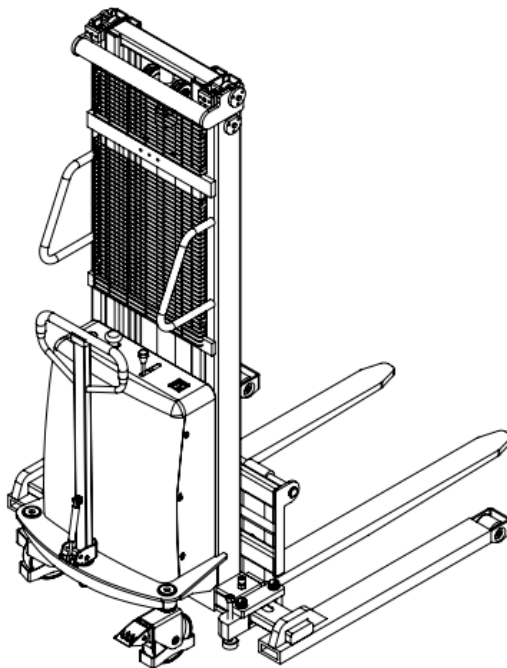


Service Manual

Part Manual

EA15B--Semi Electric Stacker



Note: Before use, read this manual, be trained and understand all of the warning labels on the Stacker.

Preface

EKKO Lifts would like to thank you for your recent purchase of our semi-electric stacker EA15 series. The stacker is made of high-quality steel and was designed to give you a durable, reliable and ease of use equipment. For your safety and correct operation usage, please carefully read this instruction manual and warnings on this stacker before use.

Note: All the information reported herein is based on data available at the moment of printing. We reserve the right to modify our products at any moment without notice and incurring in any sanction. So, it is suggested to always verify possible updates.

1.Data:

Model		EA15B
Load Capacity	(lb)	3300
Load Capacity on Max. height	(lb)	1980
Lifting height Max.	(in)	119.4
Load center distance	(in)	24
Fork length	(in)	45.3
Single fork width	(in)	3.94
Overall fork width	(in)	8-35
Lowered fork height	(in)	2..35
Fixed leg length	(in)	36.4
Fixed leg width, single	(in)	3.94
Width between fixed legs	(in)	35.4-59
Turning radius	(in)	53.2
Overall length	(in)	74
Overall width max	(in)	59
Extended mast height	(in)	140.5
Lowered mast height	(in)	84.5
Battery Voltage	(in)	12V/120AH, 10-12V
Charger		12V/15A
Lift Motor		DC, 12V/1.5KW
Service Weight	(lb)	1150

1.Safety guidance

- 1.1 Operator should read the manual before operation of the equipment, review and understand warning signs on the stacker before using it.
- 1.2 Do not operate a stacker unless you are familiar with the unit and have been properly trained and authorized to do so.
- 1.3 Do not operate a stacker unless you have inspected its condition. Give special attention to the chain, the wheels, the handle, the guide frame, the pilot wheel, the mast, battery, etc.
- 1.4 Do not use on a slopping ground or on in explosive dangerous environment.
- 1.5 Do not ever lift people on the forks.
- 1.6 When forks are lifted, it is forbidden for anyone to stand under the forks or pass through the forks.
- 1.7 Do not add any type of attachment to the stacker.
- 1.8 The operator should use gloves for protecting.
- 1.9 Do not move the stacker when the goods are lifted to the height of more than 11.8 in.
- 1.10 When the goods are lifted; people should stay clear from the forks of at least 2 feet.
- 1.11 The weight of goods should be evenly distributed onto both forks, do not use only one fork. The center of gravity of goods should be in the center of two forks of load center of 24".
- 1.12 Do not overload maximum capacity.
- 1.13 Before using or charging it, check battery fluids, if it is insufficient, please fill with only distilled water.
- 1.14 Charging the equipment should be in dry and ventilated location, and far away from heat.
- 1.15 Always keep the forks in the lowest position if not in use. The operator should always be responsible and careful when operating the stacker.

2.Maintenance

2.1Hydraulic oil

Please check the oil level every six months. The oil can be hydraulic oil: ISO VG32, its viscosity should be 32cSt at 40oC, total volume is about 4.0 liters.

2.2Daily check and maintenance

It is required to check the stacker every 8 hours daily. Special attention should be to the wheels and axles of debris stuck in between which may block the wheels. Check the forks and the mast, the chain, the battery should be checked as well. The forks should be unloaded and lowered in the lowest position when not in use.

2.3Lubrication

Use motor oil or grease to lubricate all movable parts every 3 months.

3. Battery charging

3.1 When the battery voltage is below 10 volts, it should be charged.

3.2 It is best to check the battery fluid before charging, and supplement with distilled water if it is not enough.

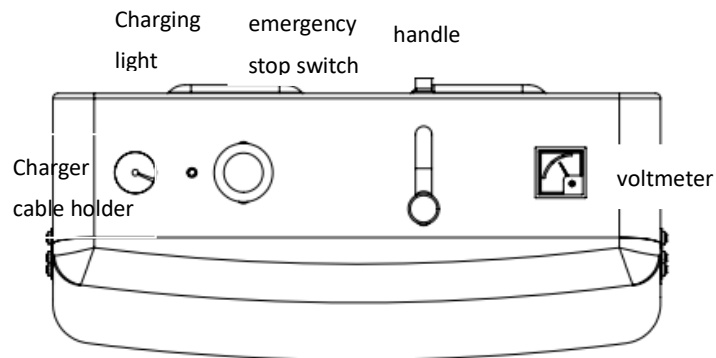
3.3 When charging, the surrounding environment should be dry, well-ventilated, and away from fire.

3.4 If the battery is not used for a long time, it should be charged once a week for not less than two hours each time.

3.5 When charging, the indicator indicates that the voltage should be lower than 16 volts.

3.6 Do not use when charging.

4. Control panel



4.1 Emergency Switch

When you press this button, the pump station motor power will be cut off; When you pull this switch, the motor power will be switched on.

4.2 Voltmeter

This meter shows the voltage of the battery. When the display voltage is less than 10 volts, the battery must be charged.

4.3 Control Handle

This handle controls the rise or fall of the fork.

4.4 Charging Socket

This socket is a special socket.

4.5 Charging Indicator

Displays when the battery is charging

4.6 Charger Cable Base

Fixed built-in charger plug

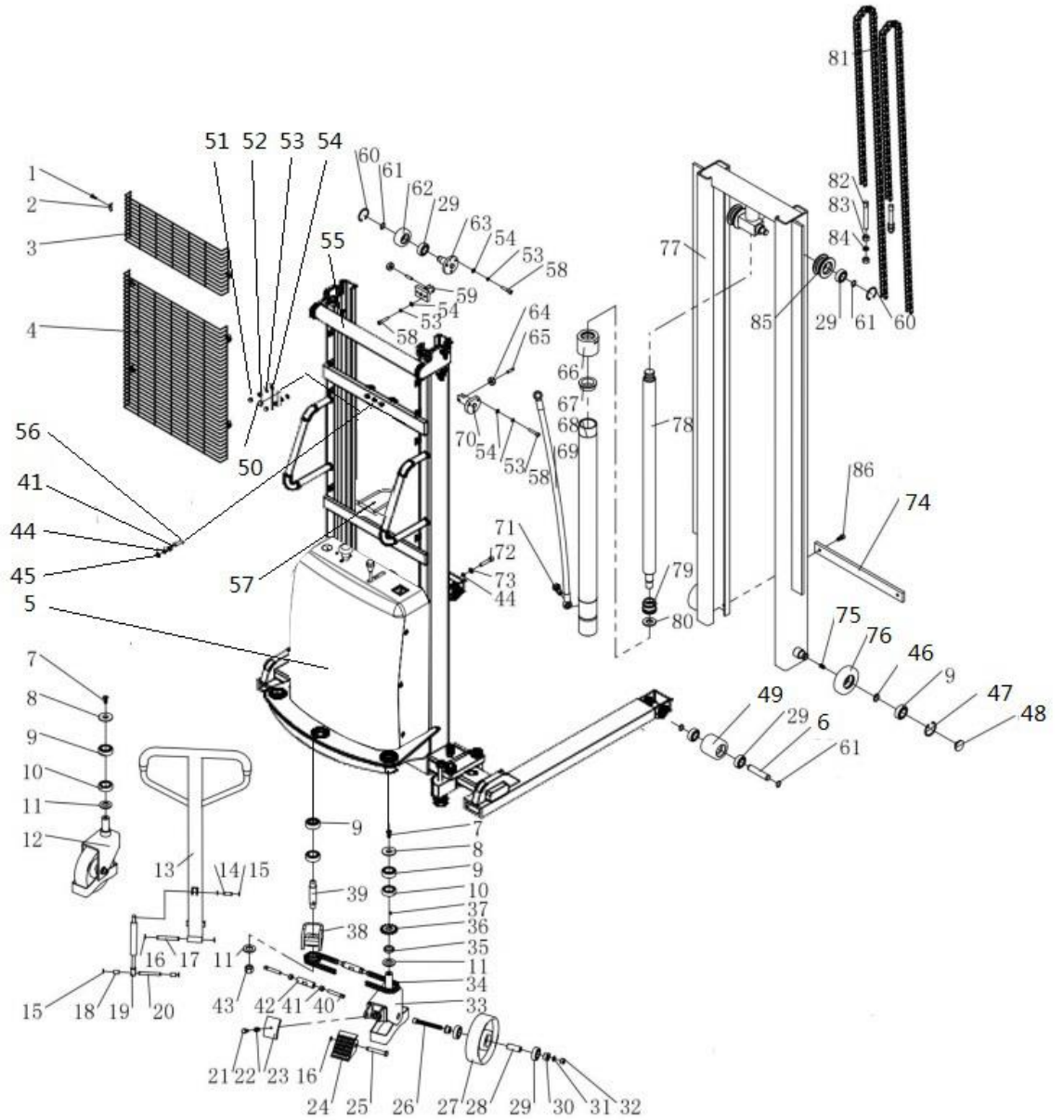
5.Troubles shooting

	Trouble	Cause	Solution
1	The forks can't lift to the max. height.	-Low on hydraulic fluid	-Add hydraulic fluid.
2	The forks cannot lift at all.	-No hydraulic fluid. -The tank or fluid has impurities.	-Add hydraulic fluid -Change fluid
3	Does not power up.	-The emergency switch is pressed down -The battery is too low. -The connectors of electrical wiring is loose. -The contact of DC motor is bad.	-Pull emergency switch up. -Charge it. -Tighten the bolts. -Replace with new one.
4	The forks cannot be descended.	-The piston rod or mast is deformed resulting from partial loading slanting to one side or over-loading. -The fork was kept in the high position for long time with piston rod bared to the environment and rusting, corrosions will cause the jamming of the rod. -The release valve of pump is not opened.	- Replace with new one. -Keeping the fork in the lowest position if not using and pay more attention to lubricate the rod. -Check it, if damaged, replace with new one.
5	Leaks	-Seals are worn or damaged.	-Replace with the new one.
6	The fork descends by itself	-The impurities in the fluid caused the release valve not properly seal shut. -Sealing parts worn or damaged. -The release valve is damaged.	-Replace with new oil. -Replace with the new one. -Replace with the new one.
7	Battery cannot be charged	-Battery is bad. -The charging plug is loose.	Replace with the new one. Tighten the clamps or bolts

Note: Without authorization or training, it is strictly prohibited operate or repair!

6 Part List

6.1 EA15B Mast



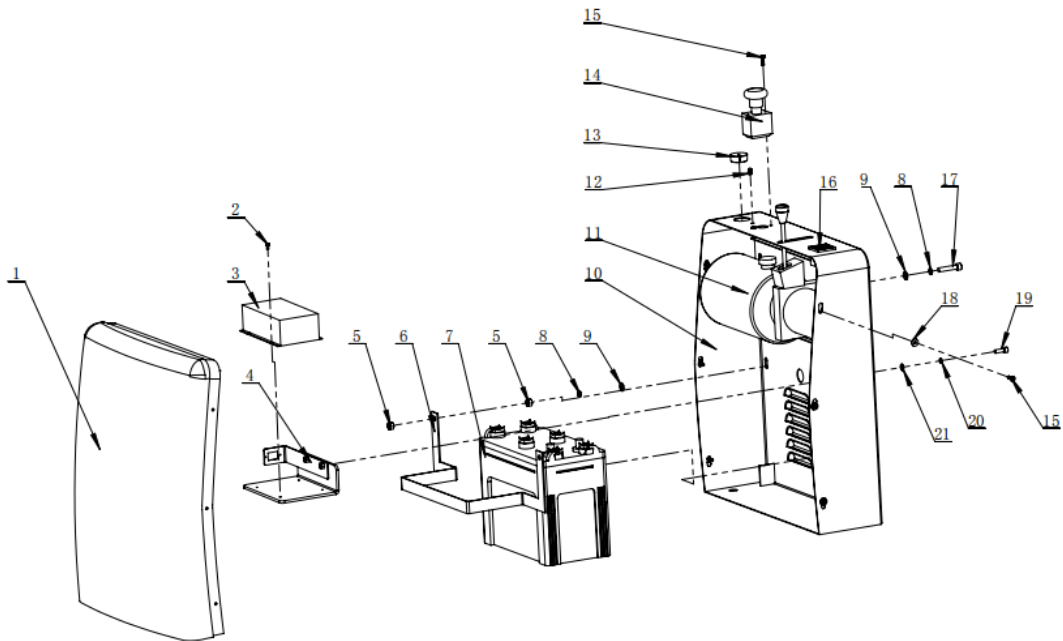
EA15B Mast

序号	代号	名称	规格	数量
1	GB/T 818-2000	十字槽盘头螺钉	M6×20	14
2	SPN10.0-6	防护罩夹		6
3	SPN10.0-4D	防护罩		1
4	SPN10.0-4C	防护罩		1
5	SPN-MG-04	配电箱总成		1
6	SPN10.0-3	小轮轴		2
7	GB 2674-86	内六角半圆头螺钉	M10×25	2
8	SPN10.4-3	压盖		2
9	GB/T 276-94	深沟球轴承	6205	10
10	GB/T 297-94	圆锥滚子轴承	30205	2
11	GB/T 97.1-2002	平垫圈	Φ24	3
12	SPN10.6.1	从动轮轮架		1
13	SPN10.4.1	转向手柄		1
14	SPN10.4-1	销轴		1
15	GB 894.1-86	轴用弹性挡圈	Φ10	4
16	GB 894.1-86	轴用弹性挡圈	Φ12	3
17	SPN10.4-2	连接轴		1
18	SPN10.4-6	隔套		2
19	SPN10.4-7	气弹簧		1
20	SPN10.4-4	气弹簧轴		1
21	SPN10.5-7	推杆螺钉		1
22	GB_T 2084-94	圆柱螺旋压缩弹簧		1
23	SPN10.5-4	刹车块		1
24	SPN10.5-8	凸轮踏板		1
25	SPN10.5-3	销轴		1
26	GB/T 70.1-2000	内六角圆柱头螺钉	M12×100	2
27	SPN10.5.2	尼龙大轮		2
28	SPN10.5-1	衬套		2
29	GB/T 276-94	深沟球轴承	6204	12
30	SPN10.5-2	轴套		4
31	GB/T 93-1987	弹性垫圈	Φ12	2
32	GB/T 6170-2000	六角螺母	M12	2
33	SPN10.5.1	刹车轮架组件		1
34	ISO08A	链条		2
35	SPN10.5-5	轴垫圈		2
36	SPN10.4-8	转向链轮		2
37	GB/T 1096-2003	普通平键	6×8	1
38	SPN10.4.2B	手柄底座		1

39	SPN10.4-5	转向轴		1
40	SPN10.4.3-1,4	拉紧螺栓		4
41	GB/T 41-2000	六角螺母	M10	9
42	SPN10.4.3-2	拉紧器		2
43	GB/T 6176-2000	六角螺母	M18×1.5	1
44	GB/T 93-1987	弹性垫圈	Φ10	7
45	GB/T 95-2002	平垫圈	Φ10	5
46	GB 894.1-86	轴用弹性挡圈	φ25	2
47	GB 893.1-86	孔用弹性挡圈	φ52	2
48	SPN10.3-3	侧压垫		2
49	SPN10.0-1	前轮		2
50	GB 923-88	盖形螺母	M10	1
51	GB 923-88	盖形螺母	M8	2
52	GB/T 41-2000	六角螺母	M8	2
53	GB/T 93-1987	弹性垫圈	φ8	20
54	GB/T 95-2002	平垫圈	φ8	20
55	SPN1030-MG-01.01.01	门架组件		1
	SPN1035-MG-01.01.01	门架组件		1
56	GB/T 5781-2000	六角头螺栓全螺纹	M10×55	1
57	SPN10.0-2	油缸抱箍		1
58	GB/T 70.1-2000	内六角圆柱头螺钉	M8×20	16
59	SPN10.11	后限止轮架焊合件		2
60	GB 893.1-86	孔用弹性挡圈	φ47	4
61	GB 894.1-86	轴用弹性挡圈	φ20	8
62	SPN10.7.1-3	导轮		2
63	SPN10.7.1	导向轴座焊合件		2
64	SPN10.11-3	限止轮		4
65	GB/T 119-2000	圆柱销	φ8×30	4
66	SPN10.8-2T	挡盖		1
67	SPN10.8-3	衬套		1
68	SPN10.8-4	油缸体 3.0		1
	SPN10.8-4	油缸体 3.5		1
69	GB/T3683-92	高压油管		1
70	SPN10.12	左右限止轮架焊合件		2
71	SPN10.8-6	油管接头		1
72	GB/T 70.1-2000	内六角圆柱头螺钉	M10×25	2
73	GB/T 95-2002	平垫圈	Φ10	2
74	SPN10.2-2	拉杆		1
75	GB/T 77-2000	内六角平端紧定螺钉	M12×20	6
76	SPN10.2-1	内门架滚轮		2
77	SPN10.30.2/B	内门架组件		1
	SPN10.35.2/B	内门架组件		1

78	SPN10.8-1	活塞杆 3.0		1
	SPN10.8-1	活塞杆 3.5		1
79	SPN10.8-5	活塞		1
80	SPN10.8-9	挡圈		1
81	ISO12A	链条 3.0		2
	ISO12A	链条 3.5		2
82	SPN10.0-1	链条拉杆		2
83	GB/T 6170-2000	六角螺母	M14	4
84	GB/T 93-1987	弹性垫圈	$\phi 14$	2
85	SPN10.2-5(G)	链轮		2
86	GB/T 70.1-2000	内六角圆柱头螺钉	M10 \times 20	2

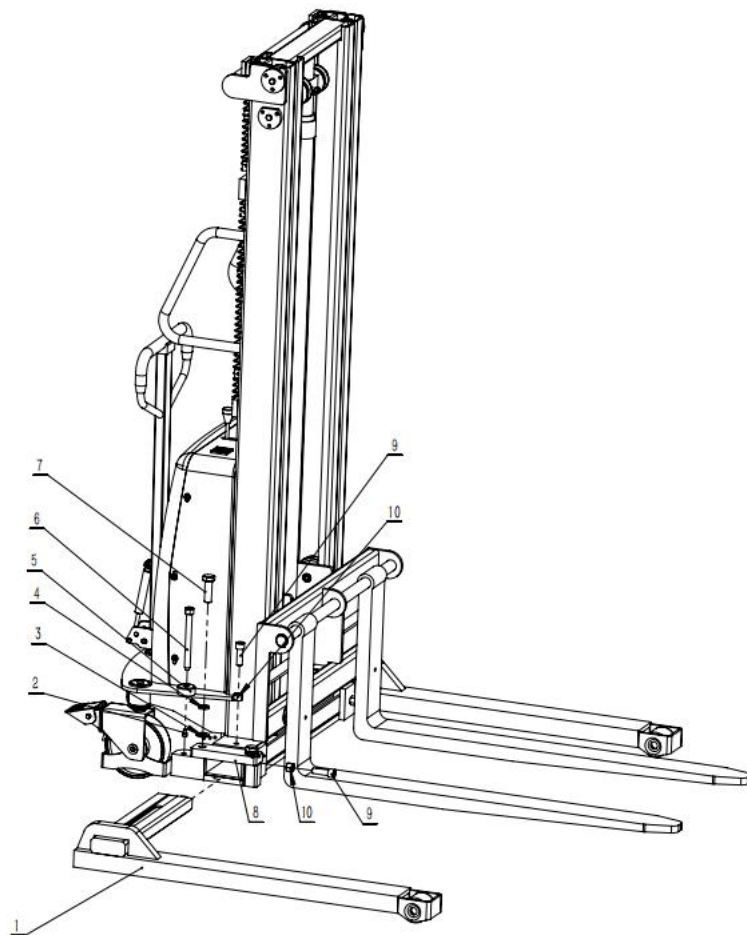
6.2 Distribution box



6.2 Distribution box

序号	代号	名称	规格	数量
1	SPN10.9-2	电器罩		1
2	GB/T 818-2000	十字槽盘头螺钉	M5×10	4
3	12V/20A (110v 美标)	内置式充电器		1
4	SPN-MG-04.01	充电器支架		1
5	GB / T41-2000	六角螺母 C 级	M10	8
6	SPN10-10.1	电瓶固定架(电瓶固定)		1
7		蓄电池		1
8	GB/T 97.1-2002	平垫圈	Φ10	6
9	GB/T 93-1987	弹性垫圈	Φ10	6
10	SPN10.9.1NZ	配电箱	(内置式)	1
11	CMB1-VB1303060-120	泵站		1
12		发光二极管灯座		1
13	SL15GD-03.2	充电器线座		1
14	TY-01.36	急停开关		1
15	GB/T 818-2000	十字槽盘头螺钉	M6×16	8
16	TY-01.43	电量表		1
17	GB/T 70.1-2000	内六角圆柱头螺钉	M10×25	2
18	GB/T 97.1-2002	平垫圈	Φ6	6
19	GB/T 70.1-2000	内六角圆柱头螺钉	M8×25	2
20	GB/T 93-1987	弹性垫圈	Φ8	2
21	GB/T 97.1-2002	平垫圈	Φ8	2

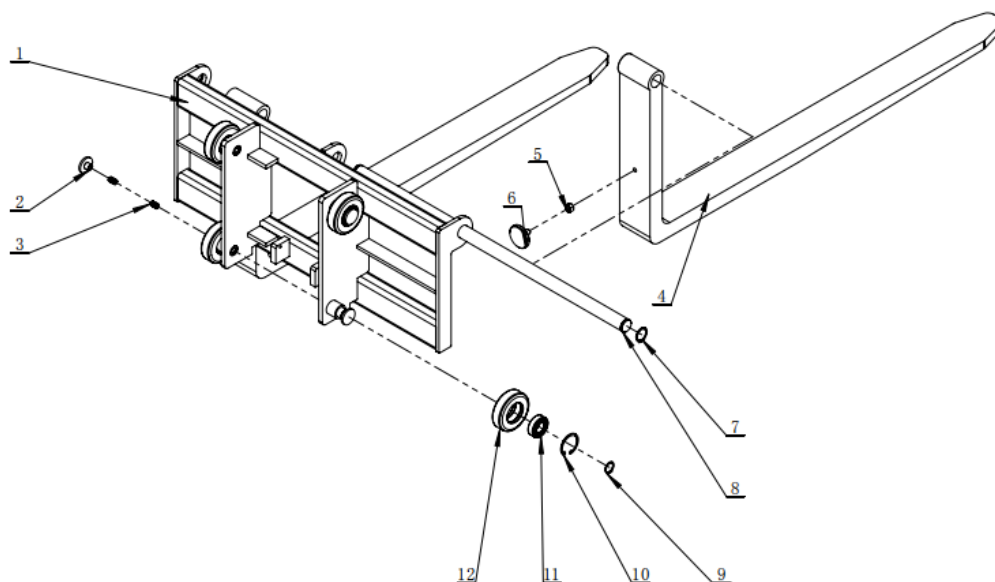
6.3 Adjustable wide legs



6.3 Adjustable wide legs

序号	代号	名称	规格	数量
1	SPN-MG-01.01.01.02	车腿焊合 outrigger legs		2
2	GB/T 70.1-2000	内六角圆柱头螺钉	M8×12	2
3	GB/T 97.1-2002	平垫圈	Φ20	2
4	GB/T 93-1987	弹性垫圈	Φ20	2
5	CLJ1030.06-8	压块		2
6	CLJ1030.06-7	调节螺杆/Shaft		2
7	GB / T5780-2000	六角头螺栓/ Bolt	M20×65	4
8	CLJ-MG-01.11	压板/Bar		2
9	GB / T5780-2000	六角头螺栓/ Bolt	M16×55	4
10	GB / T41-2000	六角螺母/Washer	M16	4

6.4 tray rack



7.4 tray rack

序号	代号	名称	规格	数量
1	SPN-MG-03.01	托盘架焊合/Carriage		1
2	SPN10.3-3	侧压垫/End cap		4
3	GB/T 77-2000	内六角平端紧定螺钉 /Pin	M12×20	8
4	(t35*100*1150)	加高锻打货叉/Forks		2
5	GB / T41-2000	六角螺母/ Nut	M12	2
6	SPN10.3.2-2	调整挡块/Adjustment pads		2
7	GB 894.2-86	轴用弹性挡圈/Ring	Φ 32	2
8	SPN10.3-2	长轴/Rod	Φ 32*885	1
9	GB 894.2-86	轴用弹性挡圈/washer	Φ 25	4
10	GB 893.2-86	孔用弹性挡圈/Snap ring	Φ 52	4
11	GB/T 276-94	深沟球轴承/Bearings	6205	4
12	SPN10.3-1	托盘架滚轮/ Bearings		4

