

OPERATING
AND
MAINTENANCE

THOR 9 HAMMER
THROW CAGE



Thor 9 Hammer Discus Cage - New design for Councils, Schools, and Clubs

- IAAF certified 9m high x 3.2m long gates that pivot 4.2m forward of circle centre
- 7m high perimeter net.
- 100 kph wind rating
- Engineer certified



The most revolutionary throw cage design in 50 years



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Thor 9 hammer throw cage is an IAAF certified (E-15-0822) cage and the smaller of two hammer cages certified for competition use by International Association of Athletics Federations (IAAF).

The cage has a 100 kph wind rating with the net erected, meaning nets can remain erected in winds up to 100 kph..

The 3.0m x 9.0m gates with 7m high perimeter. The gates pivot 4.2m from circle centre.

Three aluminum net support poles hinged on steel spigots and designed to allow minimal impact from implement damage with the outward facing poles also easily to be assembled laying down and raised by a hand operated winch - mounted on a stand. The poles and spigots can be removed leaving flush ground sleeves with caps.

The net is attached to rails which connect to pole ropes for raising. The ropes are tied off to cleats on each pole.

Net retaining ropes from the poles are fed through the net and tied to saddle anchors set into footings.

Gates are operated by releasing a latch on each pole and swinging the arm to the appropriate position and tying off the ground anchor.

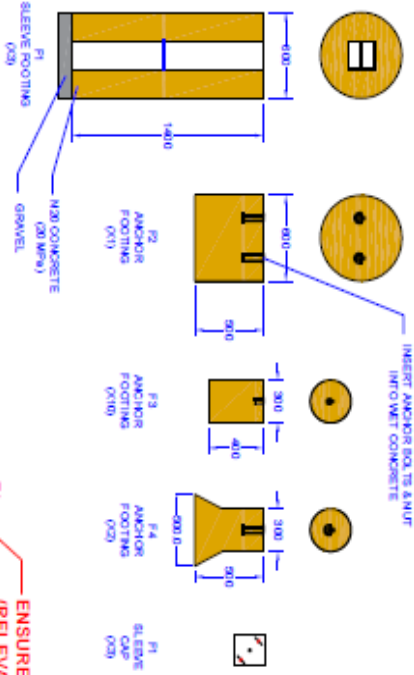
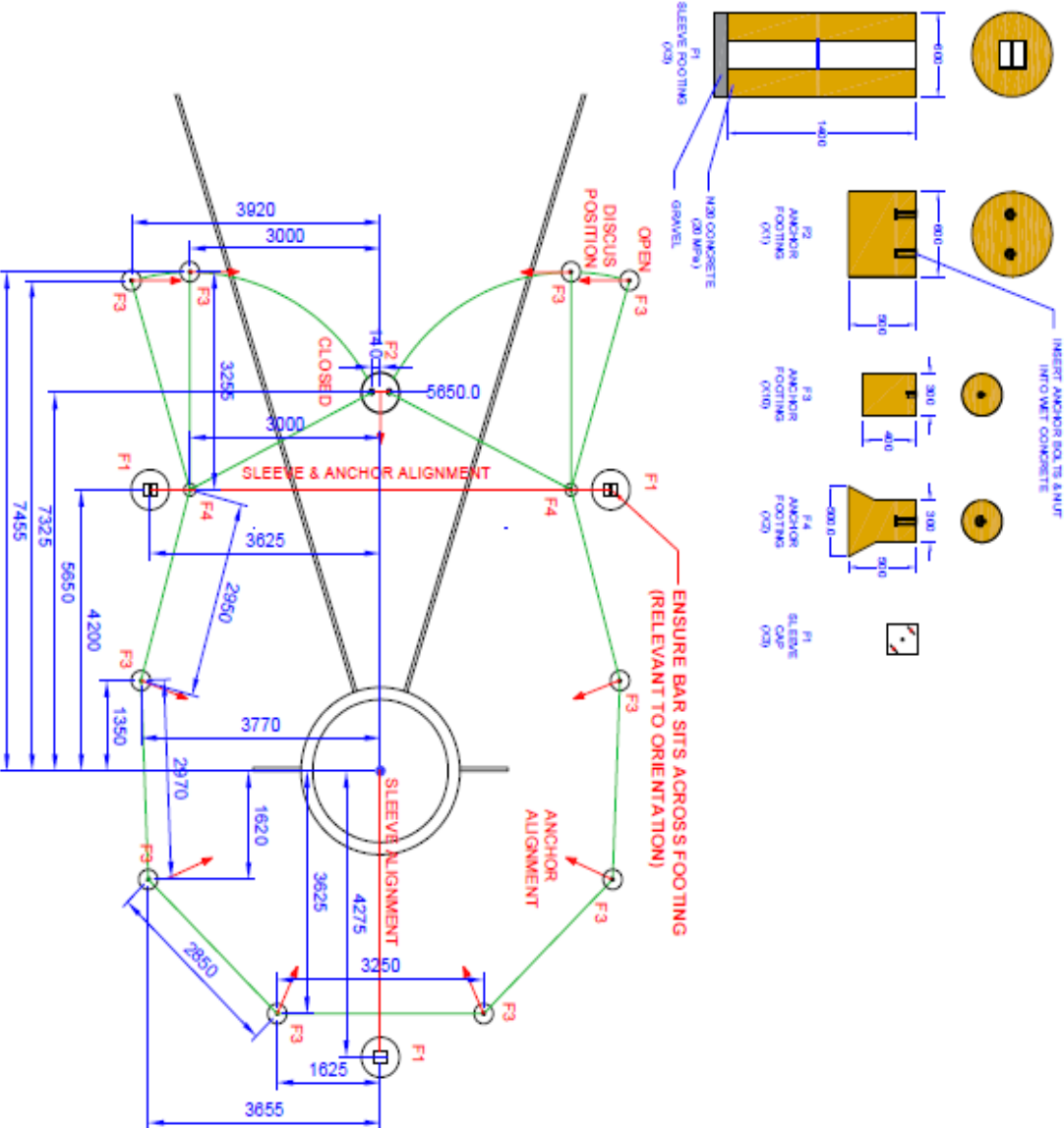
The cage can be raised and lowered with a winch on a stand which attaches to ground anchors.

SPECIFICATION COMPARISON CHART

Description	Technical Data		
	Thor 10 Hammer Cage	Thor 9 Hammer Cage	Apollo Discus Cage
Size	10m x 2m gates, 7 metre perimeter.	9m x 3.2m gates, 7 metre perimeter.	6 metre high net at front. 4m perimeter
Compliance standard	IAAF certified. E-05-0403	IAAF certified. E-15-0822	IAAF certified. E-12-0695
Intellectual Property	Patent Application	Patent Application	Patent Application
Application	Hammer and Discus, Concentric	Hammer and Discus, Concentric	Discus
Gate pivot distance	7.0m from circle centre.	4.2m from circle centre.	7.0m from circle centre.
Gate edge	Rope and steel cable.	Rope and steel cable.	Rope.
Gate operation	Swing arm, ground anchor hook.	Swing arm, ground anchor hook.	N/A
No. of poles	4	3	4
Pole hardware	Rope cleats and pulleys.	Rope cleats and pulleys.	Rope cleats.
Pole material	Steel and aluminium.	Steel and aluminium.	Steel and aluminium.
Ground work	4 sleeves, 14 rope anchors	3 sleeves, 14 rope anchors	4 sleeves, 8 rope anchors
Finish	Galvanised and mill finish.	Galvanised and mill finish.	Galvanised and mill finish.
Net	44mm square mesh, 5mm woven poly, UV stable, IAAF certified.	44mm square mesh, 5mm woven poly, UV stable, IAAF certified.	44mm square mesh, 2.5mm woven poly, UV stable, IAAF certified.
Net support	Net rails all round.	Net rails all round.	Net rails and free hang.
Net retaining ropes	10	8	6
Ropes	8mm black woven polypropylene.	8mm black woven polypropylene.	8mm black woven polypropylene.
Wind rating	Wind rated to 100kph	100 kph wind rating	Wind rated to 100kph).
Assembly method	Raised by winch.	Raised by winch.	Raised by hand.
Manpower	2-3 people	2-3 people	2-3 people
Assembly time	6-7 hours	5-6 hours	2.5 hours



Thor 9 Hammer Cage
Ipswich Athletics Ipswich QLD



INSERT ANCHOR BOLTS & NUTS INTO WET CONCRETE

FILE: THOR - 9 HAMMER CAGE			
DRAWING: FOOTING LAYOUT			
DATE: 14 OCT 18	SCALE: 1:1	DRWING: TB	REV: A3
DATE: 14 OCT 18	SCALE: 1:1	DRWING: TB	REV: A3



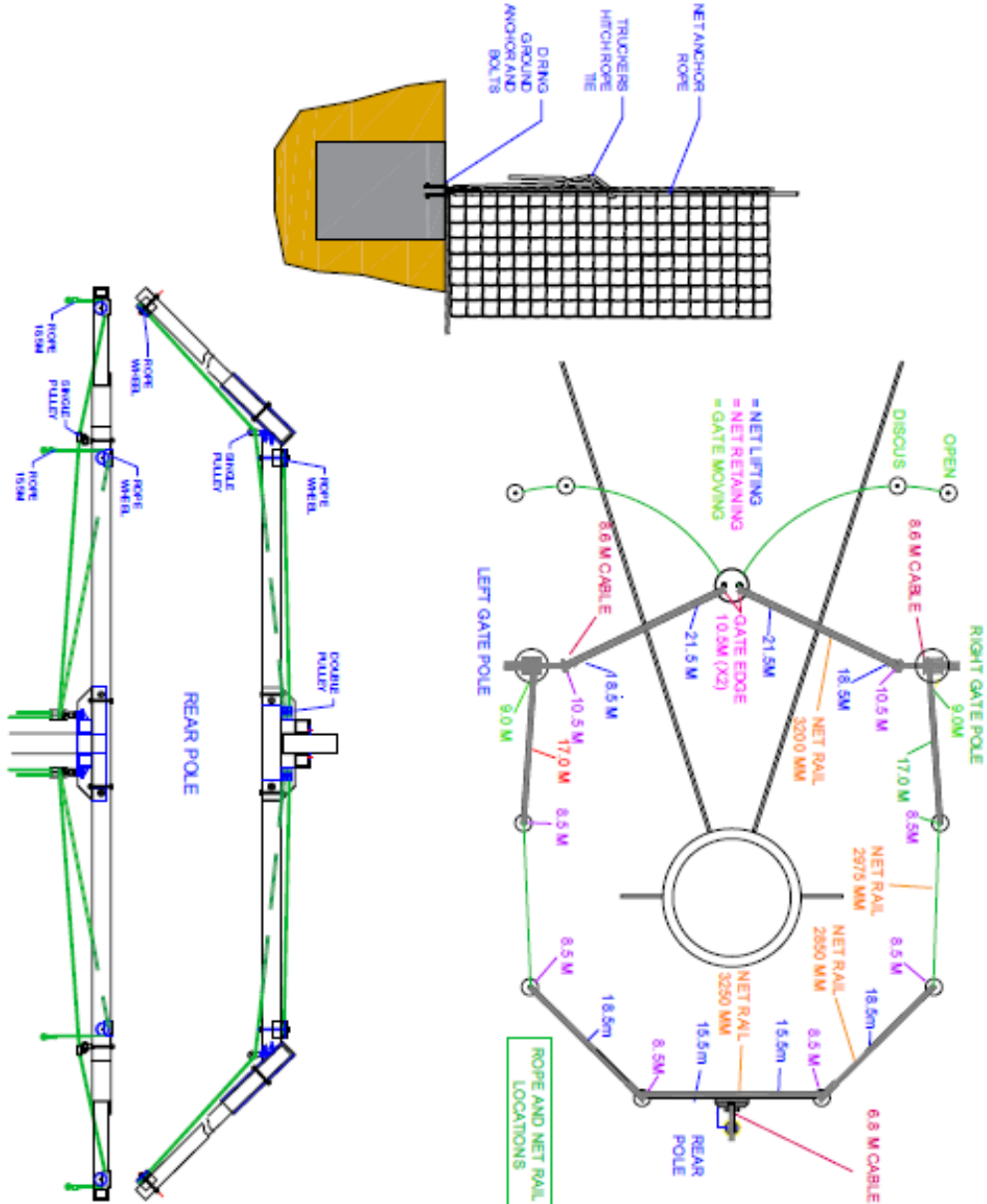
CUTTING LIST	
FOR QUANTITY ONLY	
PART	ITEM
F1	3 SLEEVE CAPS
F2	3 ANCHOR BOLTS & NUTS
F3	3 ANCHOR BOLTS & NUTS
F4	3 ANCHOR BOLTS & NUTS
F1	1 SLEEVE



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ROPE AND CABLE LOCATION



CUTTING LIST
FOR ONE UNIT ONLY

PART	QTY	ITEM	LENGTH	TOTAL
1	1	CABLE AND CHAIN	8.6 M	8.6 M
2	1	NET LIFTING	10.5 M	10.5 M
3	1	NET RETAINING	21.5 M	21.5 M
4	1	NET MOVING	17.0 M	17.0 M
5	1	NET RAIL 3200 MM	18.5 M	18.5 M
6	1	NET RAIL 2975 MM	8.5 M	8.5 M
7	1	NET RAIL 2850 MM	8.5 M	8.5 M
8	1	NET RAIL 3250 MM	15.5 M	15.5 M
9	1	NET RAIL 3250 MM	15.5 M	15.5 M
10	1	NET RAIL 3250 MM	8.5 M	8.5 M
11	1	NET RAIL 3250 MM	18.5 M	18.5 M
12	1	NET RAIL 3250 MM	8.5 M	8.5 M
13	1	NET RAIL 3250 MM	8.5 M	8.5 M
14	1	NET RAIL 3250 MM	8.5 M	8.5 M
15	1	NET RAIL 3250 MM	8.5 M	8.5 M
16	1	NET RAIL 3250 MM	8.5 M	8.5 M
17	1	NET RAIL 3250 MM	8.5 M	8.5 M
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19	1	NET RAIL 3250 MM	8.5 M	8.5 M
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48	1	NET RAIL 3250 MM	8.5 M	8.5 M
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50	1	NET RAIL 3250 MM	8.5 M	8.5 M
51	1	NET RAIL 3250 MM	8.5 M	8.5 M
52	1	NET RAIL 3250 MM	8.5 M	8.5 M
53	1	NET RAIL 3250 MM	8.5 M	8.5 M
54	1	NET RAIL 3250 MM	8.5 M	8.5 M
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59	1	NET RAIL 3250 MM	8.5 M	8.5 M
60	1	NET RAIL 3250 MM	8.5 M	8.5 M
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64	1	NET RAIL 3250 MM	8.5 M	8.5 M
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66	1	NET RAIL 3250 MM	8.5 M	8.5 M
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71	1	NET RAIL 3250 MM	8.5 M	8.5 M
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73	1	NET RAIL 3250 MM	8.5 M	8.5 M
74	1	NET RAIL 3250 MM	8.5 M	8.5 M
75	1	NET RAIL 3250 MM	8.5 M	8.5 M
76	1	NET RAIL 3250 MM	8.5 M	8.5 M
77	1	NET RAIL 3250 MM	8.5 M	8.5 M
78	1	NET RAIL 3250 MM	8.5 M	8.5 M
79	1	NET RAIL 3250 MM	8.5 M	8.5 M
80	1	NET RAIL 3250 MM	8.5 M	8.5 M
81	1	NET RAIL 3250 MM	8.5 M	8.5 M
82	1	NET RAIL 3250 MM	8.5 M	8.5 M
83	1	NET RAIL 3250 MM	8.5 M	8.5 M
84	1	NET RAIL 3250 MM	8.5 M	8.5 M
85	1	NET RAIL 3250 MM	8.5 M	8.5 M
86	1	NET RAIL 3250 MM	8.5 M	8.5 M
87	1	NET RAIL 3250 MM	8.5 M	8.5 M
88	1	NET RAIL 3250 MM	8.5 M	8.5 M
89	1	NET RAIL 3250 MM	8.5 M	8.5 M
90	1	NET RAIL 3250 MM	8.5 M	8.5 M
91	1	NET RAIL 3250 MM	8.5 M	8.5 M
92	1	NET RAIL 3250 MM	8.5 M	8.5 M
93	1	NET RAIL 3250 MM	8.5 M	8.5 M
94	1	NET RAIL 3250 MM	8.5 M	8.5 M
95	1	NET RAIL 3250 MM	8.5 M	8.5 M
96	1	NET RAIL 3250 MM	8.5 M	8.5 M
97	1	NET RAIL 3250 MM	8.5 M	8.5 M
98	1	NET RAIL 3250 MM	8.5 M	8.5 M
99	1	NET RAIL 3250 MM	8.5 M	8.5 M
100	1	NET RAIL 3250 MM	8.5 M	8.5 M

TITLE THOR - 9 HAMMER CAGE ASSEMBLY - 15			
DESIGNED BY: THOR - 9		DESIGNED BY: TREVOR B.	
DATE: 15 / 18		DATE: TB	
SCALE: 1:1		SCALE: 1:1	
PROJECT NO.: 2103/2019		PROJECT NO.: A3	

ASSEMBLY



The hinged base plate inserts into the ground sleeve.



A steel spigot bolts on to the hinged base plate. The pole inserts into the spigot.



Poles are assembled on the ground and ropes fed through the rollers.



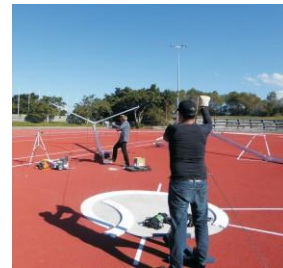
Poles consist of an upper and lower section with arms or gates protruding from the upper section.



Arms slide into sockets and are bolted in place. Ropes are fed through before the pole is raised.



A cable is attached to the top of each pole and shackled to the winch. The winch is anchored to one of the F4 type footings.



The poles are hinged to raise plates and raised by the winch. Spacers are placed between the base plate and spigot to adjust the forward or backward lean of the pole.



The net is attached to hooks on net rails. The rails are shackled to the raising ropes. A net retaining rope is also attached and is fed through the net as it is raised.



The net is raised in stages. Net retaining ropes are also attached to the net rails and are fed through the net as it is raised.



Ropes are tied off the cleats on the side of the poles. The cleats are designed to avoid the net entanglement.

PARTS LIST

COMPONENT LIST

PART	QTY	ITEM
1	3	GROUND SLEEVE
2	3	SLEEVE SPIGOT
3	3	SLEEVE CAP
4	3	POLE SPIGOT
5	3	BASE POLES
6	2	GATE POLE
7	2	GATE ARM
8-A	1	REAR POLE
8-1	1	REAR CROSS ARM
9	2	REAR EXTENSION ARMS
10	2	GATE EXTENSION ARMS
11	7	NET RAILS
11E	4	NET RAIL BRACKET
13	1	WINCH
13	1	WINCH STAND

32.7X 2.5MM GALV. PIPE
PART 11A
 2.5 GATE NET SUPPORT WALL (2000MM)

32.5.5MM ALUMINUM TUBE
PART 11B
 2.5 GATE NET SUPPORT RAILS (2070MM)

32.5.5MM ALUMINUM TUBE
PART 11C
 2.5 GATE NET SUPPORT RAIL (2000MM)

32.5.5MM ALUMINUM TUBE
PART 11D
 1.5 GATE NET SUPPORT RAIL (2000MM)

PART 11E

PART 13C
 STAND BRACE
 QTY 2 PIECE

PART 13
 WINCH
 QTY 1 PIECE

PART 13B
 STAND POLE
 QTY 1 PIECE





Thor 9 Hammer Cage – Ashton Fields, UK

OPERATION:

The cage is quick and easy to operate. The gates are adjusted by pulling the coloured rope on each gate pole which releases a latch holding the gate. Unclip the net at the ground anchor, swing the gate by pulling the net to either the open or closed position. The gate will relocate into the latch. Clip the net into the new position. For right hand throwers, open the right gate (viewed from the throwing circle) and close the left gate. For left hand throwers, open the left gate and close the right gate.

MAINTENANCE:

The net retaining ropes should be tensioned at all times. This restricts the net from blowing. Do not tie the net back to the poles.
Do not tie the gate net back to increase the opening. Do not climb on the net or the poles.
Make sure the gates are set in the correct position. Lower the net if winds are expected to exceed 100kph.
Spectators should remain well clear of the net when the cage is in use.

WARRANTY:

The standard Play Hard Sports product warranty terms and conditions apply.
The metal components of the product have a 5 year warranty against defective materials and workmanship. The net and ropes are not covered in the warranty. The life span of the net and ropes are subject to weather conditions, the amount of use and misuse.
Full warranty terms and conditions are available in the standard product price list.



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