

2004 by Hydro Mobile Inc. All rights reserved

Acknowledgements;

This manual was produced by Hydro Mobile Inc. on

Adobe InDesign 3.0 for windows.

Drawings were prepared using Mechanical Desktop 2004 DX.

This manual may not, in whole or in part, be copied, photocopied, reproduced, translated, or converted to any electronic or machine readable form without prior written consent of Hydro Mobile inc.

This Hydro Mobile Inc. product is covered and protected by patents un Canada, United States of America and Europe

United States: 4809814 Canada: 1304109 Europe: 0335311

Created by: **Sylvain Jean**Projet Manager, R&D department

Gabriel Daigle

Training & Technical Support Manager

	Revision list			
Date	Description			
April 2002 v1	.0 Creation of operator's manual			
May 2002 v2	.0 Added forward extension & monorail			
June 2002 v2	1 Wallmounts "Long" changed for "Extension"			
Sept 2002 v2	.2 Access & rest platform			
Sept 2004 v3	.0 Added 14' unit, split base & training sheet			
Sept 2004 v3	.1 Weight p7, misspelling p29, grease type p65			

NOTE

All assembly and operation instructions located on motorized units and bridges take precedence over information contained in this manual.

General information				
Model		M2K2J-14	14' motorized unit	
		M2K2J	24' motorized unit	
Serial number				
Manufacturing date				

Dear owner or user:

Thank you for investing in a Hydro Mobile M2 Series mast climbing work platform system. The design of this new motorized unit reflects a decade of continued field operation, testing and research work and comes as a solution to our company's deepest concern, your safety and well being on the job.

To ensure that the workplace becomes safer and more efficient using a Hydro Mobile system, always have a competent person and backup competent person assemble, operate, dismantle and move your mast climbing work platform system. These competent persons will be required to read this operator's manual and assimilate the information contained herein. Failure to do so could lead to serious injury and/or equipment damage.

Furthermore, please be advised that this motorized unit and its operator's manual have been designed in conjunction with US ANSI / SIA A92.9-1993 standards, Federal Occupational Safety and Health Administration Standards OSHA 29CFR1926 subpart L, as well as applicable State and local regulation; with ISO 16369 as well as local regulation applicable in Canada; and with EN 1495, 98/37/CE "directive machine", 89/336/CEE "directive CEM" or ISO 16369 as well as local regulation applicable in Europe.

To maximize the life expectancy of your equipment and to enjoy years of trouble free operation, we recommend that this Hydro Mobile system be serviced according to maintenance schedules provided in this manual. It is also advised to refer to the Honda manual included with the motorized unit.

Should you have any questions or concerns, please contact the nearest authorized distributor or Hydro Mobile directly at 888-484-9376 (in the United States), (450) 589-8100 (in Canada) or +033.6.30.63.14.56 (in Europe). You can also visit our Web site at www.hydro-mobile.com for additional support and information on our factory safety and performance training seminars.

We wish you years and years of safe, productive construction and renovation work.



Warranty

Hydro Mobile Inc., herein referred to as Hydro Mobile, warrants its new products to be free from defects in material or workmanship for a period of one year after the date of delivery to the first user or a maximum of 18 months after date of delivery to its authorized distributor.

Hydro Mobile's obligation and liability under this warranty is expressly limited to repairing or replacing with re-manufactured or new, at Hydro-Mobile's option, any parts which appear to have been defective in material or workmanship. Such parts shall be provided at no cost to the distributor or end user, FCA distributor's yard or job site, at Hydro Mobile's option.

Hydro Mobile shall pay, to the extent established by its applicable service policy in effect at the time of delivery, the cost to install any repaired or replacement part provided under this warranty. The cost of any such work will only be paid by Hydro Mobile if a written authorization has been granted prior to its beginning.

This warranty shall not apply to component parts or accessories of products not manufactured by Hydro Mobile and which carry the warranty of the manufacturer thereof or to normal maintenance (such as engine tune-up) or to normal maintenance parts. Hydro Mobile makes no other warranty, express or implied, and makes no warranty of merchantability or fitness for any particular purpose.

Hydro Mobile's obligation under such warranty shall not include duty, taxes or any other charge whatsoever, or any liability for direct, indirect, incidental or consequential damage or delay. If requested by Hydro Mobile transportation charges for products or parts to be returned for warranty claim shall be prepaid by the distributor or end user.

Any improper use, including operation after discovery of defective or worn parts, shall void this warranty. Improper use also includes operation beyond rated capacity, substitution of parts approved by Hydro Mobile, including anchors, or any alteration, modification or repair by others in such manner as in Hydro Mobile's judgment affects the product materially and adversely, shall void this warranty.

Vincent Dequoy, Eng

President

Table of contents

Introduction	3	Weather protection
Warranty	4	Monorail
Index	5	Forward extension
24' (7,3m) MU overview	6	Hoist system
14' (4,3m) MU overview	9	Plank safety & cross-boxes
Safety & Performance	12	Transportation
Position motorized unit	14	Trailer
Access	20	Maintenance
Rest platform	22	Job equipment check list
Engine	24	Layout check list
Towers	25	Tools & suggested spare parts
Hooks installation	26	Equipment training check list
Raise / Lowering platform	27	User training record check list
Wall ties	29	Hydraulic schematic
Bridges	36	
Capacities	43	
Guard rail & Outriggers	50	
Outriggers & Mason guard rail	51	
Sliding doors	52	
Sliding doors & Face guard rail	53	
Wheel set	54	





24' (7,3m) MU overview



Simple hydraulic dual pump system w / reliable Honda 9.0 HP

Platform work area

Load capacity

Maximum height

Free standing

End quard rails

Engine type

Doors

Transport dimensions

Platform + Base weight Door quard rails

Removable guard rails
Travel speed

Climbable tower section



Sliding door system for effortless and safe access to material (automatic closure)

Motorized Unit Specifications

Up to 250' (76 m) without factory authorization

Honda 9.0 HP gasoline engine - electric starter

35' (10,7m) with base outriggers extended

20 000 lb (9,070 kg)

70 lb x 2 = 140 lb (63.5 kg)

80 lb x 2 = 160 lb (72,6 kg)

70 lb x 2 = 140 lb (63.5 kg)

80 lb x 2 = 160 lb (72,6 kg)

3' (0,9m) per minute

7' wide x 24' lg x 4' high (2,1m wide x 7,3m lg x 1,2m high)

100" x 288" x 48" + 6" tower collar (2,57m x 4,27m x 1,37 m + 152mm)

4 900 lb (2 223 kg) + 2 300 lb (1 043 kg) = 7 200 lb (3 266 kg) all equipped

16" x 16" x 60" (40.6cm x 40.6cm x 1.5m) 220 lb (100 kg) per section



Integrated bridge coupling system



Independent or linked base for fast set-up on uneven terrain.



Open deck design to pass wall ties. New climbable tower w / quick connect bolts, no X-braces



Build-in storage for guard rails and doors on motorized unit

Visible hooks w /automatic lifting mechanism



Cantilever bridge outrigger support (2)



Removable guard rail storage (2)



Doors (2), door guard rails (2) & end rails (2)



Mud sill storage (4)



Locking bar storage (2)



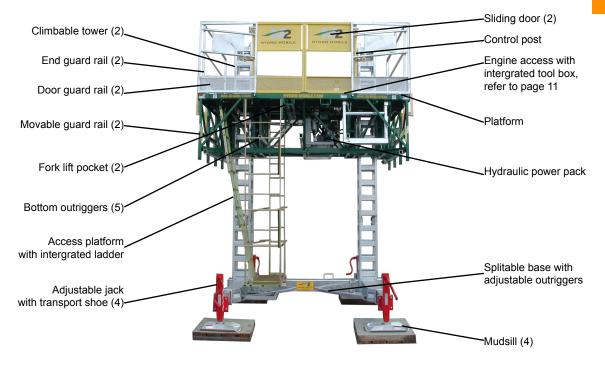
Mason guard rail storage (2)



Tool box



Cylinder & secondary hook storage for transportation



14' (4,3m) MU overview



Simple hydraulic dual pump system w / reliable Honda 9.0 HP



Sliding door system for effortless and safe access to material (automatic closure)



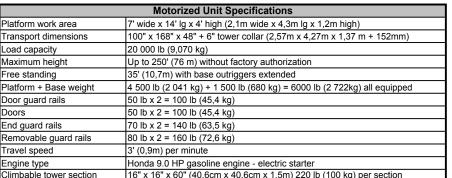
Integrated bridge coupling system



Independent or linked base for fast set-up on uneven terrain.



Open deck design to pass wall ties. New climbable tower w / quick connect bolts, no X-braces





Build-in storage for guard rails and doors on motorized unit ends.

Visible hooks w /automatic lifting mechanism



Cantilever bridge outrigger support (2)



Mason guard rail (2)



Doors (2), door guard rails (2), end rails (2) & removable guard rails (2)



Mud sill storage (4)



Locking bar storage (2)



Tool box



Cylinder & secondary hook storage for transportation

Safety & Performance

SAFETY comes first. For your personal safety, always have a competent person and back up competent person assemble, operate, disassemble and move this mast climber system. The definition of competent person is defined as one having the;

- 1 Capability of identifying existing and predictable hazard,
- **2 A**uthority to take prompt corrective action,
- 3 Training & knowledge to assemble, operate, disassemble and move this system,
- 4 Operator's manual information on hand at all times,
- 5 Experience (on the job) to assemble, operate, disassemble and move this system.

PERFORMANCE AND SAFETY RULES;

- 1 Prepare a plan showing how the mast climber system, (motorized unit(s), bridges, extensions, hoists) will be positioned near structures or walls to be erected. On long walls, separate mast climber sections to allow for flexibility. Position motorized units to provide proper anchoring points for towers.
- 2 Establish distance between the mast climber system and the structure or wall, taking into account length of plank outriggers (5 or 8ft)(1,5m to 2,4m), as well as curvatures, balconies, columns, trees, telephone wires, electrical lines or other.
- 3 Refer to regulations governing distances between mast climber system and electrical lines.
- **4 -** For your personal safety, make sure ground or support surface capacity meets with bearing capacity tables herein. Soil compacting, cribbing or shoring can increase bearing capacity. Contact a licensed engineer for assistance.
- 5. On difficult jobs, never modify the mast climber system or even substitute factory parts. This could adversely affect safety, performance and void the warranty. In addition, this could lead to serious injury.

PERFORMANCE AND SAFETY RULES;

- 6 Rely on a licensed engineer to help on special jobs and to ap prove plans if required in your area.
- 7 Maintain correct equipment & parts inventory on the job to work efficiently. Keep equipment in good condition. Refer to maintenance checklist.
- 8 After installation, mark the off limit areas of the system using fencing, barriers, warning tape and note emergency phone numbers (fire and police dept) for quick reference. Have an emergency evacuation plan ready to execute in case of need.
- 9 Never load the bridges or motorized units beyond their rated capacities. Over loading may cause motorized units to bind and bridges to fail causing serious injury or death.
- 10 Contact your distributor or factory for service, repair or technical advice. Refer to equipment type and serial numbers when calling.
- 11 Each person accessing the platform should use a staircase and opening on the building or the climbable tower. Use of appropriate fall protection equipment when climbing or descending the tower or when modifying planking or working with the hoist is mandatory.
- **12-** Always wear an approved hard hat and safety boots when working on the Hydro Mobile system.



WARNING / AVERTISSEMENT / AVISO

Do not operate or work on this motorized unit unless you have read and understood the instructions and warnings shown in the operator's manual.

Failure to follow the instructions or read the warnings could result in injury or death.

The operator's manual is located in the tool box under the motorized unit. To obtain a replacement copy, contact your nearest authorized Hydro Mobile dealer.

Proper care of the operator's manual is your responsibility.

Ne pas utiliser ou travailler sur la plateforme avant d'avoir lu et assimilé les instructions et avertissements énumérés dans le manuel de l'opérateur.

À défaut de vous conformer aux instructions ou de lire attentivement les avertissements, vous vous exposez ou à subir des blessures ou des accidents qui peuvent être mortels.

Le manuel de l'opérateur est situé dans le coffre à outils, sous la plate-forme. Pour en obtenir une copie de remplacement, veuillez contacter un représentant autorisé d'Hydro Mobile.

Il est de votre responsabilité d'utiliser le manuel de façon appropriée.

No usar o trabajar en la plataforma antès de haber leido y entendidos las instrucciones y los avisos enumerados en el manual del operador.

A falta de conformarse a las instrucciones o leer con atencion los avisos, ustedes se exponen a causar o a suffror de heridas o accidentes que pueden ser mortales.

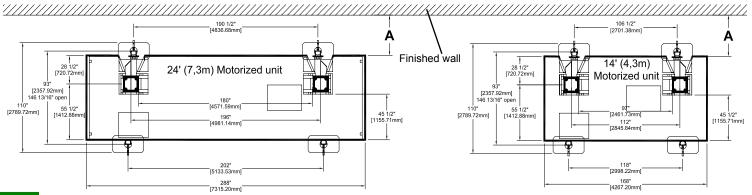
El manual del operador se encuentra en la caja de utiles, debajo de la plataforma, para tener una copia de reemplazo, contacte el representante autorisado de Hydro Mobile.

Es su responsabilidad de usar el manual de una manera apropriada.

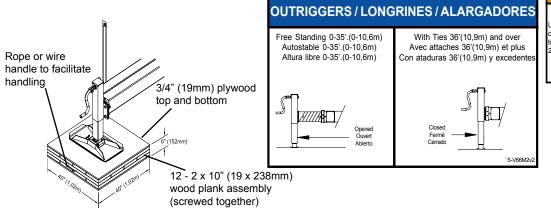
S-V78M2

Position motorized unit

- 1 Installation should be done under the supervision of a competent person, respecting all federal, state, and local regulations.
- 2 In reference to the plan/layout drawing or having otherwise established position of motorised unit, determine where mud sills need to be positioned.
- 3 On free standing installations, open base outriggers as far as possible. On installation with wall ties, close outriggers.
- 4 Before installing the motorized unit, determine where the mud sills or cribbing will rest. The ground under them needs to be level and clear of debris.
- 5 Stake the mudsill positions, mindful of center-to-center distances. You can compensate for differences in the ground level by simply adjusting the jacks on the base, or by building wood cribbing. For major differences in ground level or for bypassing obstacles, the base can be separated. See instructions in this section.
- **6** Keep the gap from 6 to 8" (152 to 202mm). Refer to OSHA 1926.453 (b) for the maximum allowable distance between the wall an the edge of work area. Distance from finished wall "A" should be, number of planks times 10" (254mm) plus 6 to 8" (152 to 202mm) play. Add 2" (50mm) if using a toe board.



- Refer to minimum bearing capacity table. Should soil bearing capacity be inferior to value in table, cribbing will be mandatory. We recommend that 40 x 40 x 6" (1m X 1m x 152mm) thick wood cribbing be used on all installations.
- Cribbing under tower column or extra jack is required for jobs 250' (76m) and higher only.
- Position the motorized unit using a lift truck, optional wheel set or crane.
- 10 Level the motorized unit base using adjustable jacks.
- Using a level, verify both towers to make sure they are plumb on front and side vertical axis. If not plumb, adjust base level slightly to suit (not more than 5 revolutions per jack). Should tower(s) remain out of plumb after slight base adjustment, contact your distributor or Hydro Mobile for base/tower re-shimming instructions



WARNING / AVERTISSEMENT / AVISO Asugurar se de S'assurer d'une Ensure proper una buena bonne capacitée bearing capacity canacidad de

de soutien sous under mud sills. apoyo por debajo la cale. de la cala. WARNING / AVERTISSEMENT / AVISO

Use extra jacks of cribbing under tower for jobs over 250' (76 m).

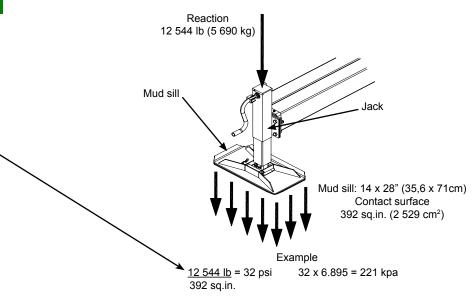
Ajouter vérins ou supports de bois sous les tours pour travaux audelà de 250' (76 m).

Anadir calces de madera o cilindros hidraulicos para obras superiores a 250' (76 m).

S-V65M2

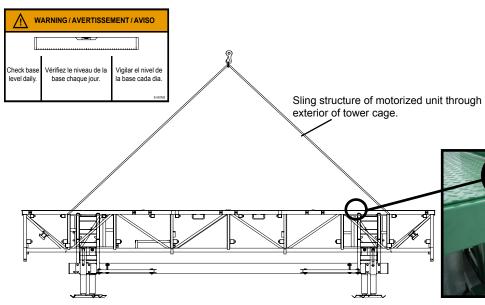
Position motorized unit

MINIMUM BEARING CAPACITY TABLE					
	Height		Two mot (pressure	orized un per mud s	
	(ft)	(m)	Reaction	(psi)	(kpa)
Free standing	35	10,7	10 192 lb (4 623 kg)	26	183
Installation with wall ties	50	15,2	11 760 lb (5 334 kg)	30	208
	75	22,9	12 544 lb (5 690 kg)	32	221
	100	30,5	13 328 lb (6 045 kg)	34	234
	150	45,7	14 896 lb (6 757kg)	38	260
	200	61,0	16 072 lb (7 290 kg)	41	286



Position motorized unit

Position the motorized unit using a lift truck, 8 000 lb (3 630 kg) capacity minimum, optional wheel set or crane. Before lowering unit to the ground open adjustable jacks by 4 to 5 to facilitate levelling.





Base separation instructions

Separating the base for uneven ground or for bypassing obstacles can be done following these steps.

- 1- With the platform sitting on its base, remove locking bars and/or transportation hooks. Tie cylinder and secondary hooks away from tower using wire or rubber straps. Slide a piece of 2x4" x 6' (38x89mm x 1,8m) long through access platform guard rail system to keep it closed for next step.
- 2- Lift platform off its base and set on a level surface close to chosen work area. Use a set of towers resting on edge to lay the platform down. This will prevent access platform damage.
- 3- Remove central beam on base (identify all shims for future assembly). Install 2 jacks with mud sills on each end section to form 2 separate bases. If extra jacks with mud sills are not available, use cribbing to form a wood block underneath each tower
- 4- Install first base on lower ground level (long side perpendicular to wall) with tower about 20" + number of planks times 10" + 6" clearance from the finish face of wall. Add extra 2" if using toe boards. Tie tower to the wall as close to ground as possible making sure it is plumb. Add 2 tower sections and tie again, use leveling jacks to plumb assembly.
- 5- Install second base on higher ground level making sure difference in height is a multiple of 60" (152cm) (height of one tower). To adjust to a 60" (152cm) difference, use cribbing or excavate by removing soil and compacting. Tie tower to the wall as close to the ground as possible making sure distance between towers is 15' (4,57m). Leave some loose in your tie to allow for adjustment. Install an additional tower section and tie tower again, loosely.
- **6-** Using forklift or crane, lift platform back onto its base. Tighten loose ties to make sure both towers are perfectly vertical on both axis, with wall and between each other.
- **7-** Release all hooks so they engage with towers.
- 8- Raise platform to top of towers and install additional towers making sure to observe appropriate tie schedule.
- 9- Use 3 anchors per tie on first 2 ties for each tower. Refer to tie schedule for balance of ties.



Base separation instructions, continued

10- The base can also be separated and installed with its long side parallel to the wall when space is limited near the ground. Follow same base separation steps but install first tower rotated 90 degrees. The base tower anti-error installation stubs will need to be removed to set the next tower section. Also note that this installation configuration will not enable platform to be lowered on the base tower as the access rung will be facing the lifting hook.

11- To re-assemble base, lower platform down to the ground removing all ties and towers, then follow steps 1 and 2. Next, re-install the beam using identified shims, distance between inside of towers must be 15'-0" +1/16", -0 (4,572m +1,6mm, -0) tolerance. Check squareness of base by measuring the "X" dimension between top and bottom of towers on front and back side. Insert platform back on its base and

release all hooks so that they engage in towers.







Access

1- To reach work area when motorized unit is between 0 and 10' (3,05m) high, climb up tower rungs on wall side of machine making sure wall tie door is unobstructed for passage. Do not use access platform and ladder when motorized unit is under 10' (3,05m), moving parts could cause injury to hands or feet.

Note:

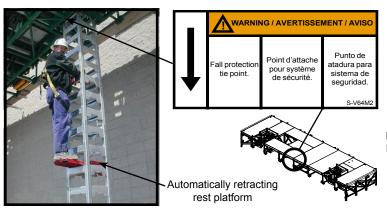
Always install first set of towers before working on the platform.



2- To reach work area when motorized unit is above 10' (3,05m) we reccommend you use a staircase and opening on the building. If unavailable, climb tower rungs up to the access platform, them climb the access platform ladder up onto the work area.



- The use of fall protection equipment is mandatory when climbing or descending the tower if exposed to height over 10' (3,05m). Ex: Use full body harness and self-retracting lifeline. Attach rope to self-retracting lifeline hook for easy access from ground. Use of fall protection equipment is also mandatory when modifying planking (add shock absorbing lanyard). Use designated fall protection tie points on motorized unit or bridge under-structure when too far from motorized unit
- The use of an automatically retractable rest platform is reccomended to access jobs 40' to 69' (12,2m to 21,0m). We do not reccommend using the climable tower on jobs over 69' (21,0m) because of time and effort required to reach the work area. Alternate equipment such as a rapid mast climber (F series) or a frame staircase will prove to be more efficient.



Self retracting

Full body harness

Rope to recuperate lifeline from ground





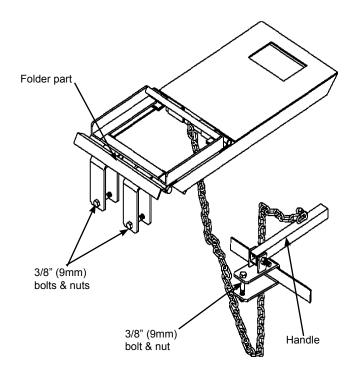


NOTICE

The use of a retractable rest platform is recommended to access jobs 40' to 69' (12,2m to 21,0m). We do not recommend using the climbable tower on jobs over 69' (21,0m) because of time and effort required to reach the work area.

Installation procedure

- 1- For safety reasons, we recommend that the rest platfrom be installed from the motorized unit deck or from a man basket underneath the motorized unit. Rest platform must be installed with motorized unit deck 30' (9,1m) from ground.
- 2- Remove the 3/8" (9mm) bolts & nuts from the folder part.
- **3-** Unfold the rest platform and leave handle on top.
- **4-** Slide the rest platform inside the tower with the step on the climbing side.
- 5- Install the folder part on the back tower step using 3/8" (9mm) bolts & nuts.
- **6-** Let the rest platform retract slowly inside the tower.
- 7- Remove the 3/8" (9mm) bolt & nut from the handle.
- 8- Install the handle 5 steps above the rest platform (refer to picture next page). Use the 3/8" (9mm) bolt & nut.
- 9- Test the rest platform by raising the handle. Doing so will retract the rest platform from inside the tower. If handle is released rest platform will fold itself inside the tower.
- **10-** If test works properly, you are safe to use the rest platform.



USE OF REST PLATFORM

- Climb the tower until one step above the rest platform.
- **2-** Raise the handle to retract the rest platform from the tower.
- 3- Step on the rest platform as handle reaches vertical position.
- **4-** Once you are on the rest platform release the handle.
- 5- When you will start climbing again the rest platform will retract into the tower automatically.



Used position



Retracted position

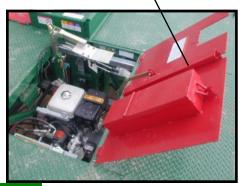


Engine

Start up preparation instructions

- Open motor access doors.
- **2-** Pull control post from its storage area by releasing the locking pin. Use 15/16" (23,8mm) wrench to tighten the control post assembly.
- 3- Check hydraulic oil level to make sure it is 3/4 full. Replenish if necessary.
- 4- Check and top up gasoline level.
- 5- Open fuel valve on Honda engine.
- 6- Connect battery, if unit is brand new.

Motor access doors





Starting procedure

- Open engine control lever door.
- 2- Pull out choke handle (blue control rod)
- 3- Release pump pressure by moving both levers up and down before starting.
- 4- Pull ignition handle (red control rod) to activate ignition and engage starter. Release as soon as motor is running. (max. 15 seconds). Use same handle to cut off engine.
- 5- Push down choke handle slowly (blue control rod)
- Pull out throttle handle (yellow control rod)
- 7- Adjust engine speed by pulling throttle handle up to maximum RPM.

Do not cut off engine using choke handle as this will leave ignition on and will drain the battery. Engine control lever door Choke handle, blue Throttle handle, yellow

lanition handle, red

Tower installation

- To connect one tower section to another, insert top tower onto the bottom tower section, making sure the towers line up square and that rungs for the hooks are on the same side.
- Slide the 5/8 x 6 1/2" (15,8 x 165mm) toggle bolt, washer & nut onto the connecting lug and hand tighten it. Repeat the operation on (4) corners.
- Tighten all toggle bolts to 120 lbf-ft (163 N-m) of torque. Use cross pattern sequence when tightening.
- To raise the platform, repeat steps 1, 2 and 3 for every 5' (1,5m) of lift.
- 20' (6,1m) sections of towers can be pre-assembled for faster installation or removal. We recommend use of slings to make the operation safe.
- Always make sure tower assembly is vertical on front (plumb) and side axis. Refer to wall tie section for additional information





WARNING / AVERTISSEMENT / AV

Fasten all tower bolts securely before raising platform. For new tower installation only,

Fixer sécuritairement les boulons des tours avant d'utiliser la plate-forme. Lors d'utilisation d'équipements neufs. installer tous les mats jusqu'au sommet mástiles hasta el

Fijar de manera s bolones de las to utilizar la platafor equipos nuevos.

Towers

Tower removal & transport

- To remove one tower section from an other loosen the toggle bolt assembly and disengage from connecting lug. Repeat the operation on (4) corners.
- Pull the top tower off the bottom tower and store it near the doors ready for unloading.
- Store towers on a flat surface away from construction traffic.
- Towers can be transported in 20' (6,1m) length sections provided they lay on a flat surface.
- If strapping towers together in bundles, quantities of 9 work best. Make sure center towers are straped to prevent them from slipping out.

Hooks installation

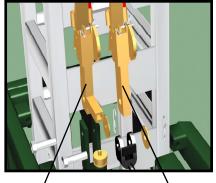
- 1- Remove transportation hook from hydraulic cylinder assembly and store under hook storage door (you may need to lower platform to remove hook).
- **2-** Install a set of towers (see tower section)
- 3- Open hook storage door, remove hitch pin clips and release cylinder hook and secondary hook.
- 4- Install cylinder hook on cylinder using bolt, washer and hitch pin clip.
- **5-** Repeat the operation for the secondary hook.
- **6-** Remove locking bars on both towers.
- 7- Make sure towers are securely fastened.
- **8-** You are ready to raise the platform.

Hook storage position

Transportation hook







Secondary hook

Cylinder hook

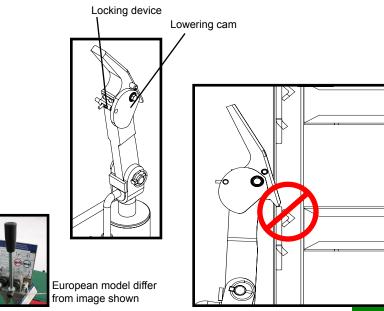


Warning

Remove both locking bars before raising platform and re-install for transportation. Store below.

OPERATING INSTRUCTIONS S-V49M2v2 INSTRUCTIONS D'OPÉRATION **INSTRUCCIONES DE OPERACION** Remove locking bars (2x). Retirer les barres de blocage (2x). Quitar las barras de bloqueo (2x) Keep platform level. Garder la plate-forme de niveau. Guardar la plataforma de nivel. Lower Raise **Baisser** Lever Bajar Levandar Retraction Retraccion # Pousser Tirer **Empujar** Tirar EXTENSION

Raising / Lowering platform



Raising / Lowering platform

Raising

- Lock both cylinder and secondary hook lowering cams using locking device.
- With engine running at full RPM, push both control levers away from you using one hand. The two hydraulic cylinders will extend simultaneously until they reach the fully extended position.
- 3- Extend cylinders by 2 rungs. The engine will be forced to slow down.
- 4- Pull both control levers towards you so cylinder hooks latch properly onto the tower rungs and the platform rises to the desired position. The lift can vary from 10" to 20" (254 to 508mm) (1 or 2 towers rungs).
- **5-** Repeat steps 2, 3 and 4 for raising the platform.
- 6- Add towers and wall ties when required. Refer to tower and tie installation instructions.



Warning



Make sure cylinder hooks are properly latched on the tower rungs before raising or lowering platform. Failure to engage hooks properly can cause platform to drop. Also for additional safety, always end the raising or lowering operation with both secondary hooks engaged on tower rungs.

Lowering

- Unlock both cylinder and secondary hook lowering cams using the locking device.
- With the engine running at full RPM and with both cylinder hooks side by side on the same rung, pull both control levers towards you so the secondary hook cams pivot toward the towers, and the engine is forced to slow down.
- 3- Push both control levers away from you and the cams will cause the secondary hooks to ride past 1 or 2 rungs (10" or 20") (254 to 508mm) until the desired position is reached and the engine is forced to slow down.
- 4- Pull both control levers towards you so the cylinder hook lowers back to its closed position. Both cylinder and secondary hooks will be side by side on same rung.
- **5-** Repeat steps 2, 3 and 4 for lowering the platform.
- 6- Remove wall ties and towers when required. Refer to wall tie and tower instructions

Warning



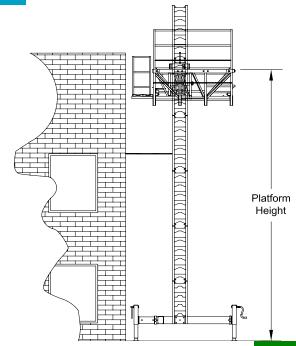
To pass wall ties, slide planks away from front of towers and open wall tie doors. The use of fall protection equipment is mandatory when doing this work. Also, use of shorter planks in front of towers will facilitate this work.

WALL TIE SCHEDULE			
Platform height	Standard set up (2 or 4 planks)	Set up with hoist, weather protection, forward extension or 5 to 8 planks	
0 - 35' (0-10,6m)	Free standing	No free standing	
0 - 250' (21,1m - 76,2m)	Every ⁽¹⁾ 20 ft <i>(6m)</i>	Every ⁽²⁾ 10 ft <i>(3m)</i>	

⁽¹⁾ Tie schedule can be 30' (9,1m) if towers are pre installed to top of building.



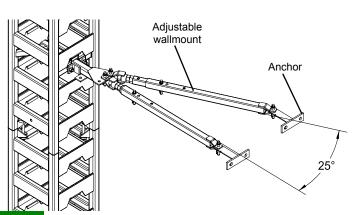
Do not use mast climber when wind speeds exceeds 35 miles / hour (56 km/h) or when wind speed exceeds 20 miles / hour (32 km/h) when using weather protection.

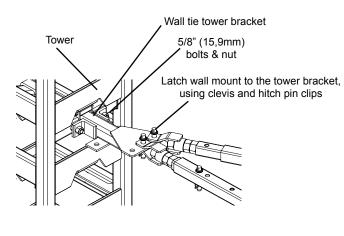


⁽²⁾ Tie schedule can be 20' (6,1m) if towers are pre installed to top of building.

Wall ties

- Loosen bolts on the wall tie tower bracket.
- 2- Slide wall tie tower bracket assembly into the tower diagonally, making sure to install the tower bracket as close as possible to the upper rung to avoid interference with feet for climbing.
- 3- Tighten the bolts on the wall tie tower bracket until the bracket holds the tower firmly.
- **4-** Latch both 25° wall mounts to the tower brackets using clevis pins and hitch pin clips.
- 5- Pin the wall mounts to the anchors and adjust the length using sliding tube and threaded rod / nuts until both towers are perfectly vertical on front (plumb) and side axis (parallel with other tower and straight).
- 6- Repeat steps 4 and 5 for wall mounts to be installed straight (0°) between tower bracket and anchor.





Wall tie parts required Parts required 3 X 1/2" Wall tie Adapter H (plank(s)) C/C Diagram Male part Female part (76,2 X 12,7mm) pin ass'y extension bolt ass'y 15" (38cm) Α 0 2 18" (46cm) В 2 21" (53cm) 3 24" (61cm) 4 33" (84cm) 2 34" (86cm)

2

6

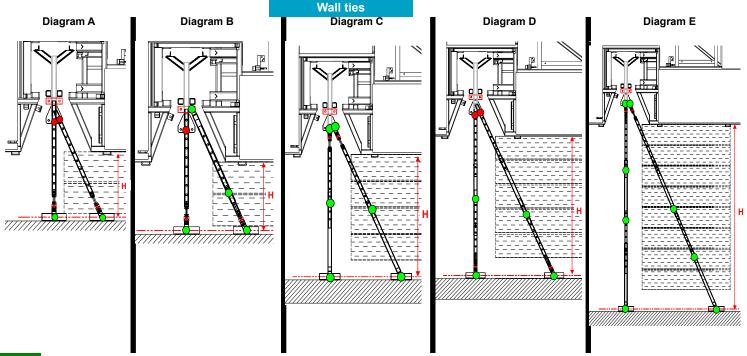
8

37" (94cm) 42" (107cm)

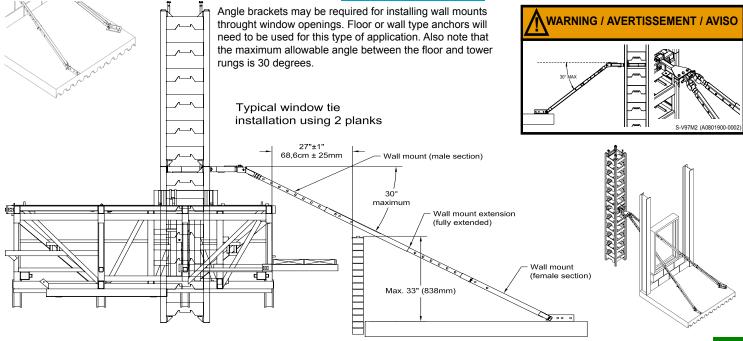
55" (140cm)

¹⁻ Diagrams are on the following page.

²⁻ Parts required are based on (H = Number of planks times 10" (254mm) plus 6 to 8" (152 to 202mm) play.

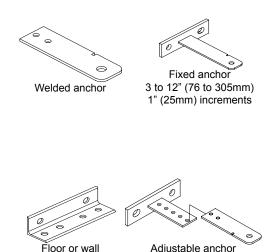


Wall ties

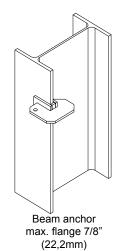


Wall ties

Before attaching towers to the building using the tie system, it will be necessary to install anchors to a solid building structure. Concrete slabs, columns, steel beams, relief angles and other structural members can be used provided that a 3 000 lb (1 360 kg) tension / compression and 1 000 lb (454 kg) shear force can be applied. There are 5 types of anchors you can use depending on the building structure.



4 to 8" (101mm to 203mm)



WARNING / AVERTISSEMENT / AVISO Anchors must be in-Les ancrages doivent être Los anclajes deben ser stalled on a structure installés sur une structure puestos sobre una capable of withstanding pouvant résister à une estructura capaz de 3 000 lb (1 360 kg) of traction ou compression de resistir a una traccion o tension or compression 3 000 lb (1 360 kg) et une compresion de 1 360 kg. and 1 000 lb of force de coupe de 1 000 lb y una fuerza de (454 kg) shear. (454 kg). cizallamiento de 454 kg. Adjust wall mounts until Aiuster les attaches Ajustar las ataduras tower is plumb. murales de facon à mettre murales para poner el le mât de niveau mastil de plomo. S-V68M2v

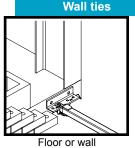
anchor

Anchor installation

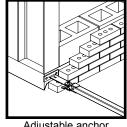
- While work is in progress and platform is rising, install wall anchors as per wall tie schedule.
- Measure distance from edge of slab to face of brick.
- Select the correct size anchor to suit

Removal

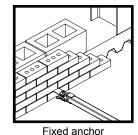
After adjustable wall mounts have been removed, cut off fixed anchor at mortar joint using a grinder. Apply coat of anti-rust paint or galv-con, let dry and fill cavity with mortar.





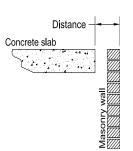


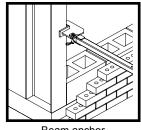
Adjustable anchor 4 to 8" (101mm to 203mm)



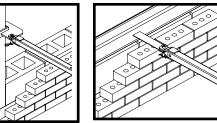
3 to 12" (76 to 305mm) 1" (25mm) increment

Fixed anchor selection table			
Distance (inches)	Distance (mm)	Fixed anchor required	
3 3/4 @ 4 1/4	95 @ 108	4" (101mm)	
4 3/4 @ 5 1/4	120 @ 133	5" (127mm)	
6 3/4 @ 7 1/4	172 @ 184	6" (152mm)	
7 3/4 @ 8 1/4	196 @ 210	7" (178mm)	
8 3/4 @ 9 1/4	222 @ 235	8" (203mm)	
9 3/4 @ 10 1/4	248 @ 260	9" (229mm)	
10 3/4 @ 11 1/4	273 @ 286	10" (254mm)	
11 3/4 @ 12 1/4	298 @ 311	11" (279mm)	
12 3/4 @ 13 1/4	324 @ 337	12" (305mm)	





Beam anchor Welded anchor (on steel structure)



Bridges

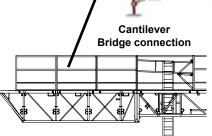
CANTILEVER BRIDGES

A cantilever bridge system is the assembly of one (6, 10, 14 and 18 ft maximum.) (1,8m, 3,1m, 4,3m and 5,5m) half-bridge on the end of a single motorised unit. (A 2 ft or 10 ft (0,7m or 3,1m) insert can also be used on the end of a motorized unit).

BEARING BRIDGES

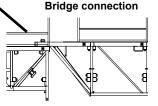
A bearing bridge is an assembly of two (6, 10, 14 and 18 ft.) (1,8m, 3,1m, 4,3m and 5,5m) half-bridge sections. It is also possible to insert 2 ft, 10 ft or 20 ft (0,7m, 3,1m or 6,1m). square end modules between half-bridge sections. Half sections are not required to be of same length. Bearing bridge lengths can vary from 12 ft to 56 ft (3,7m to 17,1m) long maximum.

LANGE AND THE PROPERTY OF THE PARTY OF THE P

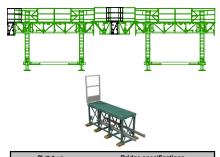


WARNING

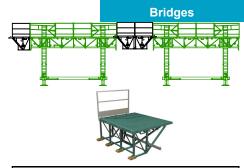
For stability, when using a single motorized unit, both sides must be of the same length. However, a single 6' (1.8m) section can be used at one end or the other of a 24' (7.3m) motorized unit only.



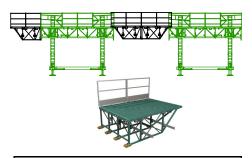
Bearing



2' (0,6 m)	Bridge specifications			
Size	26 1/2" x 91" x 39 1/2" (0,7m x 2,3m x 1,0m)			
Weight	580 lb (265 kg)			
Guard rail	1x 24" (0,5m) - 30 lb (14 kg)			
Guard rail pocket	2x			
Removable guard rail	Not required			
Top outrigger	4x 2" x 2" x 1/8" x 60" lg (51mm x 51mm x 3mm x 1,5m)			
Cantilever outrigger supp't w bottom outrigger	Not required			
Bottom outrigger	2x 2 1/2" x 2 1/2" x 3/16" x 84" lg (64mm x 64mm x 5mm x 2,1m)			
Bolt - Nuts sets	6x 1" x 2 1/2" lg GR5 unc (25,4mm x 64mm)			
Link plate sets	8x			
Pockets for monorail & wp	None			



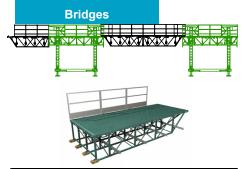
6' (1,8 m)	Bridge specifications
Size	71 7/8" x 91" x 39 1/2" (1,8m x 2,3m x 1,0m)
Weight	1 045 lb (475 kg)
Guard rail	1x 60" (1,5m) - 45 lb (20 kg)
Removable guard rail	Stored on motorized unit (M2)
Top outrigger	1x 2" x 2" x 1/8" x 60" lg (51mm x 51mm x 3mm x 1,5m)
Bottom outrigger	2x 2 1/2" x 2 1/2" x 3/16" x 84" lg (64mm x 64mm x 5mm x 2,1m)
Cantilever outrigger supp't w bottom outrigger	Stored on motorized unit (M2)
Bolt - Nuts sets	6x 1" x 2 1/2" lg GR5 unc (25,4mm x 64mm)
Link plate sets	8x
Pockets for monorail & wp	1



10' (3,0 m)	Bridge specifications		
Size	120 7/8" x 91" x 39 1/2" (3,1m x 2,3m x 1,0m)		
Weight	1 590 lb (721 kg)		
Guard rail	2x 60" (1,5m) - 45 lb (20 kg) each		
Removable guard rail	Stored on motorized unit (M2)		
Top outrigger	2x 2" x 2" x 1/8" x 60" lg (51mm x 51mm x 3mm x 1,5m)		
Bottom outrigger	2x 2 1/2" x 2 1/2" x 3/16" x 84" lg (64mm x 64mm x 5mm x 2,1m)		
Cantilever outrigger supp't w bottom outrigger	Stored on motorized unit (M2)		
Bolt - Nuts sets	6x 1" x 2 1/2" lg GR5 unc (25,4mm x 64mm)		
Link plate sets	8x		
Pockets for monorail & wp	2		



14' (4,3 m)	Bridge specifications
Size	168 3/4" x 91" x 39 1/2" (4,3m x 2,3m x 1,0m)
Weight	2 115 lb (960 kg)
Guard rail	2x 60" (1,5m) - 45 lb (20 kg) each
Removable guard rail	Stored on motorized unit (M2)
Top outrigger	3x 2" x 2" x 1/8" x 60" lg (51mm x 51mm x 3mm x 1,5m)
Bottom outrigger	3x 2 1/2" x 2 1/2" x 3/16" x 84" lg (64mm x 64mm x 5mm x 2,1m)
Cantilever outrigger supp't w bottom outrigger	Stored on motorized unit (M2)
Bolt - Nuts sets	6x 1" x 2 1/2" lg GR5 unc (25,4mm x 64mm)
Link plate sets	8x
Pockets for monorail & wp	3



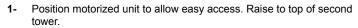
18' (5,5 m)	Bridge specifications			
Size	216 3/4" x 91" x 39 1/2" (5,5m x 2,3m x 1,0m)			
Weight	2 610 lb (1 185 kg)			
Guard rail	3x 60" (1,5m) - 45 lb (20 kg) each			
Removable guard rail	Stored on motorized unit (M2)			
Top outrigger	4x 2" x 2" x 1/8" x 60" lg (51mm x 51mm x 3mm x 1,5m)			
Bottom outrigger	4x 2 1/2" x 2 1/2" x 3/16" x 84" lg (64mm x 64mm x 5mm x 2,1m)			
Cantilever outrigger supp't w bottom outrigger	Stored on motorized unit (M2)			
Bolt - Nuts sets	6x 1" x 2 1/2" lg GR5 unc (25,4mm x 64mm)			
Link plate sets	8x			
Pockets for monorail & wp	4			



10' (3,1 m)	Bridge specifications		
Size	123 1/4" x 91" x 39 1/2" (3,1m x 2,3m x 1,0m)		
Weight	1 710 lb (776 kg)		
Guard rail	2 x 60" (1,5m) - 45 lb (20 kg) each		
Removable guard rail	Stored on motorized unit (M2)		
Top outrigger	4x 2" x 2" x 1/8" x 60" lg (51mm x 51mm x 3mm x 1,5m)		
Bottom outrigger	4x 2 1/2" x 2 1/2" x 3/16" x 84" lg (64mm x 64mm x 5mm x 2,1m)		
Cantilever outrigger supp't w bottom outrigger	Not required		
Bolt - Nuts sets	6x 1" x 2 1/2" lg GR5 unc (25,4mm x 64mm)		
Link plate sets	8x		
Pockets for monorail & wp	2		

Bridges

Cantilever installation procedure



Use lift truck to position the half bridge or suspend it using slings.

Connect upper half bridge to motorized unit using bolt assemblies (6).



Guard rail storage

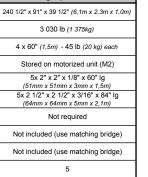
DO NOT TIGHTEN YET.

Connect lower half bridge to unit using pins (8) and link plates (8).

- Tighten upper bolt assemblies (6).
- Install cantilever outrigger support and outrigger on end of bridge. These items are stored on motorized unit.



and pins (8x)



Bridge specifications

20' (6,1 m)

Size

Weight

Guard rail

Top outrigger

Bottom outrigger

Bolt - Nuts sets

Link plate sets

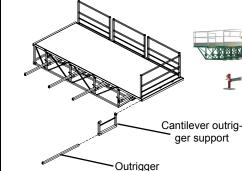
monorail & wp

Pockets for

Cantilever outrigger

supp't w bottom outrigger

Removable guard rail



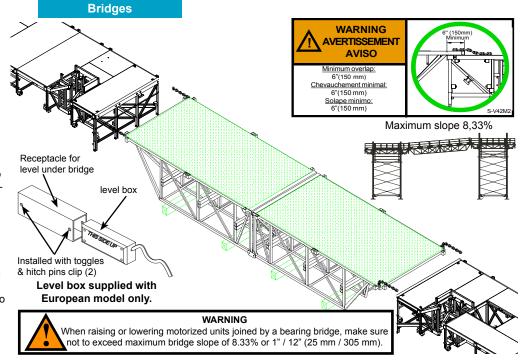


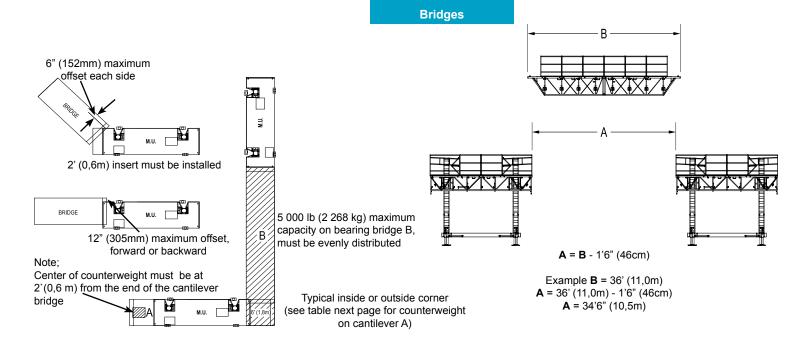
Warning

Grade 5 bolts required only to connect bridges on motorized unit.

Bearing installation procedure

- Position, install and level motorized units in accordance to example on next page.
- 2- Set half-bridge sections on a level surface, using wood cribbing or towers so that link plates are free from ground.
- 3- Install "upper" bolt assemblies (6), then "lower" link plates and pins (8) each. It is recommended to install bolts loosely then tightening after link plates and pins are connected.
- 4- Using a lift truck or crane, position bridge so it rests on both motorized units with an overlap between 6" (150mm) minimum and 12" (305mm) maximum.
- 5- Chain ot both ends, leaving 1" (25,4mm) of slack for bridge vertical movement. When chaining bridges to form inside, outside or angled corners, install chains on structural undercarriages using small schackle. Leave 1" (25mm) slack for vertical movement. Measure slack by pushing chain assembly to top of undercarriage.
- 6- Install adjustable guard rails (stored on motorized unit) to eliminate any opening between motorized unit and bridge.





Bridges

For 24' (7,3m) motorized unit only						
Counterweight requ	uired on c	antilever	bridge (A) (lb)		
Bearing bridge size B (ft)	С	Cantilever bridge size A (ft)				
	6	10	14	18		
12	0	0	0	0		
20	250	0	0	0		
28	350	0	0	0		
36	600	0	0	0		
48	1050	350	0	0		
56	1250	550	0	0		
Counterweight requ	ired on c	antilever	bridge (A)	(kg)		
Bearing bridge size B (m)	С	antilever A	bridge siz (m)	ze		
	1,8	3,1	4,3	5,5		
3,7	0	0	0	0		
6,1	113	0	0	0		
8,5	159	0	0	0		
11,0	272 0 0 0					
14,6	476	159	0	0		
17,1	567	249	0	0		

For 14' (7,3m) motorized unit only							
Counterweight required on cantilever bridge (A) (lb)							
Bearing bridge size	size Cantilever bridge size						
B (ft)		Α	(ft)				
	6	10	14	18			
12	1250	450	$>\!\!<$	\times			
20	1550	700	$>\!\!<$	\times			
28	1850	900	\times	\times			
36	2150	1100	$>\!\!<$	\times			
48	\times	1550	\times	\times			
56	\times	1800	$>\!\!<$	\times			
Counterweight requ	uired on c	antilever	bridge (A) (kg)			
Bearing bridge size	С	antilever	bridge siz	ze			
B (m)		Α	(m)				
	1,8	3,1	4,3	5,5			
3,7	567	204	$>\!\!<$	\sim			
6,1	703	318	$>\!\!<$	>>			
8,5	839	408	$>\!\!<$	\times			
11,0	975	499	$>\!\!<$	\times			
14,6	$>\!\!<$	703	$>\!\!<$	>>			
17,1	$\geq \!$	816	$\geq \leq$	\times			

Capacities

Warning



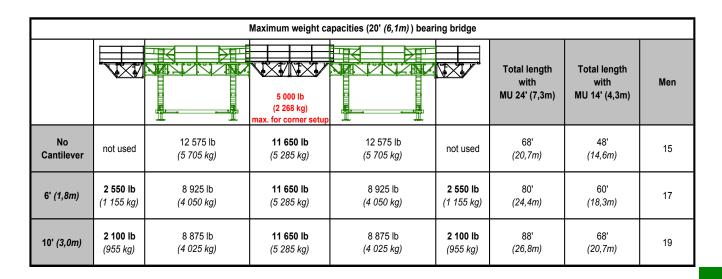
To keep workers using the mast climber safe at all times, it will be necessary to make sure the bridges are not loaded beyond their maximum rated weight capacities. Also, to prevent your mast climbing system from stalling because of overload you will have to respect the maximum rated weight capacity of the motorized unit(s). Overloading this mast climbing system could result in serious injury or death.

Notice

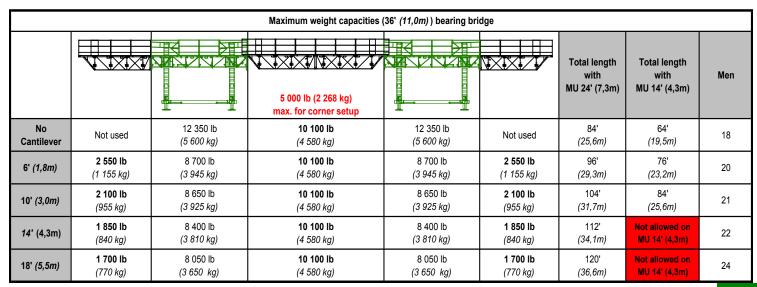
Maximum rated weight capacities are based on standard 2 to 3 plank set-ups. For setups with more than 3 planks or using accessories ex.: hoist, monorail, weather protection, ULB etc. the weight of the extra equipment must be deducted from the stated capacities

Maximum weight capacities single unit								
				Total length with MU 24' (7,3m)	Total length with MU 14' (4,3m)	Men		
No Cantilever	not used	20 000 lb (9 070 kg)	not used	24' (7,3m)	14' (4,3m)	6		
2' (0,6m)	not used	16 000 lb (7 258 kg)	3 500 lb (1 588 kg)	26' (7,9m)	16' <i>(4,9m)</i>	6		
6' (1,8m)	not used	16 350 lb (7 415 kg)	2 550 lb (1 155 kg)	30' (9,1m)	Not allowed on MU 14' (4,3m)	7		
6' (1,8m)	2 550 lb (1 155 kg)	12 700 lb (5 760 kg)	2 550 lb (1 155 kg)	36' (11,0m)	26' (7,9m)	8		
10' (3,0m)	2 100 lb (955 kg)	12 600 lb (5 715 kg)	2 100 lb (955 kg)	44' (13,4m)	34' (10,4m)	10		
14' <i>(4,3m)</i>	1 850 lb (840 kg)	12 100 lb (5 490 kg)	1 850 lb (840 kg)	52' (15,9m)	Not allowed on MU 14' (4,3m)	11		
18' <i>(5,5m)</i>	1 700 lb (770 kg)	11 400 lb (5 170 kg)	1 700 lb (770 kg)	60' (18,3m)	Not allowed on MU 14' (4,3m)	12		

	Maximum weight capacities (12' (3,7m)) bearing bridge									
			5 000 lb (2 268 kg) max. for corner setup			Total length with MU 24' (7,3m)	Total length with MU 14' (4,3m)	Men		
No Cantilever	not used	12 700 lb (5 760 kg)	12 400 lb (5 625 kg)	12 700 lb (5 760 kg)	not used	60' (18,3m)	40' (12,2m)	12		
6' <i>(1,8m)</i>	2 550 lb (1 155 kg)	9 050 lb (4 105 kg)	12 400 lb (5 625 kg)	9 050 lb (4 105 kg)	2 550 lb (1 155 kg)	72' (22,0m)	52' (15,9m)	15		



	Maximum weight capacities (28' (8,5m)) bearing bridge									
			5 000 lb (2 268 kg) max. for corner setup			Total length with MU 24' (7,3m)	Total length with MU 14' (4,3m)	Men		
No Cantilever	Not used	12 450 lb (5 650 kg)	for corner setup	12 450 lb (5 650 kg)	Not used	76' (23,2m)	56' (17,1m)	17		
6' (1,8m)	2 550 lb (1 155 kg)	8 800 lb (3 990 kg)	10 900 lb (4 945 kg)	8 800 lb (3 990 kg)	2 550 lb (1 155 kg)	88' (26,8m)	68' (20,7m)	19		
10' (3,0m)	2 100 lb (955 kg)	8 750 lb (3 970 kg)	10 900 lb (4 945 kg)	8 750 lb (3 970 kg)	2 100 lb (955 kg)	96' (29,3m)	76' (23,2m)	20		
14' (4,3m)	1 850 lb (840 kg)	8 500 lb (3 855 kg)	10 900 lb (4 945 kg)	8 500 lb (3 855 kg)	1 850 lb (840 kg)	104' (31,7m)	Not allowed on MU 14' (4,3m)	21		



	Maximum weight capacities (48' (14,6m)) bearing bridge								
			5 000 lb (2 268 kg) max. for corner setup			Total length with MU 24' (7,3m)	Total length with MU 14' (4,3m)	Men	
No Cantilever	Not used	12 200 lb (5 535 kg)	8 500 lb (3 855 kg)	12 200 lb (5 535 <i>kg</i>)	Not used	96' (29,3m)	76' (23,2m)	20	
6' <i>(1,8m)</i>	2 550 lb (1 155 kg)	8 550 lb (3 880 kg)	8 500 lb (3 855 kg)	8 550 lb (3 880 kg)	2 550 lb (1 155 kg)	108' (32,9m)	88' (26,8m)	22	
10' <i>(3,0m)</i>	2 100 lb (955 kg)	8 500 lb (3 855 kg)	8 500 lb (3 855 kg)	8 500 lb (3 855 kg)	2 100 lb (955 kg)	116' (35,4m)	96' (29,3m)	24	
14' <i>(4,3m)</i>	1 850 lb (840 kg)	8 250 lb (3 740 kg)	8 500 lb (3 855 kg)	8 250 lb (3 740 kg)	1 850 lb (840 kg)	124' (37,8m)	Not allowed on MU 14' (4,3m)	24	
18' (5,5m)	1 700 lb (770 kg)	7 900 lb (3 585 kg)	8 500 lb (3 855 kg)	7 900 lb (3 585 kg)	1 700 lb (770 kg)	132' (40,2m)	Not allowed on MU 14' (4,3m)	26	

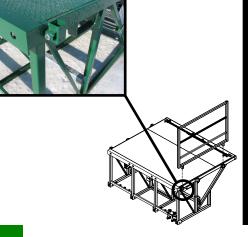
Capacities

	Maximum weight capacities (56' (17,1m)) bearing bridge							
	V XX		5 000 lb (2 268 kg) max. for corner setup			Total length with MU 24' (7,3m)	Total length with MU 14' (4,3m)	Men
No Cantilever	Not used	12 100 lb (5 490 kg)	7 700 lb (3 490 kg)	12 100 lb (5 490 kg)	Not used	104' (32,2m)	84' (25,6m)	20
6' <i>(1,8m)</i>	2 550 lb (1 155 kg)	8 450 lb (3 835 kg)	7 700 lb (3 490 kg)	8 450 lb (3 835 kg)	2 550 lb (1 155 kg)	116' (35,4m)	96' (29,3m)	22
10' (3,0m)	2 100 lb (955 kg)	8 400 lb (3 810 kg)	7 700 lb (3 490 kg)	8 400 lb (3 810 kg)	2 100 lb (955 kg)	124' (37,8m)	104' (31,7m)	22
14' (4,3m)	1 850 lb (840 kg)	8 150 lb (3 695 kg)	7 700 lb (3 490 kg)	8 150 lb (3 695 kg)	1 850 lb (840 kg)	128' (39,0m)	Not allowed on MU 14' (4,3m)	24
18' <i>(5,5m)</i>	1 700 lb (770 kg)	7 800 lb (3 535 kg)	7 700 lb (3 490 kg)	7 800 lb (3 535 kg)	1 700 lb (770 kg)	140' (42,7m)	Not allowed on MU 14' (4,3m)	26

Guard rail & Outriggers

Guard rail

There are three types of guard rails: 5 ft , 7 ft (1,5m and 2,1m) and an ajustable. To install guard rails simply slide them into their permanent pockets and lock them using the nut & bolt assembly. Install removable guard rails by pinning them to standard ones.



Outriggers

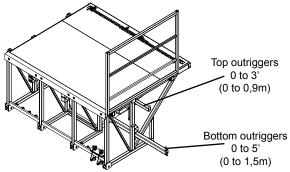
Two levels of outriggers are provided; for men (lower level) and materials (top level). Top outriggers can be extended out 3' (0,9m). Bottom outriggers can be extended out 5' (1,5m).

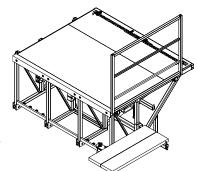
- 1- Lower outriggers can be inserted from the front or from the back of the outrigger support collars. Insert plank stop pin, once outrigger is installed.
- 2- Once planks are in place, push outrigger back in, until plank stop rests against plank. Lock with 5/8" (15,8mm) bolt.

Note: longer outriggers are available for special applications.



Always lock outriggers in place, using 5/8" (15,8mm) bolt.





Top outriggers can be inserted from the front only. Once planks are in place, push outrigger back in, until welded plank stop rests snugly against plank. Lock 5/8" (15,8mm) bolt.

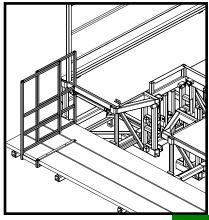


Mason guard rail

A mason guard rail enables the closing of open ended planks. If three planks are used, the gap can be closed with an additional mason guard rail (face to face).

- Slip guard rail collar section over end of two planks, normally with collar in.
- 2- Drive one or two nails to prevent mason guard rail from slipping.
- **3-** For use with 3 planks, use 2 mason guard rails offset.



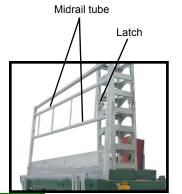


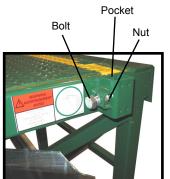
Sliding doors

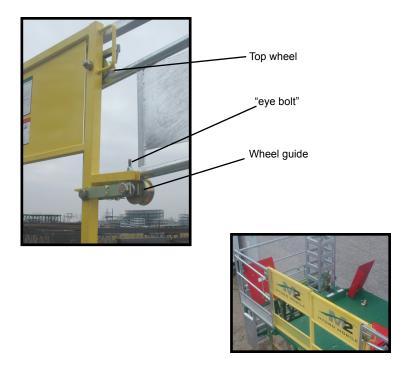
Sliding doors

Two sliding doors allow for safe loading of materials onto motorized units. All references are made with the observer standing behind unit and facing the work. To install the guard rails and doors follow these steps;

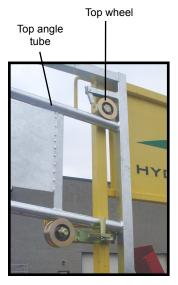
- 1- Use a fork lift to put the doors and door guard rails on the platform.
- 2- Install the door guard rail on the ends of the platform in their corresponding pockets and with midrail tubes slanting towards the opening. Lock in place with bolts on pockets.
- 3- Drop down the wheel guide by unscrewing the "eye bolt".







- 4- Install the door on the door guard rail, with top wheel on the top midrail tube.
- 5- Adjust the height of the door using the "eye bolt", the door should be approx. 1/4" (6mm) above the motorized unit deck.







Face guard rail

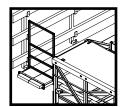
Sliding doors & Face guard rail

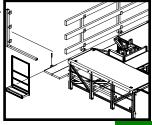
Face guard rail brackets must be used when the space between the mason planks (lower outrigger) and finished wall or platform deck (upper outrigger) and finished wall is greater than 8" (205mm).

Lower outrigger

- Remove plank stop pin.
- Insert face guard rail, as illustrated.
- 3- Install plank stop pin through hole in face guard rail bracket to secure in place.
- **4-** Repeat for all outriggers which could leave a hazardous opening.
- 5- Secure outriggers with 5/8" (15,8mm) bolt.
- 6- Insert planks in hooks provided, secure in place with nails through holes.

 Upper outrigger
- 1- Remove top outriggers where a guard rail section is required.
- 2- Insert face guard rail bracket in top outrigger collars.
- 3- Secure with 5/8" (15,8mm) bolt.
- 4- Insert planks in hooks and nail through holes.





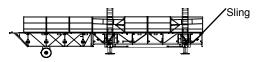
Wheel set

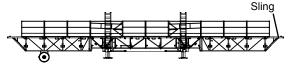
- **1-** Lower/raise the cantilever set-up to top of second tower.
- 2- Move wheel set under bridge using handle bars.
- 3- Install wheel set under a vertical truss support using 4 locking pins
- **4-** Slowly lower set-up onto wheel set.
- 5- Install the locking bars (2x).
- 6- Raise up base until the locking bars lock under tower rungs.
- 7- Lift the opposite side with fork lift using slings.
- 8- With lift truck slinged to end of bridge, move the complete set up like a trailer, to desired location.
- **9-** Set up unit in a normal fashion.
- 10- Wheel set must be removed during normal operation. Note that wheel set dead weight = 520 lb (236 kg). Deduct the wheel set dead weight from the bridge capacity if left on.
- **11-** A maximum of 10 ft (3,1m) of tower can be left bolted on the base for this moving procedure.
- 12- Also note that wheel set can be installed on the end of the motorized unit undercarriage for special operations. Furthermore, two wheel sets (one each end) can be used on the motorized unit to form a trailer for job site displacement only. Once wheels are installed, replace cylinder hooks with transport hooks temporarily so the base can be lifted above the wheels.



Warning

Before moving, clear the ground and remove all materials and equipment on motorized unit and bridge(s).













Positioning bottom support

- Slide the bottom support under the unit or bridge.
- Hook it temporarily usingt suport collar.

Note:

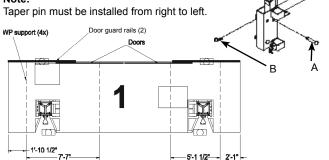
Remember that maximum distance between two underneath supports under a bridge is 8' (2,4m).

Tightening bottom support

Insert a taper pin (A) on both bottom support collars and lock with hitch pin clips.

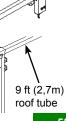
Tighten bolt.

Note:



Setting up roof structure with roof tube kit (outriggers)

- Insert the back vertical post into the bottom support pocket. The head of the vertical post must face the wall.
- Insert a taper pin through the second adjustment hole of the vertical post and lock with a hitch pin clip.
- Tighten bolt.
- To facilitate assembly, remove the locking device (A) from the 9' (2,7m) roof tube.
- Slide the 9' (2,7m) roof tube into the rear vertical post head (holes at the end of 9' roof tube must be on the wall side and horizontall' aligned) and insert the sliding tube (B) in the 9' (2,7m) roof tube.
- Insert the front vertical post into the bottom support full pocket. The head of the vertical post must face the wall.
- Insert a taper pin through the first adjustment hole of the vertical post and lock with a hitch pin clip.
- Slide the 9' (2,7m) roof tube with part (B) into the front vertical post head.
- Tighten bolts on vertical post heads.
- Reinsert the locking device (A) onto 9' roof tube (bolt must be horizontal, aligned with the 9' (2,7m) roof tube holes and on the opposite side of 2 x 4" (38 x 89mm) angle brackets, adjust distance from the wall if required.
- Tighten bolt.



Weather protection

Setting up roof structure with wood

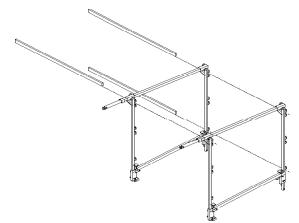
- 1- Insert the back vertical post into the bottom support full pocket. The head of the vertical post must face the wall.
- 2- Insert a taper pin through the second adjustment hole o the vertical post and lock with a hitch pin clip.
- 3- Tighten bolt.
- 4- Insert the front vertical post into the bottom support full pocket. The head of the vertical post must face the wall.
- 5- Insert a taper pin through the first adjustment hole of the vertical post and lock with a hitch pin clip.
- 6- Tighten bolt.
- 7- Link front and rear vertical posts by positioning horizont a 2 x 4" (38 x 89mm) in angle brackets located beside heads of posts. Length must be determined by consider distance from the wall.
- 8- Nail into place by wine halos in angled breakets



Front bracing can be installed by using 2 x 4" (38 x 89mm) in top angle brackets located on the back of the front vertical posts. 1 1/2" (12.7mm) nails are recommended.

Back bracing

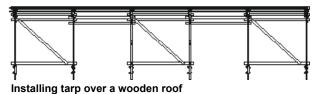
Back bracing can be installed bt using 2 x 4" (38 x 89mm) into top and bottom angle brackets located on the back of the vertical posts. 1 1/2" (12.7mm) nails are recommended.



Weather protection

Note:

A diagonal brace is required every two bays. Also, a bay can be left opened as long as diagonal bracing is set on both sides of the opening.



1- Install 2 v 4" (38 v 80mm) on top of roof



Installing tarp over a roof tubes kit

1- Install 2 x 4" (38 x 89mm) at the end of the 48" (1,22m) sliding tube as shown.

2- Install tarps on wood.

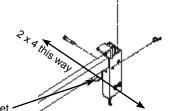
Note:

When job is finished, the sliding tube can be retracted without having to take off the wood and tarp.

Wood must not exceed the locking device (A), if so, it will prevent slidding tube from retracting.

Installing tarp underneath the platform

- 1- Install 2 x 4" (38 x 89mm) into angle brackets located on the underneath support.
- 2- Install tarps on wood.



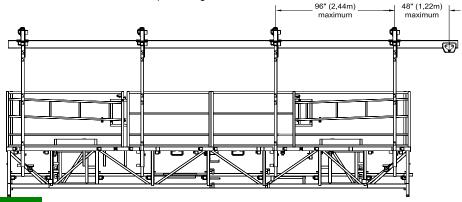
Monorail

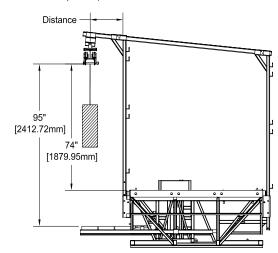
Monorail

- **1-** Install the weather protection M2 bottom support.
- **2-** Install the weather protection M2 back post on the bottom support pocket.
- **3-** Slide 10' (3,05m) outrigger into top of back post head.
- **4-** Install the weather protection M2 front post on the bottom support pocket.
- 5- Slide the outrigger into front post at the proper distance (longer outrigger required for setup with more than 3 planks).
- 6- Install the beam using the monorail beam attachment on each outrigger.

NOTE:

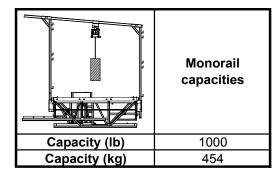
Place monorail beam attachment in upper tube. If your are using bearing bridges place the beam attachment in the lower tube so plank height will match.

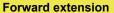


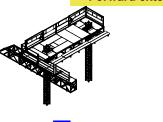


	Monorail capacities as per installation distance				
Dietone	Distance "A"				
Distance	20" (50,8cm)	30" (76,2cm)	40" (101,6cm)	50" (127cm)	
Capacity (lb)	1000	700	500	300	
Capacity (kg)	454	318	227	136	

	Monorail capacities as per installation distance (each monorail)				
Distance _	Distance"A"				
A	20" (50,8cm)	30" (76,2cm)	40" (101,6cm)	50" (127cm)	
Capacity (lb)	650	600	500	400	
Capacity (kg)	295	272	227	181	







10' (3,1m) A,E			
Required parts Weight			
Α	Extension 29" x 14' (74 cm x 4,3m)	716 lb (325 kg)	
E	Counterweight support 29" x 4' (74 cm x 1,2m)	129 lb (59 kg)	
1x	Guard rail 79" (2,0m)	69 lb (32 kg)	
1x	Guard rail 24" (61 cm)	30 lb (14 kg)	
8x	Junction plate set (V shape)		
500 lb (227 kg)	Counterweight	500 lb (227 kg)	
1 444 lb (655 kg)			

16' (4,9m) A,B,D,E			
	Required parts	Weight	
Α	Extension 29" x 14' (74 cm x 4,3m)	716 lb (325 kg)	
E	Counterweight support 29" x 4' (74 cm x 1,2m)	129 lb (59 kg)	
В	Insert 29" x 6' (74 cm x 1,8m)	300 lb (136 kg)	
D	Counterweight extension supp. 29" x 4' (74 cm x 1,2m)	188 lb (85 kg)	
1x	Guard rail 79" (2,0m)	69 lb (32 kg)	
1x	Guard rail 65" (1,65m)	56 lb (25 kg)	
1x	Guard rail 24" (61 cm)	30 lb (14 kg)	
8x	Junction plate set (V shape)		
1 500 lb (680 kg)	Counterweight	1 500 lb (680 kg)	
		2 988 lb	

0 lb 4 <i>kg)</i>	1x
	2x
00 lb 0 <i>kg)</i>	1x
88 lb 55 kg)	8x
	1 500 (1 134
	•

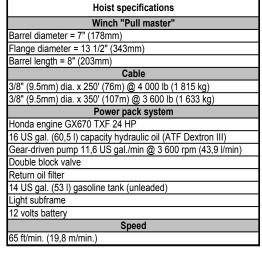
Forward extension capacity			
Part weight (lb) weight (kg)		weight (kg)	
Α	300 + 1 man	136 + 1 man	
В	300 + 1 man	137 + 1 man	
С	1 man	1 man	

Counterbalance this end using bearing bridge or cantilever bridge c/w counterweight if required.

22' (6,7m) A,B,C,D,E					
	Required parts Weight				
A	Extension 29" x 14' (74 cm x 4,3m)	716 lb (325 kg)			
Е	Counterweight support 29" x 4' (74 cm x 1,2m)	129 lb (59 kg)			
В	Insert 29" x 6' (74 cm x 1,8m)	300 lb (136 kg)			
D	Counterweight extension supp. 29" x 4' (74 cm x 1,2m)	188 lb (85 kg)			
C	Insert 29" x 6' (74 cm x 1,8m)	300 lb (136 kg)			
1x	Guard rail 79" (2,0m)	69 lb (32 kg)			
2x	Guard rail 65" (1,65m)	56 lb (25 kg) ea.			
1x	Guard rail 24" (61 cm)	30 lb (14 kg)			
8x	Junction plate set (V shape)				
1 500 lb (1 134 kg)	Counterweight	1 500 lb (1 134 kg)			
		3 288 lb (1 491 kg)			

19'

Hoist system



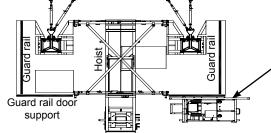
Engine rack mount-

ıق

Guard

Movable guard rail

ing pockets on right side only



Hoist

Door

Guard rail door

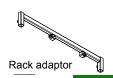
support

Notes:

Engine rack mounting

pockets on right side only using rack adaptor

- Refer to hoist operator's manual for detailed installation and operation instructions.
- The hoist can also be used on the 14' motorized unit by using an engine rack adaptor.



Plank safety & cross-boxes

Plank safety prevents planks from tipping, lifting and slipping.

- Remove plank stop pin.
- Slip plank safety over outrigger between two planks.
- Install plank stop pin.

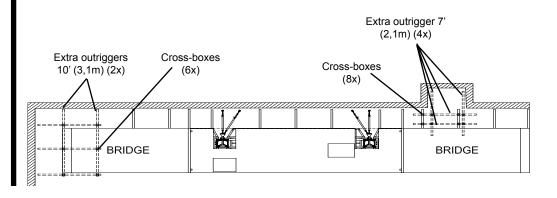
If there are more than two planks, use a plank safety for each pair of planks.



Cross-boxes provide a means of installing auxiliary outriggers.

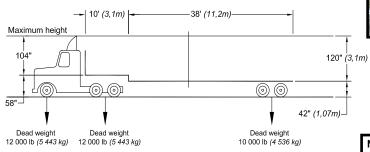
- Remove lock pin and plank stop pin from two outriggers.
- Slip cross box on back and front of outrigger. Repeat for next outrigger.
- Slide cross-members to mid position position
- Install remaining two cross-boxes.
- Slide cross member to final position
- Insert auxiliary outrigger.
- Adjust all outriggers snugly against planks.
- Lock all 5/8" (15,9mm) bolts.





Transportation

DROP DECK



Maximum truck width = 102" (2,6m)

Maximum gross weight 80 000 lb (36 288 kg)



Weight limitations may vary from state to state.



Trailer

The 15' (4,6m) trailer can be used for accessories transportation or the 14' (4,3m) motorized unit. For motorized unit loading follow the next steps.

- 1- Remove the attachment bracket (4) provide for attaching the motorized unit base.
- 2- Remove the fender on the side of the loading area.
- **3-** By using a forklift or others means, install the base motorized unit on the guiding support brackets.
- 4- Attach the base using the attachment brackets.
- 5- Re-install the fender.

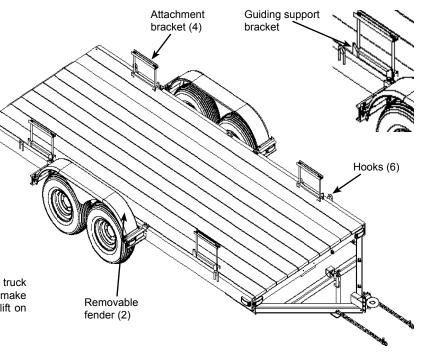
NOTICE

Hooks (6) have been provided for strapping the motorized unit or accessories on the trailer deck. When loading the deck with accessories, make sure the load is evenly distributed (dead weight of trailer 1 750 lb).

Warning



The ball or pinall-ring must always be hooked to the truck higher than the back of the trailer. Not doing so will make the trailer swing on the road and also create an up-lift on the truck attachment point.



DAILY			
Check level of base and tower.			
Check gasoline level.			
Clean off excess mortar from unit and accessories.			
Check engine oil level (refer to Honda owner's manuel).			
NOTE: Units are provided with oil alert, which should normally prevent engine from starting, if oil level is low.			
Make sure no mortar or broken masonry is infringing operation of guide rollers, cylinders, hooks and springs.			
Check secondary hook spring (grease if needed).			
Check free movement of safety dog underneath platform (grease if needed).			
Check guard rails and doors for proper installation / operation.			
Check bearing bridge overlap and chains.			

Maintenance

WEEKLY
Observe cylinders and all other hydraulic components, checking for leaks and wear of hydraulic hoses.
Verify hydraulic oil level. Tank should be between 3/4 and 7/8 full with cylinders in closed position. Add ATF Dextron III if required.
Make sure guide rollers turn freely (clean and grease if needed) (use Prolab GS1000 #288400).
Check structure for possible damage or distortion caused by overload conditions.
Check cable adjustment levers (refer to adjusment precedure).
Check cylinders for leaks.
Check tower bolts for tightness.
Check tower bolts washer and replace if bent.

Maintenance

MONTHLY				
Visually inspect structure for bends and tears. Repair if necessary.				
Clean up and grease hooks at pivots.				
Clean jack screws and lubricate.				
Clean outriggers.				
Check lock bolts, planks stops pin, bolts. Replace as necessary.				
Examine doors. Adjust or repair if necessary.				
Make sure bridge sections are provided with junction plates pins and fastening bolts or pins.				
Adjust lowering cams to move freely (not too loose).				
Check all hook and safety dog connection bolts.				
Adjust control levers to vertical position if required. See procedure.				

	YEARLY				
	Perform all checks listed in monthly check list.				
	Visualy inspect all structure welds for cracks and have it repaired by authorized distributor.				
	NOTE: In case of doubt, consult Hydro Mobile Inc. or refer to a certified welder.				
	Check for paint damages, touch-up or repaint unit (1).				
	Check and balance hydraulic pressure to 2 800 psi (19 305 Kpa) on relief valves (see procedure).				
	Change hydraulic oil				
	Change engine oil and filter as per Honda manual (minimum once a year).				
	Check battery voltage (12 volts) recharge or replace if required.				
` '	(1) Green paint universal code specifications # 4338-00901-501 Yellow paint universal code specifications # 2000-35953-501				

Your Hydro Mobile Inc. scaffolding unit is powered by a reliable hydraulic operating system:

The system includes:

- internal combustion engine
- double pump
- two way control valve (2)
- two 3 1/2" (89 mm) cylinders

- Counterbalance valves (2) (7-3 000 psi) (48 20 684 Kpa)
- hydraulic hoses, rigid / flexible
- hydraulic oil filter
- hydraulic tank
- The system operates with relief valve set at 2 800 psi (19 305 Kpa). For information concerning engine, refer to Honda Operation Manual.

Relief valve adjustment

To provide optimal system performance (speed), the hydraulic system must be set to run at 2 800 psi (19 305 Kpa).

- 1- Identify valve corresponding to cylinder(s) that is not operating at normal speed.
- 2- Dismantle the adjusment screw.
- 3- Clean all components with a solvant.
- **4-** Reinstall the adjustement screw on the valve.
- 5- Disconnect the up or down hose on the valve.
- 6- Install the pressure gauge (100 @ 3 000 psi) (689 @ 19 305 Kpa) on the valve where the previously disconneted hose was.
- **7-** Start the engine.
- 8- Using an Allen key adjust the pressure to 2 800 psi (19 305 Kpa), unscrewing will lower pressure and screwing will raise it.
- 9- Stop the engine.
- **10-** Remove the pressure gauge.
- 11- Reconnect the previously disconnected hose.
- **12-** Repeat procedure for opposite cylinder if required.
- 13- Check hydraulic oil level (add ATF Dextron III if required).

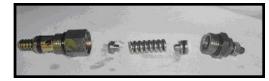


Maintenance

Adjustment valve

DÓWN hose

Adjustment valve assembly

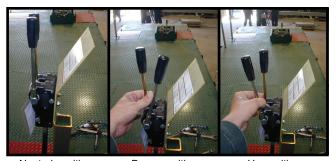


Maintenance

Control lever adjustment

To provide optimal system performance (speed), control must be set in a neutral position (vertical) so that hydraulic valves open fully.

- **1-** Stop the engine.
- 2- Untighten the Allen key bolts (2) at valve connection.
- 3- Untighten the lock nuts.
- 4- Using an open key adjust the lever by screwing or unscrewing the connection at the valve, so lever regains its vertical position.
- 5- Tighten the Allen key bolts (2) at valve connection.
- 6- Tighten the lock bolt.
- 7- Start the engine.
- 8- Move the lever in forward and backward position to see if the lever regains its vertical position. Also make sure the cylinder stops when lever is in vertical position.
- 9- Repeat step 1 @ 8 if required.

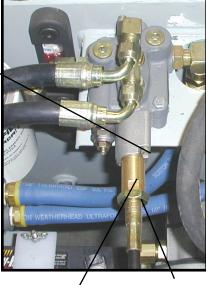


Neutral position

Down position

Up position

Allen key bolt (2)



Connection

Lock nut

	Miscellaneous											ilook ilot
	5' (1,5m) top outrigger											
	7' (2,1m) bottom outrigger				Wall Tie Accessories							
	10' (3,05m) long outrigger		╛		Adjust	able and	hor male			Beam clamp anchor		
	Cross box			Adjustable anchor female					Tower bracket			
	☐ Plank safety support				Reusable anchor					Standard wall mount		
	☐ Plank end guard rail ☐ Face guard rail bracket				Welded anchor Fixed anchor (3 to 12") (76 to 305mm)		-		一	Wall mount extension		
								╅═	Angle bracket			
	Monorail beam 9' (2,7m)			F		slab anch	, , , , , , , , , , , , , , , , , , , ,		╅	Angle bracket		
	☐ Weather protection		╛		JI 1001 .	siab arici	101			<u> </u>		
	Major Components			Bri	idges		Job site					
	24' (7,3m) Motorized unit			2' (0,6m) i	insert							
	14' (4,3m) Motorized unit			6' (1,8m)								
	Hoist			10' (3,1m))		Contact					
	Forward extension			10' (3,1m)) insert							
	Wheel sets			14' (4,3m))							

Telephone

Fax

18' (5,5m)

20' (6,1m) insert

Tower

Trailer

Distr	ibutor					
Contact Project name						
Proje	ect description					
		Blue print				
	Floor plans					
	Elevations					
	Details if required					
	Structure plan if required					
	Roof plan if required					
Have you filled the project request form ?						
	Yes					
	No					

Recommended tools type			Used for			
1	5	Wrench 15/16" (23,8 mm)	Ourtiggers, Control post, Guard rails, Doors, Tower bracket			
1	1	1/2" (12,7 mm) drive ratchet c/w 15/16" (23,8mm) socket	Outriggers, Control post, doors, tower barcket			
2	2	Wrench 1 1/8" (28,6 mm)	Cylinders			
1	2	3/4" (19 mm) drive ratchet c/w 3" (75 mm) extension & 1 1/2" (38 mm) socket	Bridge			
2	2	Wrench 1 1/2" (38 mm)	Bridge, Wall mount			
1		Band cutter	Cutting strap			
1	-	Hammer	Bridge link plate pin			
1		25' (7,6m) measuring tape	Set-up			
1	D. T. T.	Level	Base & Tower			
2		Strap, type 4, 3 ply 4" (102 mm) wide x 20' lg (6,1m) 16 000 lb (7 260 kg) vertical capacity	Handle unit & Bridges			

Suggested spare parts						
1	60	Bridge link plate			Bolt 5/8" x 1 1/2" nc GR5 (15,8 mm x 38,1 mm)	
1		Bridge link plate pin ass'y	1		Nut 5/8" nc GR5 (15,8 mm)	
1		Adapted pin	1	6	Tower junction set M2 ass'y	
1	O TOPO	Bolt 1" x 2 1/2" nc GR5 (25,4 mm x 63,5 mm)	1		Clevis pin 3/8" x 2 1/2" (10 x 63,5 mm)	
1		Nut 1" nc GR5 (25,4 mm)	1		Clevis pin 3/8" x 1" (10 x 25,4 mm)	
1		Plank stop pin	1		1/2" (13 mm) Shackel 2 tonne (2 000 kg)	
1		Locking bar	1		3/8" (13 mm) Shackel 2 tonne (2 000 kg)	
4		Hitch pin clip 1/8" x 2 5/8" (3,1 mm x 66,7 mm)	1	•	Linch pin 3/16" x 1 1/4" (5 x 32 mm)	
4		Hitch pin clip 3/32" x 1 3/4" (1 mm x 44 mm)	1	7	Toggle pin 3/8" (10mm)	

Personal training record - Hydro Mobile equipment								
Date of training	Precedural check list (by instructor	cedural check list (by instructor / installer)						
Date of training	Lifting / handling and placing of units(s)	Yes	☐ No					
Loacation of training	Base installation procedure	Yes	☐ No					
Loacation of training	Bridge assembly, placement and installation	Yes	☐ No					
Duration of training	Cantilever assembly	Yes	☐ No					
Duration of training	Tower assembly	Yes	☐ No					
Customer name	Anchoring ties	Yes	☐ No					
(must be same as rented or sold to)	Guard rail and door procedure	Yes	☐ No					
Trainee's name	Hoisting procedure	Yes	☐ No					
Trainee's name	Material loading procedure	Yes	☐ No					
Instructor / Installer name	Raising and lowering procedure	Yes	☐ No					
instructor / installer flame	Review of Operator's Manual	Yes	☐ No					
Contract number (required)	Maintenance procedure	Yes	☐ No					
Gonta det maniber (required)								
Trainee's name - Signature Instructor / Installer - Signature								
Instructor / Installer Comments								

User training record - Hydro Mobile equipment						
Date of training		Procedural checklist				
Date of training		Hazard recognition & dealing with them				
Location of training		Electrical exposures and considerations	Yes	☐ No		
Location of training		Falls and falling objects	Yes	☐ No		
Duration of training		Proper usage of scaffold	Yes	☐ No		
Duration of training		Maximum intended loads	Yes	☐ No		
User name		Trained by competent person				
(trainee's name)		Erection	Yes	☐ No		
Installer name		Disassembly	Yes	☐ No		
(as applicable)		Moving	Yes	☐ No		
Competent person		Operating	Yes	☐ No		
Competent person		Repairing	Yes	☐ No		
Job number		Inspections	Yes	☐ No		
30b Hamber		Maintaining work platform	Yes	☐ No		
Trainee's name - Signature		These are minimum requirements for employee				
Instructor / Installer - Signatui	re	training under the Occupational Safety and Health Administration, 29CFR1926.454				
Instructor / Installer - Comme	nstructor / Installer - Comments					

