROM SHAFT END OF PUMP.
PORT LOCATIONS, RIGHT HAND SIDE.
CHECK PLUG AND END CAP LOCATION, RIGHT HAND SIDE.
BEVEL GEAR INSTALLED ON GEAR SIDE OF BEVEL PINION.

PUMP GROUP NO. 51926-3

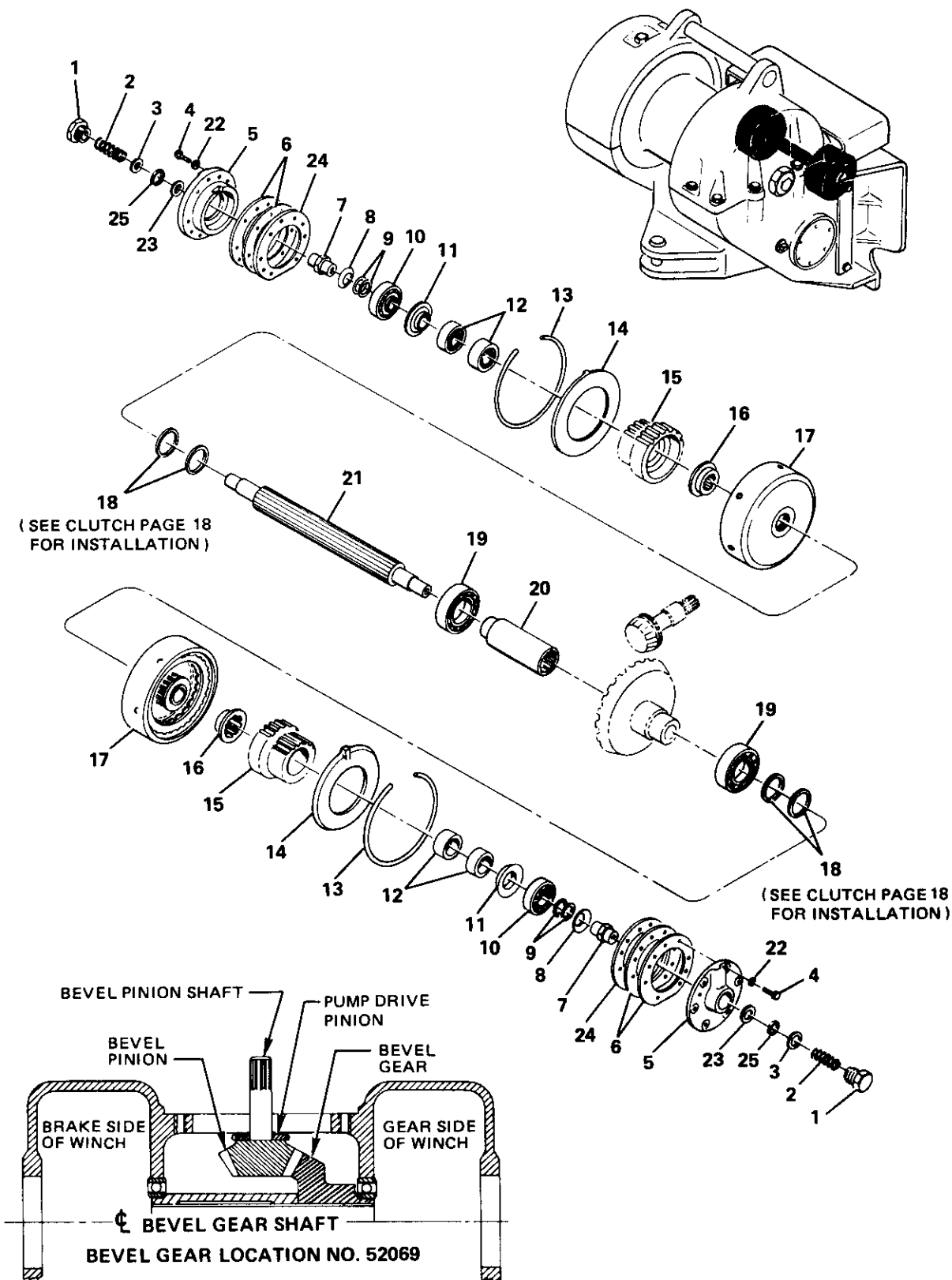
CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 15
 PUMP GROUP

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|-------|----------------|---|----------------------|
| 1 | 16313-62 | Retaining Ring, TRUARC 5100-62 | 2 |
| 2 | 51056 | Gear | 1 |
| 3 | 15305 | Needle Bearing | 1 |
| * 4 | 51525-1 | Mount Assembly (Includes Items 3 and 5) | 1 |
| 5 | 16507-0003 | Threaded Insert | 2 |
| 6 | 16024-15 | Cap Screw, 3/8 UNC x 1-3/4 Dr. Hd. | 1 |
| 7 | 16348-1 | Washer, CARR LANE CL-1-FW | 2 |
| 8 | 16024-16 | Cap Screw, 3/8 UNC x 2-1/4 Dr. Hd. | 1 |
| 9 | 16284-95 | Pump Shaft Seal, WEBSTER 151-35818 | 1 |
| 10 | 16226-7 | Key, WOODRUFF No. 3, 1/8 x 1/2 | 1 |
| 11 | 16476-8 | Elbow, WTHRD. 7515 x 8 | 1 |
| 12 | 16262-908 | O-Ring, NAT'L. 600503 | 1 |
| 13 | 16520-01 | Swivel Clamp, ADEL 1789-X4-4 | 1 |
| 14 | 16521-8 | Nut, PARKER BU8 | 4 |
| 15 | 16522-8 | Sleeve, PARKER TU8 | 4 |
| 16 | 51958-14 | Pump Tube | 1 |
| 17 | 51958-04 | Pressure Tube | 1 |
| 18 | 16474-12 | Elbow, LENZ A-405-12 | 1 |
| 19 | 16262-912 | O-Ring, NAT'L. 600501 | 1 |
| 20 | 16511-08 | Union, WTHRD. 7305 x 8 | 1 |
| 21 | 16021-3 | Screw, 10-24 UNC x 5/8 Rd. Hd. | 1 |
| 22 | 51959-54 | Suction Tube | 1 |
| 23 | 16262-116 | O-Ring, NAT'L. 622714 | 2 |
| 24 | 16069-4 | Lock Washer, 1/4 Ext. Tooth | 2 |
| 25 | 16047-428 | Cap Screw, 1/4 UNC x 3-1/2 H.H. | 2 |
| 26 | 16473 | Filter, MARVEL 620-5-M-200 | 1 |
| 27 | 51956-09 | PTO Lube Tube | 1 |
| 28 | 16521-4 | Nut, PARKER BU4 | 1 |
| 29 | 16522-4 | Sleeve, PARKER TU4 | 1 |
| ** 30 | 51530-1 | Pump (See Below) | 1 |
| 31 | 16055-12 | Tapping Screw, 1/4 x 3/4 Type F Fl. Hd. | 1 |
| 32 | 48125-2 | Wire, 16 Ga. x 18" | 1 |

*Item 4 is part of 51529-3 pump assembly.

**No pump parts other than items 9 and 10 are serviceable items. Order 51530-1 pump.

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 16
 BEVEL GEAR SHAFT

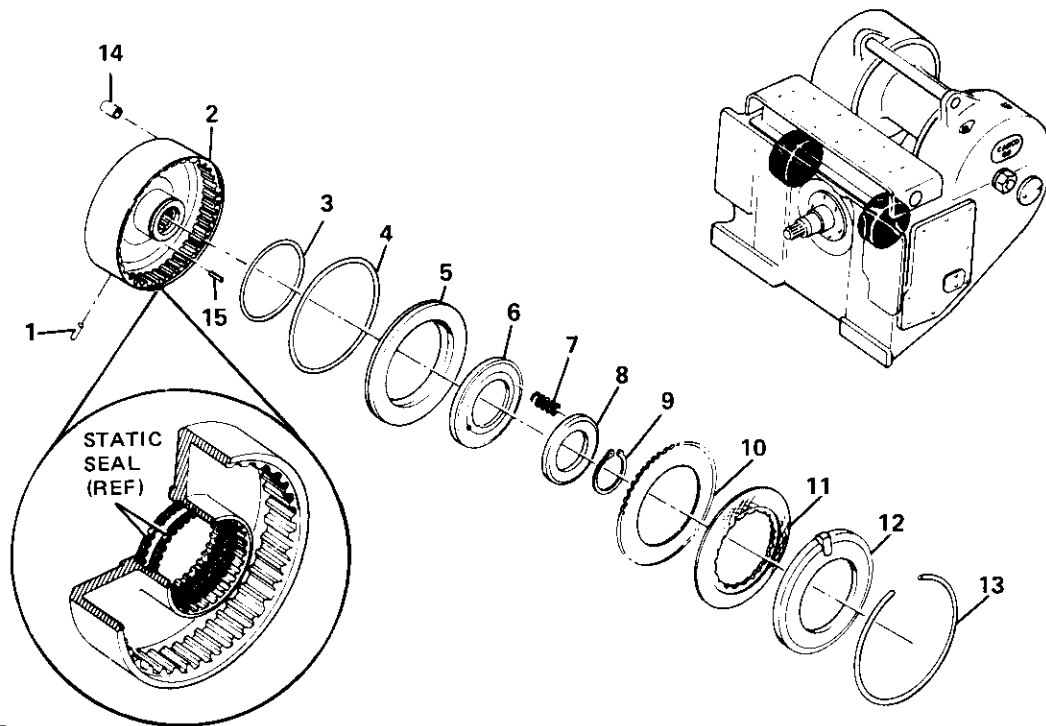


BEVEL GEAR SHAFT GROUP NO. 52188

CARCO MODEL 80-PS, PSM & PSC WINCH
PARTS LIST SECTION—PAGE 17
BEVEL GEAR SHAFT

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---|----------------------|
| 1 | 16166-20 | Plug, PARKER 05P0-20 | 2 |
| 2 | 44753 | Spring | 2 |
| 3 | 44949 | Seal (includes item 25) | 2 |
| 4 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 12 |
| 5 | 44165 | Retainer | 2 |
| 6 | 44185 | Shim Set | 2 |
| 7 | 41742 | Shaft | 2 |
| 8 | 44198 | Clamp Ring | 2 |
| 9 | 44336 | Shim Set | 2 |
| 10 | {15150 | Bearing Cup | 2 |
| | {15152 | Bearing Cone | 2 |
| 11 | 44851 | Thrust Washer | 2 |
| 12 | 15254 | Bearing Set (Matched) | 2 |
| 13 | 44173 | Retaining Ring | 2 |
| 14 | 44858 | Retaining Ring | 2 |
| 15 | 48861 | Pinion | 2 |
| 16 | 44825 | Thrust Washer | 2 |
| 17 | 51273-1 | Clutch (See Page 18 for clutch parts, includes items 13 and 14.) | 2 |
| 18 | 44167 | Static Seal | 4 |
| 19 | 15037 | Ball Bearing | 2 |
| 20 | 44245 | Spacer | 1 |
| 21 | 44164 | Shaft | 1 |
| 22 | 16064-8 | Washer, 1/2 | 12 |
| 23 | 44940 | Washer | 2 |
| 24 | 44185-4 | Gasket | 2 |
| 25 | 16262-121 | O-Ring, NAT'L. 610067 | 2 |

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 18
 CLUTCH

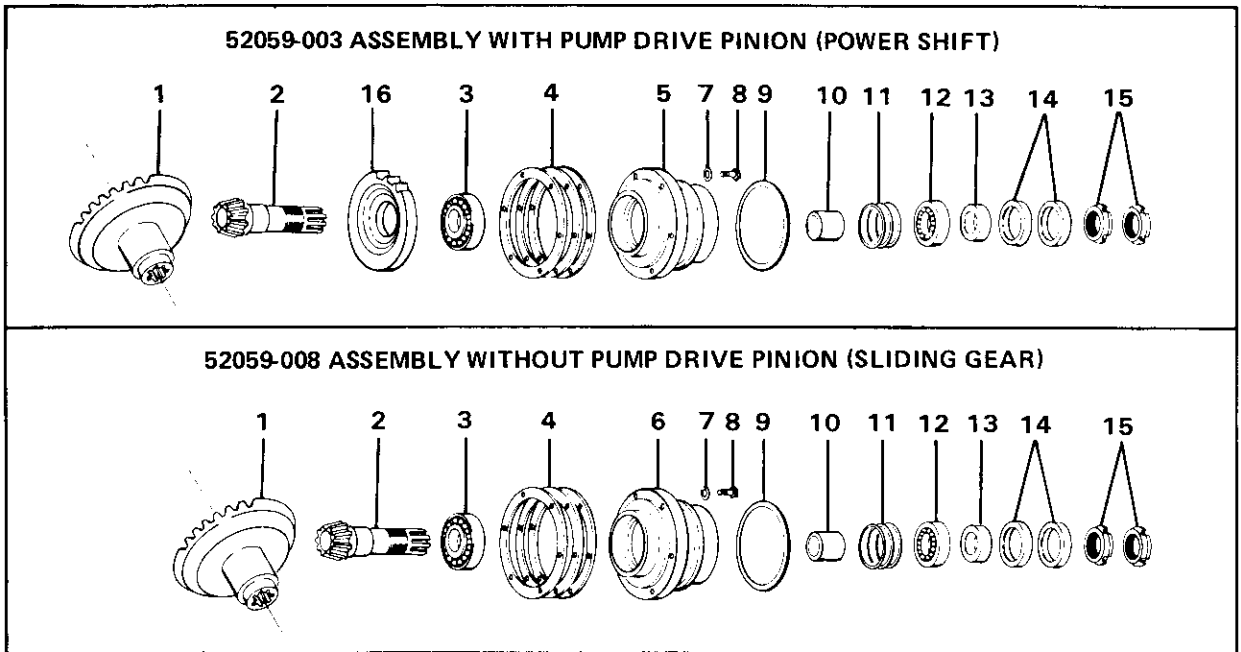


NOTE:
 ALL RELATED CLUTCH PARTS
 NOT SHOWN MUST BE ORDERED
 FROM PAGE 17.

CLUTCH NO. 51273-1

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER CLUTCH |
|------|----------------|-----------------------------------|------------------------|
| 1 | 16290-1208 | Dowel, 3/8 x 1/2 | 1 |
| 2 | 51272-1 | Housing (includes items 1 and 14) | 1 |
| 3 | 46244 | Seal | 1 |
| 4 | 46245 | Seal | 1 |
| 5 | 44855 | Piston | 1 |
| 6 | 44861 | Return Ring | 1 |
| 7 | 44859 | Spring | 16 |
| 8 | 44172 | Retainer | 1 |
| 9 | 16313-325 | Retaining Ring, TRUARC 5100-325 | 1 |
| 10 | 46132 | Steel Disc (External splines) | 5 |
| 11 | 46131 | Friction Disc (Internal splines) | 4 |
| 12 | 44858 | Retaining Ring | 1 |
| 13 | 44173 | Retaining Ring | 1 |
| 14 | 52592 | Seat Assembly | 1 |
| 15 | 16295-1432 | Pin, SPIROL 437-2000-H-B-K | 1 |

PS AND PSM BEVEL GEAR AND BEVEL PINION CARRIER ASSEMBLIES



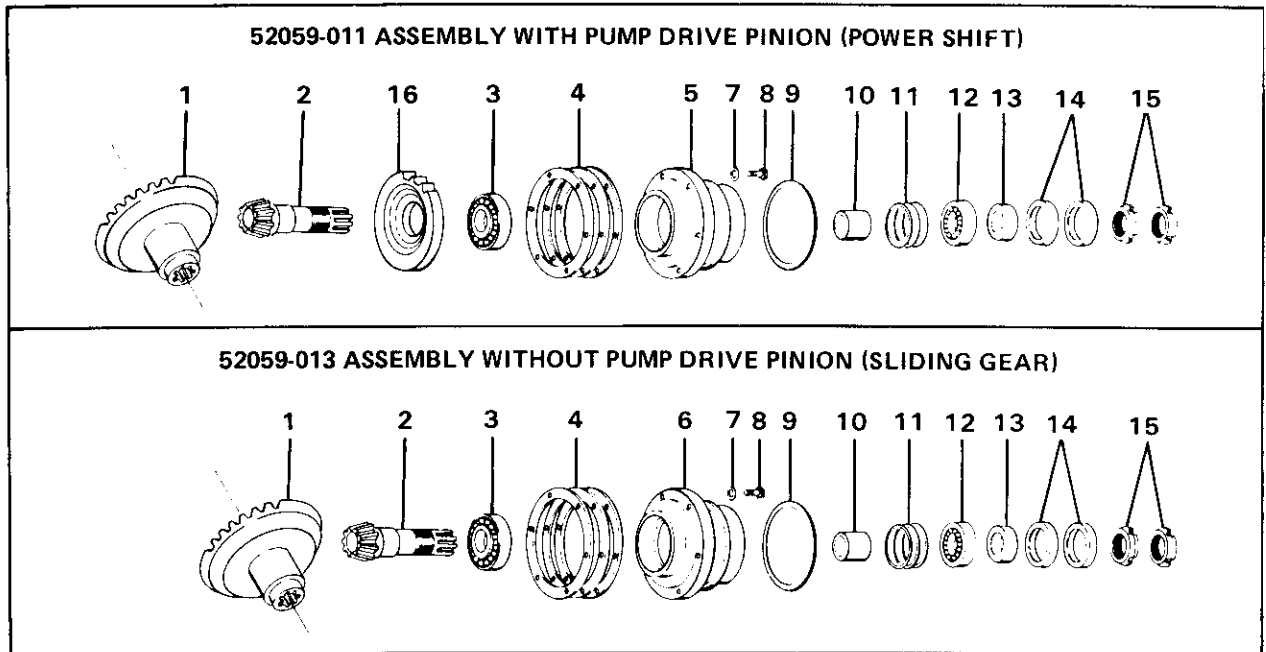
GEAR SET NO. 52059-103 RATIO 1.95/1

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | 52059-003 QUAN. PER UNIT | 52059-008 QUAN. PER UNIT |
|------|----------------|---------------------------------|--------------------------------|--------------------------------|
| 1 | 50839 | Bevel Gear (39 Teeth) | 1 | 1 |
| 2 | 50838 | Bevel Pinion (20 Teeth) | 1 | 1 |
| 3 | 15156 | Tapered Roller Bearing Cup | 1 | 1 |
| | 15158 | Tapered Roller Bearing Cone | 1 | 1 |
| 4 | 16237 | Shim Set, TIMKEN No. 29 | 1 | 1 |
| 5 | 51350 | Carrier (P.S. Winch) | 1 | Not Used |
| 6 | 44244 | Carrier (S.G. Winch) | Not Used | 1 |
| 7 | 16064-8 | Washer, 1/2 | 6 | 6 |
| 8 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 6 | 6 |
| 9 | 16262-438 | O-Ring, NAT'L. 622765 | 1 | 1 |
| 10 | 45087-5 | Spacer | 1 | 1 |
| 11 | 45089 | Shim Set | 1 | 1 |
| 12 | 15173 | Tapered Roller Bearing Cup | 1 | 1 |
| | 15174 | Tapered Roller Bearing Cone | 1 | 1 |
| 13 | 50848 | Sleeve | 1 | 1 |
| 14 | 16343-11 | Oil Seal, NAT'L. 455079 | 2 | 2 |
| 15 | 16041-10 | Lock Nut, TIMKEN N-10 | 2 | 2 |
| 16 | 51054 | Pump Drive Pinion | 1 | Not Used |

NOTE: The Bevel Gear Set above is standard for the adaption indicated. Below are optional gear combinations to provide a range of line speeds and pulls for various winching requirements. Important – Prior to ordering or quoting on any optional Bevel Gear Set be sure to check with factory on availability, and if the gear set would be recommended for the application.

| GEAR SET NO. | BEVEL GEAR | | BEVEL PINION | | RATIO |
|--------------|------------|-------|--------------|-------|--------|
| | Part No. | Teeth | Part No. | Teeth | |
| 52059-106 | 52288 | 40 | 50829 | 13 | 3.08/1 |
| 52059-101 | 50832 | 40 | 50831 | 13 | 3.08/1 |
| 52059-102 | 50836 | 40 | 50835 | 16 | 2.50/1 |
| 52059-107 | 50850 | 40 | 50849 | 16 | 2.50/1 |
| 52059-104 | 50842 | 37 | 50841 | 23 | 1.61/1 |
| 52059-105 | 50845 | 30 | 50844 | 28 | 1.07/1 |

PSC BEVEL GEAR AND BEVEL PINION CARRIER ASSEMBLIES

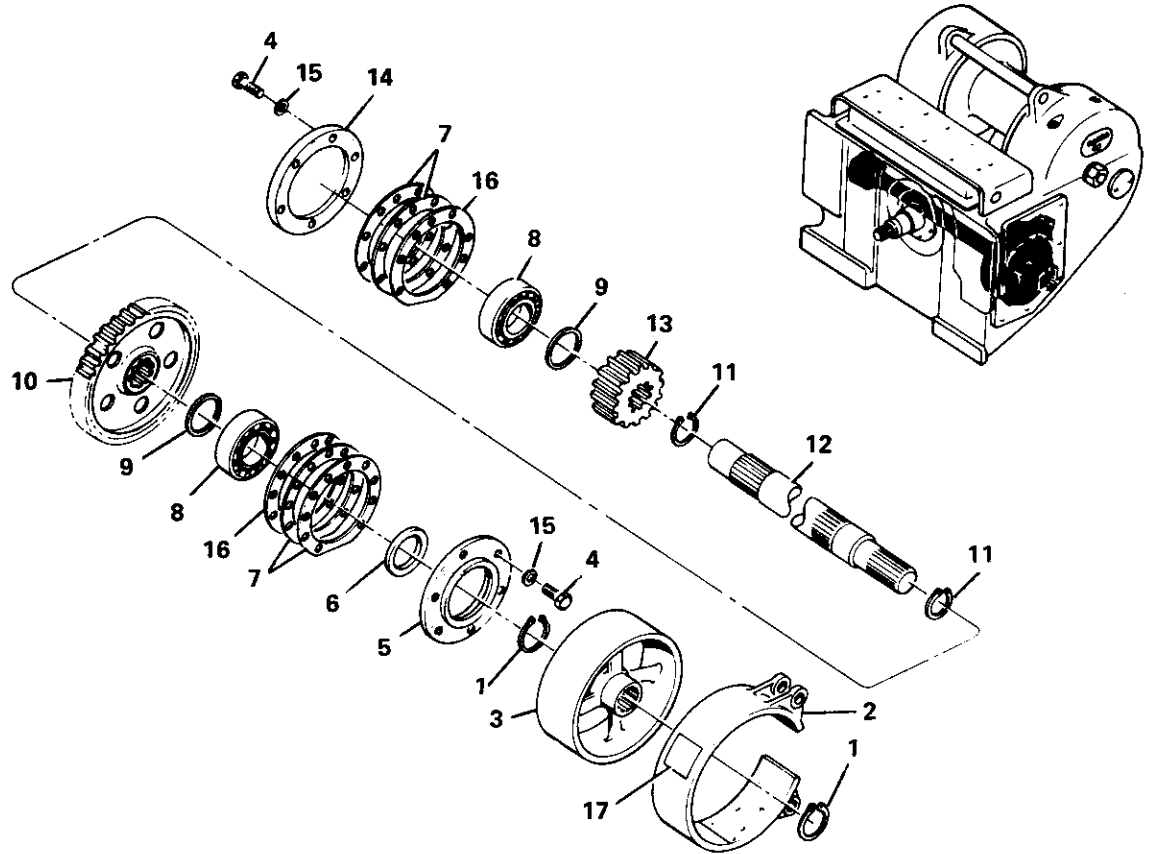


GEAR SET NO. 52059-106 RATIO 3.08/1

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | 52059-011 QUAN. PER UNIT | 52059-013 QUAN. PER UNIT |
|------|----------------|---------------------------------|--------------------------------|--------------------------------|
| 1 | 52288 | Bevel Gear (40 Teeth) | 1 | 1 |
| 2 | 50829 | Bevel Pinion (13 Teeth) | 1 | 1 |
| 3 | { 15156 | Tapered Roller Bearing Cup | 1 | 1 |
| | { 15158 | Tapered Roller Bearing Cone | 1 | 1 |
| 4 | 16237 | Shim Set, TIMKEN No. 29 | 1 | 1 |
| 5 | 51350 | Carrier (P.S. Winch) | 1 | Not Used |
| 6 | 44244 | Carrier (S.G. Winch) | Not Used | 1 |
| 7 | 16064-8 | Washer, 1/2 | 6 | 6 |
| 8 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 6 | 6 |
| 9 | 16262-438 | O-Ring, NAT'L. 622765 | 1 | 1 |
| 10 | 45087-5 | Spacer | 1 | 1 |
| 11 | 45089 | Shim Set | 1 | 1 |
| 12 | { 15173 | Tapered Roller Bearing Cup | 1 | 1 |
| | { 15174 | Tapered Roller Bearing Cone | 1 | 1 |
| 13 | 50848 | Sleeve | 1 | 1 |
| 14 | 16343-11 | Oil Seal, NAT'L. 455079 | 2 | 2 |
| 15 | 16041-10 | Lock Nut, TIMKEN N-10 | 2 | 2 |
| 16 | 51054 | Pump Drive Pinion | 1 | Not Used |

NOTE: The Bevel Gear Set above is standard for the adaption indicated. Below are optional gear combinations to provide a range of line speeds and pulls for various winching requirements. Important Prior to ordering or quoting on any optional Bevel Gear Set be sure to check with factory on availability, and if the gear set would be recommended for the application.

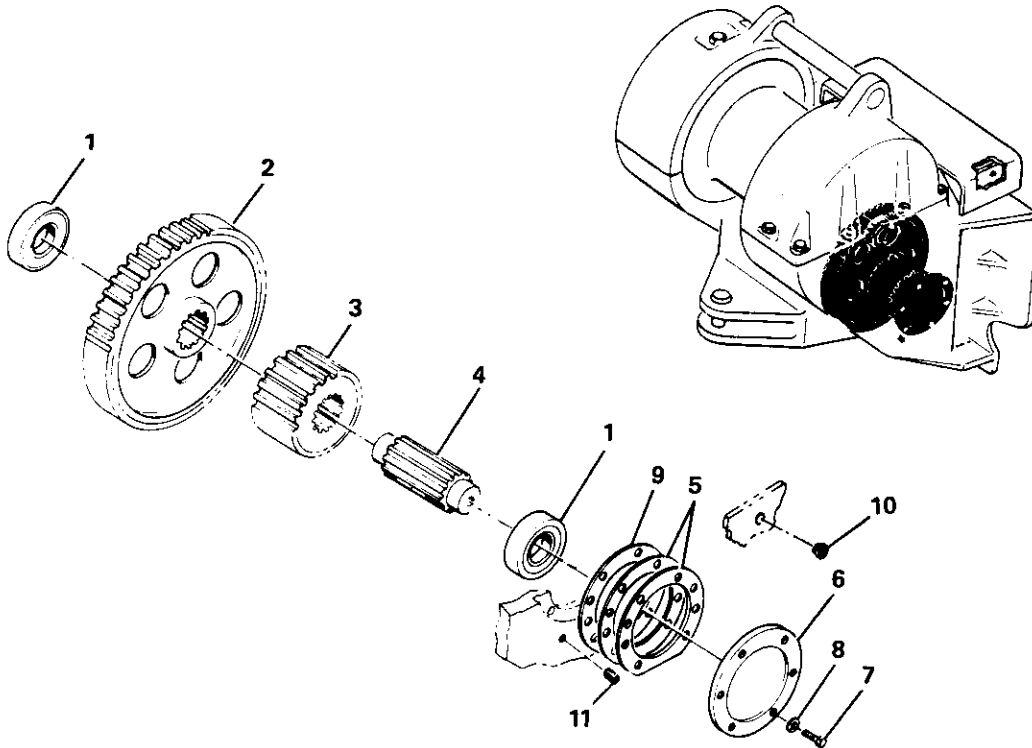
| GEAR SET NO. | BEVEL GEAR | | BEVEL PINION | | RATIO |
|--------------|------------|-------|--------------|-------|--------|
| | Part No. | Teeth | Part No. | Teeth | |
| 52059-101 | 50832 | 40 | 50831 | 13 | 3.08/1 |
| 52059-102 | 50836 | 40 | 50835 | 16 | 2.50/1 |
| 52059-107 | 50850 | 40 | 50849 | 16 | 2.50/1 |
| 52059-103 | 50839 | 39 | 50838 | 20 | 1.95/1 |
| 52059-104 | 50842 | 37 | 50841 | 23 | 1.61/1 |
| 52059-105 | 50845 | 30 | 50844 | 28 | 1.07/1 |



BRAKE SHAFT GROUP NO. 52195

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|--|----------------|
| 1 | 16313-231 | Retaining Ring, TRUARC 5100-231 | 2 |
| 2 | 46604 | Brake Band Assembly (includes following) | 1 |
| | 46605 | Brake Block | 3 |
| | 16323-808 | Rivet, 1/4 x 1/2 Tub. Brass | 32 |
| 3 | 44182 | Brake Drum | 1 |
| 4 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 12 |
| 5 | 44158 | Carrier | 1 |
| 6 | 16342-2 | Oil Seal, NAT'L. 410574 | 1 |
| 7 | 44184 | Shim Set | 2 |
| 8 | 15077 | Ball Bearing | 2 |
| 9 | 44186 | Spacer | 2 |
| 10 | 44159 | Gear | 1 |
| 11 | 16313-300 | Retaining Ring, TRUARC 5100-300 | 2 |
| 12 | 44163 | Brake Shaft | 1 |
| 13 | 44160 | Pinion | 1 |
| 14 | 44183 | Cover | 1 |
| 15 | 16064-8 | Washer, 1/2 | 12 |
| 16 | 46229 | Gasket | 2 |
| 17 | 51955 | Asbestos Warning Plate | 1 |

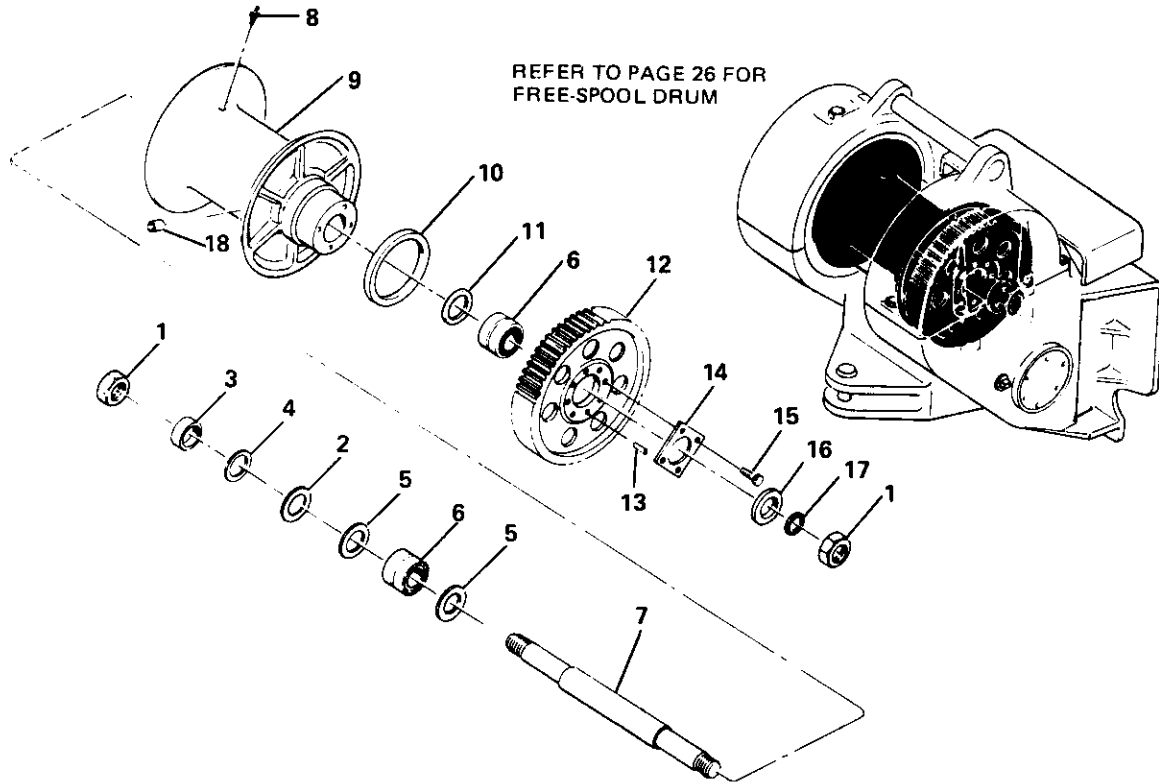
CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 24
 IDLER SHAFT (NO FREE SPOOL)



IDLER SHAFT GROUP (NO FREE SPOOL) NO. 52066

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---------------------------------|----------------|
| 1 | 15284 | Roller Bearing | 2 |
| 2 | 44161 | Gear | 1 |
| 3 | 44162 | Pinion | 1 |
| 4 | 44157 | Shaft | 1 |
| 5 | 44184 | Shim Set | 1 |
| 6 | 44183 | Cover | 1 |
| 7 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 6 |
| 8 | 16064-8 | Washer, 1/2 | 6 |
| 9 | 46229 | Gasket | 1 |
| 10 | 50476 | Rubber Plug | 1 |
| 11 | 50475 | Threaded Plug | 1 |

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 25
 DRUM SHAFT (NO FREE SPOOL)



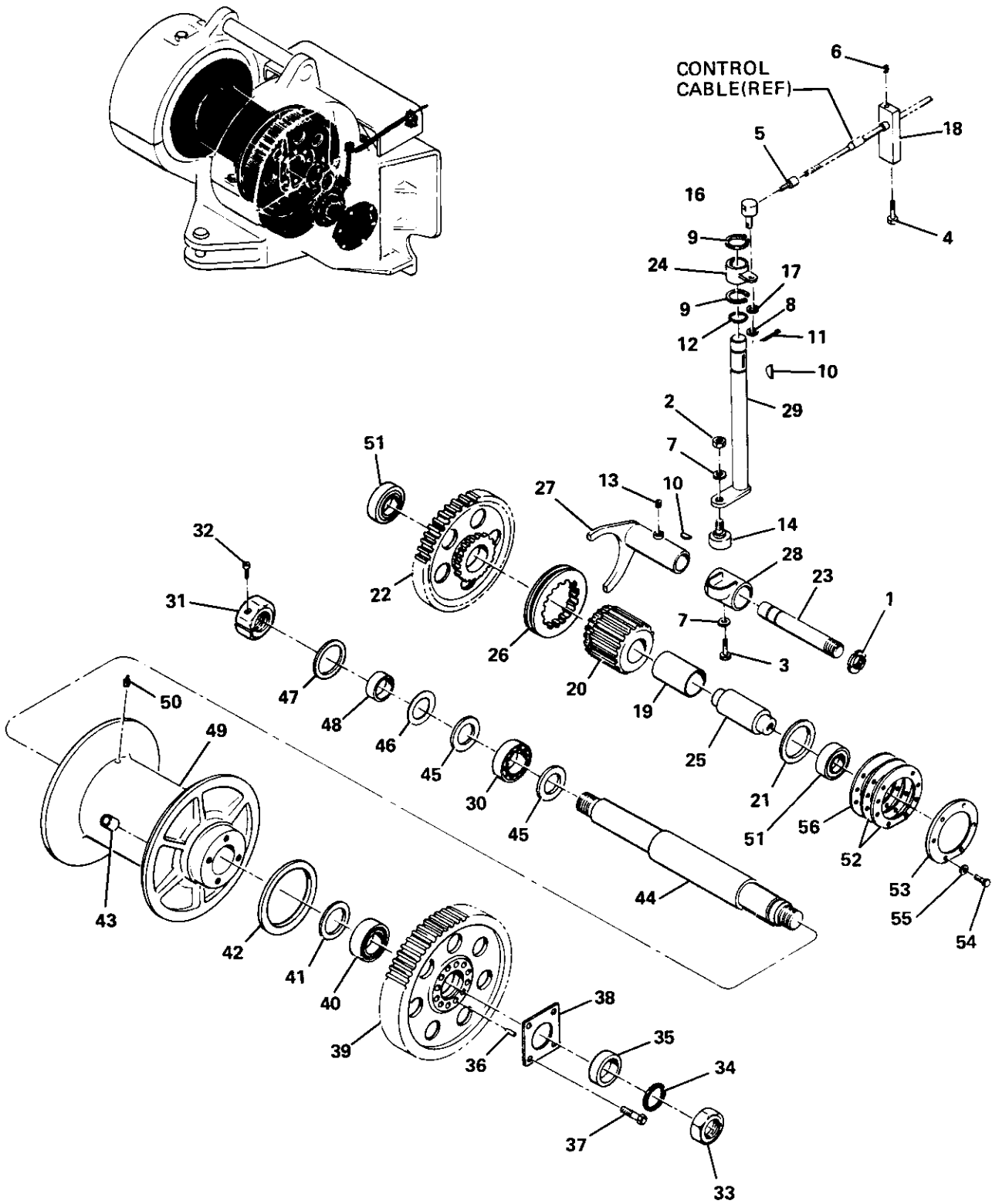
DRUM SHAFT (STANDARD) NO. 44153
 (PSC) NO. 44681

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT | |
|------|----------------|----------------------|-------------------------------------|--------|
| *** | 1 | 16044-44 | Nut, 2-3/4 UN Hex Jam | 2 |
| | 2 | 44880 | Shim | 2 |
| | 3 | 16343-32 | Oil Seal, NAT'L. 455487 | 1 |
| | 4 | 44180-3 | Spacer | 1 |
| | 5 | 44179 | Seal | 2 |
| | 6 | 15199 | Bearing Set | 2 |
| *** | 7 | 44154 | Shaft | 1 |
| | 8 | 16222-2 | Fitting, ALEMITE 1610B | 1 |
| * | 9 | 44153 44681 | Standard Drum High Capacity Drum | 1 1 |
| | 10 | 16342-11 | Oil Seal, NAT'L. 415270 | 1 |
| | 11 | 16343-26 | Oil Seal, NAT'L. 455040 | 1 |
| | 12 | 44166 | Gear | 1 |
| ** | 13 | 45081-2 | Dowel Pin | 6 |
| | 14 | Y1646 | Lock | 1 |
| | 15 | 16048-1420 | Cap Screw, 7/8 UNF x 2-1/2 H.H. | 6 |
| | 16 | 44155-2 | Spacer | 1 |
| | 17 | 16262-340 | O-Ring, NAT'L. 622743 | 1 |
| | 18 | 25459-2 | Ferrule for 1-1/8 Wire Rope | 1 |
| | | 25459-1 | Ferrule for 3/4, 7/8 or 1 Wire Rope | 1 |

NOTES:

- * Optional high capacity drum is standard on PSC models.
- ** When bull gear or cable drum is replaced, dowel holes must be drilled 5/64" and reamed .9057/9077" to accommodate oversize 45081-2 dowels.
- *** For extended drum shaft order 46926 shaft and 2 each 16041-19 nut, TIMKEN T-AN-19.

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 26
 DRUM SHAFT AND IDLER SHAFT FREE SPOOL ASSY.



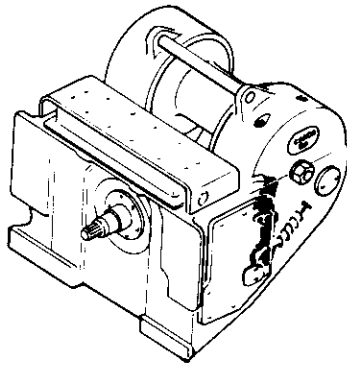
DRUM SHAFT AND IDLER SHAFT FREE SPOOL ASSY. NO. 52067

CARCO MODEL 80-PS, PSM & PSC WINCH
PARTS LIST SECTION—PAGE 27
DRUM SHAFT AND IDLER SHAFT FREE SPOOL ASSY.

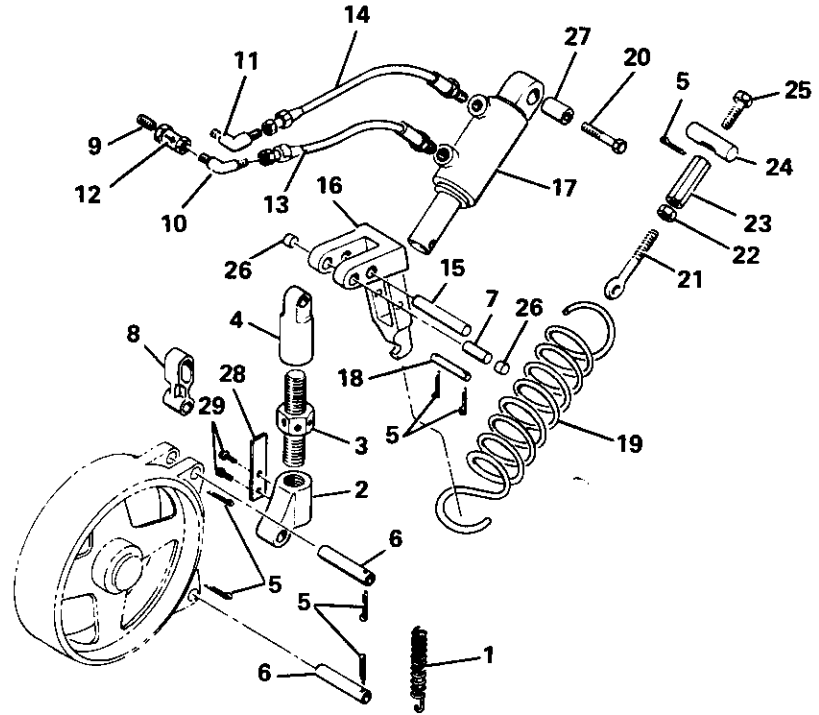
| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT | |
|------|----------------|---|----------------------|---|
| 1 | 16041-6 | Lock Nut, TIMKEN TN-06 | 1 | |
| 2 | 16044-6 | Nut, 3/8 UNF Hex Jam | 1 | |
| 3 | 16047-608 | Cap Screw, 3/8 UNC x 1 H.H. | 1 | |
| 4 | 16047-812 | Cap Screw, 1/2 UNC x 1-1/2 H.H. | 1 | |
| 5 | 52399 | Cable Adapter | 1 | |
| 6 | 16056-606 | Set Screw, 3/8 UNC x 3/8 Hex Soc. Cup Pt. | 1 | |
| 7 | 16067-6 | Washer, 3/8 | 2 | |
| 8 | 16064-8 | Washer, 1/2 | 1 | |
| 9 | 16313-62 | Retaining Ring, TRUARC 5100-62 | 2 | |
| 10 | 16226-1 | Key, WOODRUFF No. 6 5/32 x 5/8 | 2 | |
| 11 | 16292-616 | Spring Pin, ROLLPIN 3/16 x 1 | 1 | |
| 12 | 16342-19 | Oil Seal, NAT'L. 410791 | 1 | |
| 13 | 16403-2 | Ball Plunger, CARR-LANE CL70-BP3 | 1 | |
| 14 | 16404-14 | Cam Follower, TORR. CR-14 | 1 | |
| * | 15 | See Note Below | 1 | |
| 16 | 49332 | Control Cable Pin | 1 | |
| 17 | 49333-1 | Disc Spring | 1 | |
| 18 | 49932 | Cable Anchor | 1 | |
| 19 | 52395-80 | Bushing | 1 | |
| 20 | 49936-80 | Bull Pinion | 1 | |
| 21 | 49938-1 | Thrust Washer | 1 | |
| 22 | 49939-1 | Idler Shaft Gear | 1 | |
| 23 | 49940-80 | Guide | 1 | |
| 24 | 49941-80 | Control Lever | 1 | |
| 25 | 49942-1 | Idler Shaft | 1 | |
| 26 | 49943 | Pinion Coupling | 1 | |
| 27 | 49944-80 | Shift Flange Assembly | 1 | |
| 28 | 49947 | Shift Cam | 1 | |
| 29 | 49948 | Shifter Shaft | 1 | |
| 30 | 15298 | Bearing Set | 1 | |
| 31 | 49957-44 | Split Lock Nut | 1 | |
| 32 | 16045-712 | Screw, Self Locking 7/16 UNF x 1-1/2 Hex Soc. Hd. | 1 | |
| 33 | 16044-44 | Nut, 2-3/4 UNF Hex Jam | 1 | |
| 34 | 16262-340 | O-Ring, NAT'L. 622743 | 1 | |
| 35 | 44155-2 | Spacer | 1 | |
| ** | 36 | 45081-2 | Dowel Pin | 6 |
| 37 | 16048-1420 | Cap Screw, 7/8 UNF x 2-1/2 H.H. | 6 | |
| 38 | Y1646 | Lock | 1 | |
| 39 | 44166 | Gear | 1 | |
| 40 | 15199 | Bearing Set | 1 | |
| 41 | 16343-26 | Oil Seal, NAT'L. 455040 | 1 | |
| 42 | 16342-11 | Oil Seal, NAT'L. 415270 | 1 | |
| 43 | 25459-2 | Ferrule for 1-1/8 Wire Rope | 1 | |
| 44 | 25459-1 | Ferrule for 3/4, 7/8 or 1 Wire Rope | 1 | |
| 45 | 44154 | Shaft | 1 | |
| 46 | 44179 | Seal | 2 | |
| 47 | 44880 | Shim | 2 | |
| 48 | 16343-32 | Oil Seal, NAT'L. 455487 | 1 | |
| 49 | 44180-3 | Spacer | 1 | |
| 50 | 44153 | Standard Drum | 1 | |
| 51 | 44681 | High Capacity Drum | 1 | |
| 52 | 16222-2 | Fitting, ALEMITE 1610B | 1 | |
| 53 | 15284 | Roller Bearing | 2 | |
| 54 | 44184 | Shim Set | 1 | |
| 55 | 44183 | Cover | 1 | |
| 56 | 16047-810 | Cap Screw, 1/2 UNC x 1-1/4 H.H. | 6 | |
| | 16064-8 | Washer, 1/2 | 6 | |
| | 46229 | Gasket | 1 | |

* Use 52400 series cables. For length see listings under control group page in service manual.
** When bull gear or cable drum is replaced, dowel holes must be drilled 5/64" and reamed .9057/.9077" to accommodate oversize 45081-2 dowels.

CARCO MODEL 80-PS WINCH
 PARTS LIST SECTION—PAGE 28
 BRAKE CONTROL (SPRING APPLIED)



* DIAGRAM SHOWS PINS (ITEMS 7 AND 15)
 IN LOCATIONS FOR OVERWIND
 CABLE DRUM OPERATIONS.

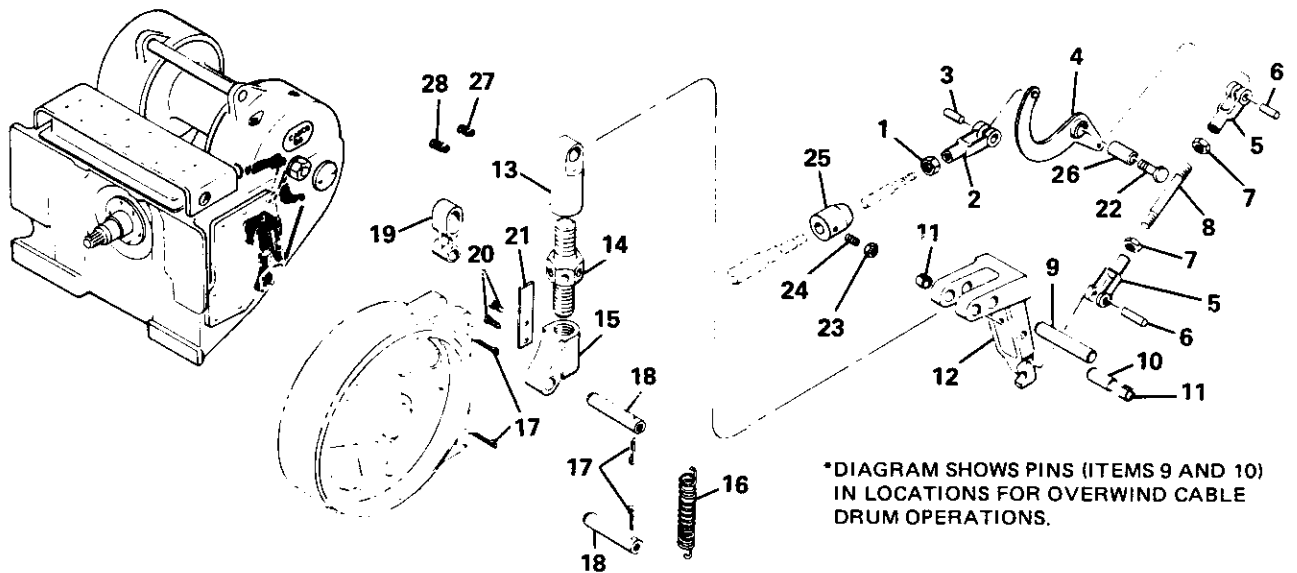


P.S. BRAKE CONTROL GROUP (SPRING APPLIED) NO. 52074

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|-------------------------------|----------------------|
| 1 | 44107 | Spring | 1 |
| 2 | 40159-1 | Rod Nut | 1 |
| 3 | 40157 | Rod | 1 |
| 4 | 40156-1 | Rod Nut | 1 |
| 5 | 16288-420 | Cotter Pin, 1/8 x 1-1/4 | 7 |
| 6 | 44114 | Pin | 2 |
| * 7 | 32920 | Pin | 1 |
| 8 | 40119 | Link | 1 |
| 9 | 16158-407 | Nipple, 1/4 NPT x 1 | 1 |
| 10 | 16145-46 | Elbow, WTHRD. 5405 x 6 | 1 |
| 11 | 16145-66 | Elbow, WTHRD. C5405 x 6 x 6 | 1 |
| 12 | 51278 | Flow Control Valve | 1 |
| 13 | 44118-17 | Hose | 1 |
| 14 | 44118-13 | Hose | 1 |
| * 15 | 32919 | Pin | 1 |
| 16 | 44195 | Arm | 1 |
| 17 | 51279 | Cylinder (See Page 30.) | 1 |
| 18 | 40134 | Pin | 1 |
| 19 | 40155 | Spring | 1 |
| 20 | 16047-1236 | Cap Screw, 3/4 UNC x 5 H.H. | 1 |
| 21 | 44206 | Eye Bolt | 1 |
| 22 | 16043-8 | Nut, 1/2 UNC Hex Jam | 1 |
| 23 | 40174 | Nut | 1 |
| 24 | 40175 | Pin | 1 |
| 25 | 42023 | Screw | 1 |
| 26 | 44687-1 | Spacer | 2 |
| 27 | 46077-2 | Sleeve | 1 |
| 28 | 44806 | Spring | 1 |
| 29 | 16055-5 | Drive Screw, #10 x 3/8 Type U | 2 |

NOTE: See Page 4 and 5 for Control Stand Group.

CARCO MODEL 80-PSM & PSC WINCH
PARTS LIST SECTION—PAGE 29
BRAKE CONTROL (MANUAL)

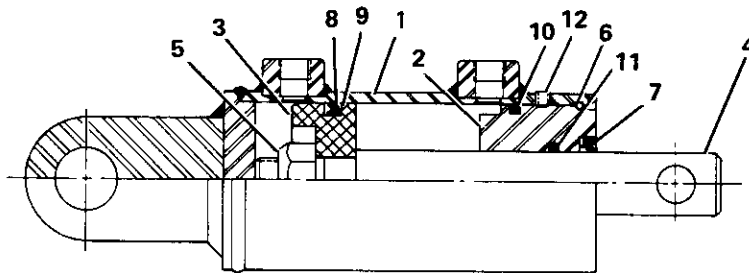


MANUAL BRAKE CONTROL GROUP NO. 52075

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|-------------------------------------|----------------------|
| 1 | 16044-6 | Nut, 3/8 UNF Hex Jam | 1 |
| 2 | 16245-6 | Yoke, CLEVELAND 2708-4A | 1 |
| 3 | 16246-6 | Pin, CLEVELAND 2708-1/2-4A | 1 |
| 4 | 44978 | Lever | 1 |
| 5 | 16245-8 | Yoke, CLEVELAND 2708-6A | 2 |
| 6 | 16246-8 | Pin, CLEVELAND 2708-1/2-6A | 2 |
| 7 | 16044-8 | Nut, 1/2 UNF Hex Jam | 2 |
| 8 | 37629-4 | Stud | 1 |
| * 9 | 32919 | Pin | 1 |
| * 10 | 32920 | Pin | 1 |
| 11 | 44687-1 | Spacer | 2 |
| 12 | 44195 | Arm | 1 |
| 13 | 40156-1 | Rod Nut | 1 |
| 14 | 40157 | Rod | 1 |
| 15 | 40159-1 | Rod Nut | 1 |
| 16 | 44107 | Spring | 1 |
| 17 | 16288-420 | Cotter Pin, 1/8 x 1-1/4 | 4 |
| 18 | 44114 | Pin | 2 |
| 19 | 40119 | Link | 1 |
| 20 | 16055-5 | Drive Screw, #10 x 3/8 Type U | 2 |
| 21 | 44806 | Spring | 1 |
| 22 | 16047-1236 | Cap Screw, 3/4 UNC x 5 H.H. | 1 |
| 23 | 16043-6 | Nut, 3/8 UNC Hex Jam | 1 |
| 24 | 16056-620 | Set Screw, 3/8 UNC x 1-1/4 Hex Soc. | 1 |
| 25 | 45351-2 | Control Cable Anchor | 1 |
| 26 | 46077-2 | Sleeve | 1 |
| 27 | 16169-6 | Plug, 3/8 NPT Sq. Hd. | 1 |
| 28 | 16169-4 | Plug, 1/4 NPT Sq. Hd. | 1 |

NOTE: See pages 6 and 7 for control stand group.

CARCO MODEL 80-PS WINCH
 PARTS LIST SECTION—PAGE 30
 BRAKE CYLINDER



MANUFACTURER: CROSS
 CARCO PART NO. 51301
 CROSS PART NO.: 026255

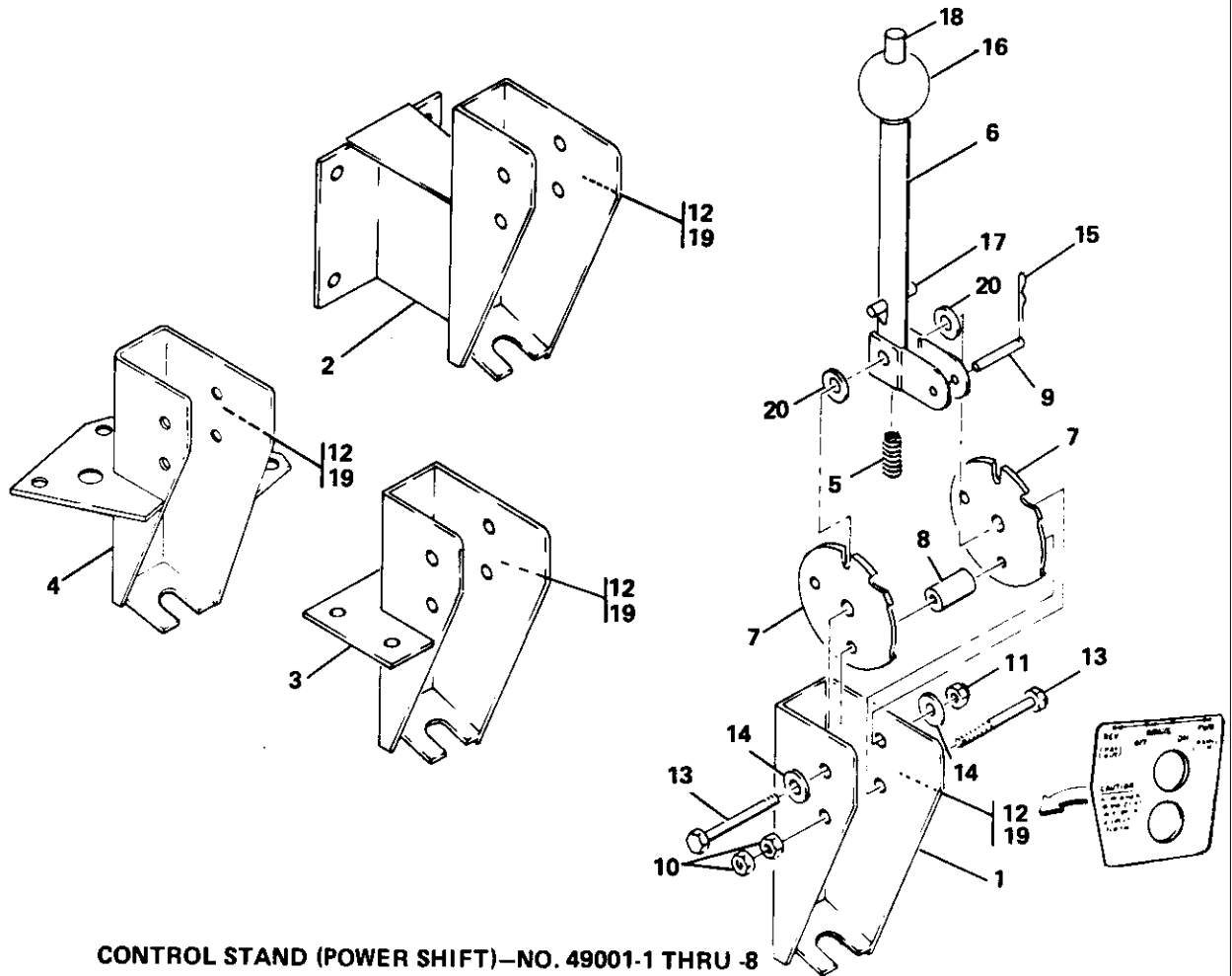
BRAKE CYLINDER NO. 51279

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|-----------------------------------|----------------------|
| ** 1 | | Tube Assy | 1 |
| 2 | 16280-2 | Head, CROSS 1C3243 | 1 |
| 3 | 16280-15 | Piston, CROSS 3C7800 | 1 |
| 4 | 16280-4 | Rod, CROSS 1C3282 | 1 |
| 5 | 16280-5 | Nut, CROSS 2A0246-12 | 1 |
| 6 | 16280-6 | Retaining Ring, CROSS 2A0462-250 | 1 |
| * 7 | 16280-7 | Wiper, CROSS 2A0773-816 | 1 |
| * 8 | 16334-1 | Seal, C/R 710087 | 1 |
| * 9 | 16301-1 | Back-up Washer, C/R 451069 | 1 |
| * 10 | 16262-228 | O-Ring, NAT'L. 623006 | 1 |
| * 11 | 16262-214 | O-Ring, NAT'L. 622719 | 1 |
| 12 | 16054-404 | Set Screw, 1/4 UNC x 1/4 Hex Soc. | 2 |
| * * | 46241 | Repair Kit | 1 |

* Items 7, 8, 9, 10 and 11 are included in 46241 repair kit.

** Not a spares item, order 51279 cylinder assembly.

CARCO MODEL 80-PS WINCH
PARTS LIST SECTION—PAGE 31
CONTROL STAND



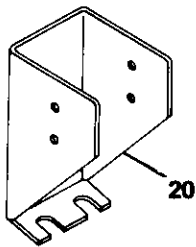
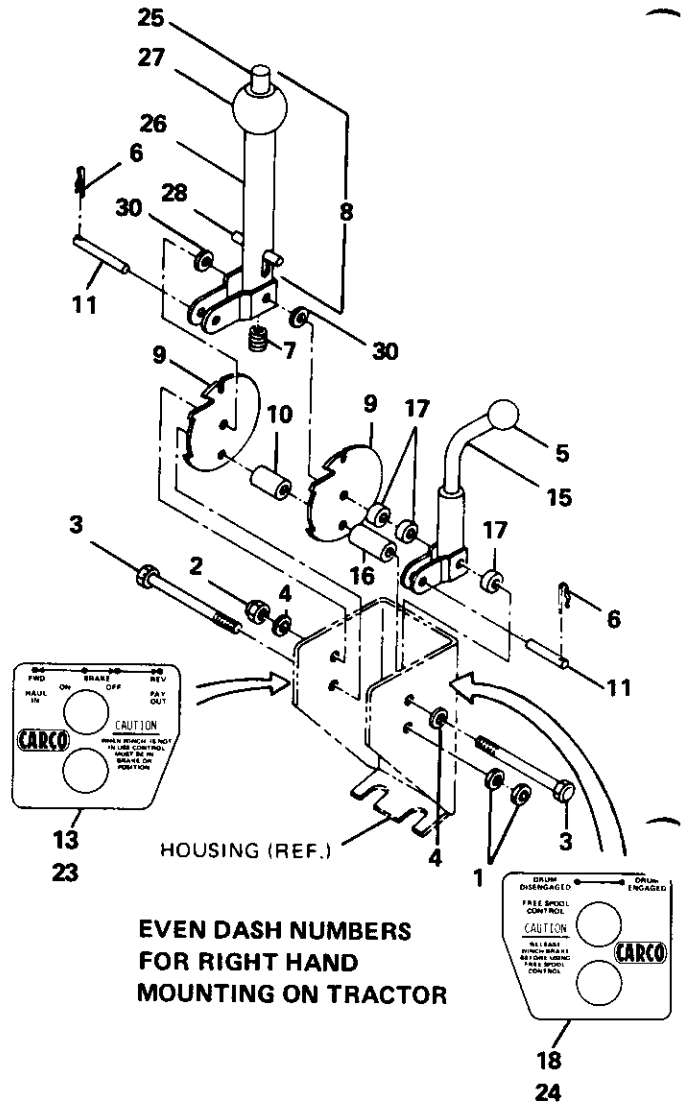
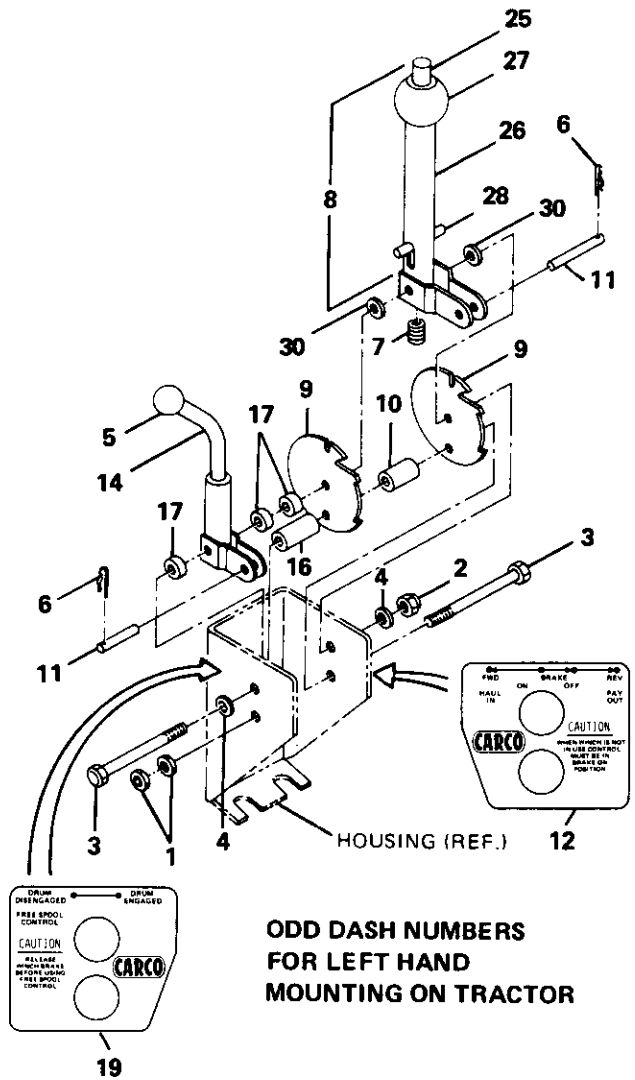
CONTROL STAND (POWER SHIFT)—NO. 49001-1 THRU -8

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | CONTROL STAND GROUP NO'S 49001-1 THRU 49001-8 | | | | | | | |
|------|----------------|---------------------------------|--|------------|------------|------------|------------|------------|------------|------------|
| | | | QTY. -1 | QTY. -2 | QTY. -3 | QTY. -4 | QTY. -5 | QTY. -6 | QTY. -7 | QTY. -8 |
| 1 | 49002-1 | Housing | 1 | | | | 1 | | 1 | |
| 2 | 49002-2 | Housing | | 1 | | | | | 1 | 1 |
| 3 | 49002-3 | Housing | | | 1 | | | | | |
| 4 | 49002-4 | Housing | | | | 1 | | | | |
| 5 | 41403 | Spring | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 6 | 49003 | Lever Assy. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 7 | 49007 | Lock Plate | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 8 | 49804-3 | Spacer | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | 49010 | Pin | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 10 | 16033-6 | Nut, 3/8 UNC Hex | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 11 | 16039-66 | Lock Nut, ESNA 21NE-066 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 12 | 49314 | Shift Instruction Plate | 1 | 1 | 1 | 1 | | | | |
| 13 | 16047-620 | Cap Screw, 3/8 UNC x 2-1/2 H.H. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 14 | 16064-6 | Washer, 3/8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 15 | 16381-13 | Hitch Pin, WESTERN WIRE WW-13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 16 | 41404 | Ball | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 17 | 16294-824 | Spring Pin, 1/4 x 1-1/2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 18 | 49004 | Push Rod | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 19 | 49314-3 | Shift Instruction Plate | | | | | | | 1 | |
| 20 | 16009-6 | Thrust Bearing, BUNTING TW 37 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

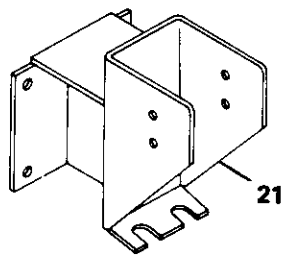
*Items 16, 17, 18 are included in item 6.

NOTE: See page 28 for PS brake control group used with these stands.

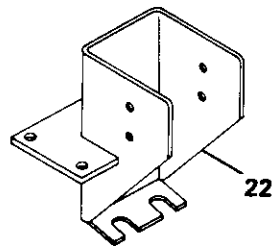
CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 32
 F/S CONTROL STAND ASSY.



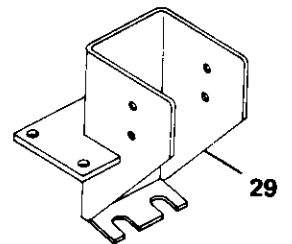
49806-1



49806-2



49806-3



49806-4

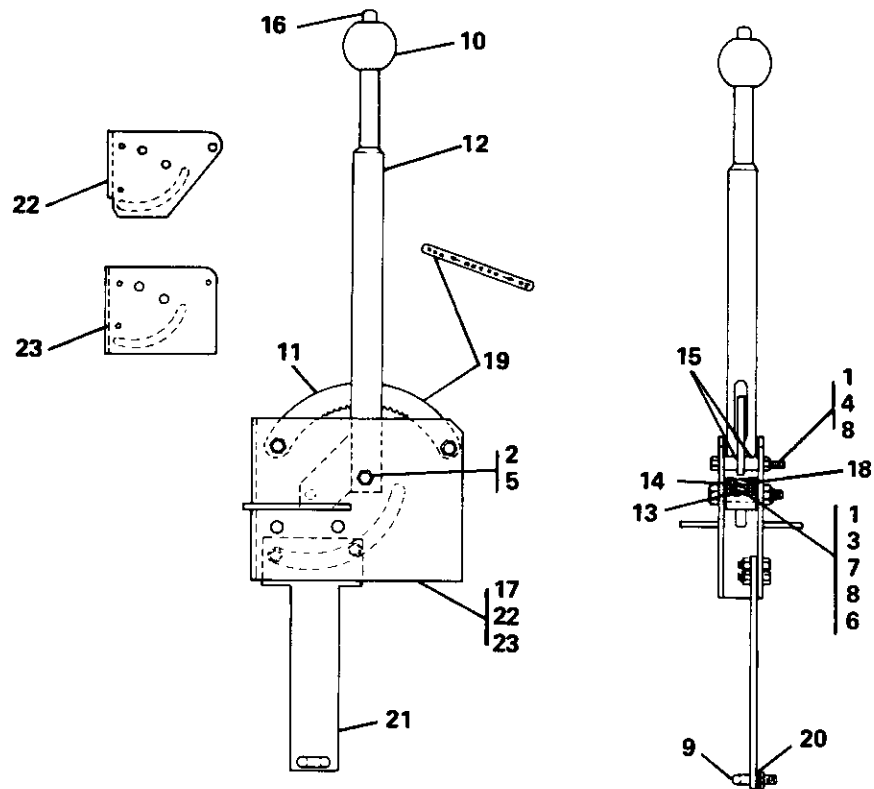
CONTROL STAND FREE SPOOL ASSEMBLIES NO. 49805-1 THRU -9

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUANTITY | | | | | | | | | |
|------|----------------|-------------------------------|----------|----|----|----|----|----|----|----|----|---|
| | | | -1 | -2 | -3 | -4 | -5 | -6 | -7 | -8 | -9 | |
| 1 | 16033-6 | Nut, 3/8 UNC Hex | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2 | 16039-66 | Lock Nut, ESNA 21NE-066 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 3 | 16047-632 | Cap Screw, 3/8 UNC x 4 H.H. | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 4 | 16064-6 | Washer, 3/8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 5 | 16236-4 | Knob, REID B-8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 16381-13 | Hitch Pin, WESTERN WIRE WW-13 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | 41403 | Spring | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 8 | 49003 | Power Shift Lever Assy. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | 49007 | Lock Plate | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 10 | 49804-3 | Spacer | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 11 | 49010 | Pin | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 12 | 49314 | Power Shift Instruction Plate | | 1 | | 1 | | 1 | | 1 | | |
| 13 | 49314-2 | Power Shift Instruction Plate | 1 | | 1 | | 1 | | | | | 1 |
| 14 | 49802-2 | Free Spool Lever Assy. | | 1 | | 1 | | 1 | | 1 | | |
| 15 | 49802-1 | Free Spool Lever Assy. | 1 | | 1 | | 1 | | 1 | | | 1 |
| 16 | 49804-1 | Spacer | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 17 | 49804-2 | Spacer | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 18 | 49807-1 | Free Spool Instruction Plate | 1 | | 1 | | 1 | | | | | 1 |
| 19 | 49807-2 | Free Spool Instruction Plate | | 1 | | 1 | | 1 | | 1 | | |
| 20 | 49806-1 | Housing | 1 | 1 | | | | | | | | |
| 21 | 49806-2 | Housing | | | 1 | 1 | | | | | | |
| 22 | 49806-3 | Housing | | | | | 1 | 1 | 1 | | | |
| 23 | 50911 | Power Shift Instruction Plate | | | | | | | 1 | | | |
| 24 | 50912 | PTO Valve Instruction Plate | | | | | | | 1 | | | |
| * 25 | 49004 | Push Rod | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 26 | 49005 | Handle | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 27 | 41404 | Ball | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * 28 | 16294-824 | Spring Pin, 1/4 x 1-1/2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 29 | 49806-4 | Housing | | | | | | | | 1 | | 1 |
| 30 | 16009-6 | Thrust Bearing, BUNTING TW 37 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

*Items 25,26,27 & 28 are included in item 8

NOTE: One of the above control stands used on all model 80 winches with free spool

CARCO MODEL 80-PSC & PSM WINCH
 PARTS LIST SECTION—PAGE 34
 CONTROL STAND

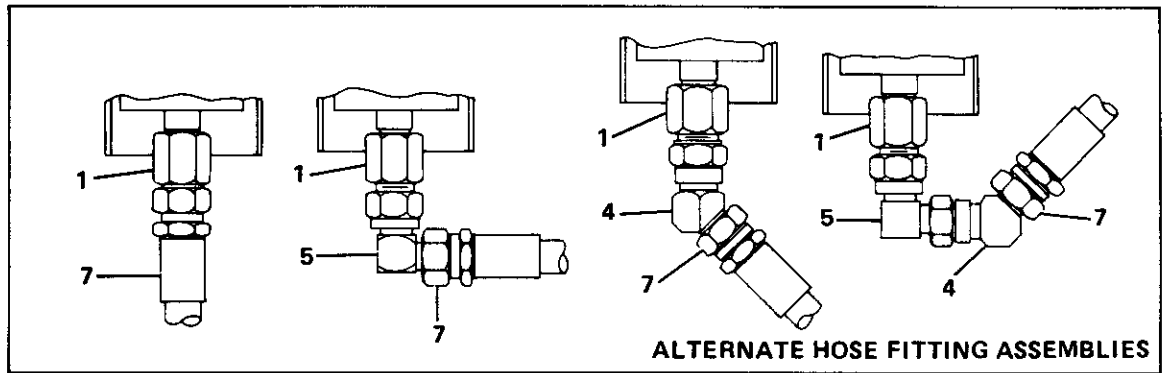
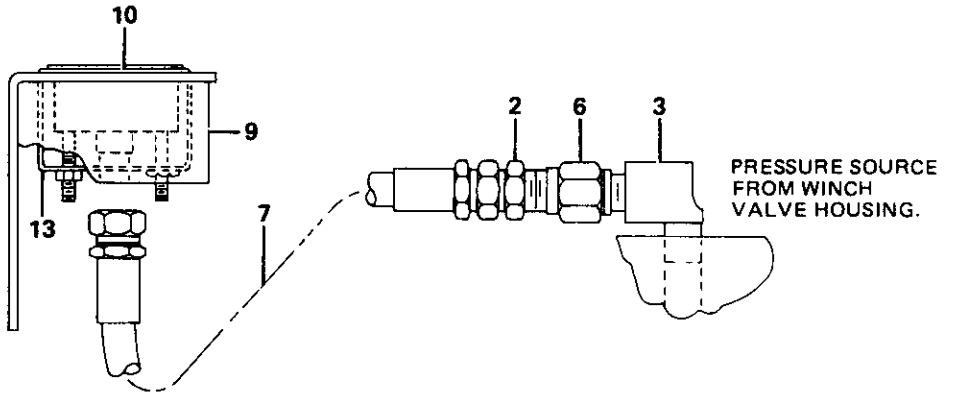


CONTROL STAND (MANUAL BRAKE)—NO. 49434-7 THRU -9

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | BRAKE STAND GROUP NO. | | |
|------|----------------|---------------------------------|-----------------------|---------------------|---------------------|
| | | | QUANTITY 49434-7 | QUANTITY 49434-8 | QUANTITY 49434-9 |
| 1 | 16033-6 | Nut, 3/8 UNC Hex | 4 | 4 | 4 |
| 2 | 16039-83 | Lock Nut, ESNA 21NE-083 | 1 | 1 | 1 |
| 3 | 16047-608 | Cap Screw, 3/8 UNC x 1 H.H. | 2 | 2 | 2 |
| 4 | 16047-620 | Cap Screw, 3/8 UNC x 2-1/2 H.H. | 2 | 2 | 2 |
| 5 | 16047-818 | Cap Screw, 1/2 UNC x 2-1/4 H.H. | 1 | 1 | 1 |
| 6 | 16064-3 | Washer, No. 10 | 1 | 1 | 1 |
| 7 | 16064-6 | Washer, 3/8 | 2 | 2 | 2 |
| 8 | 16067-6 | Lock Washer, 3/8 | 4 | 4 | 4 |
| 9 | 16398-4 | U-Bolt, CABLECRAFT 161-010-4 | 1 | 1 | 1 |
| 10 | 41404 | Ball | 1 | 1 | 1 |
| 11 | 50627 | Sector | 1 | 1 | 1 |
| 12 | 49435 | Handle | 1 | 1 | 1 |
| 13 | 49436 | Washer | 2 | 2 | 2 |
| 14 | 49437 | Bushing | 1 | 1 | 1 |
| 15 | 49438 | Spacer | 4 | 4 | 4 |
| 16 | 50629 | Rod | 1 | 1 | 1 |
| 17 | 49444-3 | Housing | 1 | | |
| 18 | 49445 | Spring | 1 | 1 | 1 |
| 19 | 49446 | Plate | 1 | 1 | 1 |
| 20 | 16067-4 | Lock Washer, 1/4 | 2 | 2 | 2 |
| 21 | 50099 | Arm | 1 | 1 | 1 |
| 22 | 49444-4 | Housing | | | 1 |
| 23 | 49444-5 | Housing | | 1 | |

NOTE: See page 29 for manual brake control group used with these stands

CARCO MODEL 80-PS, PSM & PSC WINCH
PARTS LIST SECTION—PAGE 35
PRESSURE GAUGE

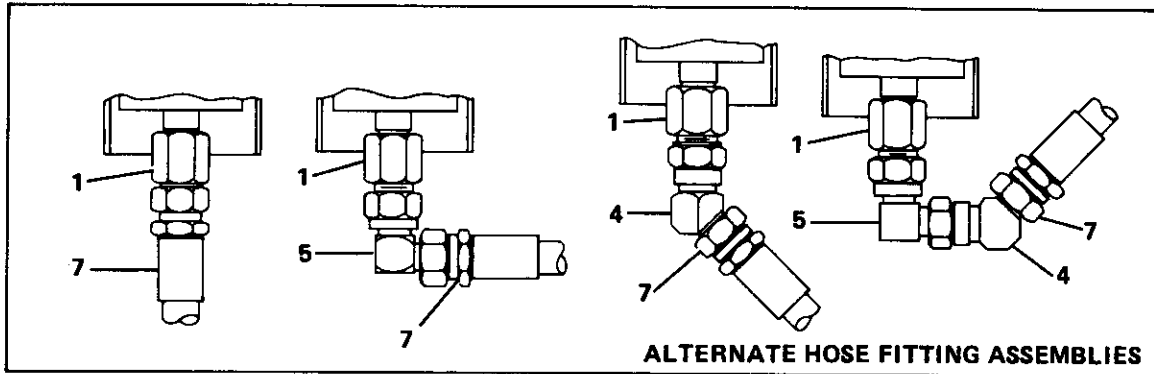
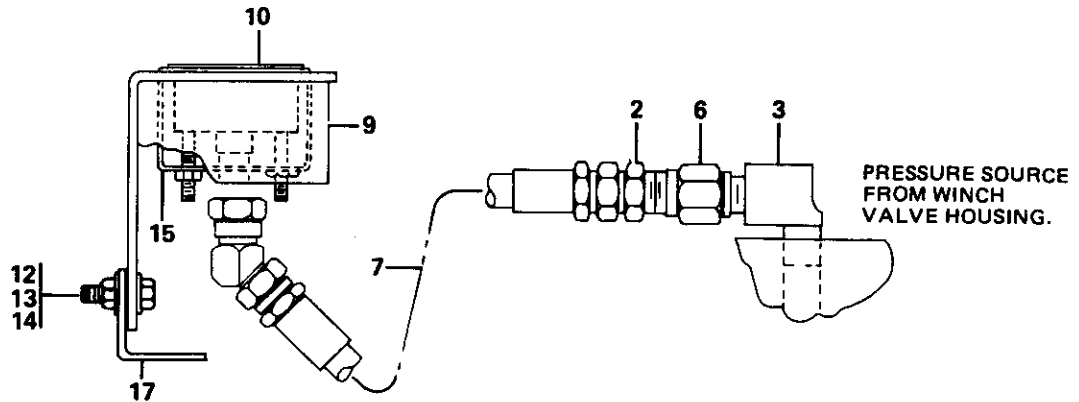


PRESSURE GAUGE KIT—NO. 48700-120

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT |
|------|----------------|---|----------------|
| 1 | 16116-44 | Adapter, WTHRD. C5255 x 4 x 4 | 1 |
| *** | 2 | Connector, WTHRD. C5205 x 4 x 4 (See Below) | 1 |
| *** | 3 | Elbow, WTHRD. 3400 x 4 (See Below) | 1 |
| 4 | 16184-44 | Union, WTHRD. C5356 x 4 | 1 |
| 5 | 16185-44 | Union, WTHRD. C5506 x 4 | 1 |
| *** | 6 | Snubber, CHEMIQUIP 25B-D (See Below) | 1 |
| * | 7 | Hose Assembly | 1 |
| ** | 8 | Tag, Instruction — Not Shown | 1 |
| 9 | 48687 | Bracket | 1 |
| 10 | 48693-1 | Gauge | 1 |
| ** | 11 | Sheet, Instruction — Not Shown | 1 |
| ** | 12 | Gauge Kit Print — Not Shown | 1 |
| 13 | 49121 | Bracket | 1 |

- * 48700-1 kit can be ordered, which is without item 7.
- ** Items 8, 11 and 12 are included in gauge kit.
- *** Items 2, 3 and 6 are also shown on control valve, page 10.

CARCO MODEL 80-PS, PSM & PSC WINCH
 PARTS LIST SECTION—PAGE 36
 PRESSURE GAUGE



PRESSURE GAUGE KIT – NO. 48944-120

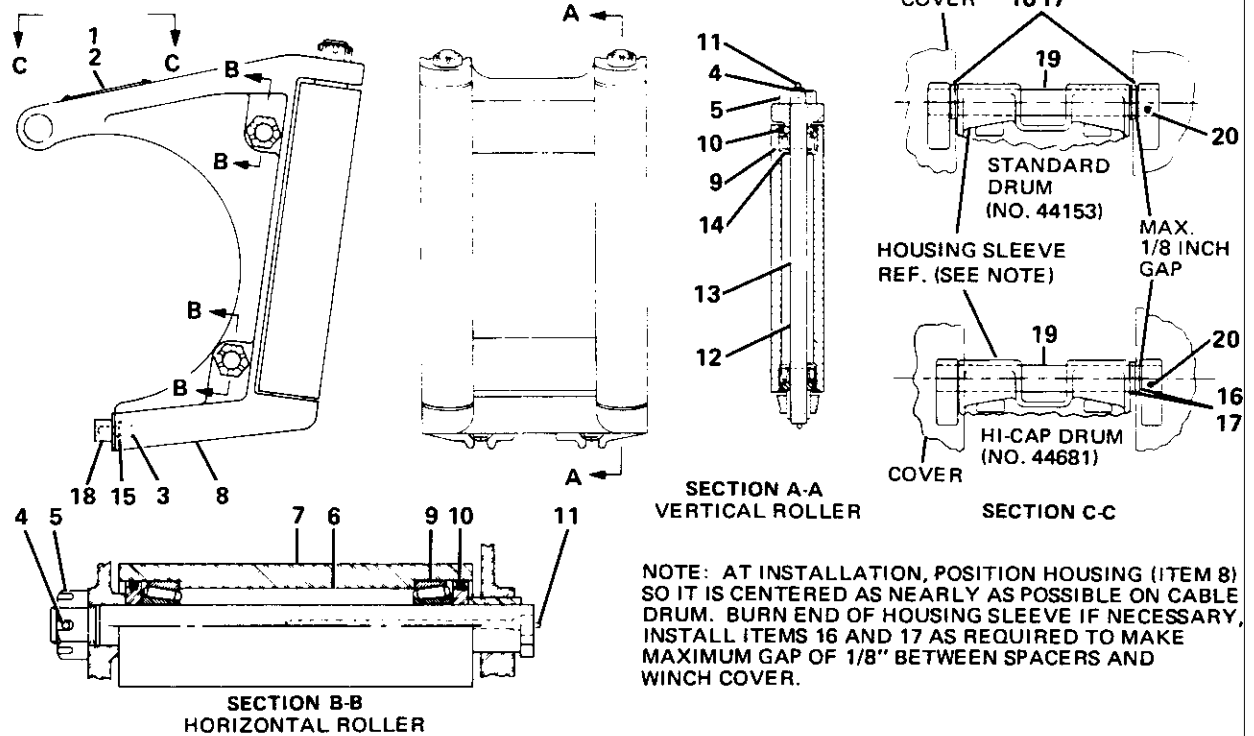
| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT | |
|------|----------------|-------------------------------|---|---|
| 1 | 16116-44 | Adapter, WTHRD. C5255 x 4 x 4 | 1 | |
| *** | 2 | 16129-44 | Connector, WTHRD. C5205 x 4 x 4 (See Below) | 1 |
| *** | 3 | 16171-44 | Elbow, WTHRD. 3400 x 4 (See Below) | 1 |
| | 4 | 16184-44 | Union, WTHRD. C5356 x 4 | 1 |
| | 5 | 16185-44 | Union, WTHRD. C5506 x 4 | 1 |
| *** | 6 | 16362-44 | Snubber, CHEMIQUIP 25B-D (See Below) | 1 |
| * | 7 | 44921-120 | Hose Assembly | 1 |
| ** | 8 | 45101 | Tag, Instruction – Not Shown | 1 |
| | 9 | { 48687 52493 | Bracket | 1 |
| | 10 | 48693-1 | Gauge | 1 |
| ** | 11 | 48712 | Sheet, Instruction – Not Shown | 1 |
| | 12 | 16047-608 | Cap Screw, 3/8 UNC x 1 H.H. | 1 |
| | 13 | 16033-6 | Nut, 3/8 UNC Hex. | 1 |
| | 14 | 16063-6 | Washer, 3/8 | 1 |
| | 15 | 49121 | Bracket | 1 |
| ** | 16 | 48944 | Gauge Kit Print – Not Shown | 1 |
| | 17 | 49343-2 | Bracket | 1 |

*48700-1 kit can be ordered, which is without item 7.

**Items 8, 11 and 16 are included in gauge kit.

***Items 2, 3 and 6 are shown on control valve, page 10.

THIS FAIRLEAD IS NORMALLY FURNISHED AS A 3-ROLLER UNIT, WITH HORIZONTAL ROLLER IN TOP POSITION — IF A 4-ROLLER UNIT IS REQUIRED, AN ADDITIONAL ROLLER CAN BE SUPPLIED CONSISTING OF ITEMS LISTED IN COLUMN "A" IN PARTS LIST.



FAIRLEAD—PART NO. } 40416-30 (3 ROLLER, USE WITH STD. OR HI CAP DRUM.)
40416-40 (4 ROLLER, USE WITH STD. OR HI CAP DRUM.)

| REF. | CARCO PART NO. | NAME AND DESCRIPTION | QUAN. PER UNIT | "A" |
|------|----------------|-----------------------------------|----------------|-----|
| 1 | 26248 | Name Plate | 1 | |
| 2 | 16055-5 | Drive Screw, #10 x 3/8 Type U | 4 | |
| 3 | 16047-2018 | Cap Screw, 1-1/4 UNC x 2-1/4 H.H. | 2 | |
| 4 | 16288-1240 | Cotter Pin, 3/8 x 2-1/2 | 3 | 1 |
| 5 | 16036-24 | Nut, TIMKEN K8111 | 3 | 1 |
| 6 | 35016 | Shaft | 1 | 1 |
| 7 | 30706 | Roller | 1 | 1 |
| 8 | 40415 | Housing | 1 | |
| 9 | 15235 | Bearing Cup | 6 | 2 |
| | 15178 | Bearing Cone | 6 | 2 |
| 10 | 30044 | Dust Guard | 6 | 2 |
| 11 | 16222-2 | Fitting, ALEMITE 1610B | 5 | 1 |
| 12 | 30705 | Roller | 2 | |
| 13 | 30701 | Shaft | 2 | |
| 14 | 30045 | Retainer | 4 | |
| 15 | 16063-20 | Washer, 1-1/4 | 2 | |
| 16 | 49879-1 | Spacer | 2 | |
| 17 | 49879-2 | Spacer | 2 | |
| * 18 | 42184 | Attaching Lug | 2 | |
| 19 | 49043-2 | Cable Guard | 1 | |
| 20 | 16288-1272 | Cotter Pin, 3/8 x 4-1/2 | 1 | |

*Welds to winch case.