CENTAUR EXERCISERS DO NOT OPERATE ON A SOLAR SYSTEM

CENTAUR



4, 5 & 6 HORSE HEAVY-DUTY HOT WALKER Concrete & Electrical Installation Diagrams

5761 RIDGEVIEW AVENUE MIRA LOMA, CALIFORNIA 91752 (951) 685-7337 FAX (951) 685-0341 1-800-962-8050

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SERVICE/FIELD TECH STEVE ANTHONY 951-537-4539 (MOBILE) EM 1984 ANTHONYS@GMAIL.COM

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Unloading the Hot Walker:

Lift Hot Walker from the head only. If you must lift the Hot Walker from the base, make sure that your forks on your lift clear all drive assemblies inside the Walker. You can inspect this prior to lifting by opening up your small inspection door, which is mounted on one side of your Hot Walker.

Prior to installing your Hot Walker on your pad or postholes, refer to the enclosed diagrams for the proper layout of the bolts and your electrical source. Make sure that the walker is mounted on a fairly level surface.

Installing the Arms:

Unscrew the bolts from the top of each head arm assembly. Slide your arms into each head assembly with the holes in the arms pointing upward. Align the holes in the arms with the nut holes in each arms assembly. You can use a center punch or an old screwdriver to align the holes more easily. Grease the threads on each one of the bolts prior to rethreading, and thread the bolt down until it is snug against the welded nut.

Installing Your Safety Release Ropes and Animal Leads:

On the bottom side of each arms there is a steel rod with a curled end. Take the supplied rope and tie a non-slipping knot through its steel loop. Now take the free end of the rope and feed it through the two welded rings on the head assembly. At the free end of the rope attach it to the lowest ring on the support arm with a good knot.

Now take the ring end of your lead and have someone pull the safety rope which will pull the rod back and allow you to put the ring in the arm opening, now release the rope and the lead will stay attached to the Hot Walker Arm.

To release the animal all you need to do now is simply jerk the pull rope and the animal is released with the lead attached to its halter.

Be sure to grease each spring on each arm. This allows the quick release to work properly. You can use any WHITE GREASE. You should grease the springs at least every **60 days** to insure your animal's safety.

QUICK INSTALLATION GUIDE HEAVY DUTY HOT WALKERS MODELS 400HD,500HD 600HD

MOVE BASE BY HEAD ONLY.

ANCHOR BASE UNIT TO SLAB VIA REDHEADS OR ANCHOR BOLTS.

INSTALL LARGE ARMS FIRST SLIP END OF ARM INTO RECEIVER HEAD ALIGN LARGE ARM TAB WITH HEAD HOLE ON BASE UNIT AND USE NUT AND BOLT PROVIDED.

INSTALL THE SMALLER ARM INTO THE END OF THE LARGE ARM.
REMOVE BOLT FROM LARGE ARM, SLIDE SMALL

ARM INTO LARGE ARM AND ALIGN BOTH HOLES WITH A SCREWDRIVER OR A DRIFT PIN. THEN REINSTALL THE BOLT.

INSTALLATION OF THE CABLES (DESIGNED TO STEADY THE ARMS)
MAKE A LOOP AT THE END OF THE CABLE AND SECURE WITH A CABLE CLAMP.
PLACE THE LOOP OVER THE BOLT THAT IS WELDED ON THE TOPSIDE OF EACH LARGE ARM(REMOVE THE NUT).

INSTALL THE TURNBUCKLES OPPOSITE EACH OTHER (SEE DIAGRAM).
YOU WILL HAVE 2-LOOPS /EACH WELDED NUT OR 1 LOOP AND 1 TURNBUCKLE.

PLACE THE SMALL WASHER ONTO THE BOLT AND THEN REINSTALL THE NUT AND TIGHTEN.

SAFETY ROPE INSTALLATION

TIE ONE END OF THE ROPE TO THE END OF THE SPRING LOADED ROD ON EACH SMALL ARM. STRING THE ROPE THROUGH EACH OF THE SILVER RINGS WELDED ON THE LARGE ARM AND TIE THE END OF THE ROPE TO THE RINGS ON THE VERTICAL SHAFT (ABOVE THE COVER)

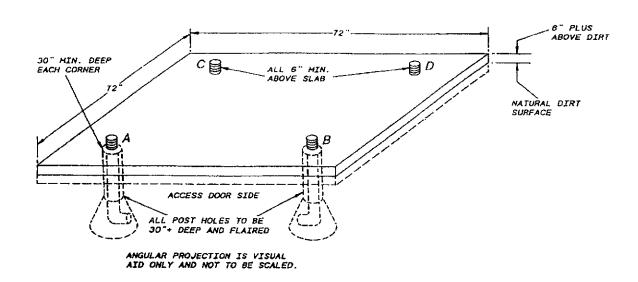
KEEP SPRINGS GREASED ON EACH ARM SO THEY FUNCTION WHEN NEEDED.

CENTAUR HORSE WALKER, CORP 5761 RIDGEVIEW AVE JURUPA VALLEY,CA 91752 1-800-962-8050 OR 1-951-685-7337 EMAIL <u>CENTAUR@HOTWALKERS.COM</u> WEBSITE <u>WWW.HOTWALKERS.COM</u>



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CENTAUR STANDARD HORSE WALKER CONCRETE PAD INSTALLATION



Center Point for Concrete Anchor Bolts:

A to B = $57 \frac{1}{2}$ "

C to D = $57 \frac{1}{2}$ "

A to $C = 46 \frac{1}{2}$ "

B to D = $46 \frac{1}{2}$ "

Diagonals From Anchor Bolt To Anchor Bolt:

REQUIRED
GROUND ROD
8-10 FOOT COPPER ONLY
GROUND TO HOT WALKER
STEEL BASE/ GROUND CONTROL

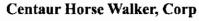
A to $D = 74 \frac{1}{2}$ "

B to $C = 74 \frac{1}{2}$ "

Anchor bolts are ¾" in diameter & can be either 18" or 24" in length

NOTE: The dimensions are from the BOLTS, not the slab.

Pad should be 6' X 6' Square, 3" Below Grade, and 3" Above Grade

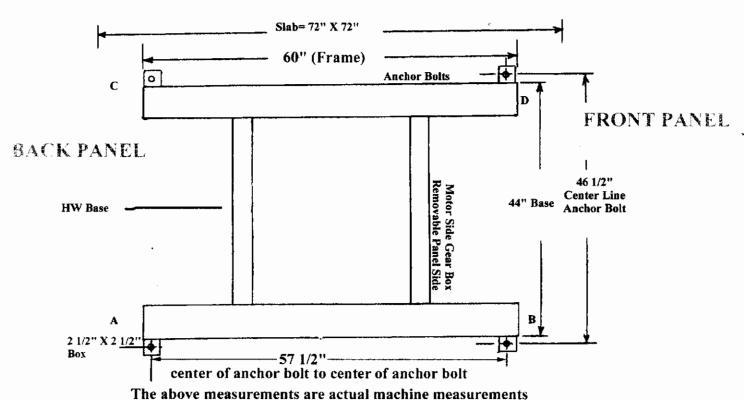




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BASE/PAD MEASUREMENTS

SIDE PANEL



Center Point for Concrete Anchors Bolts:

SIDE PANEL

A to B = $57 \frac{1}{2}$ "

C to D = $57 \frac{1}{2}$ "

A to $C = 46 \frac{1}{2}$ "

B to D = $46 \frac{1}{2}$ "

Diagonals From Anchor Bolt To Anchor Bolt:

A to $D = 74 \frac{1}{2}$ "

B to $C = 74 \frac{1}{2}$

Anchor bolts are 3/4" in diameter & can be either 18" or 24" in length

NOTE: The dimensions are from the BOLTS, not the slab.

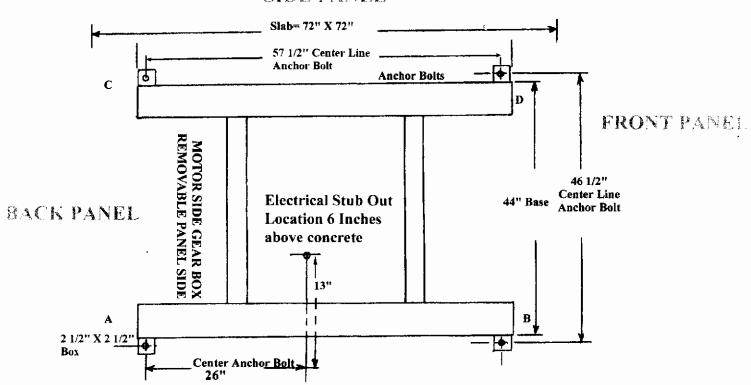
Pad should be 6' X 6' Square, 3" Below Grade, and 3" Above Grade



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ELECTRICAL DIAGRAM

SIDE PANEL



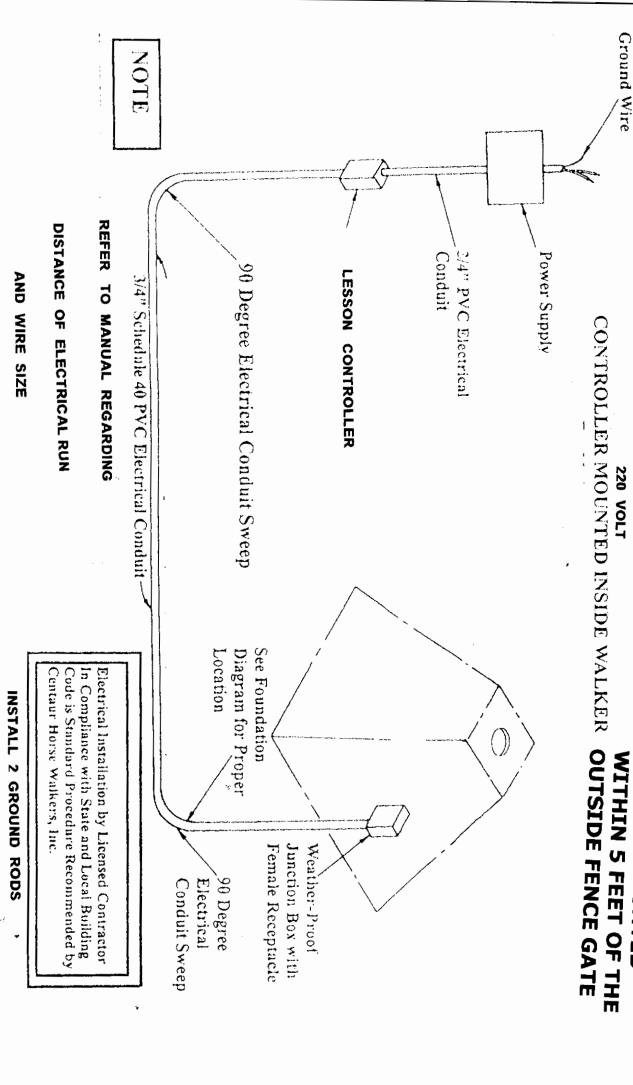
SIDE PANEL

Install 3/4" PVC Conduit Schedule 40

Line A: 3 wires 10 gauge, (black, black, green, 220 Volt)

REQUIRED
GROUND ROD
8-10 FOOT COPPER ONLY
GROUND TO HOT WALKER
STEEL BASE/ GROUND CONTROL

NOTE: The dimensions are from the BOLTS, not the slab.



1 FOR HOTWALKER & 1 FOR CONTROLLER

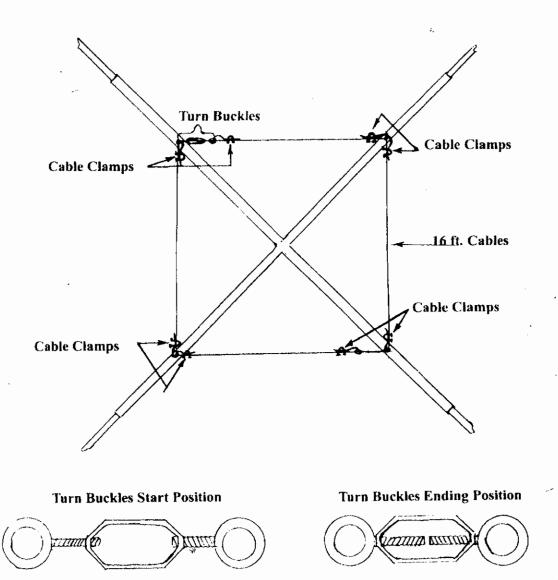
Two Wires Plus

CENTAUR 4 HORSE HOT WALKER ELECTRICAL INSTALLATION

MUST BE MOUNTED

THE CONTROL BOX

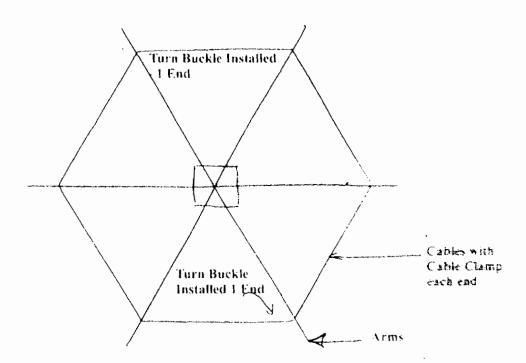
Turn Buckle Diagram



Cable Clamps & Turn Buckle Installation Figure C.

TURN BUCKLE DIAGRAM

Figure C2.



GUIDELINES FOR LESSON PRODUCTS MOTORS & CONTROLLERS

ALL SYSTEMS REQUIRE A 30 AMP 220 VOLT (2-15 AMP BREAKER) TO CONTROLLER. MAX BREAKER 40 AMP GOING TO SUBPANEL

POWER INTO MAIN BREAKER # 6 WIRE OR BIGGER.BASED ON ELECTRICAL RUN (FOOTAGE)

MAX. RUN 100 FEET FROM BREAKER TO EXERCISER SUBPANEL. GROUND ROD COPPER REQD.BY HW.

WIRE SIZE IS # 10 FROM BREAKER TO CONTROLLER.

THE CONTROLLER MUST BE LOCATED 10 FEET FROM THE END OF THE HOT WALKER ARMS.

YOU MUST HAVE A 7.5 AMP READING WHEN THE MOTOR IS RUNNING UNDER A LOAD AT THE MOTOR WIRE CONNECTIONS.CONTROLLER TO BE GROUNDED

MUST BE INSTALLED BY A LICENSED ELECTRICIAN OR LESSON MOTOR CO WARRANTY IS VOIDED ON CONTROLLER/MOTOR CENTAUR HORSE WALKER CORP 1-800-962-3050

IMPORTANT

ALL SPEEDMASTER CONTROLLERS MUST BE CALIBRATED FOR SPEED AND TORQUE ONLY AFTER ALL THE ARMS ON THE HOT WALKER HAVE BEEN INSTALLED. IF CALIBRATED PRIOR TO FULL ASSEMBLY OF HOT WALKER IT **COULD RESULT IN DAMAGE TO** CONTROLLER AND OR MOTOR OR BOTH. ALL ELECTRICAL WORK MUST BE DONE BY A QUALIFIED LICENSED ELECTRICAN ALL HOOK **UPS ARE 220VOLT SINGLE PHASE** ONLY. ELECTRICAN MUST BE FAMILIAR WITH D.C. VARIABLE CONTROL SYSTEMS. FOR **QUESTIONS OR HELP CALL LESSON** MOTOR TECH SUPPORT ONLY. WARRANTY CLAIMS ARE THROUGH LESSON MOTORS.

INSTRUCTIONS FOR THE SPEED CONTROLLER FOR 5 & 6 HORSE CENTAUR HOT WALKERS

IMPORTANT! CONTROLLER SPEED DIAL MUST ALWAYS BE AT "0" WHEN STARTING OR STOPPING HOT WALKER.

- 1. SET THE SPEED DIAL TO "0" (FULL CCW).
- 2. SET THE POWER SWITCH TO THE ON POSITION
- 3. SET THE FORWARD/REVERSE SWITCH TO THE DESIRED DIRECTION OF ROTATION.
- 4. SLOWLY ADVANCE THE SPEED DIAL CW. THE MOTOR SLOWLY ACCELERATES AS THE DIAL IS TURNED CW. CONTINUE UNTIL THE DESIRED SPEED IS REACHED.
- 5. TO STOP THE HOT WALKER, TURN THE SPEED DIAL BACK TO "0" SLOWLY.
- 6. TO REVERSE DIRECTION:
- A. SET THE FORWARD/REVERSE SWITCH TO THE DESIRED DIRECTION OF ROTATION.
- B. SLOWLY ADVANCE THE SPEED DIAL CW. THE MOTOR SLOWLY ACCELERATES AS THE DIAL IS TURNED CW. CONTINUE UNTIL THE DESIRED SPEED IS REACHED.

WARNING! DO NOT CHANGE THE FORWARD/REVERSE SWITCH WHILE THE MOTOR IS RUNNING. THE MOTOR MUST COME TO A COMPLETE STOP BEFORE REVERSING. CHANGING MOTOR DIRECTION BEFORE ALLOWING THE MOTOR TO COMPLETELY STOP WILL CAUSE EXCESSIVELY HIGH CURRENT TO FLOW IN THE ARMATURE CIRCUIT, AND WILL DAMAGE THE CONTROLLER AND/OR MOTOR.

FOR SERVICE CONTACT CENTAUR 1-800-962-8050



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Operating Instructions:

- The Walker is designed to walk horses for conditioning and cooling. The variable speed control is
 provided to allow the option of adjustment speed for different horse needs.
- 2. Horses "DO" require training to walk and behave properly on a Hot Walker. It is not intended to be used to break wild horses or force them to walk.
- 3. Leads are furnished with the walker. They should be inspected once a month; they should be replaced immediately, if they show signs of weakness, or if they begin to fray.
- 4. A monthly check and tightening of all bolted parts is needed. A Walker that is in constant use requires this as a normal maintenance procedure.
- 5. If the V-Belts become loose, they can be tightened by adjusting the nuts on the 2 vertical thread rods mounted in front of the motor.
- 6. Grease Grease zerk is located on the vertical shaft, above the cover. These will grease the moving parts of the drive tower. Greasing each month is recommended. Note: Do Not oil or grease the V-Belt assembly. Important: When greasing use Lithium grease only.
- 7. The Walker will not reverse without stopping completely first.
- Any electrical service should be done by a licensed electrician. 110 Volt or 220 Volt wiring is required.
 NEVER adjust Walker speed or put hands near the V-Belt assembly unless the electrical switch is turned off.
- 9. Walkers are warranted for one year from the date of purchase as per attached warranty statement.



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"DO'S AND DON'TS"

DO NOT attempt to use Walker prior to being properly secured to the foundation pad.

DO NOT operate Walker with the cabinet off.

DO NOT leave the Walker unattended while in operation.

DO NOT put hands near the V-Belts while Walker is in operation.

DO NOT use a metal chain as a lead. Use rope or nylon rope with a snap at the bottom end.

DO NOT ride or allow a child to ride a horse that is being walked.

DO NOT oil the V-Belts.

DO NOT allow the horse to rear or buck on the Walker.

DO NOT allow wiring or motor to get wet.

DO NOT open the cabinet to adjust speed or to turn the power. Turn the power off at the remote switch **before** opening the cabinet.

DO NOT use your Walker as a merry-go-round for children or

DO grease your Walker at the grease fittings once a month, or more often if the unit is in constant use.

DO have all electrical hook-ups done by a licensed electrician.

DO allow the Walker to stop completely before reversing direction.

DO make sure when less than 4 horses are being walked, that they are opposite each other on the Walker.

As with all electrical driven equipment, the utmost caution must be taken with regard to exposure to electrical shock caused through a rupture of any electrical connections or wire. DO NOT allow water or moisture to accumulate around any wiring, switches, or the motor.

All moving parts of this equipment are of heavy gauge steel. DO NOT expose any portion of your body to this equipment while it is in motion.

Moving parts can be hazardous to a person wearing loosely fitting clothing or with long hair.

Use the utmost caution in operating this equipment.



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Troubleshooting

This chart suggests common answers to electric motor problems. The information is not all-inclusive and does not necessarily apply in all cases. When unusual operating conditions, repetitive failures, or other problems occur, consult an electric motor service firm for assistance.

Trouble	Cause	What To Do				
Motor	Blown Fuses	Replace with time-delay fuses. Check for grounded winding.				
Fails	Tight Shaft	Occasionally during shipment a sleeve bearing motor may be received				
To		with a shaft, which does not rotate freely. It may be necessary to strike				
Start		the motor, at the shell/endshield rabbet, with a rawhide or plastic mallet				
		to align the bearings.				
	Voltage to low at motor	Consult local power company. Increase wire size (refer to Tables A &				
	terminals due to line drop.	B). Check for poor connections.				
	Overload in motor starter	Check and reset overload relay in starter. Check heater rating against				
	tripped.	motor nameplate current rating.				
	Overload (internal thermal	Check motor load. If motor has an automatic or manual reset thermal				
	protector) tripped.	protector, check if tripped.				
	Improper line connections.	Check connections against diagram supplied with motor.				
	Motor May be overloaded.	Check motor load. If motor has an automatic or manual reset thermal				
		protector, check if tripped.				
	Defective motor or starter.	Repair or replace.				
Motor	Not applied properly.	Consult motor service firm for proper type. Use larger motor.				
Does Not	Voltage too low at motor	Increase wire size (refer to Tables A & B). Check for poor				
Come up	terminals.	connections. Check for voltage unbalance (3-phase).				
To speed	Starting load too high.	Check load motor is carrying at start.				
Or	Excess loading; tight	Reduce load; increase motor size. Adjust belts.				
Takes too	belts.					
Long to	Defective motor.	Repair or replace.				
Accelerate.	Inadequate starting torque.	Replace with larger motor.				
	High inertia load.					
<u> </u>						
Motor Stalls	Overloaded motor.	Reduce load or increase motor size.				
During	Low motor voltage.	Verify that nameplate voltage is maintained.				
Operation.						
Motor	Motor shaft misaligned.	Realign.				
Vibrates or	Three-phase motor	Check for open circuit, blown fuses or unbalanced voltages.				
is	running single phase.					
Excessively	High or unbalanced	Check wiring connections. Consult local power company.				
Noisy.	voltages.					
	Worn, damaged, dirty or	Repair or replace motor; check loading and alignment.				
	overloaded bearings.					
	Defective winding. Bent	Repair or replace.				
	or bowed shaft.					
	Loose sheave or	Tighten setscrew(s); realign coupling.				
	misaligned coupling.					



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Motor	Overloaded	Reduce load; increase motor size; belts may be too tight.				
Overheats	Dirt blocking ventilation	Clean motor.				
While	openings.	∂ ,				
Running	If three-phase, one phase Check lines for open phase. Check voltage with motor					
Under	may be open.	disconnected, one fuse may be blown.				
Load	Unbalanced supply	Check for faulty connections. Voltage on all three lines should be				
	voltage.	balanced within 1%. Excessive single phase loads.				
	Faulty connection.	Clean, tighten or replace.				
	High or low voltage.	Check voltage at motor, should not be more than 10% above or				
		below rated.				
	Defective motor.	Repair or replace.				



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Centaur Hot Walker Limited Warrantv

Centaur One-Year Limited Warranty

Horse Walker Models 200, 201, 400, 401, 600, Mini-Horse Walker Models 400, 401 and 600 and Hound Walker Models 400, 401 and 600 are warranted by Centaur Horse Walkers, Inc. to the original user against defects in workmanship or materials under normal use for one year after the date of purchase. Any part, which is determined by Centaur to be defective in material or workmanship and returned to our authorized service location, as Centaur designates, shipping costs prepaid by client, will be, as the exclusive remedy, repaired or replaced at Centaur's option. Shipping to be supplied by client on all returning items. For limited warranty claim procedures see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights, which vary, from state to state.

Limitation of Liability

To the extent allowable under applicable law, Centaur's hability for consequential and incidental damages is expressly disclaimed. Centaur's hability in all events is limited to, and shall not exceed, the purchase price paid.

Warranty Disclaimer

Centaur has made a diligent effort to illustrate and describe the products in this literature accurately; however such illustrations and description are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose, or that the products will necessarily conform to the illustrations or descriptions.

Product Suitability

Many states and localities have codes and regulations governing sales, construction installation and/or use of products for certain purposes, which may vary from those in neighboring areas. While **Centaur** attempts to assure that its products comply with such codes it cannot guarantee compliance and cannot be responsible for how the product is installed or used. Before purchase and use of our products, please review the product application, and national & local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (A) some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or warranty lasts, consequently the limitations may not apply to you; (B) Also, some states do not allow limitations on how long an implied warranty lasts, consequently the above limitations may not apply to you; and (C) by law, during the period of the limited warranty any implied warranties of merchantability or fitness for a particular purpose applicable to consumer products purchased by consumer, may not be excluded or otherwise disclaimed.

Prompt Disposition

Centaur will in good faith effort for prompt correction or other adjustment with respect to any product, which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom product was purchased. Dealer will be given additional directions. If unable to resolve satisfactorily write to Centaur Horse Walkers, Inc. below, giving dealer's name, address, date and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit you, file claim with freight carrier.

INSTALLATION AND MAINTENANCE MANUAL



HdR SERIES PROGRAM WORM GEAR SPEED REDUCERS



WorldWide Electric Corporation

Phone: 1-800-808-2131 Ext. 8

Fax: 1-800-711-1616

Website: www.worldwideelectric.net



WORLDWIDE ELECTRIC CORPORATION HdR SERIES PROGRAM - WORM GEAR SPEED REDUCERS

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WORLDWIDE ELECTRIC CORPORATION HdR SERIES PROGRAM - WORM GEAR SPEED REDUCERS MOUNTING INSTRUCTIONS / GENERAL INFORMATION

MOUNTING INSTRUCTIONS:

- Leave protective sleeves on shafts for safe handling of speed reducer during installation. The sleeves are provided also to protect your hands from potential sharp edges and keyways.
- Align all shafts accurately. Improper alignment can result in failure. Use flexible couplings to help compensate for slight misalignment.
- When mounting, use maximum possible bolt size and secure reducer to a rigid foundation. Periodic inspection of all bolts is recommended.
- 4. Auxiliary drive components (such as sprockets, gears and pulleys) should be mounted on the shafts as close as possible to the housing to minimize effects of overhung loads. Avoid force fits that might damage bearings or gears.
- For hollow-shaft speed reducers, place speed reducer as close as possible to supporting bearing on driven shaft. Spot-drill driven shaft for setscrews in severe applications.
- 6. Check and record gear backlash at installation and again at regular intervals. This should be done by measuring the rotary movement of the output shaft (rotating alternately clockwise and counterclockwise) at a suitable radius while holding the input shaft stationary. Gears should be replaced when the backlash exceeds four times the measurement taken at installation.
- Gear drives are rated for 1750 input RPM and Class 1 Service (Service Factor 1.00), using Mobile SHC 634 synthetic lube.
- 8. Initial operating temperatures may be higher than normal during the break-in period of the gear set. For maximum life do not allow the speed reducer to operate continuously above 225°F at the gear case. In the event of overheating, check for overloads or high ambient temperatures. Keep shafts and vent plugs clean to prevent foreign particles from entering seals or gear housings.

VENT PLUG INFORMATION:

All WorldWide HdR Series Worm Gear Reducers are tested and then filled with Mobile SHC 634 synthetic lube. WorldWide worm gear reducers will not have the vent plug installed.

Remove the solid plug and install the pressure vent plug according to the following:

- 1. Vented plug must be installed in the uppermost position.
- For all mounting positions where the vented plug is located in a horizontal plane, the vent hole must be pointed upward.
- For all mounting positions where the vented plug is located in a vertical plane, the vent hole must point toward the center of the housing.

CAUTION:

- Worm Gear Reducers Are Not To Be Considered Fail Safe
 Or Self-Locking Devices. If These Features Are Required,
 A Properly Sized Independent Holding Device Should Be
 Utilized.
- Depending Upon Gear Geometry and Operating Conditions,
 Worm Gear Reducers May Or May Not Backdrive. Special
 Consideration Should Be Given To High Inertia Loads
 Connected To The Reducer Output Shaft. Consult Factory
 For Further Details.
- Reducers Driven By Brake Motors Must Be Sized To Accommodate Motor Driving, Brake and Inertia Loads To Prevent The Braking Torque Or Inertia Loads From Exceeding The Motor Rating.



INSTALLATION AND MAINTENANCE MANUAL

WORLDWIDE ELECTRIC CORPORATION Hdr Series Program - Worm Gear speed reducers

ENGINEERING DATA

CLASSES OF SERVICE:

All WorldWide HdR Series Worm Gear Reducers Are For A 1.00 Service Factor Or Class I Service. A 1.00 Service Factor Applied When The Use Of The Reducer Is For Continuous Service Free From Recurrent Shock Loading and Does Not Exceed 10 Hours Per Day. When Operating Conditions Are Different From Those Described Above, The Input Horsepower and Torque Ratings Shown Must Be Divided By The Appropriate Service Factor Indicated In The Table Below. The Catalog Ratings May Be Used Without Adjustments If The Actual Driven Machine Horsepower and Torque Requirements Are Multiplied By The Appropriate Service Factor Indicated In The Table Below.

SERVICE FACTORS:

Service Factors For Electric and Hydraulic Motors (For Service Factors For Single Or Multi-Cylinder Engines, See Below)

Duration Of Service (Hours Per Day)	Uniform Load	Moderate Shock	Heavy Shock	Extreme Shock
Occasional 1/2 Hour	*	*	1.00	1.25
Less Than 3 Hours	1.00	1.00	1.25	1.50
3 - 10 Hours	1,00	1.25	1.50	1.75
Over 10 Hours	1.25	1.50	1.75	2.00

Conversion Table For Single Or Multi-Cylinder Engines
To Find Equivalent Single Or Multi-Cylinder Service Factor

Hydraulic Or Electric Motor	Single Cylinder Engines	Multi-Cylinder Engines
1.00	1.50	1.25
1,25	1,75	1.50
1.50	2,00	1.75
1.75	2,25	2.00
2.00	2,50	2.25

Normal Starting Or Occasional Peak Loads, Two Or Three Times Per Day, Up To 300% Of Catalog Rating At 1800 RPM Are Permissible. If Either The Frequency Or The Magnitude Of These Loads Exceed The Above Limits, A Higher Service Factor Is Required and The Application Should Be Referred To The Factory.



INSTALLATION AND MAINTENANCE MANUAL

WORLDWIDE ELECTRIC CORPORATION Hdr Series Program - Worm Gear Speed Reducers

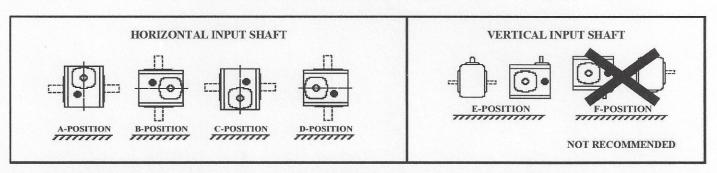
LUBRICATION SCHEDULE

Recommended Lubricant	-30° To 225°F -34° To 107°C	40° To 90°F 4.4° To 32.2°C		80° To 125°F 26.7° To 51.7°C	
AGMA Rating	Synthetic	7	7 EP	8	8 EP
ISO Grade	320 / 460	460	460	680	680
Mobil	Mobil SHC 634 Synthetic	Mobil 600W Cylinder Oil		Mobil Extra Hecla Super Cylinder Oil	Mobilgear 634
Getty Refining Co.		-	Veedol Asreslube 95		Veedol Asreslube 98
Lubrication Engr. Inc.	Synthetic	Almasol 608		Almasol 609	
Lubriplate	Recommendation Is Exclusively For			SPO-288	
Shell Oil Co.	Mobil SHC 634	Omala J460	Omala 460	Omala J460	Omala 680
Texaco Inc.			Meropa 460		Meropa 680

CAUTION: Lubricants Are Compounded For Use In Worm Gears. Some Contain Non-Corrosive, Extreme Pressure Additives.

<u>DO NOT USE</u> Lubricants That Contain Sulphur and / or Chlorine Which Are Corrosive To Bronze Gears. Extreme Pressure Lubricants, In Some Cases, Contain Materials That Are Toxic. Avoid Use Of These Lubricants Where They Can Result In Harmful Effects.

CAUTION: Too Much Oil Will Cause Overheating and Too Little Will Result In Gear Failure. Check Oil Level Regularly. More Frequent Oil Changes Are Recommended When Operating Continuously, At High Temperatures Or Under Conditions Of Extreme Dirt Or Dust.



Reducer Size	Approximate Capacity (Ounces)					
Position	A	В	C	D	E	F
133	5.82 Ounces	8.52 Ounces	8.52 Ounces	7.62 Ounces	6.92 Ounces	6.92 Ounces
154	11.64 Ounces	15.74 Ounces	15.74 Ounces	14.44 Ounces	13.54 Ounces	13.54 Ounces
175	11.64 Ounces	18.74 Ounces	18.74 Ounces	17.24 Ounces	15.14 Ounces	15.14 Ounces
206	19.41 Ounces	28.41 Ounces	28.41 Ounces	26.71 Ounces	21.81 Ounces	21.81 Ounces
237	24.07 Ounces	35.17 Ounces	35.17 Ounces	33.77 Ounces	29.67 Ounces	29.67 Ounces
262	34.55 Ounces	48.25 Ounces	48.25 Ounces	45.85 Ounces	41.05 Ounces	41.05 Ounces
325	73.75 Ounces	102.55 Ounces	102.55 Ounces	97.75 Ounces	88.05 Ounces	88.05 Ounces



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WORLDWIDE ELECTRIC CORPORATION HdR SERIES PROGRAM - WORM GEAR SPEED REDUCERS LIMITED WARRANTY

WorldWide Electric Corporation (The Company) Warranties It's Products To Be Free From Defects In Materials Or Workmanship To The Original Purchaser For A Period Of One (1) Year From The Date Of Purchase. For This Warranty To Be Effective, This Product Must Be Installed, Used and Maintained By The Original Purchaser In Accordance With Good Industry Standards. The Warranty Does Not Cover Normal Wear, Tear and Erosion From Use, Mis-use, Abuse Or Corrosion.

In The Event Of Failure, It Shall Be The Responsibility Of The Original Purchaser To Notify The Company Either In Writing Or By Telephone To Make Arrangements For The Correction Of The Problem. The Purchaser Shall Be Responsible For Transportation Charges Connected With The Return, Exchange Or Repair Of Parts. Returns Found Defective Upon Inspection By Our Warranty Department Or Authorized Warranty Service Agent Will Be Replaced Free Of Charge.

The Company Shall Not Be Liable For Any Labor Cost Connected With The Replacement Of The Equipment, The Replacement Of The Parts Or Adjustments To The Equipment By The Purchaser Or Their Contractor Without The Company's Prior Written Approval.

The Company, As The Exclusive Remedy Under This Warranty, Shall At It's Option Repair Or Replace Defective Items Or, If Agreed Upon, Refund The Purchase Price Less Reasonable Allowance For Depreciation In Exchange For The Product.

THE COMPANY MAKES NO OTHER WARRANTIES AND ALL IMPLIED OR EXPRESSED WARRANTIES AND REPRESENTATIONS, EXCEPT THAT OF TITLE, ARE DISCLAIMED. ALL IMPLIED WARRANTIES INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR USE BUT NOT LIMITED TO JUST THOSE THAT ARE DISCLAIMED. LIABILITY FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES AND LOSSES UNDER ANY AND ALL WARRANTIES WHETHER IN CONTRACT, TORT OR OTHERWISE ARE EXCLUDED TO THE EXTENT EXCLUSION IS PERMITTED BY LAW.



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