HYDRO-MOBILE HOIST SYSTEM

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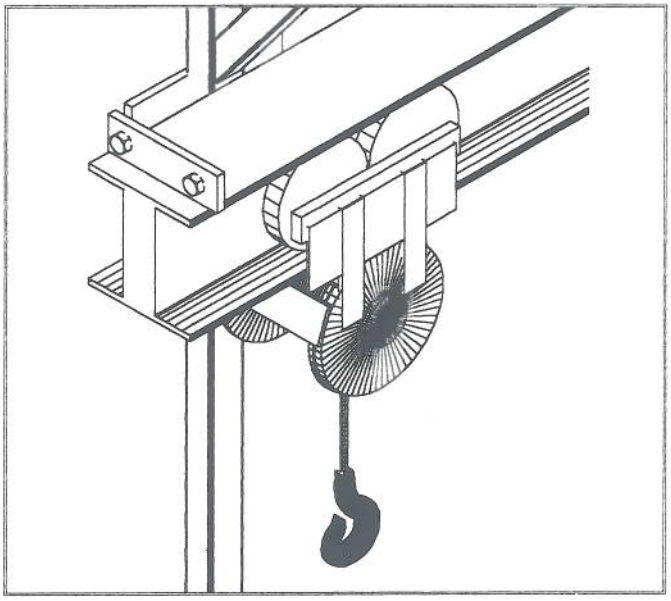
MODEL 4001-01



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HYDRO-MOBILE HOIST SYSTEM

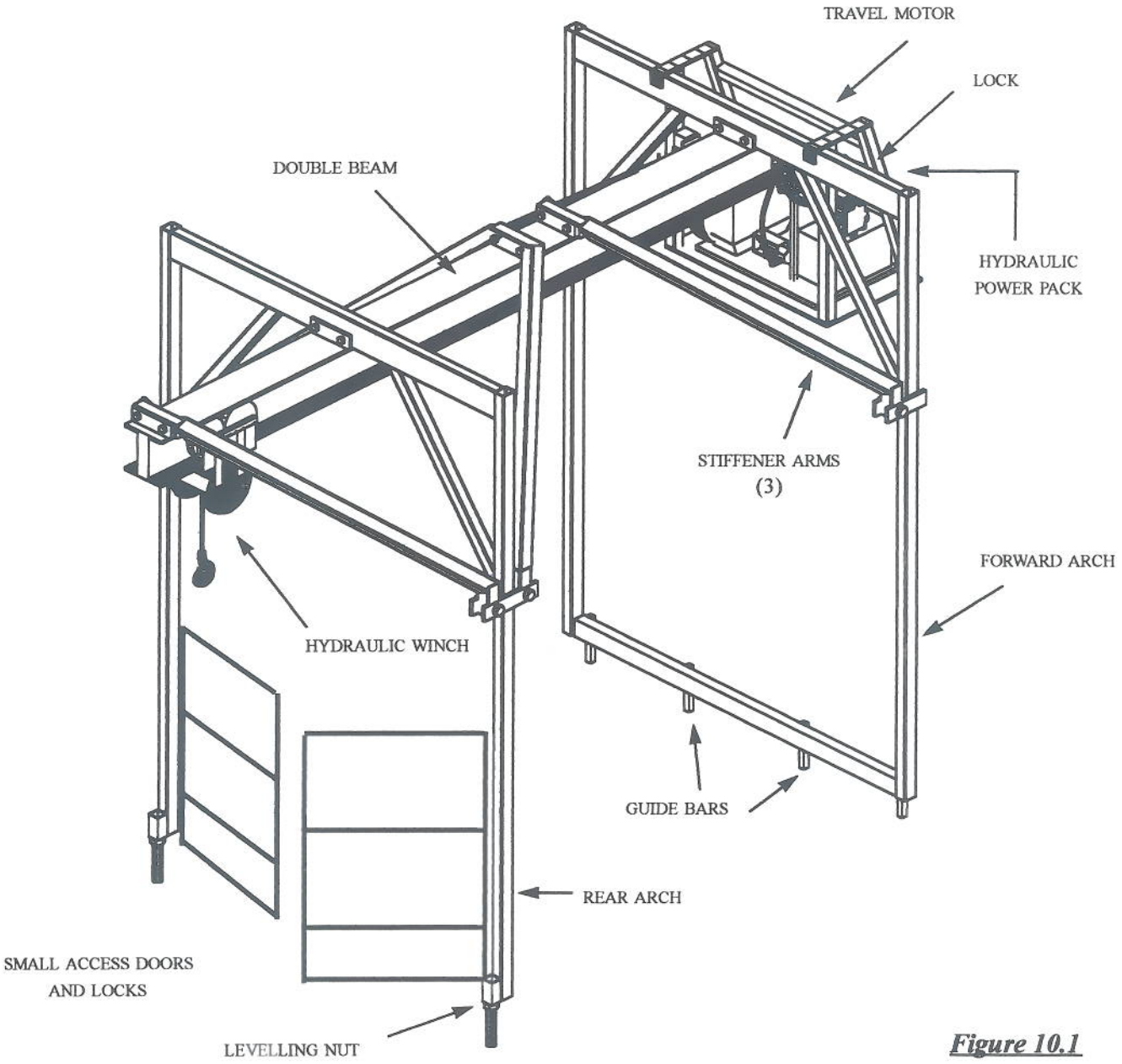


Figure 10.1

4000 LBS NOMINAL CAPACITY
125 FT 3/8" CABLE

A - DESCRIPTION OF THE HYDRO-MOBILE HOIST SYSTEM:

The supply of materials to the work platform can represent a difficult and expensive task.

Avant-Garde has designed a hoisting system, which can be easily installed on any motorised unit.

It has a nominal **4000 LBS CAPACITY** and comes with **140' OF CABLE** authorizing **125' OF LIFT**.

Cable is anti-gyration type, as well as hooks. It is powered by a smooth and quiet 20 HP two cylinder gasoline engine.

An electric power pack is also available. The travel is motorised for safety and stability.

B - SYSTEM MAIN FEATURES

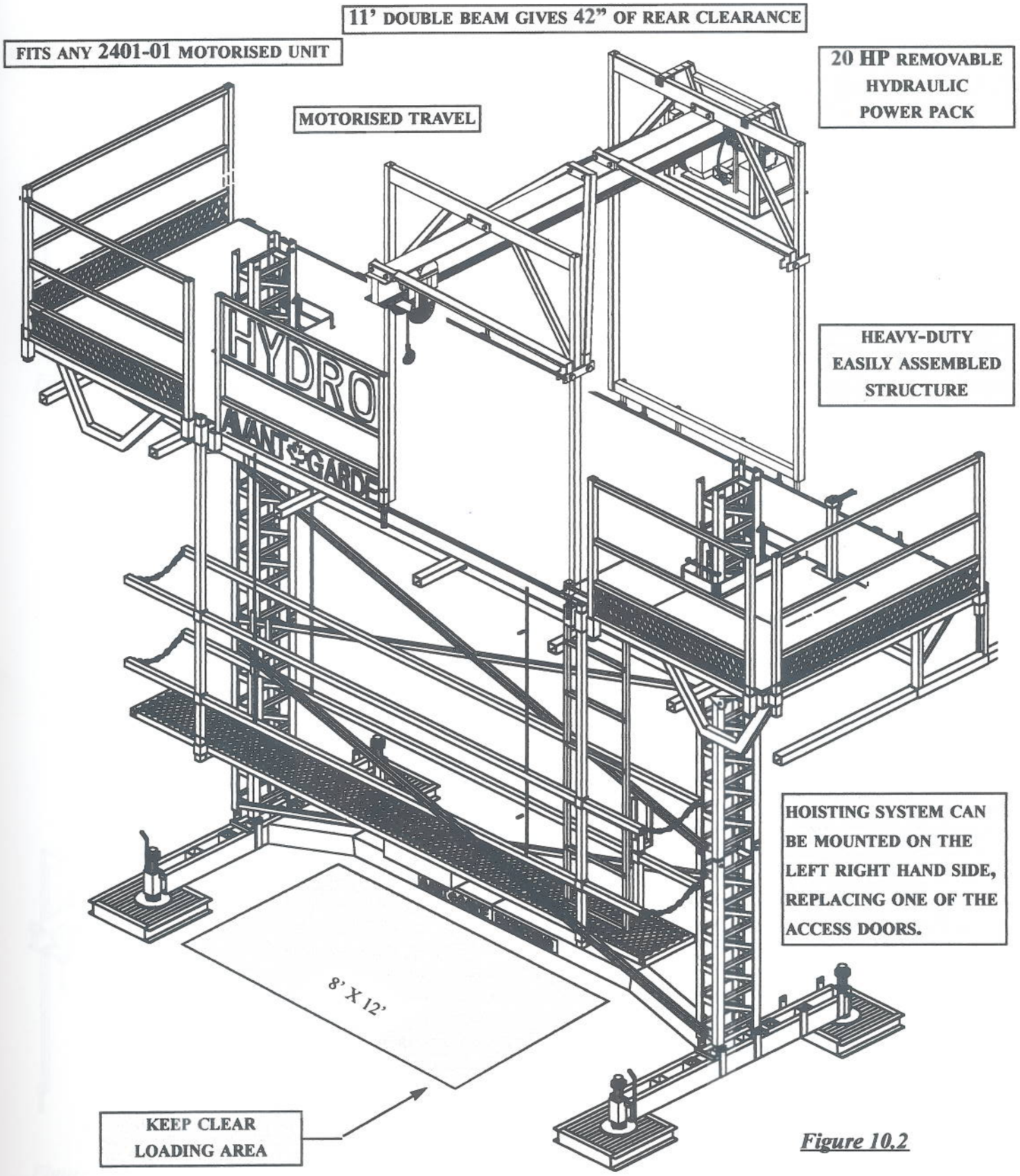


Figure 10.2

C - ASSEMBLY PROCEDURE

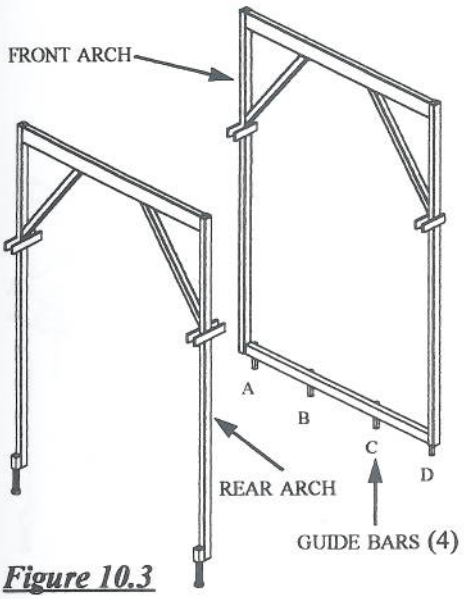


Figure 10.3

STEP 1 *(Figure 10.3)*

1 - **Select:** Forward arch section and position, as shown.

2 - **Select:** Rear arch section (open shape) and position, as per **Figure 10.3**

Notes:

1. **Assembly can be done, on the ground or directly on the unit.**
2. **During assembly, do not tighten bolts until assembly is completed and installed on unit.**
3. **Depending on mounting side, only two guide bars are used, either A - C or B - D. (Figure 10.4)**

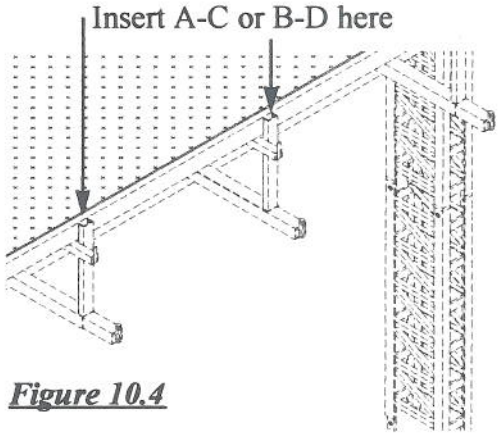


Figure 10.4

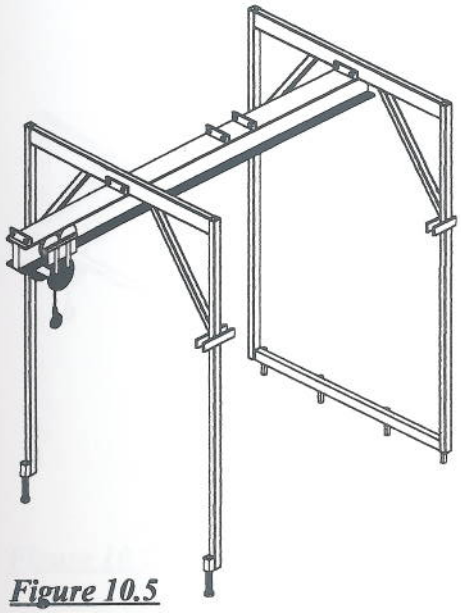


Figure 10.5

STEP 2 *(Figure 10.5)*

1. Lift main double beam from inside structural arches, using a lift truck or crane.
2. Manual installation is not recommended.
3. Bolt beam to forward and rear frame sections.

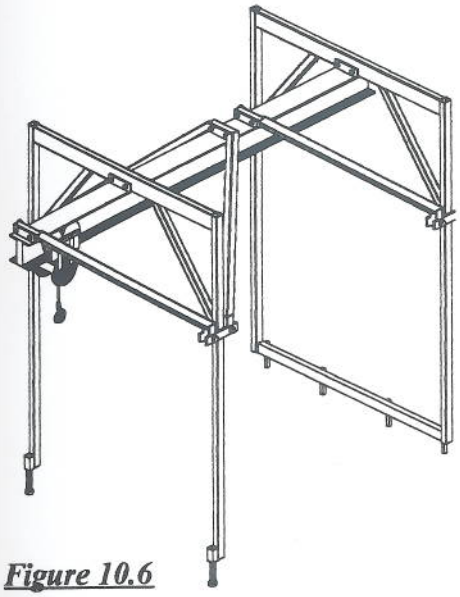


Figure 10.6

STEP 3 *(Figure 10.6)*

1 - Install (3) "V" shaped stiffeners arms.

2 - Two bolts are required for each stiffener at top (over beam) and two at flats provided on verticals of arches.

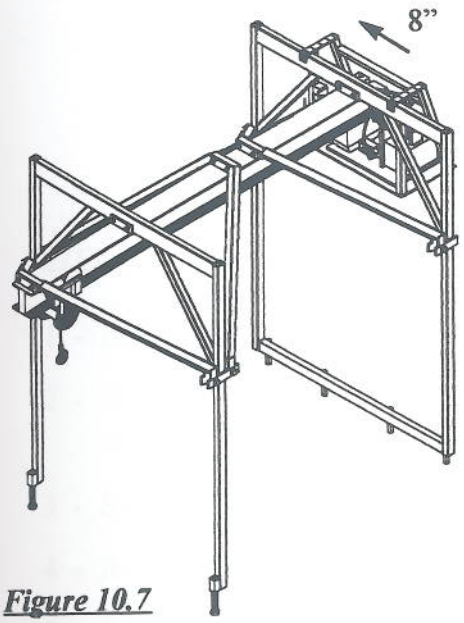


Figure 10.7

STEP 4 *(Figure 10.7)*

1 - Lower hydraulic power pack over top of forward structure.

Note: **Power pack must be pushed to the left, from center position by approximately 8". In this position, safety latch will engage, and the left rest plate will contact with the left structural diagonal.**

WARNING

SYSTEM CANNOT BE OPERATED WITHOUT RETAINING BOLTS

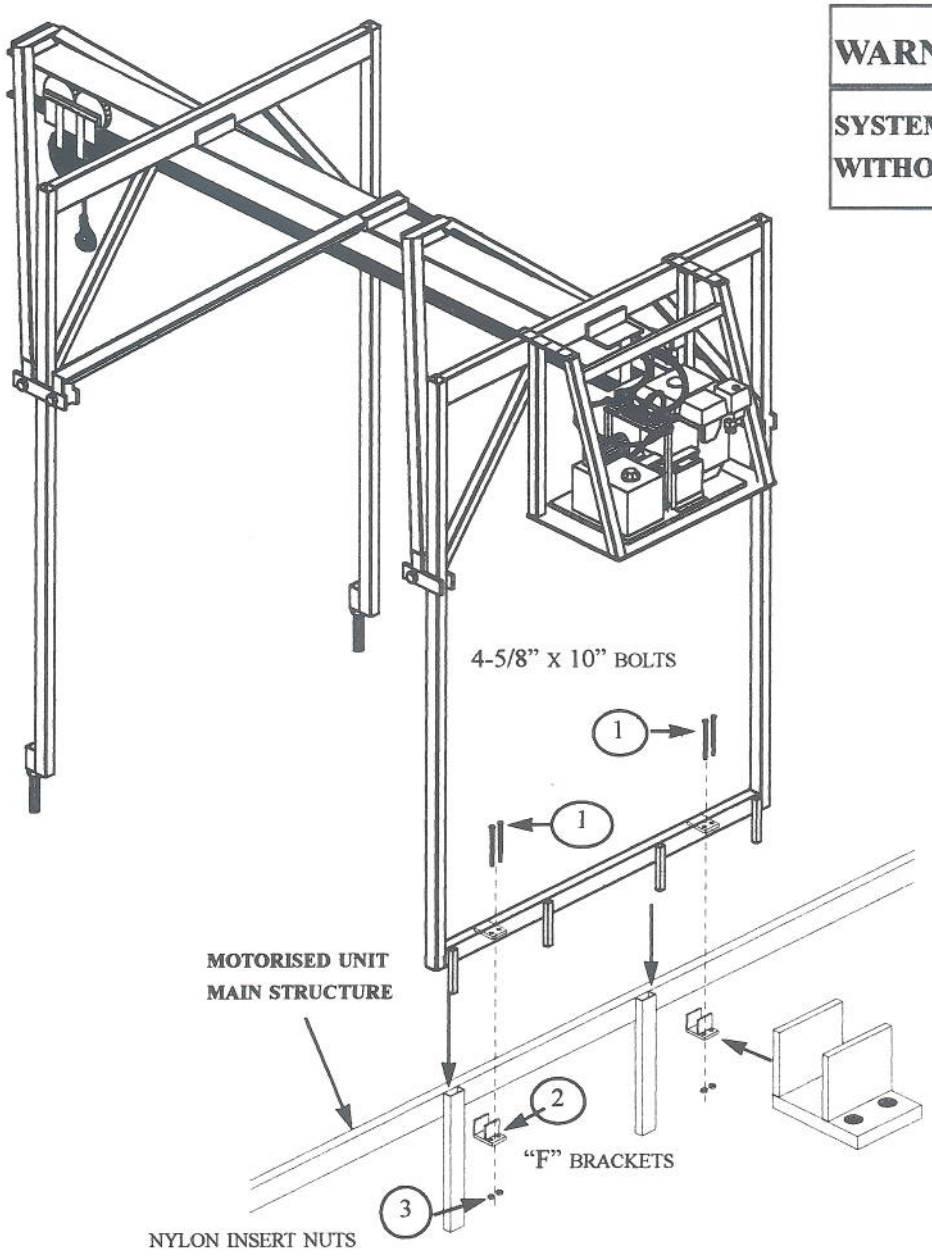


Figure 10.8

STEP 5 *(Figure 10.8)*

1 - Insert bolts through plates (2) welded to front arch.

2 - Align **"F"** brackets and fit around and under structural tube of motorised unit structure.

3 - Screw on nuts.

4 - Repeat for other set, as above

5 - Tighten all (4) bolts.

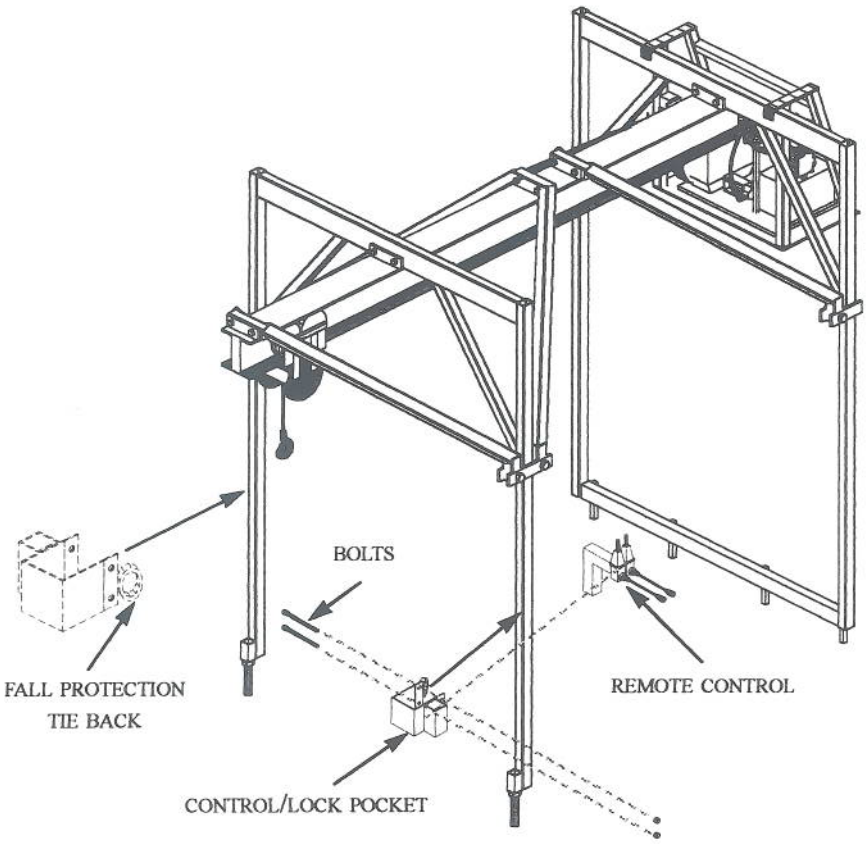


Figure 10.9

STEP 6 *(Figure 10.9)*

PROCEDURE FOR CONTROL AND AUXILIARY DOOR LOCK:

Two pockets are provided with each system.

1 - Install one pocket on each post of the rear archway.

Note: Control/lock pocket should be at outside of arch.

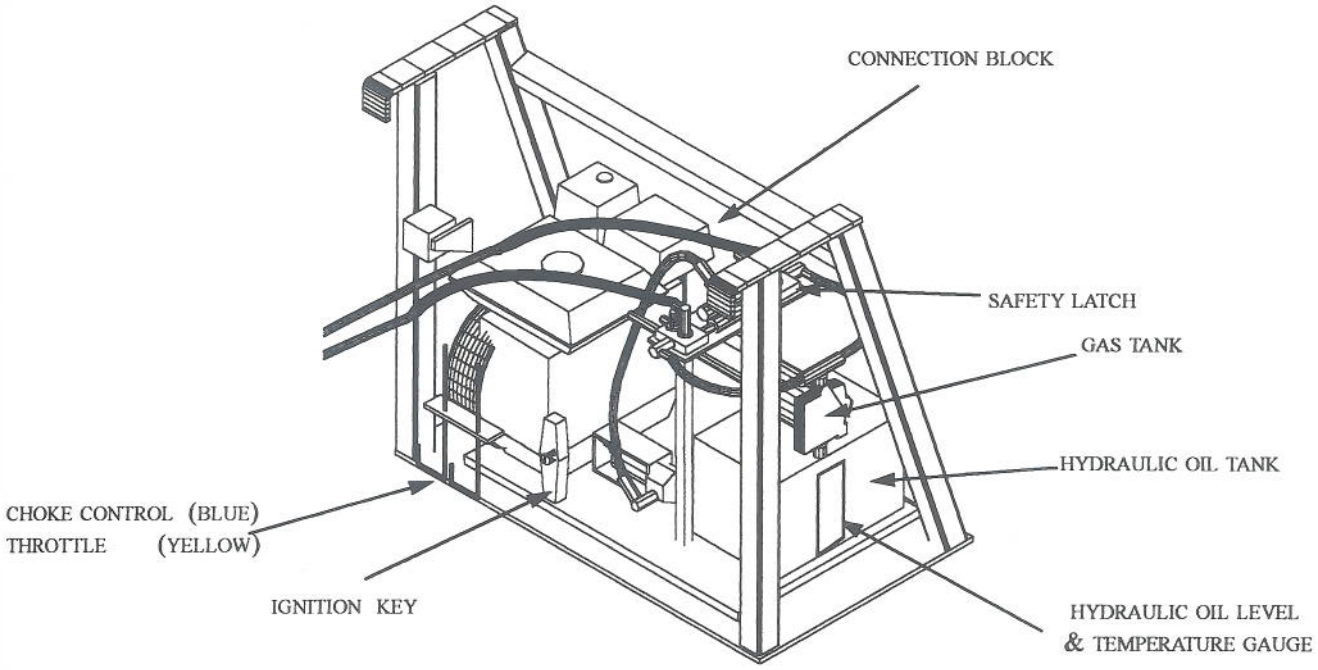
2 - Position control pocket about 12" above guard rail.

3 - Position door lock pocket so that it is level with the remaining access door.

NOTE: A link is provided on each pocket to tie back fall protection devices.

FALL PROTECTION MUST BE USED WHEN OPERATING HOIST SYSTEM.

D - POWER PACK PREPARATION



PREPARATION:

1 - Fill gas tank, set on top of oil reservoir, secure with large rubber band.

2 - Connect gas line to tank.

3 - Check hydraulic fluid level.

4 - Connect winch hydraulic lines to connection block (large male, female quick connects).

5 - Connect hoist drain line (small quick connect, near filter).

6 - Connect travel motor hydraulic lines to connection block (male/female, medium quick connects).

Note: Make sure all connections firmly "CLICK" in place. This is the most frequent cause of malfunction.

PRE-OPERATION CHECK LIST:

a) Make sure all bolts have been tightened.

b) Pay special attention to "F" retaining brackets.

c) Make sure doors are installed, bolted properly and latch is secure.

d) Make sure remaining door on unit locks securely onto auxiliary door lock pocket.

e) Make sure loading area is clear and marked off.

E - SAFETY RECOMMENDATIONS

1 - **When a hoisting system is used, the wall tie schedule must be at every 10', with double ties at every 40' on the unit, where the hoist system is installed and operated.**

2 - Remember to lift vertically only, do not drag load.

Your hoisting system is powerful and improper operation may cause your complete scaffolding system to TIP OVER.

3 - **NEVER USE IT TO SHIFT A LOAD ON THE GROUND.**
Move center of load to line up with hoisting cable.

4 - Do not leave hook on ground as weight is required to accomplish proper reeving of cable on drum.

5 - Check winch from time to time. If reeving is not lined up properly, unwind cable and rewind slowly, guiding cable into position.

6 - Always watch load movement up or down.

7 - **During operation, particularly under heavy lifts, the motorised unit may shift up near wall by 1" to 2".**

Advise work crew to avoid causing panic.

8 - Always start hoisting slowly.

9 - Preferably, use a tie line to guide load from ground.

10 - Your **HYDRO-MOBILE** hoisting system is provided with highest quality **ANTI-GYRATION HOOK** and **CABLE.**

F - OPERATION

1 - Make sure doors are closed and latched.

2 - Conduct all pre-operation checks.

3 - Visually inspect for incumbrances.

4 - Make sure hydraulic lines have no kinks, and are routed properly. Correct if necessary.

5 - Pull choke control **(blue rod).**

6 - Pull throttle about half way **(yellow rod).**

7 - Turn key to start engine (max. 15 seconds).

8 - Repeat if necessary.

9 - Release choke

10 - Adjust RPM between 3/4 and max.

11 - Operate controls to familiarize yourself:

a) **short control lever** activates traverse motor:
Operate up and down to confirm direction

b) **long control lever** activates winch:
Lever up: winch fits
Lever down: winch lowers

c) hoisting and travel speed will vary with position of levers:
Always start slowly

d) the **vernier dial on the control valve** has been factory adjusted for a safe maximum travel speed. If found to be too fast, turn vernier counter clockwise. Make sure not to make this motion **too fast** as jerking may occur.

e) Reduce speed of winch when you are reaching destination.

12 - When raising a load, do not open doors until load has reached platform height.

13 - When lowering, close doors immediately after traversing out.

14 - **Do not leave load tied to hook when on ground:**

a) load could be inadvertently picked up and moved by a lift truck, creating a back pull on the scaffolding unit.

b) if a platform move is attempted, this would create an unstable condition.

15 - Shut off engine when hoist is not used.

HAVE A SAVE PRODUCTIVE DAY !

G - MAINTENANCE

DAILY:

1 - Clean off mortar, cement or any foreign matters, which may have accumulated on hydraulic power.

2 - Check retainer brackets (F brackets), bolts, door locks.

3 - Replenish gas tank and check hydraulic oil level.

4 - Check reeving of hoisting cable.

WEEKLY:

1 - Clean off chain and lubricate with light oil.

2 - Check hydraulic lines and connections.

3 - Check traverse speed and recalibrate if necessary.

4 - Check swivel hook, clean and lubricate.

5 - Inspect cable for damage and cut out damaged section.

6 - Check chain tension, tighten if necessary.

MONTHLY OR WHENEVER HOIST SYSTEM IS MOVED TO A NEW JOB SITE:

1 - Perform all weekly checks.

2 - Clean and lubricate main levelling nuts and 2" threaded rods.

3 - If thread is damaged, repair with a triangular file or hammer and turn nut down and up. Hammering side of nut as it is turned, will clean and straighten threads.

4 - Check engine oil; top or replace as necessary.

5 - Check hydraulic fluid top, using type ISO 32.

6 - Check remote control block and cables, straighten cables, check and tighten lock nuts.

7 - Inspect throttle and choke linkage, tighten tension nut on linkage cams so that throttle (yellow rod) remains down when pulled.

8 - Check battery electrolyte. Top with distilled water if required.

9 - Clean and lubricate trolley wheels.

10 - Clean twin beam to ensure smooth riding of trolley.

11 - Clean and lubricate hoisting cable.

ANNUALLY:

1 - Inspect hoist cable, replace if there is apparent wear. Lubricate with light grease.

2 - Check chain and lubricate.

3 - Check all bolts for looseness, tighten or replace as required.

4 - Replace motor oil filter and change oil.

5 - Replace hydraulic filter and oil.

6 - Inspect gas tank and clean as required.

7 - Clean system thoroughly.

CAUTION:

Always keep hoisting cable clean and lubricated with light grease.
Do not used a cable showing signs of anormal ware. If some braids are broken, cut off the dammaged section. Make sure to secure with all safety attachments, (wedge and security clamp).