

# HOYER®

*Hoyer®*

Hydraulic Patient Lifters

HML400, C-HLA, C-HLA-2

*User*

*Instruction*

*Manual &*

*Warranty*



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This manual contains important safety and maintenance instructions. Please read it carefully before using your patient lifter and refer to it as often as needed for safe and efficient use.

If you have questions regarding the safe use and/or assembly, maintenance, or specifications of your patient lifter, you should call Customer Service

For service and repair, remember your authorized Hoyer dealer is able to provide the assistance you need.

Save this manual for future reference. For non-homecare lifters, your maintenance department should keep this manual.

**CAUTION**– For patient use, refer to the separate manual, “How To Use a Patient Lifter”. If you did not receive a copy or need additional copies contact: Customer Service

** WARNING**

**Using other manufacturers’ parts on Hoyer products is unsafe and may result in serious injury to patient and/or attendant. Use only Hoyer parts. Hoyer lifter parts are NOT interchangeable with other manufacturers’ products. Replace any worn parts immediately.**

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## MODELS



C-HLA

C-HLA-2

HML 400

## SPECIFICATIONS

	C-HLA	C-HLA-2	HML400
<b>Base</b>	Adj. U	Adj. U	Adj. U
<b>Max. Weight Capacity</b>	400 lbs.	400 lbs.	400 lbs.
<b>Lift-range of Boom</b>	29"-80"	29"-80"	28.25"-75"
<b>Width of Base</b>	23"-39"	23"-38"	24"-40"
<b>Length of Base</b>	41"	41"	43"
<b>Base Clearance</b>	5.5"	5.5"	5.25"
<b>Finish</b>	Chrome	Chrome	Tan

## ASSEMBLY

The following tools are required for assembly:

HML400: 3/4" & 1/2" wrench, 3/16" hex wrench, 1/8" hex wrench, and a thin layer of grease should be applied to all bolts.

C-HLA & C-HLA-2: two 9/16" wrenches, 1/8" hex wrench, and a thin layer of grease should be applied to all bolts.

- Carefully unpack Hoyer Lifter. Check for swivel bar/6-point cradle and adjusting lever handle.
- C-HLA and C-HLA-2– Insert mast in base sleeve (Fig. 1). Be sure notch on end of mast fits over bolt in bottom of mast sleeve. Mast must lock into position in base sleeve, making it impossible to rotate. Check carefully to be certain mast cannot rotate.
- HML400– Insert mast in base and tighten bolt.
- Make certain boom points in same direction as base legs. Thread mast safety lock and stud into threaded hole in mast sleeve. Tighten firmly, locking mast into base (Fig. 2). Keep mast and base locked at all times except when removing mast from base for storage.

**⚠ WARNING**

**HML400 only– All sholder bolts must engage through bracket on both sides. If bolt is not fully engaged, misalignment and premature failure may result. Worn parts could fail, resulting in injury to resident/caregiver.**

- C-HLA and C-HLA-2 only– Insert boom end into hole in yoke hinge at the top of mast. Fasten bolt and nut (Fig. 3). Be certain hex of bolt head fits into formed hex on side of hinge and that plastic washer is under lock nut.
  - HML400– Attach boom to top of mast with hardware.
- Attach hydraulic pump to boom (Fig. 4).



Figure 1



Figure 2



Figure 3



Figure 4

## 6. Cradle/Swivel Bar Attachment

**Cradle Attachment**

- Remove nut and bolt from cradle.
- Hold cradle in position at the end of the boom and align the holes of the pin and cap with the holes in the boom end fork.
- C-HLA & C-HLA-2 only– Insert supplied bolt and washer through boom fork, cradle cap and pin. Washers must be placed on the outside of the fork under bolt head and under the nut (Fig. 5). Place nut on bolt, and secure tightly (Fig. 6).
- HML400– Attach cradle with hardware.
- Swivel cradle to check for free movement.

**⚠ WARNING**

Inside center attachment points on cradle are used only for Hoyer slings with chains or straps. The four outside attachments points are used for Hoyer 4-point slings.

**⚠ WARNING**

The large thrust washer must be inserted on the cradle hanger post as shown in Figure 7. If washer is not present, the cradle hanger post and cradle center may wear prematurely. Worn cradle parts could fail, resulting in injury to resident/caregiver. Hanger post should protrude cradle center by 1/16<sup>th</sup> inch.

**Swivel Bar Attachment – C-HLA only**

- Insert swivel bar hook into loop at end of boom. Check to be sure bar hook is inserted completely into the loop.
- Attach adjusting lever handle into base (Fig. 7).
  - Wheel locks are provided for parking. To lock caster, step on cam lever on side of caster. To unlock, step on highest cam lever (Fig. 8).

**⚠ WARNING**

Never lock wheel locks or block wheels when lifting someone. Wheel locks are provided for parking the lifter only.



Figure 5



Figure 6



Figure 7

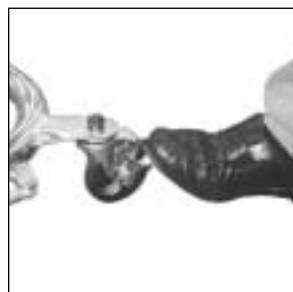


Figure 8

**OPERATING INSTRUCTIONS****A. TO RAISE LIFTER:**

- Tighten hydraulic pressure release knob by turning it clockwise. Release knob is located on pump near pump handle (Fig. 9). Base of lifter must be spread to widest possible position to maximize stability (Fig. 10).
- Pump hydraulic handle (Fig. 11). Do not lock rear casters. If needed, lifter base will move slightly to adjust for balance.

**B. TO LOWER LIFTER:**

- Open hydraulic pressure release knob by turning it counter-clockwise, not more than one full turn (Fig. 12).
- Guide descent. Push gently on knees to attain correct sitting posture while lowering.
- After patient reaches seat, push down on boom to slacken chains.

**BE SURE TO READ "HOW TO USE A PATIENT LIFTER" MANUAL BEFORE ATTEMPTING A LIFT.**

**⚠ WARNING**

Lifters can tip over. Keep base widened for stability. NEVER lock wheel locks or block wheels when lifting someone. Wheel locks are provided for parking. To lock casters, step on cam lever on side of casters. To unlock, step on highest cam lever.



Figure 9



Figure 10



Figure 11



Figure 12

**MAINTENANCE & CARE**

Regular maintenance of lifters and accessories is necessary to assure proper and safe operation. Read and observe the following recommended instructions:

	Initially	Before Each Use	Bi-Monthly
<b>1. Base and Wheels</b>			
Base is even and level (all four wheels are on the floor)	x	x	
Wheel bolts are tight	x	x	
Wheels swivel and roll easily	x	x	
<b>2. Base Adjustment</b>			
Base locks securely, all parts are present	x	x	
Base opens and closes smoothly	x	x	
Check spreader lock and all hardware for wear		x	
<b>3. Mast</b>			
Mast fully engaged and locked into mast sleeve	x	x	
Inspect for bends or deflections		x	
Inspect all bolts and nuts for wear		x	
<b>4. Boom</b>			
Inspect all bolts and nuts for wear		x	
Inspect to ensure the boom is centered between the base legs	x	x	
<b>5. Cradle</b>			
Check hanger post for wear or damage. Replace post if wear exceeds 1/16 inch.		x	
Check sling attachments for wear or deflection	x	x	
<b>6. Swivel Bar</b>			
Check nut at bottom of swivel bar hook and eye hook on boom for wear.			x
Check for two nylon washers between nut of swivel bar hook and underside of swivel bar assembly.	x		x
<b>7. Pump Assembly</b>			
Tighten seals around piston with spanner wrench provided	x		x
Pump handle and valve work smoothly	x	x	
Check for oil leakage, a light film is normal, but not to the point of dripping	x	x	
<b>8. Slings and Hardware</b>			
Check metal parts for wear or damage		x	
Check slings and web straps for wear or damage	x	x	

	Initially	Before Each Use	Bi-Monthly
<b>9. Lubrication</b>			
Oil all pivot joints, including:			
Top of mast where boom attaches			x
Top and bottom of actuator mounting			x
Pump handle hinge			x
Use a light grease to lubricate base adjustment lock plate and all rotating hardware			x
Wheel and swivel bearings			x
<b>10. Cleaning</b>			
Use mild soap to clean; dry thoroughly			x
Apply auto or appliance wax			x
Keep painted surface clean from oil		x	
Do not wash under water pressure			

**NOTE- HYDRAULIC PUMP**

1. Use pump to raise boom to position for lifting patient.
2. DO NOT lift up on end of boom to position for lifting patient as this causes air to be drawn in under ram, preventing pump from lifting when handle is pumped.
3. DO NOT press down hard on handle when bottom of stroke is reached.
4. It is a common occurrence after a few hours of non-use for the boom to lower with no weight suspended from the end of the boom. This does not indicate a faulty pump but is a trait common to hydraulic equipment.
5. If trouble develops with the hydraulic pump, remove it and call your Sunrise Medical Supplier to receive an RMA. Provide serial number and date purchased. DO NOT attempt to lift someone with a faulty hydraulic pump.

**⚠ WARNING**

**Do not wash slings with bleach. Bleach will damage material. Slings can suffer damage during washing and drying.**

**⚠ WARNING**

**Always check slings before use. Bleached, torn, cut, frayed, or broken slings are unsafe and could result in serious injury or death to patient. Destroy and discard worn slings. Do not alter slings.**

## TROUBLESHOOTING

Symptom	Action
Handle mounting holes loosening or enlarging.	<ul style="list-style-type: none"> <li>Periodically oil the pivot point.</li> </ul>
Jack lowers with patient suspended.	<ul style="list-style-type: none"> <li>Check to make sure the pressure release knob is completely closed.</li> <li>Check valve not sealing. Pump handle rapidly several times, then open pressure release knob and pull down on boom. Repeat two or three times.</li> <li>Release cartridge defective– lay jack on its side. Remove pressure release knob cartridge and clean or replace.</li> </ul>
Jack fails to lift to full height.	<ul style="list-style-type: none"> <li>Air in oil under ram– pump unit up as far as it will go. Open pressure release knob and pull down on boom to lowest position. Repeat until lift raises to full height.</li> <li>Unit may be low on oil– remove jack from lift, collapse ram. Remove socket screw (located on top of top cap) and put 1oz. of #10 weight hydraulic oil in at a time until the jack ram moves the proper distance.</li> </ul> <p><b>NOTE</b>– Proper amounts of oil for a jack when completely empty are 7 3/4 oz. for 12" stroke; 11 1/2 oz. for 17" stroke; 3 3/4 oz. for 6" stroke; 12 1/2 oz. for 19" stroke.</p>
Oil leaking from around piston.	<ul style="list-style-type: none"> <li>Tighten packing nut.</li> </ul>
Oil leaking around rim of top cap.	<ul style="list-style-type: none"> <li>After use, seal should assume proper shape. If oil continues to leak, clamp jack base in vise with unit vertical; remove top cap and replace quad ring located in top cap. DO NOT loosen or remove reservoir tube from base as this will break seal around base, causing loss of oil in unit.</li> </ul>
Unit will not lower.	<ul style="list-style-type: none"> <li>Lay jack on its side. Remove and clean release cartridge making sure small holes are cleaned out with pin or small diameter wire.</li> <li>Replace release cartridge.</li> </ul>