Operator’s Manual
for models F100, F200 and F300

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NOTE
All assembly and operation instructions located on motorized units and bridges take precedence over information contained in this manual. Should there be any discrepancies discovered throughout any published documentation issued by Hydro Mobile or its authorized affiliates, the following order of precedence shall prevail:

1. Written documents issued by the Hydro Mobile Engineering department
2. Recall instructions
3. Assembly or operation instructions displayed on the motorized unit
4. Operator’s manual
5. Any other document not specifically included in the list above

Any use of one or several Hydro Mobile motorized units, with or without accessories, in such a configuration or manner as not explicitly described in this manual is not recommended without the prior written permission of Hydro Mobile Inc.

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<tr>
<td>January 2007 v1.0</td>
<td>First edition of Operator’s manual</td>
</tr>
<tr>
<td>March 2007 v1.1</td>
<td>Modification to index (text); modification to plank measurements (cribbing); modification to plank measurements (ground bearing); updated hydraulic diagrams for F100, F200 and F300 units</td>
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<tr>
<td>April 2007 v1.2</td>
<td>Updated hydraulic diagrams for F100, F200 and F300 units; updates to unit specifications; updates to forward/back extension texts; addition of plank-end guardrail as standard component</td>
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For orders or information: 1-888-484-9376 (US) (toll free in the United States)
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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.

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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 with parts other than those approved by Hydro Mobile, including anchor systems, 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.

Sincerely,

Vincent Dequoy, Eng.
President
Performance and Safety Rules

SAFETY comes first. To ensure user safety, always have a competent person and backup competent person assemble, operate, dismantle and move this mast climbing work platform system. A competent person is defined as one having the:

1. Capability of identifying existing and predictable hazards;
2. Authority to take prompt corrective action;
3. Training and knowledge to assemble, operate, dismantle and move this system;
4. Operator’s manual information on hand at all times;
5. Experience (on the job) to assemble, operate, dismantle and move this system;

Operating instructions

1. Prepare a layout plan showing how the mast climbing work platform system [motorized unit(s), bridges, extensions] will be positioned near structures or walls to be erected. On long walls, separate mast climber sections to allow for flexibility.
2. Position motorized units to provide proper anchoring points for masts.
3. Establish the distance between the mast climbing work platform system and the structure or wall, taking into account the length of plank outriggers [5 or 7 ft (1.5 m or 2.1 m)], as well as curvatures, balconies, columns, trees, telephone wires, electrical lines, etc.
4. Refer to and follow regulations governing distances between the mast climbing work platform system and electrical lines.
5. Make sure the ground or support surface capacity meets with values included in the Minimum Ground Bearing Capacities table herein (fig. 1.17, p. 13). Soil compacting, cribbing or shoring can increase bearing capacity. The jacks on the base pedestal extension are designed to level the motorized unit and should not be used to support the load nor the motorized unit. Contact a licensed professional engineer for assistance.
6. Never modify the mast climbing work platform system or use substitute factory parts. This could adversely affect worker safety, unit performance and void the warranty. In addition, this could lead to serious injury or death.
7. Never use the motorized unit in an enclosed space due to carbon monoxide emanations or in a place where explosives are stored. It is also recommended not to smoke on the platform.
8. Characteristics per plank: planks species measuring 2” x 10” or 12” (5 cm x 25 cm or 30 cm) must resist a load of 265 lb (120 kg) at 4’ (1.2 m) of an 8’ (2.4 m) simple span.
9. IMPORTANT: It is strongly recommended not to use equipment such as Bobcats, jack-hammers, backhoes, etc., on Hydro Mobile platforms.
10. Workers exposed to potential hazards must always wear proper individual protection equipment such as a helmet, safety boots, a fall arrest harness, etc., as prescribed by OSHA or local regulations. In all cases where workers are exposed to fall hazards greater than specified by OSHA or local regulations, the installation of guardrails or face guardrails is mandatory.
11. Unless authorized by Hydro Mobile prior to installation, the platform should only be used on a mast whose height does not exceed 500’ (152 m). For any configuration other than those described in this operator’s manual, contact the distributor or the Hydro Mobile technical support team.
12. To ensure work efficiency, maintain an adequate equipment and parts inventory on the job site. Keep equipment in good condition. Refer to maintenance checklists in this manual.

Performance and Safety Rules (cont’d)

13. After installation, mark off limit areas of the setup using fencing, barriers, warning tape and note emergency phone numbers (fire and police dept.) for quick reference. Prepare an emergency evacuation plan that is specific to the job site and is in accordance with OSHA and local regulations.
14. Never load bridges or motorized units beyond their rated capacities. Overloading may cause motorized units to bind and bridges to warp or fall, leading to serious injury or death.
15. Contact the distributor or Hydro Mobile for service, repair or technical advice. Refer to equipment type and serial number when calling.
16. Each person should access the platform by the access stairs, a staircase or through an opening in the building.
17. The use of appropriate fall protection equipment is mandatory when modifying plank configuration. Failure to use fall protection equipment can expose the user to serious injury or death.
18. When the motorized unit is moving, it is mandatory that all workers except the operator stand in an area close to the back guardrails, as illustrated below.
19. In the event of an anomaly which could compromise security, immobilize the unit and inform the person in charge.
20. It is strongly recommended not to touch any of the moving parts on the motorized unit when it is in use.
21. It is advised to close all access doors on the motorized unit when they are not in use.
22. All motorized unit operations must be carried out at all times by at least two competent persons. The motorized unit should never be operated by a single person.
23. The motorized unit must not be used or operated during an electrical thunderstorm.
24. Wind speeds must not exceed 28 mi/h (46 km/h) during the erection and dismantlement of a motorized unit setup (including the base pedestal, the base pedestal extension, the bridges, the masts, the wall ties and all the other components). The motorized unit setup must not be exposed to wind speeds exceeding 35 mi/h (56 km/h) when in operation. Wind speeds must not exceed 102 mi/h (165 km/h) when the motorized unit setup is out of service.

Note: the red line on the platform in this figure is for illustration purposes only
The mast configuration represented in the above illustration is for informational purposes only and should not be reproduced without appropriate cribbing under the base pedestal. Models F100, F200, F300 of the Hydro Mobile F Series come equipped with the components shown in the above illustration, with features specific to each model, as described below. Note: Items depicted in illustrations may differ from actual products.

### F100 model basic features
- Mast with one rack
- One power pack
- One power train
- Up to 38’ (11.6 m)/min climbing speed
- Capacity of up to 3350 lb (1520 kg) at 50’ (15.2 m) for a single mast installation
- Linked configuration only

### F200 model basic features
- Mast with two racks
- One power pack
- Two power trains
- Up to 19’ (5.8 m)/min climbing speed
- Capacity of up to 9000 lb (4082 kg) at 50’ (15.2 m) for a single mast installation
- Linked configuration only

### F300 model basic features
- Mast with two racks
- Two power packs
- Two power trains
- Up to 38’ (11.6 m)/min climbing speed
- Capacity of up to 9000 lb (4082 kg) at 50’ (15.2 m) for a single mast installation
- Linked or unlinked configuration

The list of components included with each motorized unit shipped may change without notice.
Motorized Unit Specifications

### General Specifications

| Platform dimensions (transport) | On pedestrian base, with extensions 102" x 147" x 102" (259 cm x 373 cm x 259 cm) |
| Drive unit dimensions | With bridge link 93" x 122" x 102" (236 cm x 310 cm x 259 cm) |
| Drive system | Rack and pinion drive |
| Min. / max. platform length | Single mast installation 10' / 50' (3 m / 15.2 m) |
| Maximum height | Up to 500' (152.4 m) |
| Tie distance | Up to a maximum of 45' (13.7 m) |
| Free standing height (on mobile chassis base only) | Single mast installation 40' (12.2 m) |
| Maximum mast head lifting capacity | Motorized unit (on base pedestal) Max setup width of 50' (15.2 m) or 8 x 60" (1.5 m) bridges Max setup height of 18' (5.5 m) or 2 masts |
| Safety devices | Emergency descent Gravity-activated manual descent system Overspeed safety device Gravity-activated |

* *The mobile chassis base is not yet available*

### Specific Features

**F100**
- Platform weight: 6050 lb (2744 kg)
- Maximum load capacity: 3350 lb at 50' (1520 kg at 15.2 m)
- Twin mast installation: 5000 lb at 115' (2268 kg at 35 m)
- Vertical travel speed: Up to 38' (11.6 m) per minute (gasoline engine only)
- Mast section: 1 rack 32" x 32" x 60" (81.3 cm x 81.3 cm x 152.4 cm)

**F200**
- Platform weight: 6700 lb (3039 kg)
- Maximum load capacity: 9000 lb at 50' (4082 kg at 15.2 m)
- Twin mast installation: 15,500 lb at 115' (7031 kg at 35 m)
- Vertical travel speed: Up to 19' (5.8 m) per minute (gasoline engine only)
- Mast section: 2 racks 32" x 32" x 60" (81.3 cm x 81.3 cm x 152.4 cm), 365 lb (166 kg) per section

**F300**
- Platform weight: 8400 lb (3810 kg)
- Maximum load capacity: 9000 lb at 50' (4082 kg at 15.2 m)
- Twin mast installation: 15,500 lb at 115' (7031 kg at 35 m)
- Vertical travel speed: Up to 38' (11.6 m) per minute (gasoline engine only)
- Mast section: 2 racks 32" x 32" x 60" (81.3 cm x 81.3 cm x 152.4 cm), 365 lb (166 kg) per section

### Engine Specifications

- Model: Honda GX670
- Rated power: 24 HP @ 3500 rpm
- Fuel consumption: 0.59 lb/hp (360g/kWh, 265 g/PSh)
- Spark plug: ZGR5A (NGK), J16CR-U (DENSO)
- Oil type: SAE 10W-30
- Gasoline tank capacity: 10 US gal (38 l)
- Oil capacity: 1.48 US q (1.4 l)
- Electrical power supply: 12 VDC - 20 amper-hour
- Battery: 12 V

For any other information regarding the use and the maintenance of Honda engines, refer to the Honda user’s manual.

### Motorized Unit Specifications (cont’d)

### Hydraulic Specifications

#### Component Specifications

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<tr>
<th>Component</th>
<th>Specifications</th>
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<tr>
<td>Double gear pump</td>
<td>2 x 7.25 US GPM (27.44 l/min)</td>
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<tr>
<td>Planetary reducer gear oil</td>
<td>Sunoco Challenge GBO 220 (product # 6048-020)</td>
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<tr>
<td>Planetary reducer brake oil</td>
<td>Trispec TDI-W 32 (product # 6435-020)</td>
</tr>
<tr>
<td>Hydraulic tank capacity</td>
<td>18 US gal (68.2 l) models F100 and F200, 36 US gal (136.2 l) model F300</td>
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<tr>
<td>Oil filter</td>
<td>Shell Naturelle HF-M biodegradable product code 407-214</td>
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#### Weight of Components

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<tr>
<th>Component</th>
<th>Description</th>
<th>Weight</th>
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<tr>
<td>20029700-0-01000-2</td>
<td>Mast assembly (1 rack)</td>
<td>330 lb (150 kg)</td>
</tr>
<tr>
<td>20029700-0-02000-2</td>
<td>Mast assembly (2 racks)</td>
<td>386 lb (175 kg)</td>
</tr>
<tr>
<td>21025000-0-10000-0</td>
<td>Mast guard (left)</td>
<td>30 lb (14 kg)</td>
</tr>
<tr>
<td>21025000-0-11000-0</td>
<td>Mast guard (right)</td>
<td>30 lb (14 kg)</td>
</tr>
<tr>
<td>21025000-0-12000-1</td>
<td>Hydraulic main trolley assembly</td>
<td>1000 lb (454 kg)</td>
</tr>
<tr>
<td>21025000-0-13000-1</td>
<td>Main trolley assembly</td>
<td>570 lb (261 kg)</td>
</tr>
<tr>
<td>21025000-0-14000-1</td>
<td>Power train assembly</td>
<td>710 lb (328 kg)</td>
</tr>
<tr>
<td>21025000-0-15000-1</td>
<td>Hydraulic main frame &amp; power jack assembly</td>
<td>710 lb (328 kg)</td>
</tr>
<tr>
<td>21025000-0-16000-2</td>
<td>Trolley link</td>
<td>250 lb (113 kg)</td>
</tr>
<tr>
<td>21025000-0-17000-1</td>
<td>Bridge link assembly (left)</td>
<td>190 lb (86 kg)</td>
</tr>
<tr>
<td>21025000-0-18000-1</td>
<td>Bridge link assembly (right)</td>
<td>190 lb (86 kg)</td>
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<tr>
<td>21025000-0-19000-1</td>
<td>Plank-end guardrail</td>
<td>27 lb (12 kg)</td>
</tr>
<tr>
<td>20049600-0-00000-2</td>
<td>Control panel</td>
<td>40 lb (18 kg)</td>
</tr>
<tr>
<td>21047000-0-00000-0</td>
<td>Plastic hood assembly – front center (all models), left rear (models F100 and F300)</td>
<td>Coming soon</td>
</tr>
<tr>
<td>21047100-0-00000-0</td>
<td>Plastic hood assembly – front center (all models), left center (models F100 and F300)</td>
<td>Coming soon</td>
</tr>
<tr>
<td>21047200-0-00000-0</td>
<td>Plastic hood assembly – front center (all models), right center (models F100 and F300)</td>
<td>Coming soon</td>
</tr>
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<td>21047300-0-00000-0</td>
<td>Plastic hood assembly – front center (all models), right rear (all models)</td>
<td>Coming soon</td>
</tr>
<tr>
<td>21060000-00000</td>
<td>Plastic hood assembly – left center (models F100 and F300)</td>
<td>Coming soon</td>
</tr>
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<td>21010000-0-01000-2</td>
<td>Base pedestal assembly (models F200 and F300)</td>
<td>250 lb (113 kg)</td>
</tr>
<tr>
<td>21010000-0-02000-2</td>
<td>Base pedestal assembly (model F100)</td>
<td>192 lb (87 kg)</td>
</tr>
<tr>
<td>20001705-0-00000-0</td>
<td>Base pedestal extension assembly (left – with mast handler)</td>
<td>240 lb (109 kg)</td>
</tr>
<tr>
<td>20001600-0-01000-1</td>
<td>Base pedestal extension assembly (right – with mast handler)</td>
<td>240 lb (109 kg)</td>
</tr>
<tr>
<td>21010000-0-01000-2</td>
<td>Base pedestal with extension assembly (models F200 and F300)</td>
<td>771 lb (350 kg)</td>
</tr>
<tr>
<td>21010000-0-02000-2</td>
<td>Base pedestal with extension assembly (model F100)</td>
<td>613 lb (279 kg)</td>
</tr>
<tr>
<td>21000300-0-02000-0</td>
<td>30' (76 cm) bridge kit (w/ guardrail) (models F500, F200 and F300)</td>
<td>190 lb (86 kg)</td>
</tr>
<tr>
<td>21000300-0-03000-1</td>
<td>60' (1.5 m) bridge kit (w/ guardrail) (models F100, F200 and F300)</td>
<td>280 lb (127 kg)</td>
</tr>
</tbody>
</table>

### Operation Specifications

#### Wind exposure

- During operation: 35 mi/h (56 km/h)
- During erecting and dismantling: 28 mi/h (46 km/h)
- When unit is out of service: 102 mi/h (165 km/h)

#### Noise exposure

- Standard noise level: 83, 76 (SS*)
  - *SS: Super silent*
Fig. 1.13

Dimensions of the Motorized Unit

Left

147” (374.2 cm)

122” (309.8 cm)

Bridge link guardrail

Front

143” (363.2 cm)

To wall

93” (236 cm)

62” (157.4 cm)

139” (352.4 cm)

79” (200.3 cm)

88” (223.2 cm)

Back

147” (374.2 cm)

122” (309.8 cm)

139” (352.4 cm)

Fig. 1.13

Positioning the Motorized Unit

Base pedestal and cribbing

Before installing the motorized unit, make sure the bearing surface under it is level, clear of debris and has the proper bearing capacity. Appropriate cribbing must be placed under the base pedestal to distribute the load. The plywood and planks used as cribbing should be secured together to prevent slipping, leaving 1/2” (1.3 cm) of space between planks.

Fig. 1.15

Suggested Cribbing

Base pedestal

Plywood

1/2” (1.3 cm)

Planks

Plywood

1/2” (1.3 cm)

Planks

1/2” (1.3 cm)

Fig. 1.16

Minimum Ground Bearing Capacities

Height

Reaction

Pressure (psi)

ft
m
lb
kg

3’x3’x4 1/2”

(0.9 m x 0.9 m x 1.4 m)

4’x4’x 6”

(1.2 m x 1.2 m x 2 m)

5’x5’x8 1/2”

(1.5 m x 1.5 m x 2.6 m)

0
0
18 000
8165
14
8
6
50
15
22 000
9979
17
10
8
100
30
26 000
11 793
20
11
9
150
46
30 000
13 608
23
13
11
200
61
34 000
15 422
26
15
12
250
76
38 000
17 237
29
16
14
300
91
42 000
19 051
32
18
15
350
107
46 000
20 865
35
20
16
400
122
50 000
22 680
39
22
18
450
137
54 000
24 494
42
23
19
500
152
58 000
26 308
45
25
21

Fig. 1.17

WARNING

The bearing capacity must be verified by a professional engineer. Should the actual bearing capacity be inferior to the values in the Minimum Ground Bearing Capacities table (fig. 1.17), please seek instructions and recommendations from Hydro Mobile.
Setup and configurations (single mast) (cont’d)

12- Remove the mast head and install one mast section. The top/bottom final limit indicator light on the control panel should no longer flash. Test the bottom final limit switch (the highest of both bottom proxy switches) by placing a metal object in front of it. If the switch is working properly, the top/bottom final limit indicator light should start flashing on the control panel.

13- Test the bottom limit switch by raising the unit about 6” (15.2 cm) above base pedestal level. If the bottom limit switch is working properly, its indicator light should stop flashing on the control panel.

14- With the motorized unit still about 6” (15.2 cm) above base pedestal level (and with the top/bottom final limit indicator light still not flashing on the control panel), test the top limit switch by placing a metal object in front of it. The top/bottom limit indicator light should start flashing on the control panel.

15- If any of the limit switches are not working properly, call the distributor or the Hydro Mobile technical support team. For more information about limit switches and their indicator lights, refer to the Control Panel section on p. 30 and to the corresponding troubleshooting procedures at the end of this manual.

16- Proceed with the installation of mast sections. Refer to p. 35 of the Masts and Wall Ties section for more details on how to install mast sections.

17- Continue installing mast sections until a wall tie is required, making sure throughout the process that the mast remains plumb on both its front and side axis. Refer to the Masts and Wall Ties section on p. 36 for instructions about the installation of wall ties.

18- Install as many mast sections as required by the layout plan. A setup should not be raised over 500’ (152 m), unless authorized in writing by Hydro Mobile prior to installation. Make sure that the last mast section is at least 3’ (0.9 m) above the mast guard. Consequently, at least 3’ (0.9 m) of mast section must be visible above the mast guard at all times when the motorized unit is in operation. Install the mast head on top of the last mast section (see p. 35 of the Masts and Wall Ties section for instructions).

19- Lower the motorized unit to base pedestal level, verifying the wall ties and the mast bolts on the way down and making sure that all are properly secured and in good condition. Apply grease to the rack(s) and gears and allow the grease to stand for 2-3 hours. Use Chevron open gear lubricant (part # A0560001-0000).

20- With the motorized unit at base pedestal level, complete the installation of bridges as required and allowed. Refer to the Load Capacities section on p. 40 for more information about the number of bridges allowed in a setup.

21- Once the installation of bridges is complete, remove and store the jib arm(s), if necessary.

22- Make a final verification of the setup before authorizing workers to use the motorized unit. Make sure the access stairs and all the guardrails are in place and secure (see the Accessories section on p. 45 for more information about guardrails and access stairs). In all cases where workers are exposed to fall hazards greater than specified by OSHA or local regulations, the installation of guardrails or face guardrails is mandatory.

23- Adjust the outriggers and install planks, as required (see p. 45 of the Accessories section for more information).

***WARNING***

The last mast section must be at least 3’ (0.9 m) above the mast guard. Consequently, at least 3’ (0.9 m) of mast section must be visible above the mast guard at all times when the motorized unit is in operation.

---

**WARNING**

The jacks on the base pedestal extension are designed to level the motorized unit and should not be used to support the load nor the motorized unit.
Setup and configurations (cont’d)  
**Multiple mast installation**  
(requires two twin mast adapters – sold separately)  

1- In reference to the plan/layout drawing, make sure all the motorized units and components required are available. Establish the position of each motorized unit (see the Distances table, fig. 1.18 on p. 16), determine if there are obstacles and what are the cribbing and wall tie requirements.  

2- Set up the first motorized unit as described in the standard installation instructions (single mast) on p. 14 (steps 1 through 8).  

3- Attach a twin mast adapter to the first motorized unit. Refer to p. 25 of the Bridges section for more information on the installation of a twin mast adapter. Connect the inclinometer to the control panel, as instructed on p. 21 (see the Control Panel section on p. 30 for more information).  

4- Install as many bearing bridges as required and allowed. Refer to the Bridges section on p. 22 for more information on bearing installations and the use of bridge installation accessories such as the bridge lifting bar and the bridge installation support bracket. Refer also to the Load Capacities section on p. 40 for the maximum number of bridges allowed in a bearing bridge setup.  

5- Attach a second twin mast adapter to the last bridge of the setup. Bolt the second motorized unit to that twin mast adapter (fig. 3.9, p. 23) and connect the inclinometer to the control panel.  

6- Before lowering the base of the second motorized unit, determine where the cribbing will rest. The bearing surface under the motorized unit must be level, clear of debris and have the proper bearing capacity (see Minimum Ground Bearing Capacities table, fig. 1.17, p. 13). Set the cribbing and lower the base of the motorized unit.

### Distances for a bearing installation  
(approximate distances)  

<table>
<thead>
<tr>
<th>No. of bridges</th>
<th>Distances from center to center of masts</th>
<th>Distances between main frames</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>65’ (19.8 m)</td>
<td>54’-11” (16.7 m)</td>
</tr>
<tr>
<td>9</td>
<td>60’ (18.3 m)</td>
<td>49’-11” (15.2 m)</td>
</tr>
<tr>
<td>8</td>
<td>55’ (16.8 m)</td>
<td>44’-11” (13.7 m)</td>
</tr>
<tr>
<td>7</td>
<td>50’ (15.2 m)</td>
<td>39’-11” (12.1 m)</td>
</tr>
<tr>
<td>6</td>
<td>45’ (13.7 m)</td>
<td>34’-11” (10.6 m)</td>
</tr>
<tr>
<td>5</td>
<td>40’ (12.2 m)</td>
<td>29’-11” (9.1 m)</td>
</tr>
<tr>
<td>4</td>
<td>35’ (10.7 m)</td>
<td>24’-11” (7.6 m)</td>
</tr>
<tr>
<td>3</td>
<td>30’ (9.2 m)</td>
<td>19’-11” (6.1 m)</td>
</tr>
</tbody>
</table>

7- Using the jacks on the base pedestal extension, level the mast on both its front and side axis, then if required, use metal shims to adjust the base pedestal so it sits squarely and level on the cribbing.  

8- Proceed with the installation of cantilever bridges on the sides of the motorized units opposite to the bearing structure, as required. Refer to p. 24 of the Bridges section for more information on a cantilever installation and to the Load Capacities section on p. 40 for the maximum number of bridges allowed in a setup.

Setup and configurations (cont’d)  
**Multiple mast installation (cont’d)**  

9- With the help of the inclinometers located on the twin mast adapters, verify the level of the bearing installation (see the instructions for using the inclinometer, on p. 21).

### Splitting a motorized unit (applicable to model F300 only)  

1- Remove both bridge links. Lift the power pack access panels and remove the toggle pins at the bottom of the plastic hoods on either side of the mast (fig. 1.22). Remove the plastic hoods.  

2- Disconnect both ends of the communication cable between the two control panels and both ends of the quick connect hose for the brake (used in emergency descent). Properly store the cable and the quick connect hose for future use.

3- Remove all bolt assemblies from each retaining pin and then remove the retaining pins from the trolley link connection (fig. 1.20 and fig. 1.21).  

4- Remove the trolley link and store it properly for future use.  

5- Replace the plastic hoods and secure them with toggle pins. Replace the bridge links and close the bridge link doors.  

6- On each control panel, turn the link control switch to the NO (unlinked) position (see p. 31 of the Control Panel section for more information). Make sure the trolley link and the bridge link door indicator lights on the control panel are not turned on.  

7- Reset both control panels by disconnecting and reconnecting the battery in each main frame (see fig. 4.8 on p. 28 of the Power Pack and Operating Components section).  

8- To link both sides of the motorized unit together again, replace the trolley link, reconnect the communication cable and the quick connect hose for the brake, open both bridge link doors, turn the link control switch on each control panel to the YES (linked) position and reset both control panels by disconnecting and reconnecting the battery in each main frame.

### Location of communication cable and of the quick connect hose for the brake (used in emergency descent)  

**NOTE**  
When splitting or linking a motorized unit, it is mandatory to perform each step in the prescribed order to ensure safe and trouble-free operation of the motorized unit.
Safety Devices

Emergency Descent Control System

In the event of an engine failure, a shortage of gasoline or broken parts, use the gravity-activated emergency descent control system to bring the motorized unit safely down to base pedestal level.

Emergency descent procedure for a single mast installation

1- On model F300 used in a linked configuration, shut down the engine(s) that is(are) still running.

2- Before using the Emergency Descent Control System on all F Series models, check the hydraulic oil level to make sure it is in the FULL range on the dipstick. For more information, see p. 27 of the Power Pack and Operating Components section. The Emergency Descent Control System must not be used if there is a major hydraulic leak.

3- Visually inspect gears, pinions and rollers and make sure that they are clear of debris and that they are not damaged. The Emergency Descent Control must not be used if the gear system is damaged.

4- Turn the ignition key to the ON position and make sure that the high oil temperature indicator light does not turn on on the control panel. If the high oil temperature indicator light is blinking, let the oil cool down until the temperature indicator light stops blinking before initiating the emergency descent procedure.

5- Once the oil level and temperature have been verified and are appropriate, remove the power pack access panel and remove the toggle pin at the bottom of the plastic hood on the left-hand side of the control panel (fig. 2.1). Lift and remove the plastic hood to access the control valve levers and the manual pump.

6- Under normal operating conditions, all three control valve levers should be in the UP position. To activate the emergency descent system, pull all three levers down, beginning with the bottom lever (see sequence illustrated in fig. 2.3). Lift and remove the plastic hood to access the control valve levers and the manual pump.

7- Once all three levers are down, close the manual pump relief valve by turning the knob clockwise (fig. 2.4).

8- On model F300 used in a linked configuration, perform steps 1 through 6 on each power pack.

9- Build up hydraulic pressure by operating the pump handle back and forth throughout the emergency descent (fig. 2.5). On model F300 used in a linked configuration, perform this step on either power pack. The motorized unit will descend at a speed of about 10’ (3.04 m) a minute.

Interruption of an emergency descent

1- If the emergency descent needs to be interrupted, open the manual pump relief valve by turning the knob counterclockwise to release the hydraulic pressure. On model F300 used in a linked configuration, this step can be performed on either power pack. In a twin mast configuration, immediately release the descent control button at the operating end of the bearing structure.

2- If the emergency descent control system needs to be reactivated, close the manual pump relief valve again (see step 7, on p. 18) and operate the pump handle back and forth to resume the emergency descent. On model F300 used in a linked configuration, this step can be performed on either power pack.

Resuming normal operation of the motorized unit

Once the motorized unit has been brought safely to base pedestal level, open the manual pump relief valve by turning the knob counterclockwise and raise all three levers, starting from the top. Replace the plastic hood and secure with a toggle pin. The engine cannot be started if all or any of the levers of the control valves are down. For more information, see the Emergency Descent troubleshooting procedure at the end of this manual.
Safety Devices (cont’d)
Overspeed Safety Device

The Hydro Mobile F Series (models F100, F200 and F300) is equipped with an overspeed safety device. This safety feature is designed to prevent the motorized unit from falling and is triggered automatically. This device will immobilize the motorized unit instantly.

The overspeed safety device is protected by two safety seals that guarantees the end user that the safety device has not been tampered with or altered in any way by an unauthorized person. Each manufactured safety seal is given a unique serial number which is kept on record by Hydro Mobile. These seals can only be removed for inspection of the overspeed safety device by an appropriately trained and competent, authorized technician and will be replaced by new seals once the inspection is complete.

The overspeed safety device cannot be triggered on at will, except for inspection purposes by an authorized technician. Any other activation of the overspeed safety device must be investigated by an authorized technician.

Activation of the overspeed safety device

In the event of an activation of the overspeed safety device, the operator must contact the distributor or the Hydro Mobile technical support team. All precautions must be immediately taken to ensure the safe return of all workers to base pedestal level according to the evacuation plan (see step 13 on p. 7 of the Performance and Safety section).

Once the overspeed safety device is triggered, the motorized unit stops and the control panel cannot be operated. The control panel must be reactivated with a new bypass key. The overspeed safety device must be investigated by an authorized technician.

Connection

1- Make sure the twin mast adapter is properly bolted to the main frame (6 bolts). Refer to p. 25 of the Bridges section for more information on the use and installation of a twin mast adapter.
2- Connect one end of the inclinometer extension cable to the inclinometer.
3- Lift both power pack access panels on the main frame and lift and remove both lateral plastic hoods next to the control panel by removing the toggle pins at the bottom. Lift and remove the plastic hood housing the control panel.
4- Run the inclinometer extension cable through the bottom part of the main frame. Remove the terminator plug from the inclinometer connector under the control panel, store it in the toolbox and connect the extension cable in its place. Replace the plastic hoods and secure the lateral panels with toggle pins.

Detection of a ± 2-degree slope

1- When the motorized unit is in movement, if the inclinometer detects a slope of ± 2 degrees, a signal is automatically sent to the control panel and the ± 2-degree indicator light is triggered on.
2- On models F100 and F300, during ascent at second (high) speed, the motorized unit that is at the highest level will automatically shift to first (low) speed while the lowest side will continue to rise at second (high) speed until the structure is brought back to level. If the structure is rising at first (low) speed, the highest motorized unit will stop completely until the structure is back to level. During ascent, if the highest motorized unit is a model F200, it will automatically stop and fail to resume ascent until the structure is brought back to level.
3- On models F100 and F300, during descent at second (high) speed, the motorized unit that is at the lowest level in the configuration will automatically shift to first (low) speed while the highest side will continue to descend at second (high) speed until the structure is brought back to level. If the structure is descending at first (low) speed, the lowest motorized unit in the configuration will stop completely until the structure is back to level. During descent, if the lowest motorized unit is a model F200, it will automatically stop and fail to resume descent until the structure is brought back to level.

Detection of a ± 5-degree slope

1- When the motorized unit is in movement, if the inclinometer detects a slope of ± 5 degrees, a signal is automatically sent to the control panel and the ± 5-degree indicator light is triggered on.
2- During ascent, the motorized unit that is at the highest level in the configuration will automatically stop and fail to resume ascent until the structure is brought back to level.
3- During descent, the motorized unit that is at the lowest level in the configuration will automatically stop and fail to resume descent until the structure is brought back to level.
4- If the inclinometer or its connection is defective, the motorized unit will not operate. In that case, call the distributor or the Hydro Mobile technical support team.

Safety Devices (cont’d)
Inclinometer

Used only in bearing configurations, the inclinometer is located on the twin mast adapter and must absolutely be connected to the control panel. The inclinometer will detect any ± 2- or ± 5-degree slope of the structure and trigger an indicator light on the control panel to warn the operator. For more information on the installation and use of a twin mast adapter, see p. 25 of the Bridges section. For more information about event indicator lights, see p. 32 of the Control Panel section. Refer also to the appropriate troubleshooting procedure at the end of this operator’s manual.

Connection

1- Make sure the twin mast adapter is properly bolted to the main frame (6 bolts). Refer to p. 25 of the Bridges section for more information on the use and installation of a twin mast adapter.
2- Connect one end of the inclinometer extension cable to the inclinometer.
3- Lift both power pack access panels on the main frame and lift and remove both lateral plastic hoods next to the control panel by removing the toggle pins at the bottom. Lift and remove the plastic hood housing the control panel.
4- Run the inclinometer extension cable through the bottom part of the main frame. Remove the terminator plug from the inclinometer connector under the control panel, store it in the toolbox and connect the extension cable in its place. Replace the plastic hoods and secure the lateral panels with toggle pins.

Detection of a ± 2-degree slope

1- When the motorized unit is in movement, if the inclinometer detects a slope of ± 2 degrees, a signal is automatically sent to the control panel and the ± 2-degree indicator light is triggered on.
2- On models F100 and F300, during ascent at second (high) speed, the motorized unit that is at the highest level will automatically shift to first (low) speed while the lowest side will continue to rise at second (high) speed until the structure is brought back to level. If the structure is rising at first (low) speed, the highest motorized unit will stop completely until the structure is back to level. During ascent, if the highest motorized unit is a model F200, it will automatically stop and fail to resume ascent until the structure is brought back to level.
3- On models F100 and F300, during descent at second (high) speed, the motorized unit that is at the lowest level in the configuration will automatically shift to first (low) speed while the highest side will continue to descend at second (high) speed until the structure is brought back to level. If the structure is descending at first (low) speed, the lowest motorized unit in the configuration will stop completely until the structure is back to level. During descent, if the lowest motorized unit is a model F200, it will automatically stop and fail to resume descent until the structure is brought back to level.

Detection of a ± 5-degree slope

1- When the motorized unit is in movement, if the inclinometer detects a slope of ± 5 degrees, a signal is automatically sent to the control panel and the ± 5-degree indicator light is triggered on.
2- During ascent, the motorized unit that is at the highest level in the configuration will automatically stop and fail to resume ascent until the structure is brought back to level.
3- During descent, the motorized unit that is at the lowest level in the configuration will automatically stop and fail to resume descent until the structure is brought back to level.
4- If the inclinometer or its connection is defective, the motorized unit will not operate. In that case, call the distributor or the Hydro Mobile technical support team.

WARNING

Once the overspeed safety device is triggered, all precautions must be taken to ensure the safe return of all workers to base pedestal level, according to the evacuation plan. Operation of the motorized unit can only be resumed after inspection by an appropriately trained and competent, authorized technician who is in possession of the required bypass key.
Installation

1- Align both bridges using the tapered bushings (blue arrows, fig. 3.1).

2- Assemble both bridges together using one 5/8” x 5 1/2” (GR8) hex bolt, one 5/8” (GR8) lock washer and one 5/8” (GR8) nut in each of the four corner tapered bushings (fig. 3.1 and 3.2) and in one of the pairs of tapered bushings in the middle of the bridge (using both top and bottom bushings on the same side – left or right, fig. 3.1).

3- Set up bridges alternately on each side of the mast in such a sequence as to warrant the balance of the structure.

Bridge installation support bracket

Step A: Under the bridge to be installed, slide hitch pins in the designated holes on both sides of the bridge and secure them with linch pins.

Step B: Using other hitch pin and linch pin assemblies, attach the bridge installation support brackets to the bridge already bolted to the base or to another bridge.

Step C: Lift the bridge to be installed and lower it down so that the hitch pins are completely supported by the bridge installation support bracket. Assemble the bridges using the appropriate bolts and nuts. Remove the brackets when the bridges are bolted together.

NOTE

The bridge installation support bracket and the bridge installation method described above can only be used when the motorized unit is at base pedestal level.

Bridge lifting bar

Slide the bridge lifting bar and screw jacks (fig. 3.10) at least 6” (15 cm) in under the outer edge of a bearing bridge assembly. Using the jacks, raise the bridge lifting bar under the bridge assembly until this one is slightly at an angle. Align the next bridge and bolt both bridges together (see p. 22 for more information on the installation of a standard bridge). The installation of most bearing configurations will require up to two bridge lifting bars.

Continue installing bridges, using one bridge lifting bar every other bridge and alternating their position throughout the installation process, as illustrated below. Refer to the Load Capacities section on p. 40 for more information on the number of bridges allowed in a setup.
Cantilever Bridge

Installation
1- Make sure that both inclinometer terminator plugs are in place under the control panel (factory default) and that there is no twin mast adapter bolted to the main frame. For more information on the inclinometer and its connection, see p. 21 of the Safety Devices section.
2- Using a bridge installation support bracket or any other lifting device such as a crane or a forklift, bolt a bridge assembly to the main frame on one side of the mast.
3- Bolt a second bridge assembly to the main frame on the other side of the mast, if required.
4- Install as many additional bridges as required and allowed. It is important to install each bridge alternately on one side, then on the other side of the mast, to avoid throwing the structure out of balance. The number of bridges should be equal on both sides of a cantilever installation. Refer to the Load Capacities section on p. 40 for information on the number of bridges allowed in a cantilever bridge configuration.
5- For any configuration other than described in the previous steps or in the Load Capacities section, contact the distributor or the Hydro Mobile technical support team.

Bearing Bridge

(installs the use of two motorized units and two twin mast adapters)

Installation
1- Install a twin mast adapter on the first motorized unit. For more information on the use and installation of a twin mast adapter, see p. 25 of this section.
2- With the help of a bridge installation support bracket, a bridge lifting bar or any other lifting device such as a crane or a forklift, raise the twin mast adapter until it is slightly at an angle and install an additional bridge.
3- If using a bridge lifting bar, leave it in place. After two additional bridges have been installed, slide a second bridge lifting bar under the last bridge installed, as shown in fig. 3.9, on p.23. Alternate the position of the bridge lifting bars every two bridges added throughout the installation process.
4- Repeat steps 1 through 7 until the setup has the desired length. Refer to the Load Capacities section on p. 40 for the maximum number of bridges allowed in a bearing bridge configuration. Leave a bridge lifting bar under the last bridge installed.
5- Install a twin mast adapter on the second motorized unit. Bolt the second motorized unit and its twin mast adapter to the last bridge installed and remove the remaining bridge lifting bar, if required. Make sure to remove the locking plates on each twin mast adapter before raising the bearing structure and to plug in each inclinometer. Refer to p. 25 of this section for more information on the installation of a twin mast adapter and to p. 21 of the Safety Devices section for more information on the inclinometer and its connection.
6- In a bearing bridge setup, it is important to add any additional cantilever bridge after the bearing bridge structure has been installed to avoid throwing the structure off balance.

Twin Mast Adapter

(optional) (required for a bearing bridge configuration)

Installation
1- Position the twin mast adapter so that the inclinometer is on the bearing side of the structure, opposite to the main frame (fig. 3.12).
2- Using the tapered bushings, align the twin mast adapter with the main frame. If the welded stoppers on the bottom trusses of the main frame and the twin mast adapter prevent proper alignment, the twin mast adapter is not correctly positioned (see step 1).
3- Using 5/8” x 5 1/2” (GR8) hex bolts, 5/8” (GR8) lock washers and 5/8” (GR8) nuts, attach the twin mast adapter to the main frame and make sure all the bolt assemblies are light and secure.
4- Lift and unhook the top and bottom locking plates at both ends of the twin mast adapter (fig. 3.12). Failure to do so could result into serious damages.
5- Push in the twin mast adapter until it is snug against the main frame and the sliding pin is close to the main frame.

Bearing Side of Structure

Fig. 3.12

To Wall

Guardrail overlap

Main frame

Twin mast adapter guardrail (LEFT)

Inclinometer at this end

Fig. 3.11

Bridge

Twin mast adapter
Forward/Back Extension Bridge (optional)
The extension bridge (used in front or in back of a motorized unit setup) is assembled using a regular bridge and the optional forward extension kit, which includes an outrigger and three forward extension plate assemblies. In a configuration using a forward extension, the bridge used as an extension must be attached to the first bridge assembly closest to the mast in the setup. In a configuration using a back extension, the bridge used as an extension must be attached to the first bridge assembly closest to the mast in the setup. In all cases, a bridge used as an extension, back or forward, cannot be attached directly to the motorized unit.

Installation
1- Remove the plank stop pins from the outriggers and slide the outriggers in the bottom outrigger pockets of the bridge assembly, leaving about 6” (15 cm) protruding from the bridge. Do not tighten the bolts.
2- Align the bridge that will be used as an extension with the bridge assembly and slide the protruding ends of the outriggers from the bridge assembly in the bottom outrigger pockets of the back or forward extension. Insert a plank stop pin in each outrigger (fig. 3.14). Make sure all the nuts and bolts are tight.
3- Install the forward extension plate assemblies at the top of each of the vertical tubes of the bridge assembly in order to hold both bridges tightly together (fig. 3.14). Make sure all the nuts and bolts are tight.
4- Tighten all the nuts and bolts on the outriggers.
5- Install the appropriate guardrails on the back or forward extension.
6- If required, install cross box kits to plank the inside corner of the bridge used as an extension (see fig. 7.8 on p. 44). For more information on the use and installation of cross boxes, refer to p. 46 of the Accessories section.
7- If required, use the forward/back extension to store counterweight material or to install top outriggers and planking on the opposite end of the bridge assembly (fig. 3.15 and 3.16) and apply counterweight.

For more information on the load capacity of a forward/back extension bridge, refer to p. 44 of the Load Capacities section. For any configuration using forward or back extensions other than those shown in fig. 3.15 and 3.16, contact the distributor or the Hydro Mobile technical support team.
Plastic hood: Lift the right power pack access panel and retrieve the ignition key from the toolbox (fig. 4.1, on p. 27). Insert the ignition key in the engine operation control switch on the control panel (fig. 4.5). Turn the ignition key to the ON position. This will cause the high oil temperature, low oil level and low gas level event indicator lights on the control panel to light up briefly. Then all the indicator lights will blink once in sequence. Any event indicator light that lights up and remains blinking after the initial sequence indicates a fault.

If the control panel does not work when the ignition key is turned to the ON position, make sure the battery is plugged in and that it has enough voltage. If the control panel still does not work, call the distributor or the Hydro Mobile technical support team.

NOTE
If the control panel does not work when the ignition key is turned to the ON position, make sure the battery is plugged in and that it has enough voltage. If the control panel still does not work, call the distributor or the Hydro Mobile technical support team.

Engine and motorized unit shutdown procedure
1. In a bearing installation, make sure that the inclinometer indicator lights on the control panels are not turned on and that the structure is level.
2. Push the throttle control lever all the way up (idle position) to shut down the engine. Remove the ignition key from the starter switch and store it in the toolbox for future use (fig. 4.1).
3. Turn the ignition key all the way to the left (OFF position) to shut down the engine. Remove the ignition key from the starter switch and store it in the toolbox for future use (fig. 4.1).
4. Turn the gasoline valve lever to the OFF position (fig. 4.7) and replace the access panel.
5. Before transporting or storing the motorized unit for any significant length of time, make sure the battery is disconnected. For more information on the transport and storage of a motorized unit, refer to p. 50 of the Transport, Storage and Maintenance section.
6. For model F300 or in configurations using more than one power pack, repeat steps 1 through 5 for each power pack.

WARNING
The emergency stop button must never be used to shut down the engine except in the case of an emergency. The ignition key must not be left at the ON position longer than necessary as this will drain the battery.
Control Panel

The control panel is the brain behind the Hydro Mobile F Series system. The F Series control panel (models F100, F200 and F300) is divided into two sections: the top half houses the engine, operation and configuration controls, while event indicator lights are displayed on the bottom half. Driven by a computer system programmed to detect and analyze every signal and react accordingly, the control panel will notify the operator of any important event with the appropriate indicator light (see fig. 5.4 and the Control Panel – Event Indicator Lights descriptions and instructions, on p. 32). The descriptions and instructions on the control panel are shown in three operating languages (English, French and Spanish).

It is mandatory to comply with the instructions included in the following pages for the operation of the control panel and to take prompt corrective action when required. For any event other than those described in this operator’s manual, contact the distributor or the Hydro Mobile technical support team.

On model F300, in a linked configuration, with both engines at full throttle, the control panel will automatically analyze and balance the hydraulic pressure values on both sides of the mast by reducing the oil pressure on the “faster” side. This could translate into slight jolts that may perceived by the operator or the workers and is no cause for alarm.

<table>
<thead>
<tr>
<th>Control Panel Controls</th>
<th>Control</th>
<th>Description</th>
<th>Action to be performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throttle control lever</td>
<td>Controls the engine speed.</td>
<td>Pull down 1/4 of the way to start engine. Pull down all the way for full throttle.</td>
<td></td>
</tr>
<tr>
<td>Rise control button</td>
<td>Controls the rise of the motorized unit.</td>
<td>On models F100 and F300, push halfway in for first (low) speed. On models F100 and F300, push all the way in for second (high) speed. NOTE: Model F200 is equipped with only one speed that is activated by either pushing the button halfway or completely in.</td>
<td></td>
</tr>
<tr>
<td>Descent control button</td>
<td>Controls the descent of the motorized unit.</td>
<td>On models F100 and F300, push halfway in for first (low) speed. On models F100 and F300, push all the way in for second (high) speed. NOTE: Model F200 is equipped with only one speed that is activated by either pushing the button halfway or completely in.</td>
<td></td>
</tr>
<tr>
<td>Choke control button</td>
<td>Controls the choke.</td>
<td>Push and hold to close the engine choke.</td>
<td></td>
</tr>
<tr>
<td>Engine operation control switch (with ignition key)</td>
<td>Turns on the control panel (when the ignition key is turned to the ON position). Controls the startup (ignition key at STARTER position) and shutdown (ignition key at OFF position) of the engine.</td>
<td>Retrieve the ignition key from the toolbox in the main frame. Turn the key all the way to the right and hold to start up the engine (hold for no more than 10 seconds at a time). Turn the key all the way to the left to shut down the engine.</td>
<td></td>
</tr>
<tr>
<td>Link control switch</td>
<td>Determines the operation of the motorized unit in either linked or unlinked configuration.</td>
<td>For operation in an unlinked configuration, disconnect the communication cable and the quick connect hose for the brake (emergency descent), remove the trolley links, close the bridge link doors and turn the link control switch on both control panels all the way to NO (unlinked). The factory default setting for this switch is YES (linked). Reset both control panels by disconnecting and reconnecting the battery in each main frame. Note: this switch is functional on model F300 only.</td>
<td></td>
</tr>
<tr>
<td>Emergency stop button</td>
<td>Shuts down the engine and turns off the control panel.</td>
<td>Push to stop the motorized unit immediately.</td>
<td></td>
</tr>
<tr>
<td>Hours of operation counter</td>
<td>Registers the number of hours of operation of the motorized unit (when the ignition key is at the ON position and control panel is turned on).</td>
<td>No action to perform.</td>
<td></td>
</tr>
<tr>
<td>Event indicator light</td>
<td>Notifies the operator of important events.</td>
<td>Take prompt and appropriate corrective action.</td>
<td></td>
</tr>
</tbody>
</table>

(1) For more information, see the instructions regarding the inclinometer in the Safety Devices section on p. 21 and in the descriptions of control panel event indicator lights in the following pages.

(2) For more information on engine startup and shutdown procedures, see the Power Pack and Operating Components section (p. 29).

Fig. 5.1

Fig. 5.2
CONTROL PANEL – EVENT INDICATOR LIGHTS

**LEGEND**

1. Location of light on control panel
   - During ascent
   - During descent
   - During ascent, descent or immobility

2. Model applicable to
   - Troubleshooting procedure reference

3. Inclinometer ± 5 degrees
   - Detection of a ±5-degree slope on a bearing structure

4. Inclinometer ± 2 degrees
   - Detection of a ±2-degree slope on a bearing structure

5. High oil temperature
   - Detection of high temperature of hydraulic oil

6. Low oil level
   - Detection of a low level of hydraulic oil

7. Low gasoline level
   - Detection of a low level of gasoline

8. High pressure hydraulic system
   - Detection of high pressure of the hydraulic system

9. Bridge link door
   - Detection of a faulty bridge link door

10. Emergency descent
    - Model applicable to
      - Troubleshooting procedure reference

**NOTE**

For more information on event indicator lights and their warnings, refer to the troubleshooting reference pages at the end of this manual. For any event other than those described in this manual, call the distributor or the Hydro Mobile technical support team.

---

**EVENT: Highest motorized unit of the bearing setup stops**

**ACTION:**
- Raise the lowest side of the setup until the control panel gives a ±2- or 0-degree level reading.
- Refer to the troubleshooting reference page for more information.

**EVENT: Lowest motorized unit of the bearing setup stops**

**ACTION:**
- Lower the highest side of the setup until the control panel gives a ±2- or 0-degree level reading.
- Refer to the troubleshooting reference page for more information.

**EVENT: Motorized unit switches to 1st speed on models F100 and F300, or stops on model F200**

**ACTION:**
- Keep the engine running and make sure that the oil cooler fan is working properly.
- Let the oil cool down until the indicator light no longer blinks.
- Refer to the troubleshooting reference page for more information.

**EVENT: Motorized unit stops moving; engine still runs**

**ACTION:**
- Check the proximity switches for malfunction.
- Refer to the troubleshooting reference page for more information.

**EVENT: Warning only; motorized unit is fully functional**

**ACTION:**
- Replenish the gasoline tank immediately.
- Refer to the troubleshooting reference page for more information.

**EVENT: Motorized unit stops moving; engine still runs**

**ACTION:**
- Verify the load distribution on the platform.
- Refer to the load capacity charts in the Operator’s manual and make the necessary adjustments.
- Refer to the troubleshooting reference page for more information.

See fig. 5.3 on page 32 for the legend and control panel event indicator lights location.
CONTROL PANEL – EVENT INDICATOR LIGHTS

Continued from page 33

8  
**Trolley link**  
Detection of a trolley link fault  

**EVENT:** Motorized unit stops moving; engine still runs  
**ACTION:** Check the position of the link control switch on the top half of the control panel and set to the correct position according to the setup. Remove or replace the trolley link, as required by the setup. Refer to the troubleshooting reference page for more information.

9  
**Top/Bottom final limit**  
Detection of the top or bottom final limit  

**EVENT:** Motorized unit stops moving; engine still runs  
**ACTION:** Lower or raise the motorized unit, accordingly. Call an authorized technician immediately. Refer to the troubleshooting reference page for more information.

10  
**Overspeed safety device in gear**  
Detection of the activation of the overspeed safety device  

**EVENT:** Motorized unit and engine stop  
**ACTION:** Refer to the instructions included in the operator’s manual regarding the activation of the overspeed safety device. Call an authorized technician immediately. Refer to the troubleshooting reference page for more information.

11  
**Top/Bottom limit**  
Detection of the top or bottom limit  

**EVENT:** Motorized unit stops moving; engine still runs  
**ACTION:** Lower or raise the motorized unit, accordingly. Refer to the troubleshooting reference page for more information.

12  
**Emergency descent**  
Detection of the activation of the emergency descent system  

**EVENT:** Motorized unit and engine stop  
**ACTION:** Refer to the instructions included in the Operator’s manual regarding the activation of the emergency descent system. Restore the system to normal operating conditions. Refer to the troubleshooting reference page for more information.

See fig. 5.3 on page 32 for the legend and control panel event indicator lights location.

**NOTE**  
For more information on event indicator lights and their warnings, refer to the troubleshooting reference pages at the end of this manual. For any event other than those described in this manual, call the distributor or the Hydro Mobile technical support team.

Masts and Mast Head

**Installation**  
1. Make sure that the motorized unit is positioned properly. Refer to p. 14 of the *Motorized Unit* section for more information.
2. Refer to regulations governing distances between the mast climbing work platform system and electrical lines.
3. Remove the mast head (fig. 6.2).
4. Using a jib arm (optional – see p. 49 of the Accessories section) or any other lifting device such as a crane or a forklift, raise the next mast section and insert it on top of the bottom mast section.
5. On model F100, make sure that the rack of the mast section is on the power train side (fig. 6.2) and aligned with the rack on the bottom mast section. On models F200 and F300, make sure to use twin-rack masts. It is recommended to handle mast sections carefully so as not to damage the mast rack(s).
6. Make sure the masts are properly aligned and connected together (fig. 6.1).
7. Using 1"-8 x 8" GR8 bolts and 1" GR8 lock nuts, bolt all four corners together, making sure the bolt heads are facing down (fig. 6.2). Tighten the four bolt and nut assemblies to 150 lb-ft (203 N·m) of torque to secure the mast section in place.
8. Repeat steps 4 through 8 for each mast section.
9. Make sure the rack(s) on the mast section is(are) sufficiently greased. If necessary, apply grease to the rack(s) and gears and allow the gear to stand for 2-3 hours. Use Chevron open gear lubricant (part # A0560001-0000).
10. Install the mast head on top of the last mast section and keep it in place until dismantling the setup.

**Note:** Mast sections can be pre-assembled in 40’ (12 m) sections to speed up assembly when using a crane. A tag line must be used to handle the pre-assembled mast sections.

**Lifting capacity of the mast head**  
The mast head must not be used to lift a setup exceeding one motorized unit, a width of 50’ (15.2 m) or 8 x 60” (1.5 m) bridges and a height of 18” (5.5 m) or two masts.

**Storage and transport**  
1. Mast sections must be handled carefully, namely so as not to damage the mast rack(s).
2. Mast sections can be stored vertically or horizontally, lying on a side which has no rack, away from work areas and construction traffic.
3. If mast sections are to be stored on the platform during erecting and dismantling, make sure they are equally distributed on each side of the mast to ensure good balance. Refer to the Load Capacities section on p. 40 to avoid overloading the platform.
4. Mast sections can be transported vertically or horizontally, lying on a side which has no rack.

![Fig. 6.1](image1)

**WARNING**  
Failure to properly grease mast rack may cause premature wear of rack, pinion and gear and provoke down time, even lead to serious injury or death.

![Fig. 6.2](image2)
Wall Ties

Pre-installation

1- The length of the pre-installation setup must not exceed one bridge on each side of the mast.
2- Mast sections stored on the platform for pre-installation must be equally distributed on each side of the mast to ensure good balance. Refer to the Load Capacities section on p. 40 to avoid overloading the platform.

Configurations

1- For all configurations described above, the maximum overhang allowed over a wall tie is 10’ (3 m) when only one wall tie is installed. For any other configuration, contact the distributor or the Hydro Mobile technical support team.
2- For all configurations described above, the maximum overhang allowed over the last wall tie is 20’ (6.1 m) when two or more wall ties are installed. For any other configuration, contact the distributor or the Hydro Mobile technical support team.
3- Before installing weather protection, it is mandatory to pre-install wall ties and to make sure that the platform is never raised beyond the last wall tie point.
4- Unless authorized in writing by Hydro Mobile prior to installation, the platform should only be used on a mast whose height does not exceed 500’ (152 m). For any configuration other than those described above, contact the distributor or the Hydro Mobile technical support team.

Installation of the anchoring system

Before attaching masts to the building using the wall tie system, anchor fasteners or any other attachment must be installed on a solid component of the building structure. Concrete slabs, columns, steel beams, relief angles and other structural elements can be used provided they can sustain the tension / compression and shear force of the anchoring installation option chosen, as described below.

Anchoring installation options

- Long anchor bracket
- Short anchor bracket

Pre-installation of wall ties is mandatory

Wall tie Schedule

<table>
<thead>
<tr>
<th>Freestanding</th>
<th>Base pedestal</th>
<th>Base pedestal with extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>10’ (3 m)</td>
<td>20’ (6.1 m)</td>
</tr>
<tr>
<td>A (from under base)</td>
<td>20’ (6.1 m)</td>
<td>30’ (9.1 m)</td>
</tr>
<tr>
<td>B (from A)</td>
<td>30’ (9.1 m)</td>
<td>45’ (13.7 m)</td>
</tr>
<tr>
<td>C (from B)</td>
<td>45’ (13.7 m)</td>
<td>45’ (13.7 m)</td>
</tr>
</tbody>
</table>

Each anchor fastener in the installation options shown in fig. 6.6 and fig. 6.7 should sustain 3000 lb (1363 kg) of tension / compression and 1000 lb (454 kg) of shear force. A minimum of three anchor fasteners is required.
Wall ties (cont’d)

Installation of wallmounts

1- Align the wall tie frame holes with the ones on the mast (fig. 6.13). Bolt the wall tie frame to the mast using 1/2” x 1 1/2” GR8 bolts (4) and 1/2” GR8 nuts (4).

2- Choose the appropriate anchor system. Each anchor fastener must be capable of withstanding 3000 lb (1360 kg) of tension / compression per hole and 1500 lb (680 kg) of shear force per hole for a long anchor bracket and 500 lb (227 kg) of shear force per hole for a short anchor bracket.

3- Attach the anchor bracket to the structure.

4- Using the wallmount pin, attach the wallmount to the anchor bracket, with the adjustment rod still at least halfway inside the wallmount tube.

5- Attach a dual clamp to the vertical tube of the wall tie frame below the top bar and above the bottom bar (fig. 6.14). Make sure that the bolt is tightened properly.

6- Attach the wallmount to the dual clamp on the wall tie frame. Make sure that the bolt is tightened properly.

7- In a configuration using 3 planks or more, back or forward extensions, long outriggers or weather protection, attach additional dual clamps on the wallmount in front and behind the wall tie frame dual clamp previously installed (fig. 6.15). Make sure all bolts are tightened. Refer to the Installation of dual clamps procedure, on p. 39, for more information.

8- Adjust the length of the adjustment rod until the mast is plumb on both its front and side axis.

9- Repeat steps 3 through 8 for each wallmount.

Wall ties (cont’d)

Installation of dual clamps

In a configuration using 3 planks or more, back or forward extensions, long outriggers or weather protection, the tension / compression factor is highly increased. In such situations, it is mandatory to attach an additional dual clamp inside and outside the wall tie frame (see fig. 6.15).

1- Install the first dual clamp on the vertical tube of the wall tie frame below the top bar and above the bottom bar (fig. 6.14). Attach the wallmount to the dual clamp. Make sure that the distance between the welded stopper (or stop pin) and the dual clamp does not exceed 2” (5 cm) (fig. 6.16). Tighten the bolt.

2- Install additional dual clamps on the wallmount tube inside and outside the wall tie frame, making sure the distance between each dual clamp does not exceed 1/4” (0.6 cm) (fig. 6.15 and 6.16).

---

**Short anchor distance**

<table>
<thead>
<tr>
<th>X in (cm)</th>
<th>Y in (cm)</th>
<th>Number of planks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8” (20.3 cm)</td>
<td>17” (43.2 cm)</td>
<td>—</td>
</tr>
<tr>
<td>16” (40.6 cm)</td>
<td>17” (43.2 cm)</td>
<td>1</td>
</tr>
<tr>
<td>24” (66 cm)</td>
<td>24” (61 cm)</td>
<td>2</td>
</tr>
<tr>
<td>36” (91.4 cm)</td>
<td>34” (86.4 cm)</td>
<td>3</td>
</tr>
</tbody>
</table>

The “Y” anchor distances are given only as a reference. Tolerance rate is of ± 2” (5 cm).

---

**WARNING**

When using wallmounts without welded stoppers, use a bolt or a dual clamp as a stopper at the extremity of the wallmount tube attached to the wall tie frame.

**WARNING**

**Wind**

- A mast climbing work platform system cannot be used when wind speed exceeds 35 mph (56 km/h).
- When using weather protection, a mast climbing work platform system cannot be used if wind speed exceeds 29 mph (46 km/h). It is mandatory to pre-install wall ties and to make sure that the platform is never raised beyond the last wall tie point.
- The platform cannot be left freestanding (on a mobile chassis only *) when wind speed exceeds 29 mph (46 km/h).

* Note: the mobile chassis is not yet available
Load Capacities

WARNING
To ensure safety at all times on a mast climbing work platform system, bridges should not be loaded beyond their maximum rated weight capacities. In addition, to prevent a mast climbing work platform system from stalling because of an overload, maximum rated load capacities of the motorized unit(s) should be observed. Overloading a mast climbing work platform system could result in serious injury or death.

NOTES
1- The weight of planks and any additional accessory being used must be deducted from the load capacities shown in the following pages.
2- The cantilever bridges must have the same length on either side of the mast at all times (single mast configuration).
3- Each worker's weight (265 lb or 120 kg per worker) must be deducted from load capacities shown in the diagrams included in the following pages.
4- It is mandatory to have a minimum of two (2) workers for each of the configurations shown in the following pages or a maximum of one (1) worker per platform or bridge area of 15 linear feet (4.57 linear meters). The option allowing the greatest number of workers takes precedence over any other. However, the weight of each person working in a given area (bridge or platform) reduces the load capacity of that area.

Weights and measures – Equivalencies

<table>
<thead>
<tr>
<th>Feet</th>
<th>Meters</th>
<th>Lb</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>5’</td>
<td>1.52 m</td>
<td>420 lb</td>
<td>190 kg</td>
</tr>
<tr>
<td>10’</td>
<td>3.04 m</td>
<td>500 lb</td>
<td>227 kg</td>
</tr>
<tr>
<td>15’</td>
<td>4.57 m</td>
<td>875 lb</td>
<td>397 kg</td>
</tr>
<tr>
<td>20’</td>
<td>6.1 m</td>
<td>1000 lb</td>
<td>454 kg</td>
</tr>
<tr>
<td>25’</td>
<td>7.62 m</td>
<td>1200 lb</td>
<td>544 kg</td>
</tr>
<tr>
<td>35’</td>
<td>10.67 m</td>
<td>1250 lb</td>
<td>567 kg</td>
</tr>
<tr>
<td>45’</td>
<td>13.72 m</td>
<td>1500 lb</td>
<td>682 kg</td>
</tr>
<tr>
<td>50’</td>
<td>15.2 m</td>
<td>1680 lb</td>
<td>762 kg</td>
</tr>
<tr>
<td>50’ 5’</td>
<td>15.36 m</td>
<td>1875 lb</td>
<td>850 kg</td>
</tr>
<tr>
<td>65’</td>
<td>19.81 m</td>
<td>2000 lb</td>
<td>907 kg</td>
</tr>
<tr>
<td>115’</td>
<td>35.05 m</td>
<td>3400 lb</td>
<td>1542 kg</td>
</tr>
</tbody>
</table>

Load Capacities

<table>
<thead>
<tr>
<th>Lb</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000 lb</td>
<td>1818 kg</td>
</tr>
<tr>
<td>4500 lb</td>
<td>2045 kg</td>
</tr>
<tr>
<td>5000 lb</td>
<td>2273 kg</td>
</tr>
<tr>
<td>5500 lb</td>
<td>2500 kg</td>
</tr>
<tr>
<td>6000 lb</td>
<td>2727 kg</td>
</tr>
<tr>
<td>6500 lb</td>
<td>2953 kg</td>
</tr>
<tr>
<td>775 lb</td>
<td>3572 kg</td>
</tr>
<tr>
<td>8400 lb</td>
<td>3810 kg</td>
</tr>
<tr>
<td>9375 lb</td>
<td>4252 kg</td>
</tr>
<tr>
<td>10,000 lb</td>
<td>4547 kg</td>
</tr>
<tr>
<td>10,200 lb</td>
<td>4627 kg</td>
</tr>
<tr>
<td>11,000 lb</td>
<td>5001 kg</td>
</tr>
<tr>
<td>12,000 lb</td>
<td>5454 kg</td>
</tr>
</tbody>
</table>

Load Capacities (cont’d)

Single mast setup

Twin mast setup

Imperial measures illustrated below. For metric equivalencies, refer to the table in fig. 7.1 on p. 40.

Fig. 7.2

65’-6’’
Center to center
Maximum length of setup

6 500

8 400

9 375

10 200

Fig. 7.3

NOTE: The configuration illustrated in fig. 7.3 (above) requires the use of two motorized units and two optional twin mast adapters (shown in red).

LEGEND

- Bridge – 5’ (1.5 m)
- X’

NOTE: To ensure safety at all times, refer to notes and warning on p. 40 for more information on load capacities.
Load Capacities (cont’d)

**Single mast setup**

Imperial measures illustrated below. For metric equivalencies, refer to the table in fig. 7.1 on p. 40.

![Diagram of Single mast setup with measurements](image)

**Twin mast setup**

Imperial measures illustrated below. For metric equivalencies, refer to the table in fig. 7.1 on p. 40.

![Diagram of Twin mast setup with measurements](image)

**Split platform – Single mast setup**

Imperial measures illustrated below. For metric equivalencies, refer to the table in fig. 7.1 on p. 40.

![Diagram of Split platform – Single mast setup with measurements](image)

**Split platform – Twin mast setup**

Imperial measures illustrated below. For metric equivalencies, refer to the table in fig. 7.1 on p. 40.

![Diagram of Split platform – Twin mast setup with measurements](image)

**LEGEND**

- Bridge – 5’ (1.5 m)
- Length of bridge setup

**NOTE:** The configuration illustrated in fig. 7.5 (above) requires the use of two motorized units and two optional twin mast adapters (shown in red).

**NOTE:** To ensure safety at all times, refer to notes and warning on p. 40 for more information on load capacities.
Load Capacities (cont’d)

**Forward / backward extension**

- Maximum capacity of 500 lb (227 kg)
- Maximum capacity of 500 lb (227 kg)
- Maximum capacity of 2500 lb (1134 kg)
- Top outrigger with counterweight of 1500 lb (680 kg)
- Maximum capacity of 500 lb (227 kg)
- Maximum capacity of 500 lb (227 kg)

For the load capacities of the configurations of the F Series forward extension shown in fig. 7.9, 7.10 and 7.11, refer to the unlinked capacity charts illustrated in fig. 7.6 and 7.7, on p. 43. It is important to note that the weight of any additional bridge installed must be deducted from the load capacities illustrated above and in the previous pages. For any configuration other than those illustrated above and in the previous pages, contact the distributor or the Hydro Mobile support team.

### Outriggers

Standard 63” (1.6 m) outriggers can be installed at two levels on a bridge as plank support (fig. 8.1). Plank support outriggers must be installed every 5’ (1.5 m). F Series outriggers are not designed to support the weight of material (fig. 8.2).

In a standard 0 to 3-plank configuration, each F Series outrigger has a maximum load capacity of 500 lb (227 kg).

Standard outriggers, used either at the top or bottom position, can be pulled out to a maximum of 30” (76.2 cm). Longer outriggers are available for special applications. For any other configuration using longer outriggers, contact the distributor or the Hydro Mobile technical support team.

**Installation**

1. Remove the toggle pin and the plank stop pin (fig. 8.3) and slide the outrigger in the top or bottom outrigger pockets on the bridge (see fig. 3.1 of the Bridges section, on p. 22), leaving enough length to install planking. Replace the plank stop pin.
2. Once the planks are in place, push in the outrigger until the plank stop pin rests snugly against the planks.
3. Secure the outrigger in place by sliding in the toggle pin at one extremity (see the working position in fig. 8.3) and tightening both outrigger pocket bolts.

**Universal Plank Safety Support (optional)**

The universal plank safety support is installed at the extremities of planking to prevent planks from lifting, tipping and slipping.

**Installation**

1. Remove the stop pin (fig. 8.4) and slide the plank safety support between two planks.
2. Secure the C-shaped bracket around the outrigger and replace the stop pin.
3. Using screws or nails, secure the top plate of the plank safety support to the planks (fig. 8.5).

---

### NOTES

1. The weight of planks and any additional accessory being used must be deducted from the load capacities shown above and in the previous pages.
2. The cantilever bridges must have the same length on either side of the mast at all times (single mast configuration).
3. Each worker’s weight (265 lb or 120 kg per worker) must be deducted from load capacities shown in the diagrams included above and in the previous pages.
4. It is mandatory to have a minimum of two (2) workers for each of the configurations shown in the following pages or a maximum of one (1) worker per platform or bridge area of 15 linear feet (4.57 linear meters). The option allowing the greatest number of workers takes precedence over any other. However, the weight of each person working in a given area (bridge or platform) reduces the load capacity of that area.
Cross Boxes (optional)

Cross boxes are used to install auxiliary outriggers, as required when planking the inside corner of a forward extension or the recessed area in a wall.

Installation

1- Remove the toggle pins and the plank stop pins from two outriggers.
2- Slide a cross box on the back and the front of each of the two outriggers. Replace the toggle pins and tighten both outrigger pocket bolts on each of the outriggers.
3- Slide the transversal outriggers through the cross boxes until they are halfway through.
4- Install a cross box on each transversal outrigger and extend each outrigger in position. Secure the transversal outriggers in place with toggle pins.
5- Slide auxiliary outriggers through the cross boxes on the transversal outriggers until they are in position. Secure them in place with toggle pins. Install a plank stop pin in each of the auxiliary outriggers.
6- Once the planks are in place, adjust the auxiliary outriggers until the plank stop pins rest snugly against the planks.
7- Secure the outriggers in place by tightening all the bolts on the cross boxes.

Guardrails

Appropriate guardrails must be installed on each F Series bridge to ensure the safety of workers at all times.

Installation

1- Slide a guardrail adapter L bracket (fig. 8.7) in each of the two guardrail pockets at the top of the bridge (see fig. 3.1 on p. 22 of the Bridges section) and secure them with toggle pins.
2- Insert the guardrail legs in the vertical part of the adapter brackets and tighten the bolts on the adapter brackets to secure the guardrail.
3- Install as many guardrails as is required by the setup. Make sure that all guardrails are appropriately locked together (fig. 8.8).

Guardrails (cont’d)

Movable Guardrails (optional)

To ensure the safety of workers in a more flexible way, movable guardrails may be installed on bridges. Follow the installation steps of a standard guardrail and secure the movable guardrail to the standard guardrail with toggle pins.

Plank-End Guardrails

Plank-end guardrails must be installed at the ends of planking as fall protection. In a standard, recommended three-plank configuration, the opening must be closed by placing two plank-end guardrails face to face.

Installation

1- Slide the bottom end of the plank-end guardrail over the end of two planks.
2- Drive one or two nails or screws into the planks through the top plate to secure the guardrail in place.
3- In a standard, recommended three-plank configuration using two plank-end guardrails, make sure the first guardrail is installed backwards. Repeat steps 1 and 2 for the installation of the second guardrail.

Face Guardrail Brackets (optional)

Face guardrail brackets must be installed when the distance between the end of planking (or deck, if not using plank) and the structure is greater than what local regulation allows or 6” (15 cm) (ex. recess in a wall, end of a building, etc.), the most stringent of conditions taking precedence over the others.

Installation

1- Remove the plank stop pin from the outrigger and slide in the face guardrail bracket inside the outrigger tube.
2- Secure in place by sliding the plank stop pin through the face guardrail bracket and the outrigger. Tighten all outrigger pocket bolts properly.
3- Repeat steps 1 and 2 for each outrigger required to secure the hazardous opening.
4- Insert planks in the hooks of each face guardrail bracket to cover the hazardous opening (fig. 8.11). Secure the planks in place with nails or screws.
**Access Stairs**

When the motorized unit is at base pedestal level, workers may use the optional access stairs to reach the platform.

**Installation**

1. Install the guardrail door by sliding the guardrail legs in the guardrail pockets on the bridge. Secure the guardrail door with two toggle pins.
2. Slide the top part of the stairs into the top outrigger pockets. Secure in place by sliding in two toggle pins and tightening each outrigger pocket bolt.
3. Unfold the stair brace.
4. Secure the stair brace to the bottom truss of the bridge with two toggle pins.
5. Install the stairs handrail and secure in place with two toggle pins.

**WARNING**

Access stairs can only be used when the motorized unit is at base pedestal level.

---

**Jib Arm (optional)**

The optional F Series jib arm (for models F100, F200 and F300) is used to install or remove mast sections. The jib arm can be used with an interchangeable manual or electrical winch. With a maximum lifting capacity of 400 lb (182 kg), the jib arm must not be used to lift any material other than one mast section at a time. Furthermore, to make sure that mast sections are equally distributed at all times on either side of the mast and that the structure is not thrown out of balance, the use of two jib arms is recommended.

**Installation**

1. With the motorized unit at base pedestal level, lift and remove the cover plate of the jib arm pocket on the bridge link (fig. 8.16).
2. Slide the jib arm assembly into the jib arm pocket until it completely covers the pivot pin at the base of the jib arm pocket, on the angle bar (fig. 8.16).
3. Attach the mast handler to the cable hook at the upper end of the jib arm (fig. 8.17).
4. Insert the mast handler at a cross angle under the top bar of the mast section and raise the mast section with the jib arm on top of the bottom mast section. Bolt the mast section in place (see p. 35 of the Masts and Wall Ties section).
5. Remove the mast handler from the top of the mast section before raising the platform.
6. Repeat steps 4 and 5 for each mast section to be installed until the setup is complete. Make sure to install wall ties as required and prescribed. For more information about wall ties, refer to p. 36 of the Masts and Wall Ties section.
7. Install the mast head on top of the last mast section of the setup.
8. Once the setup is complete and the motorized unit has been brought back to base pedestal level, remove the mast handler and the jib arm.
9. Replace the cover plate on the jib arm pocket.

**WARNING**

The jib arm has a maximum lifting capacity of 400 lb (182 kg) and must not be used to lift any material other than one mast section at a time. It is also important to remove the mast handler from the top of the mast section before raising the platform.
Transport and Storage

Transport of the motorized unit

1- Loosen the bolt of the bottom limit switch bracket located on the half mast (bottom mast section) attached to the base pedestal (fig. 9.1) and lower the switch bracket all the way down.
2- Lower the motorized unit until it rests on the rubbers (4) mounted on the base pedestal (fig. 9.2 and 9.3).
3- Push all the outriggers into the bridges and lock them in place.
4- If the motorized unit was used in an unlinked configuration (model F300 only), make sure to replace the trolley link (see the instructions on p. 17 of the Motorized Unit section).
5- Make sure that the gasoline valve lever has been turned off (see the Power Pack and Operating Components section, p. 27) and disconnect the battery. On model F300, verify both power packs. It should be noted that the battery (or batteries) may have to be recharged before the motorized unit can be used again.
6- Remove the removable guardrail or secure it to prevent it from opening during transport.
7- Make sure the bridge link guardrails are secured.
8- Remove the access stairs.
9- On model F300, secure the bridge link doors for transport.
10- Make sure that both right and left plastic hood panels are secured with toggle pins.

Storage of the motorized unit

1- Follow all the steps described in the transport procedure.
2- Before storing the motorized unit, make sure to place sufficient cribbing under the base pedestal to prevent freezing water from causing damages to the bottom of the structure.

Maintenance

Proper maintenance and service will warrant safe, economical, and trouble-free operation of an F Series motorized unit (models F100, F200 and F300). The following pages include maintenance schedules and routine inspection procedures. While daily and weekly maintenance operations can be performed by a competent person, it is mandatory that any inspection or maintenance operation scheduled to be performed every month, every four months and every year be carried out by an appropriately trained and competent authorized technician.

Daily and weekly maintenance operations are only necessary when the motorized unit is in use. The owner is responsible for all other maintenance operations (monthly, every four months and yearly) and these should be carried out whether the motorized unit is in use or not. The yearly maintenance operations should be carried out in a workshop.

In order to ensure operational safety and avoid failures, the owner must make sure that all scheduled maintenance operations have been effectively and timely carried out according to the maintenance schedules included in this manual. Blank copies of the maintenance logs (daily, weekly, monthly) should be available on job sites at all times to be filled out when scheduled maintenance operations are carried out. Maintenance logs must be kept on record for warranty and safety purposes.

### Tools required on job site

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3/4&quot; open end wrench</td>
</tr>
<tr>
<td>1</td>
<td>7/8&quot; open end wrench</td>
</tr>
<tr>
<td>1</td>
<td>1 1/2&quot; open end wrench</td>
</tr>
<tr>
<td>1</td>
<td>15/16&quot; open end wrench</td>
</tr>
<tr>
<td>1</td>
<td>banding cutter</td>
</tr>
<tr>
<td>1</td>
<td>2-lb hammer</td>
</tr>
<tr>
<td>1</td>
<td>1/2&quot; drive 18&quot; ratchet</td>
</tr>
<tr>
<td>1</td>
<td>1 1/2&quot; x 1/2&quot; drive socket</td>
</tr>
<tr>
<td>1</td>
<td>3/8&quot; drive ratchet</td>
</tr>
<tr>
<td>1</td>
<td>15/16&quot; x 3/8&quot; drive deep socket</td>
</tr>
<tr>
<td>1</td>
<td>3/4&quot; x 3/8&quot; drive socket</td>
</tr>
<tr>
<td>2</td>
<td>4&quot; x 20' (10 cm x 6 m) straps</td>
</tr>
<tr>
<td>1</td>
<td>3/4&quot; cable choker</td>
</tr>
</tbody>
</table>

### WARNING

Before transporting or storing a motorized unit, make sure that all gasoline levers have been turned off and that all batteries have been disconnected. When storing a motorized unit, there should be sufficient cribbing under the base pedestal to prevent freezing water from causing damages to the bottom of the structure.
<table>
<thead>
<tr>
<th><strong>IDENTIFICATION RECORD</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Motorized unit serial number</td>
</tr>
<tr>
<td>Power pack serial number</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Company name</strong></th>
<th><strong>Address</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Job site</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Signature of competent person</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Name of competent person</strong> (IN PRINT)</th>
<th><strong>Date of inspection</strong></th>
<th><strong>Hours of operation displayed on counter</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Comments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Element</th>
<th>OK</th>
<th>Inspection / action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base pedestal</strong></td>
<td></td>
<td>- Check the solidity and stability of the cribbing under the base pedestal. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Check the stability of the jacks on the base pedestal extension. \</td>
</tr>
<tr>
<td><strong>Main trolley</strong></td>
<td></td>
<td>- Visually inspect all rollers for misalignment and excessive wear. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Check the bolts on the top inside rollers and make sure that the shafts are tightly in place. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Visually inspect the top final limit proximity switch: a red light indicates it is working properly. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Visually inspect the top limit proximity switch: a red light will turn on when a metal object is placed in front of it. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Check the bridge link door proximity switch (model F300 only). \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Check the hydraulic oil level. Replenish with Shell Naturelle HF-M biodegradable product code 407-214. \</td>
</tr>
<tr>
<td><strong>Power train</strong></td>
<td></td>
<td>- Visually inspect the pinions and make sure that they are clear of debris. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Visually inspect the alignment of the pinions with the rack. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Visually inspect all the rollers for misalignment and excessive wear. \</td>
</tr>
<tr>
<td><strong>Overspeed safety device</strong></td>
<td></td>
<td>- Visually inspect the overspeed safety device and make sure it is clear of debris and that there are no signs of obstruction. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that the overspeed safety device is not in gear. \</td>
</tr>
<tr>
<td><strong>Honda engine</strong></td>
<td></td>
<td>- Perform the recommended daily maintenance on the 24 HP engine, as per the Honda engine owner’s manual instructions. \</td>
</tr>
<tr>
<td><strong>Bridges</strong></td>
<td></td>
<td>- Check every bridge bolt and make sure it is tightened properly. \</td>
</tr>
<tr>
<td><strong>Power pack</strong></td>
<td></td>
<td>- Refill the gasoline tank. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Check for leaks and wear on hydraulic fittings, hoses, pumps and on the engine(s). \</td>
</tr>
<tr>
<td><strong>Masts</strong></td>
<td></td>
<td>- Looking up from base pedestal level, make sure that the mast sections are well aligned and are not twisted. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Visually check each mast bolt to make sure that they are all in place and properly secured. \</td>
</tr>
<tr>
<td><strong>Wall ties</strong></td>
<td></td>
<td>- Visually inspect each anchor fastener, anchor bolt, wallmount and dual clamp and make sure that each is properly fastened or tightened.</td>
</tr>
<tr>
<td><strong>Operation</strong></td>
<td></td>
<td>- Make sure that the weather conditions and the wind speed will not affect the operation of the motorized unit. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that the motorized unit and the plank outriggers clear all obstacles (balconies, etc.). \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that the installation and the operation are compliant with local rules and regulations. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that the installation and the operation are compliant with the operator’s manual. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that there is, at all times, a competent and backup competent person to operate the unit.</td>
</tr>
<tr>
<td><strong>Guardrails</strong></td>
<td></td>
<td>- Make sure that all the required guardrails are in place and properly secured. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that there are no fall hazards. \</td>
</tr>
<tr>
<td><strong>Planking</strong></td>
<td></td>
<td>- Make sure that all the planking is properly secured to the motorized unit. \</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Make sure that there are no fall hazards. \</td>
</tr>
</tbody>
</table>
### WEEKLY MAINTENANCE LOG
(to be performed every week by a competent person)

<table>
<thead>
<tr>
<th>Element</th>
<th>OK</th>
<th>Inspection / action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled maintenance</td>
<td></td>
<td>Make sure that all the steps included in the daily maintenance list have been carried out.</td>
</tr>
</tbody>
</table>

### Honda engine
- Perform the recommended weekly maintenance on the 24 HP engine, as per the Honda engine owner’s manual instructions.

### Power pack
- Check for leaks and wear on hydraulic fittings, hoses, pumps and on the engine(s).

### Masts
- Visually inspect each rack and make sure that it is clear of debris.
- Make sure that all the racks are aligned properly.
- Visually inspect all the mast tubes for excessive wear or damage.
- Grease the rack(s) with Chevron open gear lubricant (part # A0560001-0000).

### IDENTIFICATION RECORD

<table>
<thead>
<tr>
<th>Model</th>
<th>Motorized unit serial number</th>
<th>Power pack serial number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Company name</th>
<th>Address</th>
<th>City</th>
<th>State/Province</th>
<th>Country</th>
<th>Zip/Postal Code</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Job site</th>
<th>Address</th>
<th>City</th>
<th>State/Province</th>
<th>Country</th>
<th>Zip/Postal Code</th>
</tr>
</thead>
</table>

### Comments

<table>
<thead>
<tr>
<th>Name of competent person (IN PRINT)</th>
<th>Date of inspection</th>
<th>Hours of operation displayed on counter</th>
</tr>
</thead>
</table>

| Signature of competent person | |
|--------------------------------| |
# Monthly Maintenance Log

**MONTHLY MAINTENANCE LOG**

(to be performed every month by an authorized technician)

## Identification Record

<table>
<thead>
<tr>
<th>Element</th>
<th>OK</th>
<th>Inspection / action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled maintenance</td>
<td></td>
<td>Make sure that all the steps included in the daily and weekly maintenance lists have been carried out.</td>
</tr>
<tr>
<td>Honda engine</td>
<td></td>
<td>Perform the recommended monthly maintenance on the 24 HP engine, as per the Honda engine owner's manual instructions.</td>
</tr>
</tbody>
</table>

## Element

<table>
<thead>
<tr>
<th>Element</th>
<th>OK</th>
<th>Inspection / action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled maintenance</td>
<td></td>
<td>Make sure that all the steps included in the daily and weekly maintenance lists have been carried out.</td>
</tr>
<tr>
<td>Honda engine</td>
<td></td>
<td>Perform the recommended monthly maintenance on the 24 HP engine, as per the Honda engine owner's manual instructions.</td>
</tr>
</tbody>
</table>

## Comments

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

It is **mandatory** that any inspection or maintenance operation scheduled to be performed once a month be carried out by an appropriately trained and competent authorized technician.
## Four-monthly Maintenance Log

*(to be performed every four months by an authorized technician)*

### Identification Record

<table>
<thead>
<tr>
<th>Element</th>
<th>OK</th>
<th>Inspection / action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorized unit serial number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power pack serial number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State/Province</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zip/Postal Code</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Signature of authorized technician**

---

<table>
<thead>
<tr>
<th>Name of authorized technician (IN PRINT)</th>
<th>Date of inspection</th>
<th>Hours of operation displayed on counter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Comments**

---

**Honda engine**

- Perform the recommended maintenance scheduled for *every four or six months* on the 24 HP engine, as per the Honda engine owner’s manual instructions.

**Power pack**

- Change the hydraulic oil filter.
- Check the oil pressure on all hydraulic ports.

**Power train**

- Check the oil level in all planetary reducers and refill if required; use SAE 80W/90 gear oil.

---

*It is mandatory* that any inspection or maintenance operation scheduled to be performed every four months be carried out by an appropriately trained and competent authorized technician.
# YEARLY MAINTENANCE LOG

(to be performed every year by an authorized technician)

<table>
<thead>
<tr>
<th>IDENTIFICATION RECORD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td><strong>Motorized unit serial number</strong></td>
</tr>
<tr>
<td><strong>Power pack serial number</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job site</td>
<td>City</td>
</tr>
<tr>
<td></td>
<td>State/Province</td>
</tr>
<tr>
<td></td>
<td>Country</td>
</tr>
<tr>
<td></td>
<td>Zip/Postal Code</td>
</tr>
</tbody>
</table>

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**Signature of authorized technician**

<table>
<thead>
<tr>
<th>Name of authorized technician</th>
<th>Date of inspection</th>
<th>Hours of operation displayed on counter</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(IN PRINT)</em></td>
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</tbody>
</table>

**Comments**

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**HYDRO MOBILE**

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<table>
<thead>
<tr>
<th>Element</th>
<th>OK</th>
<th>Inspection / action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled maintenance</td>
<td></td>
<td>Perform all the steps included in the daily, weekly, monthly and four-monthly maintenance lists.</td>
</tr>
<tr>
<td>Honda engine</td>
<td></td>
<td>Perform the recommended yearly maintenance on the 24 HP engine, as per the Honda engine owner’s manual instructions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inspect the structure for any welding defects, damaged parts and excessive rust or corrosion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clean the oil cooler.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check the battery and the charging system.</td>
</tr>
<tr>
<td>Base pedestal and base pedestal extension</td>
<td></td>
<td>Inspect the structure for any welding defects, damaged parts and excessive rust or corrosion.</td>
</tr>
<tr>
<td>Main trolley</td>
<td></td>
<td>Inspect all the rollers for misalignment and excessive wear.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check the bearings and the retaining rings.</td>
</tr>
<tr>
<td>Power train</td>
<td></td>
<td>Check all the planetary reducers and make sure that all fixing and connection bolts on the drive units are tightened properly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change the planetary reducer gear oil; use Sunoco Challenge GBP 220; do not use in planetary reducer brake; check for any leaking seals and replace them if required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change the planetary reducer brake oil; use Tribospec TDH-W 32; do not use in planetary reducer gear box; check for any leaking seals and replace them if required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inspect all the rollers for misalignment and excessive wear.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check the bearings and the retaining rings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inspect all the pinions for excessive wear.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inspect all the pinions for excessive wear.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjust the alignment of the pinions with the rack.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Align and adjust the gear-rack spacing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inspect the structure for any welding defects, damaged parts and excessive rust or corrosion.</td>
</tr>
<tr>
<td>Control panel</td>
<td></td>
<td>Check all the electrical cables and plugs for wear and make sure that they are free of any imperfection; spray all the connections with Dielectric grease.</td>
</tr>
<tr>
<td>Overspeed safety device</td>
<td></td>
<td>Perform a drop test to ensure that the overspeed safety device is working properly.</td>
</tr>
<tr>
<td>Main frame</td>
<td></td>
<td>Inspect the structure for any welding defects, damaged parts and excessive rust or corrosion.</td>
</tr>
<tr>
<td>Bridges</td>
<td></td>
<td>Inspect all the bridges for welding defects, damaged parts and excessive rust or corrosion.</td>
</tr>
<tr>
<td>Masts</td>
<td></td>
<td>Inspect all the racks for excessive wear.</td>
</tr>
<tr>
<td>Wall ties</td>
<td></td>
<td>Inspect the wall ties for any welding defects, damaged parts and excessive rust or corrosion.</td>
</tr>
</tbody>
</table>

It is **mandatory** that any inspection or maintenance operation scheduled to be performed every year be carried out by an appropriately trained and competent authorized technician.
Hydraulic Diagram – Model F100

LEVEL GAUGE
MANUAL PUMP
(EMERGENCY DESCENT)

OVERSPEED SAFETY DEVICE
MANUAL PUMP TEST KIT
TEST VALVE FOR OVERSPEED SAFETY DEVICE

BLOCK #2

2ND STEP – OUTLET BALL VALVE
(EMERGENCY DESCENT)

PRESSURE TRANSDUCER:
2300 PSI – 159 bar (UP)
2100 PSI – 145 bar (DOWN)
600 – 900 PSI
41 bar – 62 bar

BLOCK #1

COOLER

300 PSI – 21 bar
500 PSI – 34 bar
2600 PSI – 179 bar
2200 PSI – 152 bar
120°F – 49°C

7.5 GPM – 28.3 l/min

BLEEDER 2
BLEEDER 1

SHUTOFF VALVE

3RD STEP BRAKE BALL VALVE (EMERGENCY DESCENT)

1ST STEP – INLET BALL VALVE (EMERGENCY DESCENT)

BRAKE

7.5 GPM – 28.3 l/min

160°F – 71°C

OIL DRAINER VALVE

MAGNETIC DRAIN FITTING

MAGNETIC DRAIN FITTING

DECEL GAUGE

Hydraulic Diagram - Model F100
Troubleshooting and Operating Procedures

A – Inclinometer ±5 degrees indicator light troubleshooting procedure

EVENT: The inclinometer ±5 degrees indicator light is flashing slowly (once / second) on the control panel.
DESCRIPTION: This indicates a problem with the inclinometer plugged into the #1 inclinometer outlet on the control panel.

EVENT: The inclinometer ±5 degrees indicator light is flashing quickly (twice / second) on the control panel.
DESCRIPTION: This indicates a problem with the inclinometer plugged into the #2 inclinometer outlet on the control panel.

Terminator plug plugged into the control panel inclinometer outlets 1 and 2

Motorized unit is operational

Motorized unit is used in twin mast configuration

Terminator plug plugged into the control panel inclinometer outlet

Inclinometer plugged into the control panel

Inclinometer ±5 degrees indicator light is flashing

Inclinometer ±2 degrees indicator light is flashing

Both ±2 and ±5 degrees indicator lights are not flashing

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Follow the emergency descent procedure

Higher side of setup can go DOWN to bring platform back to level

Lower side of setup can go UP to bring platform back to level

Faster side of setup slows down from 2nd to 1st speed or from 1st to stop

Motorized unit is operational

One of these statements is true

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Motorized unit is used in twin mast configuration

Both sides of setup are level

Adjust the inclinometer until both the inclinometer ±2 and ±5 degree indicator lights turn off

±5 degrees indicator light is flashing

±2 degrees indicator light is flashing

Both ±2 and ±5 degrees indicator lights are not flashing

Motorized unit is at lowest level

Refer to the inclinometer ±5 degrees indicator light troubleshooting procedure

Motorized unit is used in a twin mast configuration

Motorized unit is operational

Higher side of setup can go DOWN to bring platform back to level

Lower side of setup can go UP to bring platform back to level

Slower side of setup keeps moving

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Motorized unit is operational

Both ±2 and ±5 degrees indicator lights are not flashing

Follow the emergency descent procedure

Higher side of setup can go DOWN but not UP

Lower side of setup can go UP but not DOWN

Both sides of setup are level

Adjust the inclinometer until both the inclinometer ±2 and ±5 degree indicator lights turn off

Motorized unit is operational

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Follow the emergency descent procedure

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No
C – High oil temperature indicator light troubleshooting procedure

High oil temperature indicator light is flashing slowly (once / second) and motorized unit can only operate in first (low) speed

Stop operation and wait 10 to 15 minutes with engine running to let the oil cool down

High oil temperature indicator light is flashing again

Check load and duty cycle of operation of motorized unit

No

Motorized unit is operational

Call a Hydro mobile authorized technician to discuss situation

No

Bring motorized unit down to base pedestal level

Yes

Resume operation

No

High oil temperature indicator light is still flashing

Call a Hydro mobile authorized technician to discuss situation

D – Bridge link door indicator light troubleshooting procedure (F300 only)

Bridge link door indicator light is flashing slowly (once / second)

Motorized unit is used in linked configuration

Check and make sure the link control switch is at the YES (linked) position on both control panels

Yes

Motorized unit is operational

No

Bridge link door is closed

Close the bridge link door

No

Motorized unit can be moved

Yes

Use emergency descent procedure to lower motorized unit to base pedestal level

No

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Yes

Bridge link door indicator light is still flashing

Stop operation of motorized unit and call a Hydro Mobile authorized technician

No

Check bridge link door stopper adjustment

Bridge link door frame is close enough to proxy sensor

Yes

Adjust door stopper so that bridge link door is close to proxy switch

No

Motorized unit is operational

Yes
Troubleshooting and Operating Procedures

E – Low oil level indicator light troubleshooting procedure

1. Low oil level indicator light is flashing slowly (once / second) on the control panel
   - Motorized unit is at base pedestal level
     - Motorized unit cannot be moved
       - Make sure engine is shut down
     - Check hydraulic oil level
       1. Pull the dipstick out on the top of the left plastic hood
       2. Wipe the blade and reinsert it in the tank
       3. Pull the dipstick out again and check if the hydraulic oil level is adequate
     - Hydraulic oil level is adequate
       - Use emergency descent procedure to bring motorized unit to base pedestal level
         - Stop operation of motorized unit and call a Hydro Mobile authorized technician
     - There is a hydraulic leak
       - Adjust hydraulic oil level
         - If there is too much oil, open the valve at the very bottom of the unit slightly to drain excess of oil.
     - Stop operation of motorized unit and call a Hydro Mobile authorized technician
       - Close the oil inlet valves at the bottom of the tank tubes to limit spills.
       - Evacuate platform, use job site specific emergency evacuation plan
         - Stop operation of motorized unit and call a Hydro Mobile authorized technician
   - Low oil level indicator light is still flashing
     - Motorized unit is operational
       - Report the leak so it can be fixed
     - Gasoline tank can be refilled
       - Follow the emergency descent procedure to bring the motorized unit to base pedestal level
         - Stop operation of motorized unit and call a Hydro Mobile authorized technician
   - It is possible to adjust oil level
     - Check the oil level using the dipstick.
     - Low oil level indicator light is still flashing
       - Stop operation of motorized unit and call a Hydro Mobile authorized technician
   - Gasoline level is low and gasoline tank must be refilled
     - Gasoline tank can be refilled
     - Stop operation of motorized unit and call a Hydro Mobile authorized technician
     - Close the oil inlet valves at the bottom of the tank tubes to limit spills.
Troubleshooting and Operating Procedures
G – High pressure hydraulic system troubleshooting procedure

High pressure hydraulic system indicator light is flashing or remains lit on the control panel

Quick flash (twice/second) → Remains lit (F300 only)

Check the load on the platform and make sure it does not exceed rated capacity for configuration

Check and make sure both engines are running at full throttle (F300 only)

Slow flash (once/second) (F300 only)

Platform is overloaded

Correct situation and load according to the capacity chart

Indicated light is still flashing

Motorized unit is operational

Motorized unit is operational

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Troubleshooting and Operating Procedures
H – Trolley link indicator light troubleshooting procedure (F300 only)

Trolley link indicator light is flashing or remains lit

Check if an event indicator light is flashing or lit on the control panel on the remote side. Look for the source of the problem on the remote side.

Check and make sure the link control switch is at the YES (linked) position on both control panels

Check and make sure the remote control panel is powered and that the remote engine is running

Check and make sure the link control switch is at the NO (unlinked) position on both control panels

Check and make sure that the trolley link and communication cable are removed

Motorized unit is operational

Motorized unit is operational

Stop operation of motorized unit and call a Hydro Mobile authorized technician

Indicator light is still flashing

Motorized unit is operational

Motorized unit is operational

Check and make sure that both engines are running at the same rpm

Check and make sure the link control switch is at the YES (linked) position on both control panels

Check and make sure that the trolley link is in place

Motorized unit is operational

Motorized unit is operational
Troubleshooting and Operating Procedures

I – Top/bottom final limit indicator light troubleshooting procedure

**EVENT:** Top/Bottom final limit indicator light is flashing **slowly** (once / second) on the control panel.
**DESCRIPTION:** This indicates the warning is related to the bottom final limit.

**EVENT:** Top/Bottom final limit indicator light is flashing **quickly** (twice / second) on the control panel.
**DESCRIPTION:** This indicates the warning is related to the top final limit.

Where is the motorized unit?

- Stop operation of motorized unit until the problem is resolved. There is a problem with Top/Bottom limit proxy circuit.

Other

- Check to see if there is something blocking one of the final limit proxies.
  - **Yes**
    - Motorized unit can be brought down normally.
  - **No**
    - Remove the obstacle.

Something is blocking the switches

- Go down to base pedestal level and stop operation of motorized unit until the problem is resolved. There is a problem with the Top/Bottom limit proxy circuit.
  - **Yes**
    - Motorized unit is operational.
  - **No**
    - Stop operation of motorized unit and call a Hydro Mobile authorized technician.

Top/Bottom final limit switch light is still flashing

- Follow the emergency descent procedure.

Motorized unit can be brought down normally

- Stop operation of motorized unit and call a Hydro Mobile authorized technician.

Motorized unit is operational

J – Overspeed safety device troubleshooting procedure (F300 only)

**EVENT:** The overspeed safety device warning light is flashing **slowly** (once/second) on the control panel.
**DESCRIPTION:** This warning indicates that the local (1) overspeed safety device is engaged.

**EVENT:** The overspeed safety device warning light is flashing **quickly** (twice/second) on the control panel.
**DESCRIPTION:** This warning indicates that the remote (2) overspeed safety device is engaged (model F200 only).

**EVENT:** The overspeed safety device warning light is flashing on the control panel and the engine on the same side where the overspeed safety device has engaged should shut down automatically.

**DESCRIPTION:**
- **Yes**
  - Motorized unit is operational.
  - Go down to base pedestal level and stop operation of motorized unit until the problem is resolved. There is a problem with the Top/Bottom limit proxy circuit.
- **No**
  - Stop operation of motorized unit and call a Hydro Mobile authorized technician.

Evacuate motorized unit using job site specific emergency evacuation plan

Overspeed safety device re-engagement / override is only possible by an authorized / qualified technician.
K – Top/bottom limit indicator light troubleshooting procedure

**EVENT:** Top/bottom limit indicator light is flashing slowly (once/second) on the control panel.
**DESCRIPTION:** This indicates the warning is related to the bottom limit.

**EVENT:** Top/bottom limit indicator light is flashing quickly (twice/second) on the control panel.
**DESCRIPTION:** This indicates the warning is related to the top limit.

**Where is the motorized unit?**
- Motorized unit can go down
  - Follow the emergency descent procedure.
- Motorized unit can go up
  - Lower the motorized unit to base pedestal level.
- Motorized unit is operational

**Is indicator light flashing slowly?**
- Quick flash
  - Indicator light indicates that motorized unit at bottom limit; the motorized unit cannot go lower.
- Slow flash
  - Something is blocking the bottom limit proxy.
  - Remove the obstacle.
  - Motorized unit can be brought down normally.
  - Indicator light is still flashing.
  - Follow the emergency descent procedure.
- Stop operation of motorized unit and call a Hydro Mobile authorized technician.
- Motorized unit cannot go any further in that direction. The installation was intended that way.
  - Motorized unit is operational.

**Is indicator light flashing quickly or slowly?**
- Quick flash
  - Indicator light indicates that motorized unit is at top limit; the motorized unit cannot go higher.
- Slow flash
  - Something is blocking one of the switches.
  - Motorized unit can be brought down normally.
  - Indicator light turns off.
  - Pull the lower lever up.
  - Indicator light turns off.
  - Follow the emergency descent procedure.
- Follow the emergency descent procedure.

L – Emergency descent indicator light troubleshooting procedure

**The emergency descent indicator light is flashing slowly (once/second) on the control panel**

**Emergency descent procedure initiated**

**Engine has stopped and motorized unit cannot move**

**Emergency descent procedure initiated**

**Remove left-hand plastic panel of motorized unit protective cover**

**There are three levers behind the plastic panel**

**Lower lever is partially pulled down**

**Indicator light turns off**

**Indicate is not flashing**

**Motorized unit is operational**

**Engine has stopped and motorized unit cannot move**

**Emergency descent procedure initiated**