

CLARK MASTS™

Type 73-S

**The fast action
mechanically extended
tubular sectional mast
up to 16 metres**

Introduction

Clark Masts Type 73 mast is well accepted over 20 years for supporting antennas up to 75 kg. total weight and up to 30 metres high. There exist, however, many applications where the headload is less than 20 kg. and the desired height no more than 16 metres. In such cases a fast operation is also desirable. Type 73-S satisfies this requirement by using a simple hoist to lift the mast sections. The guys are controlled manually by means of a simple device. Within the limitations of height and headload Type 73-S offers a fast erecting mast solution, almost as fast as a telescopic type yet with the proven panclimatic, all-terrain advantages of Type 73.

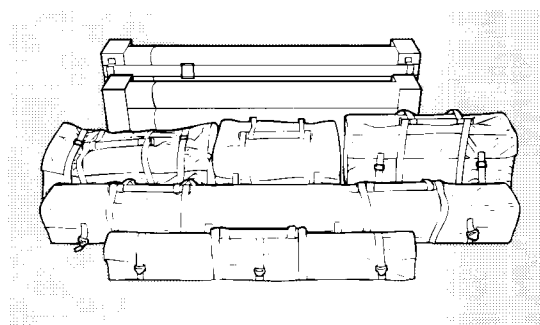
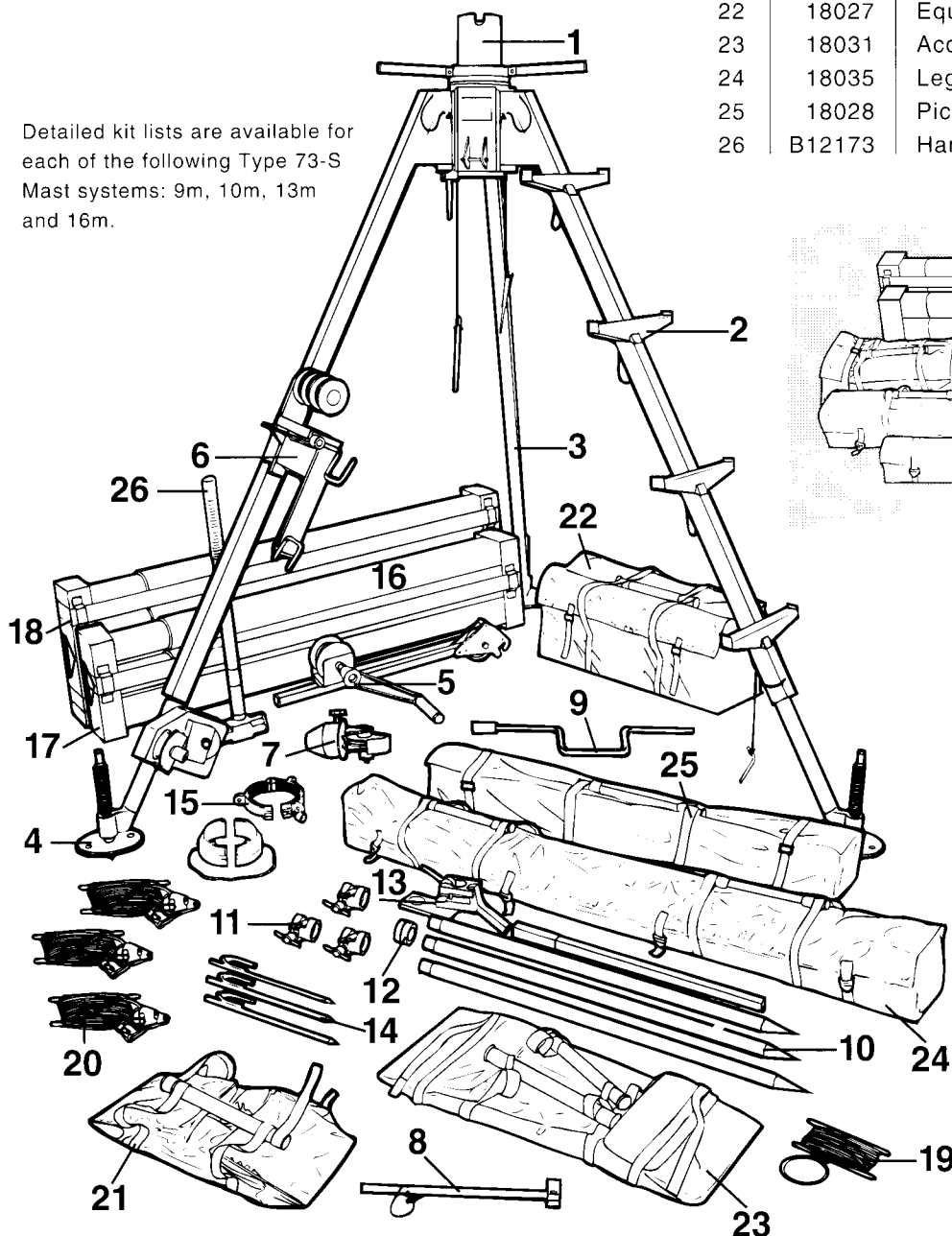


Standard Type 73-S Kit Components

Item	Clark Masts Part No.	Title	Qty. per Kit
1	18205	Mast Guide Box	1
2	10772	Step Assembly	4
3	18020	Leg Assembly	3
4	18114	Foot Assembly	3
5	14571	Light Hoist	1
6	14572	Guy Control Kit	1
7	5246	Lifting Block	1
8	5426	Bubble Level	1
9	5373	Foot Adjustment Brace	1
10	18037	Picket	3

11	18039	Picket Clamp	3
12	18034	Picket Driving Cap	1
13	18033	Picket Extractor	1
14	6409	Spike	3
15	18022	Guy Collar Set	1
16	5231	Mast Section	7
17	14522	Mast Section Carrier (3 Sections)	1
18	14523	Mast Section Carrier (4 Sections)	1
19	18150	Radius Line	1
20	14573	Kevlar Guy Assembly	3
21	18476	Guy Control Kit Bag	1
22	18027	Equipment Bag	1
23	18031	Accessory Bag	1
24	18035	Leg Bag	1
25	18028	Picket Bag	1
26	B12173	Hammer	1

Detailed kit lists are available for each of the following Type 73-S Mast systems: 9m, 10m, 13m and 16m.



Packed Kit

The number of mast sections, mast section carriers, pickets, guy collars, spikes etc varies according to the actual height of mast to be erected. The catalogue numbers shown in the table include all items needed for the standard field mast kit to give the extended height stated.

The kit shown is a 10 metre mast, Cat. No. 18299.

The cover photograph shows two men operating a Type 73-S 9 metre mast.

General Description

The Type 73-S mast uses the standard Type 73 tubular section. This is built round a specially drawn and machined aluminium alloy tube 4" diameter by 1.22 metres effective length. These plug into one another with a generous overlap and are rotationally locked by a pin and slot arrangement. This system works effectively even in muddy and dusty conditions. The erection gear consists of a guide box which is supported on 3 splayed legs which are fitted with large area detachable feet. Detachable steps are also fitted to the legs for mounting the antenna or other headload. Mast sections are introduced into the guide box from underneath and are lifted by a simple hoist and pulley block. When fully raised, each mast section is secured by a cross pin, the pulley block lowered and the process repeated.

The mast is guyed at each 8 metre level of height either by kevlar guys controlled individually through a simple unit or steel guys using a leg mounted guy winch unit from the standard Type 73 system as option.

A variety of antenna attachments is available including a mechanically operated rotator head for allowing 2 antennas to be supported and individually directed.

Lowering the Type 73-S mast is easy and very fast.

All the equipment is carried in bags. The heaviest individual item is the set of legs which weigh 32 kg. in their bag. All materials and finishes are to the best military standards of quality. Only materials proved to be long-life and totally reliable in a military environment are used.

Brief Description

Mast Sections

Heat-treated light alloy to BS1471, 6082TF. Special stepped tube drawn and machined. Anodised to DEF STAN 03-25. Colour can be green, gold or desert sand.

Castings

Gravity diecast in LM6 alloy to BS1490, AS 13.

Steel

Where surface hardness is required medium carbon steel to EN 8D, HF induction hardened. Elsewhere EN 1 a.

Finishes

Zinc plating and passivation to DEF STAN 03-20. Paint finish is NATO Green IR to approved specifications. Other colours on demand.

Bag Materials

Nylon decontaminable cloth to UK/SC3501 with approved straps and buckles. Stiffening is by means of low density polyethylene removable plates inside the bag.

Guy Cable

With guy control winch, 6/19 galvanised steel to BS 3530. With hand guy control device 6 mm kevlar.

Performance of 13 metre Mast

Number of operators required	2
Time to erect including pickets	20 minutes
Time to lower and pack away.....	20 minutes
Maximum vertical headload	15 kg
Maximum side headload after extension	70 kg

Standard Type 73-S Kits

Kit Cat. No.	Height metres	No. of sections	Max. vertical headload kg	Max. horizontal headload kg	Weight of mast kit kg (approx.)
18298	9	6	25	90	134
18299	10	7	20	80	141
18300	13	9	15	70	154
18301	16	12	15	50	168

Optional Kit Accessories

Feeder Cable Strap. Cat. No. 5809

A simple and effective means of preventing feeder cables flapping in the wind. Weight: 0.09 kg.

Antenna Side Mounting Adaptor. Cat. No. 7631.

General purpose attachment. Clamps directly round mast section. Standard antenna spigot 40 mm. diameter. Other sizes available. Weight: 1.7 kg.

Mast Top Flange Fitting. Cat. No. 5244.

Fits over the top section of the mast giving a mounting flange 152 mm. square. Weight: 1.9 kg.

Flanged Antenna Spigot. Cat. No. 5242.

Adapts the above flange fitting to give a spigot for antenna attachment. Standard diameter 40 mm. Other sizes available. Weight: 1.7 kg.

Antenna Rotator Cat. No. 7901.

Fits on the mast top and is operated from the ground by a special ball rope. 360° rotation. Essential if a mast carries 2 antennas which must be pointed independently. Weight: 11 kg.

Rotator Extension Adaptor. Cat. No. 5817.

A 0.6 metre long extension piece necessary for use with certain types of antenna to avoid the antenna touching the mast when the antenna is rotated. Weight: 1.4 kg.

Mast Head Tilt Unit. Cat. No. 13438.

A mast head fitting operated from the ground by a special ball rope to tilt antennas up or down 20°. Weight: 8.2 kg.

Halyard Pulley. Cat. No. 6374.

For lifting wire antennas or other headloads. Must be used in combination with top flange fitting. Cat. No. 5244. Weight: 2.8 kg.

Lightning Protection Kit. Cat. No. 18140.

Fits flange fitting. Details may be modified to suit different antennas. 16 mm² earthing cable and earthing spike are not included. Weight: 2 kg. (Not illustrated)

Crane Kit. Cat. No. 18030.

Using mast sections as a crane tower, this kit contains all other pieces necessary to build up a crane capable of lifting and mounting antennas weighing up to 75 kg. with safety and ease. Weight: 14.25 kg. (Not illustrated).

Guy Clamp. Cat. No. 18029.

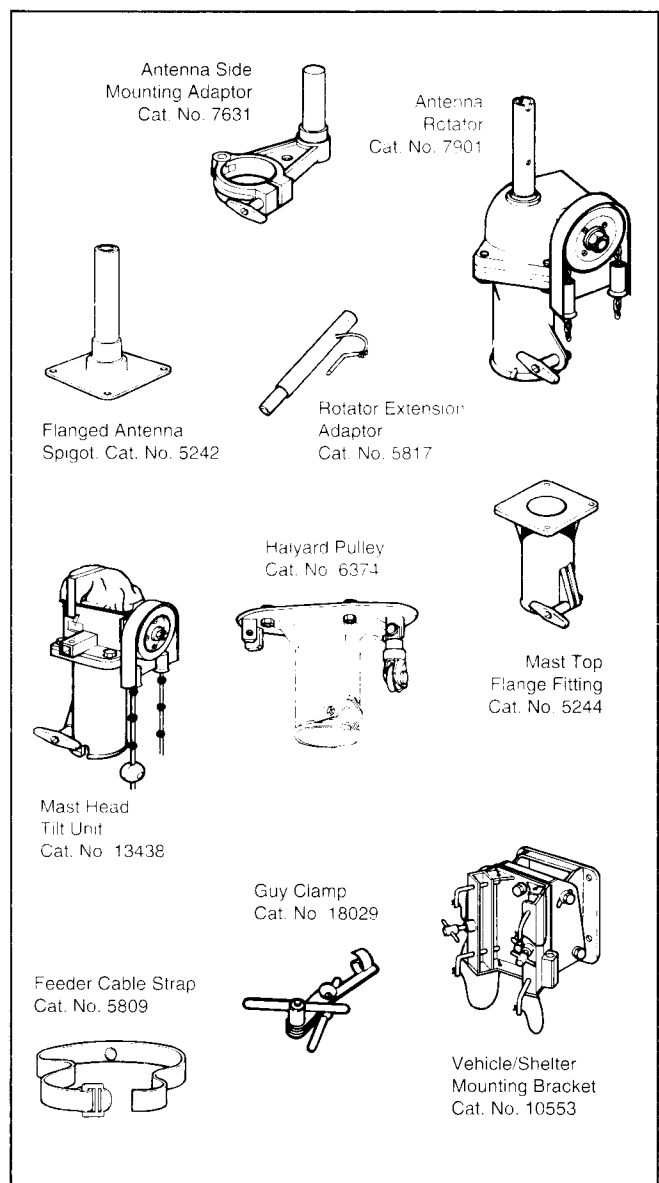
Increases stability of mast. Also enables guy winch kits to be removed from site after mast erection. Weight: 0.90 kg.

Hinged Antenna Adaptor. Cat. No. 8813.

This is typical of a number of special antenna mounting adaptors, details on request. (Not illustrated).

Vehicle/Shelter Mounting Bracket. Cat. No. 10553.

May be attached to any flat face of vehicle or shelter. Forms mounting point for guide box. Weight: 9.02 kg.



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