OPERATOR'S MANUAL

XPS-22 SERIES ELECTRIC MANUAL STACKER



ACTUAL PRODUCT MAY NOT APPEAR EXACTLY AS SHOWN

MARNING

Do not operate and / or service this product unless you have read and fully understood the entire contents of this manual. Failure to do so may result in property damage, bodily injury or death.



ISSUE DATE: JULY 13, 2016 REV.1 (PART # 038-1010E)

TABLE OF CONTENTS 1.0 RECEIPT INSPECTION 3 2.0 INTRODUCTION 3 3.0 SAFETY SIGNS AND SAFETY MESSAGES 3 3.1 SAFETY INSTRUCTIONS 4 4.0 PRE-OPERATION INSPECTION 4 4.1 INSPECTION POINT LIST 5 4.2 PRE-OPERATION INSTRUCTIONS 5 5.0 OWNER'S PURCHASE RECORD 6 6.0 EXCLUSION OF LIABILITY 6 7.0 BATTERY AND CHARGER INFORMATION 7 8.0 OPERATING INSTRUCTIONS 8 8.1 CONTROL DEVICES 8 9.0 STRADDLE ADJUSTMENT 10.0 PLANNED MAINTENANCE PROGRAM 10 10.1 INSPECTION INTERVALS 11 11.0 ASSEMBLY DRAWING 12 11.1 PARTS LIST 13 11.2 COMPLETE ASSEMBLY PARTS LIST 18 12.0 SERVICE / MAINTENANCE HISTORY 18 12.1 TO ORDER PARTS 19 **DEALER INFORMATION** Name:

Contact:

Telephone:

1.0 RECEIPT INSPECTION

This equipment was thoroughly inspected and tested prior to leaving the factory. Before placing the equipment in service it should be thoroughly checked for damage or loss occurring in transit. If any such damage or loss is evident, a claim must be made against the carrier.

Refer to: Damage in Transit information enclosed with the packing slip.

2.0 INTRODUCTION

The following is intended to be a quick reference to some of the important procedures to follow while using this stacker. It is not intended to cover, or suggest that it does cover, all procedures required to be followed to ensure safe operation. Operators should be aware of and abide by all workplace safety regulations that may apply to the operation of this stacker. These laws and regulations include but are not limited to:

- Occupational Safety and Health Act (USA)
- Occupational Safety and Health Acts for Individual States (USA)
- Canadian Material Handling Regulations

In addition to these regulations, industry standards such as the American National Standards Institute (ANSI) "ASME B56.10 Safety Standard for Manually Propelled High Lift Industrial Trucks" apply to this equipment. To obtain a copy of this standard, contact the Sales Department:

American National Standards Institute (ANSI) 1430 Broadway New York, NY 10018 Telephone: 212.642.4900 www.ansi.org

3.0 SAFETY SIGNS AND SAFETY MESSAGES

Improper operation can cause accidents. Don't take chances with incorrect or damaged equipment. Read and understand the procedures for safe operation and maintenance outlined in this manual. Do not hesitate to ask for help. Stay alert! Follow safety rules, regulations, and procedures. Avoid accidents by recognizing dangerous procedures or situations before they occur. Safety signs and messages are placed in this manual to provide instructions and identify specific areas where potential hazards exist and special precautions should be taken. Know and understand the meaning of these instructions, signs, and messages. Damage to the equipment, death, or serious injury to you or other persons may result if these messages are not followed. If warning decals are damaged, they must be replaced. Contact your Distributor for replacements.

3.0 SAFETY SIGNS AND SAFETY MESSAGES CON'T.



DANGER

This message indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

This message indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

This message indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

IMPORTANT

This message is used when special precautions should be taken to ensure a correct action or to avoid damage to or malfunction of the Dock Leveler or a component.

3.1 SAFETY INSTRUCTIONS

- 1. Do not operate this truck unless you have been trained and authorized to do so.
- 2. Do not ride truck and do not carry passengers.
- 3. Do not operate this truck until you have checked its condition (refer to "Pre-Operation" Inspection" section of this manual.
- 4. Report the need for truck repairs to your supervisor. Do not operate truck. Neglect may cause a minor repair to become a major service problem or cause truck to become unsafe.
- This truck is intended for use on smooth level surfaces only. Do not use on ramps or grades, 5. rough or broken floors.
- 6. Do not exceed the rated capacity of the vehicle as marked on the nameplate. Do not lift with the fork tips or one fork only. Be sure load is centered on forks (along the length and width of the load) and the load center (marked on name-plate) is not exceeded.
- Do not handle unstable or loosely stacked loads. Use special care when handling long, high or wide loads to avoid tipping, loss of load or striking personnel or objects.
- Always look in direction of travel. Keep a clear view and when load obstructs visibility, travel with load lowered.
- Watch swing clearance when turning near walls, racks, pillars or other obstacles.
- 10. Observe applicable traffic regulations and yield right of way to pedestrians.
- 11. Before you leave the truck, fully lower forks to ground and set parking brake.

PRE-OPERATION INSPECTION 4.0



DANGER

Disconnect battery before attempting removal of imbedded materials.

Workplace safety regulations require that all trucks be inspected before each shift. Follow inspection point list to complete this check. If anything is found to be wrong with truck, then it must be taken out of operation. Do not use a truck which fails this inspection.

4.1 INSPECTION POINT LIST

SAFETY EQUIPMENT	Load backrest (if equipped): Is backrest in place, is there any damage which weakens it. Warning decals: Make sure all decals are in place and readable. Mast safety screen: Is it in place and free of obvious damage.
GENERAL OPERATION	Parking brake: Test brake for proper braking. Lift / lower control: Operate lift function to full lift height. Listen and watch for unusual sounds or jerky motions. Operate lower control until forks are fully lowered. Listen and watch for unusual sounds or jerky motions. Throughout inspection, look for signs of hydraulic fluid leaks.
FORKS AND FORK Carriage	Forks: Inspect for cracks, wear and alignment. Obvious damage fails inspection. Maximum allowable fork blade wear is 10% of fork back (vertical member of fork). Fork carriage: Carriage is part of truck to which forks attach. Inspect carriage for cracks, damage or wear.
WHEELS	All tires must be inspected for cuts, breaks, signs of debonding (coming away from rim). Material imbedded in tires or axles must be removed (i.e. steel shavings, string, plastic wrap etc.)

4.2 PRE-OPERATION INSTRUCTIONS

- Open battery cover and check wiring harness and hydraulic hoses for damage or loose connections.
- Open the battery compartment and check that all connections are tight. Check that batteries have not been damaged. Charge battery(s) for one shift. Refer to Battery Maintenance Instructions.
- 3. Refer to Safety and Operating Instructions and check that stacker operates satisfactorily.
- Complete the Warranty Validation form included in this manual and return it to Blue Giant.
 Warranty may be void if warranty validation form is not completed and returned to Blue Giant.

NOTE: During initial cylinder assembly, hydraulic fluid is used to lubricate all components. This assembly fluid may be present, or accumulated in upper head nut portion of cylinder during break-in period or normal use. A small amount of fluid in this area is normal and should not be mistaken for cylinder seal leakage.

5.0 OWNER'S PURCHASE RECORD

OWNER'S PURCHASE RECORD Please record information for future inquiries and to validate warranty.		
Dealer:	Date in Service:	
	Number of Units:	
Owner's Name:	Order Number:	
Serial Number:	Year of Construction:	

6.0 EXCLUSION OF LIABILITY

The manufacturer assumes no liability for damage or injury to persons or property which has occurred as a result of defects or faults in the hand pallet trucks delivered or due to incorrect use. The manufacturer also assumes no liability for lost profits, operating down times, or similar indirect losses which the buyer has incurred. Damage to third parties, irrespective of its nature, is not subject to compensation.

The operating instructions are not subject to notification of amendment. The descriptions and illustrations included in our operating instructions and replacement parts list are not binding. In the interests of further development, we reserve the right to make any changes at any time to the modules, components and accessories which we deem to be expedient, or for technical reasons, while retaining the essential features of the models described here.

7.0 BATTERY AND CHARGER INFORMATION



CAUTION

Do not operate stacker while the charge is plugged in. Failure to follow this instruction may result in damage to the stacker.

The care and maintenance of the battery is very important to efficient equipment operation and maximum battery life.

Battery electrolyte level should be checked before each charge of the battery. The level should be maintained at one-half inch above plates or just below the lower lip of the filler hole at all times. If low, add distilled water preferably at the end of the charge. Do not overfill.

Always keep vent plugs tightly in place when cleaning battery. When properly watered and charged, the battery will remain clean and dry. All that is necessary is to brush or blow off any dust or dirt which may accumulate on it.

However, if electrolyte has spilled it should be neutralized with a solution of baking soda and water. Then rinse the battery with cool water from a low pressure hose to remove the soda and water. If battery stays wet consistently, it may be an indication of overcharging or overfilling.

The equipment is supplied with a 110 volt/1/60 cycle AC charger that when plugged into a 110 volt outlet will automatically charge the battery to its proper level.

Do not operate stacker while the charge is plugged in. Failure to follow this instruction may result in damage to the stacker.

8.0 OPERATING INSTRUCTIONS

XPS Series Stackers (manually propelled, power lift). Refer to the photograph and instructions below to control the stacker.

TRAVEL	Securely grasp steering handles with both hands and push or pull stacker to move or position. If stacker is equipped with an optional steering handle, move and steer stacker by pushing or pulling on handle. Be sure to keep feet clear of machine at all times.
LIFT / LOWER	To raise forks, pull back on control lever. To lower forks, push forward on control lever.
PARKING	To engage parking brake, push down on brake actuator until lever locks in lower most position. To release brake, pull up on brake actuator.



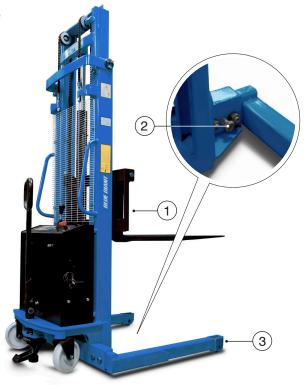
9.0 STRADDLE ADJUSTMENT

To adjust the straddles on the stacker, remove the weight of the machine from the straddles by lifting / jacking under the straddle tube. Heat the four set screws to remove any "Loctite" that was applied during assembly. Turn set screws counterclockwise to loosen tension from the straddles. Slide straddles to desired setting. Apply small amount of "Loctite" #271 to set screws and tighten. Remove lifting / jacking device.

MARNING

The spread between the straddle legs must not be:

- Less than 25% of the stackers maximum lift
- More than 50" (1270mm)
- 1. Adjustable Forks
- 2. Set Screws
- 3. Adjustable Straddle



10.0 PLANNED MAINTENANCE PROGRAM

Planned Maintenance is a Program in which inspection, minor adjustments and lubrication are performed on a schedule and systematic basis. A solid PMP program should incorporate a method of record keeping which enables you to better determine PMP schedules and enables you to track the maintenance cost per machine.

An effective PMP program should incorporate two procedures:

- 1. A pre-operation check by the driver or maintenance personnel at the beginning of each shift.
- 2. A planned maintenance routine based on operating hours, with the interval being determined by operating conditions.

Records will tell you how often PMP should be done. If an operation is clean and / or involves low operating time per day, a PMP interval can be extended. If an operation is extremely dirty and / or involves high operating time per day, the PMP interval may have to be reduced. Thus the PMP interval can be tailored to answer the needs of the operation.

If the PMP is religiously followed, needs for repair, major adjustment and component replacement will be discovered automatically and such work will be done as needed.

The PMP Objective:

- 1. To reduce costly unscheduled downtime.
- Reduce maintenance costs.
- Increase equipment productivity.
- 4. Above all, to increase personal safety of operators and other personnel.

Inspection intervals outlined are for normal conditions. More frequent inspections are necessary for adverse conditions such as: temperature extremes, several operators, dusty atmosphere, etc.

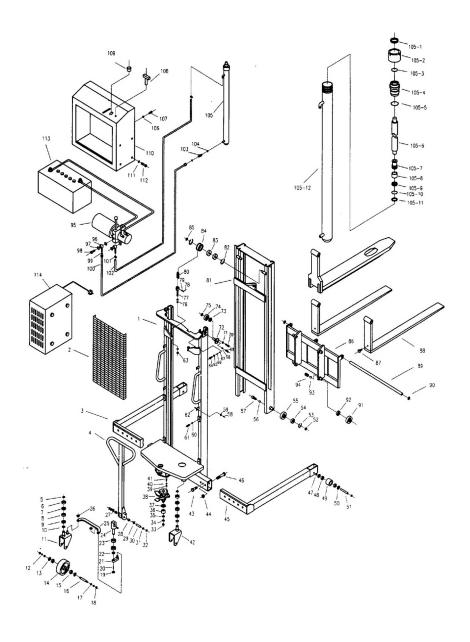
10.1 **INSPECTION INTERVALS**

WARNING

Disconnect the battery before attempting inspection or service.

DAILY	Operating ControlsBattery	
QUARTERLY	Electrical SystemsHydraulic SystemsMechanical Parts	
LUBRICATION (based on single shift, normal usage)	Every Month: Apply engine oil (SAE 10) to all pivot points including the lifting chains. Lubricate the mast channels with a good quality grease (Valvoline #614 or equivalent). Every 6 Months: Check oil level in the hydraulic power pack. Remove breather cap and add approved oil until oil is level with bottom of filler hole (be use lift is in the fully lowered position). Clean and reinstall the breather cap. The hydraulic oil should be changed after the truck has been in service for three months then every six months thereafter. Remove reservoir, discard used oil and clean reservoir. Clean and inspect thestrainer on the fluid pick up tube. Reinstall reservoir and add oil until oil is level with bottom of filter hose (be sure the lift is in the fully lowered position). Use only good quality hydraulic oil with a viscosity equivalent to SAE 10 or SAE 20 hydraulic oils. Approved Oils: Esso Polar 32; Shell Tellus 29; Gulf Harmony 48AW or Dextron II transmission fluid or equal.	

11.0 ASSEMBLY DRAWING



11.1 PARTS LIST

DRAWING REF NO.	PART NO.	PART NO. QTY DESCRIPTION			
1	7001221001	1 Frame			
2	7001221002	1	1 Net Cover		
3	7001221003	1	Left Leg		
4	7001221004	1	Handle		
5	7001221005	2	Snap Ring		
6	7001221006	2	Bearing 6006-2Z		
7	7001221007	2	Spacing Bush		
8	7001221008	2	Tapered Roller Bearing 32006X2		
9	7001221009	2	Push Cover		
10	7001221010	2	Snap Ring		
11	7001221011	1	Left Rear Wheel Rack		
12	7001221012	2	Washer		
13	7001221013	2	Spacing Bush		
14	7001221014	2	Steer Wheel		
15	7001221015	4	Bearing 6204-2Z		
16	7001221016	2	Axle Pin		
17	7001221017	2	Washer		
18	7001221018	2	Nut		
19	7001221019	1	Snap Ring		
20	7001221020	1	Pin		
21	7001221021	1	Crank Unit		
22	7001221022	1	Spacing Bush		
23	7001221023	2 Bearing 6205-2Z			
24	7001221024	1 Steering Axle			
25	7001221025	1 Connecting Lever			
26	7001221026	2	Snap Ring		
27	7001221027	1 Left Torsional Spring			

DRAWING REF NO.	PART NO.	PART NO. QTY DESCRIPTION			
28	7001221028	2 Oil Less Bearing			
29	7001221029	1 Right Torsional Spring			
30	7001221030	1 Axle Pin			
31	7001221031	2	Washer		
32	7001221032	2	Snap Ring		
33	7001221033	1	Nut		
34	7001221034	1	Spring Washer		
35	7001221035	1	Plane Washer		
36	7001221036	1	Rubber Pad		
37	7001221037	1	Push Cover		
38	7001221038	1	Stopper		
39	7001221039	4	Plane Washer		
40	7001221040	4	Spring Washer		
41	7001221041	4	Bolt		
42	7001221042	1 Right Rear Wheel Rack			
43	7001221043	2	Bolt		
44	7001221044	2	Nut		
45	7001221045	1	Right Leg		
46	7001221046	4	Bolt		
47	7001221047	4	Snap Ring		
48	7001221048	4	Bearing 6204-2Z		
49	7001221049	2 Load Wheel			
50	7001221050	4 Spacing Bush			
51	7001221051	2 Axle Pin			
52	7001221052	2 Snap Ring			
53	7001221053	2 Snap Ring			
54	7001221054	2 Bearing 6206			

DRAWING REF NO.	PART NO.	QTY DESCRIPTION			
55	7001221055	2	Roller		
56	7001221056	2	2 Steel Bead		
57	7001221057	4	Bolt		
58	7001221058	4	Bolt		
59	7001221059	4	Flat		
60	7001221060	4	Washer		
61	7001221061	4	Bolt		
62	7001221062	4	Nut		
63	7001221063	2	Nut		
64	7001221064	2	Bolt		
65	7001221065	2	Nut		
66	7001221066	2	Spring		
67	7001221067	2	Steel Bead		
68	7001221068	2	Steel Bead		
69	7001221069	4	Bolt		
70	7001221070	6	Bolt		
71	7001221071	6	Washer		
72	7001221072	2	Bearing Seat		
73	7001221073	2	Bearing		
74	7001221074	2	Roller		
75	7001221075	2	Snap Ring		
76	7001221076	2	Nut		
77	7001221077	2 Chain Joint			
78	7001221078	2 Split Cotter			
79	7001221079	2 Chain Pin			
80	7001221080	2 Chain			
81	7001221081	1	Inner Mast		

DRAWING REF NO.	PART NO.	PART NO. QTY DESCRIPTION			
82	7001221082	4	Snap Ring		
83	7001221083	4 Bearing 6205			
84	7001221084	2 Carrier Wheel			
85	7001221085	2	Snap Ring		
86	7001221086	1	Fork Arm Carrier		
87	7001221087	2	Adjustable Bolt		
88	7001221088	2	Fork Arm		
89	7001221089	1	Pilot		
90	7001221090	2	Snap Ring		
91	7001221091	4	Roller		
92	7001221092	4	Bearing 6206		
93	7001221093	4	Steel Bead		
94	7001221094	4	Bolt		
95	7001221095	1	Motor Pump		
96	7001221096	1	Adjustable Pipe Fitting		
97	7001221097	4	Composite Washer		
98	7001221098	2	Link Bolt		
99	7001221099	1	O-Ring		
100	7001221100	1	Input Oil Pipe		
101	7001221101	2	Clamp		
102	7001221102	1	Output Oil Pipe		
103	7001221103	1	1 Connector		
104	7001221104	1 Composite Washer			
105	7001221105	1 Cylinder			
105-1	70012211051	1	Dust Seal Ring		
105-2	70012211052	1	Top Nut		
105-3	70012211053	1 0-Ring			

DRAWING REF NO.	PART NO.	QTY DESCRIPTION			
105-4	70012211054	1 Gilding Bush			
105-5	70012211055	1	0-Ring		
105-6	70012211056	1	Piston Rod		
105-7	70012211057	1	Piston		
105-8	70012211058	1	Supporting Ring		
105-9	70012211059	1	Yx Seal Ring		
105-10	70012211060	1	0-Ring		
105-11	70012211061	1	Snap Ring		
105-12	70012211062	1	Cylinder Body		
106	7001221106	2	Washer		
107	7001221107	2	Bolt		
108	7001221108	1	Key To Electric Switch		
109	7001221109	1	Volt Meter		
110	7001221110	1	Electrical Box		
111	7001221111	4	Nut		
112	7001221112	4 Bolt			
113	7001221113	1 Battery			
114	7001221114	1 Charger			

11.2 COMPLETE ASSEMBLY PARTS LIST

PART NO.	QTY	DESCRIPTION
7001202011	1	Left Rear Wheel Assembly (650kg capacitiy)
7001201041	1	Right Rear Wheel Assembly (650kg capacity)
7001202012	1	Left Rear Wheel Assembly (1000kg capacitiy)
7001201042	1	Right Rear Wheel Assembly (100kg capacity)
7001201001	1	Handle Assembly
7001201038	1	Brake Assembly
7001101095	1	Operate Handle (without valve)
7002101095	1	Operate Handle (with valve)
7001231162	1	Cylinder Seal Kits (650kg capacity)
7001231262	1	Cylinder Seal Kits (1000kg capacity)
7001231362	1	Cylinder Seal Kits (1500kg capacity)

12.0 SERVICE / MAINTENANCE HISTORY

DATE	WORK PERFORMED	COMMENTS / NOTES

TO ORDER PARTS 12.1

For prompt service when ordering parts, please provide the following information to your local distributor.

- 1. Model and serial number of the vehicle
- 2. Part number, description and quantity
- 3. Shipping instructions

When in doubt as to part required, provide a sketch or the used part as a sample.

Record Here For Future Reference:

Date into Service:
Model Number:
Serial Number:
Distributor:

FOR SPARE PARTS CONTACT BLUE GIANT

TEL: 1.800.USA.BLUE / 905.457.3900 FAX: 1.888.378.5781 / 905.450.6555