

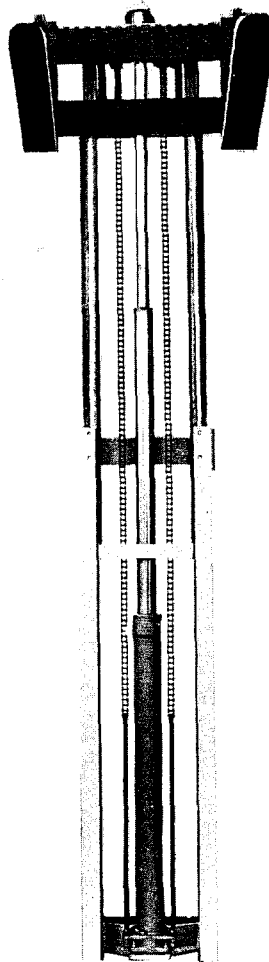
REFERENCE M4T-32360
P.O. # 102589

PARTS MANUAL

VIEWMAST

Triple-Free Lift Masts

[ALL MODELS]



J

cascade[®] corporation

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FOREWORD

How To Use This Manual

This manual illustrates service replacement parts for Standard Production Cascade Triple Free-Lift Masts and related Carriages.

To locate a particular part refer to the Unit Identification Index (U.I. Index) directly preceding the parts list section of this manual.

Parts manuals for Cascade Special Engineered Products will have an S.E.L. designation followed by an S.E.L. Number on the cover of the manual.

To locate a particular part in an S.E.L. manual turn to the page with the related group heading (i.e. Crosshead Group, etc.). If there is more than one parts list on the page, use the list indicated with a red arrow.

Standard parts manuals are not interchangeable with S.E.L. manuals and will not reflect the special engineering of the S.E.L. products.

Quantities shown in both manuals are for one complete assembly unless otherwise indicated.

IMPORTANT

When ordering replacement parts, always give the product unit identification number, part number, description of part, and quantity required. For further information on parts, maintenance or ordering, consult your lift truck dealer.

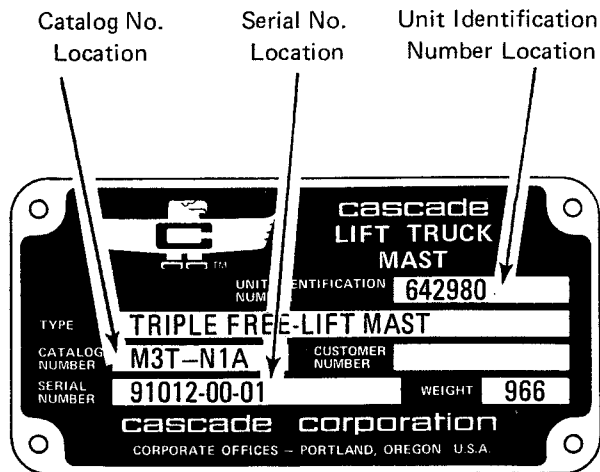


Fig. 1 Product Nameplate

Reading The Mast Nameplate

Cascade's nameplate is riveted to the left rear face of the outer upright crossmember. This plate shows size and model, type, rated capacity, serial, unit identification, and catalog numbers. (Fig. 1)

The serial and unit identification numbers are stamped on the left side of the outer channel upper crossmember as well as on the nameplate.

Serial Number

The Serial number denotes the specific product by type, size and sales order number and must be used in all transactions involving a product of Cascade manufacture.

Unit Identification Number

The Unit Identification (U.I.) Number indicates the specific combination of component parts used in each individual product. Two units may have the same catalog number yet may incorporate components of different design modifications. The U.I. Number Index gives the page number for required parts, and allows person receiving the parts order to double check in case of an error in ordering.

Catalog Number

The six-digit catalog order numbering system has been designed to describe and identify standard Cascade products. The number denotes the basic dimensions and functions of a specific product. Cascade mast catalog numbers are explained in the following example:

M3T-N1A					
MAJOR FUNCTION	SIZE OF UNIT	SECOND FUNCTION OF SPECIAL PURPOSE	-	RELATIVE LIFT HEIGHT	OVERALL LOWERED HEIGHT

Parts Index

When using the parts list index, first locate the U.I. number on the product nameplate. List this number and refer to the unit identification number-index. Locate your U.I. number in the first column. Columns to the right will refer you to the proper page number for a particular parts group. Example: The nameplate reads U.I. 642980. Locate this number in the left hand column under the heading "Unit Ident. No." Read straight across the line to locate, for example, the cylinder assembly page for your unit.

We reserve the right to make changes in our design and add improvements without incurring the obligation to make such changes in previously manufactured attachments.

UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Inter-mediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M9T											
645023	83	152	1A	2G	2H	3A	4C	4D	4F	2K	5
645024	83	156	1A	2G	2H	3A	4C	4D	4F	2K	5
645025	83	160	1A	2G	2H	3A	4C	4D	4F	2K	5
645026	83	164	1A	2G	2H	3A	4C	4D	4F	2K	5
645027	83	168	1A	2G	2H	3A	4C	4D	4F	2K	5
645028	89	172	1A	2G	2H	3A	4C	4D	4F	2K	5
645029	89	176	1A	2G	2H	3A	4C	4D	4F	2K	5
645030	89	180	1A	2G	2H	3A	4C	4D	4F	2K	5
645031	89	184	1A	2G	2H	3A	4C	4D	4F	2K	5
645032	89	186	1A	2G	2H	3A	4C	4D	4F	2K	5
645033	95	188	1A	2G	2H	3A	4C	4D	4F	2K	5
645034	95	192	1A	2G	2H	3A	4C	4D	4F	2K	5
645035	95	196	1A	2G	2H	3A	4C	4D	4F	2K	5
645036	95	200	1A	2G	2H	3A	4C	4D	4F	2K	5
645037	95	204	1A	2G	2H	3A	4C	4D	4F	2K	5
645038	101	208	1A	2G	2H	3A	4C	4D	4F	2K	5
645039	101	212	1A	2G	2H	3A	4C	4D	4F	2K	5
645040	101	216	1A	2G	2H	3A	4C	4D	4F	2K	5

SUGGESTED SPARE PARTS LIST

DESCRIPTION	PART NUMBER					Attachments Served		
	M3T	M4T	M5T	M7T	M8T	1-5	6-19	20-50
Service Kit	C-642288	C-642300	C-642299	C-638022	C-641956	2	4	8
Washer, Thrust	C-613764	C-613764	C-613764	—	—	4	8	16
Plug	C-626164	C-626164	C-626164	C-626164	C-626164	20	40	60
Shim	C-613797	C-613797	C-613797	C-616344	C-616344	12	24	48
Bearing	C-613792	C-613792	C-613792	C-616343	C-616343	12	24	48
Bearing	C-616959	—	—	—	—	4	8	16
Latch Point	C-614833	C-614833	C-614833	C-631798	C-631798	1	2	4
Capscrew	C-3250	C-615953	C-615953	C-6288	C-6288	2	4	8
Pad	C-615954	C-615354	C-615354	C-615354	C-615354	2	4	8
Capscrew	C-616664	C-615324	C-615324	C-615324	C-615324	2	4	6
Latch	C-616962	C-616962	C-616962	C-631907	C-631907	1	2	4
Spring	C-613780	C-613780	C-613780	C-613780	C-613780	1	2	4
Keeper	C-613782	C-613782	C-613782	C-613782	C-613782	1	2	4
Pin	C-613783	C-613783	C-613783	C-631864	C-631864	1	2	4
Latch, Double	C-616964	C-616968	C-616968	C-631906	C-631906	1	2	4
Latch, Single	C-616966	—	—	—	—	1	2	4
Pin	C-616878	—	—	—	—	1	2	4
Spring	C-613809	—	—	—	—	1	2	4
Keeper	C-616808	—	—	—	—	1	2	4
Shell Assembly	*	*	*	*	*	0	0	1
Plunger Assembly	*	*	*	*	*	0	0	1
Tube Assembly	*	*	*	*	*	0	0	1

* Parts indicated are hoist cylinder components. Refer to page 2H for specific part numbers.

UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Inter-mediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M2T											
616838	70	132	1	2A	2B	3	4	4A	4B	2B	5
616840	70	136	1	2A	2B	3	4	4A	4B	2B	5
616842	70	140	1	2A	2B	3	4	4A	4B	2B	5
616844	70	144	1	2A	2B	3	4	4A	4B	2B	5
616846	70	148	1	2A	2B	3	4	4A	4B	2B	5
616847	70	150	1	2A	2B	3	4	4A	4B	2B	5
619193	76	148	1	2A	2B	3	4	4A	4B	2B	5
619080	76	152	1	2A	2B	3	4	4A	4B	2B	5
619082	76	156	1	2A	2B	3	4	4A	4B	2B	5
619084	76	160	1	2A	2B	3	4	4A	4B	2B	5
619086	76	164	1	2A	2B	3	4	4A	4B	2B	5
619088	76	168	1	2A	2B	3	4	4A	4B	2B	5
619195	82	164	1	2A	2B	3	4	4A	4B	2B	5
619197	82	168	1	2A	2B	3	4	4A	4B	2B	5
616850	82	172	1	2A	2B	3	4	4A	4B	2B	5
616852	82	176	1	2A	2B	3	4	4A	4B	2B	5
616854	82	180	1	2A	2B	3	4	4A	4B	2B	5
616856	82	184	1	2A	2B	3	4	4A	4B	2B	5
616857	82	186	1	2A	2B	3	4	4A	4B	2B	5
M3T											
620177	70	132	1	2A	2B	3	4	4A	4B	2C	5
620179	70	136	1	2A	2B	3	4	4A	4B	2C	5
620181	70	140	1	2A	2B	3	4	4A	4B	2C	5
620183	70	144	1	2A	2B	3	4	4A	4B	2C	5
620185	70	148	1	2A	2B	3	4	4A	4B	2C	5
620186	70	150	1	2A	2B	3	4	4A	4B	2C	5
620190	76	152	1	2A	2B	3	4	4A	4B	2C	5
620192	76	156	1	2A	2B	3	4	4A	4B	2C	5
620194	76	160	1	2A	2B	3	4	4A	4B	2C	5
620196	76	164	1	2A	2B	3	4	4A	4B	2C	5
620198	76	168	1	2A	2B	3	4	4A	4B	2C	5
620203	82	172	1	2A	2B	3	4	4A	4B	2C	5
620205	82	176	1	2A	2B	3	4	4A	4B	2C	5
620207	82	180	1	2A	2B	3	4	4A	4B	2C	5
620209	82	184	1	2A	2B	3	4	4A	4B	2C	5
620210	82	186	1	2A	2B	3	4	4A	4B	2C	5
642980	70	132	1	2G	2H	3	4	4A	4B	2H	5
642981	70	136	1	2G	2H	3	4	4A	4B	2H	5
642982	70	140	1	2G	2H	3	4	4A	4B	2H	5
642983	70	144	1	2G	2H	3	4	4A	4B	2H	5
642984	70	148	1	2G	2H	3	4	4A	4B	2H	5
642985	70	150	1	2G	2H	3	4	4A	4B	2H	5
642986	76	148	1	2G	2H	3	4	4A	4B	2H	5
642987	76	152	1	2G	2H	3	4	4A	4B	2H	5

UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Inter-mediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M3T											
642988	76	156	1	2G	2H	3	4	4A	4B	2H	5
642989	76	160	1	2G	2H	3	4	4A	4B	2H	5
642990	76	164	1	2G	2H	3	4	4A	4B	2H	5
642991	76	168	1	2G	2H	3	4	4A	4B	2H	5
642992	82	164	1	2G	2H	3	4	4A	4B	2H	5
642993	82	168	1	2G	2H	3	4	4A	4B	2H	5
642994	82	172	1	2G	2H	3	4	4A	4B	2H	5
642995	82	176	1	2G	2H	3	4	4A	4B	2H	5
642996	82	180	1	2G	2H	3	4	4A	4B	2H	5
642997	82	184	1	2G	2H	3	4	4A	4B	2H	5
642998	82	186	1	2G	2H	3	4	4A	4B	2H	5
M4T											
615281	70	132	1	2A	2B	3	4	4A	4B	2C	5
615283	70	136	1	2A	2B	3	4	4A	4B	2C	5
615285	70	140	1	2A	2B	3	4	4A	4B	2C	5
615287	70	144	1	2A	2B	3	4	4A	4B	2C	5
615985	70	148	1	2A	2B	3	4	4A	4B	2C	5
617765	76	152	1	2A	2B	3	4	4A	4B	2C	5
618584	76	156	1	2A	2B	3	4	4A	4B	2C	5
618586	76	160	1	2A	2B	3	4	4A	4B	2C	5
618588	76	164	1	2A	2B	3	4	4A	4B	2C	5
618589	76	166	1	2A	2B	3	4	4A	4B	2C	5
618590	82	168	1	2A	2B	3	4	4A	4B	2C	5
615291	82	172	1	2A	2B	3	4	4A	4B	2C	5
615293	82	176	1	2A	2B	3	4	4A	4B	2C	5
615295	82	180	1	2A	2B	3	4	4A	4B	2C	5
615987	82	184	1	2A	2B	3	4	4A	4B	2C	5
618592	88	188	1	2A	2B	3	4	4A	4B	2C	5
618594	88	192	1	2A	2B	3	4	4A	4B	2C	5
618596	88	196	1	2A	2B	3	4	4A	4B	2C	5
618598	88	200	1	2A	2B	3	4	4A	4B	2C	5
618599	88	202	1	2A	2B	3	4	4A	4B	2C	5
618600	94	204	1	2A	2B	3	4	4A	4B	2C	5
615299	94	208	1	2A	2B	3	4	4A	4B	2C	5
615301	94	212	1	2A	2B	3	4	4A	4B	2C	5
615303	94	216	1	2A	2B	3	4	4A	4B	2C	5
642999	70	132	1	2G	2H	3	4	4A	4B	2I	5
643000	70	136	1	2G	2H	3	4	4A	4B	2I	5
643001	70	140	1	2G	2H	3	4	4A	4B	2I	5
643002	70	144	1	2G	2H	3	4	4A	4B	2I	5
643003	70	148	1	2G	2H	3	4	4A	4B	2I	5
643004	76	148	1	2G	2H	3	4	4A	4B	2I	5
643005	76	152	1	2G	2H	3	4	4A	4B	2I	5
643006	76	156	1	2G	2H	3	4	4A	4B	2I	5

UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Inter-mediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M4T											
643007	76	160	1	2G	2H	3	4	4A	4B	2I	5
643008	76	164	1	2G	2H	3	4	4A	4B	2I	5
643009	76	166	1	2G	2H	3	4	4A	4B	2I	5
643010	82	164	1	2G	2H	3	4	4A	4B	2I	5
643011	82	168	1	2G	2H	3	4	4A	4B	2I	5
643012	82	172	1	2G	2H	3	4	4A	4B	2I	5
643013	82	176	1	2G	2H	3	4	4A	4B	2I	5
643014	82	180	1	2G	2H	3	4	4A	4B	2I	5
643015	82	184	1	2G	2H	3	4	4A	4B	2I	5
643016	88	184	1	2G	2H	3	4	4A	4B	2I	5
643017	88	188	1	2G	2H	3	4	4A	4B	2I	5
643018	88	192	1	2G	2H	3	4	4A	4B	2I	5
643019	88	196	1	2G	2H	3	4	4A	4B	2I	5
643020	88	200	1	2G	2H	3	4	4A	4B	2I	5
643021	88	202	1	2G	2H	3	4	4A	4B	2I	5
643022	94	200	1	2G	2H	3	4	4A	4B	2I	5
643023	94	204	1	2G	2H	3	4	4A	4B	2I	5
643024	94	208	1	2G	2H	3	4	4A	4B	2I	5
643025	94	212	1	2G	2H	3	4	4A	4B	2I	5
643026	94	216	1	2G	2H	3	4	4A	4B	2I	5
M5T											
615265	70	132	1	2A	2B	3	4	4A	4B	2D	5
615267	70	136	1	2A	2B	3	4	4A	4B	2D	5
615269	70	140	1	2A	2B	3	4	4A	4B	2D	5
614842	70	144	1	2A	2B	3	4	4A	4B	2D	5
615971	70	148	1	2A	2B	3	4	4A	4B	2D	5
619007	76	152	1	2A	2B	3	4	4A	4B	2D	5
619009	76	156	1	2A	2B	3	4	4A	4B	2D	5
619011	76	160	1	2A	2B	3	4	4A	4B	2D	5
619013	76	164	1	2A	2B	3	4	4A	4B	2D	5
619014	76	166	1	2A	2B	3	4	4A	4B	2D	5
619015	82	168	1	2A	2B	3	4	4A	4B	2D	5
615272	82	172	1	2A	2B	3	4	4A	4B	2D	5
615274	82	176	1	2A	2B	3	4	4A	4B	2D	5
614843	82	180	1	2A	2B	3	4	4A	4B	2D	5
619276	82	184	1	2A	2B	3	4	4A	4B	2D	5
619017	88	188	1	2A	2B	3	4	4A	4B	2D	5
619019	88	192	1	2A	2B	3	4	4A	4B	2D	5
619021	88	196	1	2A	2B	3	4	4A	4B	2D	5
619023	88	200	1	2A	2B	3	4	4A	4B	2D	5
619024	88	202	1	2A	2B	3	4	4A	4B	2D	5
619025	94	204	1	2A	2B	3	4	4A	4B	2D	5
615277	94	208	1	2A	2B	3	4	4A	4B	2D	5
615279	94	212	1	2A	2B	3	4	4A	4B	2D	5

UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Intermediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M5T											
614844	94	216	1	2A	2B	3	4	4A	4B	2D	5
643027	70	132	1	2G	2H	3	4	4A	4B	2I	5
643028	70	136	1	2G	2H	3	4	4A	4B	2I	5
643029	70	140	1	2G	2H	3	4	4A	4B	2I	5
643030	70	144	1	2G	2H	3	4	4A	4B	2I	5
643031	70	148	1	2G	2H	3	4	4A	4B	2I	5
643032	76	148	1	2G	2H	3	4	4A	4B	2I	5
643033	76	152	1	2G	2H	3	4	4A	4B	2I	5
643034	76	156	1	2G	2H	3	4	4A	4B	2I	5
643035	76	160	1	2G	2H	3	4	4A	4B	2I	5
643036	76	164	1	2G	2H	3	4	4A	4B	2I	5
643037	76	166	1	2G	2H	3	4	4A	4B	2I	5
643038	82	164	1	2G	2H	3	4	4A	4B	2I	5
643039	82	168	1	2G	2H	3	4	4A	4B	2I	5
643040	82	172	1	2G	2H	3	4	4A	4B	2I	5
643041	82	176	1	2G	2H	3	4	4A	4B	2I	5
643042	82	180	1	2G	2H	3	4	4A	4B	2I	5
643043	82	184	1	2G	2H	3	4	4A	4B	2I	5
643044	88	184	1	2G	2H	3	4	4A	4B	2I	5
643045	88	188	1	2G	2H	3	4	4A	4B	2I	5
643046	88	192	1	2G	2H	3	4	4A	4B	2I	5
643047	88	196	1	2G	2H	3	4	4A	4B	2I	5
643048	88	200	1	2G	2H	3	4	4A	4B	2I	5
643049	88	202	1	2G	2H	3	4	4A	4B	2I	5
643050	94	200	1	2G	2H	3	4	4A	4B	2I	5
643051	94	204	1	2G	2H	3	4	4A	4B	2I	5
643052	94	208	1	2G	2H	3	4	4A	4B	2I	5
643053	94	212	1	2G	2H	3	4	4A	4B	2I	5
643054	94	216	1	2G	2H	3	4	4A	4B	2I	5
M7T											
635724	71	132	1	2A	2B	3B	4	4A	4B	2D	5
635725	71	136	1	2A	2B	3B	4	4A	4B	2D	5
635726	71	140	1	2A	2B	3B	4	4A	4B	2D	5
635727	71	144	1	2A	2B	3B	4	4A	4B	2D	5
635729	77	148	1	2A	2B	3B	4	4A	4B	2D	5
635730	77	152	1	2A	2B	3B	4	4A	4B	2D	5
635731	77	156	1	2A	2B	3B	4	4A	4B	2D	5
635732	77	160	1	2A	2B	3B	4	4A	4B	2D	5
635734	83	164	1	2A	2B	3B	4	4A	4B	2D	5
635735	83	168	1	2A	2B	3B	4	4A	4B	2D	5
635736	83	172	1	2A	2B	3B	4	4A	4B	2D	5
635737	83	176	1	2A	2B	3B	4	4A	4B	2D	5
635738	89	180	1	2A	2B	3B	4	4A	4B	2D	5
635740	89	184	1	2A	2B	3B	4	4A	4B	2D	5

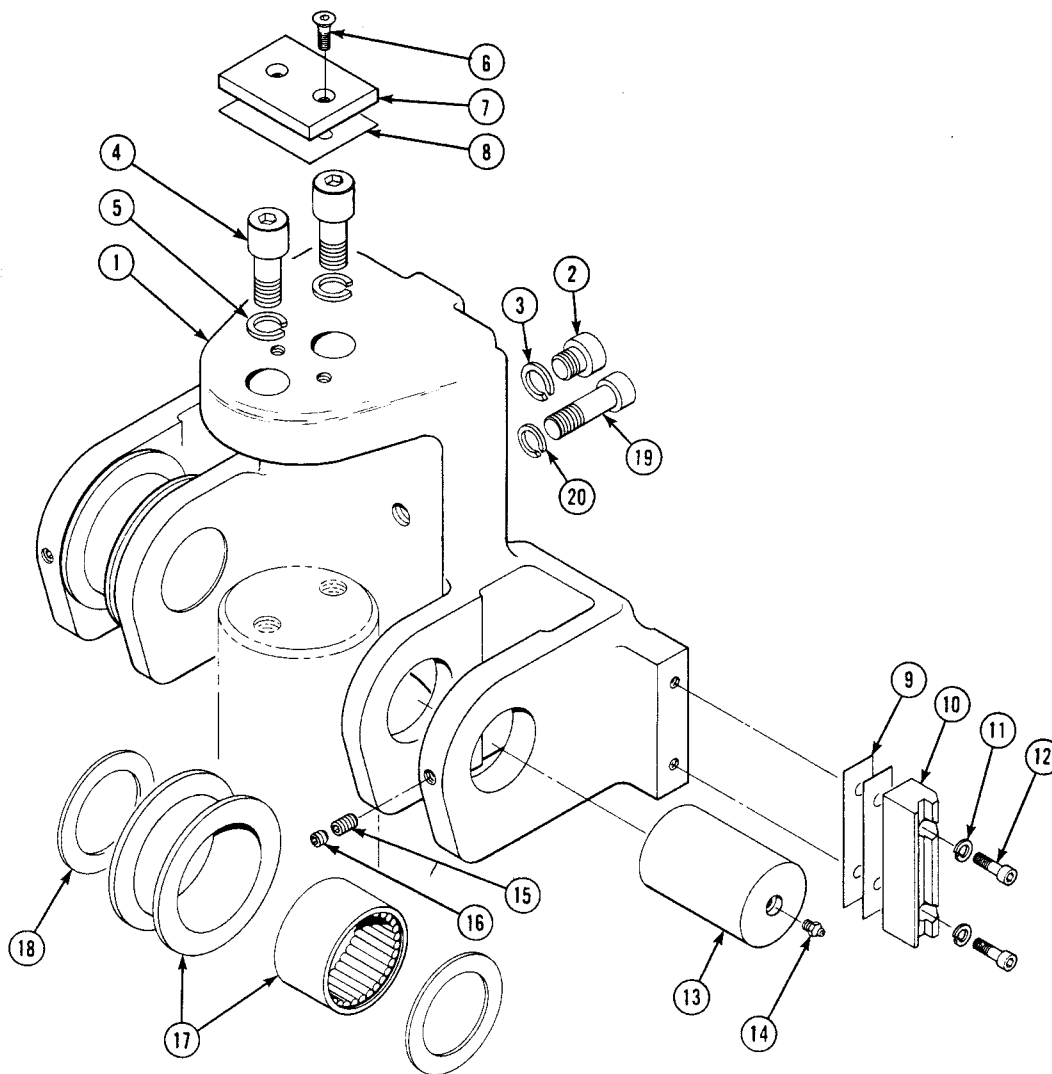
UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Inter-mediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M7T											
635741	89	188	1	2A	2B	3B	4	4A	4B	2D	5
635742	89	192	1	2A	2B	3B	4	4A	4B	2D	5
635743	89	196	1	2A	2B	3B	4	4A	4B	2D	5
635745	95	200	1	2A	2B	3B	4	4A	4B	2D	5
635746	95	204	1	2A	2B	3B	4	4A	4B	2D	5
635747	95	208	1	2A	2B	3B	4	4A	4B	2D	5
635748	95	212	1	2A	2B	3B	4	4A	4B	2D	5
635749	95	216	1	2A	2B	3B	4	4A	4B	2D	5
644964	71	132	1A	2G	2H	3A	4C	4D	4E	2J	5A
644965	71	136	1A	2G	2H	3A	4C	4D	4E	2J	5A
644966	71	140	1A	2G	2H	3A	4C	4D	4E	2J	5A
644967	71	140	1A	2G	2H	3A	4C	4D	4E	2J	5A
644968	71	148	1A	2G	2H	3A	4C	4D	4E	2J	5A
644969	77	148	1A	2G	2H	3A	4C	4D	4E	2J	5A
644970	77	152	1A	2G	2H	3A	4C	4D	4E	2J	5A
644971	77	156	1A	2G	2H	3A	4C	4D	4E	2J	5A
644972	77	160	1A	2G	2H	3A	4C	4D	4E	2J	5A
644973	77	164	1A	2G	2H	3A	4C	4D	4E	2J	5A
644974	83	164	1A	2G	2H	3A	4C	4D	4E	2J	5A
644975	83	168	1A	2G	2H	3A	4C	4D	4E	2J	5A
644976	83	172	1A	2G	2H	3A	4C	4D	4E	2J	5A
644977	83	176	1A	2G	2H	3A	4C	4D	4E	2J	5A
644978	83	180	1A	2G	2H	3A	4C	4D	4E	2J	5A
644979	83	184	1A	2G	2H	3A	4C	4D	4E	2J	5A
644980	89	184	1A	2G	2H	3A	4C	4D	4E	2J	5A
644981	89	188	1A	2G	2H	3A	4C	4D	4E	2J	5A
644982	89	192	1A	2G	2H	3A	4C	4D	4E	2J	5A
644983	89	196	1A	2G	2H	3A	4C	4D	4E	2J	5A
644984	89	200	1A	2G	2H	3A	4C	4D	4E	2J	5A
644985	95	200	1A	2G	2H	3A	4C	4D	4E	2J	5A
644986	95	204	1A	2G	2H	3A	4C	4D	4E	2J	5A
644987	95	208	1A	2G	2H	3A	4C	4D	4E	2J	5A
644988	95	212	1A	2G	2H	3A	4C	4D	4E	2J	5A
644989	95	216	1A	2G	2H	3A	4C	4D	4E	2J	5A
M8T											
635698	71	132	1	2A	2B	3B	4	4A	4B	2E	5
635699	71	136	1	2A	2B	3B	4	4A	4B	2E	5
635700	71	140	1	2A	2B	3B	4	4A	4B	2E	5
635703	77	148	1	2A	2B	3B	4	4A	4B	2E	5
635704	77	152	1	2A	2B	3B	4	4A	4B	2E	5
635705	77	156	1	2A	2B	3B	4	4A	4B	2E	5
635706	77	160	1	2A	2B	3B	4	4A	4B	2E	5
635708	83	168	1	2A	2B	3B	4	4A	4B	2E	5
635710	83	172	1	2A	2B	3B	4	4A	4B	2E	5

UNIT IDENTIFICATION-PARTS INDEX

Unit I.D. Number	OAL	Lift Height BOF	Cross Head	Hoist Cylinder	Cylinder Parts	Carriage	Outer Upright	Inter-mediate Upright	Inner Upright	Cylinder Assembly & Mast Part No.	Lower Control Valve & Chain Part No.
M8T											
635711	83	176	1	2A	2B	3B	4	4A	4B	2E	5
635714	89	184	1	2A	2B	3B	4	4A	4B	2E	5
635715	89	188	1	2A	2B	3B	4	4A	4B	2E	5
635716	89	192	1	2A	2B	3B	4	4A	4B	2E	5
635717	89	196	1	2A	2B	3B	4	4A	4B	2E	5
635719	95	200	1	2A	2B	3B	4	4A	4B	2E	5
635720	95	204	1	2A	2B	3B	4	4A	4B	2E	5
635721	95	208	1	2A	2B	3B	4	4A	4B	2E	5
635722	95	212	1	2A	2B	3B	4	4A	4B	2E	5
635723	95	216	1	2A	2B	3B	4	4A	4B	2E	5
644990	71	132	1A	2G	2H	3A	4C	4D	4E	2J	5A
644991	71	136	1A	2G	2H	3A	4C	4D	4E	2J	5A
644992	71	140	1A	2G	2H	3A	4C	4D	4E	2J	5A
644993	71	144	1A	2G	2H	3A	4C	4D	4E	2J	5A
644994	71	148	1A	2G	2H	3A	4C	4D	4E	2J	5A
644995	77	148	1A	2G	2H	3A	4C	4D	4E	2J	5A
644996	77	152	1A	2G	2H	3A	4C	4D	4E	2J	5A
644997	77	156	1A	2G	2H	3A	4C	4D	4E	2J	5A
644998	77	160	1A	2G	2H	3A	4C	4D	4E	2J	5A
644999	77	164	1A	2G	2H	3A	4C	4D	4E	2J	5A
645000	83	164	1A	2G	2H	3A	4C	4D	4E	2J	5A
645001	83	168	1A	2G	2H	3A	4C	4D	4E	2J	5
645002	83	172	1A	2G	2H	3A	4C	4D	4E	2J	5
645003	83	176	1A	2G	2H	3A	4C	4D	4E	2J	5
645004	83	180	1A	2G	2H	3A	4C	4D	4E	2J	5
645005	83	184	1A	2G	2H	3A	4C	4D	4E	2J	5
645006	89	184	1A	2G	2H	3A	4C	4D	4E	2J	5
645007	89	188	1A	2G	2H	3A	4C	4D	4E	2J	5
645008	89	192	1A	2G	2H	3A	4C	4D	4E	2J	5
645009	89	196	1A	2G	2H	3A	4C	4D	4E	2J	5
645010	89	200	1A	2G	2H	3A	4C	4D	4E	2J	5
645011	95	200	1A	2G	2H	3A	4C	4D	4E	2J	5
645012	95	204	1A	2G	2H	3A	4C	4D	4E	2J	5
645013	95	208	1A	2G	2H	3A	4C	4D	4E	2J	5
645014	95	212	1A	2G	2H	3A	4C	4D	4E	2J	5
645015	95	216	1A	2G	2H	3A	4C	4D	4E	2J	5
M9T											
645016	71	130	1A	2G	2H	3A	4C	4D	4F	2K	5
645017	71	132	1A	2G	2H	3A	4C	4D	4F	2K	5
645018	77	136	1A	2G	2H	3A	4C	4D	4F	2K	5
645019	77	140	1A	2G	2H	3A	4C	4D	4F	2K	5
645020	77	144	1A	2G	2H	3A	4C	4D	4F	2K	5
645021	77	148	1A	2G	2H	3A	4C	4D	4F	2K	5
645022	77	150	1A	2G	2H	3A	4C	4D	4F	2K	5

Crosshead

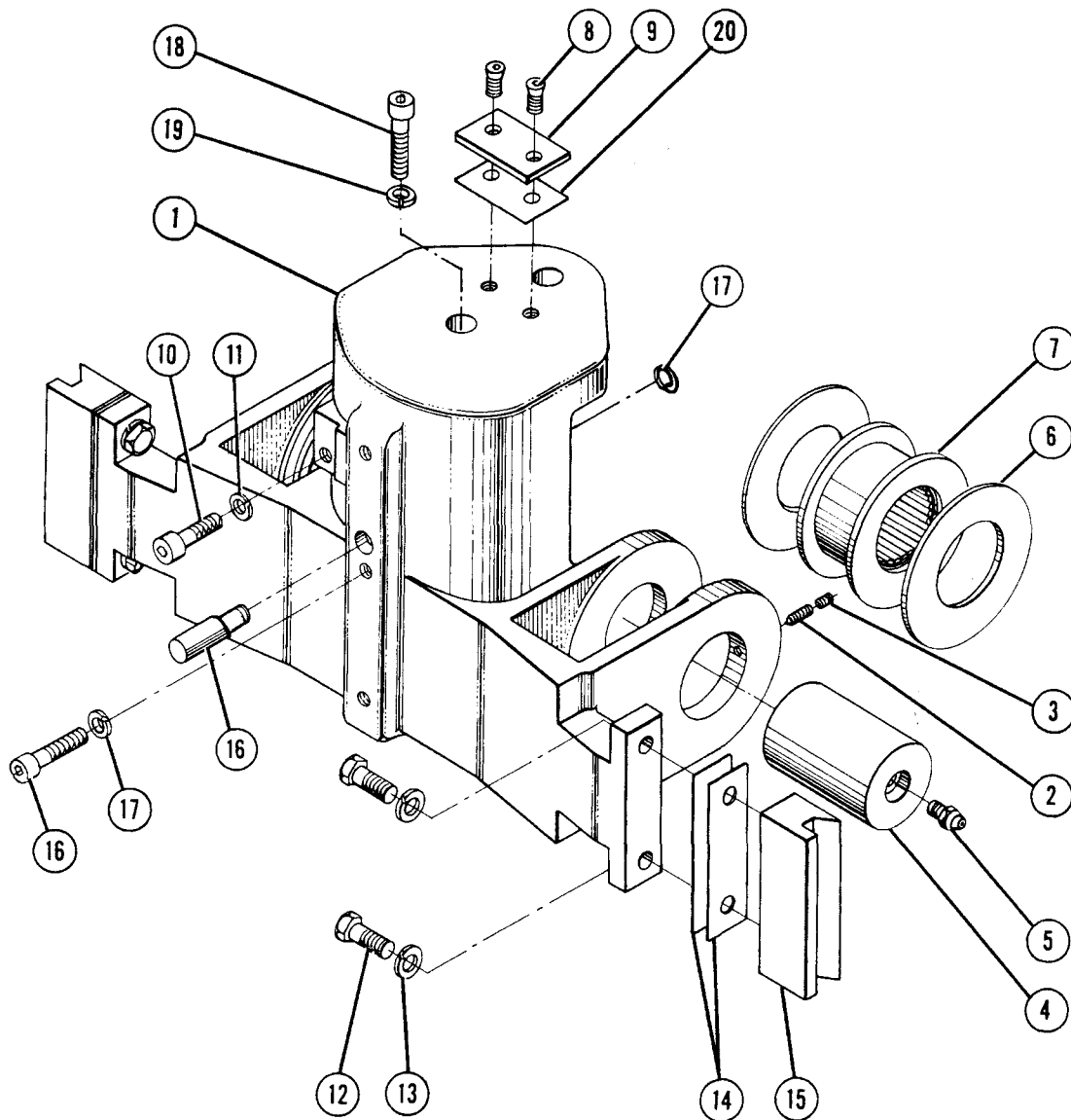


REF. NO.	M2T, M3T C-619961		M4T, M5T C-620941		M7T, M8T C-630246		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	
1	1	C-616818	1	C-623690	1	C-616345	Crosshead
2	1	C-616664	—	—	—	—	Cap screw
3	1	C-6374	—	—	—	—	Lockwasher
4	1	C-4305	2	C-4305	2	C-4306	Cap screw
5	1	C-6374	2	C-6374	2	C-6374	Lockwasher
6	2	C-4630	2	C-4630	2	C-4630	Cap screw
7	1	C-615954	1	C-615954	1	C-615954	Pad
8	**	C-616069	**	C-616069	**	C-616069	Shim
9	**	C-616825	**	C-620307	**	C-616358	Shim
10	2	C-616824	2	C-620942	2	C-630247	Shoe
11	—	—	4	C-6372	4	C-6374	Lockwasher
12	4	C-617255	4	C-4270	4	C-4304	Cap screw
13	2	C-616816	2	C-613773	2	C-616363	Shaft
14	2	C-7401	2	C-7401	2	C-7401	Grease Fitting
15	2	C-4953	2	C-5309	2	C-5309	Setscrew
16	2	C-612404	2	C-612545	2	C-612545	Jam Screw
17	2	C-619962	2	C-613767	2	C-616360	Sheave
18	4	C-616815	—	—	4	C-616351	Thrust Washer
19	1	C-615324	2	C-615324	2	C-615324	Cap screw
20	1	C-6447	2	C-6447	2	C-6447	Lockwasher

* Part of Sheave Assembly

** As required.

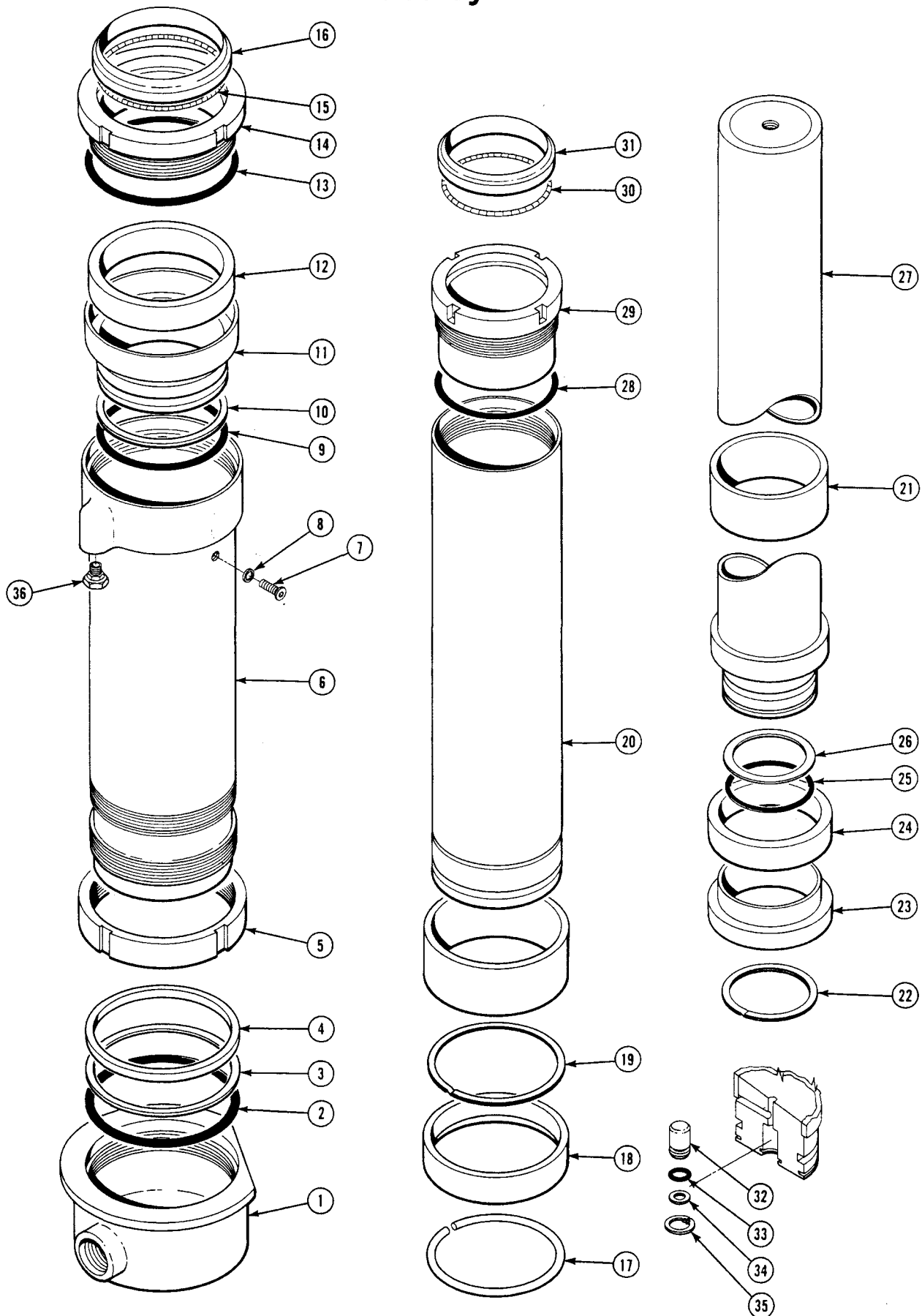
Crosshead



REF. NO.	M7T, M8T		M9T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	
1	1	C-631799	1	C-637816	Crosshead
2	2	C-5309	2	C-5309	Setscrew
3	2	C-612545	2	C-612545	Setscrew—Jam
4	2	C-616363	2	C-616363	Shaft
5	2	C-7401	2	C-7401	Grease Fitting
6	4	C-616351	4	C-637692	Washer, Thrust
7	2	C-616360	2	C-637818	Sheave Assy.
8	2	C-4630	2	C-4628	Capscrew
9	1	C-615954	1	C-615954	Pad
10	1	C-615324	1	C-637949	Capscrew
11	1	C-6447	1	C-6447	Lockwasher
12	2	C-4506	4	C-3654	Capscrew
13	2	C-6374	4	C-6290	Lockwasher
14	10	C-632147	6	C-637813	Shim
15	2	C-631810	2	C-637814	Wear Shoe
16	—	—	1	C-637820	Pin
17	—	—	1	C-7180	Snap Ring
18	1	C-615324	—	—	Capscrew
19	1	C-6447	—	—	Lockwasher
20	2	C-4306	2	C-4306	Capscrew
21	2	C-6374	2	C-6374	Lockwasher
22	**	C-616069	**	C-616069	Shim

** As required.

Hoist Cylinder



HOIST CYLINDER PARTS LIST

REF. NO.	Qty.	M2T	M3T	M4T	M5T	M7T	M8T	DESCRIPTION
		Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	
1	1	C-616912	C-620257	C-617256	C-617075	C-616403	C-618459	Head
* 2	1	C-2802	C-2804	C-2808	C-2810	C-2816	C-2818	O-ring
* 3	1	C-615144	C-615146	C-615150	C-615152	C-615158	C-615160	Back-Up Ring
* 4	1	C-617115	C-620258	C-617258	C-617048	C-616496	C-618462	Ring (Nylon)
5	1	C-617116	C-620259	C-617259	C-617047	C-616165	C-618460	Nut
+ 6	1	—	—	—	—	—	—	Shell
7	1	C-4812	C-4812	C-4812	C-4812	C-4812	C-4812	Capscrew
* 8	1	C-601468	C-601468	C-601468	C-601468	C-601468	C-601468	Seal
* 9	1	C-2798	—	C-2804	C-2806	C-2812	C-2814	O-ring
*10	1	C-615141	—	C-615147	C-615149	C-615155	C-615157	Back-Up Ring
11	1	C-610880	—	C-610995	C-611124	C-611050	C-618399	Bushing
*12	1	C-7623	C-7576	C-7549	C-7546	C-7553	C-7545	Packing
*13	1	C-2801	C-2801	C-2807	C-2809	C-2815	C-2817	O-ring
14	1	C-610879	C-620260	C-610996	C-611128	C-611051	C-618400	Retainer
*15	1	C-605660	C-605661	C-605663	C-605664	C-605667	C-605668	Spring
*16	1	C-605610	C-645129	C-605613	C-605614	C-605617	C-605618	Wiper
17	1	C-610877	C-620255	C-610993	C-611125	C-611047	C-618393	Ring
18	1	C-610878	C-620256	C-610994	C-611123	C-611049	C-618394	Bearing
19	1	C-7223	C-7224	C-7230	C-7232	C-7237	C-7238	Ring
+20	1	—	—	—	—	—	—	Intermediate Stage
+21	1	—	—	—	—	—	—	Spacer
22	1	C-7346	C-7350	C-7360	C-7364	C-7372	C-7375	Ring
23	1	C-606228	C-620254	C-610992	C-605888	C-606221	C-605901	Piston
*24	1	C-7622	C-7648	C-7547	C-7565	C-7561	C-7555	Packing
*25	1	C-2722	C-2785	C-2789	C-2791	C-2795	C-2797	O-ring
*26	1	C-615126	C-615128	C-615132	C-615134	C-615138	C-615140	Back-Up Ring
27	1	—	—	—	—	—	—	Plunger
*28	1	C-2791	C-2793	C-2797	C-2799	C-2805	C-2807	O-ring
29	1	C-606230	C-620261	C-610997	C-611127	C-606224	C-605904	Retainer
*30	1	C-606656	C-605657	C-605659	C-605660	C-605663	C-605664	Spring
*31	1	C-605606	C-605607	C-605609	C-605610	C-605613	C-605614	Wiper
32	1	C-626664	C-626664	C-626664	C-626664	C-626664	C-626664	Valve Assy.
33	1	C-624737	C-624737	C-624737	C-624737	C-624737	C-624737	O-ring
34	1	C-626665	C-626665	C-626665	C-626665	C-626665	C-626665	Washer
35	1	C-3009	C-3009	C-3009	C-3009	C-3009	C-3009	Snap Ring
36	1	C-617649	C-617649	C-617649	C-617649	C-617649	C-617649	Fitting
	1	C-628183	C-645457	C-628184	C-619800	C-619801	C-619802	Service Kit

+See separate list, page 2B for M2T, 2C for M3T & M4T, 2D for M5T & M7T, 2E for M8T.

* Included in Service Kit.

HOIST CYLINDER PARTS — MODEL M2T

OAL	Lift Height BOF	Item No. 6	Item No. 20	Item No. 27	Item No. 21	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-617136A	C-613644	C-627447	C-618148	6	C-616885A	C-616838
70	136	C-617136A	C-613644	C-627447	C-618146	4	C-616887	C-616840
70	140	C-617136A	C-613644	C-627447	C-616731	2	C-616889	C-616842
70	144	C-617136A	C-613644	C-627447	—	—	C-616891	C-616844
70	148	C-617137A	C-613648	C-627448	C-618146	4	C-616893	C-616846
70	150	C-617137A	C-613648	C-627448	C-616732	3	C-616894	C-616847
76	152	C-617137A	C-613648	C-627448	C-616731	2	C-619037	C-619080
76	156	C-617137A	C-613648	C-627448	—	—	C-619039	C-619082
76	160	C-617138A	C-613652	C-627449	C-618146	4	C-619041	C-619084
76	164	C-617138A	C-613652	C-627449	C-616731	2	C-619043	C-619086
76	168	C-617138A	C-613652	C-627449	—	—	C-619045	C-619088
82	172	C-617139A	C-610934	C-627450	C-618146	4	C-616897	C-616850
82	176	C-617139A	C-610934	C-627450	C-616731	2	C-616899	C-616852
82	180	C-617139A	C-610934	C-627450	—	—	C-616901	C-616854
82	184	C-617140A	C-614894	C-627451	C-618146	4	C-616903	C-616856
82	186	C-617140A	C-614894	C-627451	C-616732	3	C-616904	C-616857
76	148	C-617137A	C-613648	C-627448	C-618146	4	C-616893	C-619193
82	164	C-617138A	C-613652	C-627449	C-618731	2	C-619043	C-619195
82	168	C-617138A	C-613652	C-627449	C-613701	1	C-619045	C-619197

HOIST CYLINDER PARTS – MODEL M3T

OAL	Lift Height BOF	Item No. 6	Item No. 20	Item No. 27	Item No. 21	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-620309A	C-620311	C-627551	C-620267	6	C-620212A	C-620177
70	136	C-620309A	C-620311	C-627551	C-620265	4	C-620214	C-620179
70	140	C-620309A	C-620311	C-627551	C-620263	2	C-620216	C-620181
70	144	C-620309A	C-620311	C-627551	—	—	C-620218	C-620183
70	148	C-620316A	C-620318	C-627552	C-620265	4	C-620220	C-620185
70	150	C-620316A	C-620318	C-627552	C-620264	3	C-620221	C-620186
76	152	C-620316A	C-620318	C-627552	C-620263	2	C-620222	C-620190
76	156	C-620316A	C-620318	C-627552	—	—	C-620224	C-620192
76	160	C-620323A	C-620325	C-627553	C-620265	4	C-620226	C-620194
76	164	C-630323A	C-620325	C-627553	C-620263	2	C-620228	C-620196
76	168	C-620323A	C-620325	C-627553	—	—	C-620230	C-620198
82	172	C-620330A	C-620332	C-627554	C-620265	4	C-620232	C-620203
82	176	C-620330A	C-620332	C-627554	C-620263	2	C-620234	C-620205
82	180	C-620330A	C-620332	C-627554	—	—	C-620236	C-620207
82	184	C-620337A	C-620339	C-627555	C-620265	4	C-620238	C-620209
82	186	C-620337A	C-620339	C-627555	C-620264	3	C-620239	C-620210

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

HOIST CYLINDER PARTS MODEL M4T

OAL	Lift Height BOF	Item No. 6	Item No. 20	Item No. 27	Item No. 21	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-617279A	C-611955	C-627537	C-618152	6	C-615304	C-615281
70	136	C-617279A	C-611955	C-627537	C-618150	4	C-615306	C-615283
70	140	C-617279A	C-611955	C-627537	C-615264	2	C-615308	C-615285
70	144	C-617279A	C-611955	C-627537	C-611446	¼	C-613530	C-615987
70	148	C-617280A	C-611961	C-627538	C-618150	4	C-615989	C-615985
76	152	C-617280A	C-611961	C-627538	C-615264	2	C-617764	C-617765
76	156	C-617280A	C-611961	C-627538	—	—	C-618613	C-618584
76	160	C-617281A	C-611967	C-627539	C-618150	4	C-618615	C-618586
76	164	C-617281A	C-611967	C-627539	C-615264	2	C-618617	C-618588
76	166	C-617281A	C-611967	C-627539	C-611443	1	C-618618	C-618589
82	168	C-617281A	C-611967	C-627539	—	—	C-618619	C-618590
82	172	C-617282A	C-611974	C-627540	C-618150	4	C-615311	C-615291
82	176	C-617282A	C-611974	C-627540	C-615264	2	C-615313	C-615293
82	180	C-617282A	C-611974	C-627540	—	—	C-615315	C-615295
82	184	C-617283A	C-614968	C-627541	C-618150	4	C-615991	C-615987
88	188	C-617283A	C-614968	C-627541	C-615264	2	C-618621	C-618592
88	192	C-617283A	C-614968	C-627541	—	—	C-618732	C-618594
88	196	C-617284A	C-614969	C-627542	C-618150	4	C-618734	C-618596
88	200	C-617284A	C-614969	C-627542	C-615264	2	C-618736	C-618598
88	202	C-617284A	C-614969	C-627542	C-611443	1	C-618737	C-618599
94	204	C-617284A	C-614969	C-627542	—	—	C-618738	C-618600
94	208	C-617285A	C-614901	C-627543	C-618150	4	C-615317	C-615299
94	212	C-617285A	C-614901	C-627543	C-615264	2	C-615319	C-615301
94	216	C-617285A	C-614901	C-627543	—	—	C-615321	C-615303

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

HOIST CYLINDER PARTS – MODEL M5T

OAL	Lift Height BOF	Item No. 6	Item No. 20	Item No. 27	Item No. 21	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-617068A	C-614925	C-627390	C-623470	6	C-615247B	C-615265
70	136	C-617068A	C-614925	C-627390	C-624186	4	C-615249	C-615267
70	140	C-617068A	C-614925	C-627390	C-621961	2	C-615251	C-615269
70	144	C-617068A	C-614925	C-627390	C-613696	¼	C-614873	C-614842
70	148	C-617069A	C-614926	C-627391	C-624186	4	C-615975	C-615971
76	152	C-617069A	C-614926	C-627391	C-621961	2	C-618710	C-619007
76	156	C-617069A	C-614926	C-627391	—	—	C-618712	C-619009
76	160	C-617070A	C-614927	C-627392	C-624186	4	C-618714	C-619011
76	164	C-617070A	C-614927	C-627392	C-621961	2	C-618716	C-619013
76	166	C-617070A	C-614927	C-627392	C-613698	1	C-618717	C-619014
82	168	C-617070A	C-614927	C-627392	—	—	C-618718	C-619015
82	172	C-617071A	C-614928	C-627393	C-624186	4	C-615254	C-615272
82	176	C-617071A	C-614928	C-627393	C-621961	2	C-615256	C-615274
82	180	C-617071A	C-614928	C-627393	—	—	C-614874	C-614843
82	184	C-617072A	C-614929	C-627394	C-624186	4	C-615977	C-619276
88	188	C-617072A	C-614929	C-627394	C-621961	2	C-618720	C-619017
88	192	C-617072A	C-614929	C-627394	—	—	C-618722	C-619019
88	196	C-617073A	C-614930	C-627395	C-624186	4	C-618724	C-619021
88	200	C-617073A	C-614930	C-627395	C-621961	2	C-618725	C-619023
88	202	C-617073A	C-614930	C-627395	C-613698	1	C-618727	C-619024
94	204	C-617073A	C-614930	C-627395	—	—	C-618728	C-619025
94	208	C-617074A	C-614931	C-627396	C-624186	4	C-615259	C-615277
94	212	C-617074A	C-614931	C-627396	C-621961	2	C-615261	C-615279
94	216	C-617074A	C-614931	C-627396	—	—	C-614875	C-614844

OAL – Overall lowered height of mast measured from floor level to top of outer channel.

BOF – Lift heights measured to the bottom of the forks.

HOIST CYLINDER PARTS – MODEL M7T

OAL	Lift Height BOF	Item No. 6	Item No. 20	Item No. 27	Item No. 21	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
71	132	C-616523A	C-615359	C-627516	C-618500	6	C-616276	C-616229
71	136	C-616523A	C-615359	C-627516	C-618458	4	C-616278	C-616231
71	140	C-616523A	C-615359	C-627516	C-606223	2	C-631913	C-616233
71	142	C-616524A	C-615360	C-627517	C-618501	7	C-616281	C-616234
71	144	C-616524A	C-615360	C-627517	C-618500	6	C-618858	C-618884
77	148	C-616524A	C-615360	C-627517	C-618458	4	C-618860	C-618886
77	152	C-616524A	C-615360	C-627517	C-606223	2	C-618862	C-618888
77	156	C-616524A	C-615360	C-617517	—	—	C-631915	C-618890
77	160	C-616525A	C-615361	C-627518	C-618458	4	C-618866	C-618895
83	164	C-616525A	C-615361	C-627518	C-606223	2	C-618868	C-618897
83	168	C-616525A	C-615361	C-627518	—	—	C-616282	C-616235
83	172	C-616526A	C-615362	C-627519	C-618458	4	C-616284	C-616237
83	176	C-616526A	C-615362	C-627519	C-606223	2	C-616286	C-616239
83	178	C-616526A	C-615362	C-627519	C-610495	1	C-616287	C-616240
89	180	C-616526A	C-615362	C-627519	—	—	C-618870	C-618902
89	184	C-616527A	C-615363	C-627520	C-618458	4	C-618872	C-618904
89	188	C-616527A	C-615363	C-627520	C-606223	2	C-618874	C-618906
89	192	C-616527A	C-615363	C-627520	—	—	C-616288	C-618908
89	196	C-616528A	C-615364	C-627521	C-618458	4	C-618877	C-618910
95	200	C-616528A	C-615364	C-627521	C-606223	2	C-618879	C-618914
95	204	C-616528A	C-615364	C-627521	—	—	C-616289	C-616242
95	208	C-616529A	C-615365	C-627522	C-619458	4	C-616291	C-616244
95	212	C-616529A	C-615365	C-627522	C-606223	2	C-616293	C-616246
95	216	C-616529A	C-615365	C-627522	—	—	C-616295	C-616248

OAL – Overall lowered height of mast measured from floor level to top of outer channel.

BOF – Lift heights measured to the bottom of the forks.

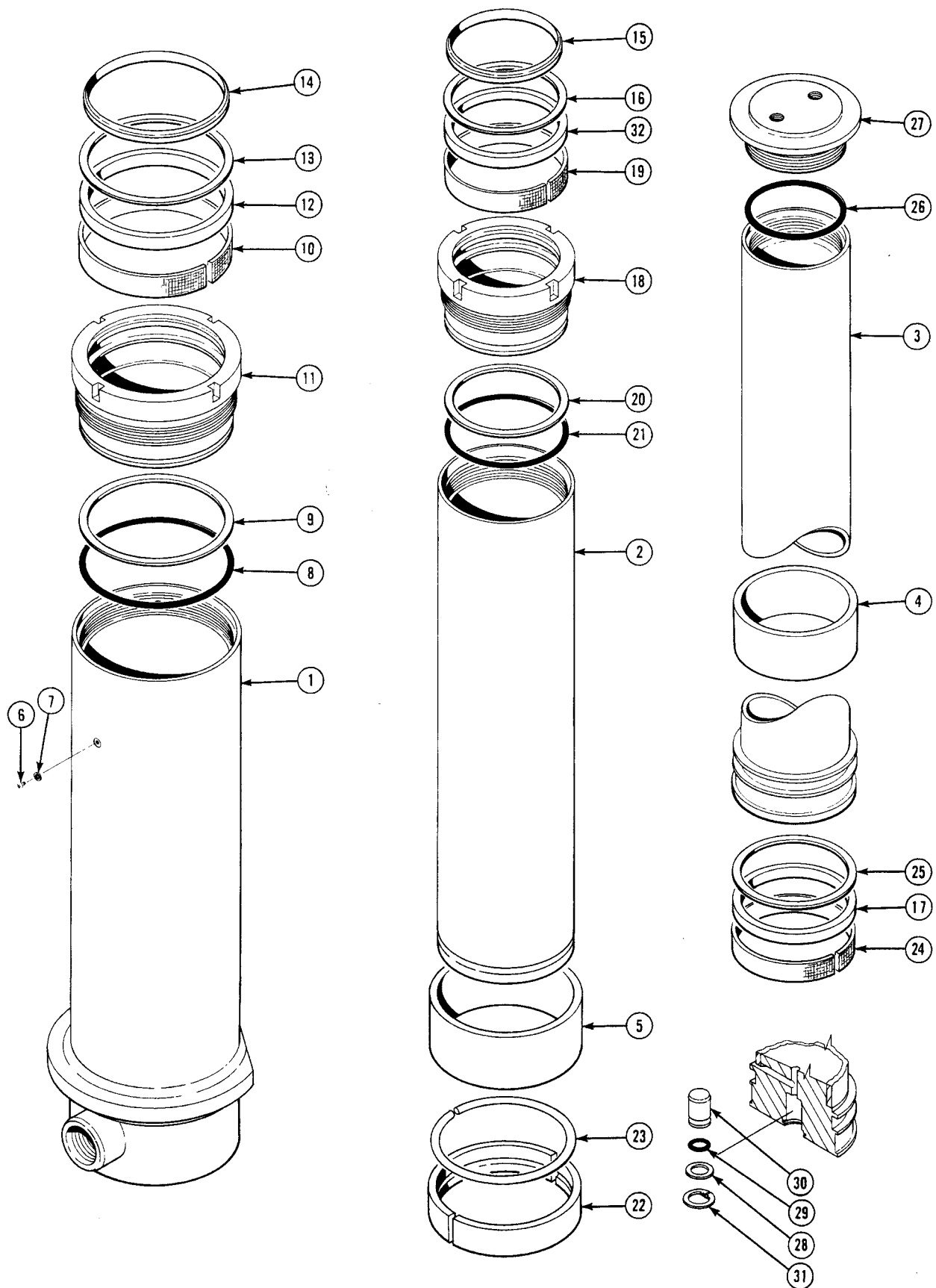
HOIST CYLINDER PARTS — MODEL M8T

OAL	Lift Height BOF	Item No. 6	Item No. 20	Item No. 27	Item No. 21	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
71	132	C-618412A	C-618426	C-627560	C-618495	6	C-618463	C-618541
71	136	C-618412A	C-618426	C-627560	C-618493	4	C-618465	C-618543
71	140	C-618412A	C-618426	C-627560	C-618491	2	C-631910	C-618545
71	142	C-618413A	C-618427	C-627561	C-618496	7	C-618468	C-618546
77	144	C-618413A	C-618427	C-627561	C-618495	6	C-618983	C-618951
77	148	C-618413A	C-618427	C-627561	C-618493	4	C-618985	C-618953
77	152	C-618413A	C-618427	C-627561	C-618491	2	C-618987	C-618955
77	156	C-618413A	C-618427	C-627561	—	—	C-631912	C-618957
77	160	C-618414A	C-618428	C-617562	C-618493	4	C-618991	C-618959
83	164	C-618414A	C-618428	C-627562	C-618491	2	C-618993	C-618964
83	168	C-618414A	C-618428	C-627562	—	—	C-618469	C-618547
83	172	C-618415A	C-618429	C-627563	C-618493	4	C-618471	C-618549
83	176	C-618415A	C-618429	C-627563	C-618491	2	C-618473	C-618551
83	178	C-618415A	C-618429	C-627563	C-618490	1	C-618474	C-618552
89	180	C-618415A	C-618429	C-627563	—	—	C-618995	C-618969
89	184	C-618416A	C-618430	C-627564	C-618493	4	C-618997	C-618971
89	188	C-618416A	C-618430	C-627564	C-618491	2	C-618999	C-618973
89	192	C-618416A	C-618430	C-627564	—	—	C-618475	C-618975
89	196	C-618417A	C-618431	C-627565	C-618493	4	C-619002	C-618977
95	200	C-618417A	C-618431	C-627565	C-618491	2	C-619004	C-618981
95	204	C-618417A	C-618431	C-627565	—	—	C-618476	C-618554
95	208	C-618418A	C-618432	C-627566	C-618493	4	C-618478	C-618556
95	212	C-618418A	C-618432	C-627566	C-618491	2	C-618480	C-618558
95	216	C-618418A	C-618432	C-627566	—	—	C-618482	C-618560

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

Hoist Cylinder



HOIST CYLINDER

REF. NO.	M3T		M4T		M5T		M7T		M8T, M9T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	
+1	1		1		1		1		1		Shell Assembly
+2	1		1		1		1		1		Inter Stage
+3	1		1		1		1		1		Plunger Assembly
+4	1		1		1		1		1		Spacer-Sec.
+5	1		1		1		1		1		Spacer-Pri.
6	1	C-632093	1	C-632093	1	C-632093	1	C-632093	1	C-632093	Capscrew
7	1	C-607287	1	C-607287	1	C-607287	1	C-607287	1	C-607287	Seal
* 8	1	C-2799	1	C-2803	1	C-2805	1	C-2811	1	C-2813	O-ring
* 9	1	C-615142	1	C-615146	1	C-615148	1	C-615154	1	C-615156	Back-Up Ring
* 10	1	C-636902	1	C-636904	1	C-636905	1	C-636908	1	C-636909	Bearing
11	1	C-640386	1	C-638020	1	C-639452	1	C-638019	1	C-641867	Retainer-Threaded
* 12	1	C-641479	1	C-641481	1	C-641482	1	C-641485	1	C-641486	Seal, Rod.
* 13	1	C-638252	1	C-638254	1	C-638224	1	C-638257	1	C-638225	Ring Nylon
* 14	1	C-636860	1	C-626429	1	C-636862	1	C-636864	1	C-622827	Wiper Ring
* 15	1	C-636857	1	C-636858	1	C-636859	1	C-626429	1	C-636862	Wiper Ring
* 16	1	C-638250	1	C-638251	1	C-636071	1	C-638254	1	C-638224	Ring Nylon
* 17	1	C-641522	1	C-641524	1	C-641525	1	C-641528	1	C-641529	Seal
18	1	C-642281	1	C-638805	1	C-639453	1	C-638020	1	C-639452	Retainer-Threaded
* 19	1	C-636898	1	C-636900	1	C-636901	1	C-636904	1	C-636905	Bearing
* 20	1	C-2791	1	C-2795	1	C-2797	1	C-2803	1	C-2805	O-ring
* 21	1	C-615134	1	C-615138	1	C-615140	1	C-615146	1	C-615148	Back-Up Ring
22	2	C-642279	2	C-638802	2	C-639450	2	C-638018	2	C-637636	Piston Half Ring
23	1	C-620255	1	C-638804	1	C-611125	1	C-611047	1	C-637637	Retainer Ring
* 24	1	C-636947	1	C-636949	1	C-636950	1	C-636953	1	C-636954	Bearing
* 25	—	—	1	C-638292	1	C-638293	1	C-638296	1	C-638223	Ring Nylon
* 26	1	C-2785	1	C-2789	1	C-2791	1	C-2797	1	C-2799	O-ring
27	1	C-652282	1	C-638806	1	C-639503	1	C-638021	1	C-641868	Plug-Plunger
28	1	C-642282	1	C-637635	1	C-637635	1	C-637635	1	C-637635	Washer
* 29	1	C-624737	1	C-624737	1	C-624737	1	C-624737	1	C-624737	O-ring
30	1	C-626664	1	C-626664	1	C-626664	1	C-626664	1	C-626664	Valve
31	1	C-3015	1	C-3015	1	C-3015	1	C-3015	1	C-3015	Snap Ring
* 32	1	C-641475	1	C-641477	1	C-641478	1	C-641481	1	C-641482	Seal
	1	C-642288		C-642300		C-642299		C-638022		C-641956	Service Kit

+See separate list, page 2H for M3T, 2I for M4T & M5T, 2J for M7T & M8T, 2K for M9T.

* Included in Service Kit.

HOIST CYLINDER PARTS — MODEL M3T

OAL	Lift Height BOF	Item No. 1	Item No. 2	Item No. 3	Item No. 4	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-642444	C-642454	C-642459	C-642474	6	C-642413	C-642980
70	136	C-642444	C-642454	C-642459	C-642472	4	C-642415	C-642981
70	140	C-642444	C-642454	C-642459	C-642470	2	C-642417	C-642982
70	144	C-642444	C-642454	C-642459	—	—	C-642419	C-642983
70	148	C-642445	C-642455	C-642460	C-642472	4	C-642421	C-642984
70	150	C-642445	C-642455	C-642460	C-642471	3	C-642422	C-642985
76	148	C-642445	C-642455	C-642460	C-642472	4	C-642421	C-642986
76	152	C-642445	C-642455	C-642460	C-642470	2	C-642423	C-642987
76	156	C-642445	C-642455	C-642460	—	—	C-642425	C-642988
76	160	C-642446	C-642456	C-642461	C-642472	4	C-642427	C-642989
76	164	C-642446	C-642456	C-642461	C-642470	2	C-642429	C-642990
76	168	C-642446	C-642456	C-642461	—	—	C-642431	C-642991
82	164	C-642446	C-642456	C-642461	C-642470	2	C-642429	C-642992
82	168	C-642446	C-642456	C-642461	—	—	C-642431	C-642993
82	172	C-642447	C-642457	C-642462	C-642472	4	C-642433	C-642994
82	176	C-642447	C-642457	C-642462	C-642470	2	C-642435	C-642995
82	180	C-642447	C-642457	C-642462	—	—	C-642437	C-642996
82	184	C-642448	C-642458	C-642463	C-642472	4	C-642439	C-642997
82	186	C-642448	C-642458	C-642463	C-642471	3	C-642440	C-642998

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

HOIST CYLINDER PARTS — MODEL M4T

OAL	Lift Height BOF	Item No. 1	Item No. 2	Item No. 3	Item No. 4	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-638838	C-638854	C-638862	C-638881	6	C-638807	C-642999
70	136	C-638838	C-638854	C-638862	C-638880	4	C-638815	C-643000
70	140	C-638838	C-638854	C-638862	C-638879	2	C-638816	C-643001
70	144	C-638838	C-638854	C-638862	—	—	C-638817	C-643002
70	148	C-638839	C-638855	C-638863	C-638880	4	C-638818	C-643003
76	148	C-638839	C-638855	C-638863	C-638880	4	C-638818	C-643004
76	152	C-638839	C-638855	C-638863	C-638879	2	C-638819	C-643005
76	156	C-638839	C-638855	C-638863	—	—	C-638820	C-643006
76	160	C-638840	C-638856	C-638864	C-638880	4	C-638822	C-643007
76	164	C-638840	C-638856	C-638864	C-638879	2	C-638823	C-643008
76	166	C-638840	C-638856	C-638864	C-638878	1	C-642285	C-643009
82	164	C-638840	C-638856	C-638864	C-638879	2	C-638823	C-643010
82	168	C-638840	C-638856	C-638864	—	—	C-638824	C-643011
82	172	C-638841	C-638857	C-638865	C-638880	4	C-638825	C-643012
82	176	C-638841	C-638857	C-638865	C-638879	2	C-638826	C-643013
82	180	C-638841	C-638857	C-638865	—	—	C-638827	C-643014
82	184	C-638842	C-638858	C-638866	C-638880	4	C-638828	C-643015
88	184	C-638842	C-638858	C-638866	C-638880	4	C-638828	C-643016
88	188	C-638842	C-638858	C-638866	C-638879	2	C-638829	C-643017
88	192	C-638842	C-638858	C-638866	—	—	C-638830	C-643018
88	196	C-638843	C-638859	C-638867	C-638880	4	C-638831	C-643019
88	200	C-638843	C-638859	C-638867	C-638879	2	C-638832	C-643020
88	202	C-638843	C-638859	C-638867	C-638878	1	C-642286	C-643021
94	200	C-638843	C-638859	C-638867	C-638880	4	C-638832	C-643022
94	204	C-638843	C-638859	C-638867	—	—	C-638833	C-643023
94	208	C-638844	C-638860	C-638868	C-638880	4	C-638834	C-643024
94	212	C-638844	C-638860	C-638868	C-638879	2	C-638835	C-643025
94	216	C-638844	C-638860	C-638868	—	—	C-638836	C-643026

HOIST CYLINDER PARTS — MODEL M5T

OAL	Lift Height BOF	Item No. 1	Item No. 2	Item No. 3	Item No. 4	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
70	132	C-639549	C-639565	C-639573	C-639592	6	C-639525	C-643027
70	136	C-639549	C-639565	C-639573	C-639591	4	C-639526	C-643028
70	140	C-639549	C-639565	C-639573	C-639590	2	C-639527	C-643029
70	144	C-639549	C-639565	C-639573	C-642270	¼	C-640999	C-643030
70	148	C-639550	C-639566	C-639574	C-639591	4	C-639529	C-643031
76	148	C-639550	C-639566	C-639574	C-639591	4	C-639529	C-643032
76	152	C-639550	C-639566	C-639574	C-639590	2	C-639530	C-643033
76	156	C-639550	C-639566	C-639574	—	—	C-639531	C-643034
76	160	C-639551	C-639567	C-639575	C-639591	4	C-639533	C-643035
76	164	C-639551	C-639567	C-639575	C-639590	2	C-639534	C-643036
76	166	C-639551	C-639567	C-639575	C-639589	1	C-642268	C-643037
82	164	C-639551	C-639567	C-639575	C-639590	2	C-639534	C-643038
82	168	C-639551	C-639567	C-639575	—	—	C-639535	C-643039
82	172	C-639552	C-639568	C-639576	C-639591	4	C-639536	C-643040
82	176	C-639552	C-639568	C-639576	C-639590	2	C-639537	C-643041
82	180	C-639552	C-639568	C-639576	—	—	C-639538	C-643042
82	184	C-639553	C-639569	C-639577	C-639591	4	C-639539	C-643043
88	184	C-639553	C-639569	C-639577	C-639591	4	C-639539	C-643044
88	188	C-639553	C-639569	C-639577	C-639590	2	C-639540	C-643045
88	192	C-639553	C-639569	C-639577	—	—	C-639541	C-643046
88	196	C-639554	C-639570	C-639578	C-639591	4	C-639542	C-643047
88	200	C-639554	C-639570	C-639578	C-639590	2	C-639543	C-643048
88	202	C-639554	C-639570	C-639578	C-639589	1	C-642269	C-643049
94	200	C-639554	C-639570	C-639578	C-639590	2	C-639543	C-643050
94	204	C-639554	C-639570	C-639578	—	—	C-639544	C-643051
94	208	C-639555	C-639571	C-639579	C-639591	4	C-639545	C-643052
94	212	C-639555	C-639571	C-639579	C-639590	2	C-639546	C-643053
94	216	C-639555	C-639571	C-639579	—	—	C-639547	C-643054

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

HOIST CYLINDER PARTS – MODEL M7T

OAL	Lift Height BOF	Item No. 1	Item No. 2	Item No. 3	Item No. 4	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
71	132	C-638427	C-638443	C-638451	C-638469	6	C-638403	C-644964
71	136	C-638427	C-638443	C-638451	C-638468	4	C-638405	C-644965
71	140	C-638427	C-638443	C-638451	C-638467	2	C-638406	C-644966
71	144	C-638427	C-638443	C-638451	—	—	C-638407	C-644967
71	148	C-638428	C-638444	C-638452	C-638468	4	C-638408	C-644968
77	148	C-638428	C-638444	C-638452	C-638468	4	C-638408	C-644969
77	152	C-638428	C-638444	C-638452	C-638467	2	C-638409	C-644970
77	156	C-638428	C-638444	C-638452	—	—	C-638410	C-644971
77	160	C-638429	C-638445	C-638453	C-638468	4	C-638411	C-644972
77	164	C-638429	C-638445	C-638453	C-638467	2	C-638412	C-644973
83	164	C-638429	C-638445	C-638453	C-638467	2	C-638412	C-644974
83	168	C-638429	C-638445	C-638453	—	—	C-638413	C-644975
83	172	C-638430	C-638446	C-638454	C-638468	4	C-638414	C-644976
83	176	C-638430	C-638446	C-638454	C-638467	2	C-638415	C-644977
83	180	C-638430	C-638446	C-638454	—	—	C-638416	C-644978
83	184	C-638431	C-638447	C-638455	C-638468	4	C-638417	C-644979
89	184	C-638431	C-638447	C-638455	C-638468	4	C-638417	C-644980
89	188	C-638431	C-638447	C-638455	C-638467	2	C-638418	C-644981
89	192	C-638431	C-638447	C-638455	—	—	C-638419	C-644982
89	196	C-638432	C-638448	C-638456	C-638468	4	C-638420	C-644983
89	200	C-638432	C-638448	C-638456	C-638467	2	C-638421	C-644984
95	200	C-638432	C-638448	C-638456	C-638467	2	C-638421	C-644985
95	204	C-638432	C-638448	C-638456	—	—	C-638422	C-644986
95	208	C-638433	C-638449	C-638457	C-638468	4	C-638423	C-644987
95	212	C-638433	C-638449	C-638457	C-638467	2	C-638424	C-644988
95	216	C-638433	C-638449	C-638457	—	—	C-638425	C-644989

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

HOIST CYLINDER PARTS – MODEL M8T

OAL	Lift Height BOF	Item No. 1	Item No. 2	Item No. 3	Item No. 4	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
71	132	C-641912	C-641928	C-641936	C-638109	6	C-641870	C-644990
71	136	C-641912	C-641928	C-641936	C-638108	4	C-641871	C-644991
71	140	C-641912	C-641928	C-641936	C-638106	2	C-641872	C-644992
71	144	C-641913	C-641929	C-641937	C-638109	6	C-641876	C-644993
71	148	C-641913	C-641929	C-641937	C-638108	4	C-641877	C-644994
77	148	C-641913	C-641929	C-641937	C-638108	4	C-641877	C-644995
77	152	C-641913	C-641929	C-641937	C-638108	4	C-641878	C-644996
77	156	C-641913	C-641929	C-641937	—	—	C-641879	C-644997
77	160	C-641914	C-641930	C-641938	C-638108	4	C-641885	C-644998
77	164	C-641914	C-641930	C-641938	C-638106	2	C-641886	C-644999
83	164	C-641914	C-641930	C-641938	C-638106	2	C-641886	C-645000
83	168	C-641914	C-641930	C-641939	—	—	C-641887	C-645001
83	172	C-641915	C-641931	C-641939	C-638108	4	C-641893	C-645002
83	176	C-641915	C-641931	C-641939	C-638106	2	C-641894	C-645003
83	180	C-641915	C-641931	C-641939	—	—	C-641895	C-645004
83	184	C-641916	C-641932	C-641940	C-638108	4	C-641899	C-645005
89	184	C-641916	C-641932	C-641940	C-638108	4	C-641899	C-645006
89	188	C-641916	C-641932	C-641940	C-638106	2	C-641901	C-645007
89	192	C-641916	C-641932	C-641940	—	—	C-641902	C-645008
89	196	C-641917	C-641933	C-641941	C-638108	4	C-641905	C-645009
89	200	C-641917	C-641933	C-641941	C-638106	2	C-641906	C-645010
95	200	C-641917	C-641933	C-641941	C-638106	2	C-641906	C-645011
95	204	C-641917	C-641933	C-641941	—	—	C-641907	C-645012
95	208	C-641918	C-641934	C-641942	C-638108	4	C-641908	C-645013
95	212	C-641918	C-641934	C-641942	C-638106	2	C-641909	C-645014
95	216	C-641918	C-641934	C-641942	—	—	C-641910	C-645015

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

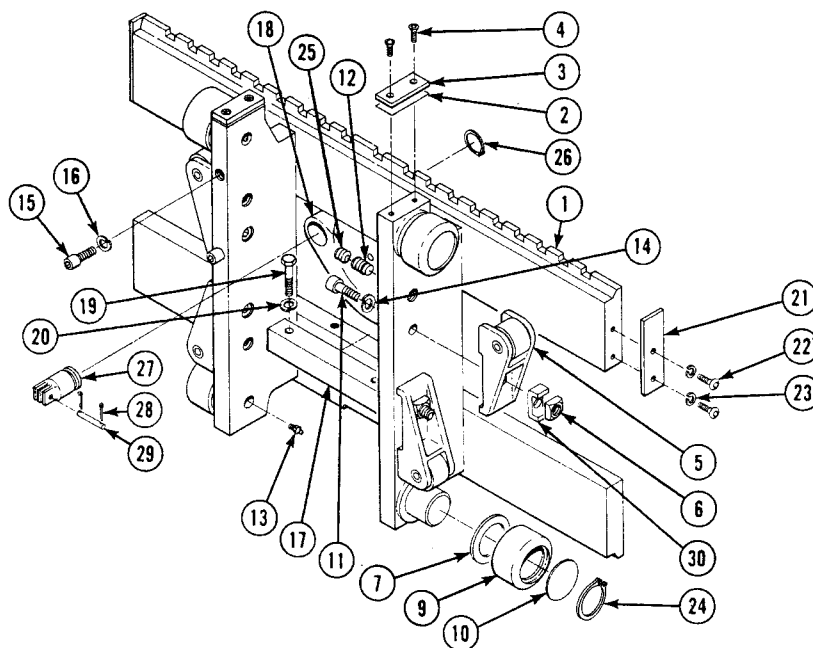
HOIST CYLINDER PARTS — MODEL M9T

OAL	Lift Height BOF	Item No. 1	Item No. 2	Item No. 3	Item No. 4	Length	Cylinder Assembly	Mast Assembly
		Shell	Intermediate Stage	Plunger	Secondary Spacer			
		Part No.	Part No.	Part No.	Part No.		Part No.	Part No.
71	130	C-641913	C-641929	C-641937	C-638114	13	C-641874	C-645016
71	132	C-641913	C-641929	C-641937	C-638113	12	C-641875	C-645017
77	136	C-641914	C-641930	C-641938	C-638116	16	C-641880	C-645018
77	140	C-641914	C-641930	C-641938	C-638115	14	C-641881	C-645019
77	144	C-641914	C-641930	C-641938	C-638113	12	C-641882	C-645020
77	148	C-641914	C-641930	C-641938	C-638112	10	C-641883	C-645021
77	150	C-641914	C-641930	C-641938	C-638111	9	C-641884	C-645022
83	152	C-641913	C-641929	C-641937	C-638106	2	C-641878	C-645023
83	156	C-641915	C-641931	C-641939	C-638113	12	C-641889	C-645024
83	160	C-641915	C-641931	C-641939	C-638112	10	C-641890	C-645025
83	164	C-641915	C-641931	C-641939	C-638110	8	C-641891	C-645026
83	168	C-641915	C-641931	C-641939	C-638109	6	C-641892	C-645027
89	172	C-641916	C-641932	C-641940	C-638112	10	C-641896	C-645028
89	176	C-641916	C-641932	C-641940	C-638110	8	C-641897	C-645029
89	180	C-641916	C-641932	C-641940	C-638109	6	C-641898	C-645030
89	184	C-641916	C-641932	C-641940	C-638108	4	C-641899	C-645031
89	186	C-641916	C-641932	C-641940	C-638107	3	C-641900	C-645032
95	188	C-641917	C-641933	C-641941	C-638110	8	C-641903	C-645033
95	192	C-641917	C-641933	C-641941	C-638109	6	C-641904	C-645034
95	196	C-641917	C-641933	C-641941	C-638108	4	C-641905	C-645035
95	200	C-641917	C-641933	C-641941	C-638106	2	C-641906	C-645036
95	204	C-641917	C-641933	C-641941	—	—	C-641907	C-645037
101	208	C-641918	C-641934	C-641942	C-638108	4	C-641908	C-645038
101	212	C-641918	C-641934	C-641942	C-638106	2	C-641909	C-645039
101	216	C-641918	C-641934	C-641942	—	—	C-641910	C-645040

OAL — Overall lowered height of mast measured from floor level to top of outer channel.

BOF — Lift heights measured to the bottom of the forks.

Carriage

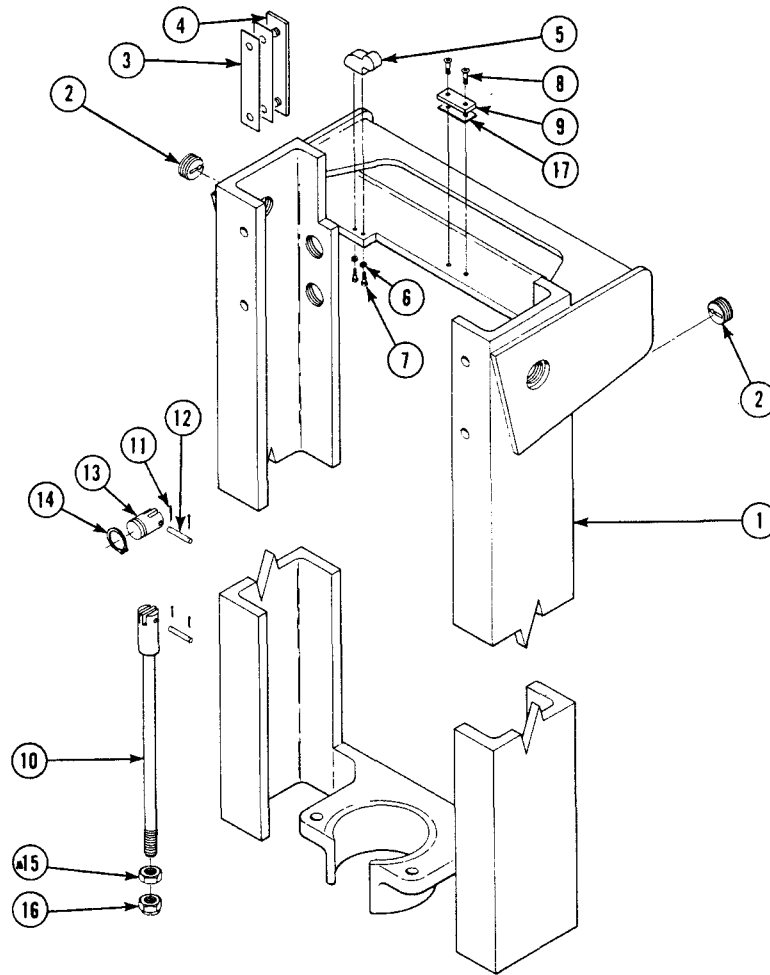


REF. NO.	M2T, M3T		M4T, M5T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	
CARRIAGE FOR MAST MOUNTED WITH 3" UNDERCLEARANCE					
	1	C-616936 32"	1	C-614880 37"	Carriage Assembly
	1	C-620117 36"	1	C-614996 45"	Carriage Assembly
	—	—	—	—	Carriage Assembly
1	1	C-616937 32"	1	C-614881 37"	Carriage
1	1	C-620118 36"	1	C-614997 45"	Carriage
1	—	—	—	—	Carriage
CARRIAGE FOR MAST MOUNTED WITH 5" UNDERCLEARANCE					
	1	C-620936 32"	1	C-617793 37"	Carriage Assembly
	1	C-621282 36"	1	C-617794 45"	Carriage Assembly
1	1	C-620937 32"	1	C-617795 37"	Carriage
1	1	C-620962 36"	1	C-617796 45"	Carriage
2	**	C-616835	**	C-616069	Shim
3	2	C-616834	2	C-615954	Pad
4	4	C-4630	4	C-4630	Capscrew
5	4	C-613774	4	C-613774	Roller Assembly
6	4	C-621951	4	C-621951	Nut
7	4	C-613764	4	C-613764	Washer, Thrust
9	4	C-613763	4	C-613763	Roller
10	4	C-613765	4	C-613765	Plug
11	4	C-4507	4	C-4509	Capscrew
12	4	C-616168	4	C-5257	Setscrew
13	5	C-7401	5	C-7401	Fitting
14	—	—	4	C-6374	Lockwasher
15	2	C-616664	2	C-615324	Capscrew
16	2	C-6374	2	C-6447	Lockwasher
17	1	C-616833	—	—	Bar
18	1	C-616832	—	++	Yoke
19	2	C-3257	—	—	Capscrew
20	2	C-6288	—	—	Lockwasher
21	2	C-630915	2	C-630915	Keeper
22	4	C-4880	4	C-4880	Capscrew
23	4	C-6290	4	C-6290	Lockwasher
24	—	—	—	—	Snap Ring
25	4	C-628020	4	C-628020	Jam Setscrew
26	—	—	2	C-3139	Snap Ring
27	2	C-619965	2	C-620973	Chain Anchor
28	4	C-629440	4	C-629440	Cotter Pin
29	2	C-629441	2	C-629439	Pin
30	4	C-655667	4	C-655667	Clip
	1	C-623773	1	C-623732	Chain Extension

** As required

++ Part of Carriage.

Outer Upright Assembly

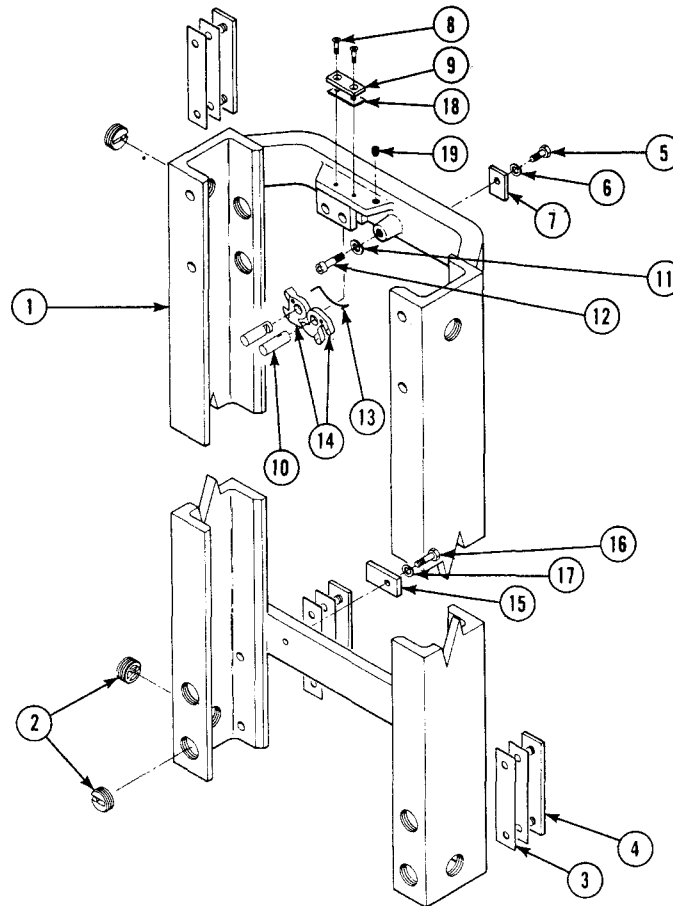


REF. NO.	M2T, M3T		M4T, M5T		M7T, M8T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	
● 1	1	C-616860	1	C-614845	1	C-616249	Upright 70" OAL
● 1	1	C-619090	1	C-617767	1	C-618918	Upright 76" OAL
● 1	1	C-616861	1	C-614846	1	C-616250	Upright 82" OAL
● 1	—	—	1	C-618602	1	C-618919	Upright 88" OAL
● 1	—	—	1	C-614847	1	C-616251	Upright 94" OAL
2	6	C-626164	6	C-626164	8	C-626164	Plug
3	**	C-613797	**	C-613797	**	C-616344	Shim
4	2	C-613792	2	C-613792	2	C-616343	Bearing
5	1	C-614833	1	C-614833	1	C-614833	Trip
6	2	C-6288	2	C-6288	2	C-6288	Lockwasher
7	2	C-3253	2	C-615953	2	C-8606	Capscrew
8	2	C-4630	2	C-4630	2	C-4630	Capscrew
9	1	C-615954	1	C-615954	1	C-615954	Pad
10	2	C-619966	2	C-620975	2	C-616348	Anchor
11	8	C-629440	8	C-629440	8	C-6508	Cotter Pin
12	4	C-629441	4	C-629439	4	C-616346	Pin
13	2	C-619965	2	C-620973	2	C-616347	Anchor
14	—	—	2	C-3139	2	C-3148	Ring
15	2	C-5720	2	C-5721	2	C-5722	Nut
16	2	C-5880	2	C-5881	2	C-5882	Nut
17	**	C-616069	**	C-616069	**	C-616069	Shim

** As required

● OAL (Overall Lowered Height) is measured from the floor level to the top of the outer channel. Listed heights are for masts mounted with 3 inches of underclearance. Add 2 inches to listed heights for masts mounted with 5 inches of underclearance and add 3 inches to listed heights for masts mounted with 6 inches of underclearance.

Intermediate Upright Assembly

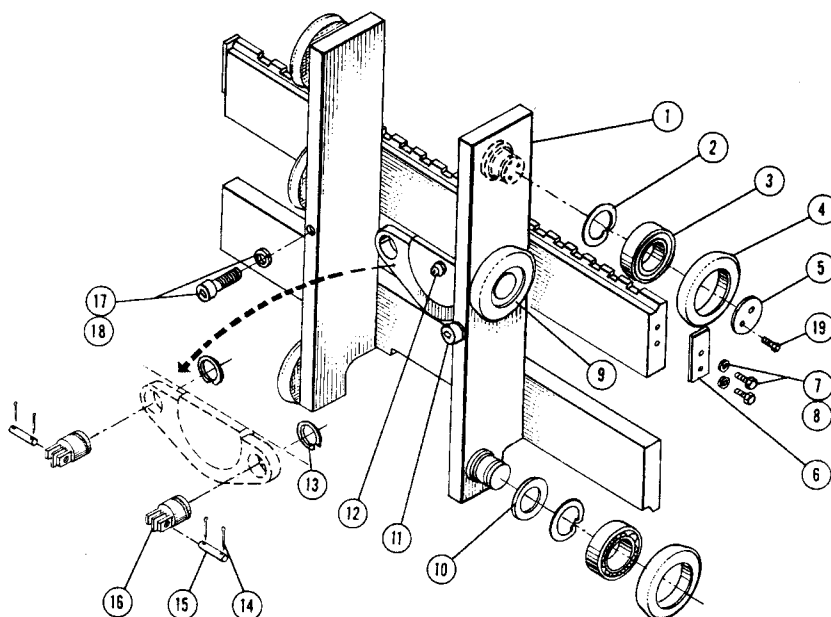


REF. NO.	M2T, M3T		M4T, M5T		M7T, M8T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	
● 1	1	C-616866	1	C-620888	1	C-630253	Upright 70" OAL
● 1	1	C-619093	1	C-620889	1	C-630254	Upright 76" OAL
● 1	1	C-616867	1	C-620917	1	C-630255	Upright 82" OAL
● 1	—	—	1	C-620918	1	C-630256	Upright 88" OAL
● 1	—	—	1	C-620919	1	C-630257	Upright 94" OAL
2	12	C-628711	12	C-626164	12	C-626164	Plug
3	**	C-613797	**	C-613797	**	C-616344	Shim
4	4	C-616959	4	C-613792	4	C-616343	Bearing
5	1	C-3249	1	C-3249	1	C-3249	Capscrew
6	1	C-6288	1	C-6288	1	C-6288	Lockwasher
7	1	C-613782	1	C-613782	1	C-613782	Keeper
8	2	C-4630	2	C-4630	2	C-4630	Capscrew
9	1	C-615954	1	C-615954	1	C-615954	Pad
10	2	C-613783	2	C-613783	2	C-616342	Pin
11	2	C-6374	2	C-6447	2	C-6447	Lockwasher
12	2	C-616664	2	C-615324	2	C-615324	Capscrew
13	1	C-613780	1	C-613780	1	C-613780	Spring
14	2	C-616962	2	C-616962	2	C-631907	Latch
15	2	C-630407	2	C-629813	2	C-629813	Stop Block
16	2	C-3707	2	C-3709	2	C-3710	Capscrew
17	2	C-6292	2	C-6292	2	C-6292	Lockwasher
18	**	C-616069	**	C-616069	**	C-616069	Shim
19	1	C-613942	1	C-613942	1	C-613942	Setscrew

** As required

● OAL (Overall Lowered Height) is measured from the floor level to the top of the outer channel. Listed heights are for masts mounted with 3 inches of underclearance. Add 2 inches to listed heights for masts mounted with 5 inches of underclearance and add 3 inches to listed heights for masts mounted with 6 inches of underclearance.

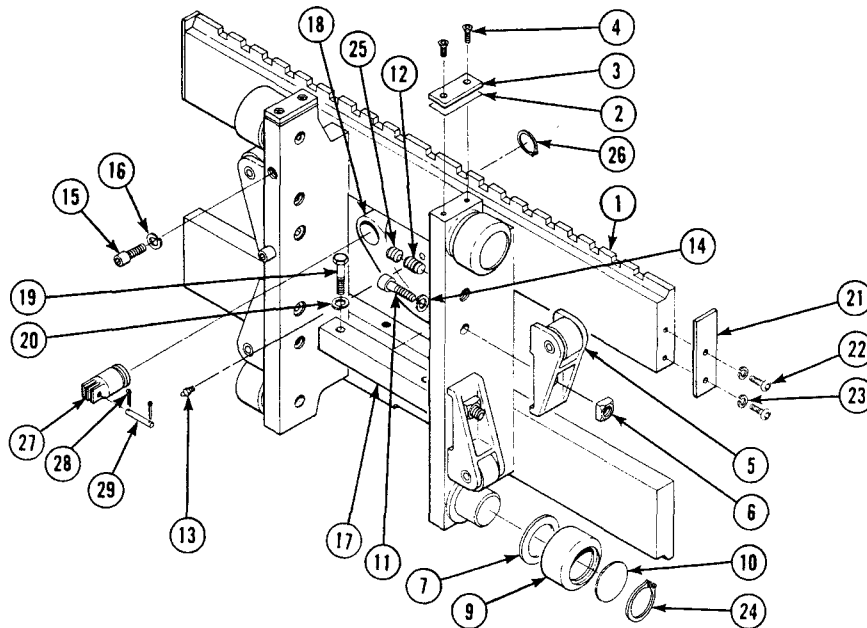
Carriage



REF. NO.	M7T, M8T		M9T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	
CARRIAGE FOR MAST MOUNTED WITH 3" UNDERCLEARANCE – CLASS III					
		C-631851 42"		C-641966 42"	Carriage Assembly
		C-631852 48"		C-641964 48"	Carriage Assembly
		C-631853 60"		C-641962 60"	Carriage Assembly
1		C-632403 42"		C-642290 42"	Carriage
1		C-632404 48"		C-642291 48"	Carriage
1		C-632405 60"		C-642292 60"	Carriage
CARRIAGE FOR MAST MOUNTED WITH 3" UNDERCLEARANCE – CLASS IV					
				C-641965 49"	Carriage Assembly
				C-641961 61"	Carriage Assembly
				C-641963 73"	Carriage Assembly
1				C-642293 49"	Carriage
1				C-642294 61"	Carriage
1				C-642295 73"	Carriage
CARRIAGE FOR MAST MOUNTED WITH 6" UNDERCLEARANCE – CLASS III					
		C-631854 42"			Carriage Assembly
		C-631855 48"			Carriage Assembly
		C-631856 60"			Carriage Assembly
1		C-632406 42"			Carriage
1		C-632407 48"			Carriage
1		C-632408 60"			Carriage
2	—	—	6	C-3062	Snap Ring
3	—	—	6	C-639609	Bearing
4	—	—	6	C-639608	Tire
5	2	C-641847	2	C-641847	Washer-Retainer
6	2	C-606988	2	C-606988	Keeper
7	4	C-4880	4	C-4880	Capscrew
8	4	C-6290	4	C-6290	Lockwasher
9	6	C-631880	6	C-637850	Roller Assembly
10	**	C-631881	**	C-637536	Shim
11	—	—	1	C-637848	Spacer
12	1	C-7401	1	C-7401	Grease Fitting
13	2	C-3148	2	C-3148	Snap Ring
14	4	C-6508	4	C-6508	Cotter Pin
15	2	C-616346	2	C-637844	Pin
16	2	C-616347	2	C-637845	Anchor-Chain
17	1	C-615324	2	C-637949	Capscrew
18	1	C-6447	2	C-6447	Lockwasher
19	2	C-4040	2	C-4040	Capscrew

** As required

Carriage

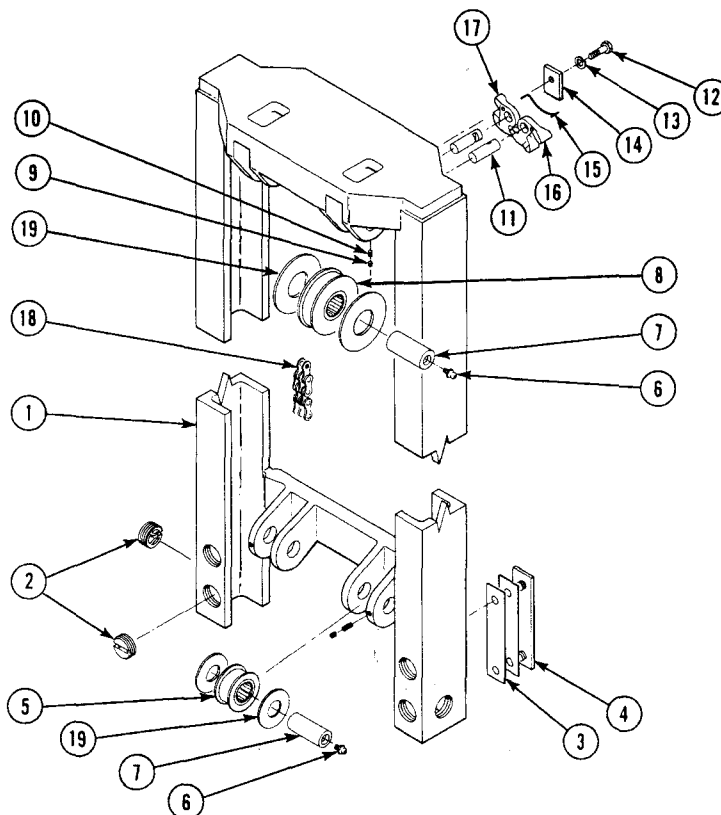


REF. NO.	M7T, M8T		DESCRIPTION
	Qty.	Part No.	
CARRIAGE FOR MAST MOUNTED WITH 3" UNDERCLEARANCE			
	1	C-619293 42"	Carriage Assembly
	1	C-616376 48"	Carriage Assembly
	1	C-616390 60"	Carriage Assembly
1	1	C-619294 42"	Carriage
1	1	C-616377 48"	Carriage
1	1	C-616391 60"	Carriage
CARRIAGE FOR MAST MOUNTED WITH 6" UNDERCLEARANCE			
	1	C-620608 42"	Carriage Assembly
	1	C-620610 48"	Carriage Assembly
	1	C-620612 60"	Carriage Assembly
1	1	C-620609 42"	Carriage
1	1	C-620611 48"	Carriage
1	1	C-620613 60"	Carriage
2	**	C-616069	Shim
3	2	C-615954	Pad
4	4	C-4630	Capscrew
5	4	C-613774	Roller Assembly
6	4	C-621951	Nut
7	—	—	Washer, Thrust
9	4	C-616371	Roller
10	—	—	Plug
11	4	C-4510	Capscrew
12	4	C-5258	Setscrew
13	—	—	Fitting
14	4	C-6374	Lockwasher
15	2	C-615324	Capscrew
16	2	C-6447	Lockwasher
17	1	C-616374	Bar
18	1	C-616375	Yoke
19	2	C-3256	Capscrew
20	2	C-6288	Lockwasher
21	2	C-606988	Keeper
22	4	C-4880	Capscrew
23	4	C-6290	Lockwasher
24	4	C-3140	Snap Ring
25	4	C-628020	Jam Setscrew
26	2	C-3148	Snap Ring
27	2	C-616347	Chain Anchor
28	4	C-6508	Cotter Pin
29	2	C-616346	Pin
	1	C-623731	Chain Extension

** As required

++ Part of Carriage.

Inner Upright Assembly



REF. NO.	M2T, M3T		M4T, M5T		M7T, M8T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	Qty.	Part No.	
● 1	1	C-616872	1	C-614863	1	C-616267	Upright 70" OAL
● 1	1	C-619096	1	C-617773	1	C-618930	Upright 76" OAL
● 1	1	C-616873	1	C-614864	1	C-616268	Upright 82" OAL
● 1	—	—	1	C-618608	1	C-618931	Upright 88" OAL
● 1	—	—	1	C-614865	1	C-616269	Upright 94" OAL
2	6	C-626164	6	C-626164	6	C-626164	Plug
3	**	C-613797	**	C-613797	**	C-616344	Shim
4	2	C-613792	2	C-613792	2	C-616343	Bearing
5	2	C-619962	2	C-613767	2	C-616360	Sheave
6	4	C-7401	4	C-7401	4	C-7401	Fitting
7	4	C-616816	4	C-613773	4	C-616363	Pin
8	2	C-619968	2	C-613771	2	C-616352	Sheave
9	4	C-612404	4	C-612545	4	C-612545	Jam Screw
10	4	C-4953	4	C-5309	4	C-5309	Setscrew
11	2	C-616878	2	C-613783	2	C-616342	Pin
12	1	C-3250	1	C-3250	1	C-3250	Capscrew
13	1	C-6288	1	C-6288	1	C-6288	Lockwasher
14	1	C-616808	1	C-613782	1	C-613782	Keeper
15	1	C-616809	1	C-613780	1	C-613780	Spring
16	1	C-616964	1	C-616968	1	C-631906	Latch
17	1	C-616966	1	C-616962	1	C-631907	Latch
+18							Chain
19	8	C-616815			8	C-616351	Thrust Washer
20	—	—	—	—	2	C-6236	Lockwasher

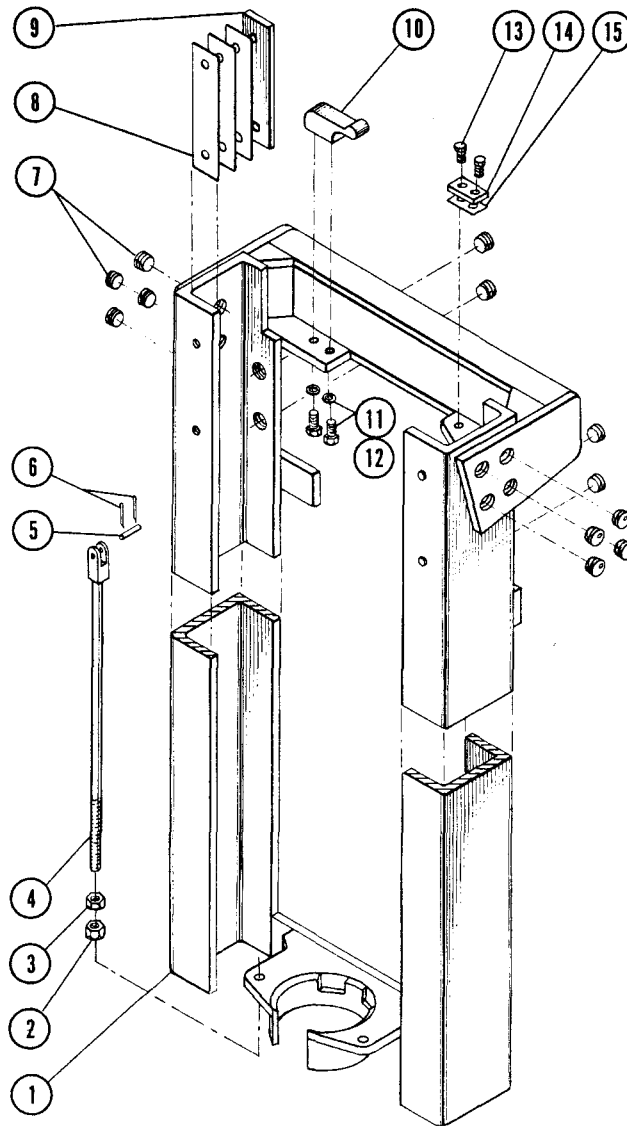
** As required.

● OAL (Overall Lowered Height) is measured from the floor level to the top of the outer channel. Listed heights are for masts mounted with 3 inches of underclearance. Add 2 inches to listed heights for masts mounted with 5 inches of underclearance and add 3 inches to listed heights for masts mounted with 6 inches of underclearance.

+ See separate list page 5.

* Part of Sheave Assy.

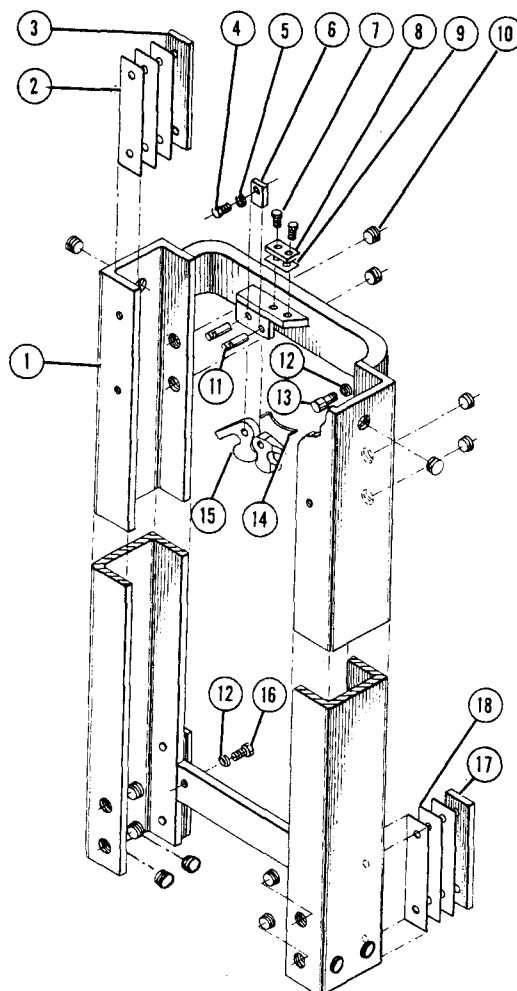
Outer Upright Assembly



REF. NO.	M7T, M8T		M9T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	
1	1	C-631859	1	C-637764	Upright 71" OAL
1	1	C-631860	1	C-637765	Upright 77" OAL
1	1	C-631861	1	C-637766	Upright 83" OAL
1	1	C-631862	1	C-637767	Upright 89" OAL
1	1	C-638735	1	C-637768	Upright 95" OAL
—	—	—	1	C-637769	Upright 101" OAL
2	2	C-5882	2	C-5882	Nut
3	2	C-5722	2	C-5722	Nut-Jam
4	2	C-631803	2	C-637841	Anchor, Chain
5	2	C-616346	2	C-637844	Pin
6	4	C-6508	4	C-6508	Cotter Pin
7	8	C-626164	6	C-626164	Plug, Wear Assy.
8	**	C-616344	**	C-616344	Shim
9	2	C-616343	2	C-616343	Bearing Strip
10	1	C-631798	1	C-631798	Latch Point
11	2	C-623559	2	C-623559	Capscrew
12	2	C-6288	2	C-6288	Lockwasher
13	2	C-4630	2	C-4630	Capscrew
14	1	C-615954	1	C-615954	Pad
15	**	C-616069	**	C-616069	Shim

** As required

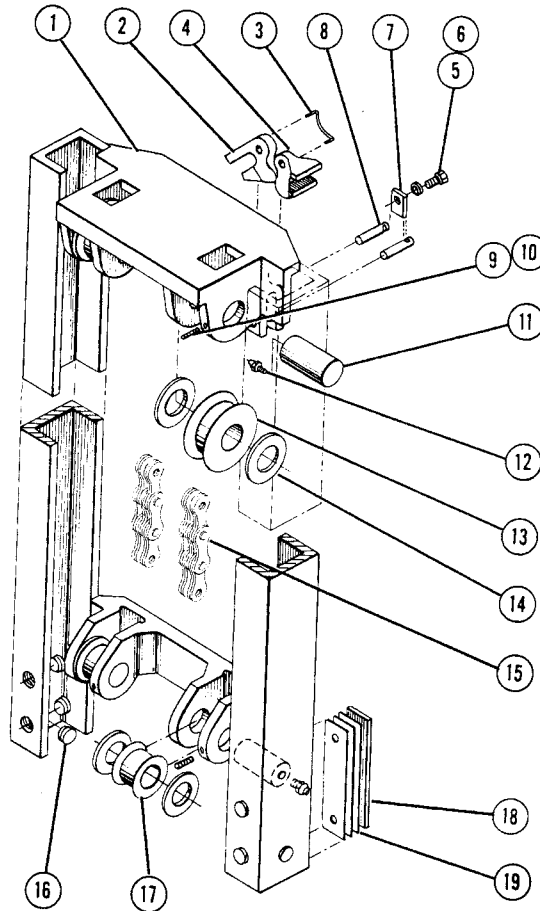
Intermediate Upright Assembly



REF. NO.	M7T, M8T		M9T		DESCRIPTION
	Qty.	Part No.	Qty.	Part No.	
1	1	C-632101	1	C-637776	Upright 71" OAL
1	1	C-632102	1	C-637777	Upright 77" OAL
1	1	C-632103	1	C-637778	Upright 83" OAL
1	1	C-632104	1	C-637779	Upright 89" OAL
1	1	C-632105	1	C-637780	Upright 95" OAL
—	—	—	1	C-637781	Upright 101" OAL
2	**	C-616344	**	—	Shim
3	2	C-616343	**	—	Strip Bearing
4	1	C-3600	1	C-3600	Capscrew
5	1	C-6288	1	C-6288	Lockwasher
6	1	C-613782	1	C-613782	Keeper
7	2	C-4630	2	C-4630	Capscrew
8	1	C-615954	1	C-615954	Pad
9	**	C-616069	**	C-616069	Shim
10	12	C-626164	12	C-626164	Plug-Wear
11	2	C-631864	2	C-631864	Pin
12	2	C-6447	2	C-6447	Lockwasher
13	1	C-615324	1	C-637949	Capscrew
14	1	C-613780	1	C-613780	Spring
15	2	C-631907	2	C-631907	Latch-Single
16	2	C-615324	2	C-615324	Capscrew
17	2	C-616343	2	C-616343	Strip Bearing
18	**	C-616344	**	C-616344	Shim

** As required.

Inner Upright Assembly

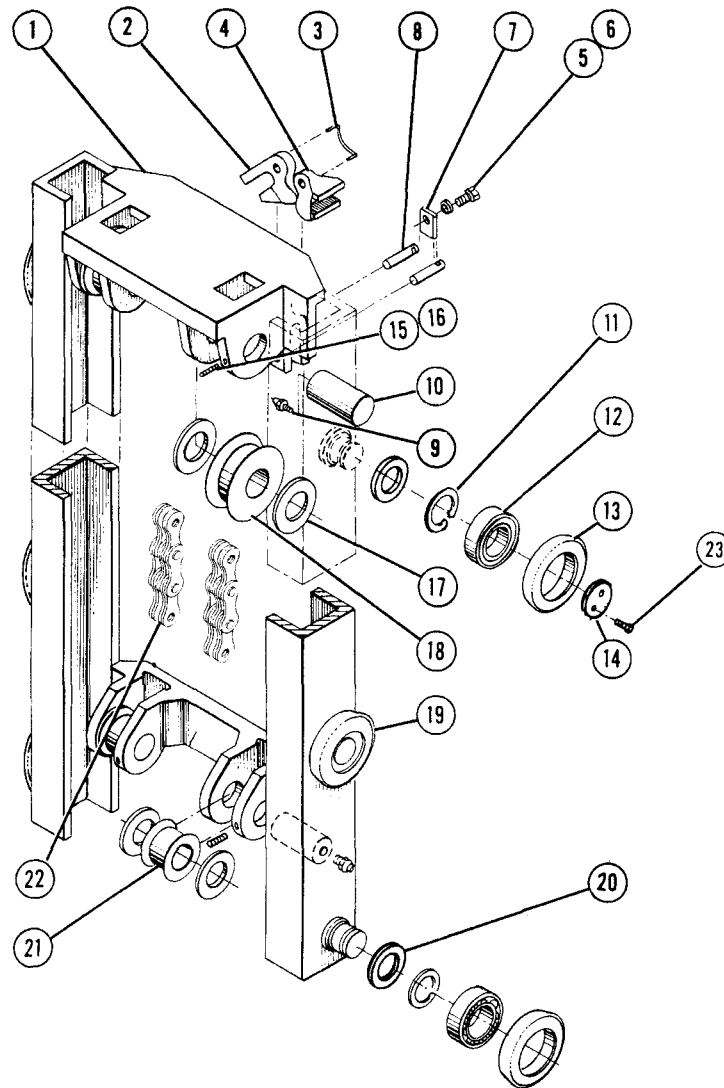


REF. NO.	QTY.	M7T, M8T	DESCRIPTION
		Part No.	
1	1	C-631866	Upright 71" OAL
1	1	C-631867	Upright 77" OAL
1	1	C-631868	Upright 83" OAL
1	1	C-631869	Upright 89" OAL
1	1	C-631870	Upright 95" OAL
2	1	C-631907	Latch-Single
3	1	C-613780	Spring
4	1	C-631906	Latch-Double
5	1	C-3600	Capscrew
6	1	C-6288	Lockwasher
7	1	C-613782	Keeper
8	2	C-631864	Pin
9	4	C-5309	Setscrew
10	4	C-612545	Setscrew Jam
11	4	C-616363	Shaft
12	4	C-7401	Grease Fitting
13	2	C-616352	Sheave Assy.
14	8	C-616351	Washer Thrust
+15	-	-	Chain
16	6	C-626164	Plug-Wear
17	2	C-616360	Sheave Assy.
18	2	C-616343	Strip Bearing
19	**	C-616344	Shim

** As required

+ See separate list

Inner Upright Assembly



REF. NO.	QTY.	M9T	DESCRIPTION
		Part No.	
1	1	C-637788	Upright 71" OAL
1	1	C-637789	Upright 74" OAL
1	1	C-637790	Upright 83" OAL
1	1	C-637791	Upright 89" OAL
1	1	C-637792	Upright 95" OAL
1	1	C-637793	Upright 101" OAL
2	1	C-631907	Latch-Single
3	1	C-613780	Spring
4	1	C-631906	Latch-Double
5	1	C-3600	Capscrew
6	1	C-6288	Lockwasher
7	1	C-613782	Keeper
8	2	C-631864	Pin-Latch
9	4	C-616363	Shaft

REF. NO.	QTY.	M9T	DESCRIPTION
		Part No.	
10	4	C-7401	Grease Fitting
11	6	C-3062	Snap Ring
12	6	C-639609	Bearing
13	6	C-639608	Tire
14	2	C-641847	Retainer
15	4	C-5309	Set Screw
16	4	C-612545	Screw-socket jam
17	8	C-637692	Washer-Thrust
18	2	C-637870	Sheave Assembly
19	6	C-637850	Roller Assembly
20	12	C-637536	Shim
21	2	C-637818	Sheave Assembly
+22	—	—	Chain
23	4	C-4040	Capscrew

+ See separate list, page 5A

Chain Part Numbers

FOR MAST WITH 3" UNDERCLEARANCE

M2T, M3T			
OAL	Lift Height	Part No.	Length
70"	130-144"	C-619954	156-7/8"
70"	146-150"	C-619955	163-1/8"
76"	146-156"	C-619956	175-5/8"
76"	158-168"	C-619957	181-7/8"
82"	164-168"	C-619958	193-1/8"
82"	170-180"	C-619959	199-3/8"
82"	182-186"	C-619960	205-5/8"

FOR MAST WITH 5" UNDERCLEARANCE

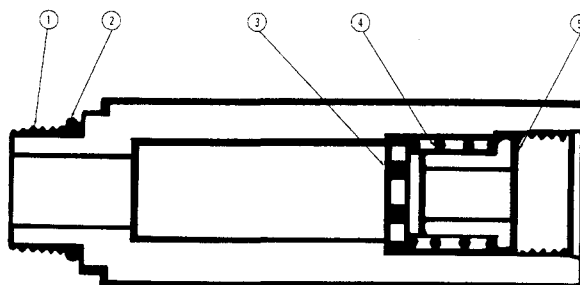
M2T, M3T			
OAL	Lift Height	Part No.	Length
72"	130-144"	C-621117	159-3/8"
72"	146-150"	C-621118	165-5/8"
78"	146-156"	C-621119	178-1/8"
78"	158-168"	C-621120	184-3/8"
84"	164-168"	C-621121	195-5/8"
84"	170-180"	C-621122	201-7/8"
84"	182-186"	C-621123	208-1/8"

FOR MAST WITH 6" UNDERCLEARANCE

M7T, M8T			
OAL	Lift Height	Part No.	Length
74"	132-136"	C-620950	167"
74"	138-142"	C-620951	173"
80"	138-154"	C-620952	185"
80"	156-160"	C-620953	191"
86"	156-168"	C-620954	203"
86"	170-178"	C-620955	209"
92"	174-180"	C-620956	221"
92"	182-192"	C-620957	227"
92"	194-196"	C-620958	233"
98"	192"	C-620959	239"
98"	194-204"	C-620960	245"
98"	206-216"	C-620961	251"

M4T, M5T			
OAL	Lift Height	Part No.	Length
70"	132-144"	C-620963	164-3/8"
70"	146-148"	C-620964	170-5/8"
76"	146-156"	C-620965	183-1/8"
76"	158-166"	C-620966	189-3/8"
82"	164-168"	C-620967	200-5/8"
82"	170-180"	C-620968	206-7/8"
82"	182-184"	C-620969	213-1/8"
88"	182-192"	C-620970	224-3/8"
88"	194-202"	C-620971	230-5/8"
94"	200-204"	C-620972	243-1/8"
94"	206-216"	C-620982	249-3/8"

M4T, M5T			
OAL	Lift Height	Part No.	Length
72"	132-144"	C-621103	166-7/8"
72"	146-148"	C-621104	173-1/8"
78"	146-156"	C-621105	185-5/8"
78"	158-166"	C-621106	191-7/8"
84"	164-168"	C-621107	203-1/8"
84"	170-180"	C-621108	209-3/8"
84"	182-184"	C-621109	215-5/8"
90"	182-192"	C-621110	226-7/8"
90"	194-202"	C-621111	233-1/8"
96"	200-204"	C-621112	245-5/8"
96"	206-216"	C-621113	251-7/8"



LOWER CONTROL VALVE

M7T, M8T			
OAL	Lift Height	Part No.	Length
71"	132-136"	C-616303	163"
71"	138-142"	C-616304	169"
77"	138-154"	C-618936	181"
77"	156-160"	C-618937	187"
83"	156-168"	C-616305	199"
83"	170-178"	C-616306	205"
89"	174-180"	C-618938	217"
89"	182-192"	C-618939	223"
89"	194-196"	C-618940	229"
95"	192"	C-616307	235"
95"	194-204"	C-616308	241"
95"	206-216"	C-616309	247"

REF. NO.	QTY.	M2T, M3T	M4T, M5T	M7T, M8T	DESCRIPTION
		Part No.	Part No.	Part No.	
	1	C-616827	C-613793	C-622427	Valve Assembly
1	1	C-613794	C-613794	C-622428	Body
2	1	C-2842	C-2842	C-2843	O-ring
3	1	C-616920	C-639852	C-639852	Washer
4	1	C-605893	C-605893	C-613521	Spring
5	1	C-605892	C-605892	C-605892	Spacer

Chain Part Numbers

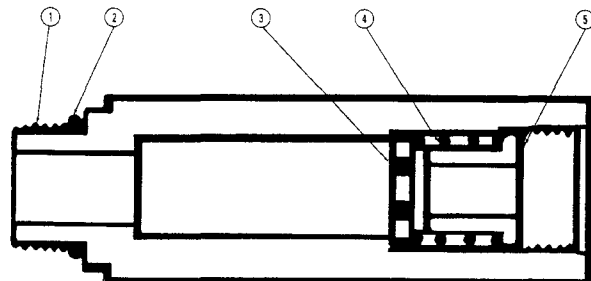
FOR MAST WITH 3"
UNDERCLEARANCE

M7T, M8T			
OAL	Lift Height	Part No.	Length
71"	132-140"	C-616304	169"
71"	144-148"	C-631875	175"
77"	148-156"	C-618937	187"
77"	160-164"	C-631874	193"
83"	164-168"	C-616306	205"
83"	172-180"	C-631873	211"
83"	180-184"	C-618938	217"
89"	184-192"	C-618940	229"
89"	196-200"	C-616307	235"
95"	200-204"	C-616309	247"
95"	208-216"	C-631871	253"

FOR MAST WITH 6"
UNDERCLEARANCE

M7T, M8T			
OAL	Lift Height	Part No.	Length
74"	132-140"	C-616304	169"
74"	144-148"	C-631875	175"
80"	148-156"	C-618937	187"
80"	160-164"	C-631874	193"
86"	164-168"	C-616306	205"
86"	172-180"	C-631873	211"
86"	180-184"	C-618938	217"
92"	184-192"	C-618940	229"
92"	196-200"	C-616307	235"
98"	200-204"	C-616309	247"
98"	208-216"	C-631871	253"

M9T			
OAL	Lift Height	Part No.	Length
71"	130-132"	C-637835	171"
77"	136-150"	C-637836	189"
83"	152-168"	C-637837	207"
89"	172-186"	C-637838	225"
95"	188-204"	C-637839	243"
101"	208-216"	C-637840	261"



LOWER CONTROL VALVE

REF. NO.	QTY.	M7T, M8T	M9T	DESCRIPTION
		Part No.	Part No.	
	1	C-622427	C-622427	Valve Assembly
1	1	C-622428	C-622428	Body
2	1	C-2843	C-2843	O-ring
3	1	C-639852	C-639852	Washer
4	1	C-613521	C-613521	Spring
5	1	C-605892	C-605892	Spacer