

thrusafe®

Modular Platforms

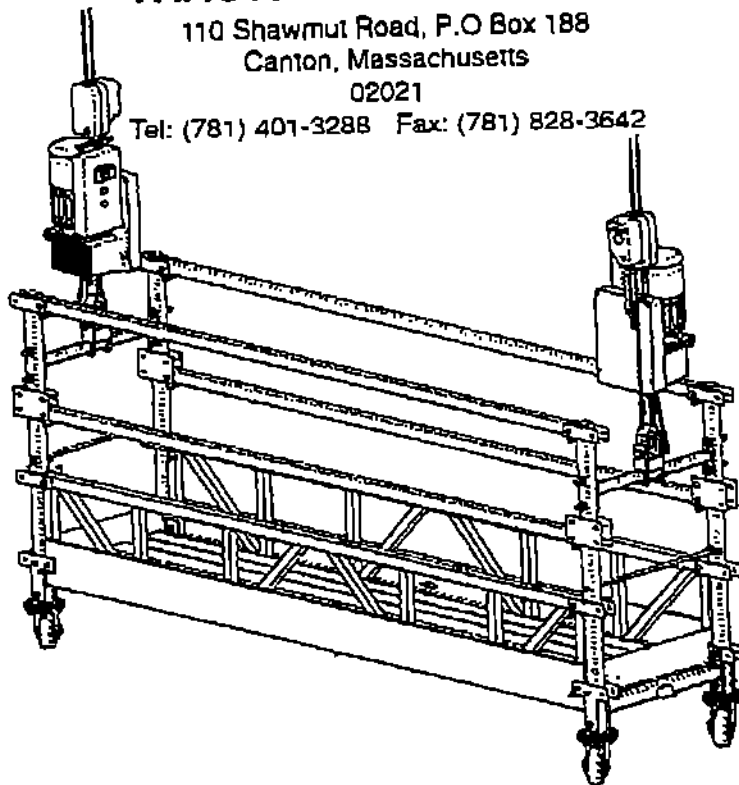
for confined spaces with limited access

assembly and operating manual for

TRACTEL GRIPHOIST Inc.

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As to Load Capacity Only

4005



DRAFT
APRIL 9, 2002



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Modular Platforms

for confined spaces with limited access

**assembly
and
operating
instructions**

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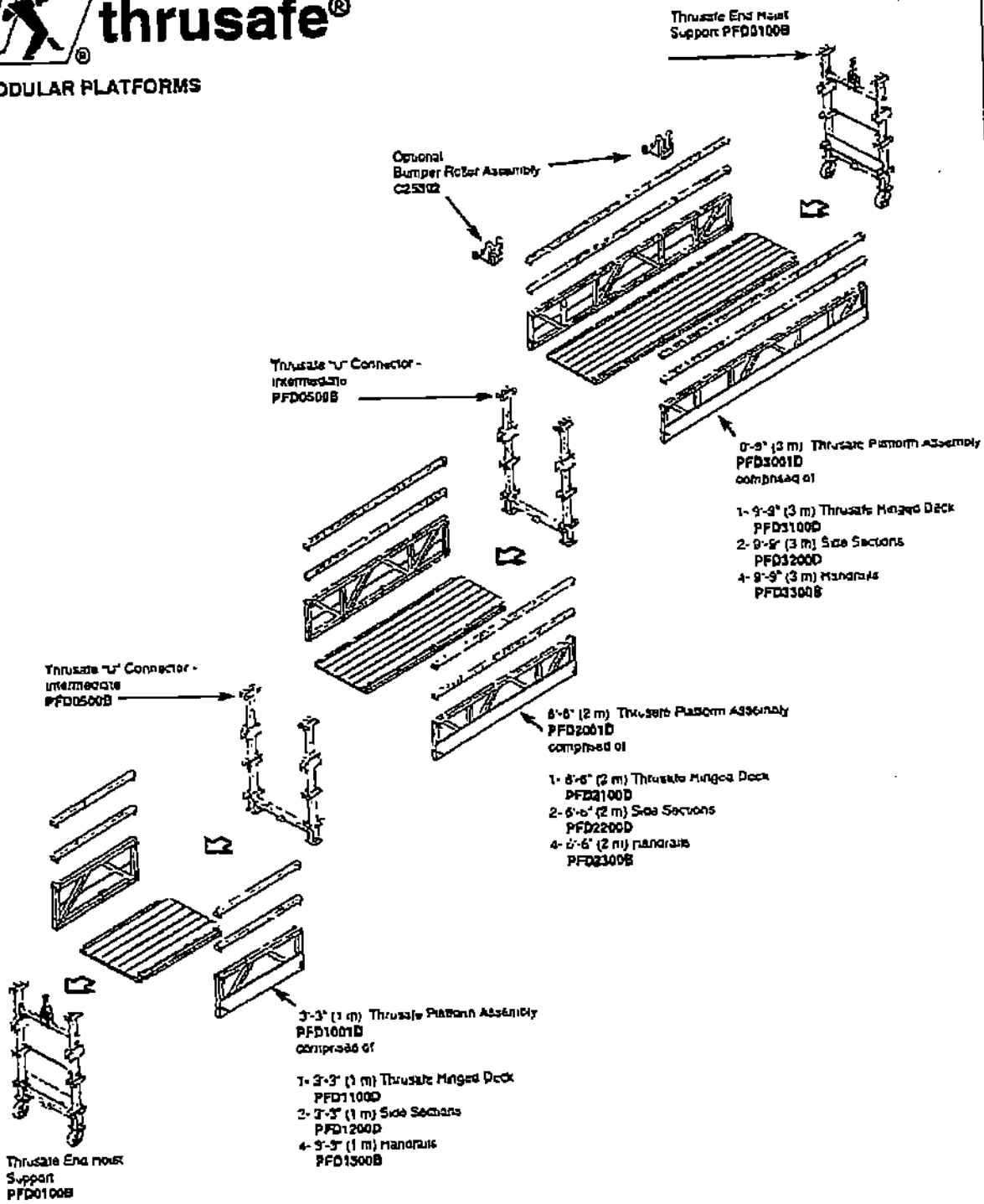
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MODULAR PLATFORMS



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GENERAL WARNING



Read this general warning first.

In suspended platform operations, safety is a matter of life or death for riggers, operators and by-standers. This warning is your share of duties for achieving safety.

YOUR DUTY TO UNDERSTAND AND COMPLY

1. It is the responsibility of the rigger's and the operator's, and their employer's responsibility, if they operate under an employer's control, to strictly conform to the following warnings.
2. It is imperative for safety and efficiency of operations that this manual be read and fully understood by the rigger and the operator before rigging or operating the platform. All instructions contained herein must be carefully and strictly followed, including applicable Tractel safety guidelines.
3. Should you hand over a platform under whatever conditions, to any party operating out of your control, you must attach a clean copy of this manual and draw to other party's attention that strictly following all the instructions therein is a matter of life or death.
4. Before rigging and operating this platform, the rigger and the operator must become aware of all the requirements of federal, state, provincial and local safety regulations not only applicable to the platform but also to the entire suspended scaffold system and any component of it.
5. Never use the scaffold platform for any job other than lifting personnel on suspended scaffold according to the instructions of this manual.
6. Never load the platform above its rated load.

YOUR DUTY TO INSPECT AND MAINTAIN

7. Keep this manual available at all times for easy reference whenever required. Extra copies are available from Tractel and/or your equipment supplier.
8. Carefully take notice of all the labels affixed to the platform. Never rig or operate the platform if any label, normally fixed on it is obscured or missing. Replacement labels are available through Tractel and/or your equipment supplier.
9. Every time the platform is to be rigged or used, check that the platform, hoists, wire ropes and other components of the suspended scaffold system are complete and in good working condition, prior to proceeding.
10. A careful and regular inspection of the platform hoists, wire ropes and other components of the installation is part of the safety requirements. If you have a question, call Tractel and/or your equipment supplier.
11. Maintenance may only be carried out by personnel authorized by Tractel.

12. After each de-rigging and before re-rigging, the platform must be inspected by a competent person familiar with the platform and professionally trained for the purpose.
13. Inspection by persons authorized by Tractel is to be carried out once every six months or every 200 hours.
14. The manufacturer declines any responsibility for consequences of repairs or modifications brought out of its control to the product, specially by replacement of original parts or repairs by another manufacturer.

YOUR DUTY TO TRAIN AND CONTROL PEOPLE

Compliance with safety rules extends to rigging operations which must be carried out only after securing safe conditions of operation as per safety regulations and requirements.

15. An operator must not be assigned to a suspended job or to rigging for a suspended job, or to de-rigging after the job, if that person is not:
 - a) mentally and physically fit for the purpose especially at heights.
 - b) competent for the job to be performed.
 - c) familiar with the scaffold equipment as rigged.
 - d) professionally trained for working under the above requirements.

Except for the operations described in this manual, the maintenance of the platform unit, as well as repair, must be exclusively done by repairers authorized by Tractel. Spare parts used for all equipment must be exclusively in accordance with the serial number of each product. No substitutions are allowed.

16. Never let the platform or other components of a suspended scaffold system be managed or operated by any person other than authorized and assigned to the job. Keep the equipment, either rigged or unrigged, out of reach of unauthorized persons, while out of operation.
17. Training operators and riggers includes setting up rescue procedure should a scaffold be brought to a standstill during a job. Such procedure must be set up by a competent person of the user, or its technical consultant, according to the working conditions, prior to putting the equipment into operation.
18. Every suspended job must be placed under the control of a person having the required competence and authority for checking that all the instructions prescribed by this manual be regularly and efficiently carried out.

YOUR DUTY TO SAFETY BEYOND THE PLATFORM

The Tractel equipment has been specially designed to be fitted with Trak hoists. As being only one piece of a scaffold system, the platform can contribute to the required safety only if:

19. Compatibility of other brands of hoists has been verified & approved by Tractel engineering department.
20. It is fitted on compatible equipment.
21. Other components meet the requirements of the applicable safety regulations and requirements, are of the proper quality, assembled to form a safe and efficient suspended scaffold system and are approved by Tractel engineering department.
22. Every upper support of the scaffold is stable, sufficiently strong and properly tied back to the structure, according to the load either static or dynamic.
23. Supporting structure and tie-backs provide the required to every load to be applied, either static or dynamic, during rigging or operating the scaffold equipment.
24. All the requirements in strength and resistance are obtained with the necessary safety coefficients (see regulations and professional standards).
25. All the calculations, design and subsequent work necessary to meet the above requirements have been made by a competent person on the basis of proper technical information regarding the site.

YOUR DUTY TO AVOID TAKING CHANCES.

26. Once the suspended platform has been lifted off its initial support (ground or any other level), it is imperative not to release, remove, alter or obstruct any part of the equipment under load.
27. **NEVER** allow any condition which would result in a suspension wire rope becoming **SLACK** during the operation unless:
 - a) the suspended platform is safely supported on a safe surface giving a safe access to the operator in compliance with safety regulations
 - b) or unless another suspension wire rope has been safely rigged to the suspension platform
28. Never operate a platform and its accessories, especially electric ones, in a potentially explosive atmosphere.
29. For any job to be performed on the suspended equipment, consider and control the specific risks related to the nature of the job.
30. Should you decide that this platform is no longer to be used, take precautions in disposing of it so that it cannot be used any more.
31. The manufacturer declines any responsibility for any special rigging or structural combinations beyond the descriptions of this manual.
32. The manufacturer declines any responsibility for any other use of the platforms, than described in this manual.

AN ULTIMATE RECOMMENDATION

Never neglect means to improve safety. Due to the risks inherent in the use of suspended scaffolding, it is strongly recommended that every installation be equipped with secondary wire rope(s) fitted with a separate fall arrest system, anchored to a safe separate point of the building structure.

This manual is neither a regulations compliance manual nor a general training guide on a suspended scaffold operations. You must refer to proper instructions delivered by manufacturers of the other pieces of equipment included in your suspended scaffold installation. Whenever calculations and specific rigging and handling are involved, the operator should be professionally trained to that end and secure relevant information prior to commencing such work.

2. TRANSPORT AND HANDLING



CAUTION



Improper shipping of the Platforms will cause damage to the side sections, that the sides will no longer join to the deck section

Always stack the platforms in such a way that the top side section is facing down so no damage can occur to the slot at the bottom where the deck section slips in. See figures A-B

Fig. A - Always stack the knockdown side sections in such a way that the "U" channel faces down! This will prevent damage to the "U" channel when strapped during shipping.

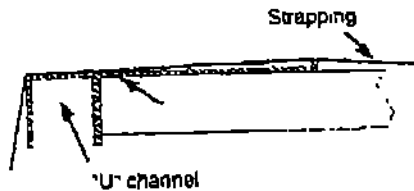
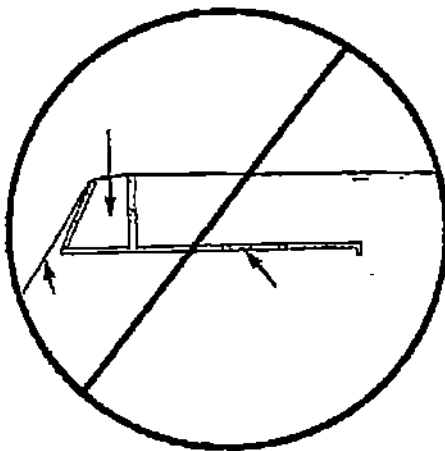


Fig B - If stacked incorrectly the force from the strapping can cause damage the "U" channel of the side section, that the deck section will no longer fit in.



Note: Tape the Ball Lock Pin to the side rail to prevent it from coming loose during shipping.

Components

Shipping Weight

		lbs.	(kg)
9'-8" (3 m) - Thrustate platform* assembly	PFD3001D	163	(83)
6'-6" (2 m) - polar platform* assembly	PFD2001D	132	(60)
3'-3" (1 m) - polar platform* assembly	PFD1001D	65	(30)
Thrustate "U" Connector End Post Support	PFD0100B	80	(36)
Thrustate Platform "U" Connector	PFD0500B	45	(20)

* Includes 1-Deck Section, 2-Seat Sections & 4-Handrails

Handle equipment with care, and prevent wire ropes from becoming kinked. Do not drop equipment during loading or unloading. Impose loads on scaffold gently and without impact

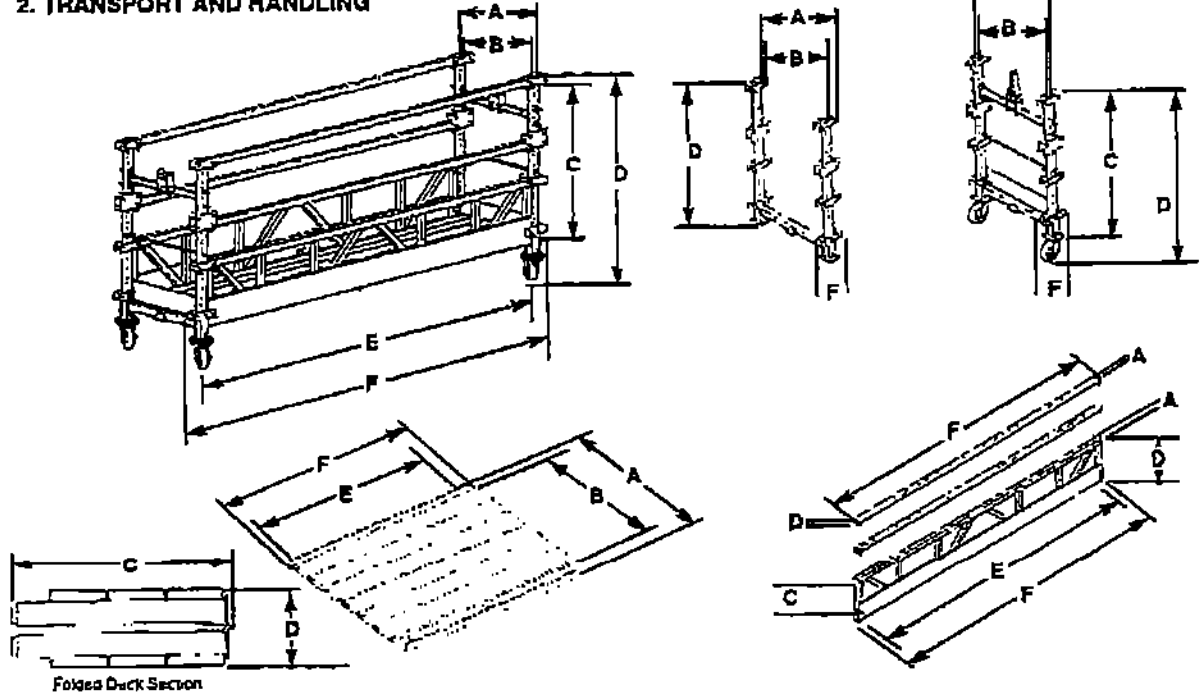


WARNING



If the platform becomes bent as shown, do not use the damaged platform as structural integrity may be lost. Contact a Tractel representative before using the platform!

2. TRANSPORT AND HANDLING



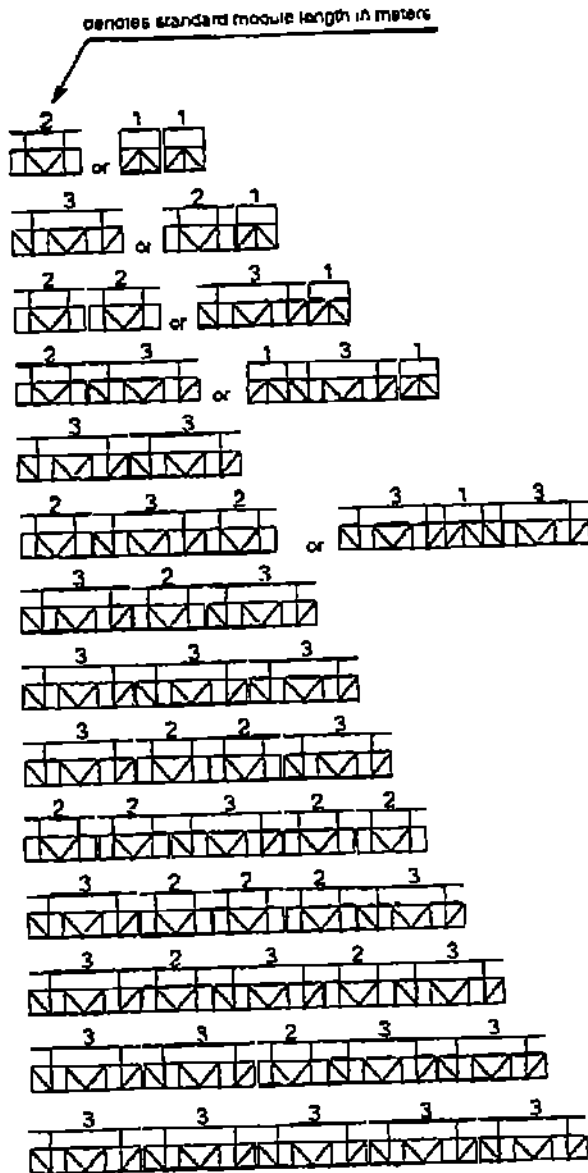
PART No.	Description	A	B	C	D	E	F	LBS	KG
	THRUSAFE - 3m Platforms w/2 U connectors	29"	24 5/8"	40 9/16"	54 1/4"	118"	125 1/4"	183	(83)
	THRUSAFE - 2m Platforms w/2 U connectors	29"	24 5/8"	40 9/16"	54 1/4"	80"	87 1/4"	132	(60)
	THRUSAFE - 1m Platforms w/2 U connectors	29"	24 5/8"	40 9/16"	54 1/4"	39"	46 1/4"	85	(30)
PFD3100D	THRUSAFE - 3m Deck Section	28 1/4"	24 1/4"	14 5/16"	5 1/8"	114 3/4"	117 3/4"	85	(29.5)
PFD3200D	THRUSAFE - 3m Side Section	1 1/2"	-	13"	17 3/16"	113 1/2"	115 1/2"	37	(17)
PFD3300B	THRUSAFE - 3m Handrails	1 3/4"	-	-	1 3/4"	-	115"	11	(5)
PFD2100D	THRUSAFE - 2m Deck Section	28 1/4"	24 1/4"	14 5/16"	5 1/8"	76 3/4"	79 3/4"	46	(21)
PFD2200D	THRUSAFE - 2m Side Section	1 1/2"	-	13"	17 3/16"	74 1/4"	76 1/4"	27	(12)
PFD2300B	THRUSAFE - 2m Handrails	1 3/4"	-	-	1 3/4"	-	77"	8	(4)
PFD1100D	THRUSAFE - 1m Deck Section	28 1/4"	24 1/4"	14 5/16"	5 1/8"	55 3/4"	58 3/4"	23	(10.5)
PFD1200D	THRUSAFE - 1m Side Section	1 1/2"	-	13"	17 3/16"	33 1/2"	35 1/2"	14	(6.4)
PFD1300B	THRUSAFE - 1m Handrails	1 3/4"	-	-	1 3/4"	-	35 1/2"	4	(2)
PFD0500B	THRUSAFE - Platform "U" Connector (3 pcs bolted together)	29"	24 5/8"	-	48 7/16"	-	6 1/2"	45	(20)
PMD0100D	THRUSAFE - Platform "U" Connector End Support (6 pcs bolted together)	29"	24 5/8"	48 5/8"	48 1/16"	-	6 1/2"	80	(36)

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3. TECHNICAL SPECIFICATIONS FOR BOILER PLATFORMS

Fig. 1



3.1 MODULAR COMBINATIONS FOR VARIOUS PLATFORM LENGTHS

3.1.1 PLATFORM WITH END STIRRUPS

Nominal Lengths	(imperial)	(metric)
Platform length:	6'-6"	(2 m)
Platform length:	9'-9"	(3 m)
Platform length:	13'-0"	(4 m)
Platform length:	16'-6"	(5 m)
Platform length:	20'-0"	(6 m)
Platform length:	23'-0"	(7 m)
Platform length:	26'-0"	(8 m)
Platform length:	29'-6"	(9 m)
Platform length:	33'-0"	(10 m)
Platform length:	36'-0"	(11 m)
Platform length:	39'-6"	(12 m)
Platform length:	42'-6"	(13 m)
Platform length:	46'-0"	(14 m)
Platform length:	49'-0"	(15 m)



WARNING: All above units must be used with two point suspension systems!



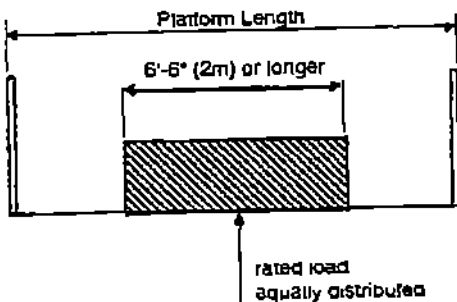
3.2 LOAD RATINGS FOR VARIOUS PLATFORM LENGTHS

3.2.1 Platform with End Straps

LOAD RATINGS FOR VARIOUS PLATFORM LENGTHS					
Nominal Platform Length ft - in (m)		Platform weight with Thrusate Platform End Hoist Support including hoists		Rated Load of the Platform lbs. (kg)**	
6'-6"	(2)	565	(257)**	750	(340)
9'-9"	(3)	601	(273)**	750	(340)
13'-0"	(4)	727	(330)	1000	(450)
16'-6"	(5)	778	(354)	1250	(570)
20'-0"	(6)	829	(377)	1500	(680)
23'	(7)	939	(427)	1500	(680)
26'-0"	(8)	1006	(457)	1500	(680)
29'-6"	(9)	1057	(480)	1500	(680)
33'-0"	(10)	1167	(530)	1260	(570)
36'-0"	(11)	1234	(561)	1000	(450)
39'-6"	(12)	1285	(584)	750	(340)
42'-6"	(13)	1395	(634)	750	(340)
46'-6"	(14)	1462	(665)	750	(340)
49'-0"	(15)	1513	(688)	750	(340)

*Hoist weight assumed to be 125 lb (57 kg) in 2 hoists per platform
 For self-weight of the platform deduct 230 lbs (114kg)
 **Based on 1 platform only

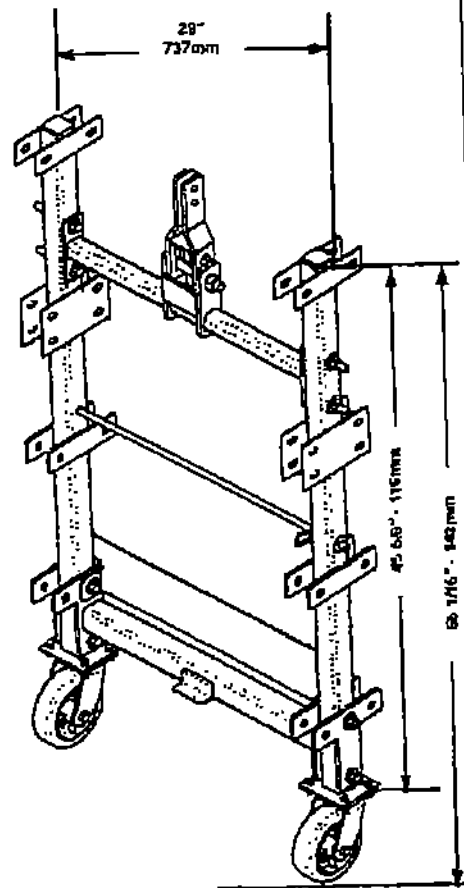
Fig. 4



Note:

The rated load should be located in the center of the platform and distributed over a length of at least 6'-6" (2m). (see Fig. 4 above)
 If the load is offset toward a hoist, do not let it exceed the rated load of the hoist less half the self-weight of the platform from the above table

Fig 5



PFD0100B

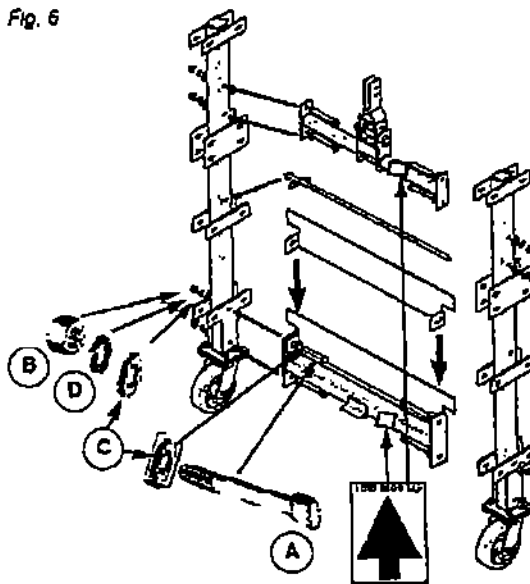
Model Number	Description	Lbs.	Kg.
PFD0100B	End Hoist Support	80	38

4.1 ASSEMBLY OF FOLDED PLATFORM END HOIST SUPPORTS

If required for entry disassemble the Thrusafe "U" Connector End Hoist Support (PFD0100B) and reassemble in the working area.

- a. Assemble the two (PFD0120B) Thrusafe "U" Connector Legs to the (PFD0110B) Thrusafe "U" Connector base (Note: this side up label on the base, the tabs must be toward the ground) and (PFD300B) Thrusafe "U" Connector End Deck with four 1/2" x 4" bolts 13 UNC grade 5 plated (FA0500402), four 1/2" hex nuts 13 UNC grade 5 plated (FN0010502), eight washers (FAX1012) and four locking washers (FAZ0512) Set the PFD300B end deck inside the PFD0110B Base (Note: this side up label on the base, the tabs must be toward the ground) then insert the Bolt (A) with 1 Washer (C) already in place through the End Hoist Support (PFD0120B). Then add the second Washer (C), Locking Washer (D) and Nut (D). Repeat till all four Bolts are in place and tighten securely. See Fig 6
- b. Second connect the (PFD0200B) Thrusafe "U" Connector Hoist Support (Note: this side up label on the Hoist Support, the saddle must be in the upward position), and with four 1/2" x 4" bolts 13 UNC grade 5 plated (FA0500402), four 1/2" hex nut 13 UNC grade 5 plated (FN0010502), eight washer (FAX1012) and four locking washer (FAZ0512) Assemble the hardware in the same sequence as the Connector Base. See Fig 6
- c. Then position the midrail starting from the exterior of the Connector leg and guide through to holes on the first leg and into the second connector leg and lock in place with the hairpin provided.

Fig. 6



- Bolt/Nut Kit**
 A - FA0500402 - 4" x 1/2" Bolt - 13 UNC Grade 5 Plated
 B - FN0010502 - 1/2" Hex Nut - 13 UNC Grade 5 Plated
 C - FAX1012 - Two 1/2" Flat Washer - Plated
 D - FAZ0512 - 1/2" Locking Washer - Plated
- Parts shown are not to scale.

PFD0100B

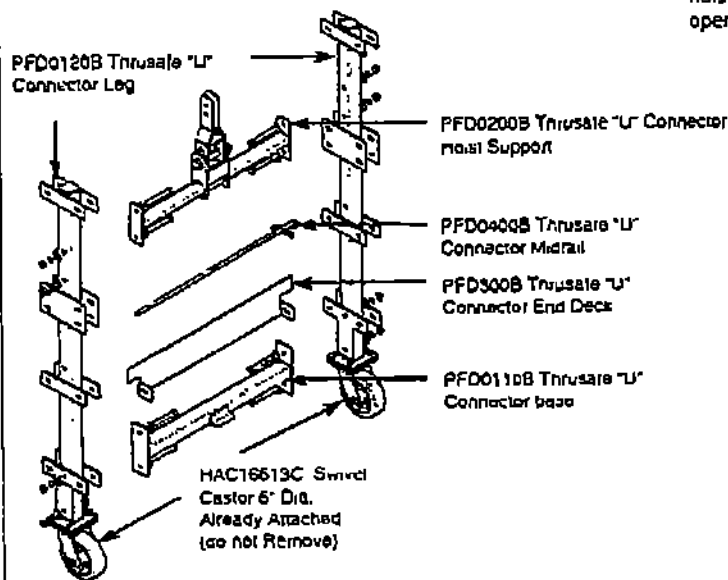
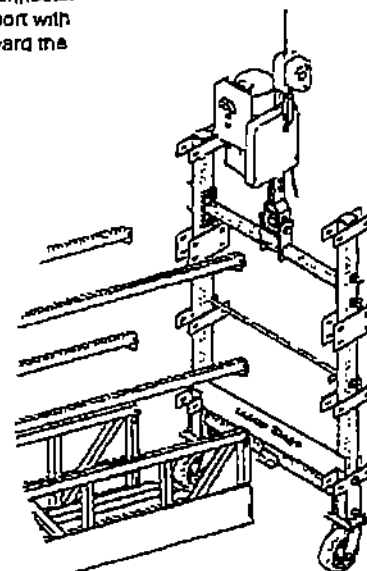


Fig. 7

Thrusafe "U" Connector End Hoist Support with hoist facing toward the operator



4.2 ASSEMBLY OF THE FOLDED PLATFORM "U" CONNECTOR

If required for entry disassemble the Thrusafe "U" Connector End Hoist Support (PFD0100B) and reassemble in the working area

- a. Assemble the two (PFD0120B) Thrusafe "U" Connector Legs to the (PFD0110B) Thrusafe "U" Connector base (Note: this side up label on the base, the tabs must be toward the ground) with four 1/2" x 4" bolts 13 UNC grade 5 plated (FA0500402), four 1/2" hex nuts 13 UNC grade 5 plated (FN0010502), eight washers (FAX1012) and four locking washers (FAZ0512) Insert the Bolt (A) with 1 Washer (C) already in place through the Connector Base (PFD0110B) and Thrusafe "U" Connector Legs (PFD0120B). Then add the second Washer (C), Locking Washer (D) and Nut (D). Repeat till all four Bolts are in place and tighten securely See Fig 8

4.3 ASSEMBLY OF THRUSAFE COMPONENTS INTO MODULAR SECTIONS

Thrusafe Modular Sections are supplied with the deck, two side sections and 4 handrails ready to assemble together Complete with the following mounting hardware 2 ball lock pins, 8 gravity locking pins and 8 Handrail connecting pins These sections allow compact storage, ease of transportation and access through restricted openings.



WARNING



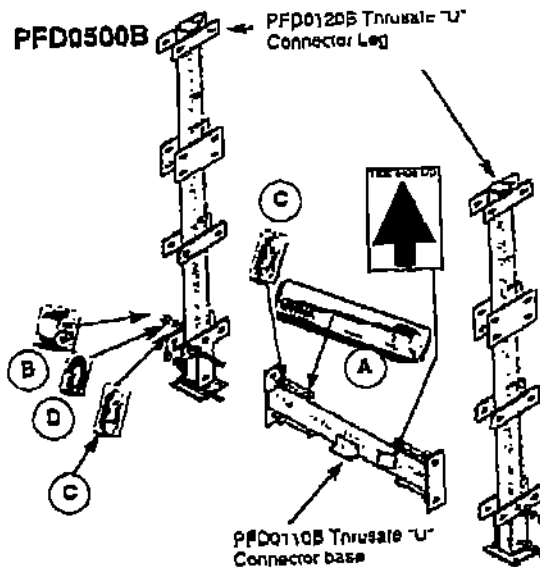
THRUSAFE Modular Platforms are not compatible to other SKYSAFE platforms or platforms made by others.

Thrusafe platforms are easy to assemble.

- 1 Check components before assembly. Four handrails, two side sections and one deck of equal length are required for any of the 1m, 2m & 3m (3'-3", 6'-6" & 9'-9") assemblies.
- 2 Ensure that both the connecting ends of the deck and the slot at the inside of both side section toeboards are free of debris Carefully remove any buildup before assembly
- 3 Inspect Ball Lock Pins for damage prior to installation.
- 4 Connect the side sections to the deck by aligning the provided holes at the toeboard slot (see fig. 8).
- 5 Secure the components together with ball pins provided Do not hammer or force the pins into place.

Once assembled, THRUSAFE Modular Platform sections can be used with other THRUSAFE Modular Knockdown Platform sections only if Thrusafe "U" Connector PFD0500B is used at the intermediate connection.

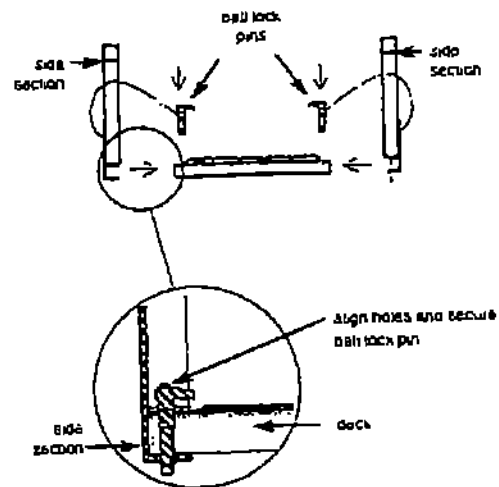
Fig 6



BoltNut Kit

- A - FA0500402 - 4" x 1/2" Bolt - 13 UNC Grade 5 Plated
 - B - FN0010502 - 1/2" Hex Nut - 13 UNC Grade 5 Plated
 - C - FAX1012 - Two 1/2" Flat Washer - Plated
 - D - FAZ0512 - 1/2" Locking Washer - Plated
- Parts shown are NOT to scale.

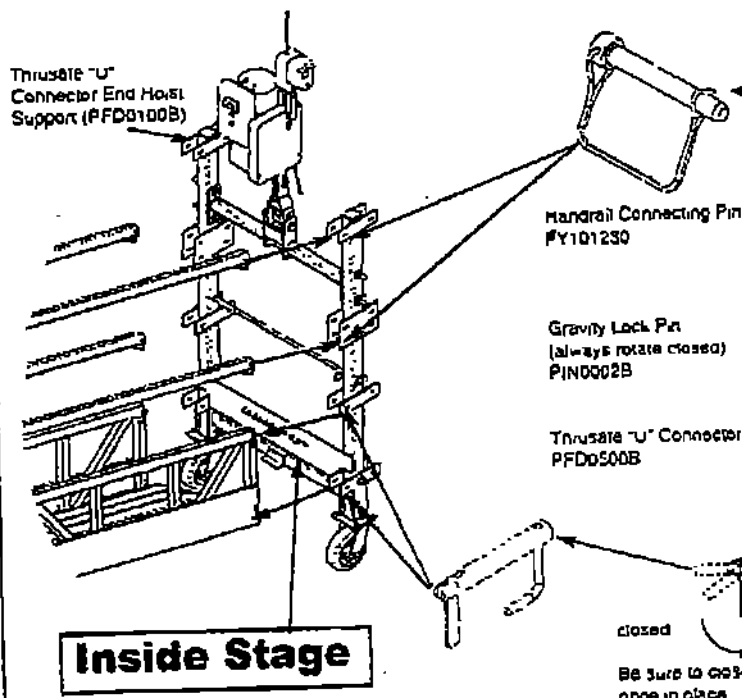
Fig. 9



4.3 ASSEMBLY OF THRUSAFE COMPONENTS INTO MODULAR SECTIONS

- a. Align the Thrusafe platform and the Thrusafe "U" Connector End Hoist Support (PFD0100B), with the PFD300B Thrusafe "U" Connector End Deck facing toward the operator (See Fig. 10 - label "Inside Stage") on a level surface. Align the stirrup pin holes and insert four gravity lock pins (two on each side) from the inside of the platform. **Do not hammer or force the pins into place (see Fig. 10 & 11).**
- b. Use only the supplied 5/8 inch diameter gravity lock pins. Make sure that the pins are not worn, bent or otherwise damaged. Never substitute alternative pins or bolts.
- c. After each pin is installed, ensure that the gravity lock is rotated closed and nearest to vertical to prevent the pin from dislodging (see Fig. 10 & 11).
- d. Bring a hoist to the top of the end stirrup (mount the hoist with the controls facing towards the operator), the PFD300B Thrusafe "U" Connector End Deck must also be facing toward the operator.
- e. Attach the hoist to the stirrup using mounting hardware provided by your supplier. See Fig. 10.

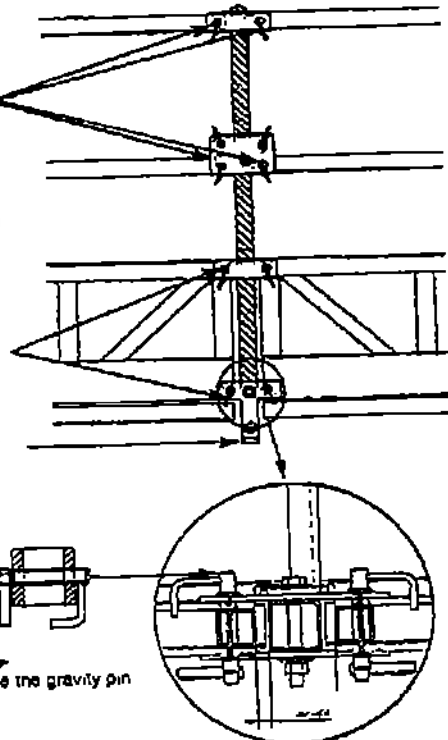
Fig. 10



For platforms with more than one section, it is necessary to assemble the modules together with a Thrusafe "U" Connector PFD0500B is used at the intermediate connection.

- a. Build the required modules for the specific platform length.
- b. Align the modules on a level surface.
- c. Adjacent modules are only connected with Thrusafe "U" Connector PFD0500B (See Fig. 11).
- d. Use 4 four gravity lock pins provided with the Platform side panels to attach the U-Connector to the end of a Platform Section. Always insert gravity lock pins from the inside of the platform section. **Do not hammer or force the pins into place (See Fig. 11).**
- e. Use only the supplied 5/8 inch diameter gravity lock pins. Make sure that the pins are not worn, bent or otherwise damaged. Never substitute alternative pins, bolts or any other connector for the U-Connector PFD0500B.
- f. Bring the next Platform section into place, align it to the U-Connector and connect using the 4-gravity lock pins connected to the Platform side panels.
- g. After each pin is installed, ensure that the gravity lock is rotated closed (See fig. 11) and nearly vertical to prevent the pin from dislodging.
- n. Pin the four handrails in place with the handrail connecting pins and lock in place (See fig. 11)

Fig. 11



**4.3 ASSEMBLY OF BUMPER ROLLERS
(model C25302)**

- a. Place the bumper rollers such that the two slots or its bracket are completely engaged over the platform toeboard
- b. Tighten the locking screw to secure the bumper roller to the toeboard.

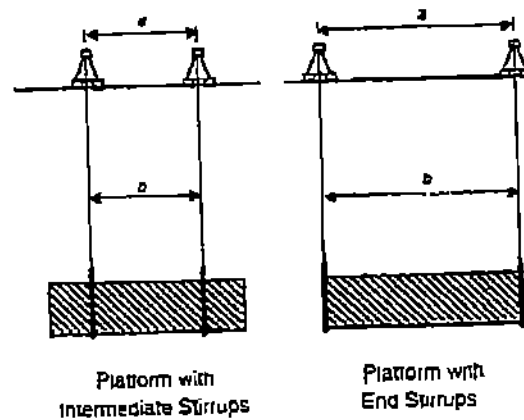
**4.4 INSTALLATION OF SWIVEL CASTERS FOR
Thrusafe "U" Connector End Hoist Support
(model PFD0100)**

- a. If a caster is not assembled to the Thrusafe "U" Connector End Hoist Support, bolt it to the bottom of the stirrup with four 1/2" - 13 UNC x 1" inch long SAE grade 5 or better bolts and nuts with lock and flat washers

**4.5 SET UP OF PRIMARY AND SECONDARY WIRE
ROPES**

- a. Use only wire ropes as specified by the hoist manufacturer
- b. Before setting up the wire ropes, ensure that the suspension points are capable of supporting the hoist, platform and its rated load with the required safety factors according to regulations.
- c. Ensure that the distance (a) between the suspension points is equal to the distance (b) between the platform stirrups. The wire ropes must be vertical and parallel to each other for proper operation of the platform. (see Fig 12)
- d. Unreel the wire ropes at ground level, and pull them to the top of the building using a transfer line. Never unreel or throw a wire rope from the top of the building.
- e. Attach each wire rope to an independent suspension point.
- f. If using 2 ropes check that the distance between the dual wire ropes of the hoist is the same at both the top and bottom ends.
- g. Operator must be independently tied off to a separate vertical lifeline when using a 1 rope system.
- h. When using a dual line, the operator must be tied off to a dog line on the platform.

Fig. 12



**4.6 SET UP OF OUTRIGGERS AND
COUNTERWEIGHT SYSTEM**

CAUTION:

Always ensure that the floor or roof structure can safely sustain the loads of the necessary counterweights, beams and scaffold, including reactions at the building edge. If in doubt ask.

Note #1: All anchoring devices must be secured to a structurally sound anchorage on the building or structure by a tieback having strength equivalent to or greater than that of the hoisting rope. If tiebacks cannot be perpendicular to the face of the building or structure, opposing angle tiebacks shall be used. Single tiebacks at an angle are prohibited. Refer to the manufacturers instruction manuals of the suspension equipment.

Note #2: The use of any suspended scaffold is unsafe without:

- a. Guardrails, midrails and toeboards on all sides of the scaffold platform in accordance with OSHA regulations, State, Provincial and Local codes. It is of the utmost importance to include these components when using suspended scaffold.
- b. Personal fall arrest systems in use that comply with OSHA regulations, State, Local and Provincial codes



WARNING:



On counterweight suspension systems, it is essential for safety that all the counterweights be marked with their weight, solid in weight and secured on the suspension structure. Total amount and location of counterweight must be calculated by a professionally competent person according to applicable regulations and checked before each use, at least daily.



WARNING:



Never exceed the allowable outreach/overhang length as per the counterweight chart. Consult the supplier or manufacturer for such conditions which must be treated on an individual basis and may involve different materials or methods.

5. CHECKS BEFORE USING THE PLATFORM

Before starting use on a new site, make a general review, of every place where an obstacle or dangerous items, (especially electrical equipment or lines) may be located in the possible way of the platform or of the suspension system. Before using the platform, the following checks must be carried out by a qualified person



WARNING:



Ensure that the load does not exceed the rated load of the platform, hoist or rigging. See load rating chart on pages 9.

5.1 Suspension points and support equipment

- a. Check that suspension points of wire ropes used with each platform (primary, and secondary wire ropes if any) have been properly attached. Refer to the manual of the suspension equipment manufacturer.
- b. Check security of support equipment and ensure that the required number of counterweights are safely fitted and locked in place. Refer to the manufacturer's manual of that component
- c. Ensure that the support equipment is directly above the intended work area of the platform in order to avoid excessive lateral forces on the support equipment (see Fig 12 – page 13)

5.2 Platform

- a. Check that all connectors, pins, nuts and bolts are securely installed and fastened.
- b. Check the mounting connections of the hoists.
- c. Ensure that the platform is structurally intact.
- d. Ensure that the load does not exceed the rated load of the platform, hoist or rigging.
- e. Ensure that the platform is clear of any snow, ice, debris or other material.
- f. Ensure that the labels (see pages 18 to 23) on each section are in place and legible. Replacement labels can be supplied on request.
- g. Guardrails are secured onto the platform.

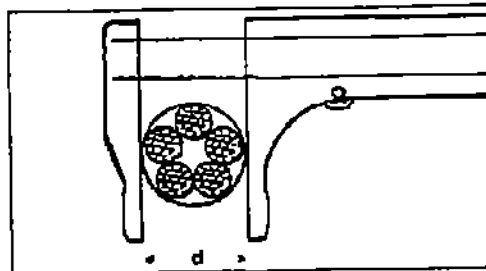
5.3 Wire ropes

a. Visual check of wire ropes.

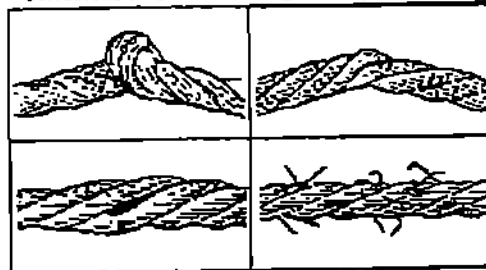
NOTE: Only wire ropes specified by the hoist manufacturer should be used. Regularly lubricate the wire ropes. Wire ropes must be replaced if any of the following defects are found

- more than 7 wires broken on a length of 1 foot (300 mm)
- kinking, crushing, buckling or any other distortion of the wire rope construction.
- corrosion.
- heat damage.
- reduction of nominal diameter of more than 10%.
- refer to wire rope manufacturer if in doubt

Fig. 13



- Correct method of measuring wire rope diameter



- Examples of damaged wire ropes

5.4 Hoists

- a. Refer to the manual of the hoist manufacturer.
- b. Check if the power supply is compatible with the requirement of the hoist.
- c. Check if the cable size of the power cord is sufficient.
- d. Check that the hoists, blockstop and emergency switches function properly
- e. Check that power cord has strain relief to avoid damage

6. USE AND OPERATION OF THE PLATFORM

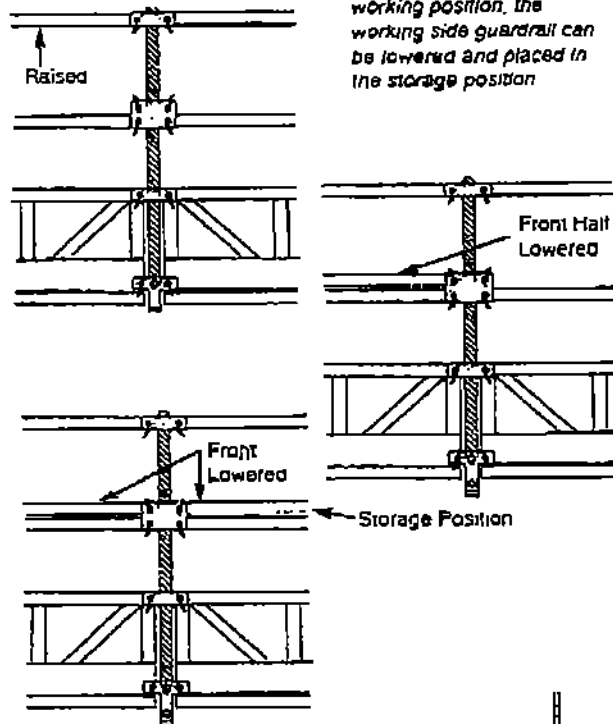


CAUTION!

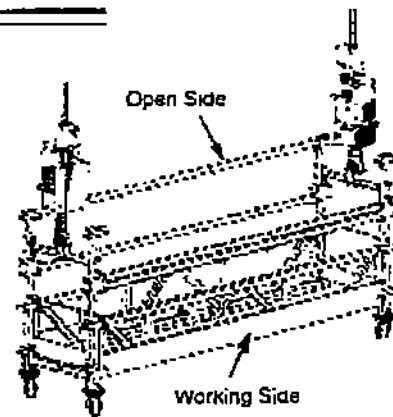


- Never operate the platform without a personal fall arrest system in use.
- Barricade the area below the platform whenever possible.
- Maximum allowable wind speed in service is 25 mph. (40kph)
- Tie or secure the suspended scaffold to prevent it from swaying as sudden gusts of wind may occur in some areas, as determined to be necessary by a competent person. Tie and secure the equipment and disconnect power when it is left unattended. Refer to applicable regulations. Never leave unattended suspended platform fitted with weather enclosure
- Each electric hoist is controlled independently using a push button control fitted with up and down buttons and an emergency stop button. While Air Hoist are controlled by a directional control lever instead of push buttons
- Raise and lower the platform a small height at the start of each day to check its operation and braking mechanisms.
- Press the up button. The platform should lift. If not, call an electrician to check the power supply. Never operate the platform if lifting is through the down button.
- Keep the platform level. To level the platform back in its horizontal position only operate one of the two hoists
- Take a first aid kit, radio and fire extinguisher for emergency
- Never stand on the railing!
- Set the platform down on a safe support and remove tension from wire rope before moving the support equipment or platform.
- Have a rescue plan ready in case of emergency.
- Operating people should have been trained on rescue procedures before use.
- Once the platform is in working position, the working side guardrail may be lowered and placed in the storage position to provide easier access. See Fig. 14

Fig. 14



Once the platform is in working position, the working side guardrail can be lowered and placed in the storage position



7. INFORMATION FOR MAINTENANCE

- Maintenance may only be carried out by personnel authorized by Tractel.
- Inspection is to be carried out by competent person before each rigging of the platform.
- Inspection by persons authorized by Tractel is to be carried out once every six months or every 200 hours
- Operating life of platform depends on number of hours in service, operating and weather conditions



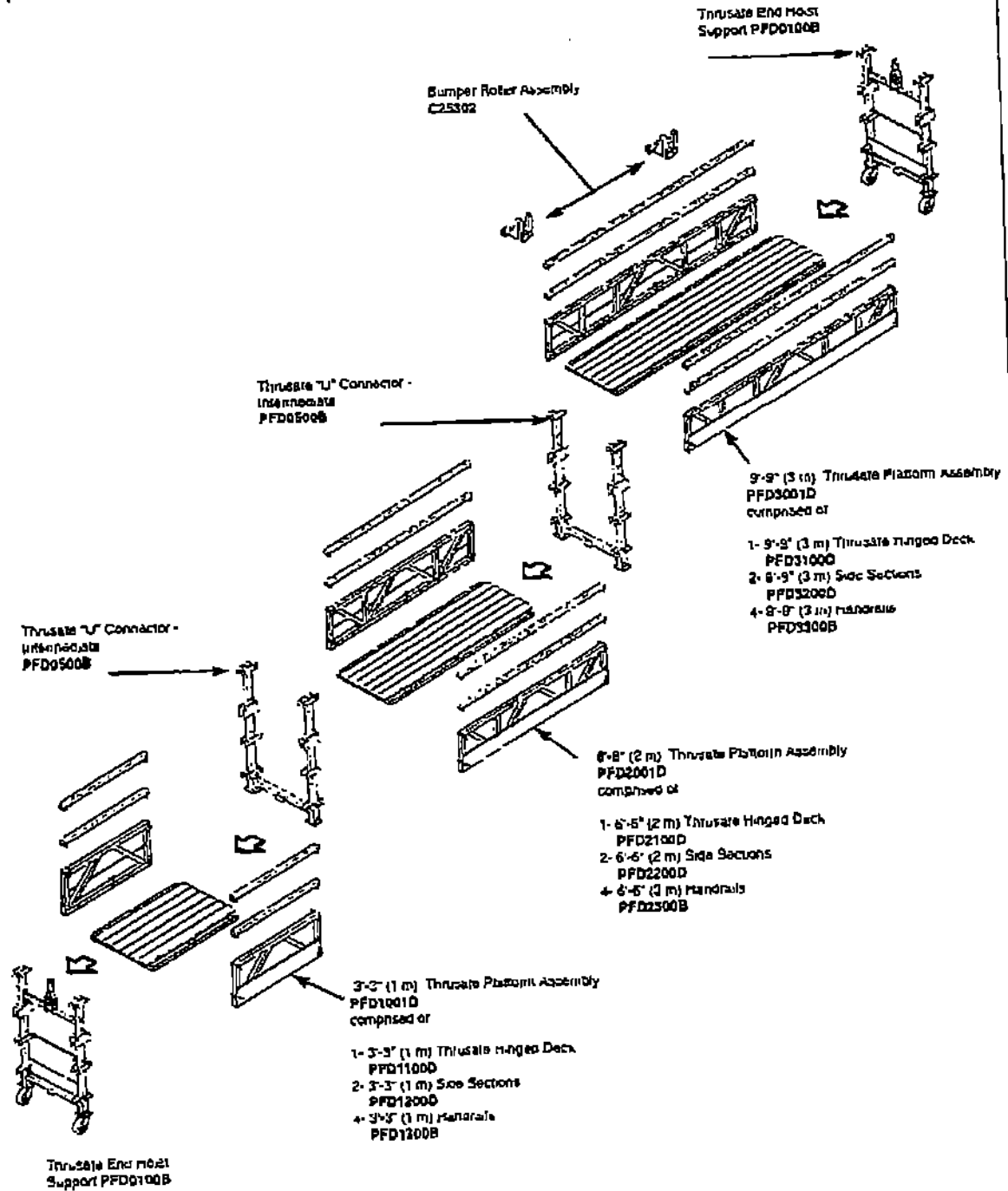
WARNING



Only the working side of the platform can the guardrail be lowered to the storage position. Never lower the open side guardrail for any reason.

8. BOILER PLATFORM COMPONENTS

8.1 Exploded View - Primary Components



B.2 Component and Spare Part Product Codes

COMPONENTS

<u>Tractel Code No.</u>	<u>Description</u>	<u>Lbs.</u>	<u>(kg)</u>
PFD3001D	THRUSAFE - 3m Platform Assembly	183	(83)
PFD2001D	THRUSAFE - 2m Platform Assembly	132	(60)
PFD1001D	THRUSAFE - 1m Platform Assembly	65	(30)
	Comes with 4 handrails, 2 Side Sections and 1 Deck Section		
	A Thrusafe "U" Connector must be ordered to join 2 units together!		
PFD3100D	THRUSAFE - 3m Hinged Deck Section	65	(29.5)
PFD3200D	THRUSAFE - 3m Side Section	37	(17)
PFD3300B	THRUSAFE - 3m Handrails	11	(5)
PFD2100D	THRUSAFE - 2m Hinged Deck Section	46	(21)
PFD2200D	THRUSAFE - 2m Side Section	27	(12)
PFD2300B	THRUSAFE - 2m Handrails	8	(4)
PFD1100D	THRUSAFE - 1m Hinged Deck Section	23	(10.5)
PFD1200D	THRUSAFE - 1m Side Section	14	(6.4)
PFD1300B	THRUSAFE - 1m Handrails	4	(2)
PFD0500B	THRUSAFE - Platform "U" Connector	45	(20)
PMR0100D	THRUSAFE - Platform "U" Connector with End Hoist Support	80	(36)
PIND002B	THRUSAFE - Gravity Pin Lock	0.5	(0.2)
FY101230	THRUSAFE - Handrail Connecting Pin	0.3	(0.1)
FY105315	THRUSAFE - Ball Lock Pin for Side/Deck Connection	0.5	(0.2)
HAC16613C	THRUSAFE - Castor for "U" Connector End Hoist Support	7.5	(3.4)
C25302	THRUSAFE - Bumper Roller Assembly	5.0	(2.3)
HAB212607	THRUSAFE - Roller for Bumper Roller Assembly	0.5	(0.2)
FA0500402	THRUSAFE - 4" x 1/2" Bolt - 13 UNC Grade 5 Plated	0.25	(0.11)
FN0010502	THRUSAFE - 1/2" Hex Nut - 13 UNC Grade 5 Plated	0.1	(0.05)
FAX1012	THRUSAFE - 1/2" Flat Washer - Plated	0.01	(0.01)
FAZ0512	THRUSAFE - 1/2" Locking Washer - Plated	0.01	(0.01)
FA0500102	THRUSAFE - 1.0" x 1/2" Bolt - 13 UNC Grade 5 Plated	0.1	(0.05)
	THRUSAFE - Bolt/Nut Kit for "U" Connector		
	THRUSAFE - Bolt/Nut Kit for "U" Connector with End Hoist		



8.3 Labels and Markings

LOAD RATINGS AND CONFIGURATION CHART FOR BOILER PLATFORMS WITH END STIRRUPS

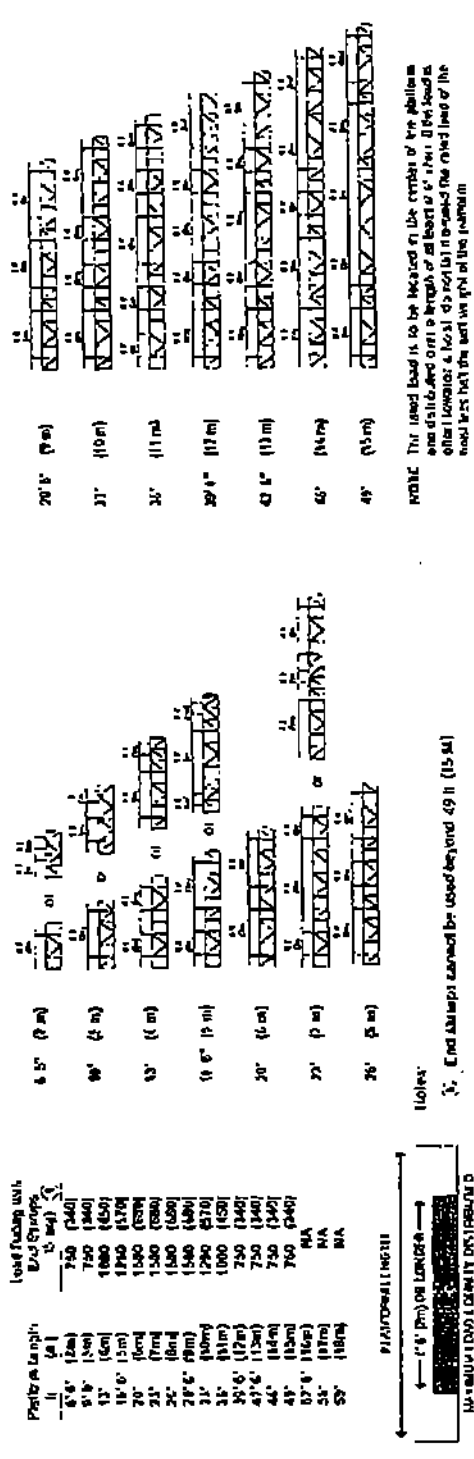


Fig. 15


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8.3 Labels and Markings

FIG 17

THRUSAFE PLATFORM - 1M

MODEL NO PFD 01 


MFG DATE SER NO

MFGD BY 
Swingsage Division
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PART # SPLB051A

FIG. 18

THRUSAFE PLATFORM - 2M

MODEL NO. PFD02 


MFG DATE SER NO

MFGD BY 
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PART # SPLB052A

FIG 19

THRUSAFE PLATFORM - 3M

MODEL NO. PFD03 

MFG DATE SER NO

MFGD BY 
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PART# SPLB053A



8.3 Labels and Markings

FIG 20

Inside Stage

FIG. 21

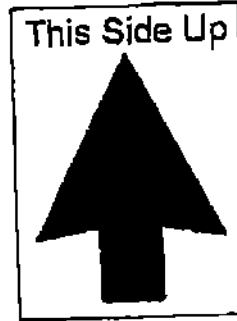




Fig 22

**CLASSIFIED BY
UNDERWRITERS LABORATORIES INC®
AS TO LOAD CAPACITY**
400S



PART # SPLB027B

FIG. 23

 **WARNING** 

WARNING: RISK OF ELECTRICAL SHOCK
METAL SCAFFOLDING MUST NOT BE USED
WHERE IT MAY COME INTO CONTACT WITH
ELECTRICAL CIRCUITS

WARNING: RISK OF INJURY
ACIDS AND OTHER CORROSIVE SUBSTANCES
MAY SEVERELY AFFECT THE STRENGTH OF
METAL SCAFFOLDING DEVICES
USE EXTREME CARE AROUND SUCH MATERIALS
AND FOLLOW MANUFACTURER INSTRUCTIONS

PART #SPLB013A



8.3 Labels and Markings

FIG 24

THRUSAFE PLATFORM ASSEMBLY INSTRUCTIONS

**Read the instruction manual delivered with this product before use!
In case of loss a new one can be obtained on request.**

1. Before using, check structure and all parts for proper operation and are free of damage. Do not use a platform or parts which are damaged or not operating properly. Use only original gravity lock pins, ball quick release pins, bolts and nuts. replacements can be obtained from your supplier.
2. Assemble End Hoist Supports including the End Deck facing toward the stage using the 1/2"x 4" bolts 13 UNC grade 5 plated, 1/2" hex nuts 13 UNC grade 5 plated, washers and locking washers. The assemble the Midrail Bar and lock in place with the locking pin provided.
3. Assemble Intermediate "U" Connector using the 1/2"x 4" bolts 13 UNC grade 5 plated, 1/2" hex nuts 13 UNC grade 5 plated, washers, and locking washers.
4. When assembling the Thrusafe Platform align the platform sections on a level surface and attach each side panes to the unfolded floor deck using the ball lock quick release pin.
5. Connect the platform side sections and End Stirrup using four gravity lock pins. Ensure the End Deck is facing toward the stage when attaching. Insert the pins from the inside of the platform and rotate each pin to a vertical position, to prevent the pin from dislodging. Do not hammer pins into place or use undue force.
6. Only connect the platform in the approved combinations provided on the label for platform section combinations. See label on this platform for details.
7. Connect adjacent platform sections using the 1 Intermediate "U" Connector and 8 gravity lock pins. Insert the pins from the inside of the platform and rotate each pin to a vertical position, to prevent the pin from dislodging. Do not hammer pins into place or use undue force.
NEVER CONNECT A THRUSAFE PLATFORM WITH ADJACENT PLATFORM SECTION WITHOUT A "U"-CONNECTOR.
8. Mount the four handrails (per platform) with handrail pins attached to the upper and mid positions of the platform. The working side handrail maybe lowered to the storage position once the platform is in working position.
9. The platform can be suspended from any approved hoist with a capacity and mounting attachment, which is compatible the the platform configuration being used.
10. The holsting attachment must be securely bolted to the stirrup using 1/2" diameter bolts grade 5 or better. Mount the hoist with the control box facing toward the stage.

PART # SPLB043A

8.3 Labels and Markings

FIG. 25

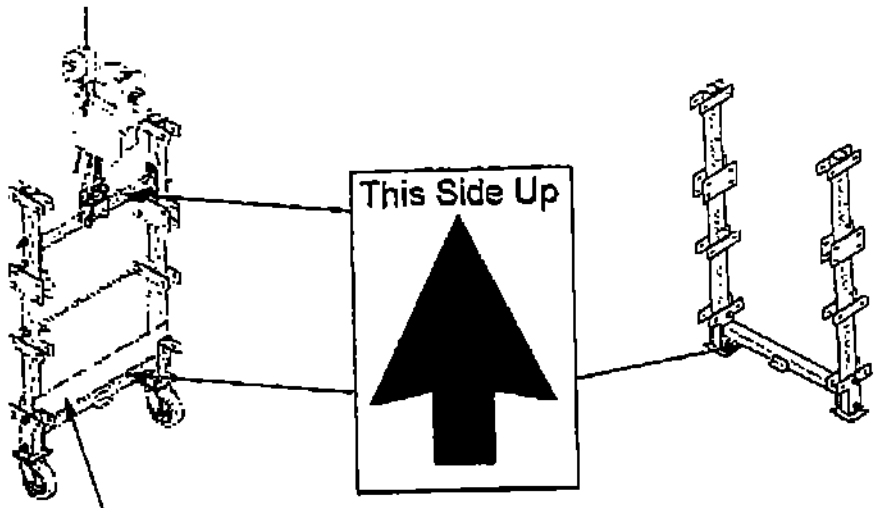
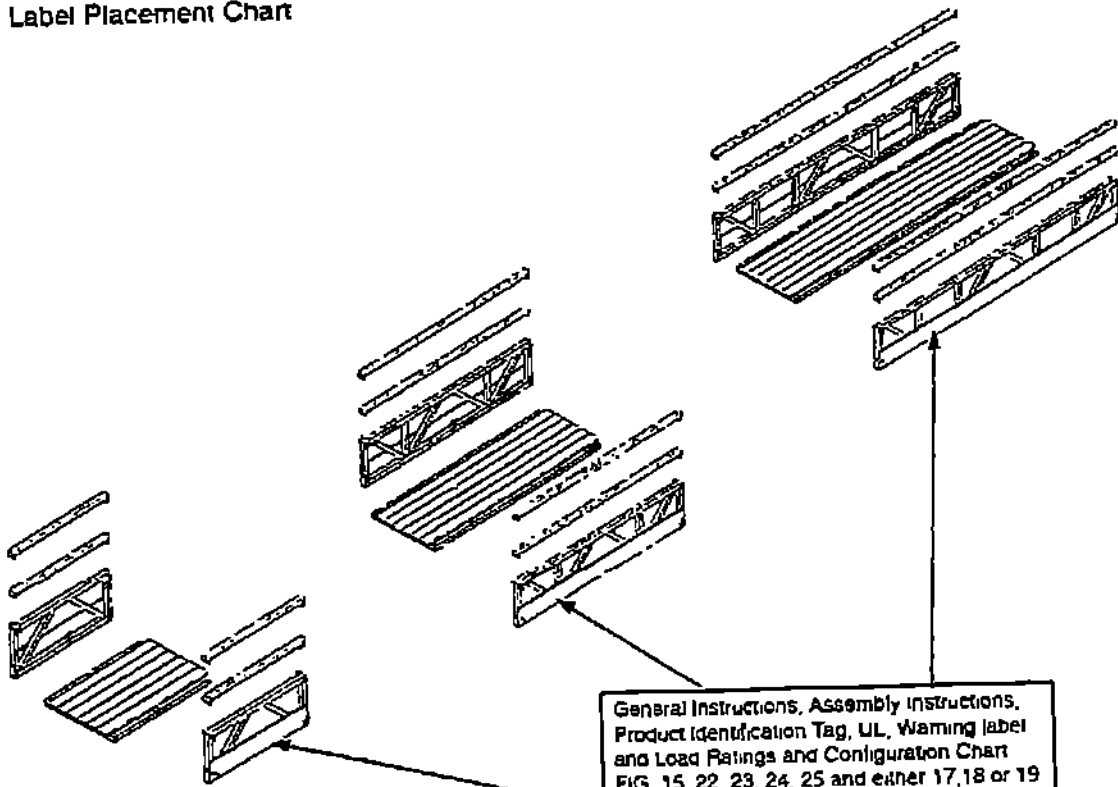
General Instructions

**Read the instruction manual delivered with this product before use!
In case of loss a new one can be obtained on request.**

- A. Before using, check structure and all parts for proper operation and are free of damage. Do not use a platform which is damaged or not operating properly.
 - B. A platform or platform part must be immediately removed from service and destroyed when exposed to excessive heat, as in the case of fire, due to loss of structural strength.
 - C. Decking must be free of oil, grease or slippery material.
 - D. Do not use this platform if the decking surface is damaged or has deteriorated.
 - E. Platform with intermediate stirrup and overhang ends must be configured as per label.
 - F. Refer to label for load capacity of platform configuration and overhang ends in use. The total combined weight of each worker and all materials should not exceed the rated load. Do not overload platform or overhang end.
 - G. Assemble the platform on a safe and level working surface.
 - H. Do not allow unrestrained objects, such as barrels, boxes, loose brick, tools and debris to accumulate on decking.
 - I. Do not use a ladder or other items to step on to gain higher access.
 - J. Never step from a suspended platform to a building access or vice versa unless the platform is firmly secured up along the building access and placed in a situation being as safe as on the ground level.
 - K. Do not apply impact loads to a platform. Never attempt to straighten a deformed side rail or decking member.
 - L. Do not use acids or other corrosive substances on a platform without consulting the manufacturer for specific instructions.
 - M. Do not use platform in the vicinity of electrical circuits. (Refer to Local Regulations.)
 - N. Before rigging inspect the site to view hazard, consult a specialist if required.
- NOTE: Recommendations regarding grounding precautions may be considered.**



8.3 Label Placement Chart



Inside Stage

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