



L-16 Crank-Up Lift

**Instruction &
Operation
Manual
2012**

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WINCH INSTALLATION

- READ THIS FIRST -

- (1) The L-16 lift and winch assembly are packaged separately. The lift is shipped with the steel cable installed. Take care when removing the winch from the carton as the lift leveling feet and other small parts are packaged with the winch.
- (2) Attach winch to platform mounting channel using (3) 3/8" x (3) 1-1/4" bolts provided. See figure 1 below.
- (3) Place bolts through holes and hold in place.
- (4) Place winch over bolts and secure with 3/8" flat washers and 3/8" self-locking nuts.
- (5) Install leveling pads to the bottom of each fold-out leg. (See page 4 for details).
- (6) Continue with operation instructions on page 2.

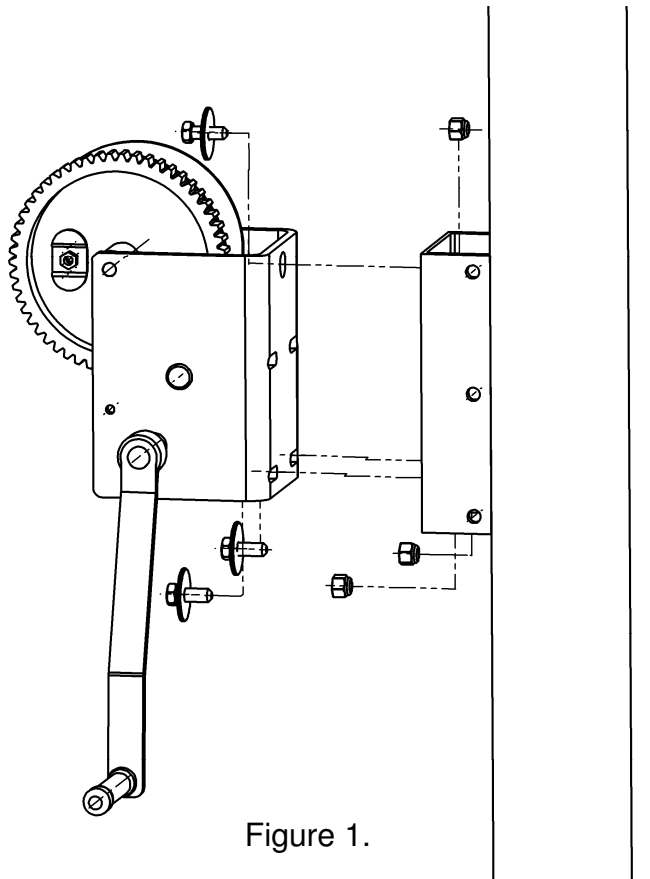
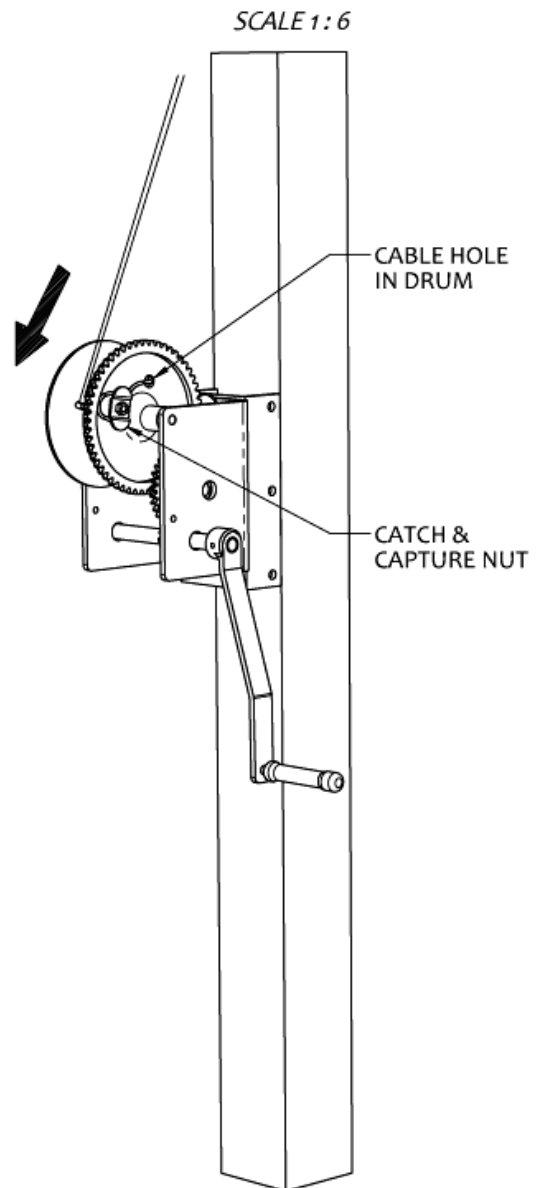


Figure 1.

WINCH CABLE ATTACHMENT

- 1) WRAP AT LEAST 2 TURNS OF CABLE AROUND THE DRUM OF THE WINCH.
- 2) FEED AT LEAST 5IN OF CABLE THRU THE HOLE ON THE RIGHT SIDE OF WINCH DRUM, SAME SIDE AS CRANK HANDLE.
- 3) WITH YOUR THUMB BEND A LOOP IN THE CABLE, AS ILLUSTRATED.
- 4) LOOSEN THE CAPTURE NUT AND CAREFULLY FEED THE LOOP THRU THE CATCH AND TIGHTEN THE CAPTURE NUT WITH A WRENCH.

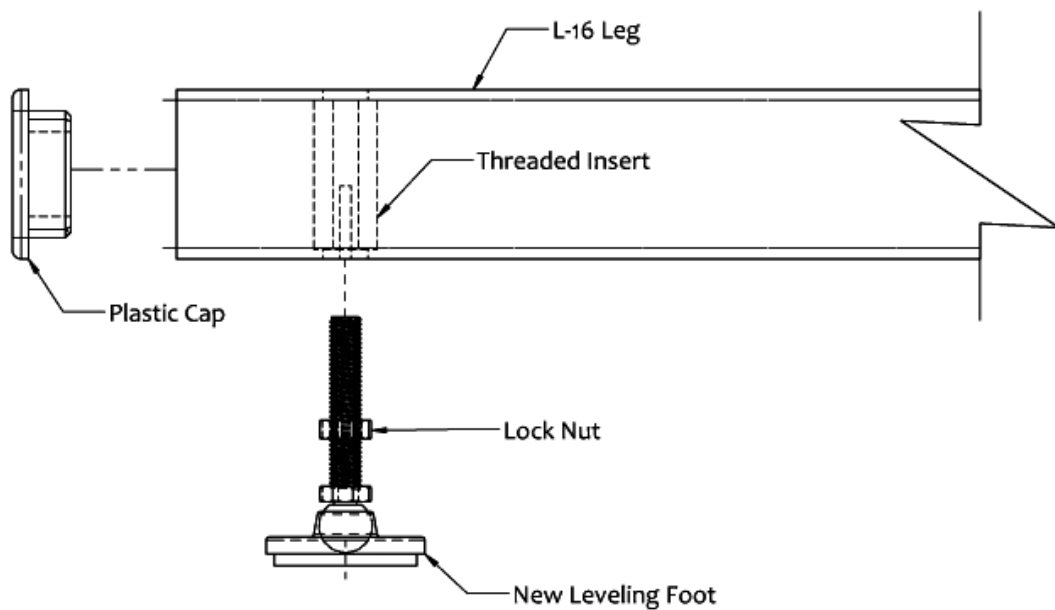


OPERATION

- (1) Remove locking pin holding each leg in the folded position. Fold the legs down and re-insert locking pins through the leg braces.
- (2) The central mast is the main load supporting element.
- (3) Adjust the leveling pads at the end of each leg so that the lift is vertically straight and level. Make sure to eliminate any slack between the legs and braces. Leveling pads should not be adjusted so that the central mast does not rest solidly on the ground.
- (4) Inspect the cable to make sure that none of the wires are frayed or that the cable itself has not been crushed.
- (5) Test the lift to see that no damage has been incurred that would bind the moving pieces of the system.
- (6) Secure the load to your lift in a proper fashion being careful to have a positive fastening.
- (7) If two or more lifts are being used simultaneously, all lifts must be raised evenly.
- (8) Three safety pins are provided for use when raising and lowering the lift. These must be used to insure safety in the event of cable failure. As you raise the lift, insert a safety pin into the first hole in the 2" tube. Then insert a 2nd pin into the next hole down as it becomes visible. When the 3rd hole becomes available, remove the first safety pin and insert it into the 3rd hole. Continue to alternate pins through the holes until the second stage begins to rise. Leave a pin in the last hold of the 2" tube. Using the two remaining pins, repeat the above procedure inserting pins in the 3" tube for lifts above 12 ft. To lower the system, follow the above procedures in reverse order.

NOTE: MAKE SURE THAT THE WINCH IS RATCHETING AS YOU CRANK. IF THIS FAILS TO HAPPEN, LOWER THE LIFT SLIGHTLY AND THEN RAISE IT AGAIN UNTIL YOU HEAR IT CLICK BEFORE RELEASING THE HANDLE. IF THIS OCCURS, THE WINCH MAY NEED TO BE ADJUSTED INTERNALLY.

WARNING: KEEP HANDS FREE OF UPPER TUBES WHILE RAISING AND LOWERING LIFT!

L-16 LEG ASSEMBLY

THREAD LEVELING FOOT INTO THE THREADED INSERT WITHIN THE L-16 LEG.
THREAD THE LOCK-NUT UP INTO POSITION TO SET YOUR LEVELING HEIGHT.
PRESS BLACK PLASTIC CAP INTO THE END OF THE LEG TUBE.

MAINTENANCE

The steel cable deserves and requires the most attention as it is the means by which the load is able to move up and down. The proper cable for this application is supplied, but it is up to you to inspect and maintain it regularly.

- (1) Keep the cable lubricated periodically to avoid oxidation. Any light duty oil or silicone based lubricant will do just fine.
- (2) Lubricate the pulleys frequently to prevent premature wear. The same lubricant used on the cable will be sufficient for this application.
- (3) If the cable shows any sign of fraying, wear, or deformation – order a replacement from your authorized Applied Electronics dealer or distributor.
- (4) Inspect the ball and shank that is swaged to the top end of the cable. See that the cable always remains flush to the outside of the ball.
- (5) Always replace any bent or broken parts immediately. These are available and should be purchased through the Applied Electronics dealer network.
- (6) Individually push the 2” and the 3” tubes to one side in both directions and check the gap between the tube and the bushing material that surrounds the tube at the top of each larger tube. If the gap ever becomes greater than .035”, then new material should be ordered to replace the worn material. This gap measurement can be handled quickly and effectively with a standard feeler gauge.
- (7) To replace the cable, follow the cable routing diagram in fig. (A) page 7. Be sure to keep the tubes in the same alignment orientation. Termination of the cable to the winch should be done as shown in fig. (B) page 7.
- (8) In order to insure extended winch performance, occasionally grease gears, reel shaft and handle threads. An occasional drop of oil on drive shaft bearings is also recommended.

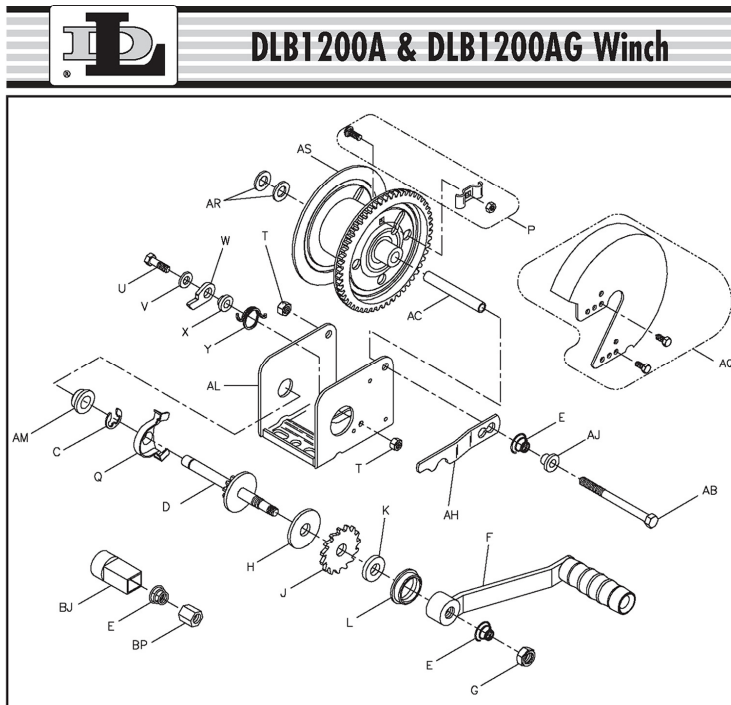
DO NOT OIL OR GREASE WINCH BRAKE MECHANISM.

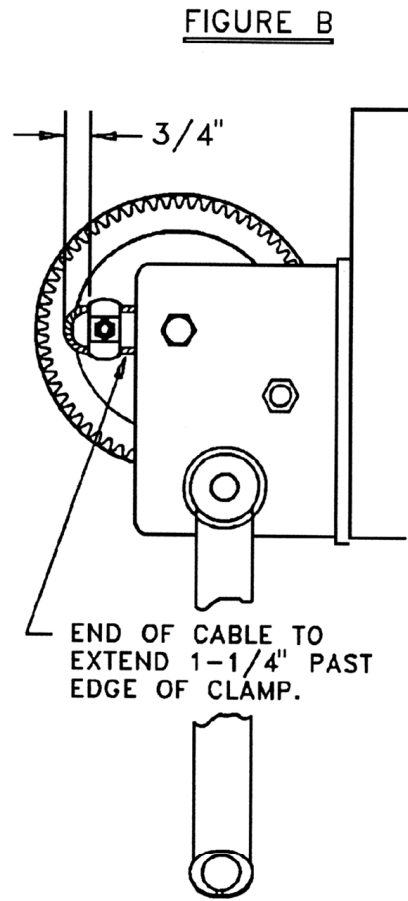
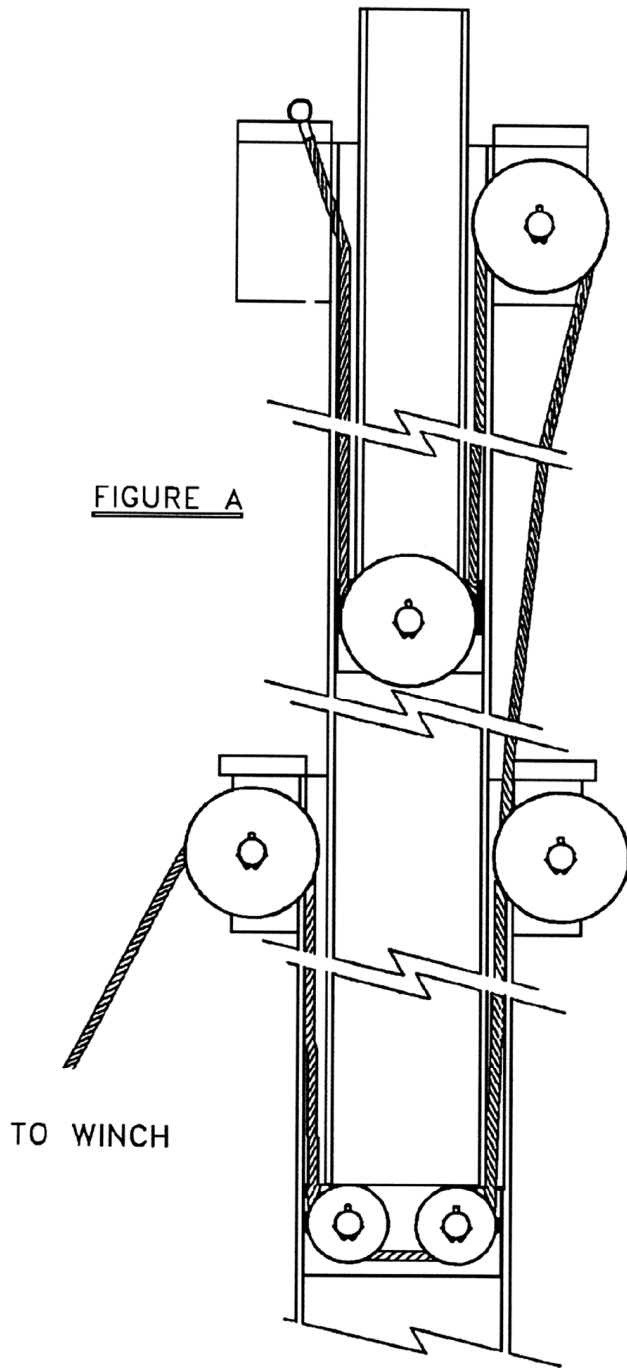
WINCH PARTS BREAKDOWN

PARTS LIST

| Ref | Description | Part No. | Ref | Description | Part No. |
|-----|---------------------------|----------|-----|--------------------------|----------|
| A | Base | 404900* | AH | Lockout Lever (optional) | 404579 |
| A | Base – DLB 350AG | 404945* | AJ | Spacer (optional) | 404166 |
| B | Bushing | 204012 | AK | Gear Cover (optional) | |
| C | "E" Ring | 205116 | | Painted Bronze | 5240346 |
| D | Drive Shaft | 306061 | | Plated | 5240361 |
| E | Spring | 204364 | AL | Base | 404896* |
| F | Handle – 7" | 5703061 | | Base – DLB 1200AG | 404897* |
| | Handle – 9-3/8" | 5703103 | AM | Bushing | 204009 |
| G | Nut | 205033 | AN | Gear Cover – "G" Series | 406115 |
| H | Pressure Plate | 204362 | AQ | Gear Cover (optional) | |
| H | Pressure Plate "G" Series | 206620 | | Painted Bronze | 5240122 |
| J | Ratchet Wheel | 404164 | | Plated | 5240221 |
| K | Pressure Washer | 404163 | AR | Spacer Washer | 204360 |
| L | Bushing | 206328 | AS | Reel | 304754* |
| M | Nut | 205316 | AS | Reel – 1-7/8" (optional) | 304768* |
| N | Bolt | 205332 | AT | Base | 404891* |
| P | Rope Clamp Kit | 5243506 | | Base – DLB 1500AG | 404892* |
| Q | Gear Cover – "G" Series | 406114 | AU | Drive Shaft | 304760 |
| S | Reel | 306075* | AV | Handle – 9-3/8" | 5703103 |
| | Reel - DLB350AG | 306167 | | Handle – 12" | 5703111 |
| T | Locknut | 204803 | AW | Bolt | 204804 |
| U | Bolt | 205167 | AX | Reel Spacer | 204808 |
| V | Flat Washer | 205055 | AY | Gear Cover (optional) | |
| W | Pawl | 404409 | | Painted Bronze | 5240387 |
| | Pawl – "G" Series | 404190 | | Plated | 5240403 |
| X | Spacer | 404166 | AZ | Reel | 304755* |
| | Spacer – "G" Series | 404191 | BA | Base – DLB2500A | 406047* |
| Y | Spring | 204363 | | Base – DLB 2000AG | 404899* |
| | Spring – "G" Series | 204460 | BB | Spacer | 404434 |
| Z | Reel Spacer | 207183 | BC | Bolt | 205006 |
| AB | Bolt | 203161 | BD | Flat Washer | 205139 |
| AC | Reel Spacer | 204807 | BE | Intermed. Drive Shaft | 306035 |
| AE | Reel | 306062* | BF | Nut | 205014 |
| AF | Base | 404893* | BH | Reel | 304756* |
| | Base – DLB 800AG | 404895* | BJ | Drive Hub (Optional) | 304562 |
| | | | BM | Handle w/Lock Pin (Opt) | 5703426 |
| | | | BN | Handle Hub (Optional) | 304630 |
| | | | BP | Special Nut (Optional) | 404970 |
| | | | BQ | "E" Ring | 206162 |
| | | | BR | Bushing | 206163 |
| | | | BS | Bolt | 205335 |

*Specify Color When Ordering





SPECIFICATIONS

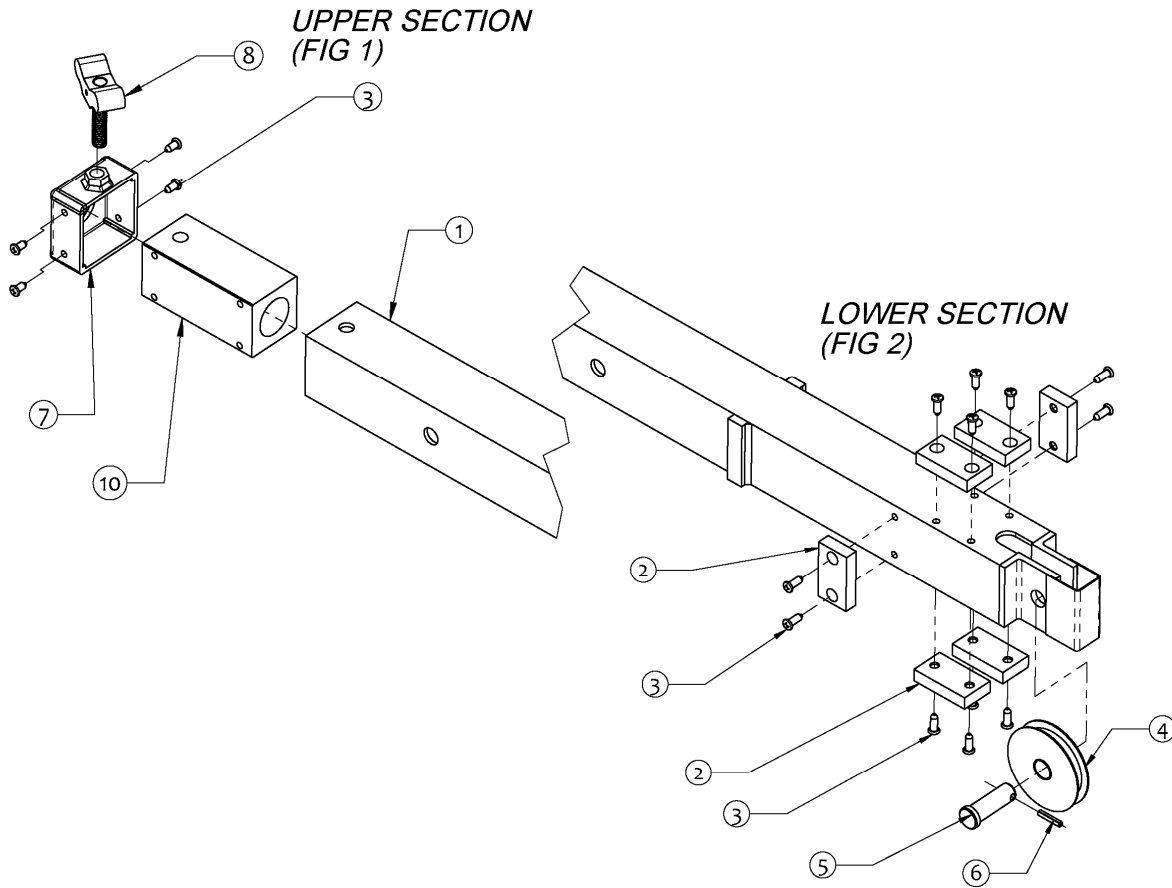
- Three Section 16 ft. Crank-Up Lift
- 500 lb. Load Maximum at 6' Through 16'
- 6-1/2' Loading Height
- 16' Maximum Lift Height
- 84" Base Diameter For Stability
- 6-1/2' Folded Length
- 18" Folded Diameter
- 95 lbs. Total Weight
- 3/16" Steel Cable

FIELD REPLACEMENT PARTS**PART NUMBER****DESCRIPTION**

| | |
|----------|-------------------------------------------------|
| 91-505 | Winch, DLB1200A |
| 91-501 | Cable, 3/16" 7 x 19 GAC With Ball and Shank |
| 91-039 | Top Plastic Insert |
| 96-000 | Steel Lock Collar |
| 91-328 | Thumbscrew |
| 90-112 | 2" Mast Tube |
| 90-113 | 3" Mast Tube |
| 91-114 | 4" Mast Tube |
| 91-022 | Wheel Kit |
| 91-316 | Brace End Cap 1-1/2" x 2" |
| 91-317 | Leg End Cap 2 x 2 |
| 92-500 | Leg |
| 92-501 | Leg Brace/Outrigger |
| 92-502 | Complete Leg/Brace Assembly |
| 92-504 | Threaded Leg Insert |
| 91-025a | Leveling Pad/Foot |
| 91-301 | Mast Pin, 3/8" x 4-1/2" Quick Release |
| 91-300 | Leg Pin, 3/8" x 3-1/2" Quick Release w/T Handle |
| 91-310 | Clevis Pin, 1/2" x 1-1/2" |
| 91-304 | Slotted Roll Pin |
| 91-023 | Pulley, 1-1/2" DIA With Bushing |
| 91-024 | Pulley, 2-1/2" DIA With Bushing |
| 91-336 | Upper Bushing Material, 1-7/8" |
| 91-337 | Upper Bushing Material, 2-7/8" |
| 91-334 | Lower Bushing Material, 1-7/8" |
| 91-335 | Lower Bushing Material, 2-7/8" |
| 91-327 | Bushing Set (20) 1-7/8" (4) 2-7/8" |
| *92-503 | Mast Insert |
| *91-026a | Retro Fit Leveling Pad, Insert and Pin Kit |
| *91-025 | Leveling Pad/Foot |
| *91-026 | Brass Leveling Pad Insert |

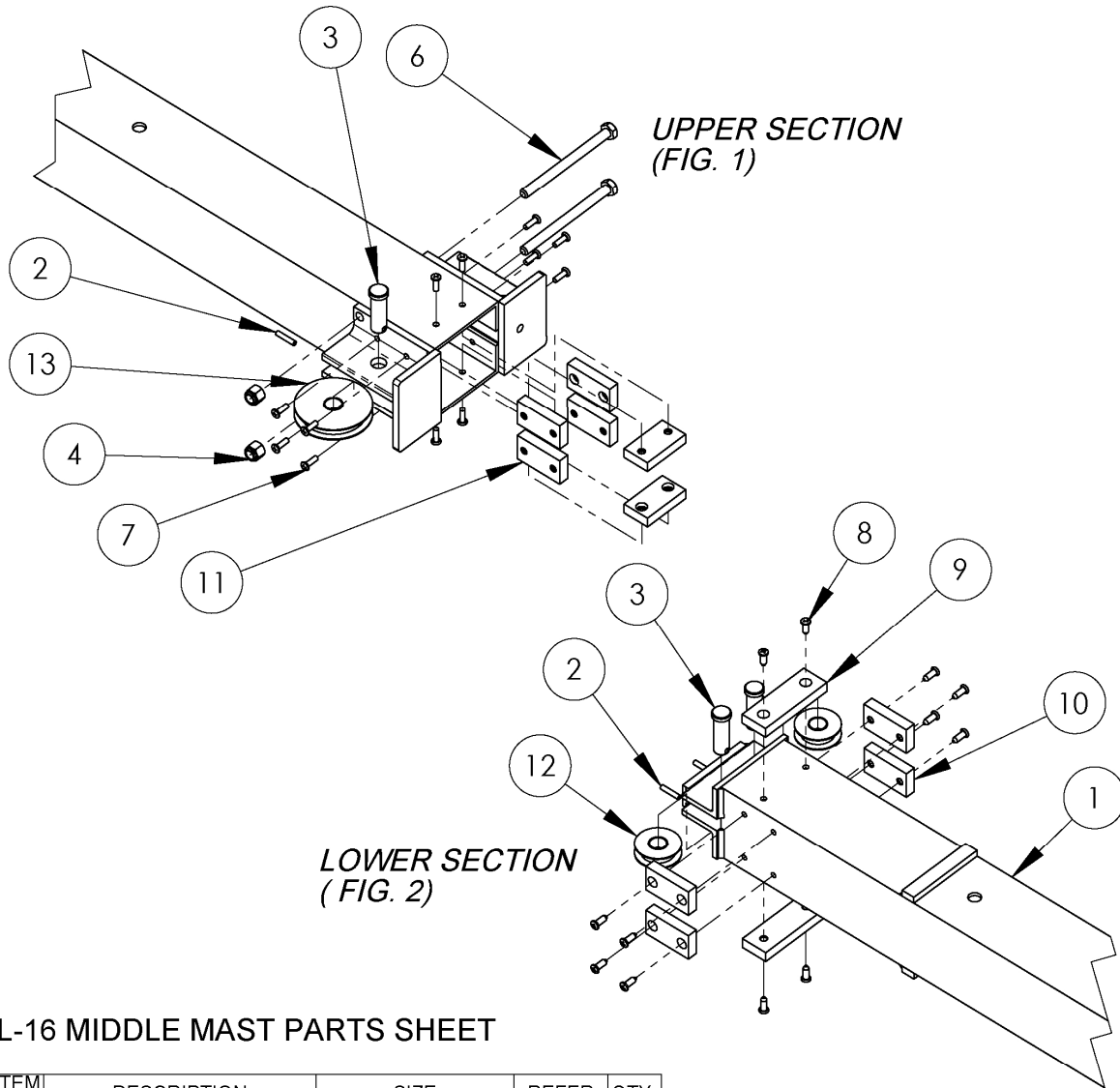
*For lifts manufactured prior to 2011

L-16 TOP MAST PARTS SHEET



| ITEM NO. | DESCRIPTION | SIZE | REFER. NO. | QTY. |
|----------|-------------------------|---------------------------|------------|------|
| 1 | L-16 2in Mast - Stage 3 | TOP MAST | 90-112 | 1 |
| 2 | LOWER BUSHING | .375 WIDTH 1.75" | 91-334 | 6 |
| 3 | SHEET METAL SCREW | #8 X 1/2" LG. ZINC | 91-066 | 16 |
| 4 | CABLE PULLEYS | LENGTH 2.5" | 91-024 | 1 |
| 5 | PIN - CLEVIS | .50in DIA. 1.50in. Lnth | 91-310 | 1 |
| 6 | PIN - SLOTTED ROLL | 0.156in x 0.75in Pin | 91-304 | 2 |
| 7 | L-16 STEEL LOCK COLLAR | SHEET METAL PART | 96-000 | 1 |
| 8 | L-16 THUMBSCREW | 3/8-16 X 1.25" Lnth | 91-328 | 1 |
| 10 | TOP PLASTIC INSERT | MACHINED SQU HDPE 4" Lnth | 91-039 | 1 |

L-16 MIDDLE MAST PARTS SHEET

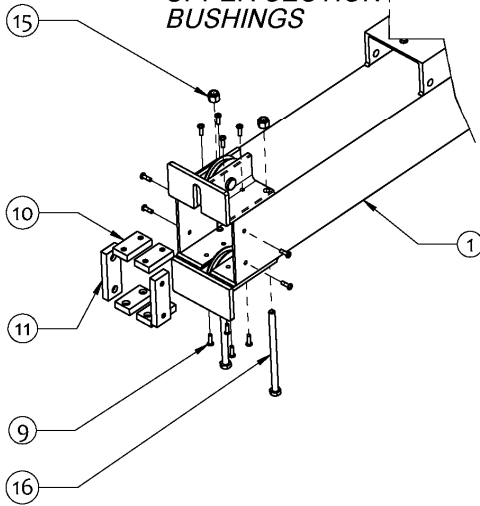


L-16 MIDDLE MAST PARTS SHEET

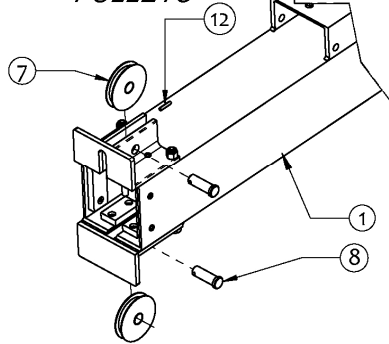
| ITEM NO. | DESCRIPTION | SIZE | REFER. | QTY. |
|----------|----------------------------------|------------------------|--------|------|
| 1 | L-16 3in Mast - Stage 2 | MIDDLE MAST | 90-113 | 1 |
| 2 | PIN - SLOTTED ROLL | 0.156 in X 0.75 in Pin | 91-304 | 3 |
| 3 | PIN - CLEVIS | .50in Dia 1.50in Lnth | 91-310 | 3 |
| 4 | SAE HEX NUT - NYLOCK | 5/16-18 Thread | 91-063 | 2 |
| 6 | SAE 5/16-18 HEX CAP GRADE 5 BOLT | Length 4.00in | 91-081 | 2 |
| 7 | MACHINE SCREW | #8-32 x 5/8" Lg. Zinc | 91-074 | 12 |
| 8 | SHEET METAL SCREW | #8 x 1/2" Lg. Zinc | 91-066 | 12 |
| 9 | LOWER BUSHING | .375 Width 2-7/8" | 91-335 | 2 |
| 10 | LOWER BUSHING | .375 Width 1-7/8" | 91-334 | 4 |
| 11 | UPPER BUSHING WITH NUT | .375 Width 1-7/8" | 91-336 | 6 |
| 12 | CABLE PULLEYS | Length 1.5in | 91-023 | 2 |
| 13 | CABLE PULLEYS | Length 2.5in | 91-024 | 1 |

L-16 BOTTOM MAST PARTS SHEET pg1

(FIG. 1)
UPPER SECTION
BUSHINGS

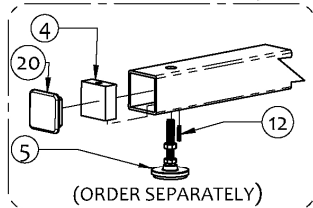


(FIG. 2)
UPPER SECTION
PULLEYS

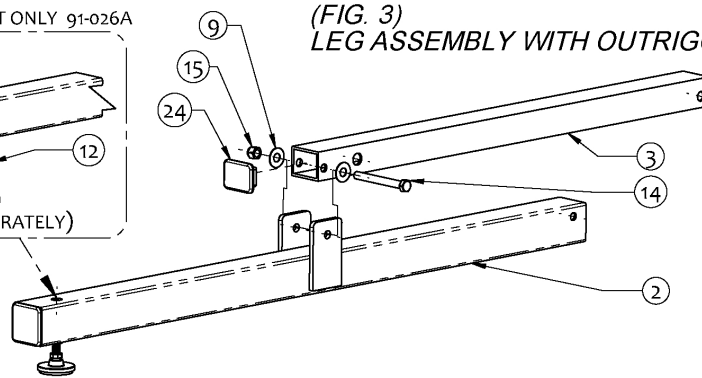


| ITEM NO. | DESCRIPTION | SIZE | REFER NO. | QTY |
|----------|----------------------------|----------------------------------------|-----------|-----|
| 1 | L-16 4IN MAST - STAGE 3 | BOTTOM MAST | 90-114 | 1 |
| 2 | L-16 LEG | LEG ASSEMBLY | 92-500 | 4 |
| 3 | L-16 OUTRIGGER | Leg Brace / Outrigger | 92-501 | 4 |
| 4 | L-16 LEG INSERT - THREADED | 1.75" x 1.75" x .75" | 92-504 | 4 |
| 5 | L-16 SCREW FOOT | L16 Foot - 3/8in Threaded Leveler | 91-025a | 4 |
| 6 | PIN - QUICK RELEASE | 3/8 DIA. X 3-1/2" Pin w/ T-Handle | 91-300 | 4 |
| 7 | CABLE PULLEY | LENGTH 2.5in. | 91-023 | 2 |
| 8 | PIN - CLEVIS | PIN - CLEVIS | 91-310 | 2 |
| 9 | MACHINE SCREW | #8-32 x 5/8" Lg. Zinc | 91-074 | 12 |
| 10 | UPPER BUSHING WITH NUT | .375 WIDTH 2-7/8" | 91-337 | 2 |
| 11 | UPPER BUSHING WITH NUT | .375 WIDTH 1-7/8" | 91-336 | 4 |
| 12 | PIN - SLOTTED ROLL | .156in. X 0.75 in. Pin | 91-304 | 2 |
| 13 | WINCH | L-16 Winch Base Plate | 91-505 | 1 |
| 14 | SAE HEX CAP BOLT | 3/8- 16 Length 3.5" GRD 8 ZINC. | 91-078 | 7 |
| 15 | SAE HEX NUT - NYLOCK | 3/8-16 THREADS | 91-063 | 8 |
| 16 | SAE HEX CAP BOLT | 5/16-18 Length 5.0" GRD5 ZINC | 91-082 | 2 |
| 17 | CASTER WHEEL BEARING | .50" Dia x 1.5" Length (Part of wheel) | --- | 2 |
| 18 | CASTER WHEEL | 3.5 in. X 1.25 in. Colson | 91-014 | 2 |
| 19 | FLAT WASHER | .375" Standard Flat Washer | 91-010 | 2 |
| 20 | PLASTIC TUBE CAP | 2" SQU. Cap - Black | 91-317 | 4 |
| 21 | FLAT WASHER | .375" Stainless Steel - Thin Washer | 91-012 | 16 |
| 22 | SAE HEX CAP BOLT | 3/8- 16 Length 6.5" GRD 8 ZINC. | 91-068 | 1 |
| 23 | SAE HEX NUT - NYLOCK | 5/8-18 THREADS | 91-063 | 2 |
| 24 | PLASTIC TUBE CAP | 1.5" x 2" Cap - Black | 91-316 | 4 |

L-16 LEG RETROFIT KIT ONLY 91-026A

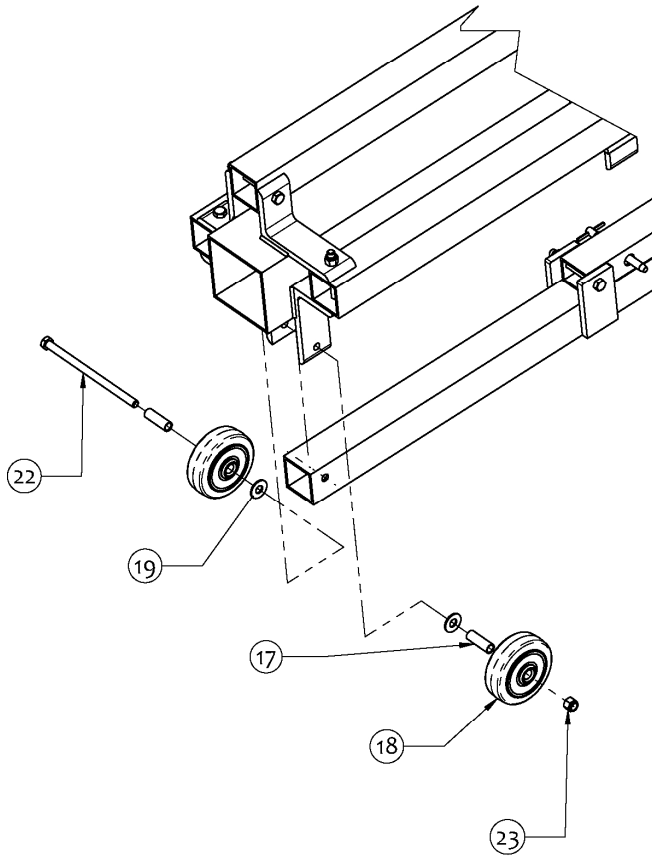


(FIG. 3)
LEG ASSEMBLY WITH OUTRIGGER

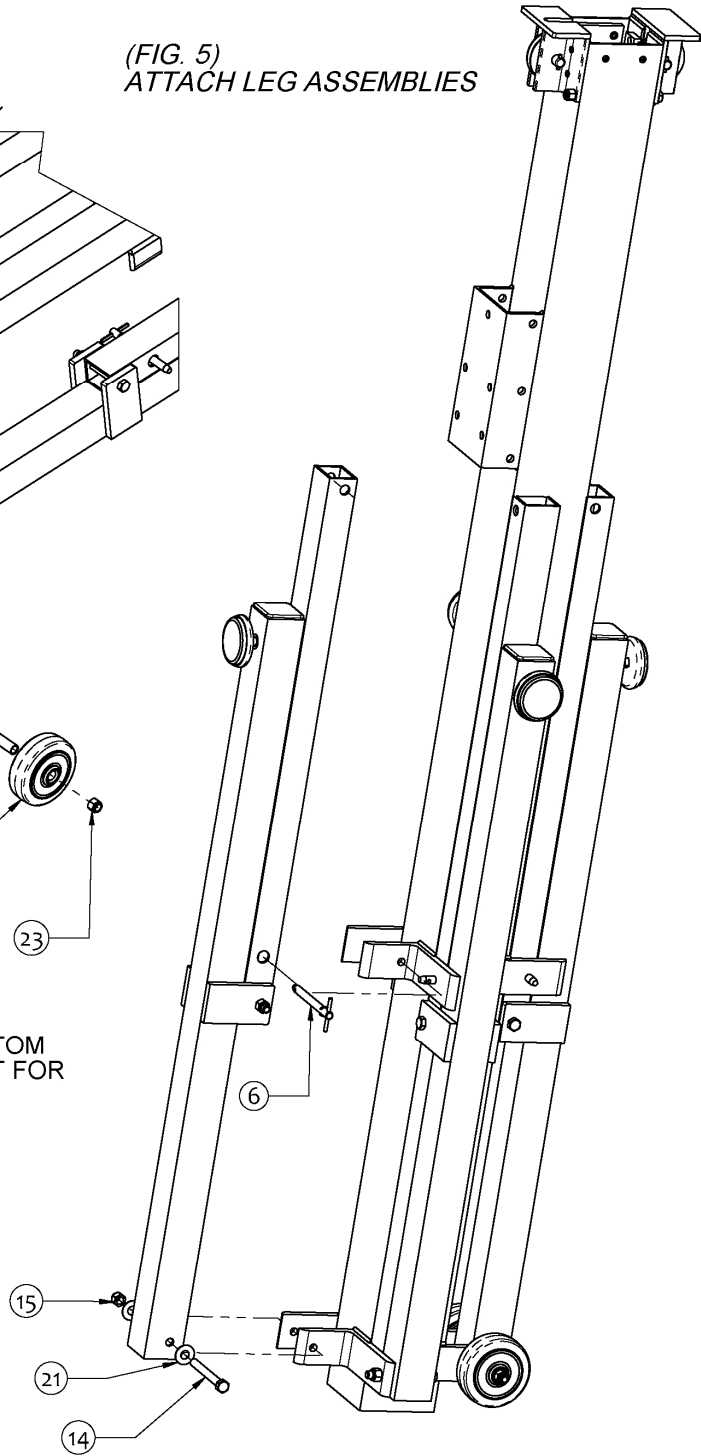


L-16 BOTTOM MAST PARTS SHEET pg2

(FIG. 4)
ATTACHING LOWER WHEELS



(FIG. 5)
ATTACH LEG ASSEMBLIES



NOTES:
1) EACH LEG ATTACHES TO THE BOTTOM
MAST (FIG 5) THE SAME WAY, EXCEPT FOR
THE LEG WITH WHEELS (FIG 4)
WHICH IS OPPOSITE THE WINCH.